Aor ALPHA, is used by Gerard Domeus to signify  
the beginning of the restitution of a long life, instead  
\* of the immortality which was forfeited by the sin  
of out. first parent Adam; as he ufes the. letter  
OMEGA to express the end ofllfe. It is notveryofear whether  
he means,.by the *beginning of this restitution, .slot which* was  
accomplished by our Saviour *Jesus* Christ, or that which he  
propoles' so begin his the help of chymical medicines. The  
curious reader may consult his treatise *De Tenebris centra Natu-  
ram, et Vila brevis,* in the *Theatrum Chymicum,* vol. i. from  
P. 457 in P. 47a- ’.ἐν - ‘ ’

As many amongst the dreams of the chymists are'of too little  
importance to deserve -a critical explication, I shell from time  
to time refer to the authors themselves, that these who have  
leisure and curiosity enough may consult them for farther inform-  
ation. - - . -

. A is used by Raymond Lully:to signify God. See ATEnA-  
**BETUM CHYMrCVM.**

But this letter is of muchmore general ufe in physic, mark’d  
with a line above it thus, s, when it stands for ana, which is  
also sometimes abbreviated thus, aa, and signifies equal parts of  
the ingredients which immediately precede it in prescriptions,  
as R *thuris, myrrha, aluminis a* ilj mite of frankincense, myrth  
and alum, each a scruple. ’ Or ft *thuris, myrrha, aluminis  
aa p. a.* Take of frankincenfe, myrrh and alum, each equal pans.  
**5** ANA is not a coined word imposed upon us by the authority  
ofosiysical writers that have from time to time made use of it;  
hist the Greek’ preposition ἀνά j and it is'hot peculiar, even in  
this sense, to physical authors;

τ Hippocrates, in his treatise of the diseases of women; speak-  
ing of a Pessary, which be recommends for promoting concep-  
tion, after specifying the ingredients, adds, ἀνά ό&λἀ ίκάστου,  
that is, *of each a dram.* In the same seofe Diofcondes more  
than once uses this preposition, as ἀνοἰ *urilum scmaj use each an  
'ounce; did ifApttas gr,* of each twelve drains.

Eipbilinus, speaking of Augustus Caesar, says,  
'Ρωμαίοις αέά ετἄΐε,καὶ εικοσι ὸμαχμῆς τιλεςἰῶρ κάΐαλιπεΐν.

*When he died, he loft the Romcrns each twenty-five drachms.*

*haAo, did bmdqui,* St. Matthew, chap. xx. ver. 9. *They rar  
reived each a penny.*

Many more instances might he brought; but these are suf-  
ficient to shew the force of this preposition to denote equality,  
and signify *each.*

’ in a celebrated French Dictionary publish’d by a learned  
. body of men, *ana* is very unhappily interpreted *a phystcal plant.*

Α, in composition, implies a negative, as will he explained  
; under each particular article.

A. A. Ἀ is used by chymists by way of abbreviation for  
Amalgama, or Amalgamation. See **AMALGAMA. ,**

ΑΑΒΑΜ, in some chymical authors, signifies Iced. *Flu.  
Iandus.* See the articles — **PLUMBUM, SATURNUS.**

ABACTUS, as Chambers informs us, was.used amongst  
the ancient physicians for a miscarriage procured by art or force  
of medicines, and distinguish’d from ABoRsUs, which is natural,  
But I have never, in any medicinal author, found the word in  
this sense, or any other. *Abactus Venter* is infixed quoted from  
an author of the lower ages as a phrase to signify a misoatriage,  
which L suppose led him or his author into the mistake,

ABACUS. A **case of shelves,** *Pulandus.*

ABACUS MAJOR. A trough used in the mines,  
wherein the ore is wash’d. *Palandar.*

ABAISIR. The fame as SpODlt/M; which see;

ABALIENATUS, CoREUiTEfr (Gelsos)'; and- is used  
by other authors to exprofs apart fo utterly destroyed as to re-  
quire immediate extirpation: --Sometimes it: is"applied to-the  
senfes, both internal and external, when-gniated of totally'ded  
stray'd by diseases. *Seriheriius 'Largus. ' '; -*

A B AN GA. Thus the inhabitants of the Hand of St;  
Thomas call the fruit of the Palm-tree. C. Baubinus calls this  
tree *P almaAdy Insulae S. Thoma'.* The fruit is about the size  
of a lemon, and not unlike it: The inhabitants look upon the  
kernels of this fruit as an admirable restorative, and with this  
View: they egive, two or three nines a day,- three or four.of  
these kernels to their sick.

ABAPTISTON, or ABAETIirA, is used Tsp some  
authors, particularly Galen, Fabricins ab Aquapendente, and  
Scultetus, to express the saw, Terehella, or perforating part  
of the instrument-cell’d Trepan, because ’tis generally connived  
in such a manner as to prevent it from sinking suddenly into the  
skull, and wounding the brain, when the bone is cut through.  
Some have secured it by an edge round it, or wings on the  
sides ; hut the most common way is to make it conical, hecause  
then the part of the instrument above the perforation in the  
skull being , thicker than the part which has cut through the  
bone, this artifice effectirally prevents st loom going too deep,  
and hurting the brain, or its membranes. But Mr. Sharp  
thinks all these precautions superfluous, and informs us, tint  
the instrument made cylindrical answers all purposes best with  
a little care.. It As- derived from the negative A *(vide* A) and  
*stadia,* properly *to fink under water, cx to Jink under. - - -*

As the bones of the Cranium are lor the most part fiard,  
They must be sawed by the Trepan. Here some, to avoid a  
flip in the operation, have invented a sort of Trepans which  
would not fink in. too fur, and for that reason gave them the  
name of *Abaptista.* The improvement consists in a sort of ring  
of collar that surrounds the Trepan a little above the point.  
*Galen de Meth. Med. lib.* vi. *cap.* 6.- . ' „ \* “ ’ '

**. ABAPTISTA** are fitch as a little above the point here knobs  
on prominences sucking out, which hinder the Trepan from  
suddenly sinking into the head, and wounding- the Meninx.  
*Acginet. I.* vi. *ci* 90. - — .

AB ARIS. A Scythian,'said to have understood physic.  
He was a-priest of the Hyperborean Apollo, and esteemed the  
Anther of many Talismans, which had the virtue of preserving  
cities from the plague for ever. He in represented as bring  
wery skilfulat incantations, -by Piato. Others say, that the  
Trojans bought the Palladium of him, which he made of human  
-bones. His age is undetermined ;- seme place him before the  
Trojan war, whilst others make him contemporary with Pytha-  
goras. All the accounts of him are sabulous ; but from these  
we may infer, he was a man very considerable in his times  
*Achulxius: - - -* τ

ABARNAHAS. This is a term used by someof the al.  
chymists, particularly Senior Zadith, in the *Theatrum Chym.*voh v. p. 2O5. He telis us in is the seme aa the full moon, or  
Magnesia. I believe he means the Philosopher’s brone, or some  
menstruum necessary for the transmutation of metals, because  
the calls it the sea, and the perfafe and round stone. \*Tis  
used also much in the same seofe by an anonymous anther in  
the same collection and volume, said to he translated from the  
Arabic, p. 449. where he ealk rt the Divine Water, and Phi-  
losophas Stone.

. ABARTAMEN. LEAD. Rulandus. See PLUMBUM.

Sa \*r urn us \*

ABARTICULATIO, 'Απάρδρωσκ, Gr. A species ofArti-  
eolation of the bones admitting of a manifest motion, ball'd  
also by **anatomists** *Diarthrosis,* and *Deartiadatio,* to distinguish  
It from another sort of Articulation, which admits of a Very oh-  
scurc motion, or none at all, winch is call'd *Synarthrosis.* See  
**ARTICULATION.**

ABAS. *See* TINEΑ. It sometimes signifies the Epilepsy;  
*Constantine.*

ABAVI, ABAVO, Or ABAyUMi A large free growing  
in ./Ethiopia, which bears a fruit like a gourd. *Rafis Hist.  
. Clusius.*

A B B R E V I AT I O. The principal ufe os medicinal abbre-  
yiations are in prescriptions. *Abbreviatio* is used by some of  
the alchymists to express a process in epitome, or a short way  
of performing in See *Theatrum Chytmcum,* vol VL p. 556,  
557, 558.

ABDELAVL An .Egyptian plant Very like a melon,  
except that the fruit is more oblong, and acute at the extre-  
mities. *Rafis Hist.*

ABDITUS, included. Tbits *abditus vesica* signifies in-  
cluded in a bladder, in *Scribonius Largus.*

ABDITJE CAUSAE, are the secret or remote Causes of  
distempers, which the physicians of the dogmatic or rational  
sect affirmed were necessary to be known, in order to establish  
a right method of cure *(eum vcro recte curaturum, quem prima  
origo causa non fefellerit.* Celsus in his *Preface).* These  
causes cannot be understood without a knowledge of the  
principles of which our bodies are formed, and of the specific  
nature of sickness and health; for according m these physicians,  
'th not easy to accommodate remedies to distempers, without  
first knowing what health is, and the exact manner in which  
any distemper deviates from it.

Thus the gout is a deviation from health, which it would he  
less difficult to cure, if we knew precisely what constitutes  
health, and hew the gout deviates from it in.. order to form  
a distemper. See SECTAE.

ABDOMEN. Anatomists have generally divided the  
bedy into three great Cavities, which they call *bellies.* The  
*head,* or the *upper belly,* the *thorax,* or the *middle belly*; and  
the *abdomen,* or *lmucr belly.* The Arabians, and some writers in  
the barbarous ages, call'd the *Abdomen, css* at least the external  
part of it, Mirach ; and the Peritonaeum, Siphac. *Luculus Lu.  
sitanus. .*

The *Abdomen* is accurately describ'd by Winflow thus.

The *Abdomen* begins immediately under the Thorax, and ter-  
minates at the hettom of the Pelvis of the Ofla innominata. Its  
circumference, or outer surface, is divided into regions, of  
which there are three anterior, *uiz.* the Epigastric, or superior  
region, the Umbilical, or middle region, and the Hypogastric, or  
lower region. There is but one posterior region, named  
Regio lumbaris.

. The Epigastric region begins immediately under the Appendix  
ensifonnis, at a small superficial depression, call'd the Pit of  
the stomach, and in adult subjects ends above the navel, at a  
transverse line, supposed to be drawn between the last salse ribs  
on each fide.

This region is subdivided into three parts, one middle, named  
Epigastrium, and two lateral, termed Hypochondria. The epi-  
gastrium takes in all that space which lies between the false ribs  
of both sides, and the Hypochondria are the places cover'd by the  
salse ribs.

The Umbilical region begins in adults, above the navel, at  
the transverse line already mentioned, and ends helow the navel  
at another transverse fine, supposed to be drawn parallel to the  
former, hetween the two Cristae of the.Ossa ilium.

This region is likewise divided into three parts, one middle,  
which is properly the Regio umbilicalis, and two lateral, call'd  
Ilia, or the flanks, and they comprehend the space between the  
salse ribs and upper part of the Os ilium on each fide.

The Hypogastric region is extended downward from the in-  
ferior limit os the Umbilical region, and is divided into three  
parts, one middle, call'd Pubes, and two lateral, call'd Inguina,  
or the groins.

The Lumbar region is the posterior part of the *Abdomen,*.and comprehends all that space which reaches from the lowest  
. ribs on each side, and the last Vertebra of the back, to the OS  
sacrum, and neighbouring parts of the Ofla ilium. The lateral  
parts os this region are termed the Loins; but the middle part  
.has no proper name in men.

\_ - Lastly, the bottom of the *Abdomen,* which answers to the  
Pelvis of the Ikeleton, is terminated anteriorly by the Pudends,  
*or* parts of generation, and posteriorly by the *Clunes,* or but-  
tocks, and Anus. The buttocks are separated by a Fossa,  
winch leads to the Anus, and each buttock is terminated down-’  
. ward by a large fold, which distinguishes it from the rest of  
Lthe thigh.

. This Lumbar region takes in likewise the Musculus quadratus  
lumborum on each fide, the lower portions of the Sacro-

lumbares of the Longissimi and Latissimi dorsi, the Musculus  
sacer, *etc.*

The space between the Anns and the parts of generation is  
called Perinsum, and is divided into two equal lateral parts by  
a distinct line, which is longer in males than in females, as we  
shall see in another place

The cavity Os the *Abdomen,* formed by the parts already  
mentioned, (all which are covered by the shin and Membrana  
adiposa) is lined on the inside by a particular membrane, called  
Peritoneum. It is separated from the cavity of thSThorax by the  
Diaphragm, and terminated below by the Musculi levatores  
ani.

This cavity contains the stomach, and the intestines, which  
are commonly divided into three small, named Duodenum,  
Jejunum, and Ilium, find three large, called Caecum, Colon, and  
Rectum. It contains likewise the Mesentery,Mesocolon,Omerr-  
turn. Liver, Gall-bladder, Spleen, Pancreas, Glands of the Me-  
sentery,Vasa lactea. Receptaculum chyli. Kidneys, Renal glands,;  
Ureters, Bladder, and the internal parts of generation in both  
sexes. *PVinjbnls,* p. III. tom. ii.

- r The principal *Arteries* of the *Abdomen* are these:.

*Arteria Epigastrica superior. Arteriae Spermatica.*

which is the lowest portion *Arteria Mesenterica Inferior.*

of.the *Mammaria Interna. Arterite Lumbares.*

*Aorta Inferior. Arteriae Iliacae.*

*Arteria Coeliaca. Arteries Hypogastricae.*

*Arteria Mesenterica superior. Arteria Ep igastrica Inferiores'*

*Arteriae Renales,* called *Ernusc Arteria Hamorrhoidales.*

*gentes. Arteriae Pudica i*

**The principal *Feins* of the *Abdomen* are these:**

The inferior portions of the *Vena Portae Ventralis.*

*Vena Marnmarlae Interna. Vena Portae Hepatica.*

*Vena Renales. Vina Mefaraica Major.*

*Venae Lumbares. Vena Splenica.*

*Fence Spermaticae. Vena Mefaraica Minor suygr*

*Vena Iliacae. Harnorrhoidalis Interna.*

*Venae Hypogastrica.*

**The principal *Nerves* of the *Abdomen* are these; -**

*Nervi Stomachici,* form'd by *Plexus Hepaticus.*

the extremity of the *Synt- Plexus Splenicus.*

*pathetici medii,* or eighth *Plexus Renales.*

pain. \_ . *Plexus Mesentericus Superior.*

*Nervi Sympathetici Muximi, Plexus Mesentericus Inferior.*the inferior portion. *Nervi Lumbares.*

The two Semidinrar, or Fiari- *Nervi Sacci.*

*form Ganglions. Nervi Crurales,* their origin.

*Plexus Stomachicus. Nervi Sclatici,* their origin.

The whole fore part of the *Abdomen* forms an oblong con-  
vexity, like an oval Vault, more or less prominent in the na-  
tural state, in proportion to the quantity of sat upon it, and of  
food contained in it, or to the different degrees of pregnancy in  
women. The Hypogastric and Umbilical regions are more sub-  
ject to these Varieties, than the Epigastric region.

On the sides, between the Hypochondria and Ossa ilium, or  
haunch, the *Abdomen* -is commonly a little contracted; and  
backward, about the middle of the Regio lumbaris, it is gently  
depress'd, forming a kind os transverse cavity, answering to the  
natural incurvation of the Lumbar portion of the Spina dorsi.

This anterior convexity, and posterior cavity change aS we  
sit, stand, kneel, lie at our fidl length, or with the thighs hent;  
and these Variations depend on the particular situation of the  
Ofla innominata, in these different postures.

In standing, the convexity *of* the belly, and cavity of the  
loins, are more considerable, than in most other situations; for  
then the lower extremity of the Os sacrum is turned very fin-  
back, and consequently the Os pubis Very much down. In  
this situation of the Pelvis, the intestines fall, naturally forward,  
and thus increase the convexity of the *Abdomen,* and aS the  
Vertebrae of the loins are very much bent at the same time,  
the cavity in that place must likewise be Very considerable.

in kneeling, the Ossa pubis are still lower than when we stand j  
and this not only increases the hollow of the loins, and throws  
the *Abdomen'ntdc* its Viscera more outward, or forward, het  
also, in some measure, strains the *abdominal* muscles; which  
is so uneasy to some persons, as to cause them to saint away.

This depression of the Os pubis in kneeling, depends partly  
on the tension of the two Musculi recti anteriores, the lower  
tendons of which are, in this situation, drawn with violence  
under the Condyloid pulley of the Os femoris.

When we fit in the common manner, that is, with the  
thighs stretch'd out in a plane parallel to that of rhe seat, the  
Convexity of the belly, and hollow of the loins diminish.

For the Pelvis being in this situation,supported on the Tuber-  
cula ischii, and these tubercles bring very near the fore part  
of the Pelvis; the trunk os the bedy pressing on the OS sacrum,  
must lower the Pelvis behind, and raise it before.

**When we he upon the back at** full length, **and with 'the**thighs extended, the belly is less convex, her more stretch'd  
and hand; whereas, when the thighs are bent, it is soft and  
**lax.** In this sinmnon, the Regio lumbaris is almost fiat, and  
veay little depress’d. .

When we he on the back, and raise the head, or endea-  
vour *to* raise it, we seel a tension in the lore part of the Ab~  
*demen,* which increases in proportion to the force we use in  
raising the head. . .. ;

These Varieties of the external conformation os the *Abdomen*have a near relation to so great a number of other phaenomena,  
in the animal oeconomy of the human body, that it would  
require a whole Volume to explain all the particulars thereof ;  
neither are details of this kind Very proper in a work designed to  
he purely anatomical, in which, consequently, the main busi-  
ness is to give a still and accurate description of the true struc-  
ture of the parts, and only to point out in general their princi-  
pal uses.

Fewer Papillae appear in the skin of the belly than any-where  
else. The anterior portion of it is not only thinner and more  
.compact than the posterior, but it has this likewise peculiar  
to it, that it may he naturally increased very much in breadth,  
and sometimes in a Very extraordinary manner, without  
losing any thing of its thickness, in proportion to what it gains  
in breadth.

This peculiarity likewise belongs to the Epidermis. I here  
speak only of what is observable in the natural state of corpu-  
lency or pregnancy ; but I have not as yet been able to discover  
what it is in the texture, or structure of this skin and the Epider-  
mis, on which this peculiarity depends. All that I have been  
able to remark about it, was in the dead body of a woman,  
whose belly was contracted and fallen; namely, that on the  
fursace of the shin there was a great number of lozenges dis.  
posed in a rectangular manner.

The marks of. these superficial lozenges were in the Epider-  
mis. They were composed of several fine lines, which all to-  
gether extended to a sensible breadth. The areas or meshes  
of these lozenges, which seem'd to he about the sixth part of  
an inch in breadth, were very flat and thin.

in the manner which Steno used to open bodies, by malting  
two longitudinal incisions in the integuments, and so leaving a  
middle band made up of the (kin and sat, in their true places.  
It is easy, to demonstrate the union of the Aponeurotic or tendin-  
**ous** productions with the arteries. Veins and nerves, in order  
to form the shin of the *Abdomen*and the same use might be  
.made of this method, in other parts of the skin.

The celis os the Membrana adiposa, which covers the con-  
vex part of the *Abdomen,* are disposed in a Very regular manner,  
as I have discover'd by my method of opening bodies. This  
meshed is to make two oblique incisions in the integuments,  
from the navel to the groins, and to separate this angular por-  
tion of the integuments, arid throw it down over the parts os  
generation, that they may he cover’d, during the demon-  
fixation.

This triangular portion bring thus inverted, there appears on  
the inner fursace of the Membrana adiposa, a longitudinal line,  
like a kind of Raphe, produced by the meeting of these cellular  
rows, which form angles fuccessiVely, one above,another, op-  
posite to the Linea alba os the *Abdomen.* The celis in these  
rows are more oblong than the rest, and in a manner oval,  
or like a grain of wheat.

TheAppendixensisonnis of the Sternum, **the** cartilaginous por-  
tions of the last pain of true ribs; those of the first four pairs  
of salse ribs, all the fifth pair, the five Lumbar Vertebrae, **the**Ofla innominata, the OS sacrum, and Os coccygis, form the  
bony sides of the cavity of the *Abdomen.*

The -diaphragm, the muscles called particularly Musculi abdo-  
minis, the Quadrati lumborum, Psoai, Ilinct, the muscles of  
the Coccyx, and of the Intestinum rectum, form the chief  
part of the circumference os this cavity; and itS whole inner  
fursace is fined by amembranous expansion, term'd Peritonaeum,  
all these parts heing covered by the integuments already spoken  
to. AS additional,or auxiliary parts, we might likewise add-some  
portions of the Sacro-lurnhares, Longissimi dorsi. Vertebrales,  
Glutaei, *etc.-*

The cavity of the *Abdomen* is of an irregular oval figure, but  
still symmetrical. On the foreside it is uniformly arched or  
oval, and its greatest capacity is eVen with the navel, and  
nearest part of the Hypogastrium. On the upper side it is  
bounded by a portion of a vaals, very much inclined. On  
the backside, it is in a manner divided into two cavities by the  
jutting our of the Vertebrae of the linns. On the sower fide, it  
contracts gradually all the way to what I call the littie edge of  
the Pelvis, and from thence expands again a littie, as sar as the  
Os coccygis, and tubercles os the Ischium, terminating in the  
void space between these three parts. *JVinsiato,* i28 *ad* I30.  
part in

As wounds of the *Abdomen* differ in some respects from other  
wounds, I shall insert in this place the chinrrwical treatment that  
is peculiar to them.

Wounds rf **the** *Abdomen* may he divided into sour sorts,  
**i.** Such as affect the integuments alone.

2. Such as affect the muscles, together with the integuments,  
without penetrating the peritonaeum.

3. Such as with the integuments penetrate into the cavity  
without wounding any os its contents.

., An Such as penetrate into the cavity, and wound some or  
other os its contents.

The first sort, or superficial wounds os the *Abdomen* are nut  
esteemed dangerous, and require no treatment different from  
other wounds. However Araeus ( h il. c. 4) and Vigo (L iiL.  
c. II.) agree in pronouncing those more liable to bad accidents  
which are received within two or three singers os the navel.  
And our countryman Wiseman, from Galen, telis ns,  
" That wounds in the .middle os the belly are worst, by tea-  
" sonos the nervous body shut lies there, and consequently  
" more painful to he stitch'd, and more difficult os cure, be-  
" cause os the intestines and cawl pressing upon that part."  
**I** suppose he means by *their nervous body,* the membranous ten-  
dons os the oblique ascending, descending and transverse muscles,  
which are inserted into the *Linea alba. . - .*

These wounds are easily distinguishable from the other three  
sorts by inspection; hut the prohe readily puts it beyond all doubt.

The second sort are distinguished.from the two last by the  
juohe; for if the patient is carefully placed in the situation he  
was in when the wound was given, and the prohe introduced,  
it will generally pass into, the cavity of the *Abdomen,* if the  
Peritonaeum is perforated. ’ Another way of distinguishing these  
wounds is by injecting warm water into them, and then if it  
returns immediately, there is reason to believe the wound only  
muscular ; but if any considerable part remains in the wound,  
it has certainly penetrated, the cavityt

It will also give us some light into the nature of these  
wounds, to compare the wounding instrument with the direction  
of the wound.

Some farther direction we may have by Viewing also the in-  
.strument immediately, where it can he found; when if it was  
not designedly wiped or cleaned before, we may sometimes  
discover how sar it has been stained by the bloed or .Halitus .  
of the. body, which will give us more sight aS to the depth,  
than the outward dimensions of the wound. *Turner. ;*

This was practised in the case of Henry HL os Fiance,  
where the knife which the Villain made use os was sound to  
he a .foot long, arid bloody for the breadth of sour fingers,  
*Diona. ...... . ’*

The cure of these wounds is rendered shore difficult by  
their perpetual motion in respiration, and the necessity of strain-  
ing more or less sor a stool. *....... c*

If such a . muscular wound reaches pretsp near to the Perito-  
naeurn, the integuments in that part being weakened, and the  
Peritonaeum capable os great distension, .there is danger of ...a  
Hernia succeeding. AS soon therefore as the surgeon is sa-  
tisfied Jo regard to the nature of the wound, his . next con-  
sideration must be; whether a future is necessary, or whether  
bandage alone is sufficient to guard against a. Hernia.

When the wound is small, or in a longitudinal direction, a  
Suture is frequently superfluous, and eVen mischievous, by  
bringing on great inflammation and pain, and then bandage  
is sufficient to guard against a Hernia. , .. ,

The dressings must he the same aS in a common wound, (see  
VULNUS) and the lips must he united hy ..the double-headed  
roller, or Fascia uniens, and then the whole secured by the Sca-  
pular with the napkinjorMantile cum scapulari. SeeBANnAGEK

But when a wound is Very large, transverse, or oblique, a  
Suture is necessary to guard against a Hernia, which is thus .  
performed. K .

Take two crooked needles, threaded with a strong thread  
as many times doubled as will secure it from breaking, that is,  
two, three, or four times, and let it he waxed ;. then pass one  
of these needles through the muscles, sat and sitin, from the  
inside of the wound outwards, the breadth of an inch from the  
edge of the wound, lest .the stitch should break out, always  
Beginning at the superior lip os the wound ; and then pass the  
other needle in like manner through the inferior lip,always leaving  
a sufficient length of thread at each extremity. If the wound is  
not above two inches long, one stitch is sufficient; but is longer,  
more stitches are to he made at about the distance of an inch  
from each other. When all the stitches are pass'd, an assistant  
must press both edges of the wound together, whilst the surgeon  
ties the threads, first with a simple, and then with a bow-  
knot, that it may he relax'd upon occasion. The knots' are to  
he made upon the wound; hut must he secured from hurting  
it by placing a small bolster of linen, or silk wax'd, betwixt,  
the. wound and the knot. .

When the Suture is finish'd, proceed as in the cure of **a**common wound, with respect to dressings, and secure **the**whole with the double-headed roller, or Fascia uniens, and Sca-  
pular with the napkin, or Mantile cum scapulari.

Tents in this case are superfluous, and even dangerous.  
Some sarther precautions ought to he taken in order to guard

effectually against a Hernia. Thus bleeding is seldom omitted ;  
and the panent must not be suffered to sneeze, cough, or  
strain hard for a stool ; first, because these would endanger a  
Hernia . and secondly, because during these efforts, the stitches  
of the Suture would he subject to break.

The best way of preventing a cough is to bleed, and take  
occasionally a small quantity of *fyrapus e meconio.* Sneezing, if  
there is any tendency towards it, may he prevented by snuffing  
tip the nose a little warm milk.

The patient may he secured against costiveness, by emol-  
lient clysters, and a spare laxative diet. Consisting altogether of  
liquids.

- We may know, that a wound has penetrated into the cavity  
of the *Abdomen,*

' I. If the finger. Or prohe, passes very deep into it, when  
the patient is plac’d in the posture he was in when he received  
the wound.

2. If part of any liquor injected into the wound does not inft  
'mediately return.

.. 3. By comparing the wounding instrument with the direc-  
tion of the wound. That is, if the instrument is sharp, and its  
direction strait forward, there is reason to suspect it has pene-  
mated the cavity ; but the contrary, if the instrument is some-  
what blunt, and its direction either upwards, downwards, trans-  
verse, or oblique, and by examining how sar the-instrument is  
stained.

4. If any of the contents of the *Abdomen* appear out of the

wound, the case is out of dispute. Sometimes a piece of fat  
will he protruded out of the wound, and in some degree re-  
iemble the Omentum, from which it is distinguish'd by the  
smoothness of its surface, that of the Omentum being unequal.

The contents of the *Abdomen,* which usually appear at **the**wound, are,

**I.** The Ros abdominis, or fluid separated from some glands in  
the *Abdomen, for* the lubrication of the Viscera or boweis con-  
tained in it.

2. Grumous blood, or large quantities of florid blood, if a  
large artery is penetrated; or blackish blood, if a Vein is  
wounded.

: 3. Some One or more os the Viscera, which generally are  
the Epiploon, intestines, or both.

' But because 'tis possible that a very thin-pointed instrument  
Inay penetrate the cavity of the *Abdomen,* and wound some of  
its contents, and'leave the orifice so small, that a surgeon may.  
not he certain that it has passed through the Peritonaeum, by  
‘the signs described above, it may be proper in this place to  
insert the symptoms that generally attend a wound of the  
particular contents of the *Abdomen.*

'' In case the liver is wounded superficially, the external parte  
about the region of the liver and stomach are drawn inwards to  
she back, in order to six the liver and adjacent parts as much  
im possible, that the pain may nothe increased by their motion,  
‘which notwithstanding is Vary pungent On the right side, and  
in some Cases extended as *far* as the neck. Mean time blood  
is discharged by Vomit and by stool. The case is also attended  
with frequent saintings, a sever and looseness.

-But is the wound ’ penetrates deep into the liver, all these  
symptoms are increased, till at last the patient Vomits bile, and  
salis into frequent and Violent saintings, and cold sweats, the  
forerunners of death. From the beginning the patient receives  
a fort of pleasusethy lying on his belly.

' The same symptoms attend a wound of the spleen, except  
that the pain is on the lest fide.

- A wound of the stomach is attended with frequent bilious  
vomiting and hiccoughs; whatever aliment is taken into the

stomach,is immediately discharged again by Vomit; and sometimes  
convulsions and cold sweats on the extremities come on, the pre-  
sages of death. Mean time the aliment passes through the  
wound into the cavity of the *Abdomen,* and makes the belly  
Iwell, especially that part of it near the stomach. If the  
wound is near the orifice, 'tis reckoned mortal.

: A wound ofThe small intestines jo attended with an acute  
pain, continual bilious vomiting, and chyle is discharged from  
the wound into the cavity of the *Abdomen,* which makes it swell,  
' as in wounds of the stomach.

‘ Ip wounds of the large intestines, **the** symptoms are less  
violent, and generally excrement is discharged, or the smell  
of it is perceived, ar the external orifice of the wound.

’When a kidney is wounded, a pain is feltin the groin, as  
well as in the part affected, which is propagated to **the**testicles. A difficulty in making water ensues, and sometimes  
the urine' is bloody, sometimes blued alone is discharged instead  
**of** it.

Wounds of **the** ureters are attended with much **the same**symptoms, except that the urine is discharged into the cavity  
of the *Abdomen,* and stagnating there, putrmes, and makes **the**belly fwell considerably.

A wound of the bladder is distinguished by a pain aheur the  
region of the Pubes, and at the same time, either a suppression  
of urine,.or a discharge of it\*mix'd with blood,- bilious Vomit.,  
ing, and hiccough. -

When the Uterus is wounded, a great pain is felt in the pars,  
which is propagated to the Os pubis, and loins,the patient Vomit::  
incessantly, and blood is discharged from the Pudenda.

A very acute pain under the pit of the stomach, or at thespine almost opposite to it, flow respiration interrupted with  
sobbing, and hiccough, convulsions, deliriumywant of steep\*  
and great anxiety, are symptoms which accompany a wound os  
the diaphragm, by which it may be distinguish'd from others.

If none of these symptoms appear, and yet the patient seeis  
violent pain, we are to conclude foine large nerve or nervous  
part is wounded. Particularly the mesentery.

Continued heat and thirst, great anxiety, a quick, or inter-  
mitting pulse, uneasy and laborious respiration, and frequent  
saluting, with an elevation or tumor of the *Abdomen,* are signs  
of a considerable internal haemorrhage, from a wound of some  
large Vessel. .

If any of the above-mentioned symptoms appear, there is  
reason to fear the wound penetrates into the *Abdomen*., tho' it  
cannot be discover'd by the prohe, injections, or egress *of assy  
of* the contents thereof

- But if all the fymptoms are savonrable; if there is littie or  
mo pain; no fever, or a Very flight one; little or no inflamma-  
tion ; if no blood is discharged when the patient lies upon the  
wound, and liquors injected return unalter’d, we may rea-  
sonably hope, that none of the Viscera contain'd in the *Abdomen*are injured.

- When the surgeon is safissy'd, that the‘Peritonaeum is pesso-  
rated, and neither the Epiploon nor intestines come out of the  
-wounds, he is to consider whether a Suture, is necessary or  
-not.

A Suture is superfluous, when the wound is small, or longi-  
tudinal ; for in these cases the intestines and epiploon may be  
secured from falling out in the following manner j First intro-  
duce a soft tent into the inferior part os the wound, and lay  
over it an adhesive plainer. - Then keep the lips of the wound  
Together by bolsters, a littie larger and longer than ordinary,  
laid on each side, and secure the whole with the double-headed  
roller .or Fascia nolens, and upon that the Scapular with **the**napkin; then bleed the patient, direct an exact regimen, and  
let him rest upon the wound.

in this case, the first dressing is not to be removed for three  
days, unless some bad symptom makes it necessary; and afteru  
wards it will he sufficient to dress once a day,' or every other  
day, doing it more frequently being likely to retard the healing.  
of thewound. ’ -νύ-

This.is the opinion of Heister, and theyeasons he gives for  
it are, the difficulty of making a Suture in these parts, espe-  
cially in frit subjects, and the pain and inflammation it causes.  
He therefore concludes, that a surgeon would he guilty of a  
piece of cruelty, in giving his patient the unnecessary pain  
and trouble of a Suture, when he may he cured without it.

- The same author thinks the Suture absolutely necessary, when  
the intestines cannot-possibly be retained in their proper situa-  
tion without it; and when the wound is large, transverse, or  
oblique, even though the Peritonaeum remains intine.

' Boerhaave is of a different opinion from the author above-  
mentioned ; his general directions are to make a Suture. He  
telis us the part must he immediately defended from the air -  
and if any air is got into the *Abdomen,* it must he got out.  
again by suction, and making strong efforts in expiration; pro-  
bably for .fear it should raresy in the cavity, and cause a sort of  
Tympanitis; mean time it should seem necessary Io secure the  
contents of the *Abdomen* in their proper places, by applying a  
linen cloth to she wound, strong enough to sustain the pressure  
ofthe intestines and Epiploon against it during these efforts, and  
thin enough to .permit the egress of the air.'

Fallopius, Guido de Cauliaco, Chalmet, Fabricius ab Aqua-  
pendente, Theodoric and Roland recommend the Suture uni-  
Versally, in penetrating wounds.

When a Suture is necessary, it must he perform'd in the  
manner directed above for muscular wounds of the *Abdomen,*with this sarther caution, that the needles must be first pass’d  
through the wounded edges of the Peritonaeum, which must he  
stitched together with the muscles, sat, and shin. The lips of  
**the** wound must also carefully he laid held of and drawn asun-  
der» and the point of the needle must be industriously covered  
with the fore-finger, in order to secure the intestines from being  
wounded.

The French surgeons have contrived an instrument for makinav  
these Sutures more commodioufly, which they call Portaiguilhis  
This .is intended aS a kind of handle or Manubrium for the  
needle, to prevent it from hurting a surgeon's hand when a con-  
siderable force is required to thrust it through the Peritonaeum,  
muscles, and skin; and in this case the convenience of the sur-  
geon promotes the interest of the patient, the operation by This  
means being sooner perform'd, and consequently with less μάη.

Heister advises to begin tying the threads os the Sutures at  
the upper part os the wound, when there are more than one,  
and to proceed regularly downwards, introducing 2 soft tens,  
arm'd with some digestive balsam, aheut the thickness of the

'little finger, into’ the wound at the lower extremity, before the  
last thread is tied, that any impurities contained in the wound  
may come away before the wound is closed. A thread must  
be fastened to the tent, which must he lest barging out of the  
wound, that it may he pulled easily out of the *Abdomen,* if it  
should happen to sink into it. Boerhaave, Garengeot, Belloste,  
and many others forbid the use of tents, and some of them pro-  
duce cases in confirmation of their opinion, of which I shall  
produce two, one on each side the question.

From**HEISTER.**

Some modem surgeons, and particularly Garengeot in his  
chapter of *Gasirorapfna,* discard the use os tents in wounds of  
the *Abdomen. ‘* In imitation os their example, in the year I734,  
a young surgeon in a neighbouring city tried the experiment on  
a young man; who received a wound, by a sword, between  
**the** navel and the Pudendum, the cut penetrating into the *Ab-  
domen.* The first two days the patient seemed to he in a sain  
way; but died on the fourth day alter he had received the hurt.  
His body heing opened, a vast quantity of putrid matter was  
sound in **the** *Abdomen,* and **the** cawl was quite rotten. All he-  
sides was whole and sound, and nothing of a hurt or scratch ap-  
peared. Had this been kept open with a tent, the bloody and  
purulent matter might have been drawn out, which being re-  
tained, for want of the aforesaid help, without doubt killed **the**patient. *Heister.*

In .the year 1688, a soldier of the regiment of Montserrat,  
called Sans Soucy, was wounded by a bullet, which entering  
. before at the region of the navel, came out behind at that *of  
the reins,* piercing the Ureter as it passed along. He was at  
first dressed hy one of the master-surgeons of Turin,' whe used  
to assist us; which he performed after his own way. . . . -

The orifice which was in the helly, notwithstanding the  
. tents which he used, was closed up, after the sailing off of **the**Eschar of the teguments; but inhered otherwise with that-in  
the back; for that surgeon -was. careful .to keep it open with a  
thick and long tent, hindering also the reuniting of the Ureter,  
which occasioned the urine to coine forth at' the wound. I  
. having seen him one day, advised the surgeon speedily to take  
away the tent, if he would avoid - an incurable Fistula, but my  
words were to no purpose; for had he complied with them, he  
would have thought \* he liad offended against the rules of art,  
and antient received maxims, with winch my advice was incon-  
sistent.

? ‘ Some days after, feeing this wound in a very bad condition,  
.being covered with a whitish flesh, almost without sense, and  
ready to hecorne a Callus, I was willing so prevent the satal  
consequences os that indiscreet dressing ; wherefore with a  
dissolved caustic I consumed all that appeared callous. about the  
lips os the wound, causing also some os it to pass into the cavity  
thereof;':and leaving out the tent,-I" expected the discharge *of*what the caustic had mortified. When the flesh had regained  
its usual colour, without loss of time I syringed into the  
wound some balsamic water. I also used the balsam os Peru  
alone for some days, - and after that, the styptic plaister os Crol-  
iius, with httie longish compresses that were placed on the  
two sides of the\* wound, to press'together the brims. - Thus the  
wound-beganitrf he: silled - up, and tho urine did by littie and  
httie resume its former course; and in about eighteen or twenty  
days,-the wounded person was perfectly cured. - i t : .

In .the progress os this cure, may evidently be perceived the  
difference'between - the method used by many surgeons fondly  
conceited of their own opinions, and that I practise; for, in  
this case/he'd the first been continued but for eight days time,  
the wound-had become either extremely difficult, or impossible  
toheoured. This is confirmed by the wound in the belly;  
the speedy cure whereof is to be attributed to the motion of the  
Intestines, -which, contrary to the design and desire of the sur-  
geon, expelled the tent so soon as applied, in such sort, that it  
was completely cured a littie after the sidling off of the Eschar.

Wherefore we can .never too much blame those whe are so  
obstinately wedded Io the use of tents in wounds of the lower  
helly; they ought altogether to he laid aside, in spite of all the  
objections may he made in their behalf, for which, undoubtedly,  
there is no -. real ground.. Experience gained by practice has so  
undeceived me, touching the use of tents, that I have lest off  
**the** use os them; not only in-the lower helly,-but even in all  
other places of the. body, unless upon .a very pressing necessity.  
But in the wounds of the emulgent vessels os the reins, ureters,'  
and bladder, as also in those of the joints, they occasion aeci-  
. denes which oftentimes prove mortal; or otherwise, leave be-  
. hind them infirmities that ever after render life miserable.

*Belloste. ;*

. ‘ Fallopius is of opinion, that though some extravasated blood  
should putrisy in the *Abdomen,* it can do the Intestines and other  
Viscera no butt, bur will subside to the Inguina, and there  
form an abscess. But that it is more likely to he absorbed by the  
.. veffeis, and discharged by stool, before it putrifies ’ at all.

Chalmet and J.deVigo seem to he of the same opinion, as' is'  
Albucasis, to which F. abrAquapendente seems to assent, though  
he seems before to he apprehensive lest the blood extravasated  
into the *Abdomen* should *cause* a dropsy.

From these cases we may inser, that tents are sometimes  
necessary, sometimes superfluous, and even dangerous. It .must \*  
therefore he lest to the judgment of the surgeon to determine  
when to make use of them, and when to discard them. When  
he has reason to think any thing is contained in the *Andaman,*winch ought to come away, *Dr* that the putrefaction will he con-  
siderable, he will do well to keep open the lower part of the  
wound with a tent, sor some httie time. Mean while, it is.  
Certain, a tent must in every other respect he prejudicial; and  
therefore must he omitted, when there is nothing considerable.  
to he discharged by the orifice it is intended to keep open.' ’..

Upon the whole, we may Venture to say, that the use of  
tents in general has done a great deal of hurt; but that some  
cases occur in practice, that make it imprudent to prohibit **the***use* of them intirely. See TENT.

Gabriel Ferrara in his *Sylva Chirurgica,* Botallus in his *Trea-  
tise de Sclepetorum Vulneribus, Escaeus,* and Pare, agree in ad-  
Vising the use os tents, till the *Abdomen* is cleared of all manner  
of Sordes: .. . . . . /. .

When the Suture is finished, the wound should he anointed  
with some Vuinerary balsam, as in other wounds, and pledgets  
of lint laid upon it, which must he kept on by fome adhesive  
plaister ; and upon these proper bolsters must be placed to keep  
the lips together, and the whole must be secured with the  
bandage mentioned above; and the helly should at every dressing  
be swathed round, not only for the security of the dressings, but  
also for the support of the parts in case os coughing,' soeezing,  
and going to stool; but not so tight as to cause pain or tin-  
easiness.' .... - '

Heister advises to take off the dressings every day, and let the  
patient lie for some time upon the wound, after the tent is  
taken out, that the impurities may discharge themselves; and  
if these appear in any considerable quantity, he advises to inject  
into the orificeTwice **of-**three times hesore the dressings are again  
put on, a decoction os some Vuinerary plant, as Agrimony;  
Sanicle, or St. John’s wort, within little Mel rosarum, some-  
what warm ; and then the patient must be laid upon the wound  
in such a situation,’ as to suffer it to he discharged again after  
every injection, together with the blood, pus, or whatever ought  
to come away; . *. e . -*

Aster tins, a fresh tent, armed as hesore with a digestive, is  
again to be introduced, and the dressings are to he renewed;  
and this is to he repeated every day, till it appears, that littie or  
no impurities remain in the *Abdomen* to be discharged; and then  
**the** tent is to be used no more, but the orifice is to be carefully  
healed up, as in other wounds.

\* .Other chirurgical writers utterly disapprove the ufe of in-  
sections, hecause, in their opinion, they only irritate the wounded  
parts, and retard their union and besides this inconvenience,'  
are attended with that of being Very difficult sometimes to get  
out of the *Abdomen* .again. They are also said to relax the parts  
too much, and to destroy the natural balsam which should  
promote the union of the part.

Turner advises, at each dressing, to apply three or four wanri  
stuphs expressed from the hot decoction of mallows, mullein,  
St. John’s wort, centaury, with the flowers *of* chamomile,  
elder, and melilot, made in spring-water, with the addition of  
a httie brandy at the time of using. .

Boerhaave advises to dress but seldom, and is certainly  
right, where, according to his system, no tents are made use ofi

But all chirurgical writers agree, that repeated clysters do  
a great deal of servite; that a rnildj relaxing, and Very par-  
simonious diet, .is of great importance in the treatment of these  
wounds; that very little, or no solid food should he allowed;  
that broths are the best sort of aliment during the whole course -  
of the cure, aS generating less Feeces than any thing else, pro.r  
Vided no accidental circumstance make them improper; and  
that rest, and lying upon the wound, with a soft pillow laid  
under it, accelerates the cure Very much, as it serves as a kind  
of compress to keep the lips of the wound together, and as the  
posture savours the egress of any thing that ought to he discharged,  
by thewound. - ‘ ‘ .

Palsyn prefers the Quilled Suture, or Sutura clavata, in that  
described above, aS hetter securing the stitches from tearing  
out, during the motion of the *abdominal* muscles in respiration,  
rising up, coughing, sneezing, or straining for a stool. . Vide  
**SUTURE. ’ ’ -** -ς  
- But most other surgeons reject this Suture, aS causing by **the**extraordinary preffure, pain, inflammation,-and other bad ac-  
cidents. *Dionis: .*

In case a wound of. the *Abdomen* is attended with an acute  
pungent pain, a considerable fever, an elevation and hardness of  
the belly, great internal heat, thirst, want of steep, weakness,  
uneasiness, and anxiety, a Very quick or intermitting pulse ;  
if a large quantity of blood, ichor, the aliment as received into **the**stomach, chyle, stile, pus, urine, the excrement, or the smell  
of is, are discharged from the wound; but especially if paleness,  
cold sweats, and frequent saintings, come on soon aster the  
wour^i is received, we may he sure some considerable Vessel, or  
some of the Viscera ch the *Abdomen* are wounded.

- A careful attendance to the external part wounded, com-  
pared with the situation the patient was in When he received the  
wound, and with the wounding instrument, will assist us in  
.sorrning a judgment of the part that is hurt. And these circum-  
stances again compared with the symptoms usually attending  
wounds of the particular Viscera, as given above, and with the  
discharge from the external orifice, reduces it near to a cer-  
tainty.

These wounds create great trouble, and are attended with  
some circumstances that render them Very dangerous.'

It is known to anatomists, that the circulation of the blood  
from the Viscera of the *Abdomen,* by the Vena porta, to the  
liver, and afterwards in the liVer, is carried on, or at least  
greatly promoted, by the alternate compression which the  
Contents of the *Abdomen* receive from the diaphragm, and *abdo-  
minal* muscles. And they whe have been much concerned in  
dissections of living animals, have observed, that when the cavity  
of the *Abdomen* is exposed to the air, this circulation of the blood  
towards the liver by the Porta, is greatly impeded, or totally  
obstructed.

Hence it follows, that, in proportion aS the action of **the**muscles of the *Abdomen* is impaired, and the cavity laid open,  
this circulation, so necesiary to the animal (economy, must he  
obstructed. . .

These wounds are also dangerous, in proportion as the  
function of the wounded bowel is necessary to health and life.

Another inconvenience attending these wounds is, that **the**extraVassted blood, now exposed to the air, corrupts, and cor-  
redes the intestines, and other adjacent parts to which the **fine-**ness of their texture renders them subject.

Nor is this the only injury which the patient receives from  
the air; for when it is included in the *Abdomen,* the heat it  
meets with there rarefies it more or less, and then it interferes  
with the action of the particular boweFor bowels it presses  
upon.

. Hence it happens, that these wounds frequently hecorne  
mortal.

If any of the *abdominal* Viscera receives a wound so consider-  
able aS to be seen, or come at with the fingers, at the first  
dressing the wound must be staffed gentiy with lint, dipped in  
highly rectified spirit *of* wine, or spirit of turpentine, which is  
to be secured with compress and bandage; for this is generally  
sufficient to stop the flux of blood, unless some Very large vein  
or artery is laid open- Tn the subsequent dressings the same  
method is to be pursued as is directed above.

But in case the injury lies so deep as not to he come at, **the**surgeon's care must he directed to the management os the exter-  
**nal** wound, which must be hept open with tents so long as any  
impurities are discharged from the wound, and vulnerary in-  
sections must every day he thrown into the *Abdomen,* so long as  
the perforated bowel discharges any thing into the *Abdomen*which ought to he brought away.

Mean time, an exact and sparing regimen must be observed,  
the patient must be let blood occasionally aS the degree of in-  
flammation requires, emolhent and carminative clysters must be  
from time to time administred, and he must be confined to his  
bed, and injoined strictly to abstain as much aS is possible from  
motion even there.

. The medicines in general must he Vuinerary and balsamic.  
But I must refer the reader to the article of WOUNDS sor parti-  
cular ingredients and forms.

. The intestines, and Epiploon, or Omentum, are the parts  
which usually protuberate out of a wound in the *Abdomen,* and  
require a particular management. But as the sentiments of  
authors with respect to the treatment os these cases, are Very  
different, I shall give the sum of what Celsus, Boerhaave,  
and Heister, have said on this subject, aS they are writers of  
good authority, and seem to have collected from, or examined  
Carefully the best of their predecessors.

Sometimes the belly receives a wound, and the intestines sail  
out through the orifice: The surgeon is then immediately to  
sides, first, whether they are injured; and then, whether they  
preserve their colour. If one of the small intestines is pricked,  
there is nothing to he done; a great intestine may he sewed up,  
not that we can warrant a cure, but because doubtful hope is  
better than absolute despair; for sometimes the gut unites and  
heals. If any *of* the Intestines are livid, pale, or black, and,  
.. what necessarily follows in such cases, void *of* feeling, all reme-  
dies are useless. If their colour be not altered, be Very speedy  
with your assistance; for the outward air, to winch they are  
utter strangers, changes them in a moment.

The patient then must he upon his back, with his hips **some-**what raised ; and if the wound is too small for the intestines to  
he put back in their proper place, it must be inlarged with **the**knife. If the intestines are dry, you must moisten them with  
water, mixed with a Very httie oil Then must the assistant  
with his hands, or two hooks, that take' held of the inner  
membrane, gently open the lips of the wound, and the sur-  
geon must take care to put in those Intestines first which fell out  
last, that each fold may he where it was before.

When they are replaced, the patient must he gentiy shook,,  
by which means the Intestines will retire hack to their proper  
places.

**The** Omentum, or Cowl, is next to he considered, of which  
if any part be black and mortified, it must be cut off with **the**sciflars; and whatever part of it is found, put gentiy back upon  
the Intestines.

AS to the Suture, it is not sufficient to sew either the outward  
shin or the inner membrane alone, but both must be united.  
Two threads must be used, and the stitches sewn thicker than  
sor other parts, because they are subject to he broken by the  
motion of the belly; and besides, this part is less liable to  
inflammations than others. Two needles then are to he  
threaded, and held in both hands, and the. inner membrane  
must be first sewn aster the foliowing manner : Begin at the  
extremity of the wound, and pass the needle in your right hand  
through the left lip of the wound, and the needle in your left  
hand through the right lip, from the inner to the outer part of  
the lips, by which means the point .will always he farthest from  
the intestines, and the blunt end nearest. After you have  
pasted once, you are to change hands with your needles, that  
is, the needle that was in your right-hand must come into your  
left, and your left-hand take that which was in your right; and  
so for every pass till the wound is sewn up. Aster this, the same  
needles and threads must he used to the Ikin, which must he  
also sewn in the same manner; the needles always passing from  
the inner to the outward part, and shifting hands every pass as  
hesore. Then agglutinante are to be applied, and upon these  
a sponge or greasy wool (Lana succida) first dipped in Vine-  
gar, and then squeezed;. alter which an easy bandage is to he  
applied. *Celsius, lib.* Vij- *cap.* I6.

Is the wounded intestines present themselves at the external  
orifice, they must be sewed up if the wound is large; but if  
small, they may be replaced without Suture; and the rest of  
the cure is then to be performed in the manner the reader has  
before been taught.

If any of the intestines are protruded out of a large wound,  
they must he fomented with living animals, just flit and applied  
to them; or with proper fomentations, amongst which the  
following is recommended.

Take the clean intestines of any young animal just killed,  
boil these three or four minutes in a proportional quantity  
of water;

Then add to it half a handful of the flowers of chamomile,  
lavender, and centaury, and one handful of mint-leaves.  
Let these stand in infusion about three or sour minutes  
longer.

The liquor of this decoction is to be applied by means of  
stuphs.

If these ingredients are not at hand, warm new milk will  
answer the end.

But if the wound is small, and the Intestines so much  
swelled by wind, inflammation, or excrement, that they can-  
not he reduced, the surgeon must endeavour to discuss the  
wind, or soften the part by carminative or emollient fomenta-  
tions ; or if that is ineffectual, small perforations may he made  
in the Intestine with a needle, to let out the included wind.  
The last refuge is to dilate the wound.

This must be done with a great deal of care, and is a  
hazardous operation, because the Intestine is in tire way, and  
in danger of heing wounded. The surgeon for this reason must  
introduce a Director, and cut upon it.

If any part of the intestinal tube is cut away by the wounding  
instrument, or is lost by suppuration, or gangrene, the supe-  
rior part of it, that, is, the part nearest the stomach in the  
course of the intestines, though it may happen to be the infe-  
rior part with refpect to their present situation, is t0 be sound,  
and sewed to the orifice of the wound.

in this case the patient must frequently submit to the  
necessity of parting with the excrement by the wound aS inng aS  
he lives. *Boerhaave.*

This was the case of an inn-keeper at Rotherham, which  
may he worth relating as it is somewhat uncommon. And to  
the best of my remembrance was thus, as related to me by the -  
surgeon that attended him. for I was not acquainted with the  
man himself till some years after he was recovered.

He was first seized with a Violent pain about the mid-way  
betwixt the Umbilical region and Os pubis, three inches on  
the right fide the Linea alba. A considerable tumour at last  
appeared upon the pars, which broke of itself, and adischarge of excrement, mined with pus, convinced the stir-  
geon the intestine was perforated. The dressings, as sar aS  
I could learn, were nothing different from thefe generally  
applied upoushe breaking os a common abscess; and no care  
was taken to unite the orifice of che fntestine wich chat οτ sty.  
ulcer. However, I knew him.many years alter this, with  
all the appearances of being .yut ώ fllU heaith)

with no other inconveniences remaining from thin accident,  
than those of parting with some excrement every day at the

ulcer, 2nd of heing sometimes put out of countenance by a  
sodden eruption of wind, which, for want of a sphincter. It  
was not in his power to prevent.

Of the same nature is the case of Margaret White related by  
Mr. CheseldeIL

In the fiftieth year of her age she had a rupture at her navel,  
which continued till her seventy-third year, when, after a fit  
os the colie, it mortified; and she being presently affer taken  
with a Vomiting, it burst. Mr. Cheselden went to her, and  
sound her in this condition, with about six and twenty inches  
os the gut hanging out mortified. He took away what was  
mortified, and lest the end os the sound gut hanging out at  
the navel, to which it afterwards adhered; She recovered,  
and lived many years aster. Voiding the excrements through  
the intestine at the navel; and though the ulcer was so large  
after the mortification separated, that the breadth os two guts  
was seen, yet they never at any time protruded out at the  
wound, though she was taken up out *of* her bed, and sat up  
every day.

If the Omentum is thrust our os the *Abdomen,* and continues  
warm and moist, and the arteries appear Vivid and red upon it,  
it must he immediately replaced, either with or without dilating  
the wound.

But if the surgeon finds it dry, cold, and livid, he must  
make a ligature upon the sound part, and cut off all that is  
mortified, and then replace it, after having fomented it in the  
manner directed above for the intestines.

When the surgeon has performed his duty; the physician  
will find his account in plentiful bleeding, which is the most  
effectual preservative against inflammation, gangrene, and fever.  
Clysters are also in the beginning excellent, provided the large  
intestines remain intire; but are not so proper when those are  
perforated, because a clyster; or part of it, may pass through the  
wound of the intestine, into the cavity of the *Abdomen,* and  
there cause a great deal of mischief;

The following form of a clyster is recommended by *Boerhaave.*

Take of barley water seven ounces, honey three ounces,  
common salt a dram.

Let such a clyster he given every morning and evening for  
the first three days.

The diet during the whele cine should be of broths only;  
with a little salt.

The following observations from HEisTER will illustrate **the**surgery of the *Abdomen:*

in wounds which penetrate into the cavity of the *Abdomen,*the first thing to he considered is, whether the Intestines or  
Omentum come out of the wound or not. If they do nos,  
the wound must be Compressed on each side hy the hands to  
keep them in, whilst the patient is laid on his hack with his  
hips somewhat higher than his head, till the wound is taken  
care of, in such a manner, that the intestines and Omentum are  
no longer in danger of falling out.

But when they are already protruded out of the wound, imme-  
diate assistance is necessary, hecause the air inclines them to mor-  
tisy in a Very little time.\* The surgeon then must first examine  
whether they remain intire, and whether they preserve their na-  
tural heat and colour. For if they are wounded, or appear cold,  
livid, and dry, they must not he returned into the *Abdomen,* till  
they are treated in the manner to he described hereafter.

An unusual staccidity of the intestine protruded out of the  
wound, is a sign, that either the part exposed, or else some  
other part of the intestinal tube, is wounded. If therefore **the**part in View in collapsed, but appears inure, the rest of the In-  
testines must be gently drawn out of the external wound, that  
the perforated part may he sound, and treated properly.

Is it appears, that the intestines are neither wounded, cold,  
livid, nor dry, they must he immediately returned into the *Ab-  
domen* in this manner:

Place the patient in such a situation as is described above, for  
preventing the Intestines from felling out., but let him he  
turned a httie to the right side, if the wound is on the left; and  
on the left side, if the wound is on the right. Then let an  
assistant separate the lips of the wound with ins fingers, or pro-  
per hooks, whilst the surgeon thrusts the protruded Intestine into  
the *Abdomen,* with the fore-finger of each hand, winch must  
act alternately, one being never removed from the orifice of  
the wound, till the other supplies its place, otherwise the  
Intestine would he likely to come out again. Mean time it  
must he recommended to the patient to forbear respiration as  
much as is possible.

If the\* Intestines are cold and dry before they are replaced,  
they must he fomented with warm water, or milk, applied by  
means of linen stuphs, or a sponge, or in a bladder; or else  
they must he wrapped in the warm Omentum os a calf, lamb,  
swine, or some other animal just killed, till their natural heat and  
colour are restored ; for without it there are no hopes of a cure.

However, if the dryness and coldness are moderate, and the In-  
testines not yet mortified, they ought to he immediately repiared.

**the** natural heat and moisture of **the** *Abdomrn* being more effec.»  
tual sor their recovery, than all fomentations whatever.

*If* the Intestine protruded out of a final! wound, is so distended  
with wind, that it cannot commodiousty he returned, it will  
not he amiss to pull a little more of the Intestine our of the  
wound, that the Flatus being distributed into a larger space,  
may render the reduction thereof more easy; Then the  
assistant must keep the lips ofthe wound, and divided parts of the  
Peritonzum asunder, either with his hands or hooks, whilst the  
surgeon returns that part of the intestine first which came out last,  
that their natural order may he preserved when replaced; Thin  
done, the Intestine must he secured from sailing out again by  
the hand, till the wound is filled with twisted lint, or a soft  
tens, is any considerable quantity of blond remains extravasated  
in the *Abdomen*; these must he secured by plaisters, bolsters,  
and bandage. The patient mean time must he kept very quiet,  
and must lie as much as is possible upon the wound.

Aster the first dressing, the wound is m he dressed once or  
twice a day, if there is a great discharge of matter, with some  
Vulnerary balsam; By this method these small wounds may he  
cured without Suture, an operation not less troublesome to the  
patient than the surgeon. \*

When these methods cannot be pursued, or are ineffectual  
for the reduction of the Intestine, the wound must he dilated  
sufficiently to admit of its restitution. But great care and  
caution is to he taken in performing this operation' for the  
Linea albs, the Arteries that run finder the Musculi recti, the  
Vena umbilicalis, and the intestines themselves must industry- .  
ousiy be avoided; For the greater security, a Conductor, or  
sulcated Probe is generally introduced at one extremity of the  
wound, by winch the common knife may be directed, or a  
knife alone, with a button at the point, of which Hester gives  
a figure. *Tab.* V. *F.* 3. and is of his own invention, and which  
he- recommends as preferable to the Syringotomus; an instru-  
ment made use of in cutting for a Fistula in Ano, and men-  
tioned by some surgeons as useful for this operation, of which  
see the description under the name.

But whilst the orifice is inlarging by any of these instruments,  
an assistant should keep the intestines out of the way of danger;  
first covering them with a stuph wrung out of a proper semen-  
ration, or with the warm Omentum of some animal.

But if it happens, that the knife or Director cannot commo-  
dioufly he introduced, by reason of the great inflation of **the\***protruded Intestine; the surgeon must, with his left-hand, re-  
move the intestine out *of* the way, whilst, with his right, **he**cute through the (kin, sat, and muscles.' Then wiping off the  
. bloed carefully with a sponge, he must endeavour to reduce  
the Intestine, without cutting the Peritonaeum, which may  
sometimes be done, when the strangulation is in this manner  
lessened; but if it cannot, the Conductor, or knife, may now  
more readily be introduced, in order to inlarge the wound of  
the Peritonaeum.

When the bulk and hardness os the excrement preVent the  
reduction of the Intestine, emollient fomentations or Cataplasms  
may be applied to it, and the intestine may be drawn a little.  
farther out; for by this artifice the excrement may be softened,  
and the thickness of it diminished by gentie prchine with the  
hand, so as to make the return of the gut feasible without  
dilating the wound;

Pare, Severinus, and some other surgeons, advise letting **out**the included wind; by making small punctures in the inflated  
gut with a needle, that it may he replaced without dilatation ;  
but Heister prefers inlarging the wound, because many fur-  
geons are of opininn, that these punctures are neither so inno-  
cent aS they are represented, nor effectual sor the purpose **for**which they are recommended.

When through a wound of the *Abdomen* the intestines sal!  
out, and are found to he perforated, the surgeons think them-  
selves obliged to sew up the perforation hefore they are replaced ;  
sor by ..this means they expect that the wound will the more .  
easily he agglutinated, and that it will prevent the chyle or  
excrement from getting into the belly, and affecting the sound  
parts. Now though wounds of the intestines, and especially -  
of the small ones, are extremely dangerous, and a cure seldom  
or never to he warranted; yet because the great Intestine may  
not only he sewed up, but sometimes also healed, as Celsas  
observed. *Surely doubtful hepe,* according to this author, *is  
bettor than absolute despair.* A surgeon must therefore neglect  
nothing which is likely to contribute to the cure of a perforated  
intestine.

Small perforations, scarce bigger than a quill, are by na  
means to he sewed up, but intrusted to the goodness os nature ;  
for such commonly heal better of themselves, than when they  
are irritated with sewing, which, sor the most pars, is attended  
with pain, inflammation, and other ill consequences. It is by  
sar the best way, therefore, with all due care, to replace **the**Intestines, and, after bleeding, to prevent an inflammation,  
seriously to recommend rest and abstinence to the patient.

Larger wounds os the Intestines, though hardly ever cured;  
were, till of late, and still are by some, sewn up with a Con-

finned Suture, or Glover’S stitch; for it seems better and more  
humane to cherish and support the precarious hopes of the  
patient, by an industrious care of him, than by neglect to  
abandon lum to certain despair. In order then for the opera-  
tion, get a pretty flender needle, and thread it with linen or  
silken thread, finer than ordinary. Then let the assistant, with a  
piece of fine linen, take held of one part of the wound, and  
let the furgeon held the other part in his lest hand, and with  
**his** right sew up the gut with a Continued Suture, or such a  
stitch aS glovers use, with the distance of a mathematical line,  
or a littie more, between the stitches. Pass each extremity of  
the thread, both at the beginning and end os the Suture, under  
the stitch immediately next it, in order to fasten it, yet so as  
that the last shall he made into a knot, the first hanging out os  
the beUy about a soot, that the thread may the more con-  
veniently be pulled out alter the intestine is conglutinated.  
Some prefer the Interrupted Suture much before this, because  
It requires fewer punctures, and is, for that reason, less subject to.  
inflammation; the threads also lest within, as heing smaller, are less  
troublesome. Garengeot shews another way of making the  
Glover’s Suture ; but whatever Suture is used. Very few in such  
cases are saved, as experience shews.

The orifices, of the perforated intestines being thus sewn up,  
the surgeon must next think of closing, or, if need he, of sew-  
ing up the belly. Here I would repeat this monition, which  
**can** never he too often inculcated, *viz.* That in all wounds of  
the *Abdomen* the tent is to he kept in till the collection of pre-  
ternatural humours, or at least the greatest part of them, is  
discharged; or till the thread that hangs out of the Suture,  
the intestines being conglutinated, is pulled away.

; The surgeon is also to take care, when two threads hang  
out of the helly, that is, one from the tent, the other from the  
Suture of the intestines, that they he of different colours, lest  
perhaps when he designs to draw out the tent winch is shut in  
too sar, he should take held of the wrong thread, and so twitch  
and initate the intestine.

But fince our modern surgeons have observed, that none, at  
least Very few, recover of wounds in the intestines; and that  
those Very wounds, if the patient survive, hecauseof the ex-  
traordinary thinness of the coats of the intestines, do not so  
often conglutinate as grow to the wounded part of the belly,  
the inner membrane of the Peritonaeum, the cawl, or some  
other intestine; 'tis no wonder, that they have lately abstained  
from Sutures of the intestines, especially the Continued, or  
Glover'S Suture. And this the rather, because, for the most,  
part, the frequent punctures bring on a grievous inflammation,  
most acute pains, convulsions, cancers, gangrenes, and death it-  
self. In order, therefore, to treat their patients with a little  
more gentleness, they have established the following meshed os  
cure:

. They pass a fine needle with a waxed thread through the middle  
*of* the wounded part of the intestine, and aster fastening it with a  
knot, bring the intestine to the internal part of the wound, and  
there six it with all imaginable accuracy, the wound being first  
closed by some of the methods above directed. The thread winch  
hangs out they secure by glutinous piasters laid upon the wound,  
so that the intestine can neither flip heck, nor any thing he  
discharged from it. into the cavity. This heing rightiy managed,  
not only the perforated parts of the intestines will grow to the  
inside of the belly; but the patients are cured in a milder  
and safer manner, than by a Continued or interrupted Suture;  
provided also they take due careinf their diet, and the bandage  
of the wound. I would prescrihe the same method for con-  
glutinating wounds of the stomach, provided we can come to  
handle them, hecause it has been practised with success.

If a part of **the** intestines happens to he cut quite off; **the**wound will not admit os conglutination, and therefore nothing  
but despair attends the patient. No wonder then that such aS  
**have** heen wounded in this manner, whether they have had no  
assistance from the surgeon, or have had the wound sewed up,  
have, in former times, almost to a man miserably perished.  
But since Hildanus, Blegny, Dionis, Palsyn, Hoffman, Sca-  
cher, Waterus, Cheselden, myself and several others, have ob-  
served that the orifice of the mutilated Intestine has, aS it were,  
spontaneously untied with and grown to the exterior wound of  
the belly, a benefit unexpected hy the patient, whet should  
hinder a surgeon from doing the best ho can to imitate a method  
of cure pointed out by nature, his best guide, for the relief of  
the wounded ? Whenever therefore a caso of this nature offers,  
**the** surgeon ought to know, that he is not to leave the patient  
to his destiny; but that his business is first narrowly to suspect  
the superior part of the mutilated Intestines, and then by help  
of the Continued or Nodose Suture, or any other way, to join  
It with the orifice of the external wound; for by this means  
not only the- wounded are oftentimes delivered from impend-  
ing danger of death, but the wound of the intestine itself  
as conglutinated in such a manner, that what before used to  
pass off by the Anus, is now intercepted, and comes out of this  
opening of the belly, as it were through another channel.  
And however irksom such a condition may seem, as requiring **a**

**tin** pot, or some linnets rags, always at the hole th receive **the**Faeces; yet it is sar better to lose some of the comforts and  
conveniencies of life, than to have no use of lise at all- Besides,  
what passes off this way is not so offensive as what goes off by  
the Anus. . .

The afore-mentioned method will be of service when a part,  
of the protruded Intestines is corrupted and mortified ; for in  
such a case, the mesenteric arteries being first tied Very tights,  
all the corrupt part of the Intestine is cut off, and the outermost  
sound part is conglutinated with the external wound ofthe helly ;  
*for it is better,* as Celsos says, *to try a doubtful remedy than  
none,* and to save some, though never so few, than to. abandon  
all to despair and death.

When the Intestines are wounded, yet do not sail out, and,  
consequently, the wound is quite hidden, the method in use  
amongst almost all surgeons, is to put a tent into the external  
wound of the belly, then to bleed, if the strength will bear it;  
after this they injoin lasting, rest, and lying on the helly ; and  
for the rest, rely on diVine providence, and the goodness of na-  
ture. But here a question arises, whether it he not adviseable,  
in such cases, to . inlarge the wound of the belly, so as that **the**hurt intestine might be found but, and then, by the help of  
Sutures, joined to the external wound ? indeed if we consider  
every thing attentively, it seems the best way to search .out the  
wounded pars os the Intestine, hexing before sufficiently dilated  
the wound in the helly for that purpose, and then, by the \_  
most proper method, to join the part to the wound, as before ;  
otherwise the patient is lest in the jaws of death, which sew or.  
none in this condition escape. Scacher, in his *Programma,*published at Leipsic, I 720, informs us, that the experiment,  
has been tried with success. And Cheselden, in an Hernia,,  
attended with a strangulation of the intestine, opened the belly,  
drew up the intestines out of the Scrotum, and afterwards per-  
fectly cured the patient.

But what opinion are we so have of the use of clysters in  
wounds of the intestines *? For* physicians have differed widely  
in their sentiments as to these remedies, some ’ magnifying,  
and others as much vilifying them. For my part, (for I **shall**freely declare my thoughts) I am of opinion, that they are not  
wholly to he condemned, nor always to he commended. But  
if they must be allowed to take the best care of their patients,  
who take a method of cure most accommodated to the nature  
of the wound, I think the use of clysters in wounds of the  
great intestines pernicious; but for these of the small ones,  
they may be Very seasonable, and prove Very beneficial. For  
aS in the first case they cannot he discharged into the belly  
without damage to the wounded parts; so in the latter, that  
is, the case of the small Intestines wounded, they are usually  
administred with success; for they are not only restrained by.  
the Valve of the Colon from running into the *Abdomen,* but arc  
of singular benefit and service, by cleansing the large intestines  
of excrement, restoring an equable course of blood, assuaging,  
if not taking away, severs and inflammations, and wonderfully  
mitigating pain itself.

**IF THE OMENTUM FALLS OUT.**

In wounds of the *Abdomen,* if the Omentum happens to fell  
out, either by itself, or with the intestines, the surgeon is in-  
stantiy to examine whether it is still warm and moist, and of sta  
natural colour. Is so, it ought to he put in gently with the  
fingers, if it can convenientiy be done; but if, through **the**straimess of the wound, as it sometimes happens, this cannot  
he effected, all that is sallen out must he cut off close to the  
wound, and the wound must he healed line other wounds. **So**will the Omentum, without any damage or inconvenience to.  
the patient, grow to the wound. But when the Intestines are  
fallen out together with it, the assistant is to held it in a linen  
cloth, moistened with warm water or milk, till the Intestines  
are replaced in their proper situation, and then to put it care-  
fully in.

But if, what may Very easily happen, any part of the Omen-  
tum is cold, dry, black and mortified, or mtten, all that is auy.  
way corrupted must he carefully cut before it is replaced, lest rhis  
sound part should he infected within, and the patient kiped.  
thereby.

The corrupt part of the Omentum may be cut off with all  
**the ease** and conVeniency imaginable, in manner following:  
Take a pretty strong needle and waxed threads and yun te  
through the found part 0f the Omentum near the corrupt; then  
winding the thread three ΟΓ four times about, fasten ’

knos, that no blood may he discharged fr0m cut veins

arteries of the Omentum. This d0ne, cut part

with seiisars or a penknife, and gendur rctum t0

Its proper place upon the intestines, leaving che to

out ofthe belly about a foot, fistOmenmm healing up, it  
comes away. , ° Γ’

AS to the rest of the management, chat in deterging bandags,  
and conglufinating, the same ndes to be.sore prescribed: but a larger tent is t0 ]ntroiJuced int0sower part of the wound, in order to preserve an oneuino for

the discharge of any Sondes that may he contained in the *yEcsu.  
daman.* Bur that the thread which hangs to this rent may nqr  
he confounded with thofe that hang from the Omentum, they  
are to he each of a different colour.

Aster fix or seven days, those threads which hang out of the  
wound of the Bessy are to he drawn gently every dressing, till  
at length the Omentum healing up, we find they may he taken  
out, but without Violence. Tins being effected in the most  
gentle manner, and the place ceasing to run, the tent must he  
removed, and the external wound duly dressed and healed; het  
at the Very first *sessae* blood is to he taken from the patient, ex-  
cept-he hath lost enough before by the wound, to prevent indam-'  
mation; and rest and abstinence must he enjoined him.

But what can we think of that strange advice of Dionis, in  
**winch he** would sain persuade us never to cut off any part of **the**prolapsed Omentum, but rather follow the example of Mareschal,  
chief surgeon to the king, whe, as Dionis says, oftentimes re-  
placed the Omentum, without cutting or tying, or any bad  
consequences from omitting them. Now to speak my mind  
freely, this tale of Dionis seems to me to he dressed up in so  
careless a manner, that I dare pronounce it deficient in point os  
justness and accuracy. For it does not appear by his relation,  
whether the Omenta were great or small, sound or rotten,  
which he says Mareschal replaced without amputation. If they  
were sound, he needed not to have been so follicitous to have  
us imitate Maresehal’s example; for no surgeon eVer denied or  
-doubted that it was proper to replace a sound Omentum. But  
if the Omenta which Mareschal thus restored without amputa-  
tion were corrupt and mortified, which Dionis does not tell us, it  
must he a wonder indeed that no mischiefhappened to the patient,  
especially if a considerable part were rotten; and wonderful it is  
what became of the corrupt Omenta in the helly, and hy what  
ways they were purged out. Therefore I think that this  
advise of Dionis is by no means to he regarded, before we re-  
ceive some plain and certain information concerning this matter ;  
and this the rather,, because Palsynus in his *Chirurgery* in-  
serts a case, in which Mareschal himself tied and cut off a cor-  
rupt part of the Omentum, hefore he replaced the sound part  
upon the Intestines, which, he also says was the practice os  
other noted surgeons at Paris.

Garengeot embraces this opinion of Dionis, though he does.  
not name him4. but he does not clearly inform us how great a  
part of the corrupt Omentum it was, which Mareschal, or any  
other thus returned without damage. Indeed I am persuaded,  
that it is not impossible for a Very small corrupt part of the  
Omentum to be digested in the helly, hut a large One by no  
means. Unless it can he proved by Various and undeniable in-  
stances. For one observation, even supposing it true, will not  
put the matter out of doubt, much less afford an example to he  
imitated; because miracles are now and then observed in the most  
dangerous wounds and because any other corrupt matter or  
imparities of this kind cannot he kept, even in external wounds,  
without often creating Very bad symptoms. Bur what may  
**we** not dread from them, when shut up among the internal  
parts, nay willfully thrust into them ?’ Nor is it the same thing,  
as this author supposeth, whether the suppuration he small or  
great, as inng as there is a suppuration. But hecause a great  
corrupt price must cause a great suppuration in the Belly, whereas  
**in the** tied Omentum, where all the corrupt part is cut away  
hefore the sound is returned, there must he a Very small, at least  
a sar less suppuration ; therefore less mischief is to he feared  
from this than from the former; especially since we endeavour  
to discharge even that small matter produced by that suppura-  
tian through the external-wound, kept open by the use of tents.  
But Garengeot soon after advises to close up every opening, by  
- throwing aside all tents whatever, contrary to Mareschal himself,  
who used them with fuccess. Hence, so much the less can a  
great part os the Omentum resolved into Pus he discharged out  
of .the Belly. I think therefore we ought carefully to distinguish  
between a great and small suppuration, for there is more diffe-  
rence between them then Garengeot imagines; and since this  
matter, in my opinion, is not sufficiently cleared up, but still  
subject to great doubts, and even hazzard, Palsynus an eye-  
witness, affirming the contrary; and Garengeot does not seem  
to have learned by his own experience, the happy success of re-  
placing a great corrupt part of the Omentum, I think it a hetter  
and safer way, to tie and cut it off, especially if the unsound  
part he large, as the best furgeons have hitherto done, than to  
ledge it in the Belly to the imminent danger of the patient's  
fife. *Heister.*

Roland, Laufranc, Gulielmus de Sahceto, and Rogerius,  
advise, in case an Intestine is wounded, to defer-the Suture of  
the external wound, till the Intestine is healed.

Pare is of opinion, that 'all wounds of the Intestines **are**not mortal, of which we find many instances related by Hilda-  
ritis, Caesar Magants, Plazzonius *de Sclopetorum vulneribus,*Petrus de Marchettis, Fallopius, Arcaeus, Cabroleus, Tulpius,  
and Schenkius.

' AS Mr. Sharp is the last and best of our own country witters in  
finrgery since Wiseman, I shall give his opinion os Gastreraphy,  
and wounds of **the Intestines.**

The account of tins operation has employed the ingenuity of  
many chirurgical writers, and ocrasinned much debate about  
**the** proper rules fur performing it; and **yet** whar makes **the**greatest part os the description can hardly ever happen in  
practice, and the rest but very seldom. Mr. Sharp has been told,  
that Du Verney, who was the most eminent furgeon in **the**Ftench army, a great many years during the wars9 2nd fashion  
of duelling, declared, he never had cuce an opportunity of  
practising the Gastroraphy, aS that operation is generally de-  
scribed ; for though the word in strictness of etymology signi-  
fies no more than sewing up any wound of the Belly, yer in thecommon acceptation it implies, that the wound of rhe Belly  
is complicated with another of the Intestine. Now the symptoms  
laid down for distinguishing when the Intestine, is wounded, do  
not with any certainty determine it to be wounded only in  
one place, which want of information makes it absurd to  
open the *Abdomen* in order to come at it ; if so, the operation  
of stitching the bowels can only take place, where they fell out  
of the *Abdomen,* and we can see where the wound is, or hew  
many wounds there are: if it happens that the Intestines sail out  
unwounded, the business of the surgeon is to return them irn-  
mediately without waiting for spirituous or emollient somen-  
rations; and in case they puff up so as to prevent their reduction .  
hy the same orifice, it may with a knife, or prohe-seiflars, he  
dilated sufficientiy for that purpose, or the intestines may be  
pricked to let out the wind, laying it down for a rule in this,,  
and all operations where the Omentum protrudes, to cut **off**so much as shall he mortified before it is replaced.

Upon the supposition of the intestine heing wounded in such  
a manner as to require the operation, for in small punctures it is  
not necessary, the method of doing it may he this: taking a strait  
needle with a small thread, lay hold of the Bowel with the left  
hand, and sew up the wound by the Glover'S stitch, that is, by  
passing the needle through the lips of the wound, from within  
outwards all the way, so as to leave a length of thread at both  
ends, to hang out of the incision of the *Abdomen*; then care-  
fully making the interrupted Suture of the external wound, pull  
the Bowel by the small threads into contact with the Perito-  
naeum, for the more readily uniting afterwards by adhesion with  
it ; though it would be more secure to pass the threads with  
the strait needle through the lower edges of the wound of the  
*Abdomen,* winch would more certainly hold the intestine in that  
situation. In about six days is is said the ligature of the intestine  
will be loose enough to draw away, which must he done with-  
out great force. Mean time the wound is to he treated with  
superficial dressings, and the patient to be kept Very still and ,  
low. *Sharp.*

The foliowing cafe preserved in a letter to Hildanus from  
Claudius Deodatus, physician m the bishop of Basil, is Very  
remarkable, and worth perusing, which I have therefore in-  
sorted.

About a year ago; a young man upwards of twenty; by trade  
. a woollen weaver, having drank plentifully of wine, took **a**walk out in the dead of the night with his companions,\*

- to Cool themselves. Rambling about the town, which is  
called Bruntrute, they met with some young students as  
drunk aS themselves,. and a quarrel arising, 'they drew off  
both sides; in the scuffle, one of the scholars, with a sword  
(which they call a stilletto) stabbed the weaver a littie above  
the Navel, towards the lest, so that the weapon came our at  
his Back, downwards toward his Loins. The weaver fell, and  
was carried off half dead to the surgeon, while the scholar  
doubting he had killed the man, secretly conveyed himself out  
of the town. The wounded person was put into the hands of  
two able surgeons, whe were John Glanz belonging to  
the court, and Werner Crarnory of Bruntrute, whom the  
poor man earnestly intreated to save his life, every one **ex-**pecting he would soon give up the ghost. They were pre-  
Vailed upon jointiy to undertake him, though they gave but'  
Very littsehopes of a cure. They examine with all possible  
care, the size, the depth, the place, and other circumstances  
of the wound, and conjecture, that if the Stomach itself  
should happen to he untouched, at least its orifice, or the  
extremity of the small Intestines, must have been penetrated  
and opened, though both orifices of the wound were so  
strait, that its innermost parts were with difficulty searched  
by one of the smallest probes. After they had well con-  
fidered the difficulty and hazard of the undertaking, they  
betook themselves to the application os all fuch remedies,  
both inward and outward, as inng use and daily practice  
had taught them, such as oils, balsams, ointments, plaisters,  
not omitting Vulnerary potions and apozems. in a little  
’ time, as it usually happens, came on various and perplexing  
symptoms, as a fever attended with shiverings, thirst, watch-  
ings, restlesoess, mincings, and castweness: I advised the  
use of emollient clysters now and then, in order to discharge  
any clotted blood that might chance m stick in the Stomach  
or Intestines, and by its putrefaction, inflame the fever, **or**heinhten the ssmotorns. This was thrice put in practice,-

find every time there came off abundance of caked, black,  
and putrid blood; a certain sign that the intestines were  
' wounded. At length, after fome weeks, both orifices of  
the wound were cicatrised; the patient thought himself  
cured, and went home. But he still felt a pricking pain  
ν about the part affected, which was accompanied with a hard  
swelling, so that he was forded to go with his body very  
much bent. Quite tired out with this pain and swelling, he

- consulted another furgeon, who suspecting something, I know  
- not what, os Pus to be in the sault, applied things to soften  
- the tumour, and promote the ripening of the Pus, and after-  
- wards opened it twice with a lancet; but his pains were to no  
purpose, for there r-arne out nothing but a little serous matter,  
and the pain still continued.

Now because he was of a cachectical habit of body, and had  
been for a long time troubled with obstructions of the Liver,  
Spleen, and the Meseraic Veins themselves, I advised such re-  
medies as were proper for removing obstructions of the  
Viscera. These were also tried upon him in Vain, and the  
whole business resigned over to nature, the rather because  
the . man could make a shift to walk, and do his business in  
' fome measure.

Towards the end of the year, returning home one day, aster  
he had dispatched his business, he was taken in the midst of  
his walk with a Violent motion to ease himself, and with Vast  
pain and torment Voided the tip, or Very point os the weapon  
that wounded him. The surgeons struck with the novelty of  
the thing ( though the patient would not confess it, till awed  
by the command - and authority of the magistrate) left no  
stone unturned to get in into their possession, in order to shew  
it publickly, and compare it with the weapon to which it  
helonged. They were satisfied that it was the tip of a sword's  
- point, but wanted the sword to which it belonged.

That there was a piece of the .truncated sword lest in the pa-  
tient's body, is evident from the lasting and continual .prick-  
ing pain, which still remains fixed, though, the cause is  
- removed. And it is abundantiy evident from the premises,  
that the wound was mortal, because either the Stomach or  
Intestines were hurt, and the tip of the sword deeply rusted  
- lay a whole year lsid in the winding labyrinths of the in-  
testines in defiance of all stimulating expellers; for whatever  
makes its way downwards, must pass through all the orbs of  
the Intestines. Now whether the sword were broken by the  
man's falling to the ground, and afterwards in drawing if  
- out, the point that is come away. Or eVen the part wanting,  
'might not stick in the Stomach or intestines ? And by whet  
means the patient yet survives after his Stomach or intestines  
were penetrated ? And how, or where the iron could he  
without doing more prejudice? And whether the other part  
of the weapon, as we suspect, be left in the body ? These,  
. and many other such doubts, which might be raised, are  
left to your well-known judgment, and long experience for a  
solution.

**: ' ' ' HILDANUS’s** Answer.

- That the wound you write of was mortal, no man of found  
judgment can doubt; both Hippocrates and experience itself  
attesting that wounds1 of the intestines are so. Besides, it was  
very near the Medulla spinalis, and the Nerves proceeding from  
it, and therefore more liable to pains,2 inflammations, and other  
grievous symptoms.

But that the Stomach was not pierced, much less the Pylorus,  
as your surgeons thought, appears from the situation of. the  
wound. For the Pylorus, or right orifice of the Stomach, is  
seated on the right side, over-againstthe Liver, and the Stomach  
lies too high for the wound to reach it, and I doubt whether  
‘ the small intestines were hurt; for being bloodless, they seldom  
or never close. Wherefore Hippocrates, Book Vi. Aph. I 8.  
with good reason pronounces them mortal. However, we  
meet with instances in Marcellus Donatus, and others, oi  
wounds of the small intestines, which have been cured. There-  
fore it seems most probable to me, with submission to your  
better judgment, that the stilletto went through the Intestine  
called the Colon, and through that part of it where it is Very  
firmly connected to -the loft Kidney, and hit with its point  
against the Processus of the second or third Vertebrae of the  
Loins, which are of a firm substance, when the wounded per.  
‘ son falling to the ground, and rowling, the weapon being ol  
the best steel (napped and broke off, the point remaining in  
the intestine, or part-there, and parr in the Muscles.

. That the Colon was wounded the want of stools is a gooc  
argument. For that intestine, as you know, being pretty strair  
where it runs by the lest Kidney,, the passage of the excrement  
in that place might easily be intercepted by the affluence’ o  
the. humours, and-inflammation and tumefaction of the par  
caused thereby. That plenty also of. clotted blood, winch th  
patient Voided, indicates a wound in the Colon. You actet  
therefore with good sense, in prescribing clysters, m which,:  
doubt nor, the man, in a great measure, owes his preservation.  
: : From what has been said, you will - see, venerable- and  
worthy Sin, in answer to your queries, that the weapon waj

broken hy the patient's selling to the ground, and that the point,  
remained in his body. But if any one should maintain that it  
stack in the Processos the Vertebrae above-mentioned, in my  
opinion he is not sar wide of the truth

You ask besides, by what means the patient could survive a  
wound in the Stomach or intestines? I answer with AVerrhoes,  
that Very often wonders are wrought in diseases, that is, fuch  
things as surpass human understanding; and that wounds of the  
Stomach have been sometimes cured, not to mention Nicholas  
Nichols, and Matthias a Cornace, we have the testimony of  
Marcellus Donatus, in his 5th book, chap. IV. See a remarkable  
example in Crollius, in his preface.

Some years since, Galenus Wierus, a physician os great  
repute, in a letter he wrote me, has these worth: " I re-  
or member, says he, that at Montpellier my master Laurentius  
" Goubertus, a Very famous physician, and Regius professor,  
" shewed us a blunt knife, which a shepherd wrapped in a  
“ cloth, and forcibly \* thrust into his fellow's mouth, and  
" crammed it down his threat. The same lay a long while,  
"as I remember, two years, in the body, fist at length it came  
" out at an Abscess in the Groin, winch was cured by the  
“ surgeon, and the man lined seven years afterwards.'' So  
far *Wierus. . '*

Moreover, that wounds in that part of the intestine, where  
your patient was hurt, are not quite desperate, I mysels arn air  
eye-witness. You have an example in my *Obferv.* xiv. *cent.* I.  
and indeed the intestine in that part is thick, fleshy, and next  
to the fleshy parts, and even connected to them; so that when  
the rest *os* the intestines are almost perpetually thrust this way  
and that way by the excrements and flatuffes, this part only of  
the Colon, remaim in a manner immoveable,-and therefore,  
easily closes.

You aik, in the third place, how iron could lie so long in  
the body without doing prejudice ? It was not altogether with-  
out prejudice; for you write that the patient was afflicted with  
constant pains Besides, provident nature, which is always at-  
work to relieve us, takes care to sheath those foreign and Un-'  
. welcome guests which harbour within us with a callous sort  
of matter, inorder to defend the adjacent parts from the injury  
which they might do them. You have an example in my  
*Obferu.* ban *cent.* I. of a knife fixed in the Loins; and another,  
*Obferv.* ii. *cent.* 2. of a leaden bullet that lay six months in. the  
Brain, without any supervening symptom.

Your fourth query is, whether the other part os the swonsp  
which is wanting, do somewhere or other lie hid in the body ?  
That, indeed, is a difficult matter to. determine; but the con- .  
stant and fixed pain is enough to convince us, that something-  
preternatural, whether it is that part of the sword, or a stag-,  
inent of the Appendix of the Vertebrae, lies- hid in the part  
affected. For it seems to me Very likely that the point of the  
sword struck against the Appendix, or. Ala Vertebrae, since I do .  
not see how it could be broken in the flesh.

In this-history, and the observations upon it, both Deodatus  
and HildanuS call the wound mortal, though the. man re-  
covered. This expression must not he taken literally. \_ I sup-  
pose they mean that such a wound would generally be mortal.

The Muscles of the *Abdomen* are subject to inflammations,  
which are Attended with some singularities, and require a pe-  
culiar treatment. '

Physicians have sometimes mistaken an inflammation of the..

Muscles os the *Abdomen* sor an inflammation of the Liver. but  
Galen telis us that inflammatory tumours of these Muscles pre-  
serve the figure of the Muscle, which that of the Liver, does ‘  
not. Besides that an inflammation of the Liver is attended with  
worse symptoms. '

HeumiuS gives a history of a woman, whose Muscles of rhe  
*Abdomen* were almost as herd aS a stone, hut preserved the form  
of Muscles. He applied Emplast. e Mucilag. and when the '  
parts grew red, and yielded to pressare, he ordered them to bo  
laid open, upon which there was a great discharge of Pus, and  
the woman recovered.

He says these Muscles have a very thick Membrane, ' which  
will not permit the Pus Io break out, without laying open.  
He adds, that he has seen these tumours, when not laid open,  
turn to a stony hardness . and aisO the whole Mesentery.

He fays also that he seen an Abscess of these Mnsclas  
turn into such a hardness, which has in like manner affected  
the parts underneath.

In order to prevent these consequences, and nif0 hinder the  
Abscess from bursting internally, and discharging a quantity of  
master into the cavity of the *Abdomen,* HildanuS ad visas tn  
y open by incision a Phlegmon of the *abdominal* Muscles when  
tending To suppuration, or suppurated, sooner than other Ab-  
scesses.

Because an inflammation Os the Muscles of *tsuoAbdomen* much  
resembles an inflammation of the Liver, ώ ω faeguuhed by proper signs, such as f0Jl0W .

In an inflammation rf the Mufde of the *Mmm,* the mi  
uv them is ro tenfe and fcetched. that you cannot pinch

**up** with your singers. Tumours of the Mufcull recti are of an  
oolong figure, and extending themselves over all the Belly,  
inclose the NavcL And so inflammations of other Mufcles, in  
seme measure, allo represent their figure.

On the contrary, an inflammation of the Liver conforms itself,  
both in figure and meafurc.to the part affected; the Mufcles allo,  
when handled, seem to give way to the touch, and the tumour  
appears deeper seared. Besides, the colour of the whole Body  
is very much to he regarded in distinguishing these affections.  
For in an inflammation of the Mufcles the colour contiones lively,  
and much as in a stato of health; hut in an inflammation of  
the Liver it appears pale and yellowish, inclining to a Jaundice.  
You have a remarkable example to this purpose in *Gal.* v. de  
*Licit affect, c.* 7. of one Stesianus, who was judged by the  
physicians to have an Abfcess in his Liver; but Galen being rent  
for, and only viewing his countenance, immediately pronounced  
that there was no Abfcess in the Liver, and afterwards searching  
the Belly, found that it lay in the Muscles of the *Abdameri.*

What determined his judgment was, that the colour Of the  
patient’s face was not altered in the manner usual in an inflam-  
matron, or Abfcess of the Liver.

A like example you have in *Valerisla, Observ. lib.* **iv.** *cap. ζ.*of a woman, who was judged by another physician to have an  
inflammatory, tumour in her Liver. " But I, fays he, as soon  
" as the sick employed me, was of opinion that the tumour did  
" not he in the liver, but in the mufcles placed over in” And  
a'little aster he says, “ As soon as I came I felt the place, and  
" discovered in the right Hypochondrium an oblong tumour,  
" which reached to the navel, and foon after grew herd enough  
" to he sensibly felt. The colour of the face was ruddy, fresh  
" and roly; with a mixture of white, and fo continued during  
" the whole course of the distemper. The urine, as to colosir,  
" consistence, and contents, of the most healthy fort; from  
" all which signs I sound that it was not the Liver, but  
" the Mufcles of the *Atdarnen,* that he over it, that were af-  
" soiled. For where the Liver is diseased, the colour of **the**" face must necessarily he altered.” Galen himielf, *lib.* v.  
**red.** 7. *de Locis affectis,* writes, that he discovered many dis-  
orders of the Liver by the colour of the face, which usually in-  
clines to a pale yellow, mixed with a dulky green. *Rivecius.*In the year 1388, a gentlewoman of Lausanne complained of  
a very great and pungent pain in the Stomachi I was sent  
for, and. examining the place, felt a hardness between the  
Mufcles of the *Atdarnen,* just opposite to the Stomach, by the  
side os the Linear alba, towards the layer, which however  
could not be perceived -without handling; for no outward  
sign appeared. The patient had a contioual fever, **with a**great, pungent, and throbbing pain; whence I easily inferred,  
though no disorder appeared in the skin, that there must be  
an Abscess between the Peritonaeum and the Mofoles of the  
*Atdarnen.* Being thoroughly fensible that the case was dan-  
gerous, and that nothing but an untimely death could be  
expensed, if the Mufcles of the *Atdarnen* were not lanced,  
**\* I** advised to consult the most famous and learned Dr. John

Aubert of Vindon, the most celebrated physician at that rime  
' in Lausanne. He was sent for, and dearly agreed with me  
in opinion that there was an inflammation, which, if not sea-  
sonably opened, would bring on death, or some tedious and  
stubborn distemper. But when we had declared our opinion  
. to the attendants, they were amaxed, hecaufeno turnout or  
disorder appeared on the skin, and they could not believe  
any thing of an internal Abscess; wherefore they utterly and  
unanimously rejected out advice of opening and cutting the  
Mufcles, but begged of us to try if by any means, as Ano-  
dynes externally applied, the pain might be Instigated, and  
hy proper medicines taken inwardly, the sever, nausea, and  
eructations might be removed. We, having first forewarned  
them of the danger, did whet in us he., and carefully pro-  
vided all things according to their desire. Aster forne days,  
about miinight, the pain remitted on a sudden, and the pa-  
tient fancied herself quite well. Soon after, when we went  
to visit her, at feven o’clock in the "morning, and had  
scarce entered the doors, the husband met us withejoyful  
looks, to assure us that his wife was quite eofy, which we pre-  
sently found to he true ih secti The pain was scarce sensible,  
and the tension, erucbation and naufea were quite gone, the  
hardness in the *Abdomen* could fcarce he felt, the fever, in  
some desree, remitted, with the Pulse much mended. From  
theft, signs it was easy for us to conclude that the Abfcess had  
broke inwardly, and discharged its contents into the vacuities  
*of the Asdemen,* and also to foretel the husband the event of  
the disease. Aster a few days, the pain arofe anew in the  
Lower' belly, followed by a burning and contioual sever, that  
ended in cold sweats and saintings, under which the patient  
nioufiy and placidly departed out of this Eso. I **have heen**the longer in this instance, that young students they **know**hew to judge and prognosticate in like cases. *Hildanus.*

**A** man 33 years old whs much bruised by a very heavy coach-  
wheel, that passed over hiis right Hypochondrium, but **with-**

**oof br**eaking his Rins. The hint produced a looseness and  
great pain, which hindered him from steeping, and by negiedt-  
ing the proper methods of cure he fell into a sever, lost his  
strength, and died. I suspected, upon considering the firne-  
tion of the parts, that the Liver was impaired . het upon lay-  
ing open the Hypochondrium, sound it remarkably soft and  
yielding; from whence it was obvious, that the Liner was  
not originally injured, indurated, or infemed

Having made an incision in the form of a thrOUgj, th»  
Mufcles of the *Atdarnen,* I observed a pint and a half of  
Pus to run out of the right side, without *any* apparent  
Abscess in the Lver, the Aposteme being between the Perimi  
nmnm and the Mofoles of the *Abdernas.*

Part of the Omentum adhered so strongly to the Absoest, that I  
was obliged to separate them with a knife.

The Liver was found out of its natural place, tinder the middle  
of thel Diaphragm, inclining\* to the left Hypochondrium,  
and adhering every where to the Bastard ribs of the Sternum  
lry Membranes, which I broke with my fingers;

**The** Abscess was large enough to contain the bead of a bulky  
man, the Liver bring displaced by the force ofits compression;

The Stomach which was large, was forced by **the** same im-  
posthumation towards the right side. *Bonet. Sepulch. Anat.*

A woman of quality about twenty years old, hiving heen  
troubled for some months with a general weariness, heavi-  
ness and fatigues, for which she had taken mild purges, and  
strengthening physics, such as chalyheates joined with gentle  
purgatives, preparauons of tartar, volatile salts, *etc. find-*ing her illness not abated according to her hopes, committed  
herself to the care of an ignorant empirics, who gave her  
pills made of the dried seeds of the Indian spurge, and other  
medicines of the same kind, which purged her strongly, and  
produced a sudden flow of spirits, and appearance of health.  
But the humours agitated by the violent operation of these  
medicines, produced a tumour in the Lower region of the  
Belly, which, notwithstanding the means that were made **ofe**of to disperse it, not ooly increased in one year to an enormous  
sine, but caused very excruciating pains, and brought an  
acute sever upon hen To-remove these symptoms many-' remedies were- tried, with fo good effecti, that the sever was  
taken css, the tension of the parts was relaxed, and the in-  
flammation ceafed, only the turnout still continued, but with-  
out pain This we endeavoured to dissipate by proper me-  
dicines, fuch as mineral waters, and artificial preparations,  
both of vegetables and minerals; but to so little purpose, that  
the swelling increased, and all the Belly was bloated to a pro-  
digious bulk, and the fever nine months after it had been re-  
moved, returned with so much violence, that she was con-  
sined to her bed. Then the swelling extended itself from her  
Belly to her Thighs and Legs, and excoriated the parts in  
many places. Being now.no longer able to move herself;  
and feeling a kind of laceration in the vessels of the Lower  
belly, she intreated me to open the turnout; and in com-  
pliance with her delire, I tlirust a pointed Cannula into the  
cavity, and in ten days let out thirty pints of Pus corrupted  
to the highest degree. By this evacuation she was greatly  
relieved, but nevertheless died on the thirteenth day after the  
punctiire, with great piety and calmness. When the At-  
*dornen* was laid open, we found at least forty pints of fetid  
and viscid Pus still remaining, in which the intestines bad  
floated fo long, that their outward membrane began to mor-  
tify. The right Testicle, or Ovary, was by the pressure of  
the turnout, which I shall next defcrihe, become fo flaccid,  
that it was not without difficulty discoverable. What most  
deserved out regard was a turnout in the Mesocolon, which  
beginning on One side of the Colon where it enters the  
. Rectum from a .basis of about three inches diameter, passed  
under the Intestines to the right side, where it produced a  
body of no Irfs than a foot diameter; then toning upward,  
it united itself to the Peritonaeum, 'and continuing, extended  
itself to the left side, towards the part where it took its rise,  
and rested upon the larger Intestines, which were almost  
encircled by it, while the smaller were, together with the  
Stomach, forced upwards, and more at liberty. This tumour  
was glandulous and membranaceous, and contained, through  
its whole course, wells or cavities of various forms and  
sines; many of them had a communication with each other,  
. and were silled with substances of different kinds, as watry,  
mucilaginous, greasy, or almost of the consistence of tallow, all  
intolerably fietid. The tunrout, wish its contents, welched  
about thirty pounds. All the **other** parts **were** found, *Bsnett  
Sepulch. Acai.*

A maided of unblemished charadier bras,- in the year I69 I,  
affliiled with an offensive and scabby eruption, which dis-  
charged a great deal of Satti es, and spread over her whole body;  
and in opposition to all, the methods that were used, continued  
to the vear I696, and was believed by many to he the true  
Elephantiasis,because when the stabs sell off, the skin appeared  
livid and callous. At the beginning of the year 1696, the

eruption, either hy the help of medicine," or of ins Own  
accord, intirely disappeared ; bur was soon succeeded by pains  
over the whole body, and those were accompanied by a corn  
traction of the Muscles which bend the Leg. At the same  
time her appetite, which had always continued good, in-  
creased to a prodigious degree of voracity. Her whale Body,  
and particularly her *Abdomen,* were so swelled, that she seemed  
to have at once an Ascites and Anasarca. In May, 1696,  
she died -in her thirty-fifth year.

On the next day we opened her body, and observed there ap-  
peared no remains of the Scabies in any part of her body,  
that her countenance was livid and moist, and that a large  
quantity of purulent matter issued from her Nostrils and Eyes.

- That the tumour of the *Abdomen* was produced by a kind of'  
" anomalons or unnatural sat, which had extended the cells of  
the Panniculus adiposes to such a degree, that it was in some’  
Pisces three inches thick; but was crouded in Vast urtanth

’ ties between the Membranes of the Mesentery, and in **the**Omentum itself. The Mesentery was transformed by it into  
a confused mass, in which neither Veffeis nor Glands could  
any lonsser he distinguished. But our attention was more  
strongly attracted by the Omentum, of which the Veffeis'  
railed Vasa adiposa by Malpighius, seemed to he extended by  
a general Hernia, or Rupture, and heing silled in all its divi-  
fions to its utmost capacity, formed a multitude of cavities,"  
**or** bags, of about an inch in compass, which hung down  
from the parent Veffeis of the length of three or four inches.  
The substance with which the celis of the Omentum and the  
Cavities arising from them were fused, was like oil of olives  
congealed in the winter, and disiblved so readfly by the  
warmth of the hand, that it gave us some reason to conclude  
with Malpighius, that it had some degree of circulation, and  
communication with the neighbouring Veffeis of the Mesentery

. and Panniculus adiposus.' Tne other parts were without  
disorder. *Bmet. Sepulchral.*

**I** shall add to this account of the diseases peculiar to the *Ando-  
men* a remarkable case, which happened to sail under my own  
inspection.

Tn the year 1728, I attended a hey *os* about fifteen, who  
had been ill a great while, bus, sor six weeks before I saw  
him, he complained os a pain on the right side of his Belly, like  
that which attends an inflammation os the intestines, except  
that it was not so acute, and had continued much longer  
than any common inflammation could do. In my first Visit

i I was desired to observe one Very extraordinary symptom,  
which was, that he was perfectly easy when he put himself  
in that situation which people usually call standing on their  
heads; and this he frequently was tempted *to* do for relief.  
The hey was wasted Very much at this time, and died about

\_ fourteen days aster.

Being permitted to open the Body, as soon aS it was laid on the  
table, I perceived *die whole Abdomen* was considerably swelled,  
though not so much as is usual in a Dropsy.

AE soon as the integumentsand *abdominal* muscles were re-  
moved, I perceived the Peritonaeum discoloured, and upon  
making a sinall perforation in it, a Flatus was discharged with  
. some Violence, which was attended with a stench almost in-  
supportable. - When the Peritonaeum was removed, I found  
some Faeces in the *Abdomen,* and soon discovered a large per-  
foration in the Caecum, not sar from the Appendicula ver-  
’ miforrnia ; but was surprised at the extraordinary figure of  
this part, which seemed to he Very much inlarged, and

’ formed into a kind of bag not unlike the Stomach.- The  
' hole in the Intestine was about as large as a six-pence, and a  
bard substance lay just upon it, *of* the fine of a tennis-ball.  
I opened the Intestine, and took out the herd body, which  
much resembled an oak-bash Upon cutting through it,

**" I** sound» it had been formed of the grosser part of the excre-  
ment, which had concreted round a plumb-stone, which lay  
in the middle. I took eight more of the same sort, but not

\* quite fo big, out of the Colon, and a great number of lesser,  
both out of the Colon, and small intestines, each of which  
had for its basis a plumb or cherry-stone. And I was then  
told, he had discharged above fourscore small ones before his  
death, at different times, by stool

These appearances account for the ease he sound by standing on  
.his head, for in that posture the ball would fall from the bot-  
tom of the inlarged Caecum, and no longer press on the  
painful part, as it must do when he was erect.

*s* Such cases as these sometimes occur, though they have not  
been much taken-notice of. Bonetus mentions one somewhat like  
it. *Sepulchral. Anat&rn. l.* 3. sect. 17. *obf. ‘iq.*

\_ The *Abdomen* is subject to many other disorders, which will  
he specified under their particular names. Or under the anatomi-  
cal account of the particular parts affected by them.

But I must not omit taking notice,, that the Muscles of the  
*Abdomen* are subject to aR he»mafism,which is sometimes mistaken  
for the Colic, and sometimes for an inflammation of some of the  
Viscera, which are situated underneath, especially of the Mesen-

tery, from which it is not Very easy to he distinguished. How-  
ever, it may he discovered hy the absence of those symptoms  
which always attend inflammations of the particular Viscera, **by**the inessirary of those medicines which usually relieve the Colic ;  
by art accurare enquiry into the particular species of pain which  
the patient seels, and by an increase of it during any consider-  
able action ofthe Muscles, whether in expiration, inspirations  
*ex* straining. . '

If there is reason from these considerations to suspect a Rheu-  
matism, it will he a farther confirmation of is, if the patient has  
been subject to rheumatic gains in the other parts.

As young anatomists meet with fome difficulty in beginning  
**the** dissection of a body, the following directions may afford them  
the instructions they stand in need of, and facilitate their way  
to a knowledge of the parts of the *Abdomen* in particular.

Tn the regular administration of a human body we must begin  
our section with the Lower belly, lest the speedy putrefaction of  
its Viscera should become troublesome and ostensive. For ' thia  
purpose, incision must he made through the common integu-  
ments of the body, in a crucial form; the first and direct;  
line of division beginning .at the Cartilago ensisermis, must be  
continued to the Os pubis ;. the other transverse from the Navel  
on each side, to the region of the Loins ; aster which, the Skim  
Fat, and Membranes, of each portion heing raised from their  
respective angles, the Muscles which cover the *Abdomen* will  
appear in their proper situation. These may be comprehended  
herder the general title of Epigastrick, whereof some are anterior,  
seated in the fore part only; some lateral, others posterior, best'  
referred to the back and loins.

**OBLIQUUS DESCENDENS SEU DECLIVIS,**

This Muscle derives its name from the progress of its Fibres.  
It arises with several acute preductions, partly fleshy, and  
partiy tendinous, from the lower margin of the fifth, sixth, **se-**venth, and eighth. Ribs, where its several separate originations  
lie hetween the indentations of the Senatus major anticus.  
These for better distinction we choose to call its former origin ;  
besides which it continues, to derive more heads in like manner  
*from* the ninth, tenth, and eleventh, and sometimes from the  
extremity os the last Bastard rib, where it is also indented with,  
the Serratus inferior posticus, aS Vesalius has well observed-  
From its former origin, its oblique descending fleshy part expands’  
itfels into a broad membranous Tendon, before it Inarches  
over the Rectus to its insertion in the Linea alba and OS pubis.  
From its latter in the same manner descending, its ends partly  
tendinous in the Ligamentum pubis, but chiefly fleshy on the  
superior and fore-part of the circular edge of the OS ilium. It  
adheres not to the transverse Processes of the Vertebrae lumbares,  
as Spigelius, VeflingiuS, and with them most anatomists have  
imagined. Put its largest, last and most fleshy dictation, leaving  
the lowest Bastard rib at its extrearn point, and in its oblique de-  
scent declining forwards, still recedes gradually more and more  
from the Vertebrae, forming a triangular interstice, compre-  
hended by the Sacrolumbus, Os ilium, and its lower side; in  
which Area the Fibres os the subjacent Muscle plainly appear.

\* Besides the actions Vulgarly ascribed to this Muscle, and its  
partner, together with the rest of their fellows, *viz.* com-  
pressing the intestines and Bladder, either in excluding the  
Faeces and urine in herb sexes, or Foetus in women ; they have  
still a farther and more noble use. : ’

That part of either of them that is interjacent hetweentheir  
latter origin and spine os the Os ilium, bearing an analogy in its  
position to the Mastoideus os the head, serves, sor the circumro-  
ration of the trunk upon the axis of the Vertebrae, when **we**convert the body to the contrary side, the feet remaining un-  
moved, for which necessary motion authors'have assigned no  
instrument, though this, I think, did not escape Dr. Gliffon’s  
judicious reflection.

For the better dissection of these *abdominal* muscles, observe  
the following method. The body heing supported on its fide,  
the Dorsi latissimus os the contrary must be freed from its divers  
fleshy originations at the curvated parts of the Ribs, aS also the  
tendinous part of it,- which arises from the edge of the Qsilium. Tins done, the bloed heing dried, and rhe sat cleared,  
which caution, to prevent confusion, must perpetually be ob-  
served, the originations of the described Obliquus descendens  
will appear.

Begin its separation by introducing your fore-finger between  
it and the following Muscle in the aheve-noted Interstice, then  
raise that part of it which springs from the lowest Rih, and ter..  
mutates in the spine of the Os drum, proceeding to st.ee rim  
of its dictations from between the fotm above-named Serrati  
being cautious not to wound its Tendon, in dividing it stomsubjacent Muscle, especially aS it marches over the Rechis; her  
may they separation he attempted in every schJoft by reason of  
their strict adhesion; wherefore, in preparing those Musche,  
when they are to he demonstrated astej. yoil

ceed In the following order. 1 ' P

The Obliquus dtfeend-n, being oifed on eithsr Me fas te-  
iore) to οκ RaHus, cut ±rouu aad safe both Tendons to.c-  
ID

ther, fearing them at their insertions in the Linea albs, taking  
sufficient rmre in then separation from the intersections of the  
Rectus. This done, on the contrary fide raise its fleshy part  
only, beginning in the Linea semilunaris, by making an aperture  
in its Tendon towards its sower part, where it is separable from  
tint of the following Muscle, and thrusting a prohe between the  
two Tendons, divide this superior one through the length of the  
*Abdomen.*. Then the fleshy part on this side being also rinsed,  
and cleared to the extremities os its dictations, and lest there,  
raise the Oblique Ascendent ; arid on the same side you raised the  
former towards its origination,\* raise this *e contrario,* so pursuing  
it to the Linea albs, where it is to he left: On the contrary  
side, its fleshy portion must he raised to its origination. The  
rest of these Muscles appearing *in situ* require no dissection.

**OBLIQUUS ASCENDENS SEU ACCLIVIA ;**

. So called from the oblique ascent of its Fibres. The same error  
noted in the preceding description is here committed by vulgat ana-  
tomists, neither of these Muscles having any communication  
with the Lumbal Vertebrae. -It arises fleshy from the whole cir-  
cular edge *of* the Os ilium and Ligamentum pubis, without any  
thin Membrane springing either'from the Loins, or Os sacrum,  
as Vesalius would persuade us, or from the Apices of their trans-  
verse Processes, as others pretend; thence mounting with an  
order of Fibres inclining forwards, forms a broad membranous  
thin Tendon, implanted into the whole length of the Linea  
alba; and the Cartilages of the eighth, ninth, tenth, eleventh,  
and twelfth Ribs.

- Besides its known use-in compressing the *Abdomen* and its  
contents, that part of it which arises fleshy towards the back-  
part of the edge of the Os ilium, by the oblique ascent *os* its  
Fibres to the Cartilaginous endings of the Ribs, not only de-  
presses them, and (heightens the cavity of the Thorax in expira-  
tion, but, in regard the order of Fibres of this intersect those of  
the former Muscle on the same side, may antagonise it in the  
circumrotation of the Trunk of the Body on the Axis os the  
Vertebrae; as on its contrary side, its series of fleshy Fibres  
being parallel to those of the said Descendens, on the opposite  
side, may act in concurrence with it in discharge of its office,  
in the structure and reciprocal co-operation of these Muscles,  
the Ascending on the right, and the Descending of the left,  
turning the Body th the right; and *vice verso,* the Ascending in  
the left, and Descending in the right, in like manner turning  
it to the lest, the art of nature indeed is Very admirable.

**PYRAMIDALIS yEL SUcCENyURiATUs.**

This Muscle lying on the Rectus, presents itself next in  
order of Dissection; It has iss name from its figure, aptiy  
representing a pyramid,, from a broad basis ending in a point.  
It arises from the superior part os the Os pubis, and in its ascent  
lessens itself gradually till it becomes a long Tendon inserted  
.in the Navel. Riolan has observed the. left to be most com-  
monly the lesser; and if either be absent, it most usually is  
» that. Fallopius (who first discovered these Muscles) conjec-  
tures they compress\* the Bladder of urine; Fabritius ah Aqua-  
pendente imagines they support the *Abdomen,* and hinder the  
superior parts from pressing too Violently on the inferior; but  
. this opinion seems to take its rise from observing the anatomi-  
cal subject in a supine position. The use which we think most  
.genuine and naturalis this: When the Diapbragm has pressed  
the Viscera, whereby the *Abdomen* is become tumid, these pull  
the navel downwards, by which means they make a more  
adequate compression of the Bladder in the expulsion of urine,  
than any other Muscle of this part; though it must be con-  
. seised they all contribute their assistance in that action. They  
are called Succenturiati by their author, or Auxiliary muscles,  
from a supposition, that they are only supplemental to the fol-  
lowing in them action, the order of Fibres in both agreeing,  
and these bring always absent, when those are continued  
fleshy to the juncture os the Ofla pubis;

**RECTUsi :**

So called from the rectitude of iss position. Anatomists  
differ in assigning the origination of this Muscle, some deriving  
’ it from the Sternum, others from the. Os pnbis; .but it feerns  
a matter more of controversy than use, since either part is in-  
differently moved by it, the opposite remaining stable. Littie  
can be added to the common and well-known description of  
these Muscles, they bring continued according to the length os  
the Lower belly, from the Cartilago ensifonnis, and two os the  
Cartilages of the true, and two of the Bastard ribs, down to  
the Os pubis, and divided into sour or five portions hy three or .  
four intermediate Perigraphae, or transverse tendinous inter-  
sections. The veffeis which pass underneath its upper part are  
the Mammary Artery Descending,and itsVein Ascending. Those  
- of its lower part are the Epigastric Artery Ascending, and its  
Vein Descending. The inclofure of this Muscle in the double  
Tendon of the Ascendens we could never yet discern, rather su-  
specting that the adhesion of the AscendingTendon to that os the  
following Muscle in the Linea semilunaris might occasion the  
mistake.

**TRANSVERSALIS.**

So called because its Fibres run transirerstyover the *Abdonsm.*This Muscle does not arise, according to the Vulgar tradition,  
from any Ligament, whether springing from the Os sacrum, er  
covering , the Sacrolumbus; but, as Realises Columbus truly  
writes, from the transserse Processes of the Lumbal Vertebrae,  
Spine of the Os ilium. Ligamentum pubis, and Cartilaginous  
endings of'the Ribs helow the Sternum, from whence its fleshy  
part pastes over the convex sursace *of* the Peritonaeum, and be-  
comes a broad expanded Tendon before it runs under the Rectus  
to its implantation, in the whose longitude of the Linea alba.  
When this Muscle with its partner act, *they* press the *Abdomen*directly inwards, as in expiration. Caspar Bartholin observes  
in bulls and animals os the larger size,, that part os this Muscle  
is continuous with the Diaphragm at the Cartilaginous endings  
of the Ribs below the Sternum ; whence he supposes the Dia-  
phragm to be a Trigastrick Muscle. But whether this observa-  
tion will quadrate to a human body, whose posture is erect,  
and manner of respiration different from that of Quadrupeds,  
we leave undecided till farther enquiries afford us hetter informa-  
tion. The SperrnaticVeffeis pass through this and the Ascendant .  
Muscle near, the Inguina, in the rhid-way between the fore-part  
of the Spine of the Os ilium and Os pnbis, whence descending  
for some space between the fleshy part of the last named, and  
Tendon of the Obliquus descendens, they run through a Fissure  
os the said Tendon, near the last-named Bone. These perfora-  
tions not .exactly corresponding to each other, is an artifice in  
nature to prevent a Prolapsus of the intestines through them,  
not much unlike that oblique insertion of the Ureters and  
Ductus hilarius passing between the Membranes of the intestines  
and Bladder, whereby the retrocession os the Bile in one, and  
.the Urine in the other, is prevented. . ...

In the dissection of these Muscles care must he taken not  
to wound the Cremaster on either side.

Galen, in his *Treatise on the Dissection of the Muscles,*and that on the *Preservation .of Health,* remarks, that the  
action of the *Abdominal* Muscles is necessary to the action of  
expiration, aS they pull down the Thorax; and is Very usesus  
in efforts to speak loud: . . ..

In several places the same author .takes notice, that without  
the contraction of these Muscles, we could have nostoois, neither  
could we make water; for the actions of the Sphincter Muscles  
of the Anus, and Bladder, are overcome by the actions os **the***Abdominal* Muscles, and Diaphragm *(De administratlenilms ana:  
tomicis. De semitate tuenda si*

He sarther observes *(De Locis affectis)* that some people who  
find a difficulty in going to stool, or have a suppression of urine,  
relieve themselves, by pressing the *Abdomen* with their hand. .

He also telis ns, that the expulsion of the Foetus is **the**work of the *Abdominal* Muscles. *De Naturalibus Facultatibus.*

ABDUCERE, is used, by Scribonius Largus, for *Bibere,*to drink. χ. /; . . .. .

ABDUCTIO. A species os fracture; when a Bone near  
the joint is so divided transversely, that the extremities of **the**fractured Bone recede from each other. ...

These fractures are said by Galen to he made καυληδὸν, that  
is, in the manner the stalk of a plant is broken.

*Abductio, in Caelius Aurelianus,* signifies a Strain. It is men-  
tioned as one os the causes of Ischiadic and Psoadic pains. *Morbor.  
Chronicorum, l. v. c.* **I.** *Item vehemens Abductio vel rdptus in  
Exercitio suctus.*

' ABDUCTOR, is a name given by anatomists to the fol-  
lowing Muscles.

**ABDUCTOR AURsa.**

See *Retrahent Auriculam,* or *Triceps Anris.*

**ABDUCTOR MINIMI DIGITI MANUS, ‘**

*Hypothenar Rialani, or Abductor Auricularis,* arises fleshy  
from the thin protuberating part of the Eighth bone oftheWrist;

is inserted by a pretty long and round Tendon, on the in-  
.side of the short Tendon of the above described Muscle, near  
the upper part of the First bone of this Finger. \*

It serves not only to abduce the Little-finger from the rest,  
hut also to bend it a littie.

**ABDUCTOR INDIdiS**

**Arises** broad and fleshy from the superior part and outside of  
the First bone of the Thumb , .

Is inserted by a short Tendon into the upper part of the First .  
hone of the Fore-finger, laterally, next the Thumb.

Its use is to bring the Index towards the Thumb, by drawing  
**it** from the Middle-finger. .

**ABhUcToR MINIMI hlGI-TI PEDIS**

Arises fleshy and tendinous from the semicircular edge os **a**ί cavity on the outside of the interior Protuherance of the **Os**calcis; it has another tendinous beginning from the Os cu-  
. heides, and a third from the upper part of the OS metatarsi  
t minimi digrti ;

: is inserted into the upper part of the Finst hone of the Little-toe

externally laterally.

its rise is to draw the Littie-toe outwards from that next  
to in

**ABDUCTOR OCULx**

Arises tendinous and fleshy from the Foramen lacerum, with-  
out the Orbit ;

IS inserted by a thin Tendon into the Sclerosis, where it  
respects the great Canthus.

Its use is to move the Eye outwards, from the great to the  
little Angle.

**ABDUCTOR POLLICIS MANUS, *or* THENAR,**

..... Arises by a broad tendinous and fleshy beginning from the  
S UanVerse Tigameut of the Carpus, and from one of its Bones  
that articulates with the Thumb ;

Is inserted tendinous into the second Joint of the Pollex  
digitorum Inanus.

Its use is to draw the Thumb from the Fingers.

**ABDUCTOR POLLICIS PEDIs**

’ Arises fleshy from the inside of the lower Protuberance of the  
**Os** calcis laterally, and tendinous from a little Tubercle in the  
some Bone, near the Os cymbiforme. It only adheres to the  
other Bones On the inside of the Foot, silling up the hollowness  
in the Os metatarsi pollicis;

Is inserted into the internal Os fesamoideum of the First bone  
of the Great-toe, its Tendons being farther continued upon the  
same Bone laterally.

Its use is to pull the Great-toe from the rest.

**ABDUCTOR FEMORIS PRIMUS**

Arises by a strong roundish Tendon from the upper part of  
the OS pubis next the Pectinaeus above the Gracilis; which  
turning into a compact fleshy belly, it begins to be

Inserted tendinous about the middle of the Linea aspera, be-  
ing continued down upon the same five or six inches, sending  
but a Tendon which joins in with that *of* the fourth Head.

**ABDUCTOR FEMORIS SECUNDUS**

Arises from the Os pubis, immediately under the Gracilis,  
by a broad tendinous, but chiefly fleshy beginning; and

Is inserted into the Linea aspera, from a httie below the  
lesser Trochanter, to the first insertion of the last described  
Muscle.

**’ ABDUCTOR FEMORIS TERTIUS**

Arises lower down than the former, from the outer edge of  
the Os pubis and Ischium; and, running obliquely towards the  
Trochanter minor.

It inserted near the Glutaeus maximus.

**.. ABDUCTOR FEMORIS QUARTUS**

Arises froth the Protuberance of the Ischium, and the adjoin-  
ing interior part of that Bone, by a tendinous' and fleshy origi-  
nation; . . .

Is inserted by a round and long Tendon, into the upper and  
rough part of me inner and lower Appendix os the OS remoris,  
being affixed to that Bone a little above the Condyle; as also to  
some part of the Linea afpera.

The use of all these four Muscles is to adduce or move the  
Thigh-bone inwards, according to their different directions.  
*Douglases. ’ . ...*

ABEB2EO6. 'Αβῖβαος. Infirm, weak, inconstant. *Ca..  
siell.*

A B E LE. Ἄ species of Poplar. See **POPULIIs.**

ABELICEA. The name os a Very tall tree, growing  
principally in Crete, called also Santalus adulterins, and Pseudo-  
santalum.

. Honorius Bellus thinks this was not taken notice of by the  
antients, unless perhaps it may he the Ulmus montana of Theo-  
phrastus. *Basis Hast.*

ABELMOLU C H. A sort of Ricinas, or Palma Christi.  
Rry'r *Hist, so*

AB ELMO SC H. Blanoard informs us, that this is the  
feed of an ./Egyptian plant, which has the smell of musk;

-which, for its agreeable flavour the Arabians mix with their  
Coffee.

. The plant of which this is the feed, is the Alcea .Sgyptia  
Villosa of Casp. B. .ZEgyptia rnofchata of Parkinson, Belmuf-  
chus .Egyptia of J. Batt, and *Abrti-moscb* five Mosch Arabum  
pfVeflingius. *Rap.*

ABESAMUM. This is by Rulandus, and from him  
by Johnson explain*ed Lutum Sala.* But the High Dutch  
word, by. which Rulandus mandates it, signifies; no more than  
Dirt, or Clay.

ABESSL The same as Rebis. Theysignisy the matter that  
remains of the aliment after the Chyle is separated from it, that  
is. Excrement.

ABESUM. Unflacked, or Quick Lime. See LIME.

A Be VACUATI O signifies a partial or incomplete eva-

ctminn of the peccant humours, either by the °f nature,  
or assistance of art. - ....

ABICUM, the same as Coopertotium. A Coverurg-  
*CastelL* **See COOPERTIO.**

**ABIES. The Firr. . - \_ .**

There are three sorts of *Firrs* mentioned by Dale, as used m  
medicine.

The first is the silver *Firr,* of Which the topsand leaves are  
recommended in diet-drinks for the Scurvy 5 alid Miller tell5a goed quantity of them are said to he ussd in making Bruinwin  
mum. I am informed a decoction of the wood, *or* saw-dust, is  
much used by the people of the countties where it grows in  
plenty, in disorders of the urinary passages, and for the Fluor  
albus. .

The Strashurg turpentine is the preduct of this *Firr,* and is  
hidied its Liquid refin, to distinguish it from, the Dry resin,  
which has somewhat, the appearance of Frankincense. See  
**TURPENTINE,** ROsiN.

This *Firr* is distinguished. ... . - . .....

ABIES, *Offic. Gcr.* II8I- *Lmae.* I363- *ParLThMd.* 1539-  
*Raii Hast.Apyyp- Synop.su.* 44I. *Merc. Bet.* ii. I5. *Phys.  
Brio.* I. *Mer. Pin.* I., /he. *Mod. sr Monte Ind.* 35’ *Abdes corde  
fursum spectantibus five mas, Co B. Pine* 505. *Jons. Denar.* 329i  
*Buxb.* I. *Abies seemina five.* Έκάστη θηλεια. *st.. B.* i. 235. *Abies  
fcenana, Chab.* 68. *Ables Taxifoliis, RaiiHost.B.* I394. *Abies  
Taxi folio, fructu.sursum, spectante,. Tourn. last.* 585. *Elem.  
Bet.* 457. *Bocrh. Ind. A.u.* I 79. *Rupp. Flor. Jen.* 27Ο.

The second mentioned by Dale is, the Virginia, or Canada  
*Firr-tree,* which produces the Balsamum Canadense, or Balsam  
of Canada. . . ..... .

This is .called *Abies Canadensis.. Ind. Mod. Ϊ.*

ABIES *minor pectinatis foliis Virpiniana Coms parvis subrotfosc  
dis. Pluck. Phytog. Tab.* I2I. *Alauig. 2. s..*

The third is the Pitch-tree, or common *Firrs*

This produces a sort os Turpentine, of which is shade, :  
I. White Rosin. See ROSIN.

2. Tarr. See TARR\*

' 3. Common Pitch. See PITCH.

An Burgundy Pitch. See PITCH.

This *Firr* is called

*Picea, sos.su. Gcr.* II73. *Picea vulgaris. Park. Theat.* I538\*  
*Picea major, Jons. Dendr.* 325. *Picea mayor, Gcr. Emac.* I4.54-  
*Picea mayor prima, sive Aines rubra, C.P. Pin.* 493. *Picea Latir  
norum, Chab.* 68. *Picea Latinorum, sue Abies mas Theophrasti,  
Jo B.* i. 238. *Abies, Picea, Voice. Elen. Nor.* I. *Ind. Med.* r-  
*Abies rubra. Picea, Mont. Ind.* 35. *Abies mas Theophrasti, Raii*Hast, ii. I 396. *Synep.* in. 44I. *Abies tenuiorefolio, fructu deor-  
sum spectante, Tourn. Inst.* 585. *Elem. Pot.* 457. *Boerh. Ind.*A. ii. 179. *Dill. Cat. Cost.* 49. *Rupp. Flor. Jen. lyCt. Abies  
Cocis deorsum spectantibus, Buxbc i.*

There are a great number of *Firrs* besides these, which it  
will be sufficient just to mention, as being little concerned in  
medicine. -

ABIES *Taxi folio ; fructu lengijsimo, deorsum inflexo.* The  
Yew-leaVed *Firr-tree,* with long hanging Cones, conimonly  
called, the *Long Coned Corni/h Firr.*

ABIES *Piceae foliis brevibus-. Conis minimis. Rand.* The'  
pitch-leaved *Firr-tree* small Cones.

ABIES *Piceae foliis brevioribus; conis parvis biunesalibus  
laxis. Rand.* The shortest pitch-leaved *Firr-tree,* with loose  
Cones.

ABIES *Taxi foliis ; Odora Balsumi Gileadensis. Raii Hist.  
App.* The Balm of Gilead Firr, *vulgo.*

ABIES *Taxi folio', fructu rotundiori dbtufo.* The Yew-  
leaVed *Firr-tree,* with round Cones. By some called rhe-  
*Balm of Gilead Firr.*

ABIES *foliis praelenpis, pinum simulans. Raii Hast. Firr-tree*with long leaves, resembling those of the Pine-tree.

ABIES ORIENTALIS, *folio brevi et tetragono, fructu minimo,  
deorsum inflexo. Tourn. Cor.* Eastern *Firr-tree,* with short  
square leaves, and small fruit hanging downward.

**ABIES MAJOR SiNENsIs,** *pectinatis taxi foliis,subtus casiis.  
Conii grandioribus sursum rigentibus, foliorum et fquamarum api-  
culis spinosis. Pluck. Amalth.* Great *Firr-tree* of China, with  
Yew-leaves, large Cones growing upright, and the points οτ this  
leaves prickly.

Anisia **MAXIMA SINENSIS,** *pectinatis taxi foliis, apiculis nate  
fpinosts. Pluck. Almath.* Greatest China *Firr-tree* with Yew-  
leaves, not prickly at their points.

ABIGA HERBA. An herb called also *Chamapitys,* or  
*. Ground Pine.* It is probably called *Ahiga,* from aty0 to dbecause It is said to promote Delivery. Or, perhaps from the  
similitude of its leaves to the *Abies* or *Eirr. Blancard*

A BIT, or ABoIT. Ceruss. *Costed.*

**A** B LAC TATIO. Ablactation, or weanino. a chstj

An insant ought to he nourissied by milk fist ir hasacquhyd  
a firmness; aster winch you may seed it with of %re,d

m Muimm, Jwme mined wirh ndny) fweet Wine, ormilk;*and,* aster a ltttle while Wim a poached egg; for scnd which  
requires chewing, is silled t00 much W;± Sahva

Months. His drink must he diluted wine; When yon can  
safely Venture to give him food made of com, (which is com-  
monly about the twentieth month) by degrees, and in an art-  
fid way, disuse him to the Breast, If he salis into a distemper  
aster he is weaned, put him to the Breast again ; when the  
disease is gone, use your best care to nourish and put linn in  
good hears, and then set about weaning him aS before. *AEtius,  
Totrabib.* I. *Serm. An c.* 28.

Weaned insants must he diverted and recreated all manner of  
ways, and their aliment must he light, and of good juice. But  
the child, who has a good temperament of body, must not he  
suffered to drink much wine; for, in het and moist Bodies,  
wine filis the Head with Vapours. Nor is it my opinion that  
they should he utterly debarred from cold water; sor, in hot  
weather especially, and the interVais of eating, I allow them  
the drinking of it, provided it he very good; *Artius, Tetrab.* Il  
*Serm.* 4 *c.* 29.

As nature has taken care to provide ah aliment suitable to  
the tender stomachs of new-born insants, fo has it given us  
plain directions when to change it for a diet that is more solid  
and difficult of digestion.

It is well known to observers of nature, that exercise and  
motion are the grand promoters of digestion, insomuch that  
a labourer of a moderate strength and constitution, shall digest  
aliment of any kind without difficulty ; whereas sedentary  
people, though much more robust originally, shall in time  
scarcely be able to sustain a diet of the most innocent fond  
without the symptoms of indigestion. Digestion then seems to  
*he, cceteris paribus,* in proportion to motion.

Whilst therefore a child is incapable of sufficient exercise and  
motion to digest solid food, a thin fluid is provided for his  
sustenance, which is almost converted into nourishment, hefore  
it is taken into the Stomach of the insant. And for sear the  
mother should be so imprudent as to offer it improper aliment.  
Providence seems to heve secured the tender Stomach in some  
degree from the Inischiess of indigestion, by a singular artifice,  
that is, by denying the child the use of teeth for the first  
, months.

From these observations it will appear, that a child ought not  
to be weaned, till nature points out the proper time, by giving  
'It teeth, and making it - capable of motion sufficient to commi-  
nute, and afterwards to digest an aliment more solid, and  
more difficult to dissolve, than the milk of its mother.

But because an insant is furnished by degrees with the instru-  
ments of mashcation, and the power *of* using exercise, **the**transition from milk to solid food should not be sudden;

Agreeable to this are the dlrections given by authors for the  
nourishment of young children. They tell us the milk of the  
sparent should he the only food of children for the first two or  
three months, provided a sufficient quantity can he supplied  
without inconvenience ; - that afterwards pap, panada, -and  
bread boiled with milk, must prudently and gradually he intrtci  
duced into their diet, till their abilities sor mastication and Ino-  
tion render them capable of digesting more solid aliment; and  
"atlastflesm

Hence it appears how little those mothers consult the health  
\* of their children, who wantonly, and without any necessity,  
take them from the breast soon after they are hem, and substi-  
' tnte a diet not to be digested in their tender stomachs, **in the**\* room of that which nature has provided sor them, and accom-  
’ Inodated to their constitutions.

A Very few observations on the usual food of insants will set  
this in a clearer light;

The milk of a healthy woman in the flower of her age, is the  
most easily digestable of any aliment whatever, provided she  
uses moderate exercise, and a proper diet; and sor that reason  
is the greatest restorative in nature. Many instances occur in  
authors, of grown people, reduced by distempers to the utmost  
degree os weakness; who have been restored by sucking the  
' milk of women provided for that purposes

These salutary effects of milk are very easy to he accounted  
for, if we consider the Stomach as the laboratory of health, and  
milk as a fluid, either secreted from the mass of blood in the  
Glands os the Breast; or else communicated immediately to **the**Breast from the .receptacle of the Chyle, hy some Ducts not  
yet discovered. When this is taken warm as it comes from **the**Breast, it gives the Stomach very little trouble to digest it,  
haying lately pasted the digestive Organs of the woman. It is  
therefore easily convertible again into Chyle, from which it  
differs but Very little.

. But ! must not omit observing, that milk, like all animal  
fluids, loses most of its Virtues when it has been suffered to grow  
cold, and this irretrievably; for warming it again will not re-  
store them. But if milk is boiled, the qualities that ren-  
dered it an eligible food, are utterly destroyed, and from  
that moment it becomes an improper aliment for weak and  
tender Stomachs.

Bread boiled in water is a food for children frequently substi-  
hired for milk; but is not by sar *so* proper; for bread thus  
boiled will grow glutinous, and viscid, isnot well fermented.

but if wed fermented, it soon turns four. In both these cafes a  
considerable action of the Stomach is required to convert it into -  
Chyle; sor otherwise, Violent gripings, difficulty of breath-  
ing, inflammations of the Belly, convulsions, and death, must  
he the consequence.

It is not possible to lay down rules sor the weaning children,  
adapted to every case that may occur. Regard is to be had to  
the strength and health of the mother, as well as of the child .  
Upon the whole we are to pursue the meshed which nature,  
seems to point out, unless some circumstances interfere, which  
make it impracticable. Rules may he drawn from what has  
been represented above, which may, with a little Variation, he  
accommodated to particular cases.

ABLATIO. This signifies the taking away any thing  
from the Body that is useless or prejudicial to it ; and cornpre-  
hends all manner of evacuations.

It sometimes is used *to express* the subtraction of part of the  
usual diet, with amedicinal View.

It also signifies the interval betwixt two fits of a sever, or  
the time of remission;

Chymical *Ablation* is the removal os any thing that is either  
finished, or else no longer necessary in a process. *Rulandus,  
Johnson,* and *Castellus.*

ABLUENTIA MEDICAMENTA. Diluting medicines,  
or medicines made use os to dissolve and carry *off* the acrinlCH  
nious and stimulating salts in any part of the Body, especially  
the Stomach and intestines.

A B LH I R E N. Washing, or purifyingi *Rulandus.*

ABLUTIO. Ablution, or washing either the external  
parts of the Body by baths, or the internal, by thin diluting  
fluids, as whey, *etc.* ...ε

Chymical *Ablation is* the purification os a body by rel  
peated affusions of a proper liquor. The usual way of doing  
this is by Cohobation, or pouring the liquor distilled from the  
body upon it again, and repeating this, if necessary, several  
times. See CoHoBATIoNi

Or else by making the containing vessel a Circulatory; that  
is, either closing it at the top, or luting another Vestel inverted  
upon it; then when the Vessel is committed to a proper furnace, ,  
the liquor tyhich distils to the top, returns again upon the in-  
gedients to be purified, till the operation is finished. See

**IRCULATORY. . .**

Isaacus Hollandus in his *Treatise of Minerals,* or *The Philo-,  
soph apis Stone,* mentions an alchymnstical *Ablution* of a fetid  
earth, in order to the preduction of a stone endued with extra-  
ordinary qualities. But I do not know what he means, nor  
did I eVer meet with any body that could understand him. The  
reader may consult his work in the *Theatrum Chymicum,*pi 435.-Vol iii. i ., .

The Chymists also use *Ablution* in the Common sense of the  
word; which wants no explanation.

ABOIT. Coruss, or white lead. *Pistandus.*

ABOMASUM. The name of the Fourth stomach of a  
beast that ruminates, or chews the cud: The first is called  
Venter, the second Reticulum, and the third OmasuS:

ABOMINATIO. By some barbarous writers this is.  
used to signify the same as Fastidium ciliorum, os a loathing os  
food. .

ABORTUS, or ABORSUS. A Miscarriage.

Some authors tell us, that *Aborsus* signifies. a Miscarriage  
during the first months of pregnancy;. and *Abortus* one that  
happens near the full time of gestation. But there is no. foun-  
dation for such a distinction, both signifying exactly the same

Miscarriages happen at any time, and .from Various causes;  
but most frequently about the end of the third month, as was  
observed by Hippocrates. The first history of a Miscarriage  
Upon record is one of six days, as related by Hippocrates. The  
Grecian courtesans made no scruple of procuring *Abortion, he-*cause being with child interfered with then interest, as it sunk  
their Value, and spoiled their market; and it appears, that it was  
not esteemed dishonest sor a physician to direct the means; other-  
wise Hippocrates would not have told us in plain terms, that  
he advised the method that made the young woman, of whom  
the above-mentioned history is given, miscarry.

This anther informs us, that what was discharged from **the**Uterus six days after conception, had the appearance of an egg  
without a shell, except that it was round and red. He disco-  
vered some white thick Fibres on the inside the Membrane;  
inclosed in a thick red ichor; and on the ontside of the Mem-  
brane, something that had the appearance of thick, black blood,  
(αιμαλῦπης).

La Motte also observes, that a Very young Foetus involved in  
its Membranes, has the appearance of an egg without a shell.

Galen in his *Commentary on the third Peak of Epidemics,* says,  
a Miscarriage. is often caused by too violent dancing, by a  
fright, by poison, a purge, or forcing medicines; by excessive  
bleeding, whether from a wound or the Haemorrhoides. But  
there are many other causes of *Abortion, os* which I shall give  
particular examples.

: A continued andObstimte looseness in a woman with child,'  
endangers her fruit. If milk flows out of her Breasts, it is  
a sign of the weak condition of her child; hut plump and hard  
Breasts, are evidences of a sound and healthy Fcents,

in a woman with child, is her breasts grow soft and flabby  
on a sudden, there is danger of a Miscarriage. A woman who  
has neither lain in; nor is with child, but yet has milk in her  
Breasts, has a deficiency in her Menses. *Celsus, Sb.* ii.  
*cap.* 8.

The signs of a future Miscarriage are an evacuation first of an  
aqueous, and then a famous and bloody matter. But when the  
instant approaches, first comes away pure blood, then clots of  
blood, and aster them the Foetus either shaped or unshaped.  
Many complain of an heaviness in their Loins and Hips, of pains  
about the NaveL in their Head and Eyes, a gnawing at their  
Stomach, coldness os the Extreme parts, feinting, shivering aa  
under an Ague. Some sail into Convulsions, as in an Epilep-  
tic fit. But these symptoms, for the most part, happen only to  
such as have taken medicines to procure *Abortion.* As for those  
who use no violent means, the preceding signs of a Miscarriage,,  
according to Hippocrates, are an unaccountable falling away of  
the Breasts, with a coldness and weight in the Thighs, which  
reaches to the Loins. Healthy women, and such as have na-  
rurally a loose Belly, and moist Uterus, and have brought forth  
large insants with easy labour, are of ripe years, lean, and not  
abounding with Blood, bear Miscarriages better than others.  
*Actius Tetr.* iv. *Serm.* iv. *cap.* I9.

Is the insant is separated from the Uterus, and fallen down  
into the passage, and is there detained, anoint the Body, and  
especially the parts about the Uterus, all over with Oil of  
Cypress mixed with Turpentine; and let the parts he daily ern-  
brccated with the same alter delivery. Is this does not succeed,  
let the woman sit over a decoction os aromatics, and let her  
use Sternutatories, or a .fumigation os dry Resin, Bitumen,  
or Bee-glue, Cray-fish and Galbanum. These and such-like  
methods are to be tried, if an inflammation does not forbid it;  
hut in that cafe we must be contented with Insession, or causing  
the woman to sit over such things as have a relaxing and miti-  
gating Virtue. If the insant be detained, from the closing of  
the womb, without an inflammation, let a pessary os paper and  
dry sponge, first a flender, afterwards a thicker one, be used;  
and anoint the extreme parts with Opopanax, or root os Panax,  
-with Honej, and bruised Turpentine. If the Secundine does  
not follow the infant, we are not to extract it by violence;  
mor is the Navel-string to be cut, and the Secundine left behind;  
-for strangulation, and other mischiefs, would certainly be the  
consequence. But is the. extracting of the Secundine is long  
.about, let the Navel-string be cut, and tied to the woman's  
. Thigh, and let all endeavours be used to extract them. *Aetius*

*:Tetr.* iv. *Serm.* iv. *chap.* 19. *A/*

*Women of* a tolerable constitution os Body, who miscarry  
at the term of two or three months, without manifest cause,  
. have their Acetabala, or Cotyledons, says Hippocrates, loaded  
i with Mucus, which therefore are incapable of sustaining the

Foetus, and for that reason break off from the Womb.

They are to he cured by Pltlegmagogues, which evacuate  
from every part. For he that begins with evacuating the part  
affected, before he purges the whole Body, and by that means  
prevents the influx of the humours, is like a man who labours at  
- exhausting a well that is constantly supplied by never-sailing springs. .

When we have finished the evacuation of the body, we may  
. proceed to purge the Uterus of Phlegm. A Very good purging  
\_ lotion for Phlegm in the Womb is thus prepared: Cut a large

Colocynthis, or bitter Apple at the top, and throwing out  
the seeds, \* extract the pulp, and fill up the cavity with  
*Oleum Innum,* (Oil of Orris) stopping it with the piece be-  
fore cut off aS with a cork, and let it soak a day .and a night.  
Then, set it in hot embers to boil, and afterwards strain out the  
. oil; inject this oil warm into the Uterus. This medicine has  
. made many a barren woman fruitful, by powerfully evacuating  
the pituitous redundances which hindred conception. The diet  
. must be warming and drying, moderate exercise and suctions  
are to be used, and every thing that refrigerates is to he  
avoided.

As for those women who miscarry -through weakness os the  
. retentive faculty, the shin *of* a hedge-hog burnt, and drank in  
wine or water, by some natural property, proves beneficial in  
. their case; the like effect follows if the Labia pudendi he  
anointed with the same. The hedge-hog and shell-fish calcined  
. have the same Virtue, which belongs also to myrtle-berries in  
. wine, and Oleum lentiscinum, or Sufinum, is the parts are  
anointed therewith. A lotion alfo with the decoction of bramble,  
*. and* myrtle, and fuch-like is advised. *Aelius .Tetr.A Serm,* 40 21.

Thus *far* the ancient medicinal writers. The moderns have  
made *very* considerable improvements in regard to Midwifiy in  
general, and have excelled their predeceflors in the methods of  
treating women under the hazardous circumstances *of* a Miscar-  
. rings, as well as in the directions they have given to prevent one,  
as will appear by what follows.

Miscarriages in general are produced hy Causes immediately

affecting either the child, the Placenta, with tne Membranee,-and *Funds umbilicalis* (Navel-string) or the Mother.

With respect m the child, whatever is the occasion of he  
death, certainly causes *Abortion* either sooner or later.

A tenderness of the Membranes Involving the Fcetus, as it  
makes them liable to rupture upon Very trivial occasions, often  
causes a Miscarriage.

There are frequent instances os a scirrhesity of the Placenta,  
and shortness of the Umbilical cord, both which heve had .the  
same effect;. .

Tn regard to the mother, all distempers, either acute *or*chronical, all passions os the mind, too Violent exercise, lifting  
a weighs, a fuiness of blood, weakness from any cause what-  
ever, stimulating medicines, straining in order to speak loud,,  
and sometimes even a disagreeable smell, as of musk, amber-  
grease, civet, the match os a lamp, or shuff of a dandle, are  
capable of causing abortion.’ .,

But the most frequent causes of Miscarriages are either too  
great stricture, or too great, laxity of the Uterus, in the first  
case, the Uterus is not capable of a dilatation sufficient to  
make room for the Foetus, as it increases in bulk. This is  
known by a great tension and hardness of' the Belly, and  
Violent pain therein. In the. second, the /Uterus is too weak  
to support the inosculations of the Veffeis of the Placenta into  
itself, aster .the Foetus with the Membranes and Placenta are  
grown to a certain size and weight, and this of all other happens  
mostfrequentiy. . .. ...t r-

in both these eases the woman always miscarries at a stated  
time os her pregnancy, and seldom brings the Foeths to mam- '  
rity, till the general habit of- the Body, or the particular state  
of the Uterus, is altered. :

These two causes of *Abortion* are particularly pointed out by  
Hippocrates, who was also acquainted with most of the other  
causes specified above, from whom they. have, been transcribed  
by later authors. ... ;

I must not omit taking notice of the effects *os coffee,* which  
ue said to promote .the Menses, and all Haemorrhages, .and  
herefore must be improper in pregnancy. *Geoffroy:*

Aloes ought never to be given to women with child, because  
t inclines to Haemorrhages by raresying the bleod. *Geoffroy. .*

No medicine prepared, with, sulphur is proper during prege  
nancy, hecause it inclines to *Abortion. ...*

The signs of an approaching Miscarriage, as represented by  
authors, are, . ...

A sudden flaccidity of the Breasts.

A spontaneous discharge of a serous liquor from them.

An extenuation of the Belly, the upper part of it, and the  
sides sinking on a sudden.

A sensation of weight, and heaviness in theHips and Loins,,  
succeeded by pains.

An incapacity, or great reluctance, for motion. . .

A pain in the Head and Eyes.  
Grinding pains of the Stomach.

Coldness of the extremities. /I J

' Paintings, a fever, shiverings, and convulsions somewhat-  
like Epileptic fits. . .. - - - - ......... ss . I'

A languid and less-frequent motion of the Foetus than usual,  
when pregnancy is so sar advanced aS to admit of feeling.it.

The immediate forerunners of a miscarriage are; increased  
pains in the Loins and Hips, extending towards he Womb;  
a dilatation os the orifice of the Womb; formation of the Wa-  
ters ; a discharge of the same,-at first a littie sanious, afterwards  
more bloody, then of pure Blood, and lastly of grumous Blood.

A frequent inclination to make water is reckoned amongst the  
symptoms of an approaching Miscarriage. *La Mone.*

Daily experience confirms the opinions os all authors, that a  
Miscarriage is more dangerous than a birth at the full period.  
There seems to be in the fruit of animals something analogous  
to that of Plants. A walnut may serve for an example, which .  
drops spontaneoufly from its *involucrum* or hull, when arrived  
at maturity; but whilst immature, is not separated without  
Violence. . .. ‘

in like manner the -Veffeis of the Placenta inserted'into the  
body os the Womb are easily detached from it at the full period,  
hut before that time they adhere more firmly, and their co-  
hesion is not dissolved without difficulty.

The danger of a Miscarriage is from the Haemorrhage at-  
tending it; for the mouth of the Womb is more solid and  
more difficult to dilate than when the woman is at her full time,  
insomuch that the Foetus cannot so readily come away. Mean  
time, if any part of the Placenta is separated, the Veffeis of  
the Uterus will not cease to bleed so long as the Foetus-or  
Placenta remain in it, because these contents prevent the part  
from contracting itself, and- thereby diminishing the orifices of  
the bleeding Veffeis. -

.These Haemorrhages are often so violent, as to bring on  
saintings, to deprive the patient of the'use of reason for the  
time, and to cause convulsions, which last aro usually sand,,  
whether they happen during a Miscarriage, 0r scon after it,  
*Hippocrates.*

Slomrtirnes the internal siIIsace of the Uterus is so lacerated  
bv the separation of the Placenta, as to render impregnation  
sor the future impossible. ....

The Uterus is Very subject to inflammations oh these occa-  
sions, by reason of the force necessary to dilate its Orifice, and  
to separate the Placenta from it, and the great afflux of humours -  
*to* the part. These inflammations are generally final, if con-  
fiderable. See UTERUS, where the symptoms are described,  
and the method of cure related.

Miscarriages are often attended with great pain in the back-  
part of the Head. *Galen.*

A Miscarriage is more troublesome and dangerous in the first,  
than in any subsequent pregnancy, because the parts are not so '  
easily dilated the first time, as aster they have been accustomed  
to it. .

Women either extremely thin, or Very sat, are esteemed to  
he in more danger from a Miscarriage, than others. f

*A* Miscarriage in the sixth, seventh, or eighth month, is  
more dangerous and difficult, than those which happen more  
early in pregnancy. . . .

Women ofa lax habit in general, or whose Womb is much  
relaxed by particular accidents, often miscarry easily, and with-  
out any ill consequences, especially during the first months.

Sometimes, according to the doctrine of Hippocrates, a Mii-  
carriage which happens within the first sixty days after conception,  
does service, by regulating the Menstrual flux, which was before  
deficient; and this is confirmed by observation. Hence women  
who have been barren sor many years from a deficiency of the  
Menses, continue to breed after a Miscamage, or the expulsion  
of a False conception.

A Miscarriage from the Small-Pox, Fever, *or* any acute  
distemper, is esteemed fatal; yet many cases occur, which are  
exceptions to this rule.

When a woman is with child that has been accustomed to  
miscarry, and especially when any of the symptoms usually pre-  
ceding a Miscarriage appear, some precautions must he taken,  
in order, if possible, to prevent it; but if these prove inef-  
fectual, and the woman miscarries, methods may be directed,  
which, if pursued regularly till she is again with child, will  
he more likely to he attended with success, and enable the wo-  
man to bring her insant to a mature birth.

The precautions to be taken during pregnancy, must he  
adapted to the causes that threaten a Miscarriage. And it will  
he prudent to distinguish these causes with all imaginable accu-  
racy, and consider all the preceding and present circumstances  
that can give as any information, lest, by mistaking the cause,  
we should pursue a meshed that is superfluous, or, what is worse,  
dangerous.

A Miscarriage impending through the imbecillity of the Foetus,  
as to he distinguished by a deficiency in the 'signs of advancing  
pregnancy, a languid motion of the Foetus at the age it should  
move with Vigour, but particularly by the health of the mo-  
ther compared with these.

The only precaution which can be taken in this ease, is to  
cure , the mother of the particular distemper she labours under,  
i which it will he shore prudent to attempt by regulating her  
diet, exercise, and the other Non-naturals, than by quantities  
of medicines, at that time never agreeable, and not always  
' 'safe. -. . .

I once lived in a Country where a medicine was trended which  
had so much reputation for these imbeoillities of the mother and  
Foetus, that sew women went through their time without it ;  
and I had reason to believe it had been in some instances at-  
tended with success, insomuch that I thought it of importance  
.enough to he worth taking some pains to find out. It proved  
.to he the Mistura aurea of Fuller, without the least al-  
teration. '

\ Dr. Fuller says this medicine deserves the name of *Golden*more with respect to its Virtues than the ingredients. He affirms  
that it Very much invigorates both the mother and Foetus, and  
.that it is capable of procuring the mother an easy labour, and  
inf making the child healthy and strong, if a spoonful is taken  
. twice a day for the last month of pregnancy.

If the Foetus is already dead, nothing is to be attempted to  
prevent a Miscarriage; nor on the contrary is any thing to  
be done to forward it, because nature wist generally find out  
. a proper time for its exclusion. For this reason the dangerous  
operation recommended by Celsos ought seldom or never to  
be put in practice; I mean that of delivering a woman by  
force of a dead child. Nor can forcing medicines he proper,  
. because there are many instances of women who have gone to  
. their full time, and then bech delivered of a living child, after  
their pregnancy has been attended with most of the signs Inch.  
tinned by anthers of a dead Foetus.

There is no reason in general to fear the ill consequences tt  
the mother that may attend the putrefaction of the Foetus ir  
the Womb, because so long as the Membranes remain i urine,  
the Foetus will not easily putrefy: and as soon as they breaj  
the Waters are excluded, and the Foetus is commonly expelled  
very soon after. *Mauriceau. La Mile.*

The signs of a dead Foetus in the Uterus are, .

I. A cessation, or want of motion of the child, if dreg-  
lancy is far enough advanced to admit of its bang perceived.

2. A sensation of a weight in the lower part of the Belly,  
vhich salis to which ever side the woman lies on.

3. Pains in the Belly, especially about the Navel and Loins,  
Ind an uneasy sensation in the Stomach.

4. An unusual coldness of the Belly, and of the internal  
Orifice of the Woinb, perceivable by the much; as also of  
he Nose and Ears of the woman.

5. An offensive Breath

6. The Eyes seem hellow, sunk into the Orbit, and are  
ieprived of their usual lustre; the Eye-lids are swelled, and  
he sight is less acute than usual.

7. The Face swells, and becomes of a duiky pale colour.

8. Frequent shiverings, fainting sits and convulsions, like  
Epileptic fits. .

9. Want of deep, uneasy dreams, and grinding of the Teeth.

Io. Α Tenesmus, or Strangury.

ii. But the most certain sign is a discharge of foetid Sanies  
Tom the Uterus.

Those Miscarriages which are caused by the tenderness of the  
Membranes involving the Foetus cannot be foreseen, and con-  
fequentiy are not to he prevented by any precaution that can  
he taken. However a woman that has once miscarried from  
this cause, will do well to avoid all Violent and sudden motion,  
winch may give occasion to their rupture, in futiire pregnancies.

A Miscarriage from a scirrhosity of the Placenta, or shortness  
of the Umbilical cord, can neither be foreseen nor prevented.

A Miscarriage threatned by any distemper either acute or  
chronical, is to be prevented either by curing the distemper,  
if that is possible, or by moderating the symptoms. This ad-  
mits of so much Variety, that 'tis impossible to lay down rales  
accommodated to every particular case.

If a woman has’ been subject to Miscarriages, she must he -  
careful to avoid the usual causes of it; but especially the par-  
ticular accident that has formerly made her miscarry.

For this purpose she must regulate the passions of the mind,  
and her friends find domestieks must take care that she is not  
surprized by any thing that may give her either sodded pleasure  
or pain. She must avoid all exercise, unless that which is Very  
moderate, speaking lotid, lifting of weights, all strong perfumes,  
and disagreeable smells, and aheve all things the embraces of  
her husband, which, by the universal consent of authors,, are  
numhered amongst the niost frequent causes of *Abortion.*

AS an Haemorrhage from the Uterus always precedes a Mis.  
carriage, authors have in general regarded it aS the inirnediate  
cause thereof, and accordingly have calculated their remedies  
to prevent or stop it. Therefore bleeding is on all hands re-  
commended upon the Very first symptoms of a Miscarriage,  
provided no considerable evacuation of any sort, or weakness  
on the part of the mother render it improper; bur this is ab- -  
solutely necessary, whenever there is any reason to apprehend  
a Plethora, or fulness of Blood.

Rest is not of less importance; the woman must therefore  
he confined to her hed, upon the Very first approach of the  
symptoms of Miscarriage, and enjoined th rest’ there till they  
intirely disappear, or till a Miscarriage is unavoidable; mean  
time she must be kept Very cool. .

1 As pain is always a forerunner of a Miscarriage, gentie  
Opiates are greatiy recommended, mixed with Restringente,  
and seem admirably adapted to prevent an increase of the syni-  
ptorns, and the Consequences thereof, as they take off the sti-  
mulation, and consequently remove one great promoter of the  
Haemorrhage so much to be dreaded. .

The following form, and method of adrtiinistring it, is re\* .  
commended by Boerhaave.

Take Blood-stone powdered,

. Armenian bole.

Dragon’s blood, of each a drain.

Syrup of Myrtles, an ounce ; -

Solid Laudanum, three grains j

, Plantain water, six ounces. *c ... ,*

Let the patient take half an ounce of this mixture every  
quarter of an hour. \* See HAMoRRHAGE.

Astringent medicines and applications, and an astringent  
Regimen, as they prevent Haemorrhages in general from the  
Uterus, are particularly recommended sor that reason, as pre-  
servatives against *Abortion.*

For this reason all those medicines that are found effectual in  
moderating a praline Flux of the Menses, are also serviceable  
**in this case.** See **MENSES. ...**

For this purpose Tincture of Roses is frequently prescribed,  
and Sydenham directs the following Electuary t

Take Conserve of Dried Roses two ounces.

Troches of Lemnian Earth, a dram and half  
Pomegranate Peel and Red Coral, of each two scruples.  
Blood-stone, Dragon’s bleed, and Armenian Bole, each  
a scruple.

Syrup of Coral a sufficient quantity to inakean Eledinary.

Let the patient take the quantity of a large Nutmeg in the  
morning, and at five in the afternoon, drinking after it six  
spoonfuls of the following Julap.

Take or the simple water of Oak-buds, and Plantain, each  
three ounces.

**Os** Barley Cinamon-water, and Syrup of Red Roses, each  
an ounce. .

Spirit of Vitriol enough to make it agreeably acid.

Restringent Piasters are ordered to he applied to thy Region  
os the Loins by Sydenham, made of equal parts of Dtapalma,  
and theRupture-plaister. Others direct the same, with an addition  
of the Red-lead plaister, or Plasters of other restringent in-  
gredients, aS Dragon's blood, Armenian bole, Masttch, Galls,  
Bistort-root and Red Coral, made up with Cypress Turpen-  
tine into the consistence of a Plainer.

It would he endless to give forms of medicines, and Se“  
quently prejudiced, because they are capable of being rnisaper  
plied, unless particular regard is had to the causes os the disc  
order they are intended to remove, to which they must he  
adapted as circumstances shall direct. The reader will be inore  
instructed by the following cautions.

i. Let nothing restringent be either given internally, or ap-  
plied, when an approaching Miscarriage is so sar advanced as to  
make the preventing it improbable, or impossible ; for what-  
ever then retards it is pernicious. Restringents then are parncu-  
larry prejudicial, as they oppose the Relaxation os the internal  
Orifice ofthe Uterus, at this time *so* necessary to the expulsion  
of the Foetus and Secundines.

2. When there is reason to believe the Foetus is dead, let  
no ashingents of any kind be made use *os, because* whatever  
then prevents a Miscarriage does harm..

. 3. When a Tension and Stricture of the Uterus make it  
incapable ’ of a sufficient dilatation, and thereby endanger a  
Miscarriage, astringents are improper, as they increase the  
Tension, and consequently the danger.

I am sensible some authors are os opinion, that astringents are  
sometimes necessary, even in the cases last mentioned, to moderate  
a Violent Flux of Blood. But they cannot answer the end pro-  
posed, so long aS the Foetus, Placenta, or any part of it, or  
the Clotted blood keep the Uterus distended, and the Blood-  
Vessels thereof open; and when these are brought away, they  
.are generally superfluous, hecause the Haemorrhage usually  
ceases -without any farther assistance, unless a Laceration of the  
Uterus, or some extraordinary accident render the regimen and  
medicines necessary, which are specified under the article HAE-  
**MORRHAG1A. \_**

' The precautions that are taken against a Miscarriage during  
she time of pregnancy, are seldom so effectual as those which  
are taken in the interval betwixt a Miscarriage and the next  
impregnation. These Consist in restoring to the woman a per-  
fect state of health in general, particular regard being had to  
the disorders of the Uterus.

' If'from the syrnptoins os great Pain, Tension and Hardness  
about the Region *of* the Uterus, antecedent to a Miscarriage,  
there is reafon to suspect the Uterus is too tense to admit of  
"sufficient dilatation, the general Habit os Bedy must be relaxed  
by the methods directed under the article STRICTURA. Or  
the Fibres os the Uterus may be softened by emollient Fomenta-  
tions, Cataplasms, Injections, orPefiaries.

But at least nineteen out of twenty habitual Mrscarriages are  
'Caused by a general Laxity of the Habit, or particular Relaxation  
os the Uterus; this case seems os importance enough to deserve  
Time farther Consideration. :'

: BThchitual Miscarriages, I mean such as have happened more  
than once at a stated period os pregnancy, without any evident  
\*cause. .

’Tis remarkable that women of the lowest class are Very  
little subject to this sort os Miscarriage; theirs generally pro-  
ceeding from frights, falls, or acute distempers.

But with women in a higher sphere it is otherwise, many  
of them being scarce able to bring their Foetus to maturity  
without the utmost care and caution, though no accident in-  
tervenes sufficient to account for their Miscarriages.

*- If* we consider the usual causes os Relaxation, the reason of  
this difference will appear Very plain.

) I must anticipate here a littie of'what I have to say on the  
shhject of Relaxation aS a distemper, and observe, that the  
-great canses of Laxity' are, want of exercise, sitting up late at  
night, and fleeputg long in a morning, and heat. '

’ ’Women then’ mine lower cissies of life, prevent or remedy  
‘this’ Relaxation," by a great deal of exercise, by going soon to  
rest at night, and -rising early in a morning,, and by exposing  
YhemfelVes to cold, all winch are needsary ro their subsistence..

But women in' a higher inhere, who are not under these  
necessities, induce in Laxity, by using insufficient exercise, or  
none at all; by sitting up late, and- fleeping long in a morning,  
and by keeping themselves always warm.

Women of distinction have sor the last half century ac-  
customed themselves to a very pernicious habit, which much  
- Contributes to the Relaxation of their Fibres; I 'mean 'that os

drinking their honors warm. This, in some morbid cases, *tuuof*he .necessary aS a medicine; hut it is the utmost imprudence to  
make it habitual in a state of health.' For as heat always re-  
laxes, the part which first receives the warm liquor must in  
time he relaxed by it, and this Relaxation must be communi-  
oared m the rest of the body. Hence Indrgestton, Lowrtess of  
spirits. Hysterics and Obstructions of all kinds, the parents of  
Chronical distempers. -

I am sensible that all these effects have been charged upon  
Tea, by a Very obvious mistake. But warm water is capable  
of all these mischiefs, if drank in the same quantities, without  
any Tea infused in it.

The causes of this universal Laxity direct ns to the cure, which  
must he attempted as soon aS the woman is recovered of one  
Miscarriage, in order to prevent another the next time she shall:  
he with child.

The medicines and regimen most likely to answer this end,  
will he particularly specified under the article LAXITY.

But if it happens that the disorder is local, the rest of the  
habit being in a tolerable state of health, and the Uterus only  
relaxed; - ’ ’

In this ease the remedies must also in some measure he local..  
Thus Restringent plasters applied to the Region of the Loins  
are not to he neglected. As to Fomentations and Injections,  
.they must he used with caution, lest if they are a httie too  
restringent, they should interfere with the natural evacuation, so  
necessary to the health of the *sex.*

*A* Fluor albus frequently attends a Laxity of the W omb and  
parts adjacent, which must be cured by the methods directed  
under that article, whether it he the cause, or the effect of  
Relaxation.

But the light Chalybeate waters are of all remedies the most  
effectual preservatives against most forts of habitual Miscar-  
riages. These must he drank at the fountain-head by six o'clock  
in the morning, or soonerand in the quantity of three, or *ut.*most sour half-pints. Mean time the patient must use as much  
exercise aS her health and strength will admit of, and in aS  
respects conform to a strict regularity of life during their  
use, winch must he for two or three months during the  
summer.

I have often known the Pyrmont or Spaw-water substituted  
sor our own country Chalybeates, but must own I never **saw**any Very extraordinary effects from them in this ease; but whdur  
ther their inefficacy has been owing to their adulteration, or **to**the lofs of their virtues at this distance from the fountain-head^  
I cannot determine.

Chalybeate waters, drank under the above-mentioned regula-  
tions, - are admirably well adapted to prevent Miscarriages, both  
as they contribute to restore the Uterus to its natural elasticity,.  
and as they mend the whole Habit of Bedy, and have great Virtues  
in removing Obstructions, the grand sources os Indisposition. I

I could produce many instances of considerable cures *per..'*formed by these Waters, which have fell under my own obser-  
Vation; and can affirm of them, what few physicians can say  
os any other remedy, that I do not recollect any one patient  
‘that *eves* made use os them'wish regularity, without a manifest  
alteration for the hetter.

Zacntiss Lusitanus 'reedoriunends in the strongest terms ah  
Issue sor preventing Miscarriages, a thing not unlikely to suc-  
ceed, as it may contribute to keep both the mother and child  
in health; and consequently he a preservative against Mijo  
carriages from disorders to which either are Tnbject.

As the internal Orifice of the Womb is more solid, and diffi-  
cult to dilate in a Miscarriage, than a legitimate birth, the ati..  
elusion of the Foetus in this immature state must consequently  
be less easy, and attended with more danger. ’ In both cases  
a Violent Flooding is the circumstance the most to the'dreaded,  
and can neither be prevented, or cured by any method what-  
ever, so long as the Foetus, or any considerable portion of the  
Secundines remain in theWoinb.

in a mature birth the Placenta is eommonly detached iront  
the Uterus without much difficulty, and excluded by natural-  
pains soon aster the child, even though the midwife does not rake-  
care to bring it away the minute after the birth. but if it-ad-  
heres, aS it does sometimes, and is retained till the Floodingthe-  
gins m grow excessive,, a hand may he introduced, and the he-  
cundineS separated from theWoinb, and brought away without  
much Violence to the woman, the Orifice os he Uterus at thss  
time usually admitting of/a dilatation sofficient for this -ope-

But in a Miscarriage it is otherwisc, where a moderate Flux  
5s often continued for many days, before the internal Orifice  
will admit the exclusion of the small Farms - much less; will is  
suffer the-introduction of *2.* hand in order m separate the  
Placenta-from theWoinb, which in fuch' cales is very subject  
to adhere to in ’ 7 J

. When there is no longer any hopes of preventing a Miscar-  
the Foetus is retained, in case it does not he across  
the Orifice, Hippocrates advises to make the woman sneeze ;  
and during the effort th stop. her Nop., Moutfaj

whole force of the Convulsion may as much al is possible he di-  
**Tected** towards the Uterus. This I mention, hethuse I find **the**women in the country make use os the same artifice with  
success. - Ἀ -

But the general directions os the best authors, amongst winch  
is La Morte, are to commit the whole affer to nature, even  
though we are satisfied the Foetus is dead, and attempt nothing  
either by medicine or manual operations. Unless the Flooding  
should increase to such a degree, as to become formidable, *or  
Convulsions* should render a forceable delivery, with all its m-  
conveniencies and dangers, preferable to inevitable death.

This advice seems the more reasonable, as it is difficult to  
contrive any medicine to promote the expulsion of the Foetus  
and .Secundines, which do not at the same time *rarefy* the  
bleed, and increase the Haemorrhage, from whence the prinei-  
pal danger is to he apprehended ; and aS the manual operation  
is not less hazardous then painful.

' When the dangerous symptoms mentioned above render irn-  
mediate Delivery absolutely necessary, it must be performed  
without waiting for strong gains ; because they seldom or never  
return after the Flooding is grown so excessive, as to bring on  
Paintings and Convulsions. Nor must we stay for a large dilata-  
tion of the Orifice of the Womb, which without pains is not to  
he expected; and it is less necessary in this case, because  
amongst the great inconveniences of weakness and Hooding,  
they are attended with the advantage of mollifying and relaxing  
in some measure the Orifice, thereby rendering the operation  
somewhat less dangerous and painful.

The situation convenient for the operation is thus, according  
to Celsos.

Place the woman upon her Back across a bed, and let her  
Thighs \_ he bent forwards to her Belly, so that they may touch  
the Ilia, or Flanks.

- Mauriceau advises to place the woman in the same manner  
across a bed, with the Head and Breasts somewhat higher  
than the lower parts, for her ease, and more convenient  
'respiration. Then to bend the Knees so that the Heeis may  
approach **the** Seat, whilst the Thighs are kept sar asunder by  
two strong women, and a third lays hold of her under the arms  
**to** prevent her from Aiding forwards.

Mauriceau also directs the operator, for his own convenience,  
to place himself on a seat directly before the woman, in such a  
manner that his Elbows, as he sits, may he just as high as the  
Pudenda. 1 \ s - ,

Then the operator must anoint well his Hand with oilγ fresh  
butter, or unsalted lard, and introduce it into the Vagina aS  
sar as the internal Orifice, into which he must first get one  
Finger, Celsos says the Index or Fore-finger, and then an-  
**’ other;** with these he must dilate the Orifice sufficiently to ad-  
mit a third, and a fourth, till there is room for the whole  
Hand. *'j*

All this must he done by degrees, and with the utmost deli-  
cacy, avoiding, as much as the operation will permit, all man-  
ner of violence.

5 . The Pudenda must also he well anointed with the ointments  
recommended for the operator's Hand, inorder to sacilitate the  
.-operation; ' \ . .....

- When the Hand is in the Womb, is the Membranes ate yet  
intire, they must be broken ; and then the Feet os the Fcetas  
must be laid held of, by which it must immediately he brought  
away; - / ’ ' ' . ' '

'. The next thing to be taken cafe osis the Placenta, which,  
Isit sticks, must he separated from the Womb by the Fingers,  
and -extracted, scr that the least portion os it may not remain.

The Womb must .farther he cleared os all grumous and coagu-  
sated Blood, which will .cause the Flooding to continue,' if  
suffered to remain in it.

' her case the Foetus is excluded, and .the Placenta, of a portion  
of in, is retained, it is not always .necessary to introduce the  
whale Hand into the Womb. La Motte gives some instances  
where a single Finger has been sufficient to separate the small  
Placenta, and asterwards to bring it away, by bending aFinget,  
and making it a sort of .blunt hook... But these happened in the  
first, weeks of pregnancy, when the Placenta was Very small,  
.and the Womb very little distended by it.

It has been observed before, that the operation ought not to  
.he undertaken,' unless absolutely necessary on account os Violent  
Floodings; and the danger of forcing medicines has been re..  
inarked. I must add, that Cnrdials are attended with hazard,  
as ‘they increase the Flooding in proportion as they, raise the  
joints,'

When therefore the Placenta is retained, and the Flooding is  
not'so. violent aS to render the operation immediately necessary.  
Opiates are the most likely medicines to promote the separation  
and exclusion of it, by relaosing the pans concerned, and re-  
moving that stricture which always amioinpatries pain.

To.this.end a single grain of Opium, an ounce of Diacodium,  
of twenty drops of Liquid laudanum, are often given in a  
convenient vehicle, with great success.

I think Boerhaave was the first that, introduced this method  
into practice.

**The same** physician observing **the** inconvenience and danger  
of Forcing medicines, and Cordials in cases of large Uterine  
Haemorrhages, occasioned by the retention of the Placenta,  
substituted in their room broths, which he directed to he ralhen  
in the quantity of a very sew spoonfuls at a time, and to he  
repeated every sour or five minutes, just as warm as new  
milk. -

By this inearis the Stomach easily digests and converts into  
Chyle this small quantity os aliment, in its own nan rre easily  
digestible, and the patient is gradually supplied with Blood in  
the room of that winch she loses. Mean time she must he kept  
eoall

I have anticipated thus much os what will he explained more  
at large under the article Haemorrhage, because no instructions  
should he wanting that might be os use m a woman under the  
hazardous circumstance of a Miscarriage.

For this reason, and for the sake os those who shall make the  
disorders of women their peculiar study, I shall end this article  
with a considerable number os cases, which will instruct much  
more than any general rules that can he laid down, and will in  
some degree supply the place os practice.

These cases are principally extracted from some sew authors os  
onr own country, Mauriceau, and La Motte.

I must not omit remarking a singular excellente of the last  
mentioned author. He seems to have observed nature with  
great diligence, and *to* have given the history os her operations  
with great accuracy; insomuch that many os his cases seem,  
almost made with a View to confirm some important maxims os  
Hippocrates, whom, I dare shy, la Motte never read; other-  
wise he would not have sailed to mention him, with a: degree os  
ostentation peculiar to his countrymen.

**OESER.VATI0N L**

1 A Miscarriage from a Stone in the Kidneys.

**A** woman os quality was many years assiicted with tormenting  
pains in the Kidneys, especrally on the Left-side, where **she**was first seized ; and though she was no less than fourteen  
times with child, she constantly name hefore her time in the  
, eighth, or beginning of the ninth, month

When I dissected her, I sound the Left Kidney quite wasted,  
but the Right swelled to a prodigious bigness, in which,  
after I had cut through it, appeared a large Stone: *Bonetuh*

**OBSERVATION** IL .

A Miscarriage from Water at the Origin of the Nerves.

**A** certain lady had been many years subject to Convulsive dis-  
orders, like Hysterics, but whenever she was with .child,  
used to be taken with strong’Convulsions like Hysteric sits:  
At the end os the third month, at winch time she constantly  
miscarried, her. Menses appeased, which continuing **for**two or three days to .come away, accompanied with bits os  
torn Membranes, put her in expectation of miscarrying,  
which she always did soon aster. At last she died’ of an  
Apoplexy. τις

'Because I suspected the Womb to he principally affected, my  
curiosi:y led' me to inquire first of all there; hut I found  
that part perfectly sound, and in its right situation. There  
was nothing about the Womb,- or its Appendage, that could  
he.iooked upon aS the cause of this disorder; therefore we  
resolved to search for the principal and original cause of the  
distemper in the Head. Nor was our labour in Vain; for the  
Brain had as it were siffiered an inundation; all its Celis and  
Meanders were full of water, which had moreover insinuated  
itself near the Origin os Nerves that go to theViseera, in such  
plent)', as to -separate the Pia Mater from the Trunk of the  
Medulla oblongata the breadth of two Fingers. By means of  
these Nerves, the matter of the disease descending from the  
Head upon .the Mesenteric plexus was doubtless the cause of  
all these Spasmodic pains and disorders; and the *Abortion*that followed. - *Bonetus. \**

**REMARK. / .**

Hippocrates seems to have directed the author of this case  
to search for the cause of the Miscarriage in the Head,' though  
he does not name him; *'Ji* he had not Hippocrates in view,  
the case is an instance of the great knowledge,' and prodigious  
sagacity .of the last mentioned author, who telis us, in his first  
book of *The Difeas.es os. Women,* ." That if the Head os a wo-  
" man with child abounds with water (φἰ&γματώδηί i), the  
" acrid water descends with Violence from the Head to. **the**" 'Belly, and causes 'a 'flight Fever, and Convulsive motions,.  
" ῥααλμ.ὶ) which sometimes increasing become excessive.' If  
" such’a ease is attended with inappetency and weakness,  
" there in great danger os an immediate Miherrriaomi

**IORSERVATIoN IIL**

Instances of Miscarriages from too much exercise.

Feb. 25.' 1685, J attended a woman about three months  
gone with child, who miscarried while I was with her os **a**small Festus no bigger than a hee. The cause os this aeci-

.dent, aS it appeared, was a journey in a stage-coach, of a  
hr rod red leagues in five days, when she was about a month  
gone. The great agitation 2nd shaking of the Bedy in Et  
journey, it seems, destroyed intirely, or in pars, the principle  
*of* life in that littie Foetus, whe then cased to grow. A  
month afterwards the woman voided some small quantity of  
Blood from the Womb, though only for a day or two. But  
the same symptom appeared again at the end of another  
month, and ended in her miscarrying of that lithe Foetus,  
which ought to have been as inng as one’s Middle-finger  
towards the end of the third month, at which time Nature  
expelled it wrapped up in its Membranes with its Waters, in

. compass about the bigness of a small pullet's egg.

Now had this woman been blooded in the Arm before she under-  
took her Journey, as I would have advised her; had she con-  
salted me, she might have heed, preserved from this misfor-  
tune. For women with child are so much the moreto receive hurt, as their, Vessels are full of Bleed; because  
the great stirring of the Body heating the Bloods and ginsag  
it a brilker motion then ordinary's the Vessels of the Womb»  
which are too full os it, expand to an extraordinary degrees

. and even sometimes break; wherefore Big-bellied women  
who are forced to take long journies, can use no hettT  
remedy to preserve themselves, than Bleeding, which takes on  
the too great fuiness of the Vesteis. *Mauriceaus*

**OBSERVATION IV.**

April I. I 685, I attended a woman who had miscarried an  
hour before of a small child of sour months, which I judged»  
from its corruption, to have lain eight or nine My\* dead  
‘ in the Womb, hesore Nature of itself expelled it. The Bedy  
of this Foetus heing Very small and stulte shrivelled, had, *for*that reason. Very littie dilated the internal Orifice, so that  
I had no room, for the present, to bring away the Aster-  
birth, and therefore lest it to Nature, which did the busi-  
ness twelve hours aster. For I Judged it hetter. to do so,  
than to offer violence to the Womb by dilating it so much  
as was necessary for extracting this foreign mass. This  
misfortune was owing to the woman’s heing mo much  
shaken and agitated, by always using a Very uneasy coach.  
*Mauriceaus*

**... OBSERVATION V.**

April 22. I687, I delivered a woman of a small male insant  
alive, being four months grown, about eight inches inng,  
and proportionably big. -

This woman had hurt herself, as I fore-told, and sore-warned  
- her against it, by going to Versailles in a Very uneasy stage-  
coach; The great agitation and shocks she received in that  
journey, brought upon her, ten or twelve days before the  
Miscarriage, a small Flux of Blood, which continued till  
- the day she miscarried, without anything besides remark-  
- able. This child unfortunately perished by the imprudence  
: ofits mother, who, by neglecting the good advice I gave her,  
not to undertake that journey, in which she was thus injured,  
was herself, if I may so say, the murderer of her own child.

*- Mauriceaus*

**' . ' OESERyATIoN VI.**

April 19. I689, I delivered a woman of a male insant, five  
. months and a half grown, who was still alive, though.**the**. mother had laboured under a moderate Flux of Blood,which  
was almost continual, the space of two whole months, in-  
creasing at last to such a degree as to hazard an *Abortion. . in*

. this situation I advised the woman to keep her bed, or at least  
her chamher, that so she might, if possible, preserve her  
Great-belly to the end of her term. But instead ofhearkening

. to my good advice, she undertook a journey in a coach,  
' which was the direct way to destroy her insant, whe lived  
L but half an hour, though the mother was aS well, aster I  
had delivered her, as if she had lain in at the end of the  
natural term. *Mauriceau.*

**... OBSERVATIoN VII. . ...**

August I I. I689, I attended a woman who had just miscarried  
of a small Foetus, wrapped up in its Membranes and Waters,  
and supposed to he nine weeks grown, but no bigger than a  
i French-bean, by which it appeared, that it did not continue  
to grow during all that time, being no larger than the Foetus  
. of a month. But aS this httie Foetus was not at all corrupted,  
and the mother told me, that she hed been very severely  
shaken in a coach five weeks hesore, I was of opinion, that  
/ it had only preserved a languishing life, since this Violent  
τ agitation, and had not grown at all; or rather, that  
\*' it ceased so live from that' time, but was preserved from

**Corruption in its Waters, till Nature expelled in *Mauriceau,*OBSERVATION VIIL**

August I 7. I690, I delivered a woman of a False conception,  
which had excited a considerable Flooding, ut which I found

‘ a little Foetus no bigger than a grain of wheat.

This affords an undeniable proof that all these sorts of supposed  
False conceptions, are in reality nothing but Aster-births of  
*abortive* Foetuses of this nature.

The woman then reckoned herself about two months and a -  
half gone with child, and told me, that three weeks before  
she had been Very much shaken and jumbled in a stage-coach,  
which probably destroyed the principle of life in the Foetus  
from that time, and so was the cause of the *Abortion* that  
ensued. To which we may add, as another reason, the  
natural weakness of this Foetus, which ought to have been  
much larger, had it been Vigorous from the time of its con-  
ception. *Mauriceau.*

**OBSERVATION DC.**

November 7. I68I, I attended a woman whe had miscarried -  
os a dead child in the sixth month.

Twelve or fifteen days hesore this accidens, she had been too  
much shaken and jumbled on the road in travelling. This  
brought upon her pains in the Belly, which lasted all that  
time, till at the end her Waters flowed off in great abun-  
dance, without any real pain. As the insant presented an Arm,  
the Inidwife helieVing at first sight it was the Foos, took no  
cafe but drewit out as sar as the Shoulder, which put the child  
in a more unnatural posture than it was in before. In this  
situation of affairs, being ordered to\* attend the woman, **I**pushed hack the Ann into the Womb. But as all the Waters  
were intirely run off a day hesore, and the Orifice of **the**Womb was too strait- and too dry for me to introduce my  
Hand without Violence, in order to turn the child, I judged  
it more prudent to trust Nature with the expulsion of the  
child, than attempt it by a too forcible extraction, plainly  
foreseeing that, since it was Very small, it might easily come  
away in the same posture it was in, when the Womb should  
. he sufficiently dilated; because the woman had already been  
mother to a child that was full grown, and gone out her  
term. It happened as I foretold, twelve hours afterwards.  
Nature *of* its own accord expelling the child, by means of  
some pains, which were excited by a clyster I had prescribed,  
and which had sufficiently dilated the Orifice. But the mid-  
wife whe stayed to attend her, missing the.opportunity, let  
the Womb close itself, and could not bring away the After-  
birth, which remained six hours longer, after which Nature  
of itself expelled it, aS it had done the child; and the woman  
being thus happily delivered, did Very well afterwards. **Now**I do not know, but if I had tried to take away the child by  
force, aS I was desired when I first came, the violence I must  
have used in dilating the Orifice, so as to be able to introduce  
my Hand, might have heen Very prejudicial to the mother;  
whom I preserved by prudently committing the holiness

**' m** Nature, for reasons declared before. *Mauriceau.*

**OBSERVATION X.**

October T2. I689, I delivered a woman of a child of four  
months, which she carried a whole month dead in her  
Womb, that is, since she took a journey into the country,  
which had Very much fatigued her. The httie Foetus was all  
shrivelled, yet without any cadaverous corruption, being  
. preserved ail that while in its-own Waters, -which ran off  
the day before the mother miscarried. :

Nothing extraordinary attended this *Abortion,* but the mother  
was as well afterwards aS if she had gone out her time with  
a living child; for which she was not a littie obliged to my  
good counsel, in advising her by no means to attempt bring-  
ing away the dead child by purgatives, aS some physicians  
had proposed to her, hesore Nature itself'endeavoured ns  
expel it. For these forts of remedies do nothing but irritate  
to no purpose, if they are given hesore she has began her  
operation; which is -Very observable in thofe pangs which  
. women seel, when Nature strives to disengage Itself from  
a dead child, which differ in nothing from those that happen  
when she sets herseif . at work to bring a living child into the  
world. *Mauriceau.*

**OBSERVATION XL .**

July I9. I687, I delivered a woman of a small child of **stye**. months, who was then alive. The mother had hurt herfeif

by the satigue and shaking of a journey of j5o leagues -  
performed in haste, when she was two rnonthS and Thais  
gone. This brought upon her, at timt a distil]ationof reddish ferosities from the Womb, with now and  
some Blood, for the space of fifteen dayS, after which stjewas a httie better, and even felt her. chnd move buta month before this accident. But this did not hinderher from miscarrying, as I plainly foretold four fcp

. fince she neglected to keep herself in of rest

and composure, which was necessary m preserve this frutt  
of- her Womb.

wi fa by this example, that nine days reft, which Bi.-bdlved  
women, who far they are hurt by feme confidesiblehe  
tfflon of body, ufed to keep, is not alwuys fuffitieS.

store this woman Could not secure herself front miscarrying  
by a rest of two whole months- *Mauriceau.*

**OBSERVATION** XII-

Madam the cnttntess of came rnso this country in

May, I7O3, having gone at this time three months with  
child. She sent for me, and when I came, I found her in  
’ bed, and perfectly wed, except shat she was fatigued wisp  
her long journey. She told me that Mr. des Forges at Paris  
had ordered her to lie in bed nine days, after her Journey,  
'' and desired I would come to bleed her at the end of three  
weeks, aster which she was to keep her bed nine days longer  
’ hy the advice of the same gentleman.

I returned to bleed her at the time she appointed, and 2fferthin she punctually pursued the directions of Mr. des Forges.

1 visited her every week for two months, during which time she  
i took all imaginable care os herself. But on Tuesday night I  
' left her after supper perfectly well, and the Thursday follow-  
ing a servant came in great haste to let me know bin indy  
had felt some Colic pains ever fince midnight. Before I  
.. could set out, another servant came to let me know his  
lady was Very ill, and deshed I would make all imaginable  
haste. When I came to her, I sound her with all the signs of

. an approaching Miscarriage. The , Waters were formed,  
and the Membranes ready to break, which they did a few  
moments aster, and the child, bring in a good position, came  
away, together with the Aster-intth.

It was a. boy, which lived an hour. The mother recovered  
in eight days, and six weeks after returned to Paris.  
*La Matte. \_*

**REMARK.**

By this case we may learn, that the utmost precautions  
sometimes are insufficient to prevent a Miscarriage.

**OBSERVATIoN** XIIL

NoVernher I7. 1703, the wise of ah officer of justice sent for  
. me about three o’clock in the morning. She told ine she  
had heen at a wedding, \_ that was celebrated with great de-  
monstrations of joy; where she had been over-perihaded to  
.dance; that since- that time she had been heavy, and  
oppressed, and felt such a weariness that she could scarcely  
. move; that she had perpetual inclinations sor a stool, with-  
out being able to do any thing; and that she apprehended  
some ill consequence from these accidents, because she was  
at this time three months gone with child, and had fince  
.. midnight perceived pains not unlike those she had formerly  
. felt when in labour. . . - . *s ;*

She then submitted to a proper examination, and I sound matters  
.' so well disposed, that when I withdrew my Hand, I at the  
same time brought away a Very small Foetus, together with  
its Membranes, and the Aster-birth.

She soon recovered;without the least accident.. *LaMotte. :*

- Instances of Miscarriages from Straim, Bruises, and Hurts.  
**OBSERVATION** XIV.

January I2. 1693, I attended a young woman, who,’ after  
.. having gone with her first Big-helly near five months, had just  
. then miscarried os a small infant all corrupted, which in all  
. probability she had carried above six weeks dead; for it had  
only the proportions of a child of three months ;\*.and as the  
woman told me that about that very time of her pregnancv she  
had been extremely afflicted with a most violent Vomiting for  
.\_ some days, I hm os opinion that the Strainings in that Vomit-  
ing did much more contribute towards injuring the mother,  
- and causing her child m perish, than a pretty long journey  
. which she took hefore, whence she returned in good health,  
arid so continued for fifteen days, till she was seized with  
that Violent Vomiting; winch also ought the more to he  
esteemed the true cause of this *Abortion,* because the woman  
had been sickly ever since that time, till the day that Nature  
os herself expelled the corrupt Foetus, after which she re-  
covered her perfect health. *Mauriceau.*

**OySERVATIoN** XV.

The Ioth of November, I67O, I attended a woman six months  
gone, who, for eight days past, had a moderare jqux Of Blond,  
in which were some clots, occasioned by the shocks of a  
i violent cough, which had enlarged the Orifice of the  
. Uterus to a Finger’s breadth; for this reason I mH her (he  
. would certainly miscarry in a little time,' although she felt  
; no pain at present, because I was assured, from tne openina  
. of the Orifice, and discharge of Blood, that it was impossible  
. -. sor the agitation of so violent a Cough not to accomplish the  
: mischief it had begun. The event answered, for the next  
day the woman miscarried of a child, which heed but a  
. .day and a half. *Mauriceau.*

**OBSERVATION** XVL

February 12. I6qo, I attended a woman who had just before

miscarried os a small Foetus, no bigger than a little hee,  
though she reckoned herself near three weeks gone with  
child. For the last sour or five days she had bean affiicteff  
with a small Flux of Bloed, which might brewing to a stum-  
‘ ble she told me she had made some days besore, in con-  
junction with a fit of anger. But since the Foetus was no  
bigger than one of fifteen days, it is probable, that having  
thrived *so* littie fince Conception, the mother would have  
miscarried if the stumble had not happened, because os the  
weakness of the Foetus, whofe principle os life might possibly  
he destroyed by some other cause, unknown to the mother.  
*Mauriceaus*

**OBSERVATION** XVIL

March I 3. I687, I delivered a young woman os eighteen,  
at the term os eight .months, of her first child, which was  
a girl, and alive. The mother's travel being accompanied  
with a considerable Flux of Blood, made us dread the conse-  
quence, and the more because it proceeded from a Violent  
stumble she had made some days before, which had some-  
what loosened the Aster-birth. This obliged me to cut the  
Membranes, as soon as Γ could convenientiy get at them,  
lest coming to be strained by the mother's Pangs, they should  
yet further loosen the Aster-birth, in which, when I had ex-  
tracted it, after the child came away, I found hardened clots  
of Blood bigger than my Fist, and sucking Very tenaciously  
on that side where the After-birth had begun to be separated  
from the Womb, when it was, loosened by the shock re-  
ceived from the stumble. ,  
The child was proportioned in bigness to those of its age; that

is, a third less than a child os nine months, and a third bigger  
than one of sevens But though it was hern exactly at the  
end of eight months, and its birth too early by a full month,

\* it lived and did well. This example confirms me in the  
opinion that children of eight months are always much  
stronger, and. incomparably more lively, than children of  
seven months, who, by reason of their smaliness and feeble-  
ness, die almost every one in a few hours, or at most a sew

- days after their untimely birth. *Mauriceaus*

**REMARK.**

Mauriceau makes this last observation, to confute an opinion  
which had Prevailed from the most early ages, that a child at  
the term os seven months is more likely to live, than one hern  
in the eighth. ......

This, though dontraryto all manner os reason and experience,  
was probably founded on the Pythagorean doctrine os *Numbers,*according to which the numberseven was endued with great Vir-  
tues. . .

**'OBSERVATION** XVIIL

January 4. I7I2, the wife of a farmer, about a quarter of a  
league from this city, gone about three or four months  
\ with child, seeling considerable pains in her Belly and Loins,  
which bore downward upon the Uterus, sent for me. As  
these pains much resembled those of Labour, and as I found  
*\* she had* imprudently lifted a large quantity of com, and  
carried it on her Back, I did not doubt but she waS on the  
point of miscarrying; but upon touching her, I found no-  
thing that could confirm rhe in this -sentiment:. -

I therefore directed a clyster to he given, which was attended  
. with *so* good success, that her pains ceased for several days.  
Now as a. vulgar prejudice has prevailed amongst-the women,  
that the danger os a Miscarriage is over,' when nine days  
are past from the time of the accident that threatened it, and  
- as this period was over without any worse symptom super-  
- Vening than what had appeared- every one os the preceding  
days, those about her, who knew I apprehended a Miscarriage,  
- began to exalt, as helieving there was no longer any rea-  
son to fear it. But as the pains continued, my suspicions  
did not cease; I therefore enjoined her strictly an uninter-  
. nipted rest, so long as she should he in this condition, and  
. engaged to see her every day.

On the twentieth day in the morning, I was not much surprised  
to see a messenger who was dispatched to tell me his mistress’s  
disorder was increased, and that she desired me not to he  
- out of the way. Instead of waiting for another ineflnoe, I  
made what haste I could to her, and found she had miscarried  
. of a Foetus about five inches long, and thick in proportion,  
which the midwife received, who had constantly attended  
her by my orders.; I ashed this midwife what was become  
. of the little After-birth; she told me there was none, and  
that such small children never had anv. Without disputing  
the point with her, I put the woman in a proper, posture,  
introduced two. Fingers into the Uterus, separated the little  
Asterthirth, brought it away betwixt, the two Fingers, and  
shewed it the midwife, at which fne was very much fur-  
prised. The woman was quite .recovered in five or six  
days. *LaMotte.*

**OBSERVATION XIX.**

Psornary *ilio iCyg,* I attended a woman who had just thify  
carried of a child fix months grown, fifteen hays aster she  
had injured herself hy lifting up her arms too higsq in onicrto pull a nail out of some hangings.

**As** soon as she had strained herself, though in this flight m2114.00, she was taken with a final! Flux of Blood, which held  
her the two first days, after which, during the rest of the  
time, she only Voided a bloody Serosity, like the washings  
of Flesh, ’ with which she fouled two napkins every day.  
But notwithstanding this accident, she had a favourable  
lying-in with this child, who was yet alive- The reason why  
Big-hellyed women are hurt by straining to list up then arms,  
is, because the great Muscles which enable them to stoop,  
heing Very much stretched by that action of the arms, violently  
Compress the sides of the Belly and Womb» whereby the  
After-birth is in some measure loosened, and a Flux of Blood  
ensues, which is the cause of *Abortion.* Some women are so  
tender, that they cannot strain the leasts when they  
with child, without hurting themselves, and afterwards mis-  
carrying, as the woman did of whom I speak. Others, on  
the contrary, are of so robust a constitution, that I de-  
livered one, who, when she was seven months gone, fest  
three stories. For the house where she lodged being on  
fire, she fastened the sheets to the window, and swung  
**off** by them; but being frightened to find herself suspended  
in the ain, she let go her hold, and though she was. very big  
with child, and fell upon great stones, where she broke one  
**os** the Bones of her *lenos,* diflocated her Wrist, and bruised  
all her Bedy, she was cured, went out her time, and w2^  
well delivered of a lusty child.

This story, for its singularity, might pass for sabulous, were  
it not confirmed hy a great number of eye-witnefles..' *Mau\*  
ricem.*

**OBSERVATION** XX.

July 25. I696, a young woman, the wife of a sadles, in **the**twenty-second week of her pregnancy, diverting herself in  
the shop with the apprentice, endeavoured , to give him **a**kick with her Foot; but the hey heing out of her reach,  
her Leg suffered a Violent extension by the force with which  
she directed the blow. Hence she immediately felt such a  
violent pain in her Loins, her Groin, and all over the Belly  
on that side, that if there had not accidentally been a chain  
- to receive her, she must have fell down in the middle of  
the shop. ’ From the extreme weakness she immediately per-  
- ceived, there was reason to apprehend the utmost danger,  
' both in regard to the mother and child. The Violent and  
continual motions of the latter, which were perceivable to  
**us** that were about her, witnessed the great agitation it was  
in, and made me apprehend an approaching Haemorrhage,  
or ConVulsionS, which could he remedied no other way then  
by an immediate Delivery. All the directions I gave her  
‘ were, to he in bed, which it was the more easy to comply  
with, aS it was the only posture she could bear.

For six weeks the only inconvenience she laboured under from  
this accident was, excessive weakness; mean time I en-  
deavoured to support her with broths of Various kinds, and  
jellies of flesh, and twice *I* took away some Blood, for  
which she was neither stronger nor weaker. I also gave her  
some gentie cordials, which in .appearance neither did her  
good nor harm, for which reason I discontinued them, and  
persisted in the use of good aliment, giving her occasionally  
i a toast in wine.

In this situation matters continued till the seventh month, when  
she was seized with Labour-pains, and sent for me. I found  
the Waters formed, and felt the child through them present-  
ing the Buttocks. I then placed her in a proper posture  
across a bed, broke the Membranes, pushed back the  
child till I could lay hold of the Feet, and brought it away  
in an instant. I then delivered her of the After-birth, and  
took all the care of her during her lying-in that I could.  
Every thing relating to Childbed proceeded Very regularly,  
. but in a manner somewhat different from what she had been  
ῆ used to in former lyings-in.

in three weeks she got up, something stronger, but yet Very  
weak, in comparison of what she used to he before this ac-  
cident. But a Cough and Fever immediately succeeding,  
precipitated her into a Consumption, of which she soon  
after died. *La Matte.*

**OBSERVATION** XXL

November I5. 1692, I delivered a woman who had miscarried  
: of a child of three months and a half, with so great a  
Flooding, that she sainted several times; and as this Foetus  
had heed dead ten or twelve days, which appeared by its  
withered state, and had made an opening of the Internal  
orifice only in proportion to the smallness and tenderness of  
its Bedy, I had no opportunity of bringing away the After-  
birth till five hours afterwards..

This woman had sell several fits of an Ague some time before

her Miscarriage, and had also strained herself the day before  
in pulling down a curtain-red; winch she Imagined was the  
true rauso of this misfortune ; but as. the tnsant was quite  
withered, and appeared to have been dead a much longer  
time, we may conclude, that this last cause had only con-  
curred to the more speedy expulsion of the Foetus, which  
the first, that-is, the Ague, had already deprived of life, ten  
or twelve days before.

AS soon as I had taken away the Aster-birth the Flooding stopped,  
and the woman recovered her health, which I could not  
have warranted, had I gone ruddy to work immediately af-  
. ter Nature had expelled the Foetus, whose bigness did not  
equal a third of the After-birth, of which I delivered her  
when the Womb had been sufficientiy dilated to admit *of* it  
without Violence; the Flooding rtfelf also, by moistening and  
relaxing the part, contributing by accident to make the work  
more easy, in bringing off that foreign mass, which, by  
remaining there, was the cause ofi it. *Mauriceaus*

**OBSERVATION** XXIL

July 4. 1692, I attended a woman who had just then parted  
with 'the remainder of a fleshy Membrane, which was lest  
behind in the Womb, being separated from another and  
larger part, which had been expelled two days before with  
a moderate Flooding, supposing herself to he then about tert  
weeks gone with child/

In this first part of the Membrane, which resembled what is  
usually called a False conception, there was a small corrupted  
Foetus, of the bigness of a common bee, which had received  
no nourishment for above a month, at which time the mother  
injured herself by overstraining.

This is a further .confirmation that all these pretended False  
conceptions are no other than Aster-births of small *abortive*Foetuses, in which the Womb, by contracting itself alter  
the Waters contained in their Membranes are discharged,  
changes the natural figure which they had hefore, and gives  
them that of its own cavity, which is round and oblong. '  
*Mauriceaus*

**OBSERVATION** XXIIL

June I6. 169I, I attended a woman, who, the day before,  
had heen delivered, by herself, of a Foetus five months  
grown, which came dead, though the mother had felt it  
move but the day hefore. The cause of this misfortune was,  
that the woman, when she was but two months gone, was  
hurt by a friend of hers, a man, who not knowing her to  
be with child, had taken her in his arms,, and squeezed her  
pretty closely, in order to get her out to dance sor diversion.  
At that moment, it seems, she felt a great pain in her Belly;  
and the next day,- all on a sudden. Voided a good deal of  
water by the Womb, but nothing else at that time. But **a**month after, she had a Flooding, which lasted almost six  
weeks, with some cessation at intervals; and one day in par-  
ticular, she Voided several hard clots of Blood, which a  
physician, who was a near relation of hers, and a brother-  
surgeon, unadvisedly took to be real pieces of membranous  
Flesh; whence they entertained a notion that she was not.  
with child, though I had assured them of the contrary, by  
setting them plainly see, that these supposed bits of Flesh,  
which they had taken for parts of some foreign mass; of the  
nature of a Mole, or False conception, were nothing but  
pure dots of Blood. But they would not helieve me, in  
strongly were they prepossessed with their error, til] thewoman was brought to bed of this *abortive* FoetuS, some  
days after our conference, according to my predictions.

We learn, by this example, that we have no reason to wonder  
that nurses and midwives are often deceived in taking these  
clots for False conceptions, since physicians and surgeons aresometimes mistaken about them. But I was really much  
surprised to see a surgeon, who hath fo- a l0ng stim. madea particular profession of the art ofmidwifry, so grofly ndp.  
taken as not to know when a woman is with child, and foe  
take pure clots of Blued, which the V0itjed some be-  
fore she miscarried, for foreign masses, of which he theuwhe  
the Womb was now entirely delivered, not dreaming that,  
a child and its inure Aster-birth remained. *Mauricrsif ' et*

**OBSERVATION** XXIV.

On the 2Ist of April, 1676, I attended a woman who had  
mtfcamed three hours hefore of a dead chstj Op four months;  
Ibree weeks before this she had received fomc in aCrowd at church, from which time (he a]W felt tpams m her Belly, and about the ninth day afej. thisdem, began to void a little Blond. Fmrn timenever felt her tnsant move, het hed che ndsfortune t0 Iofe itwithout the Afher-binh, which remained behind, the midwife  
not bang able m bang ir away, heC2afe ^.omb dofedImmediately upon the expulsion of the ch^his Having my.,

Wtaher. ?ere b; y:; ™ ιώοἱ ofi  
^««(covered that the OHSceof  
the womb was only open enough to recave οηο Finger, I

judged It the safest way at present to .trust Nature, and post-  
pone the doing her any violence by endeavouring to extract  
this After-btrth by so narrow an Orifice, the remedy in this  
case appearing to me worse than the *disease.* So I deferred it  
to the next day, when finding the Womb much more dilated,  
I happily delivered her of her Burden, and though she had at  
that time a Fever upon her, she did Very wed afterwards.  
*Mauriceau.*

**OBSERVATION** XXV.

July I9. 1693, a labourer's wise of the parish os Gourbeville  
had such a violent sail from her horse, that she remained a  
considerable time insensible. At this time she had been with  
child six months. I was immediately called, and found her  
come a littie to herself; but upon examination could not  
find her Head had received any injury, nor could I discover  
any signs of approaching Labour, except that the child moved  
in an extraordinary manner, which was no wonder, con-  
sidering the concussion she had received from the sail.

I ordered her to he laid on a sort of Utter, and carried home;  
and then directed that she should take some good nourish-  
ment, and keep her bed for seven or eight days. From  
this time she never felt the child move, but it seemed like a  
weight winch fell spontaneously to the fide she lay on, which  
incommoded her much, but especially when she stood up;  
when pressing on the Bladder; it caused frequent inclinations  
io make water, in this situation she remained till her full  
reckoning was compleated, her sail having neither advanced  
nor retarded the Birth. At this time I was called to deliver  
her, bur the child was bom long before I arrived, but was so  
weak that it died a few hours aster, and the mother did very  
well. *LaMotte. .*

**REMARK\***

From this case we may learn that the exclusion of the Tents  
should never he precipitated, unless some dangerous accident  
renders it neceflary sor the preservation of the mother. Because  
all the symptoms usually attending the gestation of a dead Foetus  
may occur, and yet the child may he hem alive at the full  
period.

**OBSERVATION** XXVL

On the 7th os December, I688, a carriers wife at the end of  
the fifth month of her pregnancy, aS she was loading one of  
. her horses with panniers, let one of them rest on her Belly.  
For the two next days and nights she perceived her child to  
move much more than usual; and after that never felt it stir;  
but it seemed as a dead weight, which fell to winch eVer side  
’ she lay on, and by its pressure downwards, gave her frequent  
inclinations to make water. Upon this she lost her appe-  
. tite, her Skin became of a lead-colour, and she complained  
of Lassitude all over, which circumstances obliged her to  
consult me. I immediately perceived that all these accidents  
were caused by the death of the child, which had been killed  
by the wound received from the pressure of the pannier.

ί advised rest, which indeed was superfluous, because her ex-  
treme weakness would not permit her to shr.

Seventeen days after, upon perceiving Labour-pains, she sent  
again for me. I found her in excessive pain, and almost  
spent, so that I was obliged to support her with some wine  
and cordials; aster this I delivered her of the child, which  
came with the Feet first. The Aster-birth readily followed,  
which was Very black, but not foetid. This patient at last  
recovered, but with more pain and trouble than she had  
in all her former lyings-ins *LaMottes*

**REMARK. .**

\*. Two things occur in this case worthy ofmotide. The first  
is, that the child, aster receiving the injury, moved in an extra-  
ordinary manner before it died; and this. La Motte in many o-  
ther places tells us, generally happens before the death os a child.

. The second is, that though the author was satisfied os the  
child’s death, he did not endeavour to promote its expulsion  
hy Forcing medicines, or to extract it by Force. An example  
worthy of imitation in almost all cases that can occur.

**OBSERVATION** XXVIL

A. D. 1678, February 4, I delivered a woman of a dead  
child, fourteen weeks aster Conception, winch presented an  
Arm with the Navel-string. This woman had then five  
children living, and had been easily delivered of them all.  
But she told me that four years beforeshewas laid bya surgeon,  
whom she named, who used her Very roughly, and that she  
cry rid never go her full term with any child since that time,  
but had miscarried just as she did of this last, and that she  
had like to have died in one of those Miscarriages in which,  
the same surgeon left the After-birth in the Womb, os which  
she was not delivered till four days after, and then not with-  
out dangerous accidents. As the cause of these frequent  
*Abortions* seemed to me to proceed from the woman's con-  
. cciving before her Womb, which had been weakened by  
the former rough treatment, was perfectly re-established,-!

advised her to part beds with her hushand, at least sor five  
or six months, that by this long rest, which was neceflary  
sor a part so much enfeebled by frequent Miscatriages, she  
ruight the better go out her snll time, whenever for the  
future she should breed. She took my advice, which was  
the means Of preserving several children she has had since,  
with whom she lay in aS happily as she did winh those she  
had before these Miscarriages. *Maurireaetf,*

**REMARK.**

Mauriceau seems to have judged very well in thin cafc.  
The Chalybeate waters would have greatly assisted this woman  
in sortisying the parts, and re-establishing her health.

**OBSERVATION** XXVIIL

November 24. 1687, I attended a woman, who had just be-  
fore miscarried, at the end of two months and a halsp of asmall Foetus no bigger then a bee, which Nature had expelled  
with a considerable quantity os Blood, which had been pre.  
ceded by a dishlistion of reddish Serofity for several days;.  
When I was called to deliver her of the Aster-binh, I found  
the Womb was intirely shut, and that there was no way to  
bring it off but by Violent means, winch might her more  
prejudicial to the mother, than the relief L could pro-  
mise her from the extraction would have been beneficial.  
For this reason I thought proper to trust Nature with the  
business, which was not accomplished till the twelfth day  
after, and the foreign mass lay all that while in the Womb,  
and then was expelled half suppurated, after which the wo. .  
man did well.

The principal cause of this *Abortion,* aS I supposed, was a  
great costiVeness in the. time of pregnancy, which in this  
woman was fo extraordinary, that she was sometimes fifteen  
whole days without going to stool; so that the great efforts  
she made to ease herself of excrements excessively baked  
and hardened by so long a stay, did at the same time very  
forcibly compress the Womb, which might very well he  
supposed to shake and loosen, and at last expel the newly-  
conceived Foetus, aS was the cafe with this woman, who  
had miscarried several times before. *Mauriceau.*

**OBSERVATION** XXIX.

July 22. 169I, I delivered a young woman of an Aster-birth,,  
who had just before miscarried of a child of four months  
and a half; this the midwife received, but could not bring  
. away the After-birth, which had its String broken;

Twelve days hesore this accident the woman happened to fell  
upon her Knees, and instead of retiring and composing her-  
self to reft, took coach the same day. The next she was  
taken with a great pain in her BeUy, for which I advised her  
to bleed in the Ann, and *to* keep her bed. This done,  
the pain went off intirely; but some days aster, a Looseness  
came upon her, which lasted three days: This new disorder "  
brought on the pain afresh, which at last ended in a Mis.  
carriage as above. The child presented the Foot, with the  
Navel-string, by the beating of which I knew it was alive, .  
as soon as the Membranes of its Waters were broken; but  
as it was this woman’s First child, and the Womb very littie  
dilated, I advised the midwife to wait till the Womb became  
more open, in order to avoid Violent means, which might  
he hurtful to the mother, and could do no service to the  
child, whese tender body might have been dismembered, if  
any attempt was made to extract' ithesore the Orifice of the  
Womb was sufficiently dilated. She was delivered the next  
day, with the success above related. *Mauriceaus*

**OBSERVATION** XXX.

July 12. I68I, I delivered a young woman of twenty of a  
small dead insant, four months and a half grown, the mother  
having hurt herself the day before by falling on her Knees;  
hut the child appearing to me very corrupt, as well as the  
Aster-birth, and the woman telling me that she had not felt  
it move for some time past, and that her Urine had been ex-  
traordinary thick, I helieved that the External cause, her  
fall, had only accelerated what the internal cause would  
certainly have excited in a little time.

This woman, who was of a sanguine constitution, being with  
child a second time, was, Very apprehensive of felling into-  
the same misfortune as hesore. But taking my advice,  
which was to bleed at the second month of her time, she  
was preserved from it, as she has been whenever she has  
since been with child, having six living children, of whom  
I happily delivered her at the usual time. *Mauriceau.*

**OBSERVATION** XXXI.

October 3. 1681, I delivered a Woman *os* a child six months  
grown, which she had carried dead almost a month after a  
hard sail upon her Knees, not having felt the child all that  
time. She was in pretty good health for all this, only she  
selt now and then some risings of her Belly, as is common  
- with women, whese Children are deads These risings pro-'

heed from an chullition of the Waters of the child» 2nd stT  
other humours contained in the Womb, when he^s\*^  
putrefied by the residence of the dead infant. Notwithstand  
ing this accident the woman had a favourable time Eh th15dead child, and enjoyed her health afterwards. *Muuricena-*

**OBSERVATION** XXXIL

The i2th of August, I678, I delivered a wot^n of a child  
five months grown, winch came with it5 Feet foremost\*  
This woman was so subject to fall and hurt herself, *fkial*' this was the fifth child she had miscarried of successively from  
a like cause. When I was ordered to 2ttend hfe» 1 foundthe Waters formed, which appeared of the btgness of si  
hen’s eoo, and the internal Onfice os the Womb open in  
proportion to the bigness of those Waters. But as that  
- Orifice was only wide enough to recesse a Finger, and made  
a strong strangulation in that places l thonght ‘I. the feinst  
way to defer laying the woman for a little while, whtch I  
did for four hours, in order th avoid the’Vinlence l innst hevC. done to the Womb in its present condition.

During this delay, the. Orifice being sufficiently dilated by s°me- moderate pains, which were excited by a clyster I had ordered  
for that purpose, gave me an opportunity of taking away  
- the child with ease, which could not have heen done before,  
without Very great difficulty, and perhaps hurt to the mother,  
who did well afterwards. It will he useshl here to ch-  
serve, that Big.bellyed women being more subject to fall  
than others, - not only from the weight they Carry in them,  
. . and the weakness of their Legs, but because the prominence  
of their Belly hinders them from seeing where they put their

: Feet when they walk, they who are apt to hurt themselves  
: by such salis, ought to lie in bed, or at least keep their  
.. chamhers, as I advised this woman to do, in order to guards  
- as much as possible, against so melancholy an accident, which  
... had happened to her five times one aster another, for want  
of this precaution. *Mauriceau.*

**OBSERVATION** XXXIIL

March 30.1693,1 attended a Woman, who, aster a Hooding,  
which held her two days, had just miscarried os a sinall  
Foetus no bigger .than a barley-com, and still inclosed in its  
Membranes and Waters.

The mother thought herself two months gone with child when  
tins mischance happened, and fancied, as her hushand told  
- me, that the cause of it was the .too great attention she  
had given some days before to a frightful story of. a lady  
' who had her thigh cut off. But the minuteness os this Foetus  
was a plain evidence that the true cause os *Abortion* was ra-  
ther a Violent fall she had six weeks before, which destroying  
at that instant the principle of life in the litde Foetus, it  
remained of the same bigness which it had then attained, and  
‘ was preserved inure 'and incorrupt in its Membranes and  
. Waters, the whole being of the shape and fixe of a pulletis  
egg without the shell, till discharged as above. As this  
.Miscarriage was attended with no other accident than a  
' moderate Flooding, the woman soon recovered her health.

*Mawicem. ἐν*

**OBSERVATION** XXXIV.

March I5. I688, I delivered a young woman, at the end of  
.. six months and a half, it being her first pregnancy, of a  
female infant, porportioned in fuse to the time os its growth.

1 This misfortune was ’ chiefly owing to a sail which the mo-  
' ther received three days before, and was not a littie furthered  
by the shortness os the insant’s Navel-string, which was no  
longer than a quarter of an ell, Paris measure, and no more  
than a third os the ordinary and due length. For this reason  
' the Aster-birth had been greatiy shocked by the fell, where  
it must unavoidably he pulled by the child, on account of  
the shortness of the Navel-string.

This infant lived but a sew hours, but the mother did Very  
. well, and I have smce delivered, her of two other children,  
which came at the full term, thrived Very well, and had  
their Navel-strings of a due length. *Mauriceau.*

**. OBSERVATION** XXXV.

A young lady os this city, when she had been with child about  
three months, made a party of pleasure with some os her  
acquaintance. The herses they rode on happened m he  
Very uneasy, and she, by some accident, leaped from hers,  
and lighted on her Feet, but without perceiving any incon-  
venience from it for the present. But at night some reddish  
Serosities began to be discharged from the Uterus; Labour  
**pains** immediately followed, and the Foetus came away.  
The lady was unwilling to acquaint any body with this  
accident, except her chamber-maid ; but as the After-birth  
remained, there was a necessity of consulting somebody.  
This obliged her to commit the secret to her surgeon, who  
- came to me, and took me with him, without, telling me

for what, being willing I should have the recital of **what**had happened from the lady herself. . '

**The -** Foetus was extremely small, with a sinall piece of the  
Umbilical cord hanging to it. . .

**I** plac'd her in a proper situation, and finding the remainder of  
the Cord, I follow'd it to the internal Orifice of the Womb,  
which I sound so much contracted, that it was not with-  
out difficulty that I introduced one Fingers with which I  
separated the Placenta from the Womb. After this I pulled  
gently the Umbilical cord, winch was os more sendee to me  
than I could reasonably expect from the size ofit. By means  
of this, and with the assistance of my Finger, which I em-  
ployed as occasion required, to dilate the Orifice a little, I  
extracted the Placenta. But the purgation flopped, and **a**Fever ensued.

Notwithstanding this, she would not puffer the secret to he di-  
Vnlged to any body, so I was obliged to treat the case under  
the name os a Fever from a suppression os the Menses. She  
lost some Blood both from the Arm and Foot; and I gave

. her a Ptisan, made with the Roots of Qinch Grass *(Chien*dent) the roots of wild Succory, Scorzonera, and a little Cin-

- namon. She had repeated clysters, made os a decoction of  
Mallows, Marshmallows, Mugwort, Chamomile, and Me--.  
lilot, with an addition of Honey, of Fumitory, and Violets.  
At night she took emulsions made of Sweet Almonds, sweet-  
en'd with Syrup of Maiderimais, and with this a sew drops  
of strong Cinnamon-water.

All these medicines, though administred with great regularity,  
were of no service, for she died the fourteenth day aster the  
Miscarriage. Some days before her death she became blind.  
*La Motta. ' .*

Instances of Miscarriages from Frighfi.

**OBSERVATIoN** XXXVL

March Io. T687, I delivered a woman *of* a Foetus of four  
months and a half, whose Waters were all run off two days  
before, without pain to the mother; and though it came  
away dead, it appeared to\* have been aliVe the day before by  
the beating of its NaVel-string. But as the Womb was not  
at that time fufficientiy dilated to attempt the Delivery,  
without offering too much Violence th the mother; and  
' theinsant, who was otherwise Very weak, would haVecer-  
tainly perished in the operation, I was obliged to defer it, till  
the proper Pangs coming on upon the mother might dilate the  
Orifice to a degree sufficient sor the extraction.

The Miscarriage of this woman had no other manifest cause than  
a great flight which she had fifteen days before, when bring'  
in a coach, the herses started and ran away with it.

This example clearly shews, that great agitations of mind, and  
especially sudden Fear, make aS effectual impressions on Big-  
bellied women, when surprised with it, aS Violent commo-  
tions of the body,.and are equally causes of such sort of *Abor-  
tions.* Notwithstanding this accident the woman did very west  
after I had delivered her. *Mauriceau.*

**... : 1 OBSERVATION** XXXVIL

From a Fright and Falis.

Sept. 3O. 1684, I delivered a woman, who had a Miscarriage,  
at the term of two months and one week; and after I had  
. examined the Afterbirth, I found in the middle of its Mern-  
branes a small Fcetus no bigger than a bee, not having thriv-  
ed for five or fix weeks past, because its principle of life had  
been destroyed by a violent agitation of mind and body, which  
the mother had undergone at the time when she oould he ηοmore than eighteen or twenty days, at most, gone. ΚΟΓ notbelieving Tie was then with child, becaufe the time of her  
purgation was not past, she took nO ore, het diverted herself  
with mounting and running after an ais sor twO days urge-  
ther, in which she received two unlucky sallsS hesince tins,  
she had been under a great sfight, havjng lOst herself  
woed, where she was in great dread of robbers; so that the  
principle of life in this Foetus being destroyed at that time,  
it never exceeded the dimensions it had then attained, but re-  
mained in that state a month 0Γ five weeks, and then the mo..  
ther began to void Blood during ten days at the rate of six or  
seven drops a day oaly. . ° . J

But at the herd of this term, she was seized all on a sudden with,  
so excessive a Flux of Blood, as to run a risk of her life.. In-  
had not at the same time delivered her of the After-birth Os -  
this littie Foetus, which seemed t0 he ofche .mj m22ut-  
tude oTthose foreign masses, which are commOnly oastim  
conceptions, but are in reality, nothing bur the Mter-births of  
those sorts of little *Abortives,* to whiCh the womb by con-  
Uacting and closing, after the W^ conndn^ inMembranes, are discharged, gives the figure os he cavim,

I he woman afterwards recover’d her health hy Jitstg *ssqu*but continued from time m time, for near twO mo;x ;;  
part with some small quantity Of Blood, or ndchmed Serosite,  
. «cept that one tune tim ceased for ten f,veralctE

tunes stopt for two or three days, complaining ,

pamshketheseos the Colic; Mwintisyerye^dut^

fifty two days after I had delivered her of this Miscarriage, **she**Voided a small Membranous and Fleshy substance, of a glo-  
bous figure, and no larger than a middling French-heats, and  
not at all corrupted, seeming to he newly separated stom the  
Womb. The expulsion of this littie foreign mass was pre-  
**ceded by** a moderate evacuation of Blood, for **three** or four  
days, with Pains of the Belly and Loins. The disposition of  
.this littie strange mass might tempt one to believe, that it  
was rather a littie new False conception, engendered since  
the first Miscarriage, during the ten days in which the WO" .  
**man** had no evacuation from the Womb, than a remnant os  
**a** root of that Aster-birth, of which I had delivered her two  
and fifty days before, and which sticking aheut one of theCornua of the Womb, was there, having always some  
communication with it, preserved incorrupt i this latter,  
however, we must believe, if it he true, as she assur'd me,  
that she had no communication -with her husband, winch  
might beget a suspicion, that this small fragment os a Mem-  
brane might proceed from a new Conception. *Mauriceau.*

A great Fright from Thunder.

**OBSERVATION XXXVnL**

August 9. I69I, I attended a woman, who had miscarried but  
two days before of a Foetus os three months, which had been  
dead seven or eight days, after a sudden fright of the mother,  
occasioned by a great clap of thunder, which made her swoon  
away. The next day a Flooding came upon her, winch at  
last brought on an *Abortion.*

**The** Violent agitation and disorder of the Mind alone had the  
same effect on this woman, as a too great agitation of Bedy  
osten has on others. *Mauriceau.*

Frighted at Thunder.

**OBSERVATION** XXXIX.

August II. I693, I attended a woman, who had just then  
miscarried os a small Foetus, quite withered, and of the  
. Iength of the. Middle-finger. She was then near three  
months gone with child, but had received, nine days before,  
a sudden and terrible fright from a great clap of thunder,  
which the sooner disposed her to miscarry, for that she had,  
some days before, salt Pains in her Belly, towards the Re-,  
gain of the Womb; besides, she was a littie woman, and  
of a Very tender constitution, though sanguine enough, and  
: had miscarried twice hefore of False conceptions, at some  
interval of time from each other. This obliged me to order  
- Bleeding in the Arm at the beginning of the second month  
of her pregnancy, that I might preserve, if possible, this  
. third Conception from turning to a False one, as it happened  
in the two preceding.

For it is to he observed that oftentimes the too great abundance  
of Blond drowns and suffocates the principle of life in the  
Conception, at the Very beginning, and converts it into what  
is Vulgarly called a False conception.

This Bleeding had produced the good effect I hoped from is,  
- and would have contributed Very much to the preservation of  
;. the child, with which the woman was really big, if the accident  
*-. of* the great clap of thunder had not caused its death, by the  
/ fright. It might however be doubted, whether the great fright  
. alone caused the Miscarriage, or whether this misfortune was  
owing to the Pains she had felt hefore,. near the Region of the  
Womb, which proceeding from the redundancy of Blood in  
- the Veffeis of that part, might he signs and forerunners of  
that misfortune. But it is certain that both these causes  
might have acted in conjunction towards producing the event.  
The woman, after she had thus got rid of, the dead Foetus,  
. and its After-birth, by the sole benefit of Nature, enjoyed  
. her health. *Mauriceau.*

Instances of Miscarriages from Grief.  
**OBSERVATION** XL.

November II. I685, I attended a woman of twenty-six,  
- . who three hours before had miscarried, at the end of fin  
’ months of her first pregnancy, of a child, which she had  
- carried dead in her Womb fiVe or six weeks ; sor so loner she  
*C* had not felt it stir. '

This woman had been very unhealthy for seven or eight years,  
- aster which being married, and proving with child, she had  
- been very much disordered till the end os four months and a  
-. .half, having all that time her Legs very much swelled. And  
- as the child of which she miscarried at the end of six months  
:. had . been dead six weeks, as I said hefore, it had only the  
proportions of a child of four months-and a half, which  
was the reason that Nature of herself expelled it with easo.

As she had a great deal Of Vexation and trouble of mind, I sup-  
pose that, besides her sickly constitution os Bedy, thefe  
might also contribute het a littie m the death of- the child,  
- which however was preserved so long a time without any  
great decay, because its Waters, which preserved it from  
'.‘-putrefaction, ran off but two days before the mother mif-  
.Carted of it.

The woman, notwithstanding this accident, did very well aster"  
wards, and from a sickly creature, as she was for seven on  
eight years before marriage, grew sound and lnstys and in  
a littie time grew big with another male insans, of whom I  
happily delivered the mother at her full term, as I did of  
several more afterwards.

Hence we may suppose that marriage was of more efficacy in re-  
storing and establishing this woman's health, than all the reme-  
dies she had eVer used. The natural cause of this salutary event  
may he assigned to her lying-in; for by that the passages that  
serve to carry off the Menstrual superfluities, which were  
straitened and obstructed when she was a maid, were enlarged  
and opened ; whence that evacuation was much better per-  
formed after childbed than before. The same thing happens to  
many other women, who enjoy a much better state of  
health after marriage than before. *Mauriceau.*

**OBSERVATION** XII.

March 2I. I687, I delivered a young woman of twenty of a  
dead Foetus, at the term of four months, it bring the first

. time os her going with child, winch I drew away intirely  
inclosed in its After-birth and Membranes.

This misfortune was owing to the great trouble she received  
.. eight days before aheut a theft committed by one of her  
- domestics. Besides the hurry and disorder of spirits on that  
account, she had greatiy fatigued herself by hastily running  
up and down stairs, in order to discover the thief.

The corruption of the Bedy of this Foetus proved it to have  
been dead ever since that time; but the mother, notwith-  
standing this unhappy accident, was as well aster Delivery,  
as is she had lain in naturally of a living child at the end of  
the term. *Mauriceau.*

**OBSERVATION** XLIL

The 26th of February. I 678, I delivered a woman of a Foetus  
of six months old. She had laboured under a Flux offelood  
for the last fifteen days, which was moderate in the begin-  
rung, but at last became so excessive, that if I had not taken  
the child from her, which was yet alive, it would undoubtedly  
have perished with the mother, who had sainted several times,  
from the excessive Flux, occasioned by the separation of  
part of the Aster-birth, as appeared after her Delivery, by  
several portions of clotted Blood, which were sound firmly "  
attached to that piece os the After-birth that was separated  
from the Womb, the other part which adhered to it having  
served to nourish the child, which, though Very weak, was  
yet living when I brought it away from the mother, who,  
by this seasonable assistance, was preserved from the great  
peril of dying in a few heurs, had I not immediately broke  
the Membranes, turned the child, and extracted it by the  
Feet. -

The husband of this woman told me, that her Flooding was  
owing to the great affliction she had been under for **the**death of a gentiewoman her friend. This is notat all unlikely,  
because it is Very certain, that great sorrow, as well as fear,  
is capable of producing this effect, by suddenly drawing **the**Blood in too great abundance towards the interior parts, and  
so overcharging their Veffeis till they burst. *Meuriceau.*

**OBSERVATION** XLHL

On Monday, Octoher the 4th, 1725, I was, aheut four  
o'clock, called upon to see one Mrs. Jackson, a water-  
man's widow at Rotherhith; her husband died the Friday  
before, and was buried the night before I came. She at-  
tended his corpse to the grave, by which attendance, and  
through sorrow, she fell into the iliness she then laboured  
under, which was a Flooding. Upon examination I found  
the Inner orifice of the Womb spread, and both the Feet  
of the Foetus passed through it; she was aheut six months  
gone with child. I judged it advsseable to deliver her im-  
mediately; and well griming my Hand, I introduced my  
two Fore-fingers into the Outer orifice, with which I took  
hold of one Ancle, and pulled with all tenderness, and the  
other Foot following, I was able to take hold of both Logs  
the Parts were so tender, that the Foot of the Leg I inst  
took held of, was almost separated at the Ancle; however  
I drew the Legs on gently till the child advanced to the

- Shoulders; then passing up my Hand, I brought down **the**Arms on each side. I now endeavoured, by laying one  
Hand on the Breast, and with the other raking hold above  
the Shoulders, to extricate the Head; finding it shch there,  
- I passed up my Fore-finger into the Month, hut the child  
being Very- tender, the Jaw split and gave way ; so I en-  
deavoured to bring it out by pulling at the Shoulders, but  
this would not do, the Bedy separated from the Neck,  
and lest the Head behind; wherefore I immediately pasted  
up my Hand, and got my two Fore-fingers above **the**Head, and pressing with them hent upon it, I brought it  
awav. - . .

ί should have observed, that aster the separation of the Body»  
- the After-burden presented itself before the Head, and came  
away; but as I brought the Head immediately asterwardsa  
there was no great Loss of Blood. *Giffetrd.*

.. Instances of Miscarriages from a Diarrhaea, or Dysentery.  
**OBSERVATION.** XLIV.

May 3. I683, I attended a woman who had been a month  
afflicted with a Diarrhaea and Tenesmus, which had reduced  
her Very low. She was suspected to be about sive months  
gone with child, bur two physicians who hefl consulted on  
her case being somewhat dubious, had recommended me to  
the patient, that they might knew my opinion, I examined  
her in rhelr presence, and assured them that she was rexily  
with child, though the Internal orisice os.the Womb ap~  
pearod to me considerably open in its Exterior part *o* but it  
. was quite closed up in the Interior, whichj in conjunction  
with other signs, made me judge tint lhe W2S m0st certxinly  
with child. ° But contrary to my opinion, which was the  
real truth, her midwife had assured these physicians that she  
was not; and another furgeon, who examined the patient  
after me, with as much obstinacy as ignorance espousing the  
sentiments of the midwife, advised her to take a Clyster with  
four ounces of Honey, instead os Clysters os milk, or of a  
simple decoction of Bran, which I had ordered for her.  
This Clyster immediately increased the distemper to such a  
- degree, that she miscarried of a child six months grown,  
who was yet alive. But the mother, who had been ex-  
tremely weakened by that dismal distemper, died the second  
day after miscarrying, thanks to the ignorance of that surgeon, .  
who knew no better than the midwife. *Mauriceau.*

**OBSERVATION** XLV.

June 9. 1683, I attended a syoung woman of twenty, who  
had just before iniscarried, at the end of sive months and a  
half, of her first Big-belly.. The child lived haff an hour;  
. but the midwife could not bring away the intire After-birth,  
. but left a third part of it in the Womb, which having  
quite closed itself when I came to assist, and not bring to  
be opened without Violence, obliged me to commit the ex-  
pulsion to Nature, winch threw off its burden by pieces  
half suppurated for five or six days together.

All this time I ordered Emollients to he injected into the  
Womb three or four times a day, as well to wash away  
the foetid excretions, as to promote the expulsion of the  
remainder, of that foreign mass. This woman had for several  
days hefore been troubled with a Looseness, which was a  
principal cause of her miscarrying; and after she got up, was  
seized with a double Tertian, winch held her a month, after  
which she recovered her health. *Mauriceau.*

. From a Dysentery. -

**- . OBSERVATIQN** XLVL - - '

In the year 1692, there came abundance os soldiers into this  
country, and brought with them a Dysentery, which spread  
\* itself in Valogne, and raged with great Violence, carrying  
' off almost all, both old and young, whom it once seized.

But those of sound constitutions and the rich escaped best.

“ It spared no sort of men from the magistrate to the peasant, -  
except physicians, surgeons, and apothecaries, or, to speak  
more properly, surgeons, sor we of that fraternity carry on  
’ three fourths of the medical business in- this place, in  
October the wife os a glover, six months and a half gone  
' with child, who had been my patient six days under this  
. melancholy distemper, which T thought from the first day  
'' the would never get over, sent in the afternoon m tell me  
\* that she felt violent Pains, and begged that I would come to

- her. I went immediately, and found her in the pangs of  
travel, the child in its right place, the Waters formed and

- ready to pierce, which happened aster some throes. The child  
soon followed, and I delivered her of her Aster-birth, which  
was very small, without any difficulty. The child aster this  
lived, two 'days, and the mother eight. *LaMotte.*

1 - ./.Cause, a Dysenteric Flux.

**- - . - - 1 OBsERVATIoN** XLVIL

- February 8. I686, I attended a woman six months gone with  
child, who was almost reduced to extremity by a Very bad  
- Dysenteric Flux, winch had tormented her for three months.  
\* AS she felt'extreme pains in her Belly at this instant, and  
- Voided matter like the leeS of red wine diluted, which were  
: - certain marks os an inflammation and erosion os the intestines,

I told her husband she was in the utmost danger os her  
- life; and aS: to whet he said, that he hoped, agreeable to -  
the sentiments os in physician who had seen his wife, that if  
she wereIelivered there would be more room to expect a  
recovery, \*I told him I was of a contrary opinion, and since  
- her distemper was come to such a height as it now stood, I  
- -believed she would certainly die in a sow days. The event  
- justified my prediction. Tor the poor woman died two days  
aster. I had seen her in that condition, and on the same day

that the violence of that mortal distemper brought on a  
Miscarriage.

For it is to he observed, that if there he any grounds to hope  
that lying in will relieve the distempers under winch women  
with child labour, it is true only with respect to those dis-  
orders which are caused by thetr pregnancy, and not of  
other distempers .which have no dependance thereon; for  
these, instead of heing lessened, or relieved by lying in, as  
is too often hoped, become more dangerous than they were  
before; because Nature, which was already embarrassed with  
a disease of a dangerous nature, cannot at that time well  
manage the evacuation of the Lochia, the suppression of  
which immediately causes a reflux of the humours upon the  
principal parts which were indisposed before. *Mauriceau.*

Instances of Miscarriages from unseasonable bleeding and purging.

**- OBSERVATION** XLVIIL

March 15. I 689, I attended a woman four months gone with  
child, who, by advice of two physicians, had been blooded  
in the Foot in the beginning of her pregnancy, winch they  
knew nothing of, and had afterwards taken a Vast quantity of  
most unseasonable medicines, which having sufficiently racked  
her, at last forced a Miscarriage, the infant expiring as soon  
aS hem.

A sew days before this unfortunate event, I visited the patient, '  
and found her in a bad state, and labouring under a Flux of

. bloody Serosities, by which I knew she was in danger of  
miscarrying in a short time; for I allured her she was with  
child, notwithstanding the contrary sentiments of the two  
physicians, who had always ascribed the disorders caused by  
her pregnancy to the suppression os the . Menses, which they  
endeavoured to provoke by remedies not at all suited to the  
nature of a Big-bellied woman. But their error lay in not  
well considering the difference of treatment due to the dif-  
ferent states of maid and , wife under such a circumstance,  
which though it proved unlucky to the insans, yet I hope  
this example has. made, them wiser and more cautious.  
*Mauriceaus* . / 1

**OBSERVATION XLIX.**

A. .D.ry672, June I8, I had under my care a young woman  
of twenty, of a’Very fine complexion, six or seven months  
gone with her first child. She had kept her bed fifteen days,  
labouring under Pains *of the* Kidneys and Belly, which at

. last brought on a-Fever,.-preceded by Shiverings. For this  
. reason the physicians-who ordinarily attended her directed her  
' bleeding no less than her times: in eight days, contrary to my  
sentiments, who was for using that remedy with moderation,  
and bleeding no more than twice, which I thought sufficient  
\_.. to preserve her - as much as possible from miscarrying, which  
' at last was the consequence oT these frequent bleedings; as  
ῖ I had foretold, the child dying in her two days after **the**

Feyer came upon her, preceded by Shiverings So that the  
. same remedy which, if used with moderation, had heen bene-  
I ficial, by excess brought on -that mischief which in was in-  
tended to prevent. It would signify nothing here sot. people  
. to affirm in confutation of my, opinion, that they have  
y i known women with child blooded twelve and fifteefftimes,  
’ and even more, sor distempers that have seized them, and  
yet went out then time Very happily; for I shall only answer,  
that I have much ostener observed, that two or three un-  
seasonable bleedingshavebroughton aMisearriage. *Mau.  
riceau.* : Ἄ .. . ..

**- - ; OBSERVATION Led 1 .**

’ . i '.. . .... . \

March 3I. I 688, I- delivered a woman, aged thirty.three,: of  
a girl, after sixteen years barrenness, *sor* which there was.no  
manifest cause, except that in the second year of her mar-  
riage she proved'with child, but- by the prescriptions of **a**physician, who did not fuspectr she " had conceived, was  
.purged, and blooded in the Foot, though with much repugl  
. i nance, aster which she miscarried of a Foetus of two or.three

. months growth. Since, that, time .she had taken a-strong  
aversion to that physician, as being persuaded 'that her .

« Sterility was sowing to that Miscarriage, which might have  
i altered-the disposition of the Womb. ;\_\*.

l I have often known .the like faults committed by other phy..  
. sictans, who nave not been acquainted with the cases of wo-  
l men, and imputing those flight indispositions which; accom-  
. pany pregnancy to other distempers, have by thein Un sea son-  
, \_ able remedies procured *Abortions* in married women as well

as others, without considering that they might he with child.

*"Mauriceau. frfrsegul -,so,.sc*

**OBSERVAT** ION'LL ......

April I. I693, I delivered a woman . at the term Of five  
months and a half, of an insant. who, bad been dead a  
whole month; for so inng she had het felt it move, that- is,  
aster the third purge she had taken by order. 0f her.phyfician,  
’ which had worked too Violently with her. . Ἀ

This woman, when she was but three months gone, bad the  
Small-pox, of which, however, the was well cured and felt  
her child move very strongly for fifteen days ofter wards, till  
the violent working of the last purge much disordered her,  
and killed the infant within her, which was plain, because it  
bed not made the least motion since that time, and because  
fifteen days before this Miscarriage the was feixed with a  
great Flooding, which continuing upon her all that tone,  
made way for the expulsion Of the infant, which seemed to  
he no bigger then a Foetus of four months. Its Body was  
’ so corrupt, that it was quite stripped of the Epidermis, but  
it had no marks of the Small-pox, as I have seen in other  
children, whose mothers have had the Small-pox in the nine  
of their pregnancy. The After-birth of this child was as  
big as that of one which comes at the full term, so that I  
had much ado to bring it away, because the Womb had  
Only opened wide enough for the child; but this Aster-birth  
was not at all corrupted as the child was. The mother  
- being' thus happily delivered, was fo brisk afterwards, that I  
- believe if her physician had not unfortunately given her that  
third purge, on pretence of inorely evacuating the ill hu-  
mours, which he suppofed might remain in the Vifcera affer  
the Small-pot, though she was well cured, she would  
have gone out her full term, and have been the joyful mo1ther of a living child. *Mauriceau.*

**OBSERvATIoN** LU.

The 25th of August, I669, I attended a woman about five  
months gone with child, who had a continued Flux of  
Blond for three weeks past, but very moderate. Her  
, Menses before this had been regular every month, though  
- not quito fo plentiful as usiral; but she had not as yet felt  
the child move. These wire arguments to make the phy-  
sician who saw het believe she was only big with a Mole,  
though I assured him she was really with child, telling him  
several examples of women I had siren; who had heen de-  
- i liv.ered of living children at the usual' term, notwithstanding  
-t the like accident; But this physician obstinately persisting in  
his opinion, ordered the woman, fome days after I saw her,  
a purging medicine; which instead of promoting the ex-  
; .pulsion of the Mole, as he pretended it would, made her  
.. miscarry, of a child, which expired soon after: Now she  
might have saved- her infant, had she consented to bleed in

: the Arm, and indulge herself in rest, as I advised; *Mauriceau.*

**ss ‘OBSERVATION** LIIL

August 28. I6Q0, I attended a woman who, but ah hour bed  
. fore, had miscarried of a little Fatus three months and a half  
grown, whofe Heart still continued to beat.

This unlucky accident was occasioned-by a purgative medicine,  
.4 which she had taken the same day, by advice of her physician,  
—who pretended to. purge her Stomach of Bile, which was the  
\_ caufe of aiNanfea, of which the complained, not consider-  
ing that thofe disorders are the usual attendants on pregnancy.

. Besides, all purgauves were quite improper for a woman  
; in her. present condition, for. the had then a small Flooding,  
\_ whichhad continued on her for. five or six days; So that her

Big-belly, though endangered by this sinall Flooding, might  
. however .have been secured, and all things set to rights;  
Tied not the vigor and vitality of this llttle Foetus been use  
- terly destroyed by .thet unlucky purge, fo unseasonably pre-  
. scribed hy this physician, who could not helieve the woman

was with child,though I assinedchim of it, -hut fancied she  
went with a False conception, which Nature tried to ex-

- pel by means of the Flooding before-mentioned.

The woman having, thus mifcarried of a living Foetus, the After-  
. birth remained in the .Womb,, which closing immediately  
after expulsion, that foreign mass could not be brought away

' without offering too much violence to that part, and there-  
fore the business was intrusted to Nature. But-the After-  
birth, thus firffered to remain;, three days afterwards excited  
;a great Flooding, which threw the woman into very frequent  
faintrngs. This obliged me to-bring away the foreign mass,

7 finding the Matrix now enough dilated to do It without  
- violence. Aster this the woman recovered her health by  
degrees, hut had always a very; sensible regret for not follow-

-. ing the wbossome advice I gave her before she miscarried,  
which was, to use no remedy but rest, and once bleeding  
in the Ann, which I had ordered on account of the sinall

.. Flooding the had upon her.. *-Mauriceaus*

**^OBSERvATIoN LTV.**

July 21. I69I, I attended a woman aged 25, newly returned  
from Bourbon, where she had been to drink the mineral

- waters. for-SPahyof the Right \_leg and thigh. - This disorder  
- was the -relicks of an Apoplectic-sit, which terminated in a  
si.Pchy of the Right-side, though, this too went .-off, except  
- from the parts hesore-memioned, where it settled itself till  
-: the woman’s last lying-in, which was a year and a half he-

fore. Having tried abundance of remedies, she was. at last

advised to drink the waters, and setting out with her husband;  
who was to conduct her to Bourbon, she became with child  
on the road. Aster this, she was extremely afillched with  
convulsive Hysterics, and imagining that all her disorders  
were Owing to the fatigues she underwent in her joumev,  
she drank the waters very duly, had them pumped on her  
lame Thigh, used the Baths, bleeding in the Foor, and a  
multitude of other remedies, ignorantly prescribed, which  
. at last made her miscarry of a child four months old from

-its Conception, though it had been head a long time in the  
Womb, as appeared by its corruption.

But she had not the good fortune to be delivered, at the {.the  
time, of the After-birth, whofe retention excited Convulsive  
motions, and Hysterics, which obliged a surgeon to attempt  
the bringing it away. This he indced effedted six hours  
after the birth, but with much difficulty, as not being very  
expert in fucti operations. The violence then nfed probably  
contributed to raise a very painful Tumour near the Left  
ilium, which communicated itfelf to the adjacent part of the  
Womb on the same side, which was opposite to that of the  
Paralytic thigh. This Tumour, which ley deep, was oc-  
- casioned by a Flux of humours, which from time to nine  
took their course towards the Left-side, the other side of  
the Womb, which was that of the Paralytic thigh, being no  
ways asseded, but rather depressed than swelled.

But the principal cause of thefe disorders was the woman’s not  
having her Menstrual purgations in filch abundance as before I  
she had miscarried. Since that time, which was ten months;  
she bad been IubjeiI to a continual Fluor albus, whose Acri-  
mony was very troublesome to her, and gave reafon to fear  
that it proceeded from some Ulcerous disposition of the  
Womb. But I sound no Ulcer at this time actindly formed  
in the Womb, that was perceptible by the touch ; though  
she had so painful a sensation above the Leftside, which was  
that where the Turnout was, that I imagined there was a  
free communization between them, and that this continua’  
Fluor albus was nothing but a, kind of -purulent excretion  
from fome Ulcer, which lodging in the Interior part of the  
Womb could not he sensible to the touch. As this woman

. took a journey to Paris on purpose that she might consult  
me on her indispositions, she returned to her place of re-  
silence in the country, after she had taken my advice, *fo*' that I do not know what has happened to her since; but  
, I then thought she could not live above a year. *Mau-  
riceau. -*

Instances of the Effects of *Abortive* Medicines.  
**OBSERvATIoN LV.**

September 20. 1682, I attended a woman, whom I found five  
or six weeks gone with child, though she had done all that  
lay in her power, for twenty days past, to make, herself  
milcarry, with the assistance of a wicked midwife, who de-  
served the gallows: This wretch had given her feveral per-  
nicious medicines for that purpose; and had handled her very  
roughly, in order to open the Womb, without being able to  
accomplish her wicked intention; All she could do had no  
other effech than to cause racking Pains all over the Belly,  
especially near the Region of the Womb, which was in-  
clined to an inflammation; and even discharged a sinall quan-  
tity Of Bloed. I represented to her, that besides the horror  
Of her crime, which I displayed before her in as strong co-  
lours as her confessor could have done, she had run the risk  
of murdering herself in endeavouring to destroy the fruit of  
her Womb. She told me that she would not have done it,  
. if she had not thought, that the child, being neither shaped  
nor quickened, there could he no great harm in procuring  
. a Miscarriage. But I convinced her that such a sentiment  
was very ill founded, and that it was: as pernicious, as the  
i action she had endeavoured to commit was wicked. This  
salse persuasion, though of long standing, thutthe Fcetusis  
not animated till a considerable time after Conception, has  
encouraged abundance of profligate women to procure them- ,  
selves a discharge of the Embryo after Conception,and anAter-  
*tim* in the first months of their pregnancy: Wherefore I  
think it would he very convenient, for avoiding fo pernicious  
an abufe, to oblige every one to believe, tvhat to me seems  
./very true, that from the first day, and immediately aster

Conception, the Soul is actually introduced into the llttle  
speck of matter, which bring no bigger then a grain of  
millet at its first beginning, and the matter thereof exceeding  
fine, must he imperceptible to the sight of any one who  
. should dissedt a woman that died, by some accident,-the  
very day, or the day aster Conception. But we fee with the  
eyes of the Mind what we cannot discern with thefe of  
the Body, and clearly understand that the extreme minute-  
**0** ncss, the softness, and the delicacy of that point of mat-  
ter, is no obstacle to the ''infusion and permanence of  
sthe Soul which resides there. It is stisticient for the  
?! purpose, that this same point of matter be organised by the  
. perfect arrangement of ail the llttle atoms of which it is

formed immediately aster'Conception. As to the rest, when  
I had convinced the woman by my reasons, and ginen φα  
what advice I thought proper to secure her pregnancy, which  
had been very much staggered by the medicines she had taken  
to destroy is, I lest her in a resolution, as she testified to me,  
of following the good counsel I had given her- But 2s the  
was unknown to me, I could not learn the event, except-  
that eight days after I Understood she was much better, and  
there were great hopes she would proceed with her Big-belly.  
*Mauriceaus*

**OBSERVATION** LVL

In the month of June, I 685, I was sent ser by a woman,  
who wanted my advice about a Very great Flux of Bleed she  
had been affiicted with sot a day past? complaining also of  
her being at the same time extremely fatigued with a Dysen-teric Flux. I was shewed a Vast quantity of linen all over  
bloody, and abundance of clots of Blood which came from  
the Womb, not without racking pains of the Loins, and I  
was told that she Voided nothing else. But when I had  
touched her, and found no tokens of one gone three or sour  
months with child, as I had discovered in her upon examina-  
tion at two different times before, I told her that I really  
believed she had Voided something else besides all those clots  
of Blood she took care to shew me; and that I had ob-  
served her before to shew a great deal of trouble and concern  
when I allured her that I helieved she was with child ; and  
that she had, contrary to my advice, taken medicines to pro-  
voke a Miscarriage, which by their sharp and irritating pro-  
perty had drawn upon her that continual Flux of Blood,  
and bloody Serostties, which had held her above two months;  
that continuing in her evil intentions, as I supposed, she had  
this last time taken such Violent medicines, that she had at  
last effectually provoked a Miscarriage; that she had not sent  
for me before she had accomplished her ill designs, and for sear I  
should be a witness of her damnable practices/ had concealed  
the child of which she had miscarried from my sight, ima-  
gining she could persuade me, aster a while, to think myself  
mistaken when I believed her with child, which she durst not  
confess, for fear her hushand, who had not lain with her,  
aS he said himself, should find out her infidelity.

This example shews us, that as there are some women who  
are mistaken in thinking themselves with child, so there are  
others who would sain deceive the physicians and surgeons,  
and conceal their Great-hellies to preserve their reputation.  
*Mauriceau. ....*

**OBSERVATION** LVH.

September 2. I685, I attended a woman about two months  
gone with child, who two days before had received from a  
wicked midwife, who deserves to he hanged, a potion to  
make hersels miscarry, which worked so Violently with her,  
that she had been, as she told me, upon the feat above a  
hundred times, with extraordinary efforts, so aS to Void  
Blood by the Fundament. Yet, for all this, she could not  
bring to pass her wicked design, though she had also caused  
her to be blooded in the Foot, three days before she gave  
her the potion, besides offering several violences with the  
Hand to the Womb, which I sound very much irritated,  
-and extremely fallen, but quite close, and in a condition  
winch gave hopes of preserving her pregnancy, provided the  
patient followed the wholsome advice which I gave her, in  
order to mitigate those intolerable Pains which that execrable  
drench had brought upon her, by resting continually in bed,  
and by the use of milk, both by the Mouth, and by way of  
Clyster. , .

She expressed her intention to follow this good counsel, and a  
great regret for consenting m the wicked action of the  
.midwife, but would not tell me her name, for sear I should  
bring .her to punishment for her crime. Two days after-  
wards I attended the same woman, whom! found in a pretty  
good condition; all those disinal symptoms, which I had be-  
. fore observed in her, having ceased, and given way to the  
salutary directions I had given her, when I convinced her at  
tite same time os the enormity of their crime, who, without  
much scruple, voluntarily make themselves miscarry in the  
first months of their pregnancy, erroneoufly imagining that  
the insant is not as yet animated. A mistake as pernicious  
as it is great; for it is certain that the Body os a Foetus,  
though never so small, is intirely formed and animated from  
the first day os Conception, all the rest of the term serving  
only to strengthen it, and to give it the necessary growth.  
*Mauriceau.*

**OBSERVATION** LVIIL

July I9. 1677, I delivered a woman of twenty firs, os **a**dead child at the term of six months, which presented the  
Arm. This *Abortion* she had designedly procured by taking  
forcing medicines forne days before, with an intent by this  
unnatural means to hide her shame. The Flooding was so

excessive, that I verily helieve she would have died without  
my assistance, "which however she did not deserve, because  
of the heinoushess of her crime ; and though such procured  
*Abortions* are usually much more dangerous than those  
which are accidental, she at last recovered and did wells  
it pleasing God to spare her for thin time.

Instances of Miscarriages from a Rigidity or Stricture of the  
Uterus.

**OBSERVATION** LIX.

April 23. I69I, I attended a woman who had just miscarried  
of a small Foetus no bigger than a bee, which Nature had  
expelled os itself without any considerable accident.

This woman was supposed to he two months and a half gone  
with child, and this was the fifth Miscarriage she had in the  
space of two years, and all osqthem nearly at the same  
term.

This example shews us, that some women are as prone to mis-  
carry as to conceive. The best advice I can give these wo-  
men in order to preserve them from such frequent Miscar-  
riages is, to abstain intirely from the marriage-bed for five  
or six months, that so their Womb being strengthened by so  
long a rest, may be the better enabled to retain the Con-  
ception, when aster tin's they breed. It is good also to avoid  
going in a coach, and. much more in other carriages which  
shake the Body more, during the time of pregnancy. It is  
sometimes eVen necessary, for the greater precaution, that  
. they keep themselves in bed; and that they abstain from  
their hushands, that they might nos, by too much motion,  
or efforts, endanger their weak and precarious pregnancy. But  
there are sew women who can prevail upon themselves. to  
follow this wholsome advice, so necessary oftentimes to pre-  
serve the Fruit of their Womb, and make them joyfid  
mothers. *Mauriceau.'*

**OBSERVATION LX.**

A lady at fifteen leagues distance from this city, whom *I* had al-  
ways seen delivered safely, and without accident, during  
her pregnancy, came into this country about some, family  
affairs with her husband. Being at this .time with child, and  
staying in these parts longer than she expected, upon finding  
herself not well, she consulted me once or twice by letter,  
and then desired I would come to see het.

I found her aS bigas she usually had been before at her lull term,  
and much more incommoded, though she was then only  
in the latter part of the sixth month. She had sor more  
than fifteen days suffered continual Pains, not like thoso  
‘ which precede Delivery, but which made her Belly scern as  
if it was going to open.

When she Jay on her Back with her Knees elevated, het Belly  
appeared much swelled and Very tense, and so littie room w^  
left for the Stomach, that a great part of whatever she eat  
was brought up again, before it could have time to digest.  
Besides these, she felt the child move but Very littie.

All thefe circumstances made me conclude she was big of more  
than one child; and that .the bulk of what was contained  
in the Uterus, distending it to a greater degree then it coutd  
well bear,caused all her Pain and Uneasiness, which increased  
daily as .her pregnancy .advanced, and her burden aug-  
. mented.

I took away some Bloed, with an intent to relieve her by  
emptying the Veffeis, and advised rest in whatever situation  
she should find most commodious, without confining her.  
to any. . . ' s . . ' .'. ?

Eight days after this Visit she sent for me again, but I could not  
make haste enough to come hefore the was delivered os two  
children, which lived but a few heurs. The lady foon re-  
covered, and has since lain in of several children without any  
accident, having only one at a time, \_ *Mette,*

**OBSERVATION LXI. I ..**

A young woman at two leagues distance from this town, in the  
fifth month of her pregnancy, was seined with violent Pains,  
winch she took sor the Colin. Her mother fent for me in all  
haste, suspecting the disorder to be Labour, as in effect it was,  
for I found the child hem, and alive when I arrived. AS the  
Aster-birth was come away, I had nothing to do bur leave her  
to the care of her mother, and return heme.. .

Some little time after she was again with child, and at  
term of five months miscarried a second time, but so sud-  
denly, that they could not send tome. However she g0t  
over this Miscarriage, aS easily as the first.

Being with child a third time, she w^ more upon her guard,,  
and though always very regular, she now toolc to avoy  
every thing she thought might give occasion m che fonnerMiscarriages. I took away fome Blued three times, the last  
of which waS in the sixth month, and made her pursue an exact  
and relaxing regimen, which enabled her t0

tin the seventh month, and teen the mhearyied, Tim child  
lived a few days, and then-died,

*As* she attributed her going a littie longer this time than she  
had done before, to her regular conduct, she resolved m he  
yet more cautious the next time she should breed. And that  
she might succeed the better, as soon as she was recovered of  
the last Miscarriage, I took away some Bloed twice, and  
purged her aS often. I repeated Bleeding as soon as I knew  
she was with child, and continued to do so every month.  
Mean time I made her rake whatever I thought capable of  
cooling and relaxing, not suffering her to eat so much as a  
toast, and forbidding her to drink almost every thing that  
was spirituous.

Either by this conduct, or for some other reason, to me un-  
known, she was enabled to support her pregnancy, to the  
full term, when I delivered her Happily of a living child. She  
afterwards went through a second, and a third pregnancy,  
with the like success.

But heing again with child, and much more incommoded at the  
end os three months, than in the three preceding pregnan-  
cies at nine, she was at the term os six months surprised with  
Pains equal to those she used to feel in former Labours; and  
the Waters piercing the Membranes, lest no room to doubt  
of her condition. Upon this she sent for me, and I delivered  
her os two children, which died soon after they were hern;  
and .then of a large Placenta common to them both, in a  
few days she recovered.

Since then I have delivered her many times of one single child\*  
which she brought always to maturity without any great diffi-  
culty. *La Malte.*

**REMARK;**

Here, we have a remarkable instance of *2.* too great Rigidity  
of the Uterus, which rendered it incapable of a Dilatation above  
a certain degree. Hence when the bulk of the Foetus, toge-  
gether with the Membranes, Placenta, and Waters, became  
so large as to distend the Uterus farther than it could bear withe  
out Pain, a Miscarriage immediately ensued;

But when the general habit of the Body was sufficiently  
relaxed by Bleeding, and a relaxing Regimen, . the woman  
went her full time, till at last the Uterus was too suddenly  
distended by twins, and then she. miscarried again.

This woman's ease confirms she doctrine laid down hy Hip-  
pocrates, who, in his *Treatises on the Diseases of Women,* repre-  
sents this Rigidity of the Uterus as a frequent cause of Miscar-  
riage. And, in his *Dissertation on the Seed,* he gives it aS a  
reason, why the children of robust parents are often born very  
weak. \_ .

**OBSERVATION** LXIL

Instances of Miscarriages from a Scirrhus of the Placenta.'

May 3I. I68I, I visited a woman, aged thirty-five, of a Very  
Atrabilious constitution, whe had just miscarried at the period  
of six months and a half, the child dying ten or twelve days  
hefore, without receiving any hurt. She had already under-  
gone three or four such Miscarriages, near aheut the same  
time, with the like accident, that is, about the fore-rnen-  
tioned time she could no longer feel her insant move, but  
only some risings of the Womb, and Voided a small quantity  
of Bloed for ten or twelve days hefore *Abortioni*

The Placenta of this woman was all over Scirrhous, to which  
her Atrabilious temperament did not a littie contribute.  
*Mauriceau. 1*

**OBSERVATION** LXIII.

February I. I679, I delivered a woman of a child six months  
and a half grown, which presented its Breech. It had been  
dead ten or twelve days, not having been felt by the mother  
all that time; and was the fifth Stilbom she had brought  
forth successively after that manner, without any fright.or  
hurt, or other manifest cause, that could occasion the death  
of all her children in the Womb, just at the end of six  
months and a half, and twelve or fifteen days before she was  
delivered. And though during her last pregnancy she had  
.taken all the precautions^I advised her; the two principal  
of which were, keeping her bed, or at least her chamher,  
and separating from her husband, the same misfortune still  
attended her. But as the After-births of this woman's chil-  
dren were commonly all over Scirrhe us, I concluded that  
this ill disposition, which hindered the insant from receiving  
sufficient nourishment, of which it had the more need when  
it began to grow large, was the true cause of its death, and  
of the Miscarriage that ensued. *Mauriceaus*

**OBSERVATION** LXIV..

June 2o. I686, I attended a woman, whe had miscarried the  
day hefore of a child six months and a half grown, which

- died in the Womb, without any manifest cause, five or six  
days before, during which the mother had not felt it move.

AS the After-birth was all over Scirrhous, and the woman, who  
was of a very Atrabilious complexion, had miscarried five  
times before this last, from the term of four or'five months,  
to that Of six or seven, I imagined, that this Scirrhous dispo-

sition of her Aster-birth, which appeared alike in all her  
other *Abortions,* and proceeded from a too Atrabilious tempe-  
rament, had been the true cause of the death of all her insants,  
and of all the consequent Miscarriages at times when she was  
pretty sar advanced in her pregnancy. For this Scirrhous dis-  
position os the Aster-birth causing a great obstruction in all its  
substance, was the cause why the insans, not receiving suffi-  
cient nourishment from it in order to its support, must come  
by that defect to he deprived of life.

To remedy this misfortune, which had so often happened to  
this woman, I advised her to moisten' and temper the ex-  
treme dryness, and excessive heat of her Atrabilious consti-  
tution, to ufe the Bath sor some time before Conception, and  
afles-rnilk all the time after, with a temperate and moisten-  
ing regimen, wholly to abstain from wine, and even front  
her husband when she knew she was with child; that so,  
by this regimen, she might do all that in her lay, to rectify  
her too Atrabilious constitution ; and by that means he en-  
abled, for the future, to cany her children from the time of  
Conception, to the end of the natural term, without ever  
miscarrying, as, she has unfortunately done by all she has  
yet had. *Mauriceau.*

Instances of the After-birth retained, and discharged by Sup-'  
puration, *etc.*

**OBSERVATION** LXV.

The 8th of February, I674, I and two of my fraternity were  
ordered to attend a woman who had miscarried four hours he-  
forCjos a child of three months. The Aster-birth, which re-  
mained behind, had occasioned a great Flooding. It was  
my opinion, that she ought to he delivered of it instantiy,  
finding it possible from the opening of the Womb, which,  
though moderate, was sufficient for the purpose; considering  
also, that the Flux of Bloed, by moistening the passage,’  
facilitated the extinction. But my two colleagues, who-  
were never the wiser for being older than myself, over-ruled  
my sentiments, alledging the danger of doing Violence to **the**Womb by that operation, which would increase the Flux,  
not considering that the sole cause of that Flux was the Re-  
tention of the After-birth. The *tersa. Violence,* which they  
made ufe of, in contradicting my opinion, determined the  
patient for the present to commit the expulsion to Nature,  
as they advised her, rather than suffer me to deliver her,  
which *I* could have easily done, had she pleased, without de-’  
setting it till the next day, when she sent to me in order to  
do it; bur the opportunity was then lost: for the Womb  
closing, there was no possibility os .extracting the After-birth,  
which being thus retained, put her in danger of her life for  
three weeks together, by accidents winch happened, as **I**had fore-told her, from the Suppuration of the Placenta,  
whose infection produced, aS it usually happens on like occa-’  
sions. Very sharp pains about the Region of the Womb and  
Kidneys, a continual Fever, Hysterics, saniouS and Very  
foetid Excretions from that part, and frequent fits of Fainting  
during all that time. *Mauriceau.*

**OBSERVATION** LXVL

April 4. iI687, I attended a woman, who was near the brink  
of the grave, it heing the third day since she miscarried os a  
child of four months, whose Aster-birth was left intire in the  
Womb, for the midwife was not able to deliver her os it,  
because of the great difficulty she found, as she told me.  
Whence that foreign mass there remaining sot three days,  
had caused a prodigious Flooding; and as Nature had not yet  
expelled it, and there was no hopes of bringing it away het  
by Violence, because the Womb was quite closed, when  
I saw the woman, it turnedsat length to a most Virulent putre.,  
section, which caused a continual high Fever, with two or  
three Exaceth'atiorss every day, accompanied with Paintings,  
and other symptoms usual on these occasions. But, for all  
these disorders, and a bad Diarrluea besides, she recovered .  
her health, after a most grievous and troublesome fit of sick-  
ness for five whele weeks. I had some years before attended ,  
the same woman, when she was extremely ill in the same  
manner, aster another Miscarriage, where the After-binh  
had been likewise left behind, the midwise not heing able **to**bring it away, and was expelled by Suppuration like this  
lash

Put it is to be observed, that tho' those symptoms, which  
are caused by the Retention of the Aster-birth, are formidable,  
yet they are not so dangerous aS those which might hap-  
pen from an Inflammation of the Womb, by the great  
Violence done to that part in order to bring away the  
After-birth by force: and as of two evils the least is to

. he chosen, we are obliged sometimes to trust Nature with  
the expulsion os those foreign masses, when they cannot he  
taken away without offering great violence to that pars, in  
dilating it, when too much closed. *Mauriceau.*

**OBSERVATIoN** LXVIL

July I2. I684, I attended a woman whe was but just begin-  
ing to recover, after she had been Very dangerously ill, three  
whole weeks, of a continual Fever, with Exacerbations,  
and other threatening symptoms, proceeding from the Sup-  
puration of the Aster-birth left in the Womb, after she had  
miscarried os a child of three months; for her midwife was  
not able to bring it away, by reason of the difficulty she  
. found, the Womb, as she mld me, having quite closed  
. immediately after the child came away.' This obliged her  
to trust the expulsion of it to Nature, which she performed  
her usual way, by an intire Suppuration of the foreign mass,  
which held three weeks. For, though women, commonly,  
in these sorts of *Abortions,* get intirely rid of the Aster-birth  
the same day, or a few days afterwards, yet we meet with  
some who are obliged to Suppuration, which proceeds in a  
. flow and tedious manner, and is always accompanied with  
**a** Fever, a great Pain *of* the Head, and Hysteric symptoms,  
with frequent Paintings, occasioned by the corruption,'which  
is also attended with a strong Cadaverous smell. None of  
these symptoms cease till the Suppuration is intirely finished,  
which it is known to he, when the Excretions of the Womb  
are pure, and have wholly lost then offensive odour; as they  
began to appear in the woman I speak os, when I saw her,  
who, aster she had so long laboured under all these melan-  
choly accidents, recovered at lash *Mauriceau.*

**OBSERVATION** LXVIII.

April 2. I 679, I attended a woman thirty-five years old, of a  
Very melancholy complexion, whe had just miscarried of a  
. sinall Foetus of three months, quite wasted. As the Womb  
had only opened in proportion to the sinalinessos *thae Abortion,*the After-birth remained behind, and could not be expelled,  
nor taken away, because the Womb was almost quite closed  
aster the expulsion of that small Foetus, and it could not he  
sufficiently dilated without suffering too much Violence. .This  
disposition obliged us to commit the operation to Nature, in  
hopes that it would bring matters to a good issue without as-  
sistance, as it frequentiy does in like cases, where the Aster-  
births of such small Foetufles are expelled without any extra-  
ordinary symptom, two or three days, and sometimes nine  
or ten, aster the Miscarriage. . But this .came all away by  
Suppuration, which lasted three weeks, during which time  
the woman was forced to make use of Emollient injections  
into the Womb, which were of service in daily cleaning and  
washing away ail the purulent and foetid Excretions os that  
part, which came from the Suppuration of the retained  
Aster-birth. And to the time tint the Womb was intirely  
delivered from that foreign and adventitious mass, which re-  
solved itself by Suppuration, the woman was incommeded  
with a Fever at intervals, a great Pain in .the Head, and  
Hysterics, which are the ordinary symptoms on such occa-

। ftons, after which she enjoyed her health. *Mauriceau.*

**OBSERVATIoN** LXIXi

The same day I attended a woman, whe had miscarried 27 days  
before of an insant of four months, a surgeon attending her,  
whe not being able to bring away the After-birth', had  
trusted Nature to expel it. During its Suppuration the wo-  
man laboured under all the disorders usual on the like occa-

' 1 fion; such as a great Weight and Pain in the Belly, a con-  
tinual Fever, with several exacerbations every day, a great  
Pain in the Head, with continual purulent and Very foetid  
Excretions, in this bad state I found her, when she told  
me titat, but two day’s ago, she had parted with a piece of  
file suppurated After-birth as big aS her Little-finger. But

\* as I sound her Belly was pretty soft, and she had no Pain  
near the Region of the Womb, that her Fever was incon-

: siderable, and Respiration free enough, I thought her intirely  
out of danger, though her husband and all her relations were  
under great apprehensions os losing her, as knowing hew ill

I she had been sor a long time.

However, I gave strict orders that injections should he made  
use osto wash away the purulent matter, and forbad all purga-  
tive Medicines, though her physician had Very improperly  
prescribed a Purge a few days after the Miscarriage, in  
hopes to procure the expulsion of the After-birth by that  
.means, which, on the contrary, exciting an inflammatory.  
disposition in the Womb, much irritated hefore by the re-  
. - science of the foreign mass, instead of relaxing, caused it  
to swell, by which means it shut itself more closely than be-  
fore, and was the less capable of expelling the After-birth.

Hence the Suppuration hecame so extraordinary long, that the  
patient mid me some time afterwards, that she had voided  
bits os the After-birth for near forty days together; and after  
that was over, she still continued to discharge some Serosities  
every day till the Catamenia refumed therc ordinary course,  
which was six weeks After my first visit.

. But though this woman's Womb had been much weakened by

fo long a.Suppnration, it did not hinder hCT si°m conceiving  
and croing out her fun time arith °ne of instinstgithf  
had arigni seen, of winch I happily delivered her m Novem-  
ber the year following - The mother went tCn dari5nine months with tins girls who appeared so extraordinary  
large, that I had the cariosity to put her in a pair of scales, and  
found her to weigh th°vC thirteen pounds, AVerdupoine,  
without the Aster-births which proportioned to the fine  
of the insant. *Mauriceau.*

**OBSERVATION LXX.**

January 23. I 687, I attended a Woman, who, aster she was  
thought seven months gone with child, had miscarried eight  
days before I saw her os a small Foetus, all corrupted, which  
she shewed me, and it was no bigger than one of three  
months. But as the. Aster-birth of that corrupted Foetus  
was not brought away, from that time she continued to Void  
... purulent matter from the Womb, which came from the de-  
tained After-birth, that wasted by Suppuration.

The woman told me that she had reason to think herself seven  
months gone with child, hecause she had so long miffed her  
monthly purgations; but that her Belly ceasing to rise these  
three or four last months, she thought no more os it; the  
infant probably remaining dead all that time, though Nature  
did not expel it till at the seventh month.

It might seem pretty difficult to helieVe that a dead insant can  
remain so long a time in the mother's Belly without bring  
expelled, and with so little inconvenience, did we not every  
day see such instances, which convince us that some dead in-  
sanis are preserved in the Womb a Very long time, without  
any considerable corruption, hefore their Waters run off;  
these Waters serving, if I may so say, as a sort of Brine, to  
keep them from a cadaverous Corruption, which immediately  
follows after their efflux, and obliges the Womb to expel  
them. Hence it was that the woman we speak of so long  
retained the little dead Foetus, and yet had her health, as  
soon as the Aster-birth, which remained, as I said, in her  
Womb, tinned to Suppuration, only taking care, aS I ad-  
vised her, to inject simple Barley-water three or four times a  
day into the Womb, to assist in cleansing that part from the  
foetid matter of tins Suppuration/ which might otherwise in-  
jure it. *' Mouriccau.*

**OBSERVATION** LXXI.

May 28. I686, I attended a woman, who had just then mis-  
carried of a child three months grown, aster she had been a  
month troubled with a Flux of reddish Serosities, winch is  
the common forerunner of *Abortions.* But aS the Womb  
had only opened in proportion to the Body of the child,  
which was Very small, the Aster-birth being much larger,  
remained within; and aS it could not be extracted by the  
Hand without too much Violence, the Orifice of the Womb  
heing shut, and there being no pressing necessity, for it, I.  
judged it she surest.way to commit the expulsion to Nature,  
who, in her own time, freed herself by means of Suppura-  
tion, in.which the After-birth came away by littie and little,  
’ nothing appearing but purulent Excretions, which usually  
. succeed, the retention of these sorts of foreign masses, and  
so continue till the Suppuration heing finished, the Excretions  
of the Womb become pure, without that offensive smell  
which those that are purulent are commonly attended  
with. But that the part just mentioned may receive no ill  
impression from the too long continuance of the corrupt  
. matter in it, injections are every day, for ten or twelve  
’ days, to be used, aS I directed in this Woman’s case, in  
order to preserve her from any ill effects of the Suppuration,  
’. after winch she did Very well. *Muuricenu.*

**.OBSERVATION** LXXIL

November 29. IfiS5, I attended a woman who had mis-  
carried seven days hefore of a child sour months grown,  
’ . whose After-birth remained in the Womb, the midwife not  
bring able to bring it away, hecause the Womb closad im-  
- mediately after it had expelled the Foetus, which it did with  
\* ease enough, as beinga small, soft, and withered-Substance.

So that the Womb at that time not opening itfelf but just in  
proportion to the size ofthe child, the After-birth heing much  
larger, was retained, and had ΠΟ way to come off .bur hy  
Suppuration, which was' accompanied with a high continual  
Fever, with exacerbations, a great Pain in the Head .and  
other frightful symptoms, winch made her life despaired os.  
However she recovered at last, using n0 other means than  
what I advised, which was only to inject; into the Womb,  
three or four times a day, a decoction of Barley, Agrimony,  
Mallows, and Marshmallows, mixed with a litrlo Qjj ορ  
Sweet Almonds, in order to dilute the insecti0US matter pro-  
ceeding from the Suppuration os the retained Aster-birth,  
. that the Womb might receive no ill Impreihen from the  
two long continua n00 thereof.

It often happens that the midwise, and the surgeon, to avoid  
being blamed for not delivering the woman of the Aster-  
birth, when she has thus miscarried, do their utmost to  
bring it away with the Hand ; which I would advise by all  
means to attempt, provided the operation can he performed  
without violence, but not otherwise. For there is much  
less danger in trusting Nature with the work, than in going  
too rudely about is, in order to extract it from the Womb  
by Vinlence, which might cause an Inflammation in that  
part, and so put the woman in sar greater danger of her  
life, as I have known it sometimes happen. *Mauriceaus*

**OBSERVATION** LXXIIL

March 7. I682, I attended a woman gone with child no more  
than two months and a half, whe miscarried in my presence of  
a living child, that plainly moved its Legs and Arms, and

. eVen opened its Mouth *for* the space of half an hour. It.  
came into the world without assistance, with a great Floed-  
ing. But as it was Very small, and the Womb had only  
dilated itself in proportion th it, the After-btrth remained  
behind, there being, no room to bring it away ; because the  
thickness and hardness of the internal orifice, which was  
Very close shut, could not bear to he stretched without too  
great Violence, which might have brought on a Very dan-  
gerous Inflammation in that part. But the Flint of Bloed  
was so increased by this retention of the After-birth, that  
the poor woman had several had Fainting sits the first day;  
after that it stopped a little, but only for a day or two, and  
then returned in a dismal manner, which it did, .at several  
interVais, for the space of three weeks, the Womb all **the**- while not fufficientiy dilating so as to he able, of itself, to  
throw off its burden, nor to admit assistance to get rid of  
it without Violence. And as it stuck all that time to the  
hettom of the Womb, so its sticking there was the cause  
that it did not at first resolve by Suppuration, aS it usually  
does, when, being intirely loose from the Womb, it has no  
longer communication with it. So that the true Suppuration  
osthe Aster-birth not beginning till at the end of three weeks;  
the patient was afterwards more than eight days in Voiding it  
piecemeal, and consequently was a full month in getting rid  
of the Appendage to this diminutive Foetus, though most  
women are no longer about it than three or sour days, and  
seldom above eight. But what contributed Very much to  
lengthen out the time was, that the living roots of this  
foreign mass hindered its separation from the Womb,' where  
it stuck close, and could not be expelled without Pain,  
which was not a little aggravated by the straitness of **the**Internal orifice, in these eight days of the Suppuration, **the**woman, aS it usually happens under such circumstances, had  
a Fever, with several. Exacerbations, accompanied with **a**great Pain in the Head, and Hysteric fits.

The part bring afterwards purified from the infection of **the**Suppuration, the woman recovered her health, having run  
the less rilk by committing the work of expulsion to Nature,  
which if I had tried by Hand, aS I must have used Violence,  
the remedy might have proved worse than the disease. It is re-  
. markable that this littie *Abort,* which I saw living half an hour,  
had strength enough to move its Anns and Legs, hut had not

. the power to put forth a cry, though I plainly saw it open its  
. Mouth several times. For *Aborts* have commonly no Voice  
till the end of the third month, their Lungs not having  
strength enough till then to push the air with an impetuosity  
sufficient to form a cry. *Mauriceaus* t

**OBSERVATION** LXXIV\*

A. D. I676, I attended a woman, whe two hours hesore  
had miscarried of a dead child at the term os eighteen  
weeks, and two thirds of the Aster-birth were left in the  
Womb. The midwife not bring able to deliver her, sent  
to me sor my assistance. But I found the Womb of this  
woman, whe had never been with child before, so closed  
inwardly, and so straitly embracing the Aster-birth, that **I**judged it improper to attempt the taking it away forcibly,  
because the Vinlence, I must have used, might have been  
more prejudicial than the disease itself. Besides, the woman  
: was very saint, and extremely impatient. For'these reasons

I attempted to fetch it away, but Very gently; and having  
taken away about half the mass, lest the rest *sor* Nature to  
discharge, having no inclination at that time to use farther  
- violence, hecause the internal orifice of the Womb heing  
contracted like the neck of a bottle, so forcibly retained  
the foreign mass, that it was impossible at that time to get  
it away without putting the woman in great danger of her  
she. However, to assist Nature in discharging -is, I or-  
dered several Clysters, and Emollients to he three or  
four times injected into the Womb. These remedies did  
nor sail of promoting the expulsion which happened the  
. fourth day; and the woman afterwards enjoyed her health.

*Mauriceau.*

Instances of Flooding with Miscarriages,  
**OBSERVATION** LXXV.

April 4. 1675, I delivered a woman of a child that had heed  
dead a considerable time. It scemed rjo bipoer than a child  
of three months, though the Mother had gone with - it near  
. seven. She had almost continually discharged some small  
quantity of Bloed from the Womb for sour months past,  
having all that time laboured under Pains in the Kidneys,  
and dispositions to miscarry. This at length happened after  
a great and sudden Flux of Blood, which stopped imme-  
diately upon Delivery, and the woman recovered. The ala  
most continual loss of Bloed for four months bad made that  
settle *Abortion* of the human species line those *abortive* or  
untimely fruits, which never grow from the moment they  
are deprived of the sap of the tree that nourishes them, bur  
grow dry, wither away, and fall off long before maturity.  
*Mauriceau.*

**OBSERVATION** LXXVL

March 8. 1689, I delivered a woman of an insant of five  
months, which presented the Breech, and was alive, though  
the mother had; for three weeks hesore, continually dis-  
charged a Vast quantity of Waters tinctured with Bloed, a  
sure fore-runner of *Abortion.*

For itis tobeobserved, that though some women are known m pre-  
serve their pregnancy, after voiding a pretty large quantity of  
pure Waters by the Womb, the case is otherwise when these  
Waters are tinged with Bloed, for then it is a sure sign that  
the Womb begins to open considerably, and that it can no  
longer retain the insant,. at what term soever it happens,  
after a great discharge os Water of this tincture. However  
the woman did Very well, aster miscarrying of this httie  
Foetus, which lived an hour. *Mauriceau.*

**OBSERVATION** IXXVII.

July 25. 1683, I attended a woman whe had just then mis-  
carried of a small Foetus, no bigger than a bee; but the Se-  
cundines being lest in the Womb, a pretty large Flux of  
Bloed ensued, which however was not succeeded by any con-  
siderable weakness. The Womb had only opened in pro-  
portion to the size of that Foetus, so there was no room at  
present for the operation; but two days afterwards, finding  
it in a better disposition, I took from it the foreign mass,  
which exactiy resembled what we commonly call a False con-  
. ception, and was of the bigness of a middling puilets-egg.

This experiment convinced me, and confirmed me in the  
... belief, which I always had, that all those pretended False  
conceptions, which come 'from women about the third  
month, were True conceptions in the heginning; and that  
they are, in effect, no more than little Placenta's, whose  
Membranes are staffed with clots of Bloed, which swell them  
up; that aster the Waters which they contained are run off,  
they are all compacted into a globular form by the con-  
traction *of* the Womb, and being, as it were, moulded in  
its cavity, and blended with those clots of Bloed, and **the**substance of those httie After-birthS, take the figure of **3**fowl’s gizzard. And as we many times perceive no Foetus in  
. these sorts of False conceptions, because of the extreme  
. minuteness and softness of these. Jittie *Aborts,* which lose  
their figure, and confound their substance with the clots of  
Bloed, which are Voided by women on those occasions;  
.and as we see nothing come from them afterwards, but those  
kinds of foreign masses, we commonly take them for sim-  
ple False conceptions, though they are in effect true After-  
' births, as was that which I took from this woman, who  
then reckoned herself gone about two months and a half..  
But as she had been Very much disordered all the first months  
of her reckoning, and especially the last fifteen days, when  
she Voided every day bloody Serosities, and even pure Blood  
in small quantities, at intervals, from the Womb, **here**we see the cause why this diminutive Foetus, which had  
' for some time past withered away for want of nourishment,  
did not arrive at the bigness it ought to have had by the  
mother's reckoning. *Mauriceau.*

Miscarriages less difficult where a Flooding has preceded.  
**OBSERVATION** LXXVIII.

March 28. I677, I attended a woman whe had just miscarried  
of a dead child, at the term of fourteen weeks. For three  
whole weeks before this accident, she had been troubled with  
a small Flux of Blood, which at the end was considerably in-  
\* creased for the space of two hours, till it brought away  
with it the httie Foetus as aforesaid, with the After-birth at  
the same time. It is to he remarked, that in these forts of  
*Abortions,* the Aster-birth is easily expelled with the Foetus,  
when the woman has, for a long time before her miscarrying,,  
felt considerable Pains, with some losa of Blood. For these  
Pains help, in a great measure, to loosen the After-birth  
from the Womb. But it is usually otherwise when the Mis.  
carriage comes suddenly, and almost without Pain.’ For the

Insant, which is small and tender, is easily enough expelled ;  
but the Womb not being sufficiently open, in proportion to  
the bigness of the Aster-birth, sor that reason retains it,  
where it continues to stick, and cannot he excluded without  
much Pain. *Mauriceau.*

**OBSERVATION LXXIX.**

October IS. I730, A carpenter near Russel Court, in Drury  
lane, came to me, and desired I would go to his wise, whe  
judged herself to be nine or ten weeks gone with child. She  
had sor some days laboured under a Hooding, and had lost a  
very large quantity of Blood, *so* that she was Very much  
funk and dispirited, and had sainted several times. Upon  
my coming, I first felt her Pulse, which l fonnd very low  
and weak; she complained of a grinding Pain in her Back,  
and a forcing down and weight upon the Os tincae; I there-  
fore thought it necessary to tonch hers helieving whatever was  
. to come away was lodged upon, and stopped up, the Os tincae,  
which might occasion those complaints. I sound the Vagina  
and OS internum choaked up with coagulated Bloed, **the**latter Very littie open, and not wide enough to admit the  
passing up of one Finger; however, with the end of my  
Finger I felt a soft substance within, lying at the Mouth of  
the Womb: at that time I thought it adviseable not to attempt  
the fetching it away, in hopes that the Os internum would  
sink lower, and spread wider; and therefore I only ordered  
her the following draught and mixture, promising to see her  
again in a few hours.

Take of Plantain water two ounces.

Strong Cinnamon water half an ounce.  
Liquid laudanum twelve drops.  
Discodium three drams,

Japan earth a scruple; . .

Make a draught to he taken immediately.

Take os Plantain water, and the water of Oak buds, of each  
three ounces;

Small Cinnamon water, and strong, of each an ounce ;  
Syrup of Lemons an ounce,

Japan earth a dram ;

Take two or three spoonfuis occasionally.

About three hears aster I called again, when I was informed,  
that the draining continued, but in a lesser quantity; **she**had a Pain in the Back, and a greater weight and pressure  
upon the OS internum. I touched her again, and found the  
Os internum sunk lower, and opened wide enough to admit  
one Finger to pass into it, with which I felt a soft substance.  
Tins I judged to he the Placenta sunk low down, and lying  
at the Os tincae; I therefore passed one Finger up into the  
Uterus, where I found the aforesaid substance lying loose in  
the Uterus; whereupon I thrust my Finger further up, and  
bending the end in the manner of a hook, over the said sub-  
stance, I drew it out, upon which the Flooding, and **the**grinding and forcing Pains went off. I then ordered her a  
Cordial bolus to be taken immediately, at night, and the  
next morning, with three or four spoonfuis of Jalap after  
each Bolus; or at any other time, in case she was saint or  
sick. I called the next day, and found her Very brisk, and  
free from all her former complaints; and, that she had  
had no return of her Flooding from the time I brought the  
substance away. *Gifford*

The author forgot to inform us what hecame of the Foetus.

**s OBsERVATloN LXXX.**

August 20. 1730, I was 'called upon to go to a woman in  
Durham-yard, the wife of a porter, who, the preceding  
day, found (aS she thought) the child to give a sudden flip,  
. and sall lower. A few days aster she waS seized with a vio-  
lent Flooding, and grinding Pains in her Back. I found her  
' upon my coming very much dispirited, her Pulse low, and  
clear Bloed continually dribbling. Upon touching, I found  
the Os tincae wide enough to admit the ends of three Fingers,  
and therefore gave it aS my opinion, that she ought to he  
immediately delivered, and that delays might he dangerous,  
since she had lust fo much Blood already. There was he  
prospect of its stopping before both the child and Placenta  
were brought away, for as long as the Uterus was kept  
distended by them, the MouthS of the Veffeis (before inoscu-  
lated into the Placenta, which then wholly adhered to the  
Uterus, but wag now ut part, or wholly separated from it)  
would continually pour the Bloed into the Womb, so that  
the whole mass would be exhausted, unless she was delivered.  
Then Indeed the Womb would contract and he collapsed, by  
which the Months of the Vesthis are stopped, and the Flood-  
ing generally ceases. All that were present submitted the  
matter intirely to my conduct; immediately I passed up my  
Hand well greased into the Vagina to the Os intemum,  
winch I endeavoured to dilate with the ends of three Fingers  
Passed into it, and soon made way for the Fourth and my  
Thumb; then, by gentiy spreading them, I dilated it wide  
enough to admit my whole Hand, which I passed into the  
Uterus, where I first met with the Membranes; these l

broke with the ends of my Fingers, and μά.μά! °f awhich I put aside, and went on in se^ch os the L. tt1met with a Foot, and brought it oin\* Th\*

and the parts having been dilated by former Labours, I was not  
follicitous about the other foot. 5 and therefore taking held of  
that already brought out with 2 sost cloth» l drew it gen y  
towards me, at the same time advising the woman to xihst hy  
bearing strongly down; the Hips presently followed, as also  
the Body and Head. The *Funis Umbillcalii* was twisted  
round the Neck of the child ; and upon the Head 5 sinking  
down the preceding day, the Placenta was in parr, if not  
wholly, separated from the Uterus, which separationwas^oc-  
casioned by the contraction of the Navel-string. The Pla-  
centa being separated, a Flooding of course ensued. Passing  
my Hand, aster the child was brought outs I fonnd the bur'  
den sunk down, and partiy out of the Wombs lying in the  
Vagins, so that I had no difficulty in bringing it away.  
The child was hem dead, which I judged it to have been  
several hours, the woman not having perceived it stir all the  
time of her Labour. This woman was in the eighth month  
os her reckoning. She died ahent eight or nine hours afer  
her Delivery, notwithstanding all proper applications were  
made use of. This, I imagine, wholly proceeded from her  
great loss of Bloed hefore she was brought to bed. *Cossearde*

**OBSERVATION** LXXXL

April i. I730, I was sent sor to a poor woman in Knaves-acre,  
the wise of a smith, who wa% aheut six months gone with child,  
and had heen seized with a Flooding some days hefore, for  
which her midwife had, not long before, come to consult me,  
when I ordered an ashingent mixture to he taken three or  
four spoonfuis now and then, and a quieting astringent  
draught to he taken at night, which I ordered to be continued  
every night, in case her Flooding did not stop, with orders  
to give me an account of her the next day, at the same time  
telling the midwife, that in case it continued, the only means  
left to save her life, was to deliver her; but as the method I  
ordered had in some measure the desired effect for the pre-  
sent, I heard nothing farther for two or three days; but her  
Flooding returning again, her husband came to me, and de-  
sired I would go to her, which accordingly I did, and upon  
examination found the OS intemum not dilated enough to ad-  
mit the End of one Finger; and not easily to he dilated;  
wherefore I advised a repetition of the medicines hefore pre-  
scribed ; and on the next day he called again to tell me, that  
**the** draining continued, but was not fo Violent; however,  
as she became weaker, he desired I would see her; I then  
found the OS intemum as it was the preceding day, and as I  
could not dilate it with my Fingers, I advised a continuance  
of the mixture and draught; on the third day the midwife  
sent me word, that the draining continued, but that the Os  
intemum was dilated somewhat more than the preceding day,  
which gave me incouragement to hope that I might dilate it  
’ wide enough to pass my Hand and bring the Foetus. Upon  
my touching, I found an opening large enough to admit the  
end of three Fingers, wherefore I endeavoured to dilate it  
with my fingers and stretching them wide from each other,  
**I** got in my Thumb, and afterwards my whole Hand. The  
first thing I met with was part of the Placenta separated from  
the Uterus, and passing my Hand by it, I felt the child in-  
closed in the Membranes, and floating in the Waters. I rea-  
dily broke the Membranes with my Fingers, and passing my  
Hand within them, soon metiwith a Leg, which I drew 0Us,  
and taking hold of it with a soft cloth, I gently pulled to-  
wards me, at the same time advising the woman to assist by  
bearing strongly down; and by this meshed I presentiy drew  
out the Foetus whole and intire: I was indeed afraid, as if  
was Very tender, that the Limin would have separated from  
the Body. The Placenta readily followed, heing before in  
part, is not wholly, separated from the Uterus; the Flooding  
stopped immediately upon the Delivery. *Gifford.*

**OBSERVATION** LXXNIL

January 23. 1729-30, A woman came to me aheut seven  
o’clock in the evening, desiring me to go with her to a grocer’s  
wife in Leather-lane, near Holbourn ; the woman had ruts-  
earned aheut an Hour before os a Foetus of aheut five months  
old, which had been dead for some time, and che Navel-  
string, heing both Very sinall and tender, broke by the mijo  
wife’s endeavours to draw out the Placenta. Immediately  
upon my coming I passed up the two Fore-fingers of my Left-  
hand, and sound the Placenta in parr protruded out Of cheOs intemum, and stopping up the same: I therefore, moli  
held of the part protruded hetween my Fingers, and drew in  
gently outwards, by which method, the part remaininn  
the Womb, and which stoppest up the OS internum, readjry  
followed, and the Flooding stopped. This woman had for  
some days laboured under a Fever and Violent Cough, which  
Ijudged occasioned the death or the Poems, and the Miscar-  
riage afterwards.

**OBSERVATION** LXXXIIL

Instances of Miscarriages from a Plethora.

May 22. I682, I delivered a woman who was in her third  
month ; she was os a Very sanguine constitution, and I had  
advised her to bleed at the end os the first month, in order  
to preserve herself from such an accident. But she would  
not hearken to good counsel, but chose to follow a had  
custom, which many others have, of staying till they ute  
half gone, before they think of such a misfortune, which  
generally happens hesore the end of the third month. AS **the**“ woman had a great Flux of Bloed, I took from her the .

After-birth, of a good Finger's thickness, and the breadth of  
two thirds of the Palm os a Hand, though the Foetus, which  
was still shut up in its Membranes, whose Waters were all  
run off an hour before, was no bigger than a large bee. We  
’ cannot however infer from hence, that the child had been n0 \_  
‘ bigger than it was at the time of the Miscarriage s for it did  
not seem above twenty-five days grown; about which time  
it probably began to wither, its principle of life having been  
destroyed : and though not growing for a long times it re"  
mined in the Womb, and preserved itself in its Waters, till  
this Miscarriage happened to the woman, who did mighty  
well afterwards. *Mauriceau.*

**OBSERVATION** LXXXIW

August 22. I685, I attended a woman who was thought to he i  
\* more than three months gone with child, but had just then  
miscarried of a little Foetus, wrapt up in the Aster-birth and its  
Membranes, and scarce bigger than a common fly, the whole  
. being about the size of a pigeon's egg. The woman had,  
for two months past, laboured under a continual Flux of  
Bloed, winch was so great when she miscarried,. that her  
husband thought she would have died.

AS the principle of life was destroyed in this Foetus from **the**. beginning of the mother's pregnancy, it must have rested at  
the same dimensions as when deprived thereof by some ac-  
' cident, which might probably be the same as excited that

Flux of Bloed, which never ceased till Nature had discharged  
itself of that useless burden, after which the woman, who had  
suffered Very much so long a time, recovered her health.

It is worth observing, that Big-hellied women are often known  
*’. to* be thus injured without any manifest cause, meerly by their  
own sanguine temperament, their redundances of Bloed suf-  
focating, and, if I may so say, drowning the infant as soon  
as it is conceived, if not seasonably prevented by Bleeding  
in the Arm. *Mauriceau.*

**OBSERVATION** LXXXV.

July 9. I 685, I brought away an Aster-birth, which belonged  
to a small Foetus of six weeks growth, of which the woman  
‘ . miscarried two hours before, and with it abundance of large

clots of Bloed were discharged, though she had never received  
the least hurt or injury,,as she told me herself.

This accident may serve to prove, that Bleeding, which it is **the**custom to defer till after the fourth month, would be of more  
- service in the first months, than at the end of sour months  
and a half.. For it is most certain, that the meer abundance  
of Blood is frequently the cause os miscarrying before the end  
of the third month, from which women might preserve them-  
selves, is they took care to bleed in the first months of their  
pregnancy, during which the insant being Very small, wants  
- but Very little Bleed to nourish it. For which reason not  
bring able in that state to dispense with all that is retained by  
the Suppression ofthe Catamenia, the Vessels of the Womb  
which are overloaded, open, and discharge their contents in  
an extraordinary manner, and thus cause those exuberant  
Fluxes of Blood, which almost constantly accompany this

- sort of Miscarriage. *Mauriceau.'*

A Miscarriage from a great Swelling of the Labis.  
**OBSERVATION** LXXXVL

June 2. I672, I attended a woman who had laboured fifteen  
days under a Very great Swelling os the two Labis Pudendi,  
as well as of the Legs and Thighs. This was occasioned by a  
great load of humours deposited on those parts, and on **the**Womb itself, where she felt a great Pain from a moderate  
prestiire of the Handmpon the Belly, which also was swelled  
. big enough to give a suspicion os her bring with child, though  
she had been without her Menses for fourteen months, since  
she was delivered os her second child. Their suppression  
might be owing to the ill state of health she had been in,  
having been troubled with Fevers during the first eight months  
of the fourteen; or to her becoming with child upon her re-  
covery to a good state os health, which she had enjoyed for  
some months past. But as she had not as yet felt any motion  
like that of a child, and her Breasts were not swelled, and  
there was ηο touching cf her helow^ t0 examine the state os  
- the W ornb, because os the prodigious Swelling os the Lchja  
which hincered It, I told her, that though I could nor posi-

tively assure her that she waS with child, which I very  
much suspected, I would advise her to manage herself like a  
Big-hellied woman; and that she might, sot all that, suffer  
some scarifications to he made on the outside of the s a bin,  
in order to give vent to a vast quantity os serous humours,  
which had caused so extraordinary a Swelling, aS to endanger  
a Mortification. The operation was performed two days after-  
wards by an ordinary surgeon, and a vast quantity of water  
was discharged sor several days, whereby the Swelling of all'  
the parts round about was considerably abated, and some day8after the woman wasdelivered of two children, with winch she  
had gone about four months. One of the children was alive,  
the other was dead; and was probably the cause, by the ill im-  
pression its corruption made on the Womb, of an Inflamma-  
tion, winch communicating itself to the Exterior parts, drew  
on a Mortification, of which the woman died the third day, as  
I had with assurance foretold the day before. It is what almost ,  
instantiy happens, when this sort of Outward Swelling from  
the Inflammatory disposition of the inward parts grows Ery-  
sipelatcus. But when they are no more than Oedematous,  
aS it pretty often happens to women who have had many chil-  
dren, towards the last months of their pregnancy, they  
are not commonly so dangerous. *Mauriceau.*

- A Miscarriage from a Quick-silver girdle.  
**OBSERVATION** LXXXVIL

February II. I685, I attended a woman, who, when she was  
two months gone with child, had put a Quick-silver girdle  
round her waist, by advice of some ignorant person, to cure  
a simple Itch. The poisonous remedy in a sew hours raised  
a plentiful Salivation, with so great a Swelling of all the inte-  
rior parts of the Throat, that, for sear os Suffocation, or a  
Delirium, they were obliged, as her surgeon told me, tor  
bleed her four times, and to give her several Purges to divert  
the Course of the humours, downwards, not imagining she  
was with child. But the consequence was a plentiful Flux  
of Bloed, which threw her into Paintings, that came' one  
upon another, and ended at last in a Miscarriage. It is more  
than probable, that the Purges that were given her, as well '  
aS the repeated Bleedings before administered, were the prin-  
cipal and leading causes to this misfortune.

But though the patient seemed to he very weak, and almost  
harraffed out by such a train of accidents, when I saw her, I  
did not think her in danger, but could safely Venture to fore-  
tell, that the great evacuation before Miscarriage, and that  
which ought to follow, would infallibly put a stop to the  
Salivation, which accordingly happened 7 and the woman was  
well afterwards. *Mauriceau.*

A Miscarriage os Twins.

**OBSERVATION** LXXXVIIL

October 6. I73O, I was sent for about four o'clock in **the**morning, to the wife of a snuff-box makes, in Dean-street,  
near Red-lion-sijuare, who was, according to her calculation,  
about seven months gone with child; I had been with her  
about three months before, when she was under some appre-  
hension of. miscarrying, but by proper applications I cured  
her at that time; but now one FcetuS was brought away  
before I was sent for, and the midwife not being able’ to  
bring away the Placenta, occasioned my being sent sor. I im- .  
mediately would have endeavoured to pass my Hand in  
search os the Placenta, but the woman could not he readily  
persuaded to admit me, and made some struggle, until she  
. was overcome by the persuasions of her friends, and the ap-  
prehensions of the danger she was in, should it not be brought  
away; so that at length she admitted me to pass my whole  
Hand into the Vagins, and so on to the Os internum, which  
I sound so much contracted, that it would scarcely ati-  
nut the ends of four Fingers; but shaving by. degrees dilated  
the Orifice, I got my Hand into the Uterus, and found  
. something harder than a Placenta. This proved to be an-  
other Foetus inclosed in its Membranes, which were much  
distended by the Waters; I broke the Membranes imme-  
diately with **the** ends of my Fingers, and then putting my  
. Hand within them, I searched for the Feet; the first part

I met with was the Head, which I pasted by, and went on in  
search os the Feet, and soon met with one Foot; this L  
brought out, and as I had sufficiently dilated the Os internum,  
the FCetus being likewise very small, I judged I might easily  
draw it out by the Leg already brought down, without giving  
her fresh Pain by passing up my Hand again to fetch down  
the other: I therefore took hold of the Leg I hed secured,  
and gently drew it forwards; I say gently, sor hed I used any  
force I might have torn it from the Body, the Leg being Very  
sinall and tender; at the same time I advised the woman to  
. assist by bearing strongly down, which much contributed to  
the bringing out os the Him, Bedy, and Head, all which  
soon followed; and upon passing up my Hand to fetch away the  
. Aster-burdens, there bring two entirely separate, I met  
with the burden belonging to rhe Foetus first hern pro-

treded and bring in the Vagina; this I immediately brought  
-awav; and then, repasiing my Hands I found the other  
Iyherv within the Uterus, but wholly separated from its TO  
that! had no more difficulty in bringing away this than the

- former. *Costard.*

Instances *of* Miscarriages without manifest cause.

**OBSERVATIoN LXXXDG**July 23. I685, I attended a woman who had lnst he^recarried without any manifest cause, of a small msanI. n°  
bigger than a bee, inclosed in the Afterthtrth fr ῥδ᾽  
branes, which still contained all the Viators, the whole  
being of the fixe and figure of a pullet’s egg- The- reckoned herself three months and a hxif SonS’ th°uSh μά\*  
- she had brought forth was no bigger the112 Fa monin’  
bring hindered in its growth by some Fluxes of Blood» W1which the mother was from time ω stme Yinted’ 0111101115^“  
- Iarly in the ordinary season of het natural pnrgaU0nS: Ἀοιη  
- this symptom, the woman not thinking herself wtth chndi  
though I *had assured her* of its had neglected to he«P hesselfquies, and take her repose in Bed, a3 W2S necessary to FT  
- serve her Big-belly which had been indangered since these  
Fluxes came upon her. Nor did she take care to bleed in the  
Arm, as I advised her, after I knew she was with child.

Now I was certain that she had conceived» notwithstanding  
those evacuations, which came at the ordinary seasons, signi-  
fied the contrary; for then coming at those times was merely  
accidental and by chance, as I observed; because aster these  
evacuations had ceased, the ordinary signs of pregnancy con-  
tinued as before, whereas they would have Vanished aster a  
genuine Menstrual purgation. *Mauriceau.*

**OBSERVATION** XC.

December I2. I685, I attended a woman who, at the end of  
’ three months, according to her own rechoning, had just  
miscarried os a small Foetus, which came from her without  
much Pain, inclosed in the Aster-birth and its Membranes  
and Waters, the whole equalling the bigness of a duck’s egg.  
The Foetus was no bigger than one of five or six weeks

\* growth. The mother before she was delivered of it, had a  
' moderate Flux of Blood for three weeks, so that bring de"  
prryed of life long before Nature expelled it, a stop was then  
put to its growth.

AS this Miscarriage had no violent cause to force it, the woman  
' was aS well afterwards aS if she had lain in naturally of a child  
at the full term. *Mauriceau.*

**'' OBSERVATION** XCL-

January I4. I687, I delivered a woman, aged twenty nine,  
at the term of five months, of a littie infant alive, which  
presented the Feet, with a considerable Flux of Blood, and  
was the sixth os whom the mother had miscarried successively,  
not having gone a longer term with any of her children than  
with this, which was five months compleat, with others  
three months, and one of them four months and a half. But,  
what is extraordinary, the woman miscarried thus six times,  
without any injury or evident cause, and in spite of all  
- possible precautions which she had taken to secure her-  
self against this melancholy accident, to which she was so  
' subject, that I delivered her of sour children since, of whom  
she miscarried in like manner without manifest cause, two of  
four months, one of six months and Ahalf, and the last of  
seven months, not being able to preserve any one of these  
Big-bellies to a longer date than the last, where the infant,  
though living when I laid the mother, survived but seven  
- hours, as being, by reason of its immature birth, too early  
\* by two months. Very small and Very feeble, aS all those in-  
fants are which are born at seven months.

This example shews how easily some women miscarry, as this  
woman actually did *of* ten children, which her unhappy Fe- 1- cundity conceived only to see them all perish in the birth.

She was above a middle stature, of a pretty full Habit of body,  
- and her' Complexion was sanguine and phlegmatic, which  
- ’ not a littie contributed to the untimely relaxing and opening

of the internal orifice of her Womb, at .the least agitation of  
: Body or Mind.

J had advised her, as the hest remedies against a relapse into the  
. same misfortune, to abstain from her hushand all the time  
of her pregnancy, to bleed in the Arm, when gone six  
weeks, and to repeat it every two months, and to keep her-  
self in perfect composure os Mind and Body. But this  
good counsel served only to make her go a little the longer  
ς with the last children than with the first, for she went with  
the last, os which I delivered her, February II. I692, to  
the end os the seventh month, which lived only seven  
hours, aS I find before. However, there is room to hope,  
that by continuing to follow the good counsel I have given,  
she may hereafter go out her full time with a child, and  
have a more happy lying-in with it than she has had with  
all the rest. *Mauriceaus*

**\_ OBSERVATION** XCIL

January I7. I688, I attended a woman, who, aster a day's  
moderate Flux of Bood, had just Voided a sort of False con-  
ception, some flight membranous fragments of which had  
come away the day before. This supposed False conception  
was of the fine os a large pigeons-egg, and its figure much  
resembling that of the cavity of the Womb. I opened it,  
and sound a small Foetus in the middle, no bigger than a  
com of wheat, though the mother believed herself three  
months gone. I knew by this that the principle of life in  
this Foetus had been destroyed a short time alter its Con-  
ception, whence a stop was put to its growth *Mauriceau.*

**OBSERVATION** XCIH.

August 22. I689, I delivered a woman of a small Foetus, in-  
closed in the Aster-birth, its Membranes, and its Waters,  
which, to all appearance, had been dead a Very long time.  
The woman thought herself six or seven rnontso gone, though  
the littie Foetus, which was never felt to move, was no  
bigger than one of two months and a half, or three months  
at mosh

When I delivered the woman, there ensiled such a copious  
Flux of Blood, that she fell into Paintings, which might  
have put her in great danger of her life, had I not speedily  
succoured her by stopping the Flux, which ceased as soon  
as I had taken away this foreign mass which caused it. Af-  
ter this, the poor woman, who had been in a Very languish-  
ing condition a long while, did Very well. *Mauriceau.*

**OBSERVATION** XCIV.

February 29. I69O, I attended a woman, who had miscarried  
seven days before of a child four or five months grown, and  
now lay almost at the point of death. Her midwife, who was  
incapable ofdelivering her, had broke the String of the After-  
birth, and had Very much fatigued the patient for an hour,  
without being able to bring away more than seine pieces of  
the After-birth, the greatest part remaining in the Womb.

Hence extraordinary Floodings, and plenty of Very foetid Ex-  
cretions, accompanied with a continual high Fever, winch  
had several exacerbations every day, a great Tension of the  
Belly, Faintings, and other symptoms, of which the patient  
died, two days after I had seen her in this melancholy con-  
dition, as I had foretold, more from a consideration of the  
injury done to the Womb, when the midwife endeavoured  
to bring away the After-birth, than out of regard to the meer  
Retention of that foreign mass. For. it is to be observed that  
there is less danger in committing the expulsion of the Aster-  
birth to Nature, than in offering too much Violence to the  
Womb in order to force it away from thence, which ai-  
ways causes an Inflammation, a disease the more fetal as it  
is augmented by the Suppuration of the remaining part of that  
foreign mass. *Mauriceau.*

**OBSERVATIoN** XCW

March I6. I69I, I delivered a woman, who had miscarried  
two hours before os a Foetus of three months, which had been  
dead eight or ten days, aS appeared by its corruption.

The midwife, for want of sufficient knowledge in her busmess,  
being incapable of bringing away the After-birth, so excessive s  
a Flooding was excited by its Retention in the Womb, that  
the woman must have run a great risk of her life, if I had  
not speedily delivered her of it, and so pur a stop to the  
Hooding, after which she did Very well. *Mauriceau.*

**OBSERVATIoN** XCVL

May I2. I692, A lady sent for me to her house, to shew me a  
small Foetus and its Aster-biIth, which were all corrupted and  
decayed, though without any offensive smell. She asked  
me, os what term I supposed that small Foetus might he,  
which was of the length of the Middle-finger.? J answered,  
that, by its bigness, it did not appear to have been alive in  
the mother’s Womb above two months, but that it might  
have been preserved there aS long a time aster its death, ite  
Waters not being discharged before the time of travel, and  
perhaps longer. She then told me that it was a domestic os  
hers, who had miscarried that very day os this infant ; and  
that as her hushand had been absent these four months and a  
half, she believed, seeing the infant so small, that anotherman was the father. As for my pars, the scar of irnpUtino.  
a crime to the woman, os which she might possibly be jnmsi  
cent, made me leave the question undecided. For J could  
not come at an intite certainty, by examining the Body Os  
the Foetus, because I had seen as finall ones, whOce mochcreheve not been delivered of them till stve after their

Conception, having carried them dead two Or three months,  
they being preserved without much corruption in cheir  
- own Waters, as some forts of fniits ut a ickl

that they did not exceed the stag they had arrived at  
when their principle of lite w^ destroyed. MamajCgau,

**OBSERVATION** XCVIL

March **8.** I693, **I** delivered a woman os a small child os **sive**months, or which she miscarried without any manifest cause,  
except that the After-birth began to he loosened, because  
' .the insant, who presented the Arm before the Head, with  
part os the Navel-string, was sio intangled in the'String, that  
the Aster-birth had been considerably shocked by it, as **I**sound by several clots os black Blood which closely adhered  
to that side os the After-birth which was loosened from the  
Womb.

The child was alive two hours before I brought it away, which  
I knew by the beating at the Navel-string; bnt as theWomb  
**was** not opened enough for me to extract it at that time,  
without disinembring it, I was obliged to wait till it was  
siifficientiy dilated to pennit me to extract it without violence.

- For this purpose I ordered the woman a Clyster, which  
, quickening her languishing Pains, contributed to the suf-  
ficient dilatation of the Orifice, and exclusion of the Foetus,  
whose Waters were all run off two hours before I was  
called. The woman, though of a Very delicate constitution,

- did Very well aster I delivered her. *Mauriceau.*

**OBSERVATION** XCVIIL

August 3I. I693, I delivered a woman of the Asterthtrth of a  
small Foetus of two months, of which she had miscarried  
three hours hefore without any manisest cause.

The After-birth being retained in the Womb aster the expul-  
sion of the sinall Foetus, occasioned such a Flooding, that  
the woman had several times Fainting fits, out of winch she  
recovered as soon as I had delivered her of that foreign mass;

- for the Flux then ceased, and the woman did very well.  
This was the eleventh child of winch she had miscarried.  
*Mauriceau.*

**OBSERVATION** XCIX.

Septemher I 5. 1693, **I** delivered a woman of a False concep-  
tion as big aS a man’s fist, in which I found a small Foetus  
quite withered, which was no bigger than a hee, though  
the woman had suipected herself with child near seven months,  
. thy the signs of Conception she had upon her from the first  
month after her last. Menstrual evacuation.

Three full months ago she had been troubled with a continual  
’ Flooding, winch shewed that Nature had attempted, from  
the-beginning of that Flooding, to clear the Womb of its  
. contents; but sailing to accomplish it had been the cause  
. that this False conception, being so long harboured there,  
.. and not quite loose from it, had received a considerable  
. increase, and was grown to double the ordinary bigness of  
those False conceptions which women Very seldom exclude  
but in the second or third month after Conception. And as  
this littie Foetus, which was lodged in this great False  
conception, was no bigger than a Foetus of fifteen days, I  
- suppose that the principle os life had heen destroyed in it, from  
- the beginning, by some other cause antecedent to the Flood-  
ing. *Mauriceau.*

**OBSERVATI0N Co**

Noyember 3. I sio7, A woman of this city gone about ten  
. weeks, or three months, with child, felt some Colic pains,  
which were followed by Pains in the Loins, that at last here  
down upon the Uterus. As she was a woman os good  
understanding, she was equally sensible with me, that this  
. unhappy disposition tended to a Miscarriage; and we were  
confirmed in this sentiment by a frequent inclination to make  
- water, which obliged her to make use os the chamber-pot,  
hefore I had time for a proper examination. During this  
effort to make water, she perceived something fall from her,  
which proved to he the Waters, followed immediately by  
the Foetus, which was so small, that being laid upon a paper,  
it was by the next morning shrivelled into the form of a thick  
dry Membrane.

This accident was followed by another much more dangerous,  
which was a Violent Flooding, caused by the Retention of  
the littie After-birth, the Navel-string of which was too small.

. and tender, to be os any service for its extraction.

**I** did all that was possible to bring this After-birth away, and  
. ' eVen proceeded to extreme Violence, not regarding the ad-

- Vice of Peu and Mauriceau. I made use of one Finger in  
- this operation, not being able to introduce a second, and by  
moving this round the internal surface of the Uterus, I sepa-  
rated the Placenta from it, and extracted it, by bending the  
Finoer, and making it serve as a blunt Hook, betwixt which  
and°the opposite side of the Uterus I pressed the littie After-  
- birth, and brought it away at last intire, aster which the  
. Flooding immediately stepped.

The extraction of this Aster-birth, however littie, was absolutely  
necessary, otherwise the woman must have perished by the  
Flux of Blood, which was so Violent, as to make her in this  
littie time Very saint. *La Matte.*

**OEsERVATIoN** CL

August 2. 1692, I delivered  
a woman six months gone with  
child, who laboured under a great Flooding, occasioned by  
the intire separation of the After-birth, which presented first.  
She had several times sainted, and was ut great danger of -  
losing her life in a sew hours, had I not speedily token the'  
child from her, which was dead hefore through the excessive  
Flux of Bleed, which ceased as soon as I had laid her.  
Wherefore I was obliged, under the dOubt I was in whether  
the child were alive or no, to return it, that J mighe it  
by the Feet; which I did. But the operation signified n0-  
thing to the child, who was dead before, as I said; het it  
was beneficial to the mother, who recovered her health  
afterwards.

You are to observe that on these occasions, where the Aster-birth  
. presents first to the passage, you are never to expect that Na-  
ture, who is extremely debilitated by the excessive Flooding,  
which always attends fuch a disposition, should os herself  
expel the insant. And therefore you are, with all expedi-  
tion, to take it from the mother, if you define to save her  
from death, and her insant too, if it be still alive. P0r is  
they are not speedily succoured, they must both die, because

*- os* the excessive Flooding, winch cannot be stopped hefore  
the Womb is intirely delivered of both the Insant and theAfter-birth. *Mauriceau.*

**OBSERVATION** CIL

Decemher 24. I692, I attended a woman who, four days  
before, had miscarried of a Foetus of four months, but the  
Aster-birth still remained in the Womb, which had closed  
itself immediately aster the expulsion of the child. The  
midwife finding herself at that time incapable os bringing it  
away, left it to Nature, who took care to discharge itself of  
it with a considerable Flooding in my presence. But as this  
Flooding had been excited only by the residence of that  
foreign mass in the Womb, it stopped as soon as Nature had  
expelled it, and the woman, recovering from the great weak-  
ness caused by the Flooding, enjoyed her health. *Mauriceaus*

Instances of Miscarriages from Acute Diseases.  
**OBSERVATION** CIH.

The 1st of March, I67I, I-attended a woman five months  
gone with child, who, aster a continual Fever of three  
weeks, miscarried of an infant, which immediately expired,  
- and she herself died two days after. The extreme danger  
she was in, was yet farther increased after her *Abortion,* aS I  
plainly foretold the physicians who attended her, and who had  
flattered themselves that the evacuations of Child-bed would  
have mitigated the Fever, -and disposed it to give way to pro-  
per medicines. Far from this, the Fever usually increases  
immediately after Delivery, and gains double force from the  
suppression of the Lochia, which almost constantiy happens  
at that time, whence the Humours, which were the first cause  
of the disorder, immediately return hack on the internal parts.  
After this the patient has not long to live, because Nature,  
which is already oppressed with a distemper in its own na-’  
ture dangerous, can by no means regulate and accomplish **the**necessary evacuation of the Lochia. For this reason, a phy-  
sician who attends pregnant women during their illness  
ought, by all ways and means he can devise, to hinder *Abor-  
tion,* since most women, to whom that accident happens,  
die Very soon aster, especially such aS have then Fever accom-  
panied with a Defluxion on then Breast, of which I have  
seen many instances resembling the case of the woman I  
speak of, whom I opened after her death, and found the  
Lungs on the Left-side all suppurated, and abundance of ’  
serous and bloody matter, on both sides the Breast, and **the**Liver quite dry and shrivelled. *Mauriceau.*

**OBSERVATIoN** CIV.

On the 16th of March, I678, I delivered a woman twenty  
two years old of an insant six months grown, who lived but  
three hours. The mother had for nine days past laboured  
under a great Defluxion upon her Breast, and a continual  
Fever, for which she was five or six times blooded by advice  
of the physicians, who attended her every day. But though  
she had been delivered with much ease, aster no more than  
two short hours travel, I was yet persuaded that her illness,  
which was os a mortal kind, would grow upon her aster her  
Delivery. For in order to entertain any hopes that the mo-  
ther would receive benefit or relief by this accident, aS the  
physicians Vainly assured her, it was necessary that Nature  
should have been Very regular in the due evacuations of  
Child-bed, which it could not well perform, being already  
oppressed with another distemper. And besides, towards the  
second or third day aster Delivery, there usually happens a  
reflux of Humours to the Breast, for the generation of Milk.  
On these accounts I might well conjecture that this lady  
would die, as it actually came to pass the fourth day after  
she had been brought to bed. For her distemper had its prin-

cipal seat in the Breast, where it had before made such a  
. progress, that she began to have a Stertor from the time that

I laid her. *Mauriceau.*

**OESERVATIoN** CV.

June I9. I 685, I attended a woman who miscarried of asmall child,, three months grown, through the violence or a  
continual Fever, and was even growing delirious at the time  
of her miscarrying, which happened in the twelfth day os  
her illness. But though she was almost reduced to extremities,  
and the After-birth remained in the Womb, the midwise not  
being able to bring it away, yet she began to mend imme-  
diately upon Delivery, so that five or six hours afterwards the  
Fever was much decreased, and went off the next days  
Nature also having in that time of itself expelled the Aster.'  
birth, which remained behind.

This woman recovered contrary to my expectation; for I  
have often observed that it is extremely rare to see women  
who have a Fever, accompanied with a Defluxion on their  
Breast, survive these sorts of distempers. For they thes  
' almost every one, in a few days after they are delivered in that  
bed condition; and I suppose that what mightily assisted this  
woman in inch dangerous disorders was the soundness of her  
Lungs, which did not seem at all affected. *Mawiceau.*

**, OBSERVATION** CVL

February 3. I692, I was sent for to deliver a woman who had  
miscarried the day before of a sinall Foetus of three months.  
I took from the Womb a small After-birth, all hardened,  
which Nature could never have discharged, and whose Re"  
tention had caused so excessive a Flooding, as to throw the  
woman several times into Very great Paintings. \*

As she had a small and Very quick Pulse, with very greal  
inequalities, when I delivered her, which was not intirely  
Owing to the Fever, of which she had been ill three week5»  
but also to potions of Savin and Mugwort, and other heat-  
ing medicines, which were prescribed for her, in order, as  
it was pretended, to procure the expulsion of the Aster-birth,  
I Very much doubted her recovery, though I had delivered  
her without using any Violence. However she did well  
enough afterwards, the relief I gave her in ridding her Womb  
os that Aster-birth being of more service to her, than all the  
Diuretic and Cathartic potions she had taken, which were  
so far from producing the effects expected from them, that  
they served only to increase the Flooding yet more and more.  
*Maaticiau.*

**OBSERVATION** CVIL.

July I. 1693, I delivered a woman of a Foetus of five months,  
which had been dead above twelve days, aS appeared by its  
corruption. But the String of the Afterbirth, being Very  
weak and rotten, broke; by which means the whole sub-  
stance os the Aster-birth, which was Very large, and as it  
were scirrhous, remained in the Womb, which immediately  
closing upon it, gave me no room to extract it till half an  
hour afterwards, when its internal orifice bring sufficientiy  
relaxed to suffer an extraction without Violence, I did the  
same with my Hand, only carrying it to the entrance of  
that internal orifice, where I took hold of the Bedy of the  
Aster-birth which presented.'

This woman, for ten or twelve days before, had laboured  
under a continual Fever, with Exacerbations, which had  
. killed the child in the Womb, of which distemper, how-  
ever, she had the good fortune to recover five or six days  
before this Miscarriage, and so escaped the great danger of  
life she must have been in, had the Miscarriage happened in  
’ the time os that disease, which it would not have sailed to  
increase, as it usually happens, when Nature is weakened  
by so dangerous a distemper.. *Mauriceau.*

**OBSERVATION** CVIIL

March 3o. I687, I attended a woman extremely ill, who had  
miscarried six days besore of a dead child at the term os  
sour months, having at that time upon her a continual  
Fever, with Pains in her Breast, and a Spitting os Blood.  
Her midwife had much ado to deliver her, and had even  
lest a port os the Aster-burden in the Womb, which had no  
way to come off asterwards but by Suppuration, as I made  
appear before her physician, who had sent sor me that wemight consult together. But I sound the patient in so bad a  
condition, that she could not hope to recover, and that her  
greatest disorder proceeded rather from the Fever, and Paut  
in the Breast, then stern a small part os the Aster-birth left  
behind, which Nature would easily have gnit clear of, had it  
not been oppressed wirn the load Of that pernicious distemper,  
which in a few days aster put an end to the patient’s lire, as I  
had, with good reason, foretold.

Experience had taught me, that almost all women whe heve a  
continual Fever, with Pain in the Breast, at the time Os aMiscarriage, die in a little time aster, through the increase

that final distemper receives from the Suppression os **the**Torhia, which usually happens under those bad circum-.  
stances, whence all the Humours flow to the Breast, winch  
was over-heated and disordered before, and there laying  
load upon load, compleat the Suffocation of the patient.  
*Mauriceau.*

**OBSERVATION** CIX.

December 8. I68I, I attended a woman, whe, in the third  
month of her pregnancy had been seized with a considerable  
Flux os Blood, and had just then Voided, amongst clots of  
Blood, aMembranous bag, os the bigness os a pullet's egg,  
fiIll os .water, in the middle of winch I found a little Foetus  
os the bigness os a Very small bee, winch, to all appearance,  
ceased to grow and live fix weeks hesore, at which time the  
mother was taken with a Quartan ague; the Bedy of this  
little *Abort* remaining in the same proportion winch it pro-  
bably had when the Violent fit of the mother’s Fever deprived  
it of the principle os life. *Mauriceau.*

**OnsERVATIoN CX.**

June I4. I 684, I attended a woman who lay at the point of  
death, from a continual Fever, with a Defluxion on her  
Breast, which caused her to miscarry three days hesore, in  
her third month, os a small dead child, corrupted all over.  
When I was told that two hours after the expulsion **the -**woman voided some Membranes mixed with clots of Blood,,  
winch the midwife and the physicians who attended her took  
for the Aster-birth, I allured the husband and the midwife,  
who were present, that if the patient had Voided nothing  
else fince the child came away, she was not yet delivered of  
the Aster-birth, as indeed she was not. For these sinall.  
*Aborts* are always expelled before the Aster-birth, which fre-  
quently remains in the Womb in these kinds of Miscarriages,  
if it is not expelled together with the child, aS it happens  
when it comes enveloped in its Membranes. This woman's  
miscarrying under a distemper in itself mortal, joined to the  
corruption of the Aster-birth remaining in the Womb, a  
circumstance mistaken by the physicians and the midwise,  
hastened her death, which happened the next day after I saw  
her in that delperate condition, aS I foretold to her hushand.  
*Mauriceau.*

**OBSERVATION** CXI.

in the year I 7 04, a Very uncommon distemper prevailed,- both  
in town and country,, which proved mortal to most of those  
whom it seized; but the old, the feeble, and the poor, ί  
escaped better than the young, the vigorous, and the rich.  
'The patients were afflicted either with Violent Heat, or a  
continual Shivering, with an Oppression, Pain in the Side,  
Cough, Spitting of Bleed, and Vomiting.

June 22, a lady about three months gone with child was selfed  
with the fore-mentioned distemper, and the symptoms seemed  
to have come all at once aS it were to overwhelm the poor  
patient; only instead of the Heat she had an extreme and con-  
tinual Shivering. I .was sensible of the danger as soon as  
I saw her taken with so violent a disease in the time of  
her pregnancy, and therefore advised her to settie her al-  
sairs. As she had the Spirit os a man in the Body of a wo.  
man, she did it with resolution. And as I never knew her  
guilty of the least weakness in all the times of her lying in, ,  
during which Iattended her, and aS she had a perfect confidence  
in me, I began with Bleeding, aS the only remedy that could  
relieve her, an emetic bring forbidden on account of ner  
pregnancy, and the Violent oppression she laboured under.  
But the great Chiiness that seized her, had so concentrated,  
her Blood, that the Extremities seemed to be deprived of it.  
I tried to recall the Heat into one of her Arms by vehement  
Friction; and holding under it a chafing-ddh 0s coalS)wrapped it up afterwards in towels heated very het, till at  
last I found a Vein which appeared tolerably finh J opened  
it, and after a good deal of time, and several elsays, drew  
from it several porringers os Bloed.

I deferred a second Bleeding till the next day, in hopes that  
Heat would succeed that terrible Chiiness, which was tnd  
more surprising as it was Midsummer: Bur J got nothing by  
it, the Chiiness continued the same, as well as the Oppression,  
and the Stomach could bear no remedy because os the C0nl  
tinual Vomiting. so that the absolute necessity I was under  
os relieving the patient, or suffering her to perifn in this de-  
plorable manner, determined me, notwithstanding the LqW\_  
cess of the Pulse, m a Second Bleeding, whatever difficulties  
I might meet with, or how loth soeve- J ndght. he to d0 itm a case so delperate aS hers, in ihOrt, I resolved upon is,  
and made use nf the same means as the day before, howeverinconvenient the Artificial boat might he to che plck. j m2de ashift this time m draw off three good porringers of Bloed,  
winch relieved the patient considerably; the Chiiness, the  
Cough, and the Spiting *os* Blood went off ar the

I here remained only a flight Pain ώ cheSide# with fomelittle Oppression, .or the effectu-l remo^l ut w^ch I should

have renewed the Bleeding, had she not complained of son»  
flight Pains in the Belly^and about the Kidneys. Upon this I  
allured her that she was going to sail in Labour, which  
actually came to pass an hour afterwards.

1 could not choose but foresee the nature of those Pains, winch,  
flight aS they were, yet increasing every moment, made me  
talte precantions not to he surprised; and these Pains growing  
stronger and quicker, I touched the patient that I might he  
perfectly satisfied. I found the Waters formed, which broke  
away at the first Pain, and the child presenting in the right  
posture, came away, and was about the fixe of a mouse.  
I then delivered the mother with more trouble than I had  
about the child. And, though this is no proper place to  
mention it, I take occasion to fay, that the String of so  
small an insant cannot he supposed thick or strong, so that I  
was obliged to follow it to the root, and with two Fingers  
to separate it from the Womb, before the Inner orifice had  
closed up ; and.then brought it away.

This lady was Very ill for three or four days, though her Chil-  
ness was gone off. The resolution with which she took the  
Decoctions, the Jellies, the Hippocras of water with a httie  
wine, and generally every thing which I prescribed for her,  
brought on the Lochia in chandance, aS though she had  
lain in at the full term, which succeeded *so* happily that all  
symptoms Vanished, and the Miscarriage, so dreaded by us  
both in the beginning, was in its consequences the means of  
health to this inly, who in the space of six weeks was per-  
fectly recovered. *LaMotte..*

**OBSERvATIoN** CXII.

August 7. I7o4, A lady about four leagues from this city, ill  
of a continual Fever, with an Oppression Of her Lungs,  
Pain of her Side, and spitting of Blood, sent *for me.*

*As I* had several times delivered her before, she had a great  
confidence in me, and therefore conjured me not to leave  
her, telling me she would rely intirely on my assistance.

I began by bleeding her in the evening, and at night I directed  
an Emollient clyster, and as the Fever with the above-men-  
tioned symptoms continued, I determined to repeat Bleeding  
'in the morning. Mean time I advised her not to negsect  
what was necessary on the part of religion, and endeavoured  
to comfort her by insinuating, that as she was only about  
five or six months gone with child, a Miscarriage would be  
no great misfortune, but on the contrary might be of service  
with respect to her other disorders. I then continued to do  
what I thought proper to mitigate her Fever, and divert the  
Flux of Humours from her Breast, which seemed by the  
perseverance of the Cough, Pain of the Side; and Fever, so  
threaten the patient with a great deal of danger.. Thus I  
proceeded till the fifth day, when Labour-pains began to he  
felt. I had not been in her chamber above a quarter of an  
. hour hefore they became so considerable, as to leave no  
room to doubt of an approaching Miscarriage, and for this  
reason I examined into the state *os* the Uterus, and found the  
Waters formed and the Membranes ready to break, inso-  
much that at the Very next Pain the child was excluded  
alive.

As the Navel-string of so small a Foetus could not be Very strong,  
I used all my endeavours to manage it to the best advantage,  
that it might give me . some assistance in extracting the After-  
birth ; but I could not succeed, hecause the Orifice of the  
Uterus, as is usual in such cases, contracted itself almost to  
its former dimensions, immediately after the expulsion of the  
Foetus, insomuch that, notwithstanding all the care I could  
take, it broke upon this motion of the Uterus, though I  
scarcely pulled it at all. But without losing a moment, I  
pursued my point so closely, that I found means to introduce  
. four Fingers into the Uterus before it had time to contract  
itself intirely, and with thefe I separated the Placenta from  
it, and brought it towards the Orifice, till I laid hold of it  
with my Thumb and a Finger, and so brought it away.

The lady was Very ill all the nest of the day, but got hetter  
- - the next, and continued mending for three weeks, ar which  
- time she was perfectly recovered. *La Marie.*

**REMARK.**

La Motte, in his reflection upon\*this case, says, that not-  
withstanding the encouragement he gave this lady, a Miscarriage  
was the accident from which he apprchended the most danger.  
And that he attributed her recovery to the abundance of her  
purgations, winch did not cease in this case, as they usually do  
after Miscarriages caused by an acute distemper..

As therefore the life ofthepatient depends upon the continuance  
of the Lochia, in Miscarriages of this sort, the principal atten-  
xion of a physician should he directed to encourage their discharge  
by all possible means.

**OBSERVATION** CXIH.

On the 23d of September, I678, I attended a woman, whe,  
aster two days suffering great Pains in the Loins, with a

Fever and Head-ach, miscarried of a httie Foetus about three- -  
months grown, four fingers breadth in length, and quite  
emaciated and withered, the Aster-birth being retained in ’  
the Womb, which had not been able m expel is, hecause  
the small dilatation, which that httie shrunk Foetus had  
made, was not sufficient sor its' exclusion, being of a much  
greater bulk. As I found the Womb just open enough to  
receive one Finger, and no more, I thought it more prudent  
to leave the expulsion to Nature, than to attempt its ex-  
traction in that condition, because the violence necessary to  
he used in making a sufficient dilatation of the Orifice might  
have injured the patient, whose Body the day after **the.**Miscarriage appeared covered all over with the Small-pexa-  
But the second day, a small Flux of Blood coming on with  
some Pains, which a little dilated the Orifice, I made the  
most proper use of the opportunity, and brought away the  
After-birth effectually. But the Small-pox, which was Very  
malignant, and accompanied with a continual Fever, and a  
violent Pain in the Head and Throat, carried off the patient  
the ninth day after her Miscarriage ; to which perhaps the  
too frequent Bleedings in the Arm, no fewer than ten, pre-  
scribed by a physician, her brother-in-law, contrary to my  
sentiment, might not a little contribute;

**OBSERVATION** CXIV.

in I687, the Small-pox raged in Valognes with much more  
than common malignity, so as to prove mortal to the greater  
part of those whom it seized, sparing neither age, condition,  
nor sex. Among others, a woman os sashion, gone about  
six months with child, was attacked with this melancholy  
distemper, which proceeded in the most savourable way that  
could be desired. The Fever was moderate, the Pustules  
large, round, and white, so that nothing seemed wanting or  
wished but an end of the distemper, which will have its  
time. Under this favourable situation, all on a sudden the  
woman was seized with a Convulsion. I happened to he  
present, and ordered her a glass of wine, on which her Pains  
came on, and I delivered her in a moment of a living child,  
which was followed by a Convulsion, and death immediately  
after. *La Motte.*

**, . OBSERVATION** CXV.

August TO. I688, I attended a woman, who had just then  
miscarried os a child of six months, which she had carried  
above six weeks dead in the Uterus. For she had not gone \*  
above sour months when she was seized with the Small-pox,  
fince which time, though well recovered of the distemper,  
she had not felt the infant move. Before her Miscarriage she  
had a moderate Flux of Blood for five or six days, as a Fore-  
runner of the same; but she did very well aster Nature had,  
unassisted, expelled the dead child, which had only the pro-  
portions of one of sour months and a half, about which  
term it died in the Womb. *Mauriceau.*

*s*

In the general account of the causes os Miscarriages, I **have***DtsntxcALonging,*which frequently occurs, though taken no notice  
of by the ancients, that I remember, and but little by any  
.modem author of credit; though I heve seen a few treatises ' -  
wrote with a View to prove or disprove the reality of.many  
effects attributed to it.

The accurate Hippocrates is silent on this head ; Galen and  
Actuarius-mention the word κίσσα, and Pliny takes notice of  
the distemper commonly called *Pica,* or *Picatio,* and other  
authors give an account of a distemper named μαλακία. But  
κίσσα,. μαλαχία,.ΡίΛΖ, and *Picatio,* signify an-inordinate desire  
to eat things, which are not properly the subjects of Appetite,  
as chalk, cinders, lime, and dirt ; whereas the *Longing of* wo-  
men with child is not confined to such trash; and besides.  
Virgins who labour under Obstructions of the Menses, are per-  
haps more subject to such unaccountable Appetites, than breed-  
ing women. Upon the whele, I am acquainted with\_ no  
language, except the German, that has any word limited to **the**signification of that affection, which in English we call *Longing ;  
des envies des stemma* of the French, the *voglia,* or *donna suc-  
gliata* of the Italians, have at the same time other significations.  
But we must not infer from hence, that the disorder, sor such \_  
I must call it, is peculiar to our own country, for we know  
that the women of all other nations are subject to it as well as  
our own. - .

That a disappointment of the thing *lenged* for is the cause  
of frequent Miscarriages, it would he superfluous to endeavour  
to prove, fince I believe there is scarcely a man concerned in  
the practice of any one branch of physic, whe has not been a  
witness of it: and daily instances put the thing beyond dispute.

I know no way of preventing a Miscarriage from *Longing,* ex-  
\* cept by indulging the woman in her Appetite, if the circum-  
stances are such aS render it possible. But if from the impose  
ι Ability or neglect of this, any symptoms of an impending Mis.  
1 carriage should appear, it would he prudent to endeavour to

avert it, by such rest, regimens and gentie evacuations as the  
cash requires, according to the rules above laid down; provided  
the Miscarriage is nor too sodden to admit of such precautions,  
which is often the case.

ABRABAX, or ABRAXAS. A magical word, compre-  
bending the days of the year in numeral letters.*. Castellus from  
Libavius. . ’ - .*

ABRACADABRA A cabalistical Or magical word,  
recommended by Serenus Samonicus aS a cure for that species of  
Fever, which physicians call a Haemitritaeus.

In order to have this good effect, the word must he wrote  
on paper, and repeated, dropping every time the last letter, so  
as to make it, when wrote, a kind of cone, thus i

ABRACADABRA

\* ABRACADABR

ABRACADAB  
ABRACADA  
ABRACAD  
ABRACA  
ABRAC  
ABRA  
AER-  
AB

.A

In tin’s manner it is to he suspended about the Neck by a  
linen thread.

ABRACALAN. This is also a cabalistical word, to  
which the Jews attribute Virtues equal to those of *Abracadabra,*and fo far they are probably right. *Buxtors..*

St. Chrysostom and St.. Augustin are not pleased with these  
Amulets, which they look upon as idolatrous. But I would  
not propagate their doctrine, for sear of interfering with the  
sale of the famous Anodyne Necklace, the author of which  
has found means to make the Christians equal at least to the  
Heathens and Jews in point of superstition and folly.

But I must do the justice to *Abracadabra* and *Ahracalan,* to  
say they have a meaning, which I don’t find the Anodyne  
Necklace has; for *Selden de Diis Syris* informs us, that the two  
words mentioned above express the name of a Syrian idol.  
This charm therefore must he intended as a sort of invocation of  
that pretended deity.

ABRAHAM. This patriarch is esteemed by some to have  
understood physic, and to have taught it the ./Egyptians during  
his residence in their country. There is no foundation for this  
in scripture. What has given a hint for this tradition is, that  
the Persian Magi snake Abraham the same as Zoroaster, the  
founder of the Chaldee and Persian religion and philosophy.  
*Schulzius. Hcrbelot.*

ABRASA. Ulcers attended with *Abrasion* of part of the  
substance; or Ulcers where the Skin is so tender and lax as to  
be subject to *Abrasion. . \* ‘*

ABRASAXAS. This is another magical word, said to  
he borrowed from Basilides, the .«Egyptian, which if inscribed  
in a circle, is said to keep files from coming within the circum-  
ference. *Castellus from Libavius.*

A BRASIO. Castellus explaim this. Superficial exulceration  
of the Membranous parts, attended with a loss of substance in  
very small fragments.

Thus there is said to be an *Abrasion* of the Intestines, when  
the internal Membrane is ulcerated, and Very small pieces of  
it are excluded with the Excrement.

ABRASUM. The part *abraded* from the Ulcer. '

In *Abrasions* the Skin is not to he cut off, but restored to its  
place, and some proper medicine to he laid over it; for by this  
. means the *abraded* (km, though turned black, is often conglutinat-  
ed. To preserve the parts affected from an Inflammation, anoint  
them with Powder of red Sumach, mixed with Honey; or the  
Beard of a Bull-rush burnt, and mingled with Honey like the  
former. *Oribas. de Morb. Curat, lib.* iii. *cap.* I 8.

ABRATHAN, is ARRoTANUM, Southernwood, num-  
hered by the Jewish writers amongst the seven species of Hyflop.  
*. Salmasius.*

A BRI Co Sulphur.

ABROTANOIDES. A kind of Coral, or, aS the  
- botanists call it, a *Porus,* which grows in the form of *Abrota-  
t toon* on the rocks at the hettom os the see, as Clusius, whe de-  
scribes it, imagines. *Rafis Hist.*

ABROTANUM. SoUTHERNwoOD, called also *Old  
Man,* and End's *Love.* It is said to derive its Latin name from  
*asiflo, sese.*

There are several sorts of this plant, but that meant by the  
college is the *Abrotonum mas Officinarum* Ger. 947. Emaculat.

. 1I05. Ran Hist. i. 371- *Abrotanurn vulgare J.* B. 3. Iq2.  
*Ahrotarnon Chab.* 376. *Abrotonum mas vulgare* Park. 92. *Abro-s.*

*. tornem mas emgusttfolium. majus C.* B. I36. Tourn. Irish 459.  
Boerh. Ind. *N.* I27. *Abrotanurn mas vulgare Fuchsu.* Him  
Oxon. 3. II.

*Ssuiherawond* is Very wall known,, being cultivated in most

gardens. It is a shrubby plans, which as it grows old will in-  
crease into a bush or little tree, having several brown woody  
twiggs, or branches cloathed with fine tender leaves a little  
like Fennel, but shorter, and of a hoary green colour under-  
neath. The flowers grow upon the tops of the branches, and  
are Very numerous, consisting of sinall naked round heads, of a  
yellowish green colour, in winch lie small longish solid seed, .  
or seeds, not inclosed in down. The leaves and flowers have a  
pleasant grateful smell, but with a little sourness. It flowers  
in July, the Leaves sailing off from the Branches in .the winter,  
and shooting out afresh every spring. *Millen.*

jElian relates some singular Virtues of this plant. He repre-  
sents it as the gist of ./Esculapins to mankind, and ssys it ef-  
fectually cures difficulty of Respiration ; and that it kills those  
monstrous worms, that sometimes grow to a prodigious length  
in the Intestines, but it cannot always in the last case be de-  
pended on. '

Gulielmus Menens, in his treatise intitied *Villus Aureurn,*telis us, that if a Branch of *Southernwood* is laid under the  
pillow, it effectually preserves against those inchantments which  
induce Imbecilliry. This I only mention as an instance of that  
extravagance to which a warm imagination, and. a little enthu-  
fiasrn, may expose men even of sense and learning.

Galen says it diminishes the cold sit of an Intermittent, if  
the patient is rubbed with it first before its invasion, and adds,  
that it kilis worms. „ '

The Leaves and Tops are in use, and the Virtues attributed  
to them by modern authors are, that they are good against Pu-  
trefactions and Poisons, and the Bites of Venomous creatures,  
as Scorpions and Spiders. They kill worms; and are sometimes  
used for the Suppression of Urine, and the Terms, and in  
Hysteric disorders. They are frequently put in warming and  
strengthnirlg ointments. The Juice of the Leaves, as also a .'  
Lixivium of the Ashes, is highly. commended against the falling  
of the Hair and Baldness. *Mullcr from Ray dud Galen.*

The Tops boiled in wine or water, with an addition of  
sugar, are of service in difficulty of Breathing, Asthmas,  
Coughs, and other disorders of the Lungs.

It is also said to cure the Jaundice. *Ray. Dale. Mellen.*

Matthioius recommends the dried powder of the Leaves in **a**Fluor albus.

The ancients used to infuse this in oil, in order to give the  
. oil an aromatic agreeable smell.

A decoction of *Abrotanurn,* in sea or salted water, is much -  
recommended by Heister for stopping a Gangrene.

The second sort referred to’by the College, is the

*Abrotanurn scenario (Chamcscyparijsus)* Lavender Cotton,  
Off. and Ger. *Alaotanums.crmirsa vulgaris,* ordinary Lavender  
Cotton, *Parlc. Fcemina sseliis teretibus. Female Abrotanurn,*with roundish Leaves, *Co B.*

This is also called *Santolina.*

It is a shrubby plant, holding its Leaves all the winter. ’ It  
has many woody, brittle, hoary Stalks, beset with longish,,  
white and hoary Leaves that appear four square, and somewhat  
resemble the Leaves of our common Heath; of a Very strong,  
though not unpleasant scent, and a hot and bitter taste. On  
the tops of the Branches stand long Stalks, each bearing A  
single naked Flower, made up only of a thrum of small yellow  
fistulas five-corner’d Flosculi, without any herder of Petals,  
standing together in a .scaly Calyx. The Seed is small, longish  
and striated; and the Root firm, hard, and durable, divided  
into several fibrous Branches.

It grows naturally in Italy, and the warmer countries, but  
is planted with ns in gardens, where it .frequentiy serves for  
herders and edgings. It flowers in July and August.

The Leaves, and sometimes the Flowers are used, and are  
reputed to have great success in destroying Worms, the Leaves  
and Flowers bring boiled in milk, and taken fasting. The  
ancients commend it aS good against all sorts of poisons, and  
the bites and stings of Venomous creatures, as likewise against  
Obstructions of the LiVer, the Jaundice, and to promote the  
Menses, being given infused in wine. *Miller.*

Dale mentions a third sort used in medicine, thus described.

*Artemisia tenuiselia,* Ossic. Hist. Oxon. 3. 6. *Artemisia tenusu  
folia seu Leptephyllos, alsis Abrotanurn,* J. B. 3. Io4. *Artemisia,  
tenuiselia sou leptephyllos, quibusclam. Abrotanum silvestre.* Chab.  
375. *Abrotanum campestre.* Ger. 948. Emac. I io. 6. Rail Hist,  
I. 371. Synop. 3. I9O. Co B. Pin. I36. Park. Theat. q4.  
Toum. Inst. 459. Boerh. Ind. A. 1.27. *Abrotanum incdarum\**Schwenck. 5. Fine-leaVed Mugwort.

This is sometimes substituted for the *Abrotanum may,* and in  
said to mitigate Pains of the Stomach, and Nerves. *Dale.*

Miller reckons eighteen sorts of *Southernwood,* the first and  
last above-mentioned included;

. I. *Abrotanum mas anguflisolium masses.* C. Β. Ph, Com.,  
mon Southernwood.

*2. Abrotanurn mas angastifolium mima. Q.* Β. P. The-  
lesser apd narrower-leaved Southernwood,

**3.** *Abrotonum mat angastifclium majus.* **C. B.** P. Greater  
narrow-leaved Southernwood-

*4. Abrotanum latifolium inodorum.* **C.** B. P. Broad-leaved  
southemwoed without scent.

5. *Abrotanum mas oBgastiseliian incanum.* C. B. P. Hoary  
narrow-leaved Southernwood. \_

6. *Abrotanum campestre, cauliculis albtcanttbus.* C. B. P.  
Fine-leaved wild Southemwoed, with whitish Stalks.

' 7. *Abrotanum campestre, cauliculis rubentibus.* C. B. P. Fine-  
leaved wild Southernwood, with reddish Stalks.

8. *Abrotanum campestri simile Tingitanum.* H. L. Tangier  
Southemwoed, resembling the wild sort.

9. *Abrotanum campestre incanum, Carlinee odore.* C. B. P-  
Hoary. Field Southernwood, with a smell like the Carline  
Thistle.

Io. *Abrotanum humile, corymbis majoribus aureis.* H. R. Par.  
Dwarf Southemwoed, with larger golden Flowers.

II. *.Abrotanum Hispanicum, Absinthii Pontici solio\** Tourn.  
Spanish Southernwood, with a Pontic Wormwood Leaf.

12. *Abrotanum Hispanicum maritimum, solio orasse splendente  
et rigido.* Tourn. Spanish sea Southemwoed, with a thick  
shining, stiff Leaf - .

I 3. *Abrotanum mas ex Surinam molli hirsuiia canescens.*Pluk. Almag. Hoary Male Southemwoed from Surinam.

14. *Abrotanum elatius subincanum, foliis creberrimis, secundum  
caulem in meiceformamfafligiatts.* Pluk. Almag. Taller hoary Sou-  
thern wood, with frequent Leaves gathered into a kind ofpyramid.

I 5. *AbrotanurnOrientale annuum,Absinthii minoris folio.* Tourn.  
Cot. Annual Eastern Southernwood, with'a Leas of the lesser  
Wormwoed.

I6: *Abrotanum Orientale, Chamaemeli folio.* Tourn. Cor.  
Eastern Southemwoed, with a Chamomile Leaf.

I7. *Abretarnem Africanum, foliis argenteis angustio, floribus  
spicatis capitulis copioso tomento danatis.* D. Sherard. Ran Supp.  
African Southernwoood, with narrow silver Leaves, spiked  
Flowers, and Very woolly Heads.

18. *Abrotanum Africanum, foliis argenteis angustis, floribus  
umbella lis, capitulis tomentosu.* Raii Supp. African Southemwoed,  
with narrow Silver Leaves, umbellated Flowers, and wooflyHeads.

A B R O T O N FT E S. A Wine mentioned by DioscorideS  
impregnated with *Abrotanum or Southernwood* in this manner:

Take of *Southernwood* bruised and sifted a hundred Ounces  
(Ουγπέα, an Ounce, is eighteen Penny-weight five Grains  
ψ Troy) inclose it in a linen hag, and put it into a Vessel  
Containing about seven gallons (κερἀμιον) of Must.

It is 'good in disorders of the Stomach, Loss *of Appetite, ‘*and in a Jaundice, for it is Diuretic. *Dioscorules. l.* 5. *c.* 62. \*

ABRUPTIO. The same as **ABDUCTIO.**

ABRUS. A kind of Red Phaseolus, or Kidney-bean,  
growing in iTgypt and the Indies. *Rafis Hist.*

**ABRUS,** Offic. Veflin. Obs. 25. *Phaseolus ruber Abrus voca-  
tus,* Alp. .ZEgypt. 76. *Phaseolus Glycyrrhiscites folio alato. Pise  
coccineo, atra macula notato.* Cat. Jamaic. 7o. Hist. Jamaic. 1.8o..  
Tab. 112. *Phaseolus alatus major. Fructu coccineo, macula ni-  
gra notato,* Corned. inNot.Hort. Mal. 8. 72. Flor. Mal. 2II.  
*Phaseolus Indicus rubcr Bontio,* Ran Hist. I. 889. *Phaseolus foe  
eundus rubcr, qui Abrus Profpcro Alpino dicitur,* Pont. 136. *Pha-  
seolus rubcr Abrus vocatus, minor coccineus, nigra macula notatus*Hist. Oxon. 2. 7I. *Phaseolusarboreseens alatus et volubilis major  
Orientalis, fructu coccineo, hilo nigro notato.* Pluck. Phytog.  
T. 2I4..F. 5. *Pisum Indicum minus coccineum, aliis Abrus,* J. B.  
2, 263. *Pisum Americanum coccineum vel pigrum, Abrus quibus.-,  
dam,* Chain 403. *Glycyrrbiza Indica vulgo,* Herm. Cat. 494.  
*Glycyrrbiza Indicasiliquis et seminibus Pisi coccineis, hilo nigro nota’.*Pat. Bat. Pred. 337. *Glycyrrhira vel (si mavis) Glycyrrhiza  
affinis arboreseens Americana, floribus ex lateo et rubro vari-  
egatis, folio acuminato, siliqua latissima,* Breyn. Pred. 2. 53.  
*Arachus Indicus sive Africanus,* Parkinson. *Theat.* IO7i. *Konni,*Hort. Mal. 8.7I. *Olinda, Olida,* Herm. Muss ZeyL I6. AN-  
**GOLA SEEDS.**

Itis imported from both the indies. The seeds are used ; .  
there are two forts in the shops ; one of the size of a large pea,  
of an ash colour, inclining to black; the other a httie bigger  
than a common tare. Both are of a scarlet colour, with an eye  
.of black. They are much commended for Inflammations of the  
Eyes, to dry up Rheums, to strengthen the. Optic nerves, **re-**fresh the Spirits,, discuss Cloudy Vapours os the Brain, and to  
clear the Sight. The lesser sort is worn as an Amulet about **the**Necks of children. *Dale.*

ABSCEDENTIA. Decayed parts os the Body, which  
in a morbid state, are separated from the sound, or lose that  
Union winch was preserved in a perfect state os health.

ABSCESSIO. 'Απόςασες. This signifies exactly the same  
**as ABSCESSUS.**

A Bo CESSUS. Ἀπ&στημα. The words απόςασες and απάστκμα,  
used Very frequently by Hippocrates, are translated by Celsos *Ab-  
scesses,* and sometimes *Vinnica.* Hence the word *Abfcefs,* generally  
used by modem anthers to signify a Suppurated Phlegmon, or  
Inflammatory Tumour, though sometimes it signifies a Turnonr  
os any other kind, which wul nor admit of discussion, as ofl  
Encysted Tumours.

These words seem originally, by *their derivation to import ntep  
sort of exclusion os* morbific matter, ἀφίσταμικι and άπέστημι sig-  
nirying to recede and retire. Accordingly they are generally  
used by Hippocrates to express any critical removal of offending  
humours from the Vital parts, either to some os the emunctories  
for an immediate discharge, as the Glands of the Intestines,  
Kidneys, or Skin, whence they are eliminated by plentiful  
Stools, Urine, or Sweat ; or to some part where they find an  
easy egress *by* the rupture of a Blood-Vestel, as the Uterus, or  
Nose ; or to some Muscular part, or Gland, whence they can-  
not so easily he expelled, and therefore stagnate and putrefy\*  
and at last are separated in the form of Pus, or Matter.

Sometimes also Hippocrates means by these words the trans,  
mutation of one distemper into another, as os a Quinsey into **a**Peripneumony, or of a Continual sever into a Quartan. And  
sometimes the mutilation, or destruction, of a part by the mor-  
bific matter of a distemper fixing upon it.'

Hippocrates also uses the word ἀπάσταστς to express the fracture,  
or exfoliation of a Bone, when the parts of it, which were con.-  
tiguous in a state of health, recede from each other.

Paulus IEgineta seems m have limited the signification of  
*Abfcefs* to Suppuration, by defining (ἀπόςημα) *Abseesi,* a cor-  
ruption of the Fleshy parts. Muscles, Veins, and Arteries.

Amongst the many significations of an *Abfcefs,* I shall confine  
myself principally to that which is the consequence *of* an Infiam-  
mation, this being what surgeons usually mean by it. See  
**INFLAMMATION.**

When the Tumour of an Inflammation increases, as well as  
the Pain, Heat, and Pulsation, attending thereon ; when the  
Fever persists obstinately, and these symptoms continue for  
three days, notwithstanding .all endeavours for Resolution, we  
may expect that Matter will he formed in the part. And we  
may he sure that it is forming, if the patient seek frequent"  
shivering sits, resembling the access of an intermitting fevers  
*Hippocrates, Boerhaave.*

When this is the case, the intention of resolving is intirely to  
be laid aside; because if applications proper to resolve the Tu-  
mour are continued when resolution is no longer possible, **the**most fluid and volatile parts of the obstructing Humours will he  
dissipated, and the more gross and inactive particles will he  
dried and hardened, so as to prevent Suppuration, or render it  
difficult, and then a troublesome induration of the part will re-  
main, or, if Glandulons, a Scirrhus will he formed. For this  
reason,Camphorated Spirits,as aTopic,are particularly improper;  
and high Cordials, when the inflammation is Internal.

Particular regard is to he had to this caution in Inflammatory .  
Tumours of the Breasts.

Instead therefore *of* persisting in the use of resolving applica-  
tions, the chirurgical indications are

Ish To ripen the contained Humours, as yet somewhat crude,  
into a well digested Pus, or Matter, and at the same time **to**soften the containing Tumour, and adjacent parts; and invite  
the matter outwards, that when ripe, it may more readily he  
discharged externally, either by breaking spontaneoufly, or by  
an artificial opening.

2d. To let out the Pus or Matter when maturated, then to  
rnundisy the Ulcer, and afterwards to nicarn and heal it.

It is to be observed, that when the Matter is discharged, **the***Abfcefs* lofes.it name, and becomes an Ulcer, which must be  
mundified, till it looks red at the hettom, hesore it can heal.

The first indication is answered by applications which stimu-  
late and increase the heat of the part, or of the general habit,  
or which, at the same time that they increase the heat,.mollify  
the Tumour, and by obstructing the Pores, confine the Volatile  
and fluid parts, that they may not perspire thro' the Skin, **and  
be** dissipated.

For this purpose the following Gums are recommended.  
Ammoniac um.  
Bdellium,  
Elemi,  
Galbanum,  
Opopanax,  
Sagapenum. *Bocrhaaue.*

All emollient and relaxing applications contribute to thjg  
end, of which the following forms may serve for examples.

Take of Rye meal four ounces.

Os Vinegar two drams.

Of Gum galbanum, dissolved in the yolk, **of an** egg, **one**ounce;

Boil them with water to a Cataplasm, to which add  
. Of Oil of White lillies, one ounce. Mix.

Take of green leaves of Wood-sorrel sour handfuls.  
Os Butter unsalted one ounce;

Let them he boiled gently over the fire, adding by a little at  
**a** time

Os Barm two ounces.

*Os* Gum sagapenum diffblVed in **the** Yolk **os an egg** sour  
drams;

Make a Cataplasm according to art.

- Take of Honey helled a littie thick sour ounces.  
Of Onions roasted under the embers three ounces.  
Of Fat figs four ounces 5

Boil them with a Very littie Water to a Cataplasm, to which  
add t .

Of Linseed powdered one ounce and a half. Mhe

Take of Oat-meal one ounce.

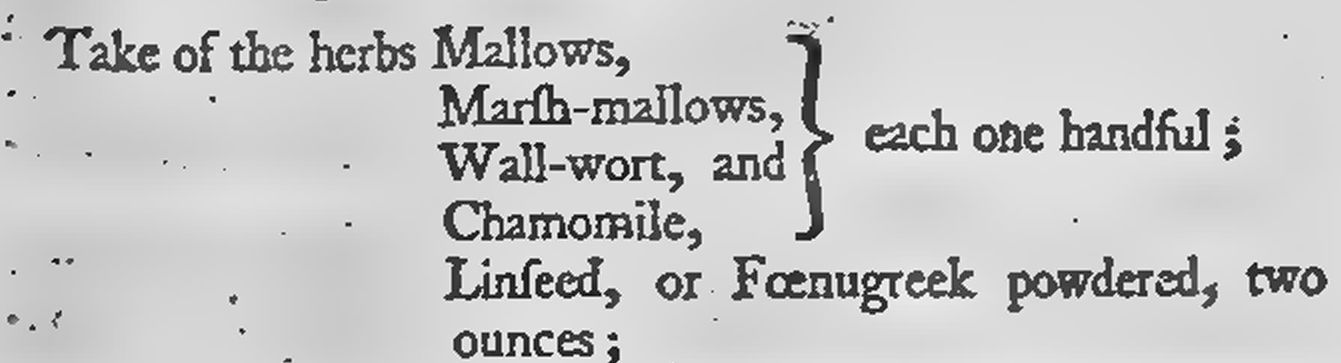
Os Linseed fresh powdered two ounces.

Of White lilly roots three ounces.  
Of Flowers of marsh-mallows one Ounce *i*

Boil them in New-milk, and add, -

. Of Unsalted butter two ounces 5

..Mahe a Catan lasht. *Boerhaave.*



' Boil thern in Milk or Water over a flow sire to the consistence  
of a Cataplasm, - afterwards add

Os Barm two ounces.

Gum gaibanum dissolved in the Yolk of an egg one ounce.  
Spread it upon a double cloth, and apply it warm to the Tu-  
Inour, and repeat it Very often.

Take of the Leaves of Mallows, and Brank-Ursine. each two  
handfulls.

Fat figs bruised, number fix ;

These must he boiled in the manner above-mentioned, to  
which add

Of. Onions roasted under the embers, and Butter unsalted,  
. each two ounces; and lastly, as much os powdered Linseed

as is sufficient to make a Cataplasm.

Take of White lilly roost two ounces.



Fresh Figs bruised, number six;

Let these be well boiled in Water, and mixed with

Gum Ammoniacum and Sagapenum dissolved in **the** Y olks  
of eggs, and good Vinegar, each one ounce,  
**linseed** oil an ounce and a half;

Mix and make a Cataplasm.

Take of Wheat flower two or three handfuis.

Boil them in a sufficient quantity of Milk, to which add

Os Gum Bdellium, and Opopanax dissolved in the Yolks  
os eggs, each one ounce,  
.Of Saffron one ounce ; ... v

Malte a Cataplasm. *Heister.*

Mean time the motion of the Blood must he regulated in such  
a manner, that the Fever may he great enough to produce heat  
sufficient for the formation of Matter, and at the sene time not  
fo excessive as to cause a mortification.

Here a great deal of judgment is required to regulate the Re-  
gimen, Medicines, and Topical applications; for it is not possible  
to\* specify an exact method suitable to every Case that occurs.  
The general heat os the Body, must be considered, and is it ap-  
pears deficient, if must he increased by a warmer Regimen, **and**warmer Medicines; because a certain degree of a Fever is ab-  
solutely neceilary to the formation of Matter.

But is the Fever appears already too great, it must he mode-  
rated by an opposite Regimen, and contrary Medicines.

The same regard is to he had to the actual and potential Heat  
of Topics, /

Thus when'a Tumour of this kind happens in a constitution,  
that is Hypochondriac, or worn down with a Quartan, or. in  
the Breast of a woman of a lax habit, who gives suck, attended  
with littie or no Fever, the heat of the Regimen, Medicines and  
Topics must’be increased, in order to promote Suppuration.  
But if the Tumour happens in a young florid' constitution,  
and the Fever and Heat are excessive,'he Regimen and Medicines.  
must be relaxing,’ and the applications emollient, without any  
mixture of warming ingredients. .... - - .

The Small-pox will illustrate the doctrine I would inculcate  
in regard to *Abscesses,* where if the Fever and Heat are not suffi-  
cient to bring the Pustules to Suppuration, those littie inflamma-  
tory Tumours collapse, and the Morbific matter finding no  
other way of bring excluded, the patient dies.1 . . *l ''*

On **the** contrary, if **the** Fever exceeds the proper bounds,  
and becomes excessive. Ichor is formed instead of Pus, and  
**the** pans under the Pustules appear livid, and mortify. .

; But' if the Heat is neither deficient, nor redundant, **ine**Suppuration proceeds regularly, and the patient by means  
thereof recovers. . ‘ . . . .

- Particular care must he taken that the Tumour is not opened  
till all the obstructing Matter, and injured Velsels are converted  
into Pus; otherwise that part .winch remains, unsuppurated. will

....

harden.- and the Ulcer will .discharge Ichor instead Of digested  
Pus, when exposed to the Air. . : '

On the other band, it is dangerous to let the Pus remam in  
the Turriour after it is once perfectly formed. Because it will  
putrefy, and becoming acrid, corrode the adjacent parts, and  
form Sinufles and Fistulas, which in many parts are Very diffieult to  
cure, and oftentimes fatal. - Or else when the more fluid parts  
are dissipated by Perspiration, or-are absorbed by the Vessels  
opening, into *ffic Abscise,* the remainder concreting causes an\*  
Induration of the parts, or a Scirrhus if it happens to be glan-  
dulous. : ...

But in large Suppurations especially, it is of great impor-  
tance to discharge the Pus, or Matter, when perfectly formed, -  
os, to ufe the common expression, when ripe’, for another rea-  
son, which is, that otherwise it wist he absorbed by the Vessels,-  
whose Orifices are already opened, and hourly enlarged by **the**Erosion of the confined Matter.

Hence Pus is mixed with the Blood, which is thereby in-  
fected, the consequences of which are a Hectic sever, and sre-.  
quenily a Metastasis, or tranflation of the Morbid matter, which  
ought to he discharged, to some *of* the Viscera, which last is  
more or less satal, in proportion aS the function of the part  
which receives it is necessary to health and life.

\* Bur the part most subject to receive ill impressions from  
the absorbed matter is the Lungs, and then the last scene of  
the tragedy is a Consumption, winch terminates frequentiy in  
death.

The Liver also is not free from danger, being often infected  
by the purulent matter deposited in some part of it. However,  
in this ease, the Pus sometimes finds a way through the Biliary,  
ducts into the Duodenum, and is thence excluded by a puru-  
lent Diarrhoea, ss . ’ .

Or. it sometimes happens that the Matter, before it is do-'  
posited on any particular part,-is by;a singular happiness of  
Constitution determined to the intestines, or Glands os the  
Kidneys, and thence discharged by Stool or Urine.

Hence appears **the** manner how **the** Matter of internal *Alsu  
fcesses* is taken into the Circulation, and again separated from the  
Circulating fluid by the intestinal or Renal glands.

**I** am sensible there are some held enough to deny, that this  
Resorption of the Matter, in case of internalsisezser, is possible.  
But I may safely appeal to the experience of every physician in  
Europe, who has resided such cases with an attention equal **to**the importance of his profession, for the tenth os. the sect? .

When the integuments of the *'Abseese* and the parts adjacent  
are.foftened and relaxed bytheTopics specified above, and their  
resistance is so sar diminished, as to.yield to the pressure of **the**included matter, which at this time tends outwards, Boerhaave  
recommends emollient and Oily applications, mixed with some  
ingredients moderately acrid. By means of these he expects  
the integuments will be rendered more thin, and less sensible,  
and consequently that the *Abseese* may he laid open with less  
pain and trouble.

\* The example he gyves of a form is thus: \* v‘ - l

Take of old Barin two ounces,

' Venice Soap scraped two drams.  
Honeyhalf ch ounce, . ’ '  
Oil of Chamomile by infusion two drams ;.

Make a Cataplasm. ' . -  
Much like this is that recommended by Heister. . .

Take of Barm three ounces, . -

Honey an ounce,«. - '

Venice Soap scraped half an ounce, . ? -

. Oil of white Lillies, a sufficient.quantity to make it **into**the form of a Cataplasm.

When the Tumor is grown soft and white, and the furgedn  
seek a fluctuation os Matter within, when he presses it with  
his Fingers; when **the** Pain, Heat, Redness, Tension and .  
Pulsation osine Part cease, and the Fever disappears,- and at '  
the same' time the Tumour rises in **the** form of a Cone, be-  
ing attended with a sensation of weight, we may be sure **the**Pus is sufficiently maturated, and must then immediately pro- -  
heed to give it Vent. But as an Aneurism is attended with some  
of these appearances, care ‘must be taken not to mistake that  
for an *Abscise i* See **ANEURISM.**

Celsos thinks it the most adviseable way to treat the Tumour  
with: emollient Cataplasms till it breaks spontaneoufly, provided  
the Matter does not lie deep; For he says those *Abscesses,* which -  
. are thus deft to the conduct ofNature, are less subject to leave  
unseemly .scars.... . . .r ’

But because the Matter when pent up may haye the ill  
effects mentioned above, most ?chirurgical writers agree that it  
should he let out either by Incision, or Caustio, and of these  
Incision κ generally'preferred, υ" ' . ’ .

, The Inchion is .to he made in this manner. **- Let the** opera-  
tor with one Handspress the Matter into the m0st prominent  
part of the Tumour, and with **the** other thmst **the** incision-knife  
into the *Abseese,* till the PuS appearing at thc Orifice, convinces  
him that he has penetrated frr enough. Then let him elevate  
the.Knife, and by that means enlarge the Wound ; or else pass

**the** point throuch the opposite side of the thing Cone, and then  
divide the intermediate Skin and Flesh» aheay5 taking eare to  
begin the incision at the sower part of the Cone, for the more  
Convenient discharge *os* **the** Matter-

Mean time the operator must Caresally avoid the subjacent  
Nerves and Blood-Veffels, especially if any that are considerable  
are in danger; and must take care that he doe5 not divide any  
Muscle transversely: '

Galen, Paulus, and Fabricius ab Aquapendente agree, that  
the Incision should he made according to the rectitude of the  
Fibres, as they express its by which they means.that the  
wound should he made parallel to the course of the Fibres os  
the part which lies under the Skin.

This caution is principally intended to prevent cutting a  
Muscle or its Tendon transversely, or dividing a Nerve or  
large Blood-Vessel, each of which would he attended with  
accidents very troublesome always, and generally irreparable.  
Thus the division of a Blood-Vessel would cause a great Haemor-  
rhage with all its inconvenIencies; the division of a Nerve, a  
Palsy of the part to which it communicates sensation and mo^  
tion; and the transverse section os a Muscle would infallibly he  
followed by an utter deprivation of motion m -the part it was  
destined to move. .

The course of the Fibres is so Various in different parts, that  
it is not possible to lay down particular rules for the direction  
ofthe Knife. The surgeon therefore, before he attempts making  
an Incision, ought to he perfectly well acquainted with **the**Anatomy of the part intended to he cut s for thia alone can in-  
struct him hew to take his measures, in order so aYoid the  
accidents mentioned *above. ...' . .. .*

I have met with three instances, where, for want of this ne\*  
cessary knowledge, the Muscle winch elevates the Supercilia  
has been divided transversely, the consequence of which was,  
that they immediately sell down upon the Eye. Tins was the  
more inexcusable, because Aquapendente, an author every  
surgeon is supposed to read, cautions particularly against it.

When the incision is made, the sides of the *Abs.cefs ttsay he*pressed gently with the Hand, in order to express out of it all  
the Pus that is formed. But in some *Abscesses,* where the  
quantity of Matter is Very large, chirurgical writers advise to  
i let a part of the Pus remain till the next dressing, for fear the  
patient should saint when it is discharged all at once. But this  
caution is seldom necessary.

When all this is done, the Aperture must he considered as  
**a** common wound, and treated with MundificatiVe, Suppurative,  
Digestive, Balsamic, Detergent, and drying Applications, Varied  
according to circumstances, as is amply specified under the arti-  
cle VULNUS, but without Tents, which are extremely perni-  
cious; mean time guarding it as much aS possible from **the**access of the Ain . . . .

When a Caustic is preferred to incision, it must he laid on  
that part of the Tumour, which appears to the surgeon most  
convenient for the discharge of the Matter.' . .

. Proper forms of Caustics, and the manner of applying them,  
will he specified under the article CAUSTIC, which see.

When *3Λ Abs.cefs* is already hurst, we are to he guided by **the**Prohe where to dilate. The usual method os opening farther is  
with the Prohe-sciflarS ; and indeed in all *Abfcesseffrae* generality  
of Surgeons use the Sciflars, after having first made a Puncture  
with .aLancet. But aS the Knife operates much quicker, and with  
less Violence to the Parts than Scissars, which squeeze at **the**same time that they wound, 'twill he sparing the patient a great  
deal of pain to use the Rinse, wherever it is practicable, which  
is in almost all cases, except some Fistulas in Ano, where **the**Sciflars are more convenient. The manner of opening with a  
Knife is by Aiding it on a Director, the groove of winch pre-  
vents its being misguided. If the Orifice of the *Abscese* be so  
small as not to admit the Director, or the Blade of the Sciflars, it  
. must he enlarged by a piece of a Spunge-tent,which is made by dip-  
ping a dry bit *of* Sponge in melted Wax, and immediately lqueez-  
ing aS much out *of* it again as possible hetween two pieces of tile  
or marble; the effect *of* which is, that the loose Spunge being  
compressed into a small compassjwhen any of it is introduced into  
. the Orifice of an *Abscese,* the Heat of the Part melts down **the**IemainingWax thatholds it together, and the Spunge sucking up  
the moisture of the *Abscese* expands, and in expanding opens **the**Orifice wider, and by degrees, so aS to give very httie pain. *Sharp.*- If during the treatment of an *Abfces.s* the patient steeps well,  
and breathes easily ; if he has a tolerable Appetite, and littie or  
no Thirst ; if the Fever, which accompanied the formation os  
Pus, disappears; if the Pus discharged is white, of an equal,  
consistence, and not foetid, from these circumstances we may  
draw a favourable presage.

On the contrary, want of Sleep, difficulty in Breathing,  
Thirst, Inappetency, or loathing of Food, a Fever, Pus that is  
black, of an Unequal consistence, and foetid, eruptions of  
Binod, a generation of spungy Flesh, or a Callosity of **the**Lips of the wound before Incarnation is cornpleated,are esteemed  
very bad symptoms. But Paintings either during the dndgnos.  
**Or** afterwards, are still worse.

Some regard also must he had to the original distemper, *of*which the *Absasi* is as a Crisis ; for if that disappears on a sud-  
den, and the Tumour immediately follows, or is it continues  
aster the discharge of the Pus, danger is in both thesc cases to  
he apprehended. *Celsius.*

To this general account of *sibfcejs.es* I shall add *dels* opi-  
nions of some of the ancients, and the chirurgical writers  
of our own country, that I may omit nothing which may tend  
to the information *of those whose* interest or inclination it may  
he to understand this subject. Some repetitions of what has'  
been already taken notice of are unavoidable, and may possibly  
have their use, as contributing to the confirmation; or farther  
illustration of the doctrine already advanced.

Suppuration is an effect of many Distempers. Is a long **Fever,**without Pain continues without manifest cause, the Disease  
bends its ‘force to some particular part, I mean in young per-  
sons ; for in the aged it generally turns to a Quartan. A Sup-  
puration happens in like manner, when a Hardness, and Pain in  
the Praecordia sail to carry off the patient hesore the twentieth  
day, and there is no Haemorrhage from the Nostriis, especially  
**in the** younger sort; but Dimness of Sight, and a Pain in **the**Head, were, among the first symptoms, in this case the *Abs.cefs*forms itself in some os the lower parts. But when there is a  
soft Tumour of the Praecordia, winch does not go off within  
sixty days, the Fever continuing all that while, expect an *Ab.,  
seefs* in the Upper parts, which, if there was no Haemorrhage  
from the Nostrils at the very beginning, will break out about  
the Ears. And since almost all inveterate Tumours tend to  
Suppuration, a Tumour of the Praecordia inclines that way  
more than one in the Belly, aS does a Tumour above the Na.  
Vel more than one helow it. If there he also a sense of Lassi-  
tude in a Fever, there is an *Abfces.s* forming in some *of* **the**Joints, or **in the** Jaws. Sometimes a thin crude Urine conti-  
nues so long, till other salutary signs supervene; in winch case  
there will he an *Abfces.s* below the Septum transversam [ Midriff]  
which the Greeks call οἳάφρατμα [the Diaphragm]. Pain in the:  
Dings, which cannot he alleviated hy Spitting, Copping, Bleed-  
ing, or Regimen, sometimes excites Abscesses, [ Vomicae J  
about the twentieth; thirtieth, or fortieth day; or, though but  
seldom, about the sixtieth, counting from the day when the pa-  
tient began to he feverish, or shivering, or felt a heaviness in  
that part. But these Abscesses rise sometimes in the Lungs,  
sometimes on the Ribs. The Suppuration excites **a** Pain **and**Inflammation of the part which it affects. A greater heat is  
felt in that place than elsewhere, and the patient in lying on it  
sancies he lays a weight upon it.

A Suppuration before it comes in sight may he thus disco-  
vered : if the Fever does not leave the patient, but remits by  
day, and increases in the night, much Sweat arises, there is \*  
desire to cough, but littie or nothing spit out; the Eyes aro  
hollow, the Cheeks red; the Veins under the Tongue look  
white, the Nails ofthe Fingers are crooked ; the FIngerS, espe-  
cially the tops of them, burn, the Feet swell, there is a difii-  
culty of Breathing, with a Nausea, and Pussies arise all over  
the Body.\* But if the Pain and Cough, with the difficulty os  
Breathing; afflicted the patient from the beginning, the *Abfces.s*will be formed on, hesore, or about the twentieth day; if thefe  
symptoms appeared inter, they will of necessity increase, but the  
later they came, the flower will he their Solution. When the  
distemper is Very Violent, the Feet with the Toes and their Nails  
use to turn black; in which ease, if the patient escapes from  
death, yet his Feet mortify. *Celsus, lib.* ii. *cap.* 7.

**ARSCEssES in the URETHRA.**

Small *Abscesses* in the Urinary passage, called by the Greeks; -  
φὑματα, -are healed by therevacuation of Pus from that part.  
*Celsius, Kb.* ii. *cap.* S. 4. \_. . ς .

**An ABSCESS of the LUNois;**

Such aS labour under a Peripneumony, attended with a col-  
lection of Phlegm, which is iiot discussed, survive Ybut after  
the distemper has spent its rage, are afflicted withasfempyema,'  
or *Abfces.s* of the Lungs. Now wheiythisoomes to perfect Ma-  
turation, it requires not so much Care and Pains to break and  
evacuate it, as one .that is seated in the solid parts os the Body ;  
for the PuS is easily expelled, being more readily diffused  
through the thin Vesicles, than through the Habit of the Body.  
For the Lungs are a soft and fine substance, and full os pores -  
like a fpnnge, and can never he hurt by moisture, but propeis  
it from narrower to still wider passages, till it contes at last to -  
the Trachea. The circulation of Liquids is not difficult, and  
the PuS is a flexible lubricous substance, and forwarded in ita  
expulsion by Respiration. The patients generally recover, ex-  
cept perhaps one here and there, whe is suffocated by the  
sodden Eruption and Redundancy of the Pus, which stops **the**Trachea, and intercepts the air; though some die lingering  
of a Consumption or Empyema. The Pus in this case is  
white and frothy, mint with Spittle, sometimes of an ash  
colour, or blackish. Sometimes when there is a great Exul-  
ceration, and the *Abs.cefs* is very deep, a small branch of the  
Aspera Arteria, and with it some fragments of the Lungs  
themselves are expelled by Coughing. The patient is hoarse,.

breathes short, speaks in a deep tone; the Thefax is in-  
larged, yet seems too narrow for the redundant Phlegm ; the  
Black os the Eye is shining, and the White os an extreme white-  
ness as if it was sat; the Cheeks are red, and the Veins of the  
Face prominent. What is real matter ns admiration in this case  
is, that the tone of the Nerves as sar exceeds the Habit of the Bedy,  
as it is itself surpassed by the vigor and dincriny os the Spirits. *An-  
taeus* περὶ ἀιτνὰν καὶ σημὲνω,χμεί» παθῶν: *Lib.* i. *cap.* Io.

**An ABSCESS of the LIVER.**

Is the I.iver he affected with an Inflammation, and the Matter  
he converted into Pus, the Pain extends to the Throat,  
and extremity of the Shoulder. For the Liver by its weight  
draws the Diaphragm, by which it is suspended; and the Dia-  
phragm draws down with it the Membrane that lines **the**Ribs, because it is connected to it» which Membrane is  
known to reach as far as the *Threat,* and Topos the Shoulder;  
and all these parts together are forced downwards. While the  
Suppuration goes on, a burning Heat, with Shiverings, and  
a dry but not Very frequent Cough afflicts the patients, who he-  
come of a green herbaceous colour, or, if inclined to a higher  
degree of the Jaundice, somewhat pale, and thein Sleep is not  
altogether free from troublesome dreams; they preserve their  
senses, unless perhaps some sudden cause makes them delirious  
sot. a time, from which they soon recover. A Tumour arises  
under the Paps, or the Ribs, which has been often mistaken  
for a Tumour of the Peritonaeum. If the Tumour he under the  
Bastard-ribs, the Liver is painful if touched, and swells, heing  
full of Humours. If these appearances are not limited to the  
Hypochondrium, it is a sign that the Tumour is in the Perito-  
naeurn; the distinction is easy; for in touching the place, after  
you have carried your Hand over the Lobes of the Liver, you  
meet with nothing further but the Vacuities of the Abdomen.  
But the Hardness *of* the Peritonaeum is not circumscribed, and  
the Limits of its progress are not manifest. See what is said  
about the Distinction os these Tumours under ABDOMEN.

Is the *Abseefs* he formed in the inward parts. Nature is by  
sar the best physician, by diverting the Pus to the intestines,  
or the Bladder; the setter of which is much the safer way.  
But if it tends outwardly, it is not safe to neglect incision, for  
want of which the Liver is corroded by the Pus, and death soon  
follows. If you Venture on incision, the patient is in danger  
of heing suddenly carried off by an Haemorrhage, which from  
the liver is not to he stopped. But is you find it necessary  
to make a Perforation, intrude a red-hot iron as sar as the Pus,  
' which will perform the operations of incision and Cauterising  
at the same time. And if the patient has the good fortune m  
recover, the Pus will he white, ripe, uniform, inodorous, ex-  
traordinary thick; the Fever and other symptoms will be much  
alleviated, and perfect health he restored without much trouble.  
But if the Pus he discharged into the intestines, the excre-  
ments are first aqueous, then like Water in which raw Flesh  
has been washed; after this, like those which are voided in  
a Dysentery, accompanied with exulceration of the intestines.  
Sometimes concreted Blood comes away; sometimes yellow  
Bile, deeply tinged, *or* ponaceous, and at last, when death  
is at hand, black.

But if the Tumor does not come to Suppuration, an offensive'  
Smell attends the Excrements, aS if they were putrefied*. the*food passes through the Bedy crude and indigested, because of  
the weakness of the Stomach and intestines; for the Liver,  
under so great a disorder, is incapable of giving it a second Con-  
coction. Some patients are much afflicted with a sharp cor-  
roding Heat, and grow worse every day. There is a Colliqua-  
tion of the Flesh, a small Pulse, with a difficulty of Breathing,  
and death is not far off. Some recover of the Dysentery and the  
*Abseefs,* and afterwards sail into a Dropsy. But if all these  
symptoms remit, and the Pus that comes off by Stool is white,  
equal, uniform. Void of Smell, and the Food is digested,  
there is goed hope of the patient. But the best Crisis of the di-  
stemper is by Urine, for by this way the Pus goes off most safely  
and inoffensiVely..zfretsear περὶ άιτιῶν χμείωῖπαθῦν, *lib.* i. *cap.* I 3;

**ABSCESSES of’the SPLEEN.**

The Spleen is Very subject to a chronic Distemper called a  
Schirrhus, but is seldom affected with a Suppuration, in the  
former case it is hard, and resisting to the touch, like a stone ;  
but under this latter disorder it is softer, and at its most eminent  
part, where the Pus gathers, yields to the touch; though in  
those parts where there is no Pus it'is hard, and resists. Some-  
times the whole Spleen hangs loose in the Belly, and may he  
moved this way or that way, aS long as it is small enough, and  
has room for Fluctuation. The Nausea and Anxiety are most  
grievous when the *Abseefs* is ready to hrenk. ‘ - . ..

This distemper, in its progress, is generally accompanied  
with a Fever, Pain and Shiverings; "though sometimes the  
Heats are hut gentie, and without the other symptoms, which  
is-the reason why an *Abseefs* in the Spleen sometimes escapes our  
notice; for it is but a flender part, and Void of sense, even in  
its sound state. '

Persons afflicted with an *Abseefs* of the Spleen swell, and  
overflow with Moisture, as if they were in a Dropsy. They are  
all over of a black colour mixt with green, are restless, and fetch  
them Breath heavily, as if they were oppressed with a load at their  
Breasts; sor this disorder is Very dangerous. TheirBelly even to **the**Upper region is inflated with a gross Vapour, moist only in appear-  
ance. They have great inclinations to couch, but expectorate only  
a little dry Matter. If they feel a motion downwards, the Faeces  
**are** watery, but the patient is relieved by it at first; but if **the**Stoois increase, he finds himself indeed extenuated, but how-  
ever relieved by it.

If the *Abseefs* comes to break, there issues from it not **pure**and digested Pus, het a whitish, or ash-colourid, and sometimes  
a feculent, or livid kind of Matter is discharged. And if  
*the Abseefs* he deep, a black sort of Humour, together with  
some of the Juice of the tabid Spleen, are evacuated; from,  
some, whole pieces of that Bowel come away; for the Spleen  
is of a difloluble nature. Is the Ulcer continues a long time  
without healing, an- intire loss of Appetite comes on, with a  
Cachexy: the sick person is bloated, looks dismal: there arise  
all over the Bedy, especially in the Legs, round, hollow,  
livid, foul Ulcers, winch are difficult to cure; and the patient  
finds no remedy for his evils but death. *Aretceus vssil dlstici* χμ-  
**είων** παδῆς. *lib.* i. *cap.* I4.

In *Abscesses,* if there appears no probable way to hinder their  
breaking, anoint them with Bread helled in Hydreheum [a  
Mixture of Water and Oil ] or apply to the place Barley-meal  
prepared after the same manner, and foment it with a Decoction  
of the Root of Marsh-mallows. When the Tumour is with  
difficulty brought to a Suppuration, and no less difficult to  
discuss, a Cataplasm of dried Figs is to he used. You must  
take the sattest and sweetest Frys, and boil them in Water,  
till it become of the thickness of fine Honey, sometimes adding  
Barley-meal, and sometimes **fine** Wheaten bread. If the Dis-  
cussion of the Tumour do not proceed so well as it ought,  
boil Hyssop, or Origanum with your Figs, and, for more effi-  
cacy, put halt in your Decoction; but great care is to he taken  
that, while you make use of Vehement Dryers, you do noa  
render the part callous. If any such thing appear, boil **the**Roots of Wild cucumber. Marsh-mallows, or Bryony in Wa-  
ter, or, which is more effectual, and a more powerful Digestive,  
the Root of the Dracunculus. Boil this Root sometimes by itself,  
sometimes with Figs, adding some Meal and Fat. Maidenhair  
also is a Digestive, and so is Oil of Dill, which also maturates  
crude Humours, and Tumours of indigested Matter. Pitch,,  
especially the liquid sort, added as an ingredient in Cataplasms,-  
digests all crude and hard Tumours. - :

Here follows a compounded Medicine, which cures *Abscesses '*where the Matter is concocted, without any trouble, bringing',  
away the Pus in the dressings, and perfectly digests them when:  
they are crude: Take’os the Lapis pyrites, and Ammoniac, of  
each twelve drams; of Bean-meal six drams; make them **into\***a Plainer, , with liquid Rosine, and spread it on Leather, **and**let it stick to the place till it falls off of itself. .. But this medicine  
must he prepared not long before it is used, because it soon grows’  
dry. *Oribas. de Morb. Curat, he.* iii. *cap.* 43. *Paulus Algineta,  
lib.* iv. *cap.* I8. . \*

**ABSCESSES of the KIDNEYS and BLADDER.**

An *Abseefs* of the Reins, or Kidneys, is attended with  
Pains about the Ilia, arid unusual Shiverings-at intervals, with'  
an anomalous Fever. The digested Pus which'is Voided by  
Urine plainly indicates an Ulcer, that requires speedy help,  
without which it will he difficult to cure. Ulcers in the Kid-  
neys are-to be distinguished from those in the Bladder by the1Situation, Action, and Properties of their Substance and Facul-  
ties. First by the Situation; for when the Bladder is affected,  
the Pain is felt in the Pubes, and the Bottom of the Belly; but  
when the Kidneys stiffer, the Pain lies in the backpart of the.  
Loins. Secondly, by them Action, aS thus: When the caute  
of the disease lies in the Bladder, there is a difficulty or total  
suppression of Urine; but when the Kidneys are in fault, the'  
Urine passes off freely. Thirdly, by the Properties of the'  
Bedy; as for instance, fibrous pieces of Flesh are voided from  
the Kidneys, but Membranous scales come off from an ul-'  
cerated Bladder. Lastly,, they are distinguished by their Facul-  
ties. A Violent Pain is felt in the Bladder, when that is ex-  
ulcerated; but when the Kidneys are thus affected,, there is a  
dull Pain of the part, accompanied with the sense of a weight  
on the Loins. Sometimes the Ureters Are ulcerated, and Pus  
and Blond are Voided with the Urine; for these are seated he-  
tween the Reins and the Bladder; but if the Pudendum he'  
ulcerated. Pus and Blood come away unmixed with the Urine,

**For ABSCESSES in the REINS and BLADDER.**

Take linseed, the Seeds of Cucumher, and of white poppy,  
Tragacanth, of each eight drams, of Amylum sour drama.  
**make** them into Troches. '

**Fur ULCERS of the BLADDER, attended with an INELAii-  
MATION.**

Take twenty Pine-kernels, foray Seeds of Garden Cucum-  
bers, of Amylum, Spikenard, each a dram. Seed of Smal-  
lage five drams. Let the Spikenard and Smallage he boiled  
in a pint os Water, and one sixth of a pint of the De-  
coction he mixed with the beforementioned ingredients.

**For an HAEMORRHAGE from the BLADDER.**

Take of Scissile Alum, one dram, of Tragacanth eight  
drams, of Gum Arabic two scruples and a half. Ad-  
minister them in Pallium *Oribas. Syneps. lib.* ix. *cap.* 27.

**An ABSCESS of the UTERUS.**

When an Inflammation begins to suppurate, the Suppuration  
is to he promoted by a Cataplasm of FoeniIgreek and Linseed, or  
rather of Barley-meal, to which let a Fig he added; sometimes  
Pigeons-dung is used. Frequent Insessions are recommended,  
and Pessaries of a heating and irritating nature. But it ought  
to he observed, that *ffiC Abscefs* discharges itself sometimes by  
the Orifice of the Uterus, sometimes into the Bladder, and  
oftentimes into the intestinum rectum. *Oribas. Syneps. lib.* Jin.  
«p. 5I.

The Seed of Treacle-mustard is of fo acrid a quality, as to  
- break internal *Abscesses,* if drank. *Orib, de Vice. Simple lib.* ii.  
rtio. I.'  
.. Isa disease turn to an *Abscesc,* the patient bring in a good  
way, we are to divert our thoughts and concern to this new  
disorder. While the Fever keeps its course, and the Urine ap-  
pears always thin and crude, never depositing a Sediment, if  
there he felt in any of the Lower parts, as in the Legs, or a-  
bout any Joint, a Weight or a Tension, a Heat or a Pain;  
without manifest cause, we are to expect an *Abscesc* in that  
part. If the patient he suddenly taken with a difficulty os  
Breathing, and is soon relieved, and be afterward seized with  
a Heaviness or Pain in the Head, a profound Sleep, or Deaf-  
ness, he will unavoidably have an *Abscesc* in the Glands about  
the Ears. *Abscesses* happen principally in Winter, and to those  
who are past thirty. *Aetius Tetrab.* ii. *Serm.* I. *cap.* 5I.

.. If the Inflammation continues, and inclines to a Suppuration,  
we are by all means to endeavour that the Transmutation may  
he perfected as soon aS possible» Wash the part affected there-  
fore with a Decoction of Marsh-mallows and Figs, and apply  
Bread or Barley-meal, with Water and Oil, to the place. If  
the Suppuration be difficult, apply Barley or Bread boded in a  
Decoction of sat Figs and Marsh-mallows. If it continue still  
obstinate, we must add Pigeons-dung, Nitre, (not our Nitre,  
but a fix'd Alealine salt) and Turpentine. The transmutation  
into Pus being perfected, the place is to he opened at the most  
eminent part, for there the Skin is thinnest ; and is any part of  
the suppurated place appear putrefied, it is necessary to cut it

- off But the Resection must he in the figure of a Myrtle-  
leaf, which indeed ought strictly to he observed in *Abscesses*under the Arm-pits; and of the Groins; but in the Head, and  
such like places, no more than a - simple incision is used,  
after winch we shew fine powder of Frankincense in-the cavity  
of the wound, and put Lint therein. Our author goes on  
with prescribing the same treatment of an *Abscesc* where several  
Incisions are made, as is quoted below from *P. AEgiruta,* and then  
recommends for a Detergent the .Egyptian plainer, which,  
says - he, consists of equal parts of Liquid turpentine. Honey,  
and Oil of roses; hut for strong Bodies, and Very sou! Ulcers,  
he recommends an equal measure *os* Turpentine and Honey;  
without Oil, as a wonderful Detersive. But for Ulcers that  
are difficult to cleanse, the yellow ./Egyptian ointment, which  
they call Coctum, does good service. It consists of jErugo rasa  
and Honey helled together till thay become of a yellow colour.

**An approved SUPJPURATORY for ABSCESSES is this,** *viz.*

Take of Wild-mallows bruised and helled. Meal of wheat,  
Hogs-dung; of each equal parts, boil them in Sapa (they  
- must boil to a consumption of one half) and apply it to  
-the place, and a Suppuration will Very soon be brought  
. about. '

Here follows another Remedy, called the PHILosOPHIcAL  
- MEDICINE for INFLAMMATIONS, particularly in the Breasts  
. and Glands. . \_; ?

.-. Take of the Fat of hogs an ounce and a half, the Whites of  
two eggs. Honey as much as will fill the two Egg-shells,  
.two ounces of Nitre, of Meal of dried Barley, called  
Polenta, as much as is sufficient. Melt the Fas, and mho

. - . it with the Eggs and Honey; -then add the Nitre, and  
ui r lastly, as much of the Meal as will make it into a Piarster.

ss ' - Y'Some prepare it thus:

They take eleven eggs with the Yolks, one pound of Meal  
of dried Barley, called Polenta, one pound of Hog’S sat,  
. ’ ..-Hooey as'much as is necessary, sor.if they intend to dis-  
.\_ . cuss, they put the more Honey.4. het if Mitigation only  
- he designed, they, add the *less."* Some add NitreI but

what has Nitre in it is more discnffive; what has none  
rather mitigates. Use also that which is prepared with  
the Juice of Fleabane.

. To break ABSCESSES

Take Nitre and Gum Ammoniac worked up together with  
Vinegar, and apply them to the place as long as you intend  
to break it. Some, instead of Ammoniac, use Frankincense.

To discuss an *Ahs.cefs* even aster alteration, use the Em-  
plastrum Arinbaraanium, or that called Dionysianum. See  
below.

The **.ffilGIPTiAN DETERSIVE of ORIBASIUSi**

Take one pint of clarified Honey; two pints of Vinegar,  
one ounce of Squama aeris, four drams of .ZErugo. Boil  
the Vinegar and Honey m the consistence of Honey, and  
then mix up the rest.

Another excellent DETERGENT of the same author for fonI  
ULCERS.

Take of Lees of oil. Clarified heney, and liquid AluIn, equal  
quantities.

Another Medicine, to discuss or break an ABSCESS,, and eva\*  
cuate it without Pain:

Take of Spunia Argenti, Ceruss, Ammoniac, each one pound\*  
Oil a sufficient quantity, the Refine of the Pine-tree,  
Propolis, (Bee-glue) Opopanax, of each an ounce and  
**a** half, of Castor sour ounces, of Galbanum, Myrrh»  
Frankincense, each two ounces. Vinegar a sufficient quan-  
tity. Boil the Spuma Argenti and Ceruss in the Vinegar ;  
bruife the ingredients, that are proper to be bruised, in  
the Vinegar, and melt the rest, and mix them with the  
things that are boiled, and adding them to the bruised, cool  
and work them altogether. *Aetius Tetrab. rr.ferm.* 2. *cap.* 32.

The **EMPLASTRUM ARIOBARZANIUM.**

Take of Spirina Argenti one ounce, of Ceruss one pound  
five ounces, of Sea water twenty five ounces, of old Oil  
One pound, of Whelks calcined seven ounces, of yellow  
Wax nine ounces, of Turpentine six ounces, of Frank-  
incense three ounces and three scruples. Ρ. *AEginet.  
lib.* Vii. *cap.* Id. -

**EMPLASTtiM DIoNrysIANUM. \***

The **celebrated DIoNvSIAN PLAISTER for ABSCESSES,** arid  
**for TUMID BREASTS and GLANDS.**

Take of old Oil, Water, each a pint; let them boil **a**little,, and then put in six ounces of Aphronitre, an ounce  
or two of Misy, and boil it till it will not stick to rho .  
Fingers, then add of grained Frankincense, Wax, Tur.5  
pentine, each six ounces. *P. AEginet. Eb.* iV. *cap. is.*

**ABSCESSES of the NAILS, called PARONYCHIAE, in Eng-  
lish WHITLOws, or FELONds**

. At the heginning of a Paronychia, whether on the Nails os.  
the Fingers or Toes, before it comes to a Suppuration, apply  
Wool, dipt in cold Water, to the part affected, or. refrigerate  
it continually with a Linen doth, dipt in cold water, and  
squeeze it oyer the Place; or apply Frankincense and Galis  
bruised with Honey, either separately; or mixed together; or  
sprinkle it with the Juice of Myrtle-leaves bruisedf or apply  
Cerate of Myrtle, or Ear-wax, and it will he healed. If there  
he an Inflammation, apply Bread moistened with Water, with  
Oil of roses, or the tender Leaves of Olives, or the Powder  
of Cadmis, The Flesh ought to he separated from the Nath all  
round, and Lint interposed, and the applications well bound  
on. Powder of Spedium may also he sprinkled on the'places  
Another medicine for an exulcerated Paronychia is aS follows \*  
.ZErugo, Spuma Argenti, each four drams, Sarcocolla one dram,  
reduce them to powder, and sprinkle the place well with rhesame ; or apply the Meal of the bitter Vetch: . When y0U haveraised the Flesh from the Nail, as before advised, apply a Linen  
doth, squeezed out os Wine, and upon that a Spunoe dipt inWine, winch is my common practice. Another Medicine  
which I use is the following: Nitre, Squama jeris, Pumice-  
stone calcined, each one ounce, Fullers-earth three ounces,  
heatishem in Vinegar, mixed with a littie Honey, and’ maher  
them into Troches, and when you have occasion to use them  
dilute them in Water, and spread it on a Linen cloth. Another ,  
samous Troche, which I also make use css, diluted also in Wine,  
is called the Iris, and is thus prepared: Take of Liquid alum  
one hundred drams, os Saffron, Myrrh, each eight drams  
(some, add eight drams os Aloes). Pound. them, and make  
them into Troches, and use them with Wine, and tie over  
them a Linen cloth dipt in Wines Mass's Troches is a good  
medicine in this case, and so are others of the like kind. If  
the *Abscesc* eats and spreads, its progress may he stopped by  
plentifully shewing on it the Powder of burnt Orpiment, lay-  
ing on it a Linen cloth squeezed out of Wine. I use Orpiment  
and red Arsenic, powdered in equal quantities together ; and to

heal the place Inin the soressid with Hquid T urpentine. It the  
Paronychia he suppurated, first pierce is, and evacuate the  
Humour; then apply the Meal of Lentils, mixed with Honey,  
*tae* the place, or else fresh Rosea, or dried ones aster they SVCbeen bruised and moistened with Water. *Aetius Tetr, in-  
Serm. L. cap. γζ.*

**For internal ABSCESSES an ECLEGMA, so Po^thst aTERGENT that it brings off large Film5 or Pelltche\***

Take of Cardamoms eight drams, of Sagapenum and Mytth  
each sour drams, of Opium two dram5» of Castor two  
drams, of Pepper one drams reduce them with Warir  
into the form of Troches of the we«ht of byenty Grams,  
and give one of these at a time h1 warm Water-

**The THESPIANA sor intern21 ABSCESSES.**

Take Seeds of Smallage, of Opium, wild Fennel flowers,  
each three drams, of Castor two drams, wild Carrot,  
feeds Orris, Mustard, each seven drams; make them into  
anecleginawith clarified Honey, and give the quantity of  
a Hahenut in Wares for a dose. *Aetius Tetrab. in  
Serm.* 4. *cap.* 63. *From Archigertesi*

**' AN ABSCESS of the INTESTINE S-**

An *Abs.cefs* is sometimes formed in the intestines, and when  
it breaks, quantities of aqueous Pus are Voided by Stool, which  
the ignorant and unexperienced mistake for a symptom of a Dy-  
fentery; and indeed, if the Exulceration continue long aster  
the breaking, it is treated in the same manner as a Dysentery;  
but in the .beginning their treatment is Very different. And it  
is certain that some patients have been endangered by un-  
fkilfel physicians, whe have begun with Infusions, and other  
things proper for a Dysentery. These distempers therefore are  
carefully to he distinguished, and indeed they are easily known  
one from another. Before an *Abs.cefs* there is always a throbbing  
Pain, which is felt near the part affected, but no biting sensa-  
tion, that shifts from place to place, which is the usual Fore-  
. runner of a Dysentery. Again, the beginning of a Suppu-  
ration is attended with unequal Shiverings, which increase and  
remit, and a Fever, with an Exacerbation of the symptoms  
in the evening. But after a perfect transmutation of the Hu-  
Inour [into Pus], the Symptoms are much abated, and the Pain  
mitigated, till the time of breaking approaches, and then the  
Pain increases anew, and sometimes the Belly is quite bound  
up. Aster Breaking, the Stools are as has been said, whereas  
none *os* that nature attend a Dysentery.

' In this disorder we apply Cataplasms of Linseed,' mixed with  
Astringents, such aS Dates, Quinces, and the like; To prevent  
the increase of the Flux, we use Infusions of the Ptisanae Succus,  
Alics, with some moderate Astringent; for we are cautious of  
causing too *great* an Astringency in these cases. By Cataplasms  
and Infusions as aforesaid, we mitigate the Inflammation. If  
the breaking of the *Abs.cefs* is suspected, we promote it by epi-  
thems of Figs and Marsh-mallows mixed with PigeonSedung.  
**If** there he room to hope that the Inflammation may he discussed  
and Vanish, we apply epitherns prepared of such ingredients as  
are remarkable sor their discussive and digestive qualities. One  
of the best compositions in this kind is the Emplastrum Anicetum  
(the invincible plainer). If we are allured that the *Abs.cefs is.*broken, we have recourse to Infusions, first of the Ptisanae  
Succus, with which afterwards we mix a little Honey, to  
cleanse the Ulcer. If what comes off indicates an extraordi-  
nary fouiness, we add to the Ptisan and Honey a Decoction of  
Lentils ..and the outer Rind of Pomegranates (Malicorium).  
When the Ulcers are cleansed, we are to omit the Honey in  
the Infusion, and substitute in its stead a little of the Troches  
of Winter Cherries, in order to induce a Cicatrisation. When  
this is accomplished, we are yet to see that the particles thus  
restored be mollified and subside; for there is danger of a fresh  
collection of Humours in the same place. Ifany Sinus remain,  
go on with the same remedy as before; if the Matter issuing  
from the Ulcers corrode the adjacent parts, you are to have  
-recourse to the remedies proper to he used in the beginning of  
**a** Dysentery. *Aetius Tetrab.* iii. *Serm.* I. *cap.* 42\* :

**ARTHRITIC, Or GOUTY ABSCESSES of the INTESTINES.**

A gouty Dysentery sometimes degenerates into an *Abfces.s,*just in the same manner as an Haemoptoe does into an *Abfces.s*of the Lungs.

This *Abfces.s crsds* like all *cAnaAbseeJs.es,* in Health, a Scirrhus,  
or a Gangrene *a*

This sort of *Abs.cefs* is sometimes so large, as to contain two  
**or** three pints Of Pus. .

*- Celsus, lib.* V. *c.* 28. observes, that large *Abscesses* generally  
sollow Fevers, or Pains of any particular part, especially of the  
Belly. - ,

This *Abfces.s* is more subject to a Relapse, than any other  
*Abs.cefs* whatsoever.

If this *Abfces.s* happens in the Anus, it must he cured as a  
Primigenial *Abfces.s* of the part.

**An** *Abscise* **often happens in the CEsOphagUS, Stomach, or  
intestines, without giving any reason to suspect is, till the**

Vomica breaks, and the Pus is discharged. The only things  
that Can give any warning os it are, a previous vomiting of  
Blood, or an Arthritic Dysentery. And when either of these  
have preceded, we should guard against returns of them ; and.  
at the same time, and by the same means, against an *Abs.cefs.*

AS soon as ever the Vomica is broke, let the patient keep his  
**bed,** or at least indulge rest as much as possible.

If the Pus he discharged, either by Vomit or Stool, too  
Copiousiy, let it he moderated by Laudanum, hut by no means  
stopped.

Let the Temples, Nose and Tongue he moistened with  
Laudanum, till the Flux is restrained within moderate bounds.

Then, in order to dilute the Pus, bring it away by degrees,  
and deterge the Ulcer, let the patient take every fourth, fifth,  
or sixth hour, a glass of the following Apozern.

Take os clean Barley half an ounce.

Roots of the lesser Comfrey an ounce.  
Tops of Betony and Sanicle, each two drams;

Boil these ingredients in three pints of water to two, and  
add to it when strained. Honey of Roses two or three  
. ounces.' \_

Make an Apozern.

Mean time, in case of great Faintness, let the patient take a  
glass of generous Wine, or some Cordial Julap. And let no-  
thing he done to hinder the discharge of the Pus.

When theVorniting, Diarrhoea, and Evacuation of Pus cease,.  
the patient should take a scruple or half a scruple of Turpentine,  
mixed with the yolk of an egg; or half a scruple of LucatelluSis  
Balsam, with Myrrh sufficient to make it of a consistence sit for  
Pilis. And this should he repeated twice a day with a draught  
of the Apozem.

All Acids and Acridsmuft he avoided, and eVen all Cardiacs,  
which are strong enough to exagitate the Blood, and promoting  
**a** discharge from theweuhded Vessels. Let the patient's food  
he Jellies of CalVes-feet, Hartshorn, or Ivory; or Broths made  
with Barley, Oatmeal, Chicken, Mutton, or Veal.

It the patient has too many Stools, let him drink the white  
Decoction; if he her costive, riydromel.

in order to prevent a Relapse, the Diuretic waters are  
most effectual; to which may he added Salt and Crocus ofMars,  
Myrrh, and Japan Earth, with Syrup of Quinces, in the form  
of Pills. For by them the wounded and debilitated Parts are  
strengthened and contracted, and the offending Matter is carried  
off by Urine.

Bleeding in Plethoric habits may he proper, where nothing  
contra-indicates. Walking exercise. Frictions of the Feet, and  
warm bathing, may he useful; but purging is to he avoided.  
*Mufgrave de Arthritide Anomala.*

An *Abs.cefs* is a Corruption and Alteration of the Flesh, or  
fleshy parts, aS the Muscles, Veins and Arteries. Some *Abs-  
cesses* are contained in a Bag, as Atheromata, Steatomata, Me-,  
licerides; others have no Bag, and these are *Abscesses* properly.  
so called, of which only we intend to speak.

An *Abfces.s* is generally preceded by an Inflammation ; though  
sometimes, as Galen says, it is found - without, aS it happens  
when it is generated os good Blool. For immediately from  
the Beginning, says he, on account of some other Humour, of.  
what kind soever, the Skin comes off, and in time the Matter  
which constitutes the sore abscedes from the other parts. So  
that, after incision, such *Abscesses* have seemed to contain all  
forts of Humours and solid Bedies; for there have been sound  
in them Corpuscles resembling excrement. Urine, Clots of  
Blood, MelleouS and Mucous juices. Bones, Nails, Hair, and  
even Animals Very much like those whichOwe their rise to Pu-  
trefaction. He even says farther, that there have been observed  
in them things like stones, sand, shells, wood, coals, clay,  
chips, lees of Oil or Wine, especially in old *Abscesses,* which  
owed their formation to an impetuous Flux of Humours to their  
receptacle. - *....... s*

To prepare the way for an *Abfces.s* aster an Inflammation,  
there comes on a vehement heat and increase of the Tumour,  
winch grows redder and hard, with a pricking Pain and Throb-  
bing, and a weight as if something hung to the part. If  
a noble part he affected, a Fever accompanies the *Abfces.s,* with  
Shiverings; and at night the Pain and Fever are exasperated, by  
which means the Inflammation sometimes spreads to the adjacent  
Glands. When the *Abfcesi* is perfected, the symptoms are  
for the most part mitigated. The pricking Pain turnS to an  
Itclung, which is succeeded gradually by a Stupidity. The Tu-  
mour grows to a Head, becomes soft, and yielding n) the much,  
and at length the Skin breaks, or is parsorated at the point. If the  
Tumour breaks of itsnif, or by the Help 0s Medicines, jt in  
treated by applying linen Rags to receive the Pus, winch is  
evacuated time after time; if it is opened by a surgeon, it is  
managed according to the rules of his art. *P. AEorneta. lib.* iv.  
*cap. IS. ,. :*

After a perfect alteration into Pus, which is known by the  
mitigation of the symptoms, as the Fever, Pain, Redness,  
Throbbing, the gathering os the Tumour t0 a head, chesubsiding of the Pus under the prefline ns the Finger, especially

if the *Abs.cefs* lie shallow just under the Skim we betake our-  
selves to surgery. But if it neither subsides under the touch,  
nor comes to a head, hy reason of its deep situation, we con-  
tent ourselves with the other signs of alteration, and so proceed  
to operation- Put you are to observe, that we male an In-  
cision before a perfect mutation into Pus, is the *Abscess* he seated  
near a Joint; or some principal part, for fear, while the Sup-  
puration proceeds, some' lagament, or necessary part should  
he corrupted. We are directed by Hippocrates to cut a crude  
*Abscessus,* if it lies near the Anus; to prevent a Fistula. We  
are then to cut, the' not to make an incision always *alike,* but  
with regard to the place. AS for instance, we are to follow  
the traces of the natural lines, if it he in the Face; or the  
way of growth of the Hain, if it happen about the Head ;  
and, universally speaking, all possible care is to he taken of the  
natural comeliness of the part affected. When we make an  
Incision in the Limbs; we do it lengthways, aS in Muscles and  
Tendons, avoiding the Nerves, Arteries and principal parts,  
. with an eye to the safety of the patient, which must he con-  
sulted, sometimes by cutting lengthways, at other times by di-  
viding transversely, as the particular ease requires, in small  
*Abscesses we* make but one incision, in large ones more, *ac-  
cording* to their bigness, cutting every where smaller Orifices  
convenient for the Efflux os the Pus. *Abscesses* that rise  
with a Very sharp head, crude, thin, and mortified, are to  
he amputated triangularwise, or according to the figure of a  
Myrtie-leaf, or some other angular figure; for that of a circle  
is unfit to cicatrise. Such aS do not rife to a head are to he  
treated with a bare incision. If we discover a large Sinus,  
and the incumbent shin he cantons, and capable of Glutina-  
tion, we ι make Incisions on the place only, to make why for.  
the efflux of the Matter: but if the shin be thin, and Void of  
Flesh, we divide the whole, hy making an incision lengthways,  
and afterwards, if the Corpuscles on both sides the Section he  
very thin, and quite bare of Flesh, we cut them off. After  
the operation, and wiping out the place with a Spunge, if the  
*Abs.cefs* he small, and there be but one incision, we dress with  
nothing but lint; but if it he large, with several Incisions, we  
thrust a Tent into them, .which may he drawn through. We  
also fill up with Lint those *Abscesses* which, are amputated; and  
if the Blood bursts out, we use cold Water, or Posca; but ι  
‘ is the place continues to bleed, we iprinkle a little Powder of

Chalcitis, winch is often used also when the Flesh is flabby and  
putrid. Moreover in winter, . and to Nervous Constitutions,  
we apply .Bolsters moistened with Wine and Oil; but in firm-  
mer, and in a fleshy Habit of Body, it is enough to dip them in  
Water and Oil, or Wine and Oil eold, and then apply the  
Bandage, embrocating the place next day with the same liquors.  
The third day, after taking off the Bandage, and Detersion  
with a Spunge, we. use the Tetrapharmacum spread on lint,  
and if there he no Inflammation, repeat the Embrocation to  
keep the dressings moist. But in case of an Inflammation, af-  
ter we have well washed the place, we lay over it a digestive  
Cataplasm. - The Inflammation being repressed, the cure goes  
on by suppurating and incarnating Medicines, and the Sinus is  
healed by Conglutinanti. *P. AEgineta, lib.* Vi. *cap.* 34.

The Emplastrum regium Tetrapharmacum is prepared of  
equal quantities os Wax, Colophony, Pitch and Balis Fat.  
*P. AEgineta, lib.* Vii. *cap. if.*

**. A CATAPLASM for ABSCESsns, ERYSIPELAS, HERPES,  
PAROTIDES, and BURNINGS.**

Take a pound of tne fresh tender leaves of Marsh-mallows,  
and boil them in Vinegar, and bruise them well; then  
add Oil of Ropes four ounces, of Spuma Argenti, Ceruss,  
each two ounces and a hals, and bruise it all with rhe  
juice of Coriander, or Houileek, or Nightshade j chis  
done, with crumbs of Bread make it up into a Plnisser  
and lay it on. Or use the following Plaister :

Take of Oleum Cecinum and Oil of Myrtle each one pound,  
of Wax five ounces, of Spuma Argenti three ounces, cd  
ASrugo rasa two ounces ; let the Assugo and Spuma Ar.  
genti he pounded with Vinegar. *P. AEgineta, lib.* iv. *Cap. 21.*

***A PLAISTER*** of NITRE for ABSC'EasES and harden’d  
**TUMOURS.**

Take of old Oil, Wax, Aphronitruin, Sops, Lyd, each  
one pound; of Turpentine six ounces, of Galbanums,  
Bee-glue, Gum Ammoniac, each one ounce; lot rhe  
Wax, the Oil and the Lye he strained through lime, and  
beat the Nitre in the Lye. *P. AEgineta, lib.* vii. *cap.*

**. . To break an ABSCESS.**

Since some delicate persons cannot bear an Incision, wg 2γ.β m  
try whet can he done by drawing medicines, such aS the Roots  
of Narcissus, Honey and Water boiled with oil of Orris; or  
the tender Roots of the Reed bruised with Honey; 0r,  
are hard, first boiled in Honey and Water . or applv Birchwort  
.with Honey;

Dry Pitch, and Beerglue *of* Crete, an equal quantity os each;  
both breaks and cicatrizes *Abscesses. P. AEginet. lib.* IV. *cap '.* I 8.

To break an *Abs.cefs* caused by an Inflammation of the Liver,'  
**we** use a Cataplasm *ex Trispermo,* with Refine, Grains os  
Frankincense, Pitch, Roots of Marsh-mallows, and the Dung  
of Pigeons and Goats: The patient must drink the De-  
coction ofPoley Mountain, or Fumitory that grows by the  
Hedge, boiled to a third Part; or the Decoction of Thlafpi, **or**of Succory, or of Germander. When the *Abs.cefs* is broken, he  
must drink Water and Honey, and such things as are proper  
for ulcerated Kidneys: outwardly we use the Plaister os Mnaseas  
(prepared of Marsh-mallows) and other Emollients, or the Icesian  
Plaister, or that which is prepared of Willows. Ρ. *AEgineta,  
lib.* iii. *cap.* 46.

**The ICESIAN PLAISTER for STRtiMAE, AssCEsSEs, the  
SPLEEN, GOUT, and SCIATICA;**

Take of Spuma Argenti one hundred and twenty drams, of  
old Oil two pints, of Vinegar one pint, of AErugo one  
drain, of the Bark of Fin eight drains; of the Chamaeleon  
with its root, Euphorbium, Juice *of* Hypocistis, Beeglue,  
Myrrh, Pellitory *of* Spain, and Elecampane, each sixteen  
drams, of Wax three pounds. *P. AEginet. lib. ascii, cap. iji*

**The EMPLASTRUM SMILIUM for ABSCESS*ESi***

Take a pound and a half of old Oil ; of SpUma Argenti, red  
Nitre, Sal Ammoniac, of Lye of the Ashes of the Fig-tree,  
. made with an addition of Lime, Refine, each one pound,  
os Galbanum, Gum Ammoniac, each a quarter of a  
pound; os Vitriol four ounces, of Wax six\* ounces, of  
fiErugo, Opopanax, each one ounce, of Vinegar a suffi-  
cient quantity. Boil the Spuma Argenti and .ZErugo in the  
Oil till it will not foal, and then add the rest. *P. AEginet.  
lib.* vii. *cap.* 17;

If the *Abs.cefs* resists the Medicine, and there he Pus in it, ε  
tin Incision ought to he made, and the Pus evacuated. After  
this use no more Oil or Water; but if the place require wash-  
ing, use Honey and Water, Poses, or Wine, or Wine **and**Honey sor that purpose.. If there be an inflammation, apply **a**Cataplasm os Lentiis: If there he none, any approved Plaister  
in such cases will serve, especially one prepared with Chalcitis, .  
and oyer it lay a Spunge, or piece of Wool dipt in rough Wine j  
but apply no sal Medicine, such as the Tetrapharmacum; for  
the. wound requires vchementDriere. *P.AEgineta, lib.* IV. *cap.* **I 8.**

When the serous humour in the Veins grows redundant, **and**putrefies, a Fever arises, and .the Urine becomes sor the most  
part thick and turbid; and Nature now hurrying to a Crisis,'  
plenty of thin Urine, much above the quantity os what is  
drank, comes off, and this is called a Crisis byUrine: but when  
the humour is crude, and the season of the year unfavourable,  
and the expulsive faculty drives out what is superfluous, if the  
noxious humour makes its way to the Head, and there make an  
eruption. *Abscesses* are generated under the Ears, which are cal-  
led Parotides. Sometimes an Erysipelas, and Protuberances in the  
Neck arise from bilious and other corrupt juices. Is the hu-r  
mour takes its course downwards, there arises' what we call **a***Transiation* [άπόσκημματ ; but if the hunaour turn inwards, there  
is form’d an *Abs.cefs* [ἀπάστημα]. Of these, such as appear in sight  
are much the better, and easier to be managed; bur such **as lie**deep and out of reach, have need of a great deal of care and  
good fortune to attend them : for unless they are discharged  
downwards by Stool or Urine, or, when they affect the Breast,  
break, and are brought up by coughing, the’ they are posterior in  
point of time they are sometimes accounted. t^orse than **the**distemper which preceded them. *Actuarius, lib.* ii. *cap.* 2;

For *Abscesses,* take the Root of the white Reed, and beat it  
up well with Fat, and anoint the place with it,, and you will  
. see wonders; for it mollifies, breaks, and discusses in a surprise '  
ing manner. *Myrepfus, fect.XXXgrnt.eapi* IO7.

**For ABSCESSES, TUBERCLES, and PANI, a much approved  
r and wonderful Medicine.**

Take the Leaves of Netties, bruise and beat them, and rusi  
them warm on the place. Or take the Leaves os Pellitory  
of the Wall, pounded and bruised, and anoint the part af-  
fected. *Myrepfus, sect.* xlv. *cap.* II.

**The following cures BUBOES, and all sorts of PHLEGMONS;**

The Leaves of the wild Olive bruised, and rubbed on the  
place; or pound the Leaves os Fleabane, and anoint the  
place with them well warmed. *Myrepfus,sect.* xlv. *cap.ti. -*An approved Remedy against **ABSCESSES, STRUMAE, ATHE-  
ROMATA, MELICERIhES, and TUBERCLES.**

Take of Indanuiti, Bdellium, Galbanum, Gum Ammo-  
niac, Bee-glue, Turpentine, os each one ounce. Pound  
and mix than well together. *Myrepfus, sect.* xlvi. *cap.* I6.

AS almost all *Abscesses* are the consequences os Inflammations,  
and these produce a variety of events as they are difierentry  
complicated with other disorders, it will he proper to make?

fcine inquiry into their deposition. Inflammations fori all  
causes have three ways of terminating, either by Dispersion,  
Suppuration, or Gangrene; aScinhus after an Inflammation of  
**a** Gland is always mentioned as a fourth, but I think with im-  
propriety, since it seldom or never occurs but in Venereal, Scro-  
phulous, or Cancerous Cases; and then it is the forerunner,’  
and not the consequence of an Inflammation, the Tumour  
generally appearing some time hefore. the discolouration. *Sheep.*

The use of too het applications, at an improper time, or in  
the beginning of an Inflammation, frequentiy causes an *Abfcefs',.***a** remarkable observation of which is as follows: '

**A** decayed old gentleman walking in the streets one evening**V**was crushed up to a wall bya eart*r* . the wheel passing too  
near him, bruised the outside of his Left-leg, but did not  
break the Skin: it was suddenly swelled, and very painful-  
His friends chased it with Brandy, and dipping, a cloth in the  
same, brand it about the part. By this way of dreflingr  
that side of his Leg swelled and inflamed very much. Others  
advised him Lucatellus's Balsam ; by which improper applica-  
lion the Fluxion was increased, and the patient confined to  
his bed. Here was an object of charity, upon which ac"  
' count I was sent to him. I sound the outside of his Leg  
’ swelled and apostemated from the Gartering to the Small.

**I** laid it open by Caustic, an inch or twos according to the  
length of the Memher. In dividing the escar, there was  
discharged a large.quantity of Matter, with clotted Blood in  
it. I \*dreffed the Escar with Lenients, and embrocated  
the parts affected with Oil of Roses' and red Wine, and  
applied an emplaister of Armenian Bole over the Tumour,  
with Compress and Bandage. The next day I brought a De-  
coction of Wormwood, Chamomile flowers, red Roses and  
Myrtle-berries, fomented the Leg, and dressed the Escar  
with Lenients, to hasten Suppurationj then by good Bandage  
thrust out the Matter, and endeavoured to agglutinate the  
hollow parts; but could not do it without laying it more  
open by a ship made with a Probe-scilsars. Aster which I de-  
terged the Ulcer with the Vitriol-stone, and with Basilicon  
mixed with Red-mercury-precipitate. Then I incarned and  
Cicatrized it. If, instead of Spirits of Wine, *etc.* they had  
dressed this manis Leg with Armenian Bole,Vinegar,Whites

**. of**eggs, and Oil of Roses, they might have haply prevented  
the pain and trouble that followed. *Wiseman.*

. There are some Inflammations, fitch as for the general part are  
those which proceed from the Crisis of a Fever, wherein Dis-  
cussion ought by no means to be attempted, lest a Mortification he  
the consequence, and the common. Furuncle or Boil ; the Juices  
constituting this Tumour heing *so gross* and viscid as to make  
**it** wholly incapable of Resolution or Discussion. *Wiseman.*

As all Inflammatory Tumours tending to fuppurate are ac-  
companied with Pain, Pulsation, Tension, and a symptomatic  
Fever, so if there is an increase of these, with enlargement of  
the Tumour, and especially if a small Rigor comes on,, it is .  
.hardly to be doubted but Matter will he form’d. *Sharp,  
r* in this case. Suppuration must be promoted by such applica-  
tionS as increase the native Heat in the affected part; for if Na-  
**hire is** not assisted in the ripening these Tumours, a Mortifica-  
tion is frequentiy the consequence.

Yet it is not unfrequent to see a Suppuration made acciden-  
tally by cold Topics, winch by a flight gentie Astriction of **the**Pores perform the office of Emplashcs; as white Ointment,  
Sorrel roasted in emhers. Nay in some Tumours I have seen  
Suppuration caused by the stronger Discutients. *Wiseman.*

*Abscesses* are more or less dangerous according to their nature  
**or** situation. Tuts an *Abseese* from the Crisis of a Fever, or  
Strumous *Abscesses,* are 'always attended with more danger and  
difficulty than, those which proceed from a Fuliness of Blood;  
the Tendons, Periosteum, and even sue Bones themselves,  
" being often much injured by these Imposthumations.

*Abscesses* in the internal Muscles of the Larynx, as they  
threaten the Suffocation os the patiens, are certainly sar more  
dangerous than *Abscesses-*the Muscles os the Limbs,

So also are those on the Breast, Belly, or near the Joints,  
from the Sinastes and Fistulas, which they , generally leave be-  
hind.

*Abscesses* in the Liver, Lungs, Pleura, and Kidneys are all  
extremely dangerous, from the Office and Function of each  
part, and seldom admit of **any cure,** but generally bring on **a**Consumption and Death.

Yet some cases we have, where Nature, with a little assistance,  
has performed wonders ; one os which I have here set down.

**A** daughter os **a** fiibstantial citizen laboured under an *Abseese*in the Region of her Left-kidney, and was long treated by a  
bold empiric, who promised cure; bur after ail his endea-  
vours, the child languishing under the Ulcer, sometimes by  
reason of the great discharge of Matter by Urine, and other  
times through the suppression of it, great Pains were stirred  
**up** within the Bedy,. and outwardly in the *Abfcefs.* I being

consulted, observed that the external *Abfcefs* took its original  
from the Ulcer within the Kidney, and required another man-  
ner of dressing, its cure heing the work of time. I proposed  
the laving it open to the very p311 where the Matter pasted  
forth from the Kidney- To which purpose I applied a Caustic  
upon the Sinus helow, divided the Escar, and dressed it  
up with Lenients. Then aster Separation and Digestion of  
the Ulcer, searching the same with my Probe, I found the

' Sinns run up aheve the Orifice j- which being also laid open,  
. I discovered the passage into the Kidney, and felt the side  
of the last Short-rib bared by the Matter in its passing out. **I**drefled the Ulcer with the mundificative Continent of Smal-  
lage, and healed up the remaining Sinusses aheve and helovr  
*to* the very Aperture.\* While 1 was doing this work. Dr..  
Barwick was consulted to help us in the cure by internals,  
who prescribed a Traumatic Decoction of Sarsa, etes with  
the more temperate plants, and Balsamic Pilis to contem-  
perate the Humours. During my disposing of this Ulcer **to**retain a Cannula,, the Matter discharged by Urine in great  
quantity;-and the patient was as sorely afflicted, and had  
the same symptoms that others have who are diseased with

- Ulcers or Stones in the Kidney; het aster vent was given by  
a short Cannula of lead, she recovered. Having continued."

- the use of the Cannula some months, I removed it, **and**kept a Pea just in the opening, and by red Sparadrope  
and Compress, retained it on; then left her to her mother  
to dress, and only called sometimes, when they gave me no-  
tice of their wants. After a year or thereabout that she had  
kept this Fontanel open, the internal pains and discharge of  
impurities ceased, and she grew more fleshy and strong.  
She went also daily to a neighbouring school, where she was  
exercised in dancing, *etc.* After the space os two years, or  
thereabout, the Ulcer seeming not to matter more than  
might be expected from a small Fontanel, the mother east  
out the Pea, and permitted it to. heal up. But being soon  
alarmed by the old accidentswhich returned upon the child,  
she sent for me; I opened it again, and left them to keep-  
It *so.* Dr. Barwick was also again consulted, who repeated  
the former method with some littie alteration. The Ulcer  
was afterward kept open near three years, during which .  
she repeated her coursc of physick Spring and Fall, and was  
frequentiy brought to me. At length I seeing her weli  
grown, and of a fleshy and healthy Complexion, and the  
Fontanel in a manner dried up, I advised them to throw .  
out the Pea, lt being of no use. They did so; from which  
time the patient hath continued strong and well, and is finch  
married. *IViseman.*

Applications to-promote Suppuration are, the Fats of **all**domestic creatures, old Oil, Onions roasted in emhers, Lilly-  
roots. Mallows, and Marsh-mallows, Colt’s soot. Bryony,  
and sharp-pointed Dock-roots, Linseed, and Fcenugreek, Bar-  
ley, Lentil, Vetch, Lupin, and Wheat-meal, Gum Galbanum,  
Ammoniacum, Bdellium, and the Mucilage Plainer.—Fog  
instance, if Nature he strong, and the Matter lies not very-  
deep, the following Cataplasm may be applied:

Take of the Roots of Marsh-mallows, and of white Lillies  
each two ounces. Leaves of Colts-foot, and of Mallows .  
each one handful; boil them in broth, and let them he  
well mashed, then add of powdered Linseed one ounce, of  
Wheat-meal two ounces, of Hogs-lard and fresh Butter .  
**each** an ounce and a half, of Saffron in powder **two.**scruples, and the Yolk of one Egg; mix and make a **Ca—**taplasm. *IViseman.*

in cold Tumours, or where the Matter is deep, 1

.. Take of Bryony, and sharp-pointed Dock-roots,, each **two**Ounces, boil and pulp them through a sieve; to which  
add of Capers and Garlick, roasted under the emhers,.  
each three ounces. Yeast nr Barm two ounces. Powders  
of Linseed and Fcenugreek each one ounce. Wheat-meal  
two ounces, Hogssard two ounces, of Honey and  
Goose-grease each one ounce, of Saffron in powder  
dram. Mix.

Where the Matter is tough and Viscid, as in the Furuncle,  
Ernplasters of Gum Galbanum, Ammoniacum, Bdellium,  
and of the Mucilages are preferable. *Wiseman.*

in fcrophulous Swellings also, the Gum **Plaisten are less**troublesome than any other applications, and may he renewed  
every four or five days, these Tumours being very hew οτ gUp.  
puration. 7

But the use of fuppurative Plaisters in hasty *Abscesses,* or  
Inflammations, in a weak or dropsical Habit of Body, is by **no**means adviseabls, as they are subject to ut uneasy on the in-  
flammation, are often painful to rernove, when we enquire,  
into the state of the Tumour, and by chch **Comprefs in** had  
Constitutions, add something to the disposition of the part to

**A** mongst the foppnrative PulticeS perhaps there is none pre-  
ferable to that made of Bread and Milk, softened with Oil;  
at least the advantage of any other over it is not th he distin-  
guished in practice. *Sharp. '*

The *Abseese* may he covered with the Pultide twice a day,  
till it arrives at a ripeness sufficient to require opening, which  
is sooner or later according to the Humour by which it is pro-  
duced, or the place in winch it is formed. \* *Wiseman.*

' Basilicon, mixed up with a third parthof the Ointment of  
.Marsh-mallows, is an excellent Suppurative. *Turncr.*

*Abscesses from a* Plethora, and in fleshy parts, with less disc  
ficultycome to maturity, than those which, arise from crude  
Humours, and are near, or in the Joints, or parts endued with  
jittie Heat, especially those contained in a Cystis. *lVisemern.*- It often also happens, that notwithstanding the use os Cata-  
plasms, Suppuration, through the Blood-Vessels being clogged,  
advances Very flowly. In this case. Bleeding will sometimes  
quicken it exceedingly ; but however this practice is to be fol-  
lowed with, caution, it heing a maxim laid down in surgery,  
that evacuations are pernicious in every circumstance of a  
disease that is at last to end in Suppuration. *Sharp.*

In the formation of large *Abseesses* the Pain is sometimes ai-  
most intolerable; to remedy which an Anodyne draught will he  
**os** great service, and may he repeated at proper intervals till **the***Abseese* is opened.

Dr. Sydenham's meshed of treating the Small-pox fufficientiy  
justifies this way of proceeding.

Many ill consequences attend opening an *Abseese* too soon,  
especially in the Breasts and inguinal Glands from the Venereal  
Disease; for Pus generates Pus, and therefore if it is let out  
before all the obstructing Matter and destroyed Veffeis are con-  
verted into Pus, the part that remains unfuppurated will harden,  
the Ain will gain admittance, and the Ulcer will discharge  
Ichor, instead of well-concocted Pus. *Turncr.*

" Tumours made bv translation have sheen known, which  
have had Matter in' them from their first appearance; but it  
.being commonly lodged deep under the Muscles, the Matter is  
not selt till it hath raised the Tumour, which is not done with-  
out Pain, Pulsation, *etc.* as in a Phlegmon; but these seem  
deeper, and do not affect the Skin with Inflammation till the  
Matter reach near it. .

in these Tumours we do not attend the symptoms os Sup-  
puration, but open them as soon as any quantity of Matter  
offers itself

. Whilst the Matter is making, the native Heat of the part is  
to he preserved and increased by applications, which may alle-  
viate the Pain, and promote Concoction, *Wiseman.*

The Paronychia Maligna is an instance of this; -for were **we**to wait for a regular Suppuration, the loss of the Joint would  
he the consequence. ,

Suppuration is known to be complected by the thinness and  
eminence Of the Skin in some part of the Tumour, by the  
fluctuation *of* Matter underneath, and a general remission, of  
the Pain, Tension, and Fever: indeed it sometimes happens,  
if the Matter lies deep, that the symptoms, particularly the  
Pain, continue till the Pus is discharged.

If the Tumour becomes more compact, and thrusts out into  
**a** Cone, and looks pale, the opening of it is not to be deferred;  
for aS Apostems opened before the Suppuration is perfected  
' lose their Heat and become crude, so the Matter if suffered m  
x lie long aster it is made, tends to Putresaction, whereby the  
parts underneath corrupt, and the *Abseese* becomes sinous.  
Particularly if in the Joints, or over the Sutures in the Head.

So also in *Abscesses* in Ano, where through the weakness of  
the part, a Putrefaction is apt to follow; or in the Fauces,  
where the neighbouring parts are compressed, and the patient  
is in hazard os Strangling.

\* In these cases we wait not for perfect Suppuration, but by  
deep Scarifications discharge the serous Blood, and prevent an  
*Abfcefs.* There is also care to he taken in *Abseesses* of **the**Breast and Belly, where the Matter is in danger of breaking  
inwards, for by openin\* these too soon»\* they sometimes aposte-  
mate again; or hecome crude and difficult to digest and cure,  
*IViseman. . .*

Notwithstanding it is Very much taught to open critical  
*Abscesses* hesore they come to 2n Suppuration, in order  
to give Vent sooner to the noxious Matter of the disease ;  
yet in opening before this period, they miss the Very design they  
asm at, since but little Matter is deposited in the Abscosc hesore  
It arrives towards its ripeness; and besides, the .Ulcer afterwards  
grows foul, and is less disposed to heal. *Sharpi*

*Abscesses* are to he opened either by Knife or Caustic.

in sinall *Abscesses,* and in those of the Fac.e» the Rinse haa  
the advantage, where a Caustic would destroy its beauty by the  
Cicatrix it occasions.

But in large *Abscesses* where the quantity of Matter Is great»  
**or** we would keep the *Abscesses* inn? opee, a Causuc moreproper, from the great opening it make5, than by Puncture or  
Incision. *JViscman. ’ - - ... , ,*

Mr. Sharp prefers the Knife eVen *ttsl3xgPAbfceJs.es,* and ad-

vises; if there he much discoloured Skin, to cur out a dirrnher,'  
or oval piece os it, winch operation, if done dextrousiv, is  
much' less painful than by Caustic, and at once says oped a  
great space of the *Ahfccse,* which may hedreged down to the  
hettom, and the Matter os it freely'' discharged . whereas,  
says her aster a Caustic, though we make Incisidns through the  
Esear, yet the Matter will he under some confinement, and  
we cannot have the advantage of dressing- properry till che lopa-  
ranch of the Slough, which often requires a considerable rimn.  
so that the cure must he neceflarily retarded;

Mr. Wiseman is a warm advocate for the Caustic, and says  
in the opening large *Abscesses* it is most safe and easy, as rhe  
Pas thereby is. discharged more plentifully than by Incision;  
nor only for this reason does he commend the uso of is, 'but Onaccount of another advantage; for if a Caustic he applied on  
the declining part of a Tumour, the *Abscess* is sometimes near  
cured before the Esear separates, if the Matter he not con-  
tained in some particular Cystis. " Γ ’

Turner is of the same opinion, and says the Pain proceeding  
from the operation of a Caustic is fufficientiy recompensed by  
the ease os the dressing, when there is no occasion to cram in  
Tents or Dossils, as there must be to keep the Lips of a re-  
cent wound distended, and thereby choak in the Matter, by  
**the** one increasing the Pain, by the other the Sinuosity.

: If an *Abfcefs* is to he opened with the.Knife, if the Matter  
does not lie deep, the incision must he made the whole length  
of the Tumour, in such manner that the depending part may he  
open for the discharge of the Matter, which will prevent **the**trouble of dilating.

By tins, with goed CoInpress and Bandage, many Apostems  
are healed in a very little time, -without any other application  
than a Pledgit, armed with a common Digestive.-'

The Incsston is always to he made according to the direction  
of the Fibres: If it be in the Groin or Arm-pit, it ought to  
he oblique: in other parts it must .he made according to **the**length of the Member.

For should you make a transverse incision, the Matter would  
bag helow the wound, where, for want of a discharge, in **a**little time it would find a way in the interstices of the Muscles,  
and produce Sinusses Very difficult of cure; besides the hazard  
of corroding the Veins; Arteries, Nerves and Tendons, or the  
Bone itself, ifit lies near one. *Wiseman.*

In making the incision, great care must he taken that **no**large Blood-Vessel he wounded. On this account it is always  
necessary that the surgeon should be provided not only with  
some restringent applications, such as Galen's powder of Frankil  
incense and Aloes, mixed with the white of an egg, **but with**Ligatures, as guard against Inch accidents.

Nerves also and Tendons are to be taken great care of, the  
Pain and Fluxion arising from wounds of these' always pro.  
ducing Very dangerous symptoms, and often a Mortification.

It is a general rale that in opening large *Abscesses,* whether  
by Knife or Caustic,, the whole Matter 4s not to be discharged  
at once, lest the heat of the part be over-weakened, or the pa-  
tient saint. *IPisieman,*

incision-knives are of various kinds, and are in use as the  
particular situation of the *Abfcefs* shall require: The common  
one used in opening *Abscesses* is small, strait, and round-edged,  
but in dilating of Sinusses, or aster a Puncture, the fiat-edged  
Knife with the Director is preferable.

In *Abscesses* of the Fauces, the blade of the Knife is shorter,  
and the handle longer than of the common knives.. *Wifeman.*

The Lancet also comes in, as sometimes necessary in small  
*Abseesses* ; but too often calis for the Knife or Scilsars to finish  
what it had so imperfectly begun.

An *Abfcefs* sometimes bursts before Suppuration is com-  
pleated ; in this case the use of the Cataplasm must he eon-  
finned till the Tumour will admit os dilatation (which generally  
happens in two or three days) with the Knife or Scilsars.

For this purpose the ancients used the Root of the Papyrus,  
*Diosiorides. v*

The Incision heing made, the accidents or symptoms that at-  
tend it are to be removed. \*If any Bleeding should happen, st  
must be restrained with Galen's powder before mentioned,  
mixed with the white of an egg. *IViseman.*

But the usual meshed of dressing an *Abseese* **the** first time, is  
with dry Lint only, or if no Blood appears, then with Dossils,  
armed with some Digestive warm, as Turpentine mined With  
the yolk of an egg; or, which is preferable, with a mixture *as*Basilicon and Arcaeusss Liniment, observing to lay the Dossils  
loose in the cavity, unless the *Abfcefs* he .deep, and the wound  
narrow, as is **the** case sometimes of *Abscesses* in Ano, when **the**Lint must he crammed in pretty tight, that we may have after-  
wards the advantage of dressing down to the hettom, without  
the use os Tents.

The Dossils in deep cavities must he secured by tying a bis  
of thread or silk about thens, many bad accidents having been,  
occasioned by one os these lying unobserved soJM time Wim  
ness the following observations

**A** man of shout fifty years old, of a full Body and Lrong 'duro\*;  
stlnrnon, was taken wish a Pain under his Right-arm, with  
Hardness and inflammation. I was sent sor, and concluding in  
a Buhe, thrust forth by the strength of Nurure,.applied\*,  
plaister of .Diachylum with the Gums, designing nin to drest  
again fill it was near suppurated ; but the Tumour increasing;  
with great Pain and inflamed Redness, I.yari put upon a on",  
cessity of applying Anodyne Cataplasms, Wissan fewfosu  
aster, it being suppurated, I opened it by incision J ,μά- ”  
charged a well-concocted Matter; then dressed st wJth,hehe.  
hcon.with the Yolk of an Egg upon a 3.eni’ and applied a  
Plaister of Diachylum malaxed with an Ointment of Marsh.:  
mallows, and afterwards dressed\* with the Mnndificative of

. - Paracelsus. Having so disposed lr to heals L less dressings,  
and aster three or four ssayS visited the [indent again; whethe  
observing the Hardness digested ossi» and the *Abseese* sit dur,  
cicatrise, I lest off the use of the Tend, and dressed it with,  
a Pledget of the Ointment of Pompholis, and the Cerate  
over it,, and lest them wherewithal to finish, the cure- But  
a sew days aster they sent for me again., f found it swelled,’  
and the Matter ishting from it thin and saetid, and much more  
in quantity than I could expect. I. enlarged the opening by  
Incision, and there came forth a Tent, which in his servants  
dressing had flipped into, the *Abseese.* From that time the  
Matter lessened, and the *Abs.cefs* cured without relapse by the  
method aforesaid.\* *iVifeman: . ἐν. -*

Over the Dossils,- Pledgtts armed with the same Digestive  
must be applied to the Lips, with a large Pledgit of Basilicon  
above, and the whole secured with good Compress and  
Bandage. . \* ' .

The common Coinpress is made of linen rags shlded several  
times;. but. the plaister Compress winch is made of three or four  
folds os the common desensative plaister stuck together, and  
shaped as near as may be to the compass and dimension of **the**cavity to be compressed, observing heedfully to bring, the edge  
thereof even with the Lips- of the disjoined part, has much the  
preference as it remains immoveable-on the part it is applied to...  
*Turncr. , .*

The Bandage must be suited to the sithation of the wound.  
In the Limbs the single-headed Rosser is generally used, but is  
oftentimes exceeded by the laced Sock, Stocking, Knee-piece,  
Trowse, Glove, Elbow, and Aim-piece, by their equal lacing  
when well fitted to the several members. .

. -if the Roller be used, care must always he taken, that the  
circumvolution be made that way, whether to the right or left,  
as may bear first upon the extremity of the Sinus hefore it reach  
the edge of the wound or ulcer; by which the contained matter

. will be pressed out, and the wound unite at the lame time,  
*Turncr.*

The length of the Roller for the Arm or Leg should heabout  
two yards, and for the Thigh a yard more must he added ;  
its breadth, two, three, or four inches, as appears necessary;  
for the Fingers one of a foot long, and an inch broad, will  
suffice. . '

If the wound be on the Head, the Cap or double, headed  
Poller must be made use of. See **BANDAGE. . . ..**

- After the *Abs.cefs* is dressed, if inis on the Leg, it must al-  
ways he placed upon a pillow; if on the Arm, in a fling, by  
which means a flux of humours .will he prevented from felling  
upon the part, which would very much retard the cure, and  
which would inevitably happen, should the Limb he suffered to  
hang down.

Fainting, which sometimes happens through weakness or  
tirnoroushess of the patient, may be relieved by laying him down  
on his Back, and sprinkling a httie cold water on his Face t  
but if it proceeds from some preceding sickness, and is con-  
tinued by the greatness os the evacuation, and noisom corrupt  
Matter; in tins case Cordial Julaps are necessary, and may he  
taken ar pleasure. .. *iVifeman.*

The Spirits may also he refreshed with Epitherns, made up of  
fome DistilledWaters and Cordial Species,withVinegar of Roses,  
which for want of a physician may be prescribed. *IVifeman.*

The frequency of dressing will depend on the quantity of **the**discharge; once in twenty four hours is ordinarily sufficient,  
hut sometimes to do it twice, or perhaps three times, may **be**necessary.

in cleaning the wound it is needless to he too scrupuloully nice ;

-hut it is worth remarking, that **a** sore should never he wiped by  
drawing a piece of tow or rag over is, hut only by dabbing it  
with fine lint, which is a much easier method for the patient ;  
.the parts about it may he wiped clean in a rougher manner with-  
out any prejudice.

**- . I** do not think the air has that ill effect on sores aS is generally.  
conceived; nor would the large *Abscesses* on beasts, which are  
often exposed to the air the whole time of cure, do well, if it  
was so very pernicious as it is represented ; but as it tends to the  
making a scab, and in winter is a httie painful to the new stesh,  
**it** will he right to finish the dressing as quick as may he without  
**hurrying.**

. AnotherNaution necessary in the treatment of *Abscesses* is,  
that surgeens should not upon all occasions search into their ca-  
vities, with the Finger or Probe, as it often tears them open,  
and indisposes them sor a cure.- *Sharp.*

At the next dressing if there is any considerable Hardness  
from the Tumour not being sufficientiy suppurated, as in large  
*Abscesses* it frequently happens, .or if the Lips of the wound are  
painful, and inflamed, in these cases a Fomentation prepared of  
the tops os Mallows, Marsh-mallows, Wormwood, and Cha-  
momile Flowers should be ready, out of which a Stuph of flannel.  
may he wrung, and applied over the *Abseese,* to give a breathing  
to the pari. : . .....

But if the *Abseese* was the consequence of a congested Tu-  
mour,, and Nature wants assistance to preserve the heat, and  
strengthen the relaxed parts, insteados the emollient Fomentation  
above, it must be bathed with a decoction of Wormwood,  
Elder-flowers, red Roses, Myrtle-berries, and Fcenugreek seed,  
in Wine and Water, adding afterwards some Spirit of Wine,  
*Wifeman. \_...*

' The *Abs.cefs* may he dressed with Liniment, and Basilicon,,  
and the Lips,, if inflamed, with a mixture of Oil of Roses, and  
the Yolk of a new laid egg; with Compress and Bandage as  
hefore.

The use of thePornentetion must he continued every dressing,,  
till there is a good Digestion.

.in winter the dressings may be wanned; butinsinnmer it is  
superfluous. ' -

If the Ulcer should want deterging,, a little red Precipitate  
finely powdered, and mixed with Liniment, or Basilicon, will  
not only deterge Is, but will incarn it, so as in a very httie time  
to want nothing but the white Ointment, the Cerate of Lapin  
CalaminariS, or even-dry Lint to cicatrize it.

Sometimes, notwithstanding all our care, the Matter will so  
insinuate itself into the parts about, and form such cavities as  
will- not admit of this way os healing, in these cases great cau-  
tion is to be had with regard to .the use of Tents, which are al-  
most universally decried in these days,, though they still continue  
to he employed too much by the Very people who .would seem  
to explode them most J. in short, they are Very seldom; ne-  
cessary. . ...

However, in this case they are sometimes found usefid **to**thinthe Skin *for* the more easy dilating,, winch must be done im-  
mediately.’ .

And in some large and deep *Abscesses* of the Breasts, where  
the Matter cannot discharge itself by the Orifice already made,,  
and yet does not point sufficientiy to any other part for an open-  
ing, though it make signs whither it would tend if it was a little  
confined, in such an instance a Tent would be useful, for by  
plugging up the Orifice, it would make the Matter recur to  
the part disposed to receive it, and mark the place for a counter  
opening. But Tents do most goodin little *detpAbseejs.es,* whence  
any extraneous body is to he evacuated, such as small splinters  
of Bone, &c. *Sharp. ♦*

The Use of injections is also recommended by many, as fer-.  
Viceable in deep *Absasses,* but with little reason; for they do so .  
much mischief by distending the parts of the *Abseese,* and in **a**manner macerating the new Flesh generated within them, that  
they are hardly proper in any case; though one of the great  
mischiess of Injections, and Tents, has been the mifleading  
surgeons into a faith, thatwhere-ever these medicines were ap-  
plied, the part would heal; and upon that presumption, they  
have neglected to dilate *Abscesses,* which have not only remained  
incurable aster this treatment, but would often have done so, for  
want of a discharge, if they had been dressed more superficially.  
*Sharp.*

For the cure of these Sinuffes, See ULcER.

Mortifications sometimes succeed large *Abscesses,* though **not**Very often. For the method of treating them. See GAN-  
**GR JEN A.**

On the other hand it frequently happens, that Nature in **her**office os incarning is so luxuriant, as to produce great quantities  
of loose spungy Flesh, which often gives a deal os trouble to the  
surgeon, by its rising considerably above the surface of the Skin,  
and thereby preventing the Ulcer cicatrizing.

To remedy this inconvenience, it may he touched moderately  
with the Vitriol, or Alum-stone, by which it will he daily  
wasted with little or no Pain. Dry Lint alone will often stave  
the same effect, by absorbing the superfluous juice, and will  
cicatrize at the same time. When they prove troublesome, and  
will not give way to the common EscaroticS, they may be broke  
in pieces by the Fingers, and pulled out, and the cavity stlled  
with Pledgits, armed with this mixture. Take of char Tur-  
pentine and Honey, each half a pound, the yolks ορ chj.ee  
eggs; boil them to the consistence of an Ointment: m every ounce  
of which add of Red-mercury-precipitate one dram. This is  
called ParacelfuS's Mnndificative, and must he continued till rhe  
! Ulcer is deterged; after winch It before,

mentioned. The following Observation shews the necessity  
: sometimes of this way of nroceedincr. - .

AToimss gentlewoman aster chilthhed being indisposed in her  
heolrsq her lest Breast became diseased, and swelled. They  
contented themselves with such help aa thofe th»\* then1could afford.: But after some days it growing more painful  
and swelled, the apothecary brought in his brother, whe en-  
deavoured Suppuratron, and after some while gave Vent to  
the Matter, and proceeded in the cure. But while he W25dressing that opening, the Fluxion increased, and other Ab-  
*scesses* were raised, and from the several Apostemations si-  
nuous Ulcers were afterwards made. Thus the work became  
difficult. I was consulted, in the pulling out ope of the  
Tents, a thin white Matter issued out in great quantity- My  
brother-chinirgeon called it Milk, but I thought it Matter 5  
and observed the *Abscess* to have begun deep in the bedy of  
the Glands, which, through length of time corrupting them,  
rendered the. Swelling hard; and the Tent stopping in the  
Matter between dressings, had occasioned that large discharge  
we then met with. The method of cure consisted in the en-  
larging of that Orifice where the Matter seemed to he detained,  
and then to proceed with Detersives, *etc.* They entertained  
me in the cure, and I continued my brother-chirurgeon.  
We began with the application of a Caustic to the part  
round about the Orifice, stopping the hole with Lint; by  
which means in a short time we made an easy way for the  
Matter,' and saw no reason afterwards to think it Milk.

AS the escar separated, a Fungus thrust forth, which we  
sprinkled with red Precipitate, dressing up the Escar with  
Basilicon, and the other openings with Ointment os Pompho-  
lyx, and Cerate of Althaea over all. Aster a more fissi sepa-  
ration of that Escar, we observing the Fungus to rise more  
Iarge, applied a Stuph wrung out of a Decoction of the Tops  
of Wormwood, Rue, Mint, and Flowers of red Roses, and  
BalaustineS, made inWine andWater ; and the while sent for  
some Chalcanthum, which we applied upon the Fungus, and  
Pledgits of Ointment of Tutty over the ulcerated parts.  
The second day after we took off the dressing;, and sound  
an Escar made by the Cathaeretic, winch we thrust off;  
and dressed it again with the same, and continued the  
use of escarotics. During those applications we applied  
ever the Breast the Plainer os Bole to restrain the Influx; but  
yet the Fungus increased upon us, and raised a Swelling be-  
tween that and the other Orifices. Upon which consider-  
ation we applied a large Caustic upon’ that- Swelling, which  
laid some os the other Orifices, into this; then divided the  
Escar, and dressed it up with Lenients, and covered the  
Fungus with Escarotics where-ever it began to thrust out,  
by which it was kept down. But after the Separation of this  
latter Esear, we seeing the Fungus great, and the way of  
extirpating it by Escarotics flow; and fearing the III con-  
sequences of it, I prest with my Finger underis, and at  
once broke into it, and pulled it out in pieces; then filled  
up the place with red Precipitate, and MundificatiVe of Pa-  
IacelsuS upon Pledgits, with the aforesaid Plaister over the  
whole Breast, and bound it up. The second day after that'  
we opened it again; and by this same meshed often repeated,  
we subdued the remainder of the Fungus, and raised a firm  
Basis, on which we incarned, with an addition os powder of  
Orris-root, Myrrh, and Sarcocolla, to the sore-mentioned  
MundificatiVe; and then applied the Corate of Agrippa over  
the Breast, and in few days cicatrized it with a smooth Cica-  
trix, the Lips selling in by the benefit of Nature, which was  
assisted the while by Traumatic Decoctions, *etc.* as in such

. eases is usual. *Wifeman.*

Sometimes the Lips os the Ulcer grow callous, and will not  
cicatrize. In this case, the actual Cautery is often found of  
good service, and the part must he treated after the same man-  
ner as a common Bum. For further directions fee ULCER.  
’ When an *Abfces.s* is judged proper to he opened by Caustic,  
two things are. to he considered: The thickness os the Integu-  
ments, and the age *of* the patient; for it would he ridiculous to  
apply a.bunting Caustic to a child, when a mild one would do  
**the** busmess as well; and where the *Abs.cefs* lies deep, it would  
he unpardonable in a surgeon, should he either apply too mild  
a one, hr on the other hand take a proper one off too soon, that  
is, before it has sheathed its points in the Matter contained in the  
*Abfces.s. sc- ' ”*

Carrstirs are os Various sorts ; the strongest is reckoned **the**Lapis infernalis, being the first running *os* Soap-makers Lees,  
boiled in a brass or copper ladle, to a consistence, and cut with  
a het knife into pieces of several sizes, and kept close stopped  
from the air, till the time of use 3 a piece osthis, of the com-  
pass of a silver three-pence, will make an Esear near as.  
large as a sir-pence, and usually performs its work in an hour’s  
**time \* . --**

A milder than this, is a Paste .made of Soap-lees, and Quick-  
lime powdered; and a still- milder, called.from its softness,  
**the** Velvet Caustic, is a Paste made of Quick-lime powdered,,  
and a little Soap. This.is chiefly adapted to Insants, and tender  
Bodies, and may he suffered to he on twenty fontSours,  
***Turner.-’.***

The best Caustic in use, is Lapis infernalis powdered and  
mixed into a Paste with Soap, which is to he prevented from  
spreading by cutting an Orifice in a piece of sticking Plaister,  
nearly as big as you mean so make the esear, which being ap-  
plied to the part, the Caushc must he laid on the Orifice, and  
preserved in its situation by a few flips of Plaister laid round **the**edges, and a large piece over all, with moderate Bandage *to* re-  
tain the whole. *Sharp.*

The size of the Caushc must always he proportioned to that  
of the Escar proposed ; *for* upon the solution of its salts, in  
spight of all precaution they will spread, so as to form an  
escar much larger than then own compass when first laid on.

This caution is not altogether unnecessary, having frequently  
seen an Ulcer, the effect of one of these Caustics, aS big aS a  
half-crown, and that too upon the Face, Neck, and Breasts  
of gentiewomen, where the Scar as much aS possible ought to  
he avoided, which needed not to have exceeded the compass  
of a silver groat. *Tomer. '*

This Caushc generally does its business in an hour and a half,  
two hours, or three, according to the thickness of the Skin,  
and, what is Very remarkable, notwithstanding its strength and  
sudden efficacy, it frequentiy gives no pain, where the Skin is  
not inflamed, as in making Issues, and opening some sew Ac..  
*fcefs.es. Sharp.*

When the esear is made, which is known by a remission of  
the Pain, and the time the Caustic lay on, the Planters must be  
removed, and the Salts washed from the part with warm Milk.  
The Esear, now insensible to the Knife, must he out through,  
and the Matter discharged, without over-much pressing the  
Parts adjacent to get out all at once, for reasons mentioned he-  
fore. -

If the patient bears the discharge of the Matter without sick-  
ness or saluting, it may he necessary to out away aS muchof **the**Escar as can be done conveniently; the remaining part is to he  
dressed up with Doffiis armed with Basilicon, and dipt in Oil of  
Lillies warm, and over all a Diapalma Plaister, or an Anodyne  
Cataplasm, with gentie Compress and Bandage just to retain the  
dressings on the part. *Wisemans.*

This method must be continued till the patient grows easy,  
which is generally in two or three days; aster which the Com-  
press and Bandage will he absolutely requisite, by the"artfid ma-  
nagement of which, and the continuance of the same Digestives,  
a Sinuosity may perhaps he prevented, and nothing more upon  
the sail of the Escar wanted than a little dry Lint m compleat  
the cure. *Turncr.*

*SaAbs.ces.sies* opened by Caustic are liable to the same accidents  
with those which are opened by incision, the method of treating  
them are in both cases the same; we shall therefore proceed to  
treat *os particular Abscesses,* with their different methods of cure,  
in every part of the Human Bedy. \_

**ABSCESSES of the HEAIL**

*Abscesses* in the Forehead and Hairy Scalp are, for the general  
part, the consequences of a Contusion; where the extravasated  
Juices, from the want of timely bleeding, and restringent appli-  
cations, their regress through the hrohen Capillaries being de- ’  
stroyed,. inflame and ripen into Matter.

Is they happed upon any of the Sutures, they sometimes pro-  
duce dangerous symptoms, by inflaming the Dura Mater, winch  
passes through them, and is continued to the Pericranium. *Wife..  
man.* See **PERICRANIUM. '**

In all *Abscesses* of the Hairy Scalp,, the Caustic is preferable to  
Incision, (especially if the Matter has been so long confined as  
to make the Skull black or carious) as it makes way for **the -**Rugine or Raspatory [see RUG1NE] which is always to be used, \*  
except upon the Sutures, the thinness of the Skull there" forbid-  
ding it; for should we wait for an Exfoliation by the common  
methods, some weeks, perhaps months, would he required  
whereas, by the Raspatory, Incarnation .is eompleated in afew-  
day’s. ‘ .

*Abscesses* in the Forehead must always he opened by incision,  
which must he made according to the direction of the Fibres,  
for a transverse wound here may cause the Eyebrows to sail over;the eyes.

Arcaeus’s Liniment is the common dressing in these *Abscesses,*it bring by the author designed particularly for wounds of theHead, and the cure is to he finished with dry Tint, with good  
Compress and Bandage.

' If a Sinus should he formed, let it he opened in the most dike  
pending part, the Matter let out, and a Compress of the whole  
length of it applied, with the double-headed Roller or Cop; by  
which, and dressing as above, ityrill heal without further trou-

**ABSCESSES in the EYELIDS.**

Internal *Abscesses* in the Eyelids must he treated by making an  
Incision in their most eminent part, and evacuating the Humour.  
Aster this wash the place with Brine, and bind on it a  
piece of Wool moistened with an Egg. Next day foment the  
sore, and anoint it with Honey ; aster this, let the cure be car-  
ried on by frequent Instillation οΓ the Collyrium Repressum.

*As* for external *Abscesses* in these Parts, aster Incision and  
Evacuation, as in the *somex,* we apply some Lint spread with  
Honey, and bind thereon a piece of Wool.

If the *Abfcefs* affect the Cartilage inf the Eyelid, if on the  
external part, it is not impossible, aster they have been well  
cleansed with Egg and Honey, to incarnate them by some dry-  
ing Medicine proper for the parts about the Head. If the *Ab-*sasc he in the inward part of the Cartilage, after the Eyelid has  
been turned up, and the Cartilage laid hare and scraped, lay  
thereon some of the finest Powder of Copper, and to the Eyelid  
apply an Egg beaten up with Wine and Oil of Roses ; next  
day foment the place, and apply the Powder and Egg as before;  
on the third day anoint the Eyelid with Honey, and then betake  
yourself to the use of the Collyrium Repressum. *Actius Tetr.* 2»  
*ferm.* iii. *cap. Jcy.* See **COLLYRIUM.**

*Abscesses* in the Eyelids sometimes happen, and are easily cured  
by a small puncture with a Lances, and a bit of Diachylon  
Plainer. But these Apostems are hetter prevented by letting  
out the Blood with the point of a Lances, which often by’a  
blow is thrown upon these parts in greater quantity than can he  
absorbed again into the circulation. No other dressing is required  
than dry Lint covered with a bit of defensatiVe Plainer.

The Lachrymal Glands frequentiy apostemate,which is caused,  
as most authors imagine, by the Tears becoming acrid and cor-  
rosive, and so exciting an Inflammation and *Abfcefs*tho' many  
of them imagine that the Tears themselves, not finding a way  
through the Nasal Duct, do, from stagnating in the Saccus, cor-  
rupt, and become the Matter discharged by the Puncta Lachry-  
. Inalia: but the latter opinion is most certainly ill grounded ;  
sor besides that the Tears are not of a composition to become  
Pus, it may he observed almost at any **time,** upon pressing **the***Abfcefs,* that the two Fluids appear unmixed; and with regard  
to the general doctrine of the sharpness of the Tears producing  
this disorder, I think it is much to he questioned, since **the**Cornea and Tunica Conjunctiva,being more sensible Membranes  
than the Saccus, would more readily he offended by themj but  
as we fee they are not in the least injured, and every part of an  
animal Body is subject to Inflammation from internal causes, I  
believe this external one may he justly doubted. *Sharp.*

These *Abscesses* are sometimes so foul aS not to cure by Inci-  
sion; in this ease a piece of the Bag itself must he out away.  
*Sharp.*

The manner of performing the operation is this: Supposing  
the *Abfcefs* not broke, choose a time when it is most turgid  
with Matter; and to this end you may shut the patient's eye  
the day before, and lay littie flips of Piaster upon one another  
across the lids, from about the Puncta lachrymalia to the inter-  
**nal** Angle; which compressing their channeis, and preventing  
the Flux of the Matter that way, will heap it up in the Bag,  
and indicate more certainly the place to he cut. If the *Abfcefs*is already open, the Orifice and Prohe will inform you where  
to inlargethen placing the patient in a seat of convenient  
height for the management of your Hand, with a small incision-  
knife dilate from the upper part of the Bag down to the edge  
os the Orbit, without any regard to the Tendon of the Orbicu-  
laris Muscle, or fear of wounding the Blood-Veffeis; though if  
yon see the Vessels, it is proper to shun them: the length of  
this incision will he near four tenths of an inch. It has been  
advised, in opening the Bag, to introduce a sinall Prohe through  
one of the Puncta into its cavity, to prevent wounding the  
posterior part *of* it; but I think this excess of care may he  
more troublesome than useful, since in so large a Vessel a Very  
small share of dexterity is sufficient to avoid the mistake. In  
making this incision care must he had not to cut too near the  
joining os the Eye-lids, because of the deformity of the suc-  
ceeding Soar; though the blear Eye, or uneven contraction of  
the Skin in that part, after the operation, is generally owing  
to the ufc of the Cautery, and not to the wound of the Ten-  
don os the Orbicularis Muscle; sor this last is necessarily, from  
its situation, always cut through, but without any inconvenience,'  
.because of the firm Cicatrry asterwards that fixes it strongly to  
the Bone. \*

When the Bag .is open, inis to he silled with dry Lint,  
which the next day may he removed, and exchanged for a  
Dossil dipt in a soft digestive Medicine: This must he repeated.  
every day once or twice, according to the quantity of the dis-  
charge : Now and’ then, when the Matter is not good, using  
the precipitate Medicine, and from time m time a Spunge-tent,  
to prevent the too sudden reunion of the upper part of the *Ab-  
fcefs.* When the discharge begins to lessen, it will he proper  
to pass a small Prohe, or silver Wire through the Nasal Duct  
into the Nose, every time it is\*dreffed, in order to dilate it a lit-  
tie, and make way for theTears.and Matter,which by their drain  
will continue to keep it open. This method must he followed  
till the discharge is neatly over,’which will he in a few weeks,  
and then dressing superficially with dry lint, or any drying ap-  
plication, the wound will seldom sail of healing. Aster **the**cure, in order to prevent a relapse, it will he proper, fora few  
weeks, towcar the compressing instrument. *Sharp.*

These *Abscesses* generally end in a Fistula Lachrymals, *six the***treatment of which see FISTULA LACHRYMALIS.**

In the Nose sometimes *Abscesses* are formed, and are to he  
treated as directed in the following observation:

**A** gentleman near seventy years old wa5 sorely afflicted with **a**Furuncle within his Nostrils and aheut his Nose, with great  
**Inflammation** and Hardness. I fomented the diseased parts  
with a Decoction of the Tops of Marsh-mallows. Mallows,  
Violets, Chamomile flowers, Melilot, Linseed, and Flea-  
wort feeds, and with a syringe injected some of the same  
into his Nostriis, and applied the fore-mentioned Cataplasm  
over his Nose. I purposed the letting him blood in the  
Arm, but it would not he admitted by reason of his age;  
but by setting on Leeches behind his eats, I took away some  
Blood ; also by blistering the Neck and Shoulders, I endea-  
voured Revulsion, by Clysters kept his Body soluble, **and**-continued the applications, by winch his Pain was somewhat  
mitigated. Aster five or six day3 the Skin became thm, and  
a white tough Matter shewed itself in several places within  
and aheut his Nose, and gradually made its way through  
many small openings. I made it more way here and there  
with the point of a Lancet, and dressed them with Oil of  
Lillies mined with the Yolk os an Egg, and continued the  
" use of the Fomentation, and applied the Corate. *I* was  
much troubled to think what would become of his Nose, the  
exterior or interior parts bring all staffed with that clammy  
Matter, so that it would not iflue out; and, when it should,  
I doubted it would leave littie covering upon the Cartilages.  
To hasten it out, I daily dropt in a mixture of Honey of  
Roses, with Juice of Smallage decocted; and, by convey-  
ing a big Tent dipped in the same into each Nostril, I pressed  
the Matter outward, and sometimes pulled it away with  
my Forceps. It came out as if it had been broken pieces  
of the Spinal Marrow, and burst some of the openings **into**one another,which I was sorry to see. But theMatter not bring  
accompanied with Acrimony, **the** hollowness filled up, **and**the distended Ups sidling near one another, agglutinated as  
the .Matter digested out; and by the Compression I made  
with my Tents within the Nostrils, I inlarged them, **and**furthered the well-cicatrizing of the Ulcer; winch was ef-  
fected in a sew days after, with Cicatrixes not unseemly.  
*Wiseman.*

**ABSCESSES** aheut the JAwS.

The Conglobate Glands under the Jaws are Very subject to  
*Abscesses,* which have been taken by some to he strumous, but  
they differ greatiy; the Struma being contained in a Cystis re-  
quires to he eradicated by Efcarotics after the Matter is dis-  
charged ; but these, aster the discharge of the Matter, are cured  
either of themselves, or by the ordinary intentions of Digestion.

These *Abfcefs.es,* as the part is not Very capable of Band-  
age, are best opened by Caustic. *Wiseman.*

After the discharge of the Matter till the Escar is separated,  
is must he drefled with Leniente, and the cure must he com-  
pleated as in the *Abscesses* opened by incision.

A child of about nine years old having been diseased with **a**Fever, some reliques of that Matter discharged themselves in  
a Swelling under the right Jaw, aS big as a pulletis egg. It  
was suppurated, and required Vent, which I gave it by in-  
cision, but could not cure it till I had applied a Caustic on  
the depending part. The place not bring Very capable of  
Bandage, it Could not he treated so advantageoufly when  
opened by Incision, and drefled with Tents; but after the  
laying it more open by Caustic, the Matter plentifully dis-  
charged, and the *Abfcefs* Cured. *JVisanan.*

**ABSCESSES of the EARS.**

. If an Inflammation or *Abfcefs* affect the Ears, the same  
Regimen os Diet is to he .ordered asina Fever, that is to say,  
a Very thin one, and that affords little or no nourishment. **And**because this Sensorium is near the Brain, and of quick Sensa-  
tion, a small error with respect to it may prove of bad con-  
sequence. Let the patient therefore live on Cremor of Ptisan,  
and Water, and he kept quiet. and apply fresh Fat., y0id **os**all Acrimony, to the part. If the Inflammation proceed to an  
*Abst esc,* and Pus appears, it must be evacuated, and tho *Agul*sasc cleansed, by the Emollients, and moderate Drawers, and  
Detersives. But since some, by their negligence, let chejj.  
Ears run with Pus for a long time, which is not afimw^  
easily dried up, and which has a very offensive (inch, dryimr  
Medicines are to he used, such as those which aro prepared ut  
the Recrements of Iron with Vinegar, which are of wherderfut  
edinacy in drying up Old and foul. Ulcers, especially in ch-  
eats. *Actuarius Meth. Med. lib.* hr. *Cap,* jo.

ς *Abscesses* near the Ears, which the Greeks can ^edj^  
accounted among Inflammations, sor they are generated hy .m  
Inflammation of the Glandules about the Επὸ W7f-T  
dom ra: ρἐντΜΐ,οκ in there para according to the method  
Kguhrst adapad » Irihmmixiaa, whenture is no con.

oomitant Malignity, nor any extraordinary Influx of Humours,\*  
and the Body is *not* burdened with a Plethora ; sor in such a  
case, a Sponge dipped in Poses, and laid to the place, represses  
the Inflammation without any bad consequence. But in the  
Parotides we are obliged to take another course, and tise draw-  
inof Medicines; and if these are of little effect, **we** apply **a**Cupping-glass, or frequently foment the place: for our inten-  
tion is directed, by all manner of ways, to call the noxious  
Humours from the internal Parts to the Superficies. However,  
when their Influx becomes Violent, we are not to he too busy  
or sollicitous, but let Nature have a great share in the manage-  
ment. Wheresore, in this case, we do not comply with the  
Propension of the Humours, but rather mitigate them by such  
Medicines as are remarkable for their lenitive qualities. Such  
are those prepared of the Meal of Wheat, Barley and Linseed  
boiled with honey'd Water, the Decoction of Foenugreek, Marsh-  
mallows, or Chamomile, and other Medicines of a moderately  
het and moist quality, whence they have the Virtue not only  
of mitigating Pain, but of digesting and bringing to a Suppura-  
tion the confluent humours. Such are Wbeaten meal, with  
the Decoction of Figs, and Oil, and a preparation of **fine**Wheaten flower andYeast. When the Parotides are suppurated,  
the Pus must he evacuated, either by Incision, and the Ulcer  
healed, as all agree, or by breaking the *Abfces.s* with some acrid  
Medicine, such as the Emplastrum Smiliurn, or one prepared  
with Garlick; or, lastly, it must he discussed by such Medi-  
cines as are of fine parts, and are, at the same time, endued  
with a drawing faculty ; and if, after the greater part of the  
Pus is discuffed, any Hardness should remain, it must he treated  
**with** Emollients.

Archigenes recommends the following remedies for dissolving  
*sh&seAbfcesses* of theears. Apply every day a Cataplasm of Plantain  
bruised with Salt, or Goat's dung, with Vinegar, or the  
Sharp-pointed Dock boiled in Wine, or Figs bruised or boiled  
with Vitriol, or Figs boiled with Wormwood; and bruised in  
Wine; or apply the calcined Shells of Whelks, *at* of the  
Purple-fish, with Honey; and Discussion will soon he effected.  
The same Virtue is in Oyster-shelis calcined, and applied with  
Honey, and in Cerate os Roses, or Oleum Cyprinum mixed  
with Rue, or Sulphur Vivum mollified, and in Fullers Earth  
and Vinegar. Tins last boiled in Sea-water or Brine, and  
beaten and applied, is a most powerful Discutient. Horehound  
and Salt hid on Wool that is impregnated with it, and then ap-  
plied, has the same Virtue, and is Very proper in the beginning  
of the Parotides; or, to name no more, apply a Cataplasm of  
the Meal of bitter Lupines boiled in Honey, with the addition  
of a moderate quantity of Qrtick-lime. *Actuarius, lib.* Vi,  
*cap-* 3-

The external Salivary Glands behind and about the Ears are  
frequentiy afflicted with very large *Aofcejs.es,* which are to he  
CoBsidered as salutary or malign according to their different  
causes. For instance, those which happen from an external  
cause, as a Bruise, whereby Bloed is extravasated and cast into  
these Glands, are salutary, and easily cured; but those which  
. happen aster great Evacuations, or a Fever, without remission of  
is, are pernicious and dangerous.

AS Nature is sometimes Very flow in ripening these *Abscesses,*she must he assisted by the application of strong’ suppurative  
Cataplasms, or even Cupping-glasses; Gum Piasters too are  
proper, and, in a full Habit of Bedy, Bleeding may he of ser-  
vice. *Wiseman.*

When the Matter is well Concocted, let a Caustic he ap-  
plied, and proceed in the cure as in other *Abscesses.*

**These** *Abscesses* sometimes burst in the Ear. In such a case, **a**little of the Oil of St. John’s Wort, mixed with Honey of  
Roses, and dropped into the Ear once a day, with a bit of Wool  
lightiy pressed in after it, will forward the cure greatiy: **the**outward parts must he kept warm with flannel, as long as the  
Matter continues to discharge.

Instead of digesting, by the common methods, the *Abs.cefs*frequently turns sordid. See **ULCER.** i

At other times, after it has been incarned and cicatrized, a  
Hardness will remain, which will require the application os  
another Caushc, the full compass of the induration, which hay-  
ing penetrated deep, the Escar must be divided to the Quick,  
and separated and digested as above.

A person os about fifty years of age, having long laboured under  
Scorbutical Affections, was seized, with a flow Fever; his  
Head was affected with Vapours, and his Spirits oppressed ;  
during whicha. Turn our arose behind his lest Ear, and reached  
down under that *Jaw,* growing big and hard, of a dark red  
colour. VVe endeavoured by discutient and emollient Cota-  
plasms and Embrocations of Variousdorts; hut it would not  
yield to any of them. We repeated Venxsection, and made  
him Fontaneis between the Shoulders; Purgations were "also

’ repeated, but without success. I then applied the Plaister  
for the Ess, and continued it without removal the space of  
six or seven days, supposing thereby the Tumour would sup-  
purate or resolve: yet it continued hard amongst the Muscles,

I repeated the use of the Emplaster ; and the third or fourth  
day after, feeling the Matter fluctuate unda- is, J took off  
the Emplaster, applied a Caushc on **the** depending part about  
**an inch, in** length, divided that Esear, and gave a discharge to  
**a Crude** serous Matter, then dressed ir with J/cedents, and  
applied the Mucilage Plaister, with a third ρ2Λ ορ Diachylon  
with the Gums.. Aster separation of the Escar, J deterged  
with the Vitriol-stone, and Basilicon, and red Precipitate, and  
at other dressings dipt them in Precipitate-powder. Haying  
thus deterged, I incarned, and by Epulotics cicatrized it  
firm. During the time he was often purged, and Tran-  
matins andAntiseorbutics were prescribed ; but a Hardness re-  
mained notwithstanding. Whereupon, doubting a Relapse,  
**I** applied another Caustic, the length of that Induration;  
and having thereby penetrated deep into is, divided that  
Escar to the Qpick: and by separation of the Escar, and  
digestion of the Lips of the Ulcer, that Hardnesi, was breathed  
forth, and the panent cured, and enioys good health to thia  
day. *IVifeman. 1 6*

In the heginning of April, I599, I saw at Cologn an unrnar-  
tied woman of about foray afflicted with an *Abfces.s* behind  
her left Ear, which physicians call *Parotis.* She had no  
Fever, neither kept her bed, but all the time followed her  
domestic affairs. About the fourteenth day from its first ap-  
pearance, the *Abfces.s* being grown as big as my fist, and the  
Matter quite ripe, but by the thickness pf the Skin being re-  
rained too long, it was absorbed into the Circulation. Being  
then sent for, I found the *Abfces.s* had broke of itself some  
hours hesore I came, the patient also in a Fever attended  
with Fainting, Sickness at her Stomach, Loathing of Food,  
and want of reft, with a Pain also in her Back and Loins»  
The *Abfces.s* discharged httie or nothing, nor was it possible  
to invite the Matter back again, *so* she died a few days after. .  
Hence it is evident, that in this kind of *Abfces.s,* whether  
seated in or hear the Emunctories, we ought not to wait till  
they break of themselves. *Hildanus.*

*Abscesses* under the Chin are very frequent in children, shut  
are easily cured by the common methods.

Dangerous *Abscesses* sometimes affect the Jaws, and generally  
proceed from the Tooth-ach, or from some Hurt in the  
Drawing a Tooth.

The method of Cure is fully laid down in the following oh-  
serration:

An officer of the king's reaiment of foot, of a sanguine and  
healthful constitution, marching at the head of his company  
in a het Summer's day, heated his Blood, and was seized  
with a Pain in one of his Teeth of the lower Right-jaws  
He sent to a tooth-drawer, who pulling out the Tooth,  
broke the Sockets off from the Jaw, according to the length  
Of it. The Pain made great Fluxion, and required Evacua-  
tion and Revulsion by Bleeding and the like.. But this **bring**omitted, and the part affected not treated as it ought, the  
Pain increased,the neighbouring parts swelled and aposternated,  
and all his Teeth and part of the Sockets cast off After  
some weeks continuance in the country, finding his disease!  
increase upon him, he came to town, and sent for me. That  
fide of his Head, Face and Neck were extremely swelled  
outwardly, so was the Cheek and Tonsil within, and the  
fractured Bones hidden within the Tumour. Upon a pres-  
sure with my hand on the outside of his Cheek, seeing **the**Matter flow into his Mouth out of a small opening near **the**farther part of the Jaw, I made a search with a Prohe, and  
felt the Jaw bare. There was a necessity of laying that  
Orifice open, for the more easy discharging of the Matter :  
which bemg done, I employed my endeavours to take off  
the Fluxion and Fever he laboured under, let him bloed from  
\_ that Arm ten ounces, prescribed Fomentations and Cataplasms  
to he applied outwardly to discuss the Tumour, and inwardly  
. an injection, to deterge the Ulcer, of the Roots of O trice,  
Tormentil, Bistort, Birth-wort, with Syrup of Roses, and  
.. a httie Spirit’ of Wine; also a Gargle, to wash his Mouth, of  
**- the** Flowers os red Roses, Plantaim Tops of Brambles, *etc.*. with Diamoron and Spirits of Vitriol dulcified. Dr. Warner  
being consulted, he directed anodyne Draughts, Cordials,  
. Julaps, emulsions and purging ApozemS. The ill Hu-  
mours thus evacuated, and contemperated, **we** hoped **the**outward and inward Swellings and discharge of Mather  
would have lessened; het they not yielding one jot to our  
endeavours, I laid open the Cheek from the Orifice I had  
enlarged forward along the Bone, with intention to take it  
out; but it was so shut in, that I could by no means get it  
out, till with watch-maker's files I out through that Bone ;  
**then the** ends thrust out into his Mouth. These I pulled  
out ; they proved to he pieces of the Sockets. Then I selt  
the Jaw itself arise ; and considering that if it **were** loose it  
must come out, I pasted the end of my Probe under it,where-  
upon is rose up, having been some while loose, and was only  
held down, by the foresaid Sockets; which being removed.

the Jaw eame away without the least Pain, of °ne 6roP of  
Blood, he only crying out of his Ear, as is it bail made ahole through there. . -

The Jaw being extracted, the side was ready to m: to  
prevent which I caofed the patient to held it shetclied out  
with his Fingers in his Mouth, and a looking jdurs heldhe-  
fore him, that be might the better fee to hper\* sc  
even, whilst L by agglutinative Powders, tssa i; n Ti  
an E22, made a crust upon the outside ς which, with Paste-  
board wet in Vinegar applied over it, &te dose to it. and  
after it was dried kept that side of the Cheek firm, and by  
Bandage it continued so, he helping it 23 byh been had above.  
It allo was somewhat stiffened he ώε Swelling which  
was in the Cheek. . .. ...»

To hasten the Callus, I gave him daily CXltocolla, as I had  
read inFabrieiusHlldanusis works. Whilst hisChaps were thus  
bound up, I continued m wash his Mouth with the *De-*coction abovesaid, injected often in a day with aTyringe; by  
**which** means the Ulcer was dcanfcd and cured, and disposed  
to a Callus, which grew and hardened in lefs than twenty  
days, so equal with the other,- as without looking in his  
Mouth it could not be discerned. *Wofeman.*

Abscesses about **the** Neck. -

The Neck is not often subjeci to Aposternation, being more  
generally assectsd with encysted and fcrophulous Tumours;  
yet sometimes it happens, when great care must he taken the  
**internal** Jugular Vein is not wounded if the Tumour he opened  
by incision, but this danger may be inthely prevented by  
giving a Caustic the preference; however, if it should fo hap-  
pen, it must be treated as is direded in the cure of wounds Of  
the Veins and Arteries.

As the situation of the Neck frequently caufes *Abscesses* there  
to turn sinuous, *fo* with Compress and Bandage well adapted,  
thofe Sinusses will.he healed in a little time; without the trouble  
of dilating. The dressings are the same with thofe already **spe-  
cified . -**

**ABSCESSES Of the TONSILLs.**

The Tonsills are often sirbjeit to violent Inflammation, to  
the great hazard of the patient’s life, especially when they are  
inclined to sirppurate, when the Tumour increases to fo great a  
magnitude as to intercept .the Breath almost to Suffocation.

Thefe Tumours oftentimes have so great a tendency to sup-  
purate, that all evacuations prove ineffectual; and it frequently  
happens, that when the patient is just suffocated, the Tumour  
hursts,. and he recovers.immediately: sor as soon as the Matter  
is discharged, theTonsills contrail themselves-; and by the help  
of a little Honey of Rosies, or a Gargaristn of the Decoction Of  
Elm Bark, mixed with a little Honey, are well as it were in  
an instant.

To prevent these dangers, it is the common practice to make  
deep incisions with a Knife, or large Lancet, into the bodies of  
these Tumours, which’ frequently is of service, by discharging  
the Blond and Juices before they are ripened into Matter. See  
**ANGINA. . - :**

When the patient is in danger of being suffocated, the ope-  
rationof Bronchotomy is often advised, but seldom made use  
**of. The** very thoughts of having their Throats cut, without  
considering the reasonablenefs and safety there is in it, throwing  
such a terror upon most people, that they will rather choose to  
die than submit to the operation. See BRoNCrioToMY.

**ABsCESSES of the ARMPITS.**

*Atseesses* are sometimes formed in the-Armpitby a consent  
of the parts in painful wounds. Tumours or Ulcere, in the Arm  
or Fingers; or proceed from a transiation of morbific Matter in  
the Crisis of a Fever, and are more or less difficult of cute; as  
the febrile Matter is pestilential or salutary,;: If they arise from  
malignant Fevers, Suppuration comes forward very slowly; in  
this cafe, nature must be assisted with strong Cataplasms, or  
Cupping-glasses. ----- i - ’i-'-. ' ..

- When the *Abscise* is ripe, lt must he: opened by Caustic; so  
as to prevent a necessity for dilating.. ...

The Matter being discharged, and the.part dressed with the  
common Digestive, st may he necessary to apply a mild Cara-  
plaint over the dressings, fednred with a Compress and double-  
headed Roller, and to contioue the use of it aS long as may he  
found. needful; but. in these cafes, there. never is a goed Dr-  
geshon, till the malignity is correctsd by. proper internals. .

Α young man, aged about twenty years, riding a long journey  
in the heat of Summer, put his Blood into a ferment, which  
assectid his bridle-hand with great pain, and produced air In-  
stammatiomwith aTumour in that Wrist. 'To remedy which,  
he was let blood in the other Ann, and the estes diseased was  
embrocated with Oil of Roses and Vinegar, and a Plainer  
of Armenian Bole was applied; and the second day aster the  
was purged with an infusion of Senns, *etc.* The Swelling  
increasing, with Inflammation and Hardness, the moderate  
repelling and diseutiont Cataplasm of Mallows, Pellitory of  
. the Wall, Plantain, *etc.* was applied: hut this patient being

of a very ill Habit of Body, the Turnout increased, and,,  
collecting more roand, shewed its inclination to suppurate j  
wherefore I lest out the Repellents, and added white Lilly-  
roots, *etc.* by the application whereof, in suppurated in sew  
days aster. ' I opened it by Caustic, .and discharged a propor-  
tionable quantity of Matter well concooled, and hastened the  
fall of the Escar by Lenients. During the Fluxron (which  
was in the Wrist amongst the Tendons) he complained of a  
Soreness in that Armpit, but took little nonce of it, till, as-  
ter the opening this, the pain diminishing there, be felt that  
in his Armpit more sore. I also felt a sinall Gland there, and  
applied a Plainer of the Mucilages, supposing that would re-  
solve it. After the separation of the Efcar, whilst.I was  
digeshing that *Abseesu* he was again purged; hut the Swelling  
increased in the Armpit, and suppurated, and was likewise  
opened by Caustic, and endeavours ufed to digest that Bat  
whilst the former *Abseese* cured, this letter became more crude  
and sinuous, and the patient was seized with a Rigor, and  
a Fever followed ; for the cure of which he was let bloed  
again, and purged, by docior Walter Needham’s prescription,  
with an infusion of Senna in a Decoction of Tamarinds, with  
the addition of Manna, purging Syrup of Apples, and Syrup  
of Buckthorn. By the repeating of this he was freed of his  
Fever, but the *Abseese* would not digest three days together  
by any appllcation: upon which consideration we prescribed  
him a Decoction of the Woods, *etc.* By the drinking thereof  
a few days, the *Abseese* digested, and healed soon amir to a  
wonder. *lVisenwn.*

The cure of these *Abscesses* must not be hurried on too fast.  
for in times of Contagion, or where-ever a pestilential Venom is  
spread abroad, and become epidemic, if the same happens by **the**strength of Nature to be thrown upon these Glands; the Ulcer  
must not he too hastily healed up, lest the malign particles to  
be thrown forth, by these Emissaries or Outlets, bring shut in,.  
should afterwards destroy the patient; for whose security, if some  
part of the Ulcer, where the same can commodiousiy be done,  
was continued as an Issue for a little nine, or till the sick was  
absolutely out of danger, it might sufficiently compensate for the  
trouble. If this cannot be done. Fontanels near the part may  
supply the place. *Turner.*

Notwithstanding the Compress and Roller, fistulous Ulcers  
frequently succeed these malignant *Atseesses ; for the* .cure of  
which fee FISTULA. . . .

*Abscesses* in the Arms are very frequent, not only from Con-  
tusions, hut from the Crisis of a Fever, and ate very **often**strumous. ’ ..

In the first case they are seldom dangerous or difficult; but in  
the other frequently produce Sinusses, with Caries of the Bones.

These *Abseesses,* in goed Habits of Body, are easily cured by  
the methods laid down in the general doctiine of *Atseejscs.*

But if, from the Crisis of a Fever, they prove sinuous or **et- -**nous, they must be treated as Ulcers of thofe kinds.

*Abseesses* in the Hands and Fingers are for the most part stni-.  
rnous ; for the cure of which see Struma,

. Thefe parts, being much exposed to view, should never he  
opened by Caustic, on account of the Blemish they generally  
cause. ' - ' ' ’

**ABSCESSES Of the BREASTS.**

. It an InSammation and Hardness in the Breasts persevering,.  
produce an *Abseese,* which will not admit of Discussion, we are  
to use sircb medicines as will promote Maturation; the’, for  
our part, we have often difcussed inflammations of the Breast  
after their transinutation into Pus, - by means of the Dionysian  
Pleister, which caused the Hurnouts to perspire by invisible pas-  
sages, and the Hardnefs to vanish. The yellow Pleister of Pis-  
cator, prepared withoutVinegar, and the black one of Asclepiades,  
*are* also of goed use in this ease ; but if all should fail, we must  
have recourse to futgcry. All parts of the Breast will safely ad-  
mit of an incision, if the fubjech Matter be putrefied, except  
thefe near the Nipple, which must be treated with a Lunar  
Section, *so* as that the hettom of 'the *Abseese* may be laid open,  
and yet the Nipple preserved, in men, for the sake of beauty.,  
in women, not only for beauty, but that the power of suckling  
may not be destroyed. After the operation the wound must he  
stressed with Lint; hut you must avoid, by all means, the stuff-  
ing in too much of it, which is the ready way to induce a Fistula -  
The third day aster this, you are to think of Suppuration; and  
when this is performed. Cleansers will come in use, and aster  
them Dryers and Healers. For thefe two last purposes the yel-  
low Plaistet of Pisoator before mentioned without Vinegar, and  
the yellow one of Galen for malignant Ulcers,' are evcellent  
medicines. On thefe must be laid a Spunge squeezed ont of  
Wine. The black Pleister, prepared of Darnell, isalsoagood  
remedy, for it evacuate and glutinares; or bruise Earthworms  
with Polenta, and apply them. *Aetius, Tetr.* 4. *serm. he cap.* uo.

*Atseesses* in the Breasts, partioularly of women, are very fie.  
fluent, and generally proceed from too osimie xed kieQroUS aFerment in the separation of the Milk, the\* a Contusion some-  
times is the cause.

Ia order to bring the Tumours to a more speedy Suppuration,  
Hinster advises to apply a Plainer of'Diachylon with the Gums,  
or of Henbane, or, whet he apprehends, more conducive to  
this end, the following Cataplasms:

Take of Wheat Hower half an ounce or ch ounce, and with  
a sirssiriertt quantity of Honey make a Cataplasm; to winch  
having added a little Sassion and Milk, spread it upon dou-  
ble cloths, and *ae&T* it hot to the Breasts, and renew it  
often. »

Or take of Wheat Flower sour ounces.

Gum Galbanum dissolved in theYolk of anEgg one ounce.  
Vinegar three ounces»

These must be boiled to a Cataplasms with a fufficient quan-  
tity of Water.

Or the Cataplasm of Barm, Honey, and Venice Soap, before-  
mentioned, from the seme author.

These Apostemations generally bursting at the top, produce  
sinuous Ulcers Very difficult of cure.

But when the Tumour is so ripe aS to want opening, a Caustic  
must he applied to the most prominent part, yet a lithe depend-»  
ing; which bring done, and the Escar separated, if a goed  
Digestion succeeds by the use of the common applications, with  
gentie Compress and the Scapular Bandage with the Napkin, and-  
there is no Hardness or Pain, the cure is compleated in a few  
days. On the other hand, if the Fluxion continues, more *Ab-  
scesses* may be expected, which generally form Sinusses sometimes  
very difficult of cure. - . --

If the Sinus is superficial, it must be laid open with the Knife  
or Sciflins; but is deep in the Glands, it is adviseable to try  
which way nature points for a Discharge, by plugging up the  
Orifice with a large Tent, and continuing it there for two or  
three days, that the inclosed Matter may either produce a fresh  
Aposternation in a more depending part, or instruct where to  
make another with advantage. After the separation of which  
the Ulcer may he incarned with liniment, and cicatrized with  
Ointment of Tuttys or dry Lint.

' in thefe *Abscesses,* Funguffes sometimes greatly impede the  
cure, and prove Very troublesome. See FUNGUS.

*Α* Varix also may sometimes prevent a cure. See VARix.

A maid of about twenty years old, of a gross bedy, receiving  
. by accident a blow on her right Breast, it swelled, and grew  
hard, and painful. Aster several applications, the Hardness  
, and Pain rather increasing, she, suspecting a Cancer, came  
to me. .1 Viewed it, but saw no symptoms of it. I embro-  
cated it with Oil and Vinegar, and applied a Plainer of red  
. Lead with Soap; and the-day aster let her blood, and then  
purged her withWhey, Manna, and Cremor Tartar, by which  
the Hardness was seemingly resolved for some time: but she  
being irregular in her appetite, it swelled again, as when I  
. first saw it. Upon which consideration I applied Emollients;

and seeing the Tumour increase, and she impatient at the sight  
of it, *I* applied a suppurative Cataplasm, of the roots and  
leaves of Marsh-mallows, white Lillies, *etc.* By the conti-  
nued use of it in a few days it suppurated well, and I opened

, it by. Caustic in the declining part, and discharged a large \*  
. . quantity of Matter. I dressed the *Abfcefs* with Leniente, and

. continued the use of the Cataplasm till the Escar separated.  
Then I deterged with Paracelsus'S Mundificative, and applied  
the Mucilage Plainer, and shortened the Tent. The Orifice  
. growing less, and somewhat of the Hardness yet remaining,

I put in a short Cannula of Lead, and kept the Orifice open  
till the Hardness was totally resolved; and that it mattered  
very little, or not at all; .then threw out the Tent; and ap-  
plied a Pledgit of Ointment of Pomphelix, and permitted it  
to heal, which it did in few days. This was a pure Phlegmon,  
and lay deep in the Breast, and owed its speedy cure to the  
perfect Suppuration made in it hefore the opening. For  
otherwise, inch *Abscesses* in large Breasts do frequently ter-  
: minate in.sinuous Ulcers, and grow callous, by reason of  
. their laxity and want of natural heat. *Wiseman.*

One having been troubled with a fore Breast abour a year imer  
child-bed, it growing more swelled and ulcerated, she sent  
« for me. It was hard, without inflammation nr discolouring  
- in the Skin, and discharged a well-concocted Maner out os  
the Nipple, and some small openings near it. J wondered  
- what should he the reason it did not cure: at last, in hisnd-  
- ling the Breast, I felt a Varix lying under the Skin ; it frlt  
' like net-work."' I dressed the Ulcer with Basilicon sometimes,  
and at others with Ointment os Tutty ; applied a Plaister of  
ς Armenian Bole over the Breast, with Bandage m fupport it ;  
; and advised the wearing of fine Tow, sprinkled with Conus;,  
- under that Armpit; by which methed it was afterwards  
cured inn month or thereabouts. *Wiseman.*

Inflainmanons of rhe Lungs and Pleura, frequently produce  
*Abscesses* in the Breast and upon the Ribs, which often turn fistu-  
lous, and cariate the Bopesnnderneathis

***.. - - r***

In these critical Translations the danger is shore or lest, '  
according to the quantity of Matter discharged, it being some-  
times so great, aS to bring on an incurable Consumption.

If a Tumour appears on the Breast or Ribs, preceded by a  
Cough and Difficulty of breathing, the Suppuration must he  
forwarded, aS fast aS possible, by some of the suppurative Cota-  
plasms; which must he continued till the Tumour is fit to he  
opened, when a Caustic must he applied, and the Matter dis-  
charged. For want of this assistance, it sometimes bursts in-  
wardly, and sailing upon the Diaphragm, produces such disorders  
as may make the operation of the Empyema necessary. See  
**EMPYEMA.**

When the Discharge is very large, a Cannula of Lead may  
he proper to keep the Orifice open ; for Funguffes will fre-  
quentiy arise, if not prevented by this means, and do a great  
deal of mischief, by stopping np the Orifice, and thereby pre-  
venting a Discharge of the Pus. ...

The Cannula must he continued till the Matter is of a good  
Consistence, and little in quantity; when it may he thrown out,  
and the Ulcer incarned and cicatrized by the common methods:  
Or a Pea may be substituted in its stead, and the Ulcer kept as  
a Fontanel, as long aS you think proper.

. If any of the Ribs should be carious or bare, which some-  
times happens by the constant pressure of the Cannula against it,  
an Exfoliation, by any applications, is unnecessary. Nature seldom  
wanting any assistance, if the Ulcer is kept west digested. *Wife-  
man.*

The Bandage is the Napkin and Scapular..

Some while since I was accidentally in the country, and was  
shewed, by a chirurgeon thereabout, an apostemated Breast;  
the biggest I ever saw. The patient was a woman about forty

- years old. \* She had a Cough, and was oppressed with Diffi-  
culty of breathing. The surgeon opened her Breast in  
the declining part, and discharged a proportionable quantity  
of fetid Matter. She was somewhat relieved by it, but it; '

. penetrated into the Breast, and the large Discharge of Mat-  
ter soon wasted het. . *Wisemant*

**ABSCESSES of the BELLY;**

*Abseesses* os the Belly are generally the effects of a Violent  
Contusion, and are subject to great Defluxion from the laxity  
of the parts, especially in scorbutic and ill Habits of Body, where  
the Matter is apt to insinuate itself amongst the circumjacent  
Muscles, and to form sinuous Ulcers difficult of cure, aS we  
cannot make so goed Bandage on them, hy reason of their  
figure, stmation, and perpetual motion, as elsewhere may he:  
made. *JVifemern..*

When the Tumour is ripe, let it he opened by Incision on  
the most depending part; and, the Matter being discharged, the  
Ulcer may he dressed with Pledgits armed with Liniment, or  
Balsam os Turpentine, miked with a little Oil. of St. John's.  
Wort, with a Plainer of the Mucilages spread upon a rag over

’ it, and the whole secured with the Napkin and Scapulars

. A Fomentation of Wormwood leaves, tops of Elder, Marsh-;  
mallows. Centaury, and Chamomile flowers, will greatly assist.  
Nature in producing a goed Digestion; the Belly being bathed  
with it half an hour at each dressing.

The cold air is Very prejudicial to thefe Ulcers; therefore  
they must he guarded against it, by having a chafing-dish of  
Coals near the patient when he is dressed;

If Sinusses should he formed, they must not he dilated the  
whole length, but the Matter discharged by Incision in the most  
depending, part. The upper parts of the Sinus will be united  
by goed Compress and Bandage, and the Cine of the Ulcer com-  
pleated by the ordinary methods.

in the year I 597, a lusty Savoyard, about forsy years old, being  
afflicted with a great Pain in his right Side, at the extremities  
of the salse Ribs, came to Lausanne and sent for ine, and  
Albertus Roscitis, a Very noted physician there, in consult  
about his case. Upon examination, we could not perceive  
the least Tumour, but felt a Hardness deeply seated amongst  
the Muscles. His Pain, accompanied with a small Fevers,  
we found was caused by the compression and extension of

- the Peritonaeum.- Aster gently purging him, we. applied Foa  
mentations. Cataplasms, Ointments, discutient, resolvent  
and anodyne, for some days, but without effect. Hence we  
entertained some hopes that the Hardness might he discussed,  
as I had known formerly to have happened in a ease of the

. like nature. A Decoction of Guaiacum, Sarsaparilla, with  
some hepatic Herbs therefore was prescribed, and given for  
some days: But, instead of being discussed, in a sew days  
Matter flowed about the Region of the laver, between the  
Abdominal Muscles and the Peritonaeum, and in such quant  
tity, that by the pricking Pain and Pulsation it occasioned,  
we had sufficient knowledge where to make an incision for  
the Discharge of it; which we agreed should he done with-  
out delay, rhe' nothing appeared outwardly, lest the Matter  
should penetrate the Peritonaeum, and sail into the Cavity of  
the Abdomen. The ooeration I haooilv performed in the

presence of the said Dr. Rofcins, Claudius Mario, and others j  
and discharged a great quamity of Pus. The Fever, Pain,  
and Fainting went off gradually. The Ulcer we were obliged  
to keep open some months, on account of the great quantity  
of Matter which flowed out. In the mean time, by observing  
a good Regimen, and purging between whiles, together with  
the use of the Decoction of the Sndorisics and hepatic Herbs,  
the pans gained strength, and the patient, by the blessing of  
God, was persectiy cured . *Hildemts, cbfentr.* xxxviii. *cent.* 2:  
*p.sss.*

**ABSCESSES in the GROIN.**

*Abscesses* **in the** Groin, like thefe in the Armpit, frequently  
arise by a consent of parts, in painful Wounds and Ulcers. They  
are sometimes the Crisis of a pestilential Fever, and very often  
are venereal. \_

A Tranflatioh of Matter from an *Atscese* in the lower parts  
of the Belly, in the Glands, and other parts near the Iliac  
Branch, may also cause an *Atscese* in the Groin very difficult of  
cure: but, if thefe *Abscesses* suppurate kindly, and are timely  
Opened, they are not dangerous; if the contrary happen, they  
may degenerate into Fistulas, and then are not without danger.  
*IViseman.*

Fallopius says, that Blond extravasated in the Cavity of the  
Abdomen, will fix on the Inguina, and there form *znAbseesc.*

When Matter is formed, and begins to fluctiiate, if theTu-  
Inour is kindly and not venereal, a Knife is preferable to **the  
Caustic** for the Discharge of it. The Incision must be oblique;  
and great care must he taken that the point Of the Knife descends  
not S0 deep as to wound the inguinal Artery, which would en-  
danger the patient’s life.

If a Flux of Blond should happen from a division of fome  
sinall Vessels, after the Matter is discharged, let the Wound he  
dressed with some of the restringent Powders, with Dossils of  
**Lins** tied with a thread, prefled down pretty hard on the  
wounded Vessels, and upon the Lips, Pledgits armed with **the**common Digestive. APlaister of the Mucilages Over all, and **the**whole secured by Compress and Bandage. .

The cute of these mild *Abscesses* is corapleated by the com-  
mon methods in a few days.

If the *Atscese* is the Crisis Of a Fever, it must he opened by  
Caustic, and theWound must he kept open till Nature has freed  
herfels of her disorder.

A discutient Fomentation ought to he always ready at the  
dressing of thofe critical *Atscejscs,* for reasons before-mentioned.

The use of the common Detergents are seldom sufficient here,  
without the addition of red Precipitate; which must either be  
sprinkled in the Ulcer, or mint with Basilicon or Arcaeusis Li-  
niment, aS is thought most proper.

This feldom saris *of* producing a good Digestion; and is fo  
good a Detergent, that by proper management in the mixing it,  
there will seldom nced any thing else but dry Lint to compleat  
the cute.

The method of curing *Abscesses* from a Translation of Matter  
from the Belly, is much the same as the foregoing, and for the  
cure of venereal *Abscesses* in the Groin. See BuRO.

Abscesses in the **PUDENDA.**

*Ab, esses aie* sometimes formed in the Lips of the Pudenda in  
women, which, if not venereal, generally yield to the common  
methods. They may he opened either by Caustic Or incision. **See  
ALJE.**

**ABSCESSES in the ScRoTUM.**

The Scrotum in men is often fubjecti to *Anscejses,* from Con-  
tusion or theVenereal Diseafe.

in the cure of thofe by Contusion, care must be taken not  
to open them by Caustic, lest the native heat of the part should  
he destroyed, and a Mortification he the consequence. Regard  
alfo must he had to the dressing thefe *Abscesses:* no greasy ap-

.. plications must he made ufe of, lest a fordid Ulcer should **be**produced ; but Balsams of Peru, Capivi, of Arczusis Liniment,  
are all necessary. A Fomentation alfo of the discutient Herbs  
must he used every time the Ulcer is dressed, till there is a good  
Digestion, and then the common methods may **effeci the cute.**For the method of treating venereal *Abscesses* in these parts,  
**sec HERNIA HUMORALIs.**

**ABSCESSES in the BACK and LOINS.**

. The Back and Loins are fubjecti to *Atscejscs,* in which the  
Matter is generally seated so deep, that the Bones are often fof-  
fcrers before it can he felt, with any certainty, to fluctiiate ;  
and, for want of timely assistance, sometimes bursts inwardly,  
to the great danger of the patient’s life.

To remedy theft inconveniences, if, by the prominence of  
the Turnout Or other symptoms. Matter may he nidged to he  
formed, however deep, a Caustic must he immediately applied,  
and continued till the remission of the Pain it causes *candies* its  
effeci; and then the Escar must he divided, which is sometimes  
near an inch in thickness, and the Matter discharged.

The first dressing must he dry Lint, and over this Pledmis  
armed with common Digestives, covered with a suppurative

Catapiasin; and ike whole must he secured by the Napkin and  
Scapular. A discutient Fomentation must he made use of, if  
there is not a good Digestinn.

If a fetid Ichor discharges, or the Bone is felt bate or ragged  
the Ulcer must not he healed till an Exfoliation is procured by  
Tincti ire of Myrrh, Euphorbium, or Spirit of Vitriol; which  
last requires to be used with caution, and the found parts must he  
well defended from their Acrimony, by applying Dossils of **Lint**over them, so as to keep the Lips of the Ulcer distended, and  
the Bone bare and dry. *tViseman.*

Injections must never he ufed here, they oftentimes causing  
Sinusses very hard to be cured. Tents may be sometimes ne-  
cessary to thin the Integuments, for the more easy dilating,, if  
required.

The actiral Cautery and Rugine, tho\* often found to be of  
great service in exfoliating rotten Bones, yet the Vertebrae of  
the Back will admit of neither. *Wosemcrn.*

If, by the ufe of the FomentaUon, defquamrnatory and other  
applications, with good Bandage, the Ulcer digests well, is free  
from callous Lips, and Nature seems forward to sill the cavity  
with new Flesh, care must he taken she docs not do it in too  
luxuriant a manner, by the application of proper Detergents,  
such as Precipitate mixed with Digestives, as is said before; by  
**the** use of which, and afterwards dry Lint, or white Ointment,  
the cute in a little time will be compleated.

But great care must he taken that internals are not forgotten,  
as they are so highly necessary.

Strumous *Atscejscs* appear frequently in thefe parts j for **the**cure of which fee **STRUMA and SCRopHULA.**

Mr. T. P. of a corpulent habit, and about fifty, years Old, was,  
seized with an Inflammation upon his Back, near the Spine,  
without any preceding Fever, attended with almost intolera-  
ble Pain. Mr. , a noted surgeon, was sent for, who,

upon examination, sinding very little Tumour, attempted  
the cure by bleeding him plentifully, and embrocating the  
part with Oil and Vinegar. His Bedy was opened by a gentle  
Cathartic, given that evening. The next day the Pain and  
Inflammation being increased, and the Tumour a little ele-  
vated, attended with a violent Pulsation and symptomatic  
Fever, the dressings were altered. An emollient Fomenta-  
tion of Marsh-mallows, tops of Elder, Melilot, and Cha-  
momile flowers was ufed ; and afterwards the Tumour  
covered with a Cataplasm *of* white Bread and Milk, with a  
little Linfeed Oil: Upon which, stronger signs of a Suppu-  
ration appeared the next day, by an increase of his Fever,  
Pain and Pulsation.

The Fomentation was then laid aside, and the Pultice changed  
for one of white Lilly-roots, Liofeed and Foenugreek-feeds  
powdered, roasted Onions, and Hogs-lardby the applica-  
tion of which. Matter seemed to he formed, but ley very  
deep under the Mofcles.

Being fearful the Tumour would burst inwardly, it still being  
very hard on the outside, a Caustic, prepared of the Lapis  
infernalis and black Soap, was laid upon the part; and in  
about two hours the Esear, above an inch in thickness, and  
as big as a half-crown, was divided, and about half a pint of  
setidMatter discharged. Upon examining the Ulcer with the  
Proper one of the Processes of the Spine selt ragged: Dossils .

- of dry Lint, secured with threads, were pressed to the bottom .  
and Pledgits armed with Basilicon, and Oil Of Turpentine,  
applied to the Lips, with the Cataplasin Upon them; and the  
whole was secured by the Napkin and Scapular with proper  
Compress..

An anodyne DraughtwaS given that higbt to quiet the Spirits, fo  
much fatigued by the operation. The next day a disontient  
Fotus of Wormwood, Centaury, Rue, and Chamomile  
flowers was ufed, and the same dressings renewed, after  
heving cut away great part of the Esear. Upon dressing the  
third day, Matter was perceived to bag a little in the depend-  
ing part ; to cure which, a larger Compress was applied, and  
rolled on very tight. notwithstanding which, the Sinus was  
increased about two inches helew th. ulcer, when it  
judged proper a Spunge-tent should he applied, for the mor-  
eofy dilating.\*

^ter Sth115 Was divided with a pair of strong  
Scissars, and dressed with Liniment with the other Ulcer,  
in about three weeks a small soale of the 3one ani(. a .  
during which sime a Fungos often arose; but by now ami  
then sprrnkling a little Precipitate upon is, st Was keptdown**and the** Ulcer, in about a formight after the gone exfoliated  
was mcarned, and cicatrized with the common applications.

ETing the cute be was often purged wim imeen oflomel m a Bolus, over hiper. oup\_ce of g of

Buckthorn, mixed with ten grains of Josiao powdcr her τικρ  
an ounce of Milk Water, in the ronming;

wards a Dietmiink made, by the **ofe pf which he**enjoyed **a** good **state of** health.

testes in theHipt, Buttocks, xed Rumpj 3Te fr

and are seldom dangerous, micti in jst Habits whcn

they are very apt to turn sinuous; or near the Fundament,  
**where -a** Fistula is **the** common consequence; or sometimes a  
Gangrene, is the Fat he not speedily digested out. *lVisenum.*

The Caustic is preferable to the Knife in these *Abscesses,* espe-  
cially when they are Very large ; and in good Constitutions, a  
cure is generally effected by the common methods; het where  
they prove difficult, must he treated as in laid down in the sol-  
lowing observations:

A gentieman os about fifty-six years os age, standing long in  
the cold to see some extraordinary shew, was taken with a  
Pain above his lest Hip, and the second day aster he sent to  
me for an Emplaster. The messenger not telling me the  
name of the patient, nor where he lodged, I sent him an  
Emplaster os Bole, proper to resist and defend a part stoin  
Fluxion. The fourth day aster he sent to me for another  
Emplaster, signifying terne that his Pain was much increased;  
and two days’after sent for me. I went, and saw a large  
Tumour lying upon the Ilion backwards, with great inflam-  
mation and Hardness, with ail the symptoms of a Phlegmon  
near its state. I directed a Cataplasm, to he made of the  
tops of Mallows, Marsh-mallows, Wormwood, Elder and  
Melilot flowers. Linseed and Foenugreek, Barley meal, with  
an addition of Honey, Oil of Chamomile, Yolks of eggs and  
Sassion; and in the interim let him blood, and advised a  
Clyster to he administered that afternoon. If this person had  
been of a temperate life, and been let blood when he sent for  
the first Emplaster, this Tumour might have been happily  
repelled; but it was now too late to discuss it: yet I re-  
peated the application of that Cataplasm till I saw it more  
collected, and then I hastened Suppuration by one of the  
milder Suppuratives; by the use of which the Tumour  
was more collected, and raised into a Cone; and by its  
pale colour and thinness of the skin, gave an assurance of  
a perfect Suppuration. Then I applied some of the milder  
Caustic, with a simple Diachylon Plainer over it, and the  
Cataplasm over ash The next day I took off the dressings,  
with design to divide the Escar; but it was done to my hands,  
and a large quantity of well-digested Matter was discharged.

**I** fomented the *Abseese* with a Stuph wrung out of Milk, and  
dressed the Escar with a Pledgit of Basilicon, dipt in Oil of  
Roses ; and continued the application of the Cataplasm. Thus  
in few days the Swelling affwaged, and the escar separated.

**I** then endeavoured Detersion with Paracelsus'S Mundisicative 5  
but the *Abseese* heing large; and the Suppuration in the mid-  
dle, and the part not Very capable of Bandage, there remained  
**a** large hellowness, winch put me upon a necessity of laying  
. it more open, for the speedy effecting the cure, which I did  
with a pair of Probe-scissitrs, This work is necessary in such  
large Phlegmons; and therefore it is, I suppose, that Sennet-  
**tus** places his chapter of Sinulres next to that of a Phlegmon.  
Ashe I had made this Incision, I dressed it with the Digese  
five of Turpentine with the Yolk of an Egg, *etc.* and having  
. digested it, I incarned, by adding Powders of Orrice and  
round Birthworth roots, and Sarcocolla, *etc.* to the Digestive;  
and by the help of the Vitriol and Alum stones. Ointment of  
Tutty, and Plainer of Chalcities, I cicatrized it. *Wifemani*

**I** was sent for to a gentieman about thirty-six years old, much  
emaciated, and of a Very ill Habit of Body; he was diseased  
with a painful Tumour on the left side of the Anus, reaching  
from the Co Coccygis to the Perineum, os a dark-red co-  
lour, hard in the circumference, but along the Verge os **the**Anus it felt soft; it seemed to arise from under the Anus,  
- and to he an ill-conditioned Tumour. I applied a Caustic  
upon the soft part, according to the length of it, near the  
Anus; and some hours after divided the Escar, and gave Vent  
to a fetid brown Matter; I dressed the Escar with Basilicoh  
and' Oil of Turpentine, and applied a Cataplasm over it, of  
Bean-meal, Powders of Linseed and Foenugreek, Chamomile  
flowers, elder and red Roses, decocted in Oxymel; as the  
Esear separated, the Ulcer shewed itself putrid. I fomented  
it with a Lye, wherein good store Of Wormwood had been  
boiled, and dressed the Ulcer with Paracelsus's Mundisicative,  
with red Precipitate, and Alum, and the escar with Lenients,  
*etc.* as before-

This patient had laboured some.weeks with A Diarrhea, which  
after the Escar was separated, flowed into the Ulcer; and  
much disturbed our cure; therefore I caused an injection to  
he made of a Decoction- of Wormwood, St. John’s Wort,  
Scordium, Centaury, *etc.* to which I added Spirits of Wine,  
Honey of Roses, and .Egyptian Ointment.: and, that the  
Excrements or Sordes might not he retained, and Tender the  
Ulcer more finuouS, I cut it open the whole length above  
and below, and silled it up with red Precipitate, with the  
Mundisicative upon Dossils, and with Plainer and Bandage red  
tamed them ou.Then prescribed himaDecoction ofSarsaparills,  
*etc.* also an Electuary of Conserve of Ted Roses, Diaseordium,  
and toasted Rhubarb, .celo, .which he rook once in four hours,  
and thereby stopped his Loofedess. -The Ulcer not deterging

with the former applications, I dressed it with Ardens Powder,  
and defended the ups with Basilicon, and a Plaister of Bole  
**over** all. Thus, in two **or** three dressings, **J** confirmed **the**Foulness ; then dressed it with Paracelfus’s Mundisicative  
and Precipitate; and applied Stuphs os Tow over it, prest  
out of red Wine, wherein had been infused red Rose flowers,  
Balaustins, *etc.* and afterwards prescribed him the raking of  
\_ Calomel, a scruple, every other night. Thus the Ulcer de-  
tinged. I incarned it with Powders of Aloes, Blood-stone,  
Myrrh, Sarcocol, round Birthwort roots. Orris roots, and  
Lapis Calarninaris, made up into the form of an Ointment  
with Honey of Roses. While this was incarning, and in some  
parts cicatrized, a Sinus appeared, running under the Verge  
of the Anus about half an inch. I applied a Tent, armed  
with Paracelsus'S Mundisicative; and aster it was deterged,  
left out the Tent, and it cured. But then a small Sinus dis-  
covered itself on the other side of the Anus: Upon fight  
thereof, lest more mischief should sall upon those weak parts,  
whilst I attended the cure of that finuouS Ulcer under the  
Anns, I dilated it, and (nipt it open with a pair of Prohe-  
scissius, into that great Sinus; and from that time the Ulcer  
cured, and I thought my work had been done ; but, within  
**a** few days after, another Sinus appeared near the Verge inf  
the Anus, on that side where the former was. It much dis-  
couraged the patient ; but it lying so convenient for discharge  
of the peccant Matter, I continued it to further consideration,  
**it** proheeding from the meer weakness of the part. I advised  
the keeping it clean, and to wear a dry Pledgit os Tow over  
it. It was kept with much ease, and the patient enjoyed his  
health Very well many years; and at length it cured of itself.  
*Wifeman. - ;*

AS Phlegmons are subject to Mortification through unseasonable  
application os Medicaments in time of their state; fo also,.  
in sat Bedies, they are apt to gangrene after opening, if that  
Pat he not fpeedfly digested out. Thus it happened to a per-  
son labouring with a Phlegmon on the Os Sacrum; Aster **the**Discharge of Matter, the Ulcer became crude and gangrened;  
Another chinirgeon was consulted, who scarified the *Abseese,*and by his warm applications, supposed he had extinguished  
the Mortification; but it appearing otherwise, I was fetched,  
and saw the Lips and parts within gangrened and gleeting.  
We scarified the Dps; but finding them to he gangrened  
more within than without, we pared them off round, then  
fcarisied the *Abseese* within, and cut out the putrefied Pat,  
and with an armed Prohe, dipt in Oil os Cloves het; cleansed  
the *Abseese,* and silled the Scarifications with red Precipitate;  
We then dressed up the *Abseese* with a Mixture of Basilicon  
and Oil of Turpentine, and applied Cataplasms and Fo-  
mentations, aS is usual in such cases. The next day we came,  
provided with actual Cauteries, but found the *Abfces.s* warm,  
and disposing to Digestion in the Lips and fleshy parts; and  
from that time it digested well. But in the Basis os the Ul-  
ter, where the Mortification had reached to the Periostium,  
the Slough separated more (lowly; but by the warm applica-  
tion of Lenients, it came off, and the Ulcer happily incarned;  
*Wiseman.*

**. . An ABSCESS of the ANUS;**

Aster an Inflammation, sometimes there happens an *Abseese*.shout the Anus; in which case the Putrefaction usually extends  
itself all around, because of the abounding Heat and Humidity  
of the parts; Whence the surgeon is under a necessity.of using  
Resection, and the operation is subject to he succeeded by a  
Fistula. Wherefore, the' in simple *Abscesses* the Cure he easy  
enough; yet, when the. Disease is great, and an Amputation  
made round the Anus, while we endeavour so Cicatrize the  
Wound, there usually happens a Constriction of the chcumja-  
cent parts, and an Obturation of the Passage of the Anns. For  
this reason it will he proper, when we undertake the cure, to  
put some Lint, first moistened with Tetrapharmacum, or some  
other sit Solution, into the Fundament; and while the cure  
proceeds, it will he no less proper to put up a Convenient Tin  
Cannula into the Passage, which must he stender, round, and  
polished in the part that enters; but wide and spreading in the  
rest, and he bored quite through for the Flatus *to* pass that way;  
This Pipe may he smeared with some healing Medicine, or Sa-  
mian Earth and Wine, or with Ceruss; and let a Bolster .or  
some Wool he applied to the place, and a proper Bandage he\*  
made. The Pipe must not be taken out till the cure is peril  
fected. *Actius, Tetr.* iv. *farm. i. cap.* καὶ. From *Leonidas.*

**ABSCESSES in the LOWER EXTREMiTlES.**

*Abscesses* in the Thighs and Legs happen often; and if they  
are only Terminations of inflammatory Tumours in good Habits  
of Body, yield to the common methods of cure.

But is from the Crisis of a Fever, they ofterLdegeneiate into  
sinuous Ulcers with Caries of the Bones,

They are oftentimes Strumous, and must he treated accord-  
ingly. SeeSTRUMA.

These *Abscesses* osten run into Sinustes the whole length of the  
limb; when it so happens it is by no means advisedble in say

the Sinus open as far, but to make Perforations or Orifices by  
Knife or Caustic at proper distances, when the Matter being let  
Out the other parts will heal with good Compress and Rolling.

The laced Stocking is of *great* ufc in these *Abscesses.*

In the year I652 passing from Cheshire into the County of  
Rutland, taking North Luffenham in my way to London,  
**I** was desired there to visit a Freeholder, who had laboured  
under a Fever, and bad been long bed-rid by reafon of

**’ a** .grievous pain in his Thigh, . which was supposed **the**Crisis of that Fever. I sow him much emaciated, and  
his pained Thigh was somewhat the bigger of the two,  
but it retained its shape without any visible Turnout, In-  
flammation or Hardness; nor was the Fluctuation so distin-  
guishable as that I could .positively fty them Was Matter, it  
lying *fo* deep and equally th the outside of it; but. suspects  
ing Matter, I opened it on the outside according to the length  
of the Member, and feeling iny Binhe in the cavity, I made  
the apertion large, and discharged a putrid Matter like the  
sees of Beer. After **I** had discharged a porringer full, **I**dressed the Opening with Basilicon upon a Tent, with  
anErnplaster of red Lead oyer it, and with Compress and Band-  
age rolled it up. The next day sending the patient relieved,  
and the Matter plentifully discharged, 1 fomented the Tumour  
with a Decoction of Wormwood, Chamomile Flowers, red  
Roses, and fitch like, and making a search with my Prohe,  
found the Bone bare a great length. Ἴ enlarged the Opening  
to make more way for the Matter; and the better to apply  
my Medicines to the Bone, then dressed it up as before, and  
against the next day made an Injection.of the tops of St.  
John’s Wort, Centaury, Roots of the greater Comfrey,  
7’Bistort, Tormentil, Gentian and Orris, to which strained  
liquor I added Syrup of Roses, and cast fome of it daily in,  
warm, to deterge the Ulcer. His body was kept soluble by  
Clysters Of Milk and Sugar, and his spirits relieved by a model  
of London Treacle with Conserve Of Wood-Sorrel. I also Or-  
dered him a Julap made with a few Strawberry leaves and  
roots, a little Ivory and a Crust of Bread, infused a stick Of  
Cinnamon in the strained Decoction, put in a few drops of  
Spirit of Sulphur, and sweetened it with Sugar. His Diet  
was Oatmeal Caudle, Broth, Grewels and Figs; and aS his  
appetite increased we allowed him a more liberal Diet Al-  
though the Opening was large, and the Thigh *very* bare Of  
Flesh, yet by reason of the distance the Β one lay from the

' Opening, and the hollowness of the Ulcer, it was not possible  
to make any applications to the Bone by Medicaments to ex-  
foliate it, that should not he offensive to the Ulcer, if they  
werejo powerfully drying as the Bone required. Therefore

' I caufed an actual Cautery to he made at the next’ smith’s,  
and dried the Bone that way, and the while continued **the**abovefaid method of dressing, keeping the Orifice moderately  
dilated with Dossils pressed out of the Injection; then by good  
Compress and Bandage, squeezed out the Matter, insomuch  
' as it lessened daily, the more remote cavities agglutinated,  
**and** the Ulcer was like to cure if the Caries in the Bone

’ did not Obstruct in That it might not, I got the Cautery  
made in the form of a wedge, but thicker, to retain  
heat, and having fitted it with a Cannula, placed it upon the  
Bone according to the length of the Caries, passed the Cautery  
through it to the Bone, and repeated it again and again,  
cooling the Cannula each time in a dish of water near me;  
then I covered the Bone, and dressed ther Opening with  
Dossils dipt in a Mucilage of Barley and Comfrey Roots,  
sastning a thread to these Dossils which I conveyed first in to-  
wards the Bone, the better to bring them out again, and ap-  
plied Galen’s cooling Ointment outward upon the Ulcer,  
with a Plainer:os Galen’s-Cerate over all.1 This way Of  
dressing I continued daily’till the Excoriation was healed withe  
out; thenIrepeated the use of the former Injection,adding red  
Rose flowers,Balaustians,and Sumach,with a littleAlum,and by

. Compress and Bandage hestned the Union of it within, leav-  
ing the Exfoliation of the Bone to Nature. While I staid in  
that country, the Cavity filled up, and by the well digested  
and little Matter the Ulcer seemed near cured ; and I was  
afterwards informed that the patient- followed bis husbandry  
one or two months after. 1 The Exfoliation was here in-  
sensible, as it most frequently happens, the scales mouldering  
**away, and** discharging with the Matter. *IViseman.*

Abscesses Ofthe FEET.

*Atseejscs* are sometimes formed in the Feet, and are generally  
the effects of a bruise upon those pairs, .

Bleeding in the Foot may causo an *Atscofs* by a Nerve or  
Tendon being pricked in the operation, or by the transiation of a  
Tumour from another part.

But strumous *Atseejscs* are the most dangerous, the Bones  
seldom or never elcaping free.

*Atseejscs* in the Feet are generally very difficult to **cute,** front'  
their situation, as Sinusses are perpetually formina in **the In-**terssices of the Muscles, and sometimes carfare thTRnnv-s ' "

In opening these *Abscesses* the Caustic is preferable to the Knife,

as there is no danger of wounding either Nerves or Tendons,  
which by the use of the Knife rnaysometimes happen, and create  
excessive pern. ..... ’

The methed of curing these *Atseejscs* with all the bad syrttp-  
toms υtrending, is contained in the following observation. -  
A weak sickly- child, about ten years of age, was recommended  
to my care by Dr. Mapietoft; she bad a strumous Tumour  
suppurated on the right Foot, amongst the Tendons and  
Bones leading to the two letser Toes. I inspected them cor-  
rupted; but there bring a necessity- of opening it, I applied  
a Caustic proportionably, and gave vent to an albuginous  
Matter, and felt thole Bones bare from the Tarsos to the first  
joint of the Toes. I fomented the part affected with a diseu-  
r dent Decoction, and dressed the:EIcar with Leriienis; to  
hasten separation of the Slough ; and as it began to separate,  
I deterged with red Precipitate and the Vitriohstone, making  
way through the luxuriant Flesh to the Caries. Then with  
Dossils, dipt in Honey of Roses and Spirifc of Wine, and  
prest out, I dressed the Bones, and kept the Ulcer so dilated,  
aS to fee the Bones fo far as they were carious. But **in the**applying my Dossils, they pressing upon the Tendons, ren-  
dered the Ulcer painful, and subject to great Defluxion of  
**a thin** serous Matter, and threatened worse mifchief. **TO**remedy which I cut off those Tendons, dressed up the Ulcer

- with Digestives, and applied Refrigerants externally to restrain  
the Fluxion. At the next dressing, finding the Tendons con-

i' traded, and the Bones more easy to come at, and seeing the  
Exfoliation of them by Medicaments like to be a tedious  
work, the Matter having made its way.under them, threat-  
ening Apostemanons in the sole of the Foot, I refolved to  
attempt them by aitual Cautery. To which purpose I dressed  
them with Dossils of Lint, to dilate them more *for* my view ,  
and the next day I burnt them the whole length: Then with  
my Forceps pinched them to pieces, and pulled those broken .  
bits out; after which I cleansed the Ulcer, and applied my  
Dossils pressed out of a mucilaginous Decoction between and  
over the ends of the remaining Bones,- dressing up the Ulcer  
with Digestives, and applying externally Compresses dipt in ,  
Vinegar, wherein had been infused Salt-petre, Myrrh, *etc.*

. Over which a laced Sock was put on. Thus I restrained the  
Influx, and pressed forth the Matter from its several cavities:  
yet I was necessitated to make afterwards an Apertion through  
the sole of the Foot, and to lay open the Ulcer beneath the

i Ancle, for the readier discharge of Matter. I continued **the**application of Dossils, pressed out of Spirits of Wine, to the  
ends of the Bones, till a Callus thrust forth, filled up the void  
space, and supplied the want of the Bones. During this work,  
the patient was afflicted either with a Cough, ^Loofeness, or  
Vomiting; in all which cases Dr. Mapletoft assisted with va-  
’ - nous prescriptions, and contemperated the acid quality of her

Blond ; after which, by good nourishment, the child recovered  
her Strength. She being thus, at length, disposed to a fair way  
’ os recovery, the Ulcer near cicatrized to the Bones, and there  
bring nothing more to do but to keep it open with dry Dossils  
’ and a Pledgit of Diapompholygos, with the irsiial Bandage ,

I, by degrees, left it to her mother to dress, andfawthe  
. child afterwards upon her Feet; and at length she recovered.

And thus, nine may be said to contribute much to the cnre -'of this disease; but without the surgeon’s careful attend.

-ance, they miserably languish, and die. for Amputation, in  
**7** this disease, signifies little; the Ulcers rising with Caries in one  
. part, while you are extinguishing them in another.: *IViseman. ,*

**ABSCESSES in the HERL. '**

. Tine Heel is fubina to *Atseejscs,* but generally they m he.  
rnous; yet a prick with a rusty nail is sometimes the cause, .ς  
. There requires no more in the cute of these than aster the  
Opening to keep the Ulcer open with Dossiis, .or the Spunge-  
lent, till we are satisfied whether the hene is here or carious ? st-  
ir is not, they easily incarn and cicatrize by the common appli-  
cations.. *e*

**i** But if it should he carious, there is nothing so goed a, rhe  
actied Cautery past through a Cannula, which will save the ”  
trouble of waiting some weeks for a Desquammation by the com-  
mon methods. By this operation the Caries seldom comes off  
in a scale, but moulders and comes away with the imhe-

fitly. *IViseman.* ψ . . .

The Sock wish the Roller is of goed service in thofe *AesseeAn*to keep the Dressing on. .

As mostrfascestes in the Joints are strumous, for their cure  
**see STRUMA. \ .**

. ABSCISSIO. **ABSCISSION. Αποκοπη.** This is **used byphe-**sicians in many senses, hut the most common significance is in  
express the dividing any corrupted and useless part Os the Body  
from the sound, by a sharp instrument. It is principally anciied  
rd soft pans of the Bndy, for in the Bones it is called Anince-  
tron, though Abscission is sometimes applied to fma]1 fwhmem,  
of Bones, which being almost andced ciuar . EofoUimon or

awaythy Abfcimon, ur to he cut  
oft as useless or pernicious. '

It is rot confined to corrupted Parts, but is sometimes ap.  
hiv’d to the sound, when, by reason of its Luxuriancy, it is cut-  
ξστὴ! Thos there is said to he an *Ansujsast* of the Uvula, or  
Prepuce.

Sometimes *Atseisses* signifies the sodden Termination of a  
Disease in Death, before it arrives ar sin declining Stare.

*Abscisses* also sometimes expresses an utter Depravation, or  
Loss of the Voice. And in this Sense *abscisses dur* is used by *Celsos.*

ABSCONSIO. It signifies a Sinus , het it seems to mean  
a Sinus that is unnatural, and from a morlnd Gause, whereas Si-  
mis is applied to many natural sinall Cavities in the Body, but  
particularly these of the Pudenda, Uterus, and Brain.

ABSINTHITES VINUM. *Diofcerides,* describe soveam  
Wiavs of rn^king the *Vinum Abstnthites.* The best ay. in  
the Opinion of *Fuchius,* is to bruise an Ounce of- the best  
Wormwool, and, tying it up in a thin linnens Rag,- insole  
the same in nine Gallons of Wine. Then put Must [Wine never  
fermented] to is, and let is work, leaving a Hole open, that in  
may not burst the Vessel.

*Diosurides,* lib. V. cap: 49- \_ -  
*The Virtues of the* Vinum Absinthites.

The *Vasum Abstnthites* is good for the Stomachi excites Urine,  
accelerates Concoction, relieves inch as labour under Distempers  
of the Liver, the Stone, or Yellow Jaundice, removes a Nanfes,  
and helps Infirmities of the Stomach. It is estectind also.for an  
inveterate Distention of the Hypochondria, and all Inflamma-  
tions ; kills round Worms, restores the suppressed Menses, and.  
is an Antidote against the Potion of the white Chamaeleon, pto-  
vided it he drank in a large Quantity, And returned by Vomit. ’  
' ABSINTHIUM, Wormwood. {Ἀψίνθιον, *q.d. unplea-*sant, of a privative, andssid^, winch Hefychins interprets  
τένψιί. *Delectarum i* others will heve it Ἀπένδιον, i. *e. net  
pertable,* from ae privative, and *aleus, to drink,* on account of  
its Bitterness; others derive it οίαπτεθαι, i. *e. to inch* or *han.  
dle,* by Antiphrasis, because no Animal touches it, by reason of  
its extreme Bitterness.] it is called *iorEnglijb* from *tlumAngio-Saxrn*wyjrm-yyper, *i.e. Wormwood.*

There are sevbral. Sorts of Wormwood used in Medicine.

*'A. Abstnthium vulgare Offic*9S. Raii Hist. I. 366. Synop.-  
3. I88. *Abjintlaurn vulgare majus* J. Β. 3: I68. Hish Oxon. 3.  
7. *Abstnthium latifolium seatPonticum,* .Ges. *cyffi.* Emac. 1006.'  
*Abstnthium Penticton feu Rama num Officinarum, feu Dioforulis,-*C. Β. I35. Tourn. Inst. 457. Boerh. Ind. A- 126. WORM-  
wooD. *Dale. . \_ \_* Ἀ ’ mi

The Root of Wormwood is thick and woody, divided into ;  
several Branches, enduring many Years, and holding its lower  
Leaves all the Winter, which are large and winged, divided into  
six, eight, or more Sections, with an odd one at the End, very  
much cut in, greenish above, and white or hoary underneath.  
In the Summer it shooteth out feveral woody, striated, hoary ,  
Stalks, two or three Feet high, full Ufa white Pith, having fc-  
veral lesser Leaves growing on them, these towards the Top are  
long, narrow, and very little cut in, having among them long  
Spikes of fmall yellowish naked Flowers, growing many toge-  
ther, banging down their Heads, andincluding *very* sinall Seeds.  
The Leaves and Flowers have a very bitter Taste, and a strong  
Smell..

It grows in Lanes by High-ways and in waste Places, and  
flowers in July. . . . . .

This is believed by Gerard, Bauhine, and others, to he the  
*Abstnthium Ponticum* of the Antients, the heft Wormwood-bring  
supposed to grow in Pontus, a Country of the Lesser Asia. *Dade.*

The Leaves and Tops are ufed, and are accounted goed in all  
Disorders of the Stomach, as Weakness, Loss of Appetite, Vo-  
miting, and Surfeits ; They strengthen the Viscera, and are of i  
Service in Dropsies,Jaundice, and in Tertian and Quartan Agues,  
and kill.Worms. In all the above-named Cases, it is given in-  
fused in Water, Ale, or Wine; a Cataplasm of the green Leaves,  
heat up with Hog’s-lard, was commended to Mr. Ray, hy Dr.  
Hulse, as a goed External Remedy against the Swelling of the  
' Tonsils and the Quinsey. *Mailer.*

’ It is goed in long Fevers, is diuretic, and kills Moths. *Dale.*

. Essential Oil of Wormwood, made into Pilis with a Bit of  
Bread, and given two Hours heforeMeals, after Fasting a consi-  
derable Time, is a certain Cute for the Worms. *Boerhaave.*

' People in the Country' believe Wormwood wore at the Breast  
as a Nosegay, or smelled to, has great Efficacy in preserving  
from the Infection of the Small-pox, or Meaner or any other  
Contagion ; which does not seem unlikely.

A Water prepared from fresh Wormwood, by several Coho-  
hetions, is excedent for supplying the Place ofBile, assisting the  
Cbylopoietio Organs, killing Worms, and expelling them.  
*Boerhaave.*

The Virtues of this Herb, says Boerhaave, are immortal.  
for its Juice cures all Sorts of Dropsies, provided there he no  
Rupture of the Viscera, An Ounce thereof, extractsd out of the  
green Leaves, is of great Service to such as labour under a Lan-  
guor. Α Conserve is also made of the tender Tops of the f .eaves,  
which is called *the Father of the Stomach*; it is of excellent Use  
where the Stomach is dogged with Phlegm and unactive Bile,

het of none at all in a hot Distemperatrrre. An Infidlon ofthe  
Leaves in Wine is good against Worms. The Heth is effectiral  
against a Quartan, and in the Scurvy ., in such Cases I take the  
Tops of the Branches, and pulverise them, and presorihe the Paw-  
der in the Morning fasting. . ’Tis an excellent Remedy for the  
Poor, but the Rich require a more fpedous Medicine. The Sur-  
geons are also much obliged to this Heth. If a Part begins to pu-  
trefy, and a Gangrene approaches, let it he wrapped up in the  
Leaves contused with Wine or Vinegar, and a little Sult, and I'  
dare warrant the Patient’s Security.

Of the Leaves of this Plant, burnt in a close Fine, a Salt is made,  
in acheniusS Way;of great Efficacy; but these made by butn-r  
ingin an open Firearenot fogood. See SALES TACHBNiANI.  
Ofthis Herb is also made the *Vinum Atjintbius,* which is always  
proper where the Bile sails in cold Distempers. It restores lost  
Appetite,, where there is a cold Cause ; but it has one Fault,  
that, if taken in too great a Quantity, it weakens the Signi, be-  
caufe of its drying Quality . It is very proper in Obstructions of  
the Menses, and Retention of Urine, and is a Sudorific in In-  
termittent Fevers, and the Scurvy. It is an Anticolic, and, by its  
strong Smell, is said to provoke Sleep ; it quickens the Hearing.

*a. Absinthium Ramanurn,; Offic. Abstnthiurn Ponticum five Ro-  
manum vulgare.* Park. 98. Raii Hish goy. *Absinthium tenuiselium  
Ponticum Galeni,* Ger.. 937. Emac. icpo. *Absinthium Ponticum  
tenuiselium incanum,* C. B. 138. Tourn. Inst. 457. Boerh. Ind.  
A. 126. *Abstnthium Panticum vulgare, solio inseriiis albo,* J. B.  
3. I75. Hish Oxon. 3. 8. ROMAN WOKMWOOD. *Dale..*

This Wormwood is a much lesser Plant than the former, the  
Leaves a great deal smaller and siner, the Sections narrower and  
slenderer, hoary and white both above and. underneath. The  
Leaves that grow On the upper Part of the Branches are long,  
narrow, and undivided; its Flowers are numerous, growing  
on the Tops of the Branches, as the former, of a darker Colour,  
and is in all’Respectsin more neat and elegant Plant. It has nei-  
ther so strong a Smell, not io bitter a Taste, as the commcrn  
Wormwood. It grows with ns only in Gardens, being natural  
only to warm Climates. It flowers in July.

Γ1 is Wormwood is of the Nature of the common, but its .  
Virtues breaker ; it is ufesirl, however, in Disorders of the. bro-  
mach and Liver. Mathiolus writes, that he knew several Per-  
sons in a deplorable Condition by the Dropsy, that were cured  
by the constant Ufe os the Conserve of the leaves of this Piant;  
and indeed, this is the Roman Wormwood, that the Apotheca-  
ries ought to make.their .Conserve of; whereas they altogether  
make it of the Sea Wormwood, because mote pleasant and paa  
tactile. *Hale, Miller.*

5. *Atjintbium Alpinum,* Cod. Med. 2. *Absinthium Alpritcm  
candidum bundle,* C. B. Pin. 339. Fred. \_7i. Toum. Inst, 4^8.  
**MoUNTAiN** Wormwood.

It grows in the Mountains of Savoy, and agrees in Virtues  
with the preceding. .

*4. Abstnthium Ponticum Antiqumum;.. an, Absinthium Orientale  
frnticofum, incanum,* ι*ample folia tequissems divisam,* .Tourn. Cor.  
33? Boerh. Ind. 126. **PoNrICK WoRMbrooD.**

Dale thinks this the Sort of Wormwood mentioned by Tour-  
nefort, as the *Abstnthium Ponticum* of the Antients; which, ao  
cording to him, was not known to the Moderns, the’ It has  
flourished for twenty Years in the Royal Garden at Paris.

. 5. *Abstnthium Seriphium, Offic. Abjinthiim marinum album.* Ger.  
940. Emac. I099. Raii Hist. r. 370. Synop. 3, igS: Boeth.  
Ind. A, 126. *Abstnthium Seriphium sive marinum Angliorum,* Park.  
IO2. *Atstnthium Seriphium Belgicum,* C. Β. I3p. J. B. 3. χ78.  
Hist. Oxon. 5.9. Toum. Inst. 45S. See Wormwood.

This Wormwood is nfually about two or three Feethigh;  
with many winged Leaves, lesser and much siner than common  
Wormwood, very white, and hoary all over both Leaves and  
Branches. Its Scent is much like Southernwood; and it has but  
little Bitterness in Taste, but is somewhat saltish. The Flowers  
are sinall and naked as the former Kinds, and the Time of flowers  
ing is the same. It grows abundantly-in all our salt Marshes.

The Leaves andTops are ufed, and this is the Roman Worm-  
wood that is in Use in the Sheps, and has been so for this hun-  
dred Years, if not much longer. Parkinson complaining in his  
Time, that the Physicians and Apothecaries made Use of it in-  
stead of the former, though it came sat short of. it in Virtue,  
and Diofcondes and Galen affirmed that Seriphium was hurthst  
to the Stomachi *sts.*

. 6. *Abstnthium Seriplaium Gallicum, Ossec.* C. Β. Pin. 139.  
Tourn. Inst. 458. Elem. Bos. 363. Hist. Oxon. 3.9. Magnos.  
Bot. I. Chomel.43I. *Atstnthium Seriphium tenuiselium marinum  
Narbenenfe, s. B.* 3. I77. Chab. 373. Rail Synop. 3. I82. At-  
*Jsnthium Seriphium Narbonense,* Parke Theas. I 02. Raii Hish I.  
57o. *Atjinthiurn minus tenuiselium alte incists foliis, cinereum,  
salsam, Thspaniaem,B2XT.* Obfi **I008.** Icon. 460. **FRENCH SEA  
WORMWOOD.**

It grows on the Sea Coasts of England and Narbonne. .The  
Virtues are the same as the other Sea Wormwoods. *Dale.*

7. *Abjinthiusn Santonicum, Offic. Ahfintbnum Santcnicum Galli-  
am,* C. B. I39. Tourn. Inst. 458. Magnol. Bot. App. a8o.  
HorI. Monin. a. FREXCH.WORMSEED.

It is found in Narbonne, growing with the Seriphium Galli-  
num above-mentioned, and is of the same Virtues.

*8. Santonicum & Semen Sanctum, Offic. Semertina,* Ger. 941.  
Emac. I loo. *Absinthium Santonicum Alexandrinum, sive Semen\*  
tina et Semen Sanctum,* Park. 102. *Lumbricorum Semen vulgare  
et Mattioli, J.* **B. 3.. I8o. WORMSEED.**

The Seed is in Use. -

It is imported from Alexandria. The Seeds are small, oblong,  
yellow,. of an acrid Bitter, and disagreeable Smell. They seem  
to he formed of small Scales inclosing each other.

These Seeds are in great Reputation for their Virtues in  
killing Worms. *Dale.* See **SANTONICUM.**

9. *Absinthium Santonicum Judaicum,* Co B. Pin. Ρ39. lsasi  
Hist. i. 369. Chornel. 445. Hiss Oxon. 3. 8. *Lumbricorum  
Semen Raumolsii,* J. B. β. ISO. *Lumbricorum Semen,sipe Absin-  
thium Santonicum Ratewolsii,* Chain 375. *Scheba Arabum..* ARA-  
**BIAN WORMSEED. : .**

It is brought from Judaea to Alexandria. *Dale. -*Botanists are not agreed about the Plant which produces the  
Wormseed. Some are os Opinion that it is the Seed of Zedoary,  
which is not likely, hecause these are round and of a dark Colour,  
and inclosed in atricapsular Vestel, whereas Wormseed has none  
of these Marks. -

Others, amongst which is C. Bauhins, affirm, that this Seed  
is the Productos a Sort of Wormwood, to which Dale assents 4  
but will not determine absolutely, whether it is a Species of  
Wormwood or Abrotanuin- 6

- Rauwolfius says, it grows in Palestineabout Bethlehem. .

Miller is of Opinion, that what we call Wormseed, is only  
the young Bud of the Flower of a Species *of* Abrotanum. . See  
**SANTONICUM. . ' .. -**

**Io.** *Santonicum viride, Offic. Choccan, Pomet.* **GREEN  
WORMSEED. . .**

It is like the above-mentioned Wormseed, buris larger, and  
**of** a green Colour, inclining to a yellow. . .

The Virtues are the same aS those of the other Wormseeds.

Pomet sap, they, were first brought to Paris from Turkey,'  
*Dak. ' su* Tss,

II. *Hiliochrys.urn,* Offic. Chain 369. *Hiliochrys.rn,* Park. Pa-  
rad. 374. *Heliochrysurn quorundam,foliis Abrotani, so* B. 3. 152.  
*Eliochrys.on foliis Abrotani,* C. Β. 264. *Coma Aurea, sive Hilio-  
ehrysim.* Ger. 52O. Emac. 645. *Absinthium tenuiseliurn corymbis  
aequalibus feu compactis.* Hist. Oxon. 3. 8. *Absinthium corymbifer .’  
rum annuum,* Elem. Bet. 363. Tourn. Inst. 458. **GOLDEN**Cudweed, - Ἴ

It is cultivated in Gardens, and flowers in July.

The Herbis in Use.: / " su

*Tt is* recommended against the Bites of Serpents; and in Pains  
of the Hips and Stranguries. It is said to provoke the Menses,  
diflolve concreted Blood, and stop Catarrhs. *Dale.*

Miller in all makes thirty two Sorts of Wormwood, but **we.’**have no Account of the medicinal Virtues of any but those al-  
ready‘specified.

It is much to he lamented, that the Moderns, who have been  
very diligent in regulating Plants, and reducing them to Method,  
should have contented themselves with rendering Botany in  
fome Measure a barren Science. In all the Volumes that have .  
been wrote of late Years on this Subject, we meet with Very  
few Accounts of the Virtues of Plants which were not taken  
Notice of by the Antients. The usual Way has been to tran-  
scribe what they found in the Writings of their Predecessors,  
heing Very little follicitous whether the Virtues attributed to  
Plants were real or imaginary. If, instead' os this, they had em-  
ploy'd their Industry in confirming the true Virtues of Plants as  
specified by the Antients, rejecting those Accounts which are sa- -  
bulous, or introduced by Error or Coptics, and discovering  
other Virtues as yet concealed, the Art of Healing had by this  
Time been brought to a Degree *of* Perfection which at present  
we have no great Reason to boast of.

The following Extracts of DioscorideS, Pliny, and Galen,  
in Regard to the medicinal Virtues of Wormwood, compared  
with those mentioned above, will shew hew little has been added.  
**to** what these Authors .were acquainted with. . .

**From GALEN, quoted by** *Fucius.*

Wormwood has at once an astringent, bitter, and acrimo-  
nious1 Quality, both warming and cleansing, strengthening and  
drying. For this Reason it purges the Belly ofhilious Humours,  
both by Stool and Urine; but is most effectual in clearing'  
the Veins of Bile, and carrying it off by Urine. Wherefore  
It.is of no Efficacy against Phlegmatic Humours in the Belly,  
nor operates at all upon Phlegm in the Breast and Langs ; sor  
its astringent Faculty is more powerful than the bitter.

**From PLINT.**

Wormwood corroborates the Stomach, sor which Reason its  
bitter Flavour is communicated to Wines. A Decoction of it  
in Water is also drank, to make which. Take about half an  
Ounce of the Leaves with their Stalks, and boil them in three  
Pints of. Rain-water, putting in some Salt, and let the Decoc-  
tion stand a Day and **a** Night in the open Ain. The Herbr

they say, is seldom bruised; nor is the juice of it mnch in Life5  
bur an infusion of it is useally drank- The Juice Of W°rm-  
wood is hurtful to the Stomach and Head, -whereas the Decoc-  
tion, they say, is Very wholesome, for it strengthens the Sto-  
mach, and expelis Bile, excites Urines lubricates the Passages,  
pinn, and kills Worms in the Belly. Mixed with a little  
Hartwort Ed Gallic Nards with some Vinegar, it removes a  
Nauseat.and discusses Inflations of the Stomach; creates art  
Appetite, and helut Concoction. Mixed with Rue, Peppes,  
and Sals, it corrects Crudities. The Antients prescribed it as  
an ingredient in *a* Purges together with a Pint of Sea-water  
that had flood a long Time, half an Ounce os the. Seeds, a  
(Quarter of an Ounce os Salt, and a Glass of Honey. It  
works better with double the Quantity of Salt. Some, give  
the aforesaid Quantity in an Electuary with an Addition of Pen-  
nyroyal. Some use it for the Palsy , others give their Children  
the Leaves in Figs» to conceal its Bitterness. Y Taken with  
Orris, it gently purge5 the Breast- For the Yellow Jaundice it  
is infused green with Parfley or Maidenhair.’. Against Inflati-  
ons the Decoction-in Water as supped hot. In Distempers os  
- the Liver it is used with Mountain Spikenard, ἰ In Disorders  
of the Spleen it is administered in Vinegar, Barley-water, or a.’  
Fig. - For watery Eyes it is applied in a Cataplasm with new  
Wine; for Eyes that have received Blows, it is applied with  
Honey. Three or font Stalks, with a Root of Mountain  
Spikenard, infused in half a Pint of Water, provoke Urine  
and the Menses ; and the latter, if mixed with Honey and  
made into a Pessary with Wool, and applied to the Pudenda.  
It cures green Wounds, if laid on them before they are washed ;  
as also scald Heads, and the Itch. It is not to be given in Fe- „  
Vers. It prevents Sea-sickness,is drank. Worn in an Apron,-  
it discusses Tumours of the Groins. The Smell os it. inclines to  
Sleep; or, is it he privately laid under your Pillow, it works the .  
same Effect. The Ashes os Wormwood mixed with Ointment  
and Oil os Roses turn the Hair black. The Sea Wormwood,'  
by some called Seriphiun,. is hurtful to the Stomach, loofens the  
Belly, and kills Worms in the Bowels, They boil a Handful  
of the Herb in a Pint of Water till hals he wasted, and' so in  
Proportion.

. The dried Branches of Wormwood, laid in Granaries, are said

to drive away Insects, and prevent their destroying the Corn.  
*Geoprnica.*

Wormwood is pernicious to Bees. *Geoponica.*

A Decoction of Wormwood is much recommended by Heister  
sor flopping a Gangrene.

DiOscoRIDES, Liber 3. Cap. 26.

Wormwood, called also Bathypicron, is a well known Heth.  
The best is that which grows in Pontus, and in Cappadocia on a  
Mountain called Taurus. It is ofa warming, astringent Nature,  
promotes Digestion,and purges the Stomach and Intestines os bi-  
lious Concretions adhering to them. It also provokes Urine,  
and is a Preservative against Surfeits. It is good likewise against  
Inflations, and,, if it he drank with Hartwort or Mountain  
Spikenard, eases Pains in the Stomach or Belly. A Quarter  
of a Pint of the Infusion or Decoction of it, taken every Day,  
removes a Nausea, and cures the Yellow Jaundice. If drank,  
or outwardly applied with Honey, it brings down the Menses.  
Taken in Vinegar, it helps Oppressions from eating of Mush-  
rooms ; andin Wine is an Antidote againffrhe Poyson os the  
white Chamaeleon, and Hemlock, and the Venomous Bite of the  
Shrew-mouse, and Sea-dragon. Made into an Ointment with  
Honey and Nitre, it helps the Quinsey, and steeped in Water  
cures the Pustules called Epinyctides. Applied with Honey, it  
heals a black Eye, sharpens a dim Sight, and helps the Running  
of the Ears. The hot Vapour of the Decoction eafies Pains 0f  
the Teeth and Ears. Boiled in sweet Wins, it makes a Cata-  
plasm for Eyes which are Very painful. Contused with Cyprian  
Corate, it is applied to the Hypochondria, and Region os the  
Liver, when labouring under inveterate Pains and Disorders .  
but for Infirmities ofthe Stomach it is used with Corate of Roses.  
Mixed with Figs, Nitre, and Meal of Tares, it relieves hy-  
dropical Persons, and such aS are inbjcst to Disorders of the  
Spleen. They prepare a Wine of is, which they Cail Absin-  
thites, especially in Propontis and Thracia, and use it for all  
the Purposes aforesaid, is there he n0 Fever in the Cafe .

recommend it even in the Heat ns Summer, believing it to he a  
great Preservative of Health. Wormwood, shewed among  
Clothes kept in Chests, will, they say, preserve them from  
Moths; and, mixed with Oil, will keep off Gnats imm touch-  
ing the Bedy. If steeped in Ink, it will preserve sech Books  
as are written with it from being gnawed by Mice. The juice  
of the Herb is supposed to work the same Effect, though n0t ut -  
to he drank, because hurtful to the Stomach, and causmo- Head-  
ach. Some adulterate the Juice with LeeS of Oil hoiimf uD anj  
mixed with it. H

ABSORBENTIA. ARsoRBENTs,

Thus all Medicines are called, which have the Power of ding up redundant Humours, whether applied externally to Ui-  
ceis, or. taken into the Stomach. 7

i The Teisserentre Powders of all Sorts are *Absorbents,* and ate  
much recommended by DI. Harris, in Disorders of Children  
nineciallv. .

ψ Thysquins are much divided in their Opinions concerning the  
Lshcacy of this Soft of Medicines. Some extol them as the most  
Sovereign Remedies in almost all Distempers, whether Acute or  
Chronical ; whilst them arc others, whe affirm they me very  
p-rniricns, hecaufe, tf taken in considerable Quantities, as they  
inrst he to have any Effects they rmx with the Mucus °f rhe  
Srnrnach and intestines, and, concreting therewith, line the In-  
testinal Tube, or sonre of it, with a crustaceans Coat, and  
thereby stop up the Orihees of the dinfeeals, and of the Excre-  
tory Vessels of the Intestines, by this Means both preventing a  
fresh Supply of Chyle from heing carried into the Blond, and a  
Discharge of Redundancies by the used and most proper Way,  
that of the Intestinal Glands. ...

Both Parties endeavour to support their Opinions,, with that  
Obstinacy ofual with thole who are jealous of the Honour of their  
favourite Hypothesis, but, what, is more unfortunate *for those*who desire to he informed of the Truth, both and appeal, to Ἐκ  
pcrience, the ouly Thing that can decide the Controversy. l  
.. The real Each seems to he thus:. . i

When the Body labours under any Distemper, either Acute or  
Chronical, the Stomach is either more or less impaired, and  
- consequently incapable of reducing the Aliment to that exaol  
Neutrality, which is necessary for the Formation of a soft mild  
Chyle. Hence the Aliment, takenjoto the Stomach, will pu-  
trefy much in the fame Manner, thatit would have done out of  
**the .Stomach-io** an equal Heat, and the Putrefaction will be either  
alcalineor acid, according to the Nature of the Feed taken ins  
Thus, if the Fond is Animal,, the Putrefaction will he alcaline,  
like that ofGarrion ; but if of acescent vegetable Juices, or of  
Milk, it will he acid, or sour. By Acofcent Vegetables. I mean  
these that grow sour out of the Body, when the7 putrefy. .Now  
when either of these Putrefactions happen in the Stomach, the  
putrisied Juices grow acrimonious, and their Salts, stimulating  
the Nervous Fibres of the Stomach, produce new Symptoms, and,  
at the fame Time lay a Foundation forthe Increase of the original  
Disorder. Noris this all; for the Efficacy of Medicines is here.,  
by either totally destroyed, or impaired before they can .reach  
the Part, where they are intended to have their Effects

In either of these Cafes, that is, either in an alcaline, ot acid  
Putrefaction of the Contents of the Stomach and intestines. Te-  
staceous or Abforhent Medicines feem to he of great Ufe. In that  
which is acid, they are doubly serviceable: First, because they  
are endued whh a Specific Virtue, is I may he allowed to call it  
so, of rendering Acids mild. Secondly, by mining with the  
acid Juices, and rendering them less sicid, they impair their Ac-’  
tion, for Salts do not acti unless in a State of Fluidity; For this  
last Reason, they are asso serviceable in an alcaline State of the  
Contents of the Stomach and Intestines, and, in both Cases, ren-  
der the acrimonious Juices inoffensive, till it is proper to carry  
them off by Purging.

'It is farther to he observed, that, in all Diseases, whether Α-  
cute or Chronical, -some of the corrupted Juices are perpetually  
separated, by the Glands of the Stomach and Intestines, from the  
disordered Mass of Blood, and deposited in the respective Cavities ;  
and these must, if left to themselves, putrefy and become alca-  
line, in Acute Distempers especially, when the Putrefaction is  
promoted by the Increase of Heat. Here again *Abfabents* must  
he of great Efficacy, for the Reasons given above, if taken con.  
ftantly at proper Intervais, and in Quantities sufficient for the  
Purpofe.

The Inconvenience, mentioned as an Objection tt them, of  
concreting to the Sides of the Stomach and Intestines, is very'  
easily remedied, by carrying them off with proper gentle Pur-  
ges, when they have had their Essed ; or, in Chronical Disijr-.  
ders, by giving them mixed with such small Quantities of purg-  
ing Ingredients, as to admit of their heing frequently repeated.

But I am much mistaken, if the Efficacy of *Abserbents,* as they,  
are called, is consined to the Stomach and Intestines ; for I am  
firmly of Opinion, that the Saponaceous neutral Juices, which  
meet in the Stomach, and concur with other Causes for the Sohis  
tion of the Aliment, arc capable of dissolving a Part of these  
Powders, or drawing a Tinciure from them, which entering the  
Lactsals, and getting into the Circulation, becomes a Deobstru-  
ent: But whether they have this Effect by stimulating the small  
Vessels, and thereby making them contracti themselves, and dis-  
lodge the obstructing Matter, which adheres to their Sides, or  
whether they act as Files, and wear away the Obstructions by  
Degrees ; or, lastly, whether they mix with the mucilaginous  
Obstructions, and, getting into. the.Pores thereof, lessen their  
Cohesion, and render them friable, I will not pretend to;deter-  
mine. - , .

ABSORBENTIA is also applied to several Sorts of Vessels in  
the Body, as the Lacimis, which absorb the Chyle; the Cutane-  
ous Vessels, which admit a Part of the Water of Baths, or FO.  
mentations, or any Thing else that is applied to the Skin ; or  
Vessels which, opening into any Cavities of the Body, either na-  
**tural** or accidental, take **up** any Juices that **arc extravasated, and**convey them again to the circulating Blood. .

;'ABSTEMIUS. AKsTEMIoUS. Castellus informs ns this  
strictiy signifies (άοινος) one that abstahis from Wine. T

ABSTENTIO. This is used by Cassus Aurelianus to ex-  
press a Suppression, or Retention. Thus *Acat. l.* iii. *cap.* 17. he  
mentions*, At stottia Stercorum,* a Retention ofthe Excrements, as  
a Symptom very frequent in a Satyriasis. And, *Acus. I.*a. e. 5.  
*Aastentas officiorum naturalium Egestiones,* signifies the fame Thing.  
And again, *Chron. I 1. c.* 5. *Abstentis denique naturalibus Officiis,  
impleturi Caput magis gravatur.* The Head, already leaded, is  
more oppressed by the Suppression of the natural Rncedtions,  
speaking of a *lldursia ,*

In a Sense somewhat different, the same Author uses the Word  
*Abstenta, Acat. I.* 2. *f.* I6. applied to the Pleura : *Hine dem.  
pea, quoties Tumore densetur. Ossibus vicinantibui Abstenta ire lacius  
prohibetur.* He seems to mean,, that: theTumour of the inssemed  
Pleura is prevented, by the adjacent Bones, from extending itself  
ABSTERGENTIA. ABSTERGENTs. τ ''

.- Castellus seems to think these the same as *Abluents, itotss* which  
they appear to me to differ very much, \_ Abluents bring Fluids  
which can ouly dissolve and wash away Salts, which are diflolv-  
able in Water, whereas *Abstergents* are of a. Saponaceous Natures  
and capable of dissolving Concretions formed of Earth and Oil,  
of the Nature of a Resin, which cannot, he dissolved by simple  
Abluents, or a watery Menstruum. ,

. ABSTINENTIA. ABSTINENCE, either general, from ail  
SortsOf Aliment, *or* particular, from some Kind of Fond.', '

The Diatntos of the Methodic Secti whence they acquired the  
Name of *Diatritdrii,* was not the *Abstinence of* three Days, as is  
generally faid, but the Space of three Days, during which these  
Physicians enjoined Abstinence. See DIATRiTOs. ~ ί ...  
.stErasistratus made a strict *Abstinence* supply the Place of Bleed-  
ing, in Inflammations and Fevers. *..Galen. \_\_ \_*

Diodorus Siculus remarks, that *Abstinence* was much recom.  
mended by the antient Egyptians, as a Cure for Distempers,  
*in Abstinence* feems to he the very best Preservative of Health sot  
People that lead a sedentary Lise,, and, properly managed will  
he of great Assistance, to Medicines, in the Cure of Distempers  
both Acute and Chronical.

Besides the usiral Senses of *Abstinentia,* Caelius Aurelianus uses  
it to signify a Suppression: Thus, *Chron, l.* 2.. *c. ci. Abstinentia  
Hiamorrhoidartim Veterum,* signifies a Suppression of habitual Ha.  
morrboides, and is mentioned amongst the Caufes of spontaneous  
Haemorrhages. Thus also *Abstinentia Suderis* signifies a Suppress  
sion of Sweat, *Acut.* /. 2. *c. tsp.* Sometimes, in this Author, it  
signifies a Compression. Thus, Ac nt. /. 3. *c.* I 7. *Spiritus nb Absti-  
nentiam clauses,* means the Wind shut up in the Intestines by  
Compressure, thereby causing the Iliac Passion.

The Verb Attiormalfo, in the above-mentioned Author, sig.  
nines frequently to restrain, or suppress.

. ABSTRACTITIUS. ABsTRAcTITioUs. Thus the na-  
tive Spirits of aromatic Vegetables are called, to distinguish them  
from Spirits produced by Fermentation. *Castellus,* from *Libuvius.*

ABSUS. The Egyptian Lotos, *Rast Hist.*

ABVACUATIO, or ABEVAcUATio. Thus N Leonis  
cenus translates the word απνκένωσιστ. *Castellus.* See ApOcE-t  
Nosis. . t. . . ’ \_

- ABUNDANTIA. .This is used to signify any Excess of

. Humours of any Kind in the Body.

ABUSUS. An ill Use of any Thing: It is frequently appli-  
ed to the Non.naturals and Medicines by Medicinal Writers, i

ABUTIGE. ATown in AEgypt, famous at this Time for  
producing the very heft Sort of Opium-: It is within the Terris  
tories of the antient Thebes. *Schuhsus.*

ABUTILON. (The Name ιϊ Arabic.) YELLow MALLow.

*The Character of this Plants,*

It hath the whole Appearance of the Mallow, both in Leaves  
and Flower : The Flower hath a single Cut; the Seeds, which  
are shaped like a Kidney, are each of them lodged in a separate'  
Cell. "

. ABUTILoN, Offic. Elem. Bot. 83. Toum.Inin.00. Boethi  
Ind. A. 274. Rupp. Flor. Jan. 3I. *Althaea lutea.* Ger. 790s  
Ernac. 935. Raii Hist. I. 699. *Althaea Theophrasti sure lutee,*C. Β. Pin 316. Hist. Oxon. 2. 531. *Althaea Theaphrastistere -  
lnteo, quibasclam Abutilrn,* J. Β. 2. 938. Chain 3O2. *Althaea lu-  
tea, five Abutilrn Avicenna putatum.* Park. Theat, 303. *Aleea  
Indica, Abutilrn dicta major, pericarpis membranacea, orbiculari,  
compresse, vertice corniculis extus coronato, intus in decem , aut duo-  
decim loculamenta divise,* Plut. Aimag. 17. YinLLow MAL-  
Low.

I It is cultivated in Gardens, and flowers in July. The Leaves  
and Seed are in Use; the Leaves, externally applied, oleanse Ul\*  
cere ; the Seed provokes Urine, and expers the Gravel. Tin  
Plant is an Aperient and Vulnerany.

Its Species are thus enumerated by Miller.

I. *AbuiilmDcd.* The common Yellow Mallow.

a. *Alettilen Indicum.* J. S. The Indian Yellow Mallow.

3. *Abutilrn Carslmiamcm'repeani Aleea foliis grin fare.* Acts -  
Phil. The Carolina Abutilon, with Leaves like the Vervain  
Mallow.

*4. Atutilum Americanum, ampsisserns folio, caule villoso.* Plum.  
The large-learfd American Abutilon, with woolly Stalks.  
- 5. *Abutilon Americaseum, fructu subrotunda, pendule, e caprilis  
vesicariis crispis constata,* Rand. The American Abutilon, with  
roundish pendulous Emit, whose Seed-vessel is like a swelled'  
Biadder.. . . '

.? ;6. *Abucilrn Althacides, store carnea, fructu globose. Heat. Esth.*p. I. Abutilon with the Appearance of Althaea, having a flesh-  
coloured Flower, and a globular Fruit. \*

. 7 *Ahsctihn Peripleca acutioris foist, fouctustellato,* Hort. Elth.  
μ 4. Abutilon, with a sharp-pointed Periploca *Leaf, and* a  
starry Fruit. \_ r

8. *Abntilrn Americanum, folia hastato, store ample purpecro-ca\*  
ruleo, pediculis longis insidentibus,* Houst.; American Abutilon,  
with a spear-pointed Leaf, and large purple Flowers, with long  
Fcot-stalks. .;

9. *Abntilrn Americanum, store allide, fructu e capsulis vesicariis  
planis censeam, pediculo geniculo,* Martyn. Cent. I. Pl. 33. Ame-  
rican Abutilon, with a whitish Flower, a smooth swelling Seed\*  
vessel, and a jointed Stalk.

Io. *Abutilsn Amer'scanum, ribestsfoliis, store carnee, fotictupen-  
tagons aspere,* Housh 'American Abutilon,with Currant Leaves,  
a flesh-coloured Flower, and a rough five-cornePd Fruit. - '

II. *Abntilrn Americanum frutescens, folio ample cordate, lenta  
lanuginoso, Jleribus amplislntcis,* Housh -Shrubby American A-  
butllon, with a large heart- shaped Leaf, woolly on the under  
Side, and large yellow Flowers. - ' \_ .

K I2. *Abutilon fruticosam aquaticum, folio cordato scabro, store pal-  
lida luteo,* Housh Aquatic Abutilon, with a rough heart-shaped  
Leaf, and a pale yellow Flower. . - -

r;I3. *Abntilrn Americanum, pepuli folio lender serrate,* Houst.  
American Abutilon, with a Poplar-leaf lightly fawed on the  
Edges.- ’ ‘

I 4. *Abutilon Americanum frucicesicm, foliis cardatis, Jleribus par.  
vis purpurascentibus,* Housh Shrubby American Abutilon, with  
heart-shaped Leaves, and small purplish Flowers.

I5. *Abutilon Americanum,viseofum, Althea folio mucronato, store  
porvoluteo,* Housh American vifcous Abutilon, with pointed  
Marsh-mallow Leaves, and a small yellow Flower. -  
i’ I6. *Abutiknfruticofwn, foliis fobrstundisserratis, stsribus albis  
pentapetalis, ad alasfoliarum conglomeratis.* Sloan Cut. Shrubby  
American Abutilon, with roundish serrated Leaves., and white  
Flowers growing in Clusters from the Wings of the Leaves.

ABYSSUS. Gulieimtis Menens cash by thisName the Ash-  
*teria prima,* or first Matter, of which allTnings are formed.  
*TheatrsmChymicum, p. susu - :*

It is also used by the Chymists to. express a proper Receptacle  
for the Seminal Matter, from which all Things arc formed. *Case  
tellus,* from *Libavius. ; :*

ACACALIS. A Shrub, bearing a papilionaceouS Flower,  
and siliquous Fruit, called allo Kinnesen. *Rast Hist.*

It is said to take its Namefrom the Nymph Acacalis, who was  
ravished by Apollo. *Garraus. . .*

Dioscorides says, it is the Fruit of an Egyptian Shrub, like s  
Tamarisk, the Infusion of which is mixed with .Collyria,, to  
sharpen the Eye-sight. *Dlefcarid. I.* I. *c.* IIS. . :

The Plant is like the *Siliqua Sylvestres rotundifolla* of C. B.  
JVDAS’sTREE.

It is a popular Remedy at Constantinople for Disorders of the  
Eyes. *Paii Hist. ’ . ' .*

The Pods are in Use, and ate astringent *Dale. .*Hefychius explains ἀκακαλἰς, the Flower of the Narcissus.  
ACACIA. Egyptian TbornjorBinding Bean-tree (Ἀκακεα,  
**of ἀκαζω,** *toJharpen.) . ....... - .*

I. *Acacia,* Offic. Alp. AEgypt. 9. Veiling. Obs. 6. *Acacia  
vera,* Schrod. 4. 6. Ran Hist. I. 976. J. Β. I. p. Toum. Inst.  
605. Boerh. Ind. A. 2. 56. *Acacia vera.* Chain 92. *Acacia vera  
foot Spina Aigyptiaca,* Park. Theat. 1547. *Acacia Diofceridis,*GeI. Emac. I590. *Acacia vera Aigyptiaca, stliquis Jinuesis, sene  
Lupini,* Breyn. Prod. 2. *2. Acacia JEgypiiaca,* Col. in Reds.  
866. *Acacia Aigyptiaca siliis Scarpicidis leguminosae, siliquis albis,  
compresses, esthma interceptis, saribus luteis,* Herm. Cat. Hors.  
. Lugd. Bar. 5. *Acacia vera,* Ger. II49. *Acaciafoliis Scsrplatdes  
Iegumiaofa,* C. Β. Pin. *292. Acacia Atgyptia, stliquis LapiAn sts-  
ribus luteis,* Herm. Pared, gat. Prod. 303. *Acacia vera, sue  
Spina Atgypeiaca, foliis Sccrpioidis legurninofa Jleribus lntcis, stliquis.  
ccsmpriossis Lupini,* Dough Ind. 2. *Acacia vera seu Acgypeiaca,*Ind. Med. 2. *Acacia vcra, sene Spina Aegyptiaca, sebretundis fo.  
Ills, store lnteo,.Jiliqud brevi, paucioribus, isthmis grains et cortice  
nigricantibus donata.* Pluck. Almag. 3. *Misquitl seu Acacia,*Hem. 59. The EGYPTIAN THoRN. *Dale.*

This grows to he a pretty big Tree, though not very tall,  
spreading out into many Branches full of sharp Thoms, having  
many large winged Leaves divided into several pinnated *Surculi,*sot opposite to one another, like Fem, about three inches long,  
sot thick on each side with slender narrow *Pirmulae.* The Flow-  
ers come forth at the Setting on of the small Branches, on pretty  
long-footed Stalks, consisting of round Clusters, of whitish yel-  
low Filaments, which are fucceeded by stat Pods, near an Inch  
broad, and five or sot Inches long, containing several stat Lu-  
**pin-**like Seeds, separated from each other by a round short Parti-

iron, which makes each Pod appear like a String offlattish Reads.

It grows in AEgypt, Arabia, &c. The inspissated Juice, ex.  
pressed from the unripe Emit, is reddish or yellowish within,  
and blackish without ; of a bitter Taste, and harsh, with an  
Astringency. Of the Pods, before they are ripe, is made the  
true *Acacia* of the Ancients, which enters the Composition Of  
their Thenaca ; and this is meant, when *Acacia* is mentioned  
alone. *Gumnd Arabicum,* or-Gum Arabic of' the-Shops, -is  
thought, by fome, to he the Gum of this Tree-, it is of a wbito  
Colour, inclining to yellow, pale and pellucid, ofan insipid Taffe:  
and viseous, it exsudes spontanecufly from an Incision of the  
Tree, made on Purpose. That- is the best, which is pellucid like  
Glass, unmixed, and in the Form of final! Worms. The Juice  
refrigeratesand dries, consistsof gross Particles,- incrustares, and  
astringes.. The Gum heats and moistens, inspissates, stops the  
Pores of the Skin, and blunts the Acrimony ofMedicines. From  
its soft, glutinous Quality, It is serviceable -- against Coughe,  
Hoarseness, . and Disorders of the Aspera; Arteria, is a proper  
Ingredient in Applications to the Eyes and Arteries, and is of  
great Efficacy in the Dyfuria, or Heat of Urine, and the Dia.  
hetes. , *Dale, Miller. 1 - . . - . -*

Prosper Alpinus tells us, that the Pods are beaten in a hisr.  
tar, and the’juice, being pressed out, is afterwards evaporated  
by a gentle Heat to a due Consistence, There is' what they call  
theLiquid Juice, and the DryJuice j1 the latter is most harden,  
ed by Evaporation, and is much used in dying of heather.

The same Author telis us, that a Clyster of the Decoction of  
the green immature Pods, or the Leaves, -or Flowers, is very  
effcfiual in-stopping Flaxes Of Blond, or any other Humours  
and that it is excellent in Uterine Hemorrhages.

ν The true *Acacia,* Miller-says, is. rarely to be met with  
in the Shops, the *Acacia Germanica,* Or the inspissated Juice of  
Sloes, supplying its Place. . I

*2.-Acacia Indica Farnejiana,* Aid. a. Raii Hist. I. 977.  
Toum. Inst. 605. Elm. hot. 477. Ind. Med.5y..Joris. Dendr.-  
366. Rupp. Flor. Jen. I8. *Acacia Indicastliqua tumida tuberose,*Breyn. Prod. 2. 2. *Acacia Americastliquis teretibus ventriesis, sea:  
ribus, luteis,* Herm. Par. Bat. Prod. 303. Cat. Jam. 152.  
Hist. a. 56. *Acacia Americana Farnejiana,* Park. Theas. 1547.  
*Acacia Indica foliis Scorpicidis leguminosae stliquis fusils, teretibus,  
resinesis,* Herm. Hort Lugd. Bat. 5. Boerh. hid. B. a. 56.  
Volck.EloI. NOI. 4. INDIAN TKoRN. .

\* It is cultivated in the Gardens of the Curious.

- The Gum Arabic, according to some, allo stows from this Tree.

3. *Acacia stliquis compresses, -* Ind. Med. 57. *Giummi Senica,*Offic. *Gumnd Senicaseu Orientalis,* Mont. Exot. io. ;  
- The Gum, called Senegal, in the Index Medicamentorum,  
is like Gum Arabic, but in greater Lumps; Of a rough exter-  
nal Superficies, hut clear and transparent within, its Colour in-  
dining sometimes to White, sometimes to /Red, of an insipid  
watery Taste, and vifcous, and *of no* Smell at all. It is im-  
ported from.Guinea, and takes its Name, as fome affirm, from  
the River Senega. But from what Tree it stows or is extracts  
od, I am at Loss io guess, except it he a Species of *Acacia,* as  
from its Likeness to Gum Arabic, both in outward Form and  
Virtues, we may reasonably conclude. The London Apothe-  
caries use the whitest and purest Lumps of this Gum, instead of  
Gum Arabic. z .

4. *Lycium Indicium,* Offic. *Lycium Indicum peetatum Garcia,*Park. Theat. Ion. *Lycium Garcia sue Cate, J.* K 1. 6i.  
Rail Hist. 2. *1628. Lycium Indicum et Cate,* Chain 3r. *Lycium  
Ericaefoliis, Cate Garcia,.*Jons. Dendr. 268. *LyciumfoliisEri..  
ca,* C. Β. Pin. 479. *Arbor Spriesia, unde Cate Jive Theism ex...  
pr'smitur,* Bonn 92. INDIAN THoRN. ' ' -

It grows in the East-Indies. The inspissated Juice is culled  
*Cate,* which strengthens and fastens the Teeth and Gums.  
Whether the *Core* of Bontius, and the *Terra Japenica,* or Ca-  
*techu,* he the same, is nor easy for the Learned to determine.  
From the Nearness of the Names *Cate* and *Catechu,* I am in-  
clined to think they are the same Thing. But since Holbigiua  
affirms, that the *Catechu* is taken from that Tree, whose Fruit  
the Natives eat with Lime and Betel, which, Bontius assures  
us, is the Fruit of the *Areca,* or *Faofci,* I cannot but glee Cre\_  
dit to so great a Man, especially, considering he lived many  
Years in that Country. .And since there is so great Ἀ Variety  
both in the Colour and Weight, of *Terra Japenica, I* dohit **fee**why they may not he the Produol of different Plants, the’ called  
by the same Name. -

Dale mentions a fifth Species, from which the Raath or Ly.  
crum Indicum is made, from the German Ephemerides,  
no 13. Ρ. 8, 9, io: T. I. . ’

ACACIA GERMANICA This the Cosiege directs to he.  
made thus. -

Take of wild ssioes, yet hardly ripe, Quantity pre&  
out their juice, and in a shth Heat inspihe tc i ά τ &  
*^estesy’s Landon Dispensatory. J \* \**

- Great Care must he taken, by continual Agitation, or west  
Regulating the Rise, to prevent it, Burning, whwh st wilivery subjed to do, before it acquires ther Consistence, which  
**wth** make stpmve somewhet brittkj ,, k tc ±e

Cold. *Shears Napes to An Edlpinrgio Dapinsquer,*

***Acacia* is extremely** rough and astringent, and consequently  
proper in Hemorrhages, Diarrhoeas, and Dysenteries.

It is used as an Ingredient in Gargles, to brace the Saliva!  
fuands: **and** Uvula, when relaxed, and as a repellent Colly-  
rium in Inflammations of the Eyes. It is used in Egypt to  
strengthen the Gums, **and fasten the Teethe** *Geoffoery.*

As *Acacia* is an Astringent, pit *tmaj* properly enough he made  
Use of in Medicines designed to brace up the Animal Fibres;  
when in a State of Relaxation. The Dose of the true *Acacia*is from four Grains to a Dram; that of the *German Acacia,* from  
sin Grains to a Dram and half. *Boerhaave.*

It may he properly given in Hemorrhages, dissolved in Vine-  
gar and Water. *Callus Aurelianus.*

ACACIA FERREA. An Iron Spoon. *Fodandas. Jdmseit.*

ACACOS. From 4 Negative, and κακὸς, bad. It has been  
applied to Distempers which are not attended with Danger by  
Pechlinus. And to the Aphthae of Children. *Castellus.*

ACADEMIA. There was something very grand in the Ima-  
gination of Paracessus. *of* which this is an Instance. He fays,  
he was educated neither at Paris, nor Rome, nor Tholoofe, nor  
any other sophistical School, but all Nature was his University,  
where God manifests himself all powerful wife, and glorious  
to those that feet him. Hence it was. lays he, that I learned  
all I write, and which, I know to he true.

ACAERIA. Unfeafonableness. From «Negative, and καιρὶς.  
Time.

ACAHI, or ACHAHr. Alum Water. *Rulandus.*

ACAID. Vinegar. . *Rulandus. Johascrn.*

ACAJA *Piscms. Acoja qua et Nametara Brastlieesibus* Marc-  
grav. called also by Ray, *Prunus Brastlieasts Fructu racemose,  
'ligno intus pea Ojstasta.'*

This Tree grows -to the Size of a tall Lime. The Bark is  
rough and of a light Ash Colour, like Elder. The Leaves are  
smooth, exactiy opposite to each other, two, three, or sour Fin-  
gers long, of unequal Sines, a Finger and half, or two Fingers  
broad, acuminated, shining, and have a broad Nerve running the  
whole Length of it; not unlike those of the Wainut.

It produces a great Number of Flowers in Clusters, of a yel-  
lowish White. Thefe are succeeded by yellow Plums, not un-  
like ours in Figure and Magnitude, with a thin Skin, and of an  
acid Taste, containing *Α* large Stone, which consists of woody  
Filaments, and which is soft enough to he easily cracked with  
the Teeth, it inclofes a Kernel of a yellowish white Colour:  
- The Leaves are extremely acid and ashingent, and are recom-  
mended for the Recovery of a lost Appetite, and to asswage  
Thirst in Fevers. \* -

*~ Of* the young Leaves bruised, a very agreeable Sauce is **made**for roasted Meats.

The Wood is red and light as a Cork.

The Plums are of a very grateful acid Taste. When ripe they  
fall, and frnell deliciously. They are refrigerating and astrin-  
gent, and very good in a Nausea, and Fever, and much esteemed  
for a Dysentery.

Α Wine is made of them, which, when old, will intoxicate.

The Buds and Tops are ofed as Pickles , anil these, when  
bruised, emit a Froth, which, put into the Eyes, cures Inflarn-  
mations, dears the Sight, and takes away Specks and Films. At  
first it gives them Pain, hut that is very soon over.

- The Leaves, Buds, Juice, and Bark, are recommended in  
Gargarisins for Inflammations of the Throat; and in Baths for  
hot .Disorders 9S the Feet and Other Parts of the Body.

It is upon the Extremities of the Branches of this Tree, that  
certain Birds, about the Size of a Magpy, adorned with beauti..  
fill black, and yellow Feathers, build-their Nests pendulous, that  
they may he out of the Way of Serpents, and other noxious  
Insects. *Ruri Histor.* - d d , i.; ;

' ς ACAJAIBA.; . ' '. .-.i

o *Plumifora Jeu petius prunisera Indica nuce reniformi sttmmo penne*

*\* irnascertte,* Cajum *dicta. Anacardii alia species*. C. Β. *Cajum*Ger. Park. J. Β-. *Acajaiba* Pisonis et Marcgravii. *Kapa Mara*H. M. P. 3. T. 54. p. 65. *Anacardium occidentale Cajae dictum,  
Osticule rent leperis stgura1.* Herman. The CApon or CAsstr  
**TREE.** Raii Hist.in. I649. .

*The CSaraaers. .*

' ..... .. .ιρῳ'ἐνς*gulapp* ψ-ι\*

/ The Cup of the Flower (which is produced at the Extremity  
**of** a Foot-stalk) is oblong and quinquefid ; the Flower consists  
**Ps** one Leaf, which is divided into five long narrow Segments;  
in the Bottom of the Calyx is the Ovary, which becomes a foft  
Pear-shaped Fruit, upon the Apex of which grows a Vessel, in  
**which is** contained one Kidney-shaped Seed

There is but one Species of this Plant yet known, which is  
ACAJOU: *Thev s Franc. Acsturct.* TheCASHEw-NUT;

This Tree is very common in many Parts of America, parti-  
cularly in Jamaica and Barhadoes, **where** it grows, to **be a very**Iarge Tree. Astlon. .... 7

It grows every where in Malabar, but is reckened a Native of  
Brasil. It bears ripe Fmit every Year in August and September,  
and continues fruitful about 3o Years; Tn Brasil, according to  
Marcgravius, it begins to blofiom about the End of August, and  
is in full Bloom in September, and produces the greatest Quantify

of ripe Fruit in December and January. It is sound also in Jat  
rnaica.

Of the Juice of the Fmit they make a Drink, which duly fer-  
mented inebriates like Wine.. The Fmit roasted far exceeds  
Cbefnuts, and tastes as well as Almonds. There is no Biting of  
the whole Fruit raw, without losing the Skin off your Jaws by  
the acrid Juice ; therefore is is cut open with a Knife. Swal-  
lowed raw, it grates the Throat with its acrid and austere Juice ;  
therefore it is cut up into little Balls, which are dipped in Water  
or Wine, and Salt thrown over them, by which Means their  
Acrimony is taken off, and they become of a most delicious  
**Taste,** They corroborate the Stomach, help Concoction, and  
stop Vomiting and Naofea, The Indians eat them ssighdy  
roasted as a Provocation to Veneiy. The Juice flops a Diar-  
rhoea, and cores a Diabetes. The Nuts will blaze in the Flame, '

From the sweetish Liquor contained in the two sthelis the  
Natives extraci an Oil, in Use with Painters, to give their Co-  
lour a lasting Black; the same preserves Wood from Putrefac.  
tion. They fay there is nothing better then this acrid Oil for  
Tetters, Ringworms, Itch, and to kill Worms, outwardly ap-  
plied.

The Tree, when wounded, distills a pelluold Grim, both in  
Colour and Consistence like the best Gum, Arabic, *Marcgrav.*

Query whether the Cattee; or Calin, or Catechu, he not made  
**of this** Oil. . . . .

The Brasilians compute their Years by the Nuts of the *Casus,*laying up one for every Year.

The Wood is serviceable for several Purposes, bring of **a**hard Substance. It is not fubjeft to Worms, and therefore fit  
for Shipping.

This Tree is peculiarly remarkable on Account of its Fruit?  
It might, perhaps, more properly he reckened among the pruni-  
ferous Kind. *Raii Hist. Plant. .*

ACAJOUANUM,LIGNUM. . - ' .si

'" This is not the Wool of the Tree that bears the Acajou  
Nuts. It is of a red Colour, and never touched by Worms,  
which renders it very proper sot Furniture; but it is seldom  
ufed in Phy sick. *Geoffrey. . ,*

ACAIROS. Ἀκαιρὴς. Frose *a.* Negative, and καιρὸς,Time-  
Unseasonable. It is applied to any Thing that happens at ari  
improper or unufual Time, or is unlike whet ought to happen  
under the fame Circumstances of Time and Place; and in this  
last Sense ἀκαιροςἀπέστασις, Hippocrat. Epidem. L. I .ought to  
he taken, that is, a crude Hypostasis or Sediment in the Urine,  
' not like whet it ought to he in order to constitute a favourable  
Symptom. - Thus άκαιραδιαχ.ρήματα, and ἀκαιρότερα διαχω-  
ρηματα, and ἀκαιροι ἰδρῶτες, are to he understood of Stools and  
Sweats, which are unseasonable, and which bring no Relies.  
Ἀκαερως also is ufed by Hippocrates to signify unseasonably, as  
Epid. L. I. ἐνιλίην δέ ἀείαίρως τά τῶν ψυχέών. Cold Weather  
not very unseasonable for the Time of the Year. And in the  
same Book, διψἀδεες ίυ λιήν ἀκοίίρως, not mole thirsty thari  
might reasonably he exposed, considering the Fever. And Epid. -  
**L.** 6. Secti 3. A ph. 28. speaking of the Piles,, he fays, they cause  
many Disorders there specified, (ἰεετευθέντες ἀκαιρως) ifunseafond  
ably cured. **Πόνον** «καιρὸν, de Ratione Vicius in Acutis, signifies  
unseasonable Exercise and Labour, or, as Galen explains it, such  
as the present Condition of the Body cannot support without In-  
convenience. - - . .

**ACAJOU. The** Cajoii, **Cassu, of Cafshew-Nut.**

ACALAI Salt

ACALCUM. Tin. *Castellus* from *Mallemus.*

- ACALEPHE. Ἀκάλίφύ, or Ἀήαλὸνη, a Nettles *Gcrraus. .  
Foesius. Const amine. ’ .*

It signifies allo a certain Fish, whofe Flesh is very tender,  
and easy of Digestion. I take it to he a Shell Fish mentioned hy  
Athenaeus. It signifies also a Sea-fowl mentioned by Nicander.  
And a Sea-animal mentioned by Gessius. They derive it front  
a- Negative, καλη, handfoine or agreeable, and άφύ, a Touch.  
Because the Touch, edit butts, is not agreeable. *Constantine.*-" ACAMATOS. Ἀάαματίς, from a Negative, and *i.sticia,*to labour. By this Galen means, if I understand him, that  
Position of i Limb,- which is equally distant from Flexion, anil  
Extension, which Situation the Part can longest bear without  
Weariness. Thus, when we sleep, the Knees are bent; that nei-  
ther the Flexors nor Extensors of the Leg may be upon the  
^Stretch. In like Manner the Arm is generally laid spontane-  
Oufly in the most eofy Positron, or fitch a one as can he longest  
supported without Fatigue. This is when the Arm makes near  
a right Angle with the Humerus, the Paim is torned inwards,  
and the Back of the Hand outwards j sot then the Flexors and  
Extenfors, the Pronators and Supinators, are in a middle Situa-  
tion betwixt Fleaion and Extension, Pronation and Supination,  
that is, they less than they would do in any other Position;'  
. ACAMECH, or ACEMECH. This both Rulandus and  
Jobnfon explain by Superfluitas Argents. But whether he means  
Superfluity of Sheer, meaning Money, or the Scoria of the  
Metal, or a Superfluity of the Humidum radicale in Silver, I  
ran not determine.

. ACANOR. , A particular Sort Of Chymical Furnace.

**ACANTHA. 'Ακαιία.** This signifies in general any **thing**

'that is sharp-pointed and prickly, as a Them, or the FE  
fine Sorts of Fish. Hence it has been applied to theAJseut-  
hlageof the acute Procelles of the Vertebrae, each of which i5railed a spinal Apophysis, or Process. Ἄκαντι λευκῆ, is the  
-Spina Alba, or White Them. *Corneus.*

ACANTHABOLUS. Ἄχανδα, a Them, andd\*^ t°  
cast, or cast out. .

A Chirurgica! Instrument described by Paulus JEgmaeta, line  
Tweezers, useful in taking away a canated Piece °f Bone that  
is loose, or Thorns, or Tents, or any thing extraneous in a  
Wound ; or else to pull away Hairs from the Eynsith, that are  
troublesome, and irritate the Eyes, or st0m st^ inline of th6Nofe, or Eye-brows.

There are several Indentations on each Sine °t the' Chaps»  
which, answering to each other, make it take faster held when  
shut. ... . r" Τ 1. ε.

‘ Scultetus gives a Figure os it» Tab. 4. FJS. ln th13 the

Handle is made flat, that nynn Occasion it imy ferve instead os  
a Spatula to spread Plaisters. . .... .. , ™

ACANTHACEOUS\* A Botanical Term applied to Plants  
os the Thistle Kind, which are prickly.

ACANTHALZUCA. The same aS Echinopus. Glove  
Thistle. . - .- v.

ACANTHICE. Ἄκανθικύ μαστιχὲστ Gorraeus expiatus this.  
The Tear which is contained in the Top of the Helxine, which  
is Pellitory of the Walls of an agreeable Taste J bnt 1 believe  
by a double Mistake, sor in the sirst Place it ihy according to  
Theophrastus, the Product of the Carduus Chamaeleon, or Car-  
line Thistle; and in the next the Word ἔυστομον, which he trans-  
lates, *of an agreeable Taste,* signifies here, *good sir Disorders of  
she Mouth. Salmasius. . . -*

ACANTHIUM. The Cotton Thistle. See CARDUUs.

ACANTHIQN. The Hedge Hog. See **ECHINUS.** *Gcr-  
rents.*

ACANTHUS. [Ἄκανθβπό so called of ἄκαν^α, a Thorn,  
..\_. the Youth Acanthus, whom the Poets sable to he metamor-  
phosed into the Flower of this Herb.] This is called Branca  
Urfins, or Bears-breech.

It- is the *Acanthus, Branca ursina,' Ossie. Acanthus sciivus.*Ger. 986. Emac. I047. Park. Theat. 992. Raii Hist. 2. 1325.  
*Acanthus sittivus velmollis Virgilii,* C. B. Pin. 383. Tourn. Insh  
*fa6.* Elemi Bot.T45. BoeriI. Ind. Co 238. Hist. Oxon. 3. 60.4.  
*Acanthus mollis,* Rivin. Irt. M. Tab. 87. *Carduus Acanthus, Jive  
Branca ursina,* Ji B. 3: 75. *Corduus, Acanthus, Branca ursina.*Chain 35O. BRANK URSINE. *Dale.*

The Leaves of *ffi&Acanthus* are of a shining, dark, green Colour,  
about a Foot long, and three or four Inches broad, cut deeply  
\_ into several Parts aster a neat Manner; so that from those  
Leaves the Antients took the Pattern of the Foliage Work shout  
the Capitals of their Pillars, and the other Parts of their Build-  
ings. From among the Leaves, which lie on the Ground, arises  
' a Stalk about two Feet high, and about a Pinger thick, sinooth,  
round, and bare os Leaves till near the Top, winch is com-  
posed os a Head, or Thyrsus, of white gaping Flowers, standing  
amongst small, hard, prickly Leaves, which supply the Place  
ds the Calces, and almost cover and hide the Acorn like a Seed-  
vessel, which is divided by a Partition into two Cells, each  
Containing two Seeds. The Root is long and spreading. It in  
cultivated with us in Gardens, its native Place being Italy,  
Spain, and the Southern Part of Frances It dowers in July  
and August. . . \ .

It is a Plant but seldom used, and that only in Clysters and  
Baths for Obstructions, and for the Stone and Graves. The  
Herb-women sell the Leaves of Helliboraster, or BearS-feet, or  
Sphondylium, or Cow-parsoep,. for Bears-breech. *Miller.*

i Dale says, it provokes Urine, and stops a Diarrhaea. ..

It is endued with an emollient and aperient Virtue, That  
called *Acanthus Mollis,* in the Shops, is os a Very soft Nature,  
somewhat saponaceous, like the Mallow, and insipid. Its glutin-  
ous and demulcent Juice is an Ingredient in all emollient Clyn  
stars and Cataplasms, It is excellent for Combustions and Laxa-  
tions, applied in the Manner of a Cataplasm. The Root is  
good for such as spit Blood after a Bruish. *Boerhaave.so.* .—hi. -T

*2. Acanthus SylvestrU,* Ossic. Park. Theat. 992. Cer. 986.  
*Acanthus Syhnsiris aculeatus.* Ger. Ernao. IO47. *Acanthus -acuri  
lentus,* C. B. Pin. .383. Raii Hist. 2. I325. Hist. Oxon. 3.  
624. Boeth. Ind. A. 239. Tourn. Irish I 7d. Eiem. Boti  
145. *Acanthus Sylvestres, Jive Branca ursina fpincsis,* J. rB D75.  
WILD BRANK-URS1NB. . ’ . .

It is cultivated in Botanic Gardens, and flowers in July; the  
Hero is used in Physick,.and hath the same Vinces as the for-  
. met. *Dale. .. .. .. .. ..*

To the two Spectes of *Acanthus^* ahoye-I^entiosted, Milley  
adds ’ ‘ si ζ . .

*‘ Acanthus rarioribus et brevioribus Aculeis munitus,* Thum.  
The middle Bears-breech with short Spines; - '

*Acanthus Ltisiianicus, amplissimo folio latido.* The Portugal  
Bears-breech, with large shining Leaves.

*Acanthus Orientalis humillimus. Foliis pinnati aculeati,* Tourn.  
Cor. Dwarf Eastern Bears-breech with; prickly’ -winged  
leaves. - -

AS the ACANTHUS of the Antients has given the Learned **some**Perplexity, the Curious will not he displeased at the following  
Observations from Salmasius, especially as they are of some  
Importance for the distinguishing justly some Plants mentioned  
hy the antient Writers on the Materia Medica.

Os the ACANTHUS, a Topiarian [ornamental to a Garden]  
Plant,and the ACANTHUS of Egypt.

The ACANTHUS is a Plant that serves *for an* Ornament to **a**Garden. The *Acanthus,* a Tree os Egypt, called by Theophra-  
sttis the *Egyptian Acanthus,* or Thorn of Egypt, is a thorny  
Tree, which, whet I wonder At, was called *Acanthus* by the ’  
Latins, a Word signifying a Thom ; for ἄκανθος is the same .  
as ἀκάνσίν. - But I more wonder that it has been, by most,  
confounded with the Topiarian *Acanthus.* Isidorus, from an an- .  
fient Author, telis us, " that the Myrrh, a Tree of Arabis,  
" five Cubits high, is like the Thom which they call *A canthus F*This is the Egyptian *Acanthos* or *Acanthe,* which Diodorus Si-  
culus and Diosmrides affirm to he like the Myrrh-Tree. The  
same Isidore makes the *Acanthus* ah Egyptian Plant, an Ever-  
green, Very prickly, and with flexible Twigs ; that is, he  
makes the Topiarian *Acanthus,* and the *Acanthus* that is the  
Egyptian Tree, to he one and the same. The fame does Ser-  
vius. But the Egyptian *Acanthos,* which in described by Theo-  
phrastus, and distinguished into two Kinds, is quite another  
Thing from the *Acanthus of* Virgil, winch he reckons among  
the foreign Trees. .......

*— Baccas semper frondentis* Acanthi.

The Egyptian *Acanthos* os Theophrastus has Pods for its Fruit,  
that ofVirgil Berries. The *Acanthus* os Virgil was the Cyrenean  
Lotos, which Herodotus relates to be like the *Acanthos,* orEgyp- '  
tian Them. Hence the Cyrenean Lotos was called also by  
many *Acanthes* or *Acanthe,* because of its Prickles. This Kind  
was also common in Egypt, as well as in the Cyrenean Terri-  
tories. Of these Thorns Ἕ Demetrius - in Athenaeus to he un-  
derstood, where in his Account of Egypt he writes, “ The .  
" Country beyond this produces a Sort of *Acantha,* [Thorn] a  
" Tree, which bears a round Fruit on twisted Branches."  
Hence the Poet calk them Berries, for a Berry is properly a round  
Fruit. Servius takes Virgil right, when he remarks, that it is  
plentiful in the Island Cercinna, where it is called *Acanthus,*because of its Prickles. It is certain that the Latins called  
a Gum *Acanllnum,* because it was gathered from the Egyp-  
tian Thorn; and Pliny.calls the Leaves os the Euphorbiua  
*Acanthina,* which, it is certain, were prickly. Virgil'S *Acan-  
thus* is the very same which the Arabians hall Sadar, and its  
Fruit Nabac. Under this Name AVisena described the Tree  
Lotos of DioscorideS, and Interpreters shy it was the Tree Al-  
sadar, which predudes the Fruit Nabac. Others interpret it of  
the Fig-tree, or a great Tree. .Serapio also calls it Sadar, and  
quotes the Lotos of DioscorideS under, this Names It in the  
same which Bellonius in his Observations cash Napeca, and, as  
he says,: as named by the Greeks CEnopolia, and is an Ever-  
green. Prosper Alpinus,: in his Book of the Egyptian Plants,  
takes Notice os it by the Name os Nabeca, and says it is a thor-  
ny. Tree, .though there is another Kind which is not thorny.  
Leo Aser, Lib. 3. Cap. de Zarfa, calis it Rabich instead of Na..  
bich or Nabac; Thorny Trees whose Fruit is called, in the  
Arabian Tongue, Rabich, bring less than Cherries, and tasty  
Ing almost like Jujubes. He certainly means the. same Fruit;  
but perhaps there is an Error in the Copy, or the Arabians of  
Barbary call thatRabic which the Eastern Arabians named Na.,  
bac. That it is the ConnaruS of Agathocles in Athenaeus is  
plain by thcDeseription; Tor he. furnishes the Tree with Thorns  
and every thing else that answers to the Fruit Nabac. He also .  
says, that they make Meal of the dried BerrieS s," The Fruit is  
" eaten green, and when it is dry they make Meal of is, but do  
" not knead it into Lumps, nor work It up with Water, when  
" they have reduced the Berries to Powder, bQt aster ndd  
‘‘ Manner use ir Taw aS it come.” \_ This one Thing, Alpi-  
nus confesses, was his principal Reason why her could not he;  
lieVe the Napeca to he the Connarus of Agathocles, *viz.,* because  
he never observed in EgypL that they made Meal of it. Bur  
certainly he stumbled at a Straw ; for he might havC reegi  
that nothing is shore frequently mentioned among the utore.  
modern Greeks than Meal of Nahec, (άλφιτα) that jj, 0s the  
Nabacine .or Lotme Berries, , when they are dry, and that jnthe .latest Tunes, a Meal . was. made of them for medicinal-  
Purposes, -That ha did not observe such a Thing in Eoynt in

“ but a :Pr°of- that it wasnever done there;  
Chariro m the Composition os a Palvis ^Coeliacus which is« Sood'^S1!- Vomiting, u Take, says he, the Meal sAl.  
am P^l^Nahae, -s^res,;Hypocystis,.Xyinnhes, and She.-  
\_Inefeamall.oLan..afinngeur Quality, Μ rhe Fnut ofCotos Is known to be. The Guheres are che of AyL

^S^-Co^*Ee* 'Fruit of theComel or wild Cher-  
**A** ra n m another Place calls them Gom..  
hems An oldExpersimr ed Arahim, Woras.makeSuc.to te  
„ [TakeJthe-MealofNahei. Bhelhem^and Guimres,» ut

**a** Trochise, prepared for cccliaoal and dysenterical Patients.  
**Tine** Alphita Nabac is said to he the Savich Alnabach of Aviso-  
τι. For Savich or Suich signifies Barley bruised and roasted,  
which the Greeks mean by Ἄλφιτον. This Savich Nabac is a  
Styptick as well as **the** Fruit. The Fruit and Stones of the  
Nabac don't seem to Alpinus to agree with the Fruit and  
Stones of the Connarus ; because the Stone of the Nabac is  
round, but that of the Connarus oblong like an Olive-stone.  
For so relates Agathocles in Athenaeus, " The Fruit tastes Very  
" sweet, is of the Size of a Phaulian Olive, and is like it in  
Pulp and Stone.” He does not seem to have considered of  
what Olive Agathocles speaks, who does not compare the Stone  
of the Connarus to that of an Olive in general, het of a Phau-  
Iian Olive, which is a round Olive. Polybius, in his Descrip-  
tion of the African Lotos, which is **the same** as the Connarus,  
makes its Fruit to he " of the Size of a round Olive.” Al-  
pinus says, the Nabac is thorny like the Acacia. Herodotus  
says the same Thing os the Cyrenian Lotos, when he makes  
it Very like the Egyptian Thom, which is the Acacia of the  
Moderns. .. This then is the *Acanthus* of Virgil, ever-  
green, bacciferous, and exotic to Italy. Of the same Kind is  
**the** African PALIURUS, ednch Theophrastus enumerates among  
**the** Species of Lotos, and says it is fuller os Shoots and Branches  
than the common Lotos. Athenaeus joins the Connarus.and  
Paliurus, and HesychiuS says, the Connarus is a Tree in Fruit  
like the Paliunis. Agathocles himself says, the Connants has  
Thorns; and the Paliurus too is thorny, for a Rind os Thorn  
in Greece is so called; and the - Polybian Lotos in Athenaeus is  
armed with Prickles, " The Lotos is not a great Tree, but  
" rough and thorny.'\* He speaks of the Lybian Lotos, which  
is certainly the same which Leo Aser calls Rabich, which is  
the same as Nabac ; for N and R are often changed into one  
another. Among the Species of Lotos reckoned up by Theo-  
phrastus, there are none thorny but the Paliurus, which took  
its Name from its Likeness to the Greek Paliurus. : Therefore  
it cannot be doubted, but the African Paliurus was thorny, and  
the Arabian Sadar, whale Fruit is Nabac. There are ’ two  
Kinds ns it, the Thorny, and the Smooth : The Thorny, it is  
plain, are the Paliurus, the Connarus, the *Acanthus* os Virgil,  
and the Ἀκανδὴ Ἀιγυπτἰα of Demetrius. As to the Lotos La-  
tophegitis ofTheophrastus, it appears by the Description to he the  
red Jujube. As to the common Lotos, which Pliny relates *to  
have* been transplanted out of Africa into Italy, hut to **have**degenerated with Change of Soil, it can he no other than the  
Azadarat of the Herbalists, and the \* \* \* \* of Avisos. For  
there is no Species of Lotos at this Time in Italy, except this  
which is cultivated for its Shade, bring one of the larger Sortos  
Trees. Avisena writes, that it is a great Tree, and bars a Fsuit  
like the Nabac. I doubt not but the Antients took it for the  
Lotos, by which Name they .called it, and mean the same,  
when they say, the “ Lotos is a great Tree, and of a good  
." Bigness." But the true Lotos is pot over large, whereas  
this is tall, and spreads extremely; its Leaves shading all around,  
and extending themselves to the neighbouring Housss, accord-  
Ing to Pliny. The common Lotos went at Rome by the Name of  
the: Grecian and Syrian Bean, and indeed they were very plenti-  
ful in those Countries. The other Lotos. Pliny calls a transmarine  
Plant, wh ich was quite a Stranger to Italy. The Fruit os this  
Totosheing .no smaller than a Cherry,, it is strange that Dio-  
scorides, in making its Bigness, should draw his Comparison  
from Pepper : "It bears a Fruit, says he, bigger than Pepper?'  
This Passage can he understeed in no other Sense, hut.that the  
Lotos bears- a Fruit but little bigger than Pepper. It is a Wonder  
loo, that, when there .are so many Species os Lotos, be mentions  
hut one. But it is a common Thing for bins, ' inconsiderately,  
4to Involve many Species under one Appellation. '! But the In-  
XerpreterS also, of Avisena are grieVoufly mistaken, when .they  
Tender Hab almeneu, which is said. Avis. Cap. 305.**-to he**Jigger than Pepper, and almost OF the same Colour, by the  
Fruit of the Lotos Tree. Nay; theynote room the Margin,  
xince the same is repeated. Cap. 5 ge, in which Place the Nabac  
Is described as the Berry of a Tree, that is, of the Lotos, - These  
are quite different Things. The Arabians seldom use Hab for  
.the Fruit os Trees, het pretty commonly for rhe Speris of'Herbs.  
*1* am not ignorant-, that the Word may he readin Avisenas  
.applied to the‘ Pine, the Laurel, the Turpentine-treej innd the  
.Ben-nut; but it is. rather used for the inner Stone, or Kernel,  
than for the whole Fruit; as, in an Apple or Pear, they would  
’- Itot call the whole Fruit Hab, but the Seed which- .is within.

.They do not call a Pine-nut Hab.aiscunbar, hut the Kernel.  
-These are the Seeds from winch, sown Trees are. propagated, and  
answer to the Seed of Herbs. The Perry of the Lotos, inline  
the Cherry with all its Palp about it. This Pulp is what the  
Greeks call Πεαικἀρπιών, .but the Stone.withim-Nucleus, is the  
proper Καρπὸς ofthe Greeks. I do pot deny, -hat Hab alme-  
non may be used to signisy the Nucinus of the Berry of .the  
Totos ; but for the whole Berry, which is called NahacYlt can  
'by.no Meansher taken. The Grain, Almenen, Avisena will  
‘-have to be hot and dry in the second Degree, but the Nahac  
'tempered with moist and dry. When he says the Almenen is  
' bigger than Pepper, and is easily broken and separated from  
.the Medulla, which is extraordinary white, it is plain that ha

speak? os the Stone, or Nucleus, Whatever other Fruits of  
Trees consist of an unctuous Medulla, may doubtless he rightly  
called by the Arabian Word Hab, aS the Berries of Laurel, the  
Ben-nut, the Fruit of the Turpentine Tree, and such liheY  
But as *for* those which consist of an eatable Pulp, and a Stone  
within it, in these the Stone, which is in the Place os Seed,, is  
properly called Hab, and by the Greeks Καρπὸς find Πσρῆν,  
when Emits that have no Stone are called ἀπὑρηνα. Salmalius  
de Hom. Hyl. Iatr. Cap. .

**Of ACANTHI.**

The Greek Word\*AaarS0-, signifies a Thorn, or a Thistle,  
and is the same as\* Αχςινθα, bring general Names for all Kinds of  
Thorns or Thistles; thus βζυάχφνθός and ὸξυαράνθα ace the  
Tame. The Ἄκανθα Ά/γυπτία in Theophrastus is a thorny  
Tree, which in many other Places he calls Ἄκανθα Αιγυττῥα.  
This Name, among the Greeks, became appropriated to a To-  
pjarian Plant, which the Latins also, keeping the Greek Word,  
call *Acanthus ,*

*—. etstexi tacuissem vimen* .Acanthi,  
and in many other Places. But thiS *Acanthus,* especially the  
Topiarian and Garden Kind, had no Thorns; for the wild  
thorny Kind is called Ἄκανθος άγρία. The Greeks also called  
Ἄκανθα, in an absolute Sense, whet the Latins name Carduus,  
which has a Head like a Pine-apple, and iS eatable, “ Cinara;  
" for so we find the *Acantha* was called by the Dorian Poet’’  
Pollux. .The Latins also called it Carduus, by Way of emi-  
hence.. Hence in the old Glossaries Cardui, κινἄραι. From  
this Homonymy Diofcorides,.. under the Word Ἄκανθος-,  
which some editions read Ἄκανθα, seems to have described both  
**the** Topiarian *Acanthus,* and the CardUUS, confounding **the**Characters. Our Herbalists take it for granted, that the *Acan-  
thus* of the Antients in what they now call Brank Ursine.  
Diofcorides gives the Topiarian *Acanthus* a Thyrsoidal Head :  
But it is evident that Brank Ursine has no such Head, as  
we see in the Corduus or Cinara [Artichoke]. Diofcorides  
did nor describe the Cinara; for they are mistaken who  
think it was the Scolymus. Only the Root os the Scolymus  
lr eatable, according to Theophrastus. . Diofcorides says, that  
the young Shoots are fit to cat, but the CorduuS, or.Cinara,  
has something in the Figure of a Pine-apple, which is eaten,  
that is, this Thyrsoidal Head. When, therefore, he had read  
that the *Acantha* had a Thyrsoidal Head, which was to he  
understood of the Carduus Cinara, he rook it for the *Acanlha.*Topiaria, which in also called *Acantha* absolutely; But Dio-  
scorides is the rather to he pardoned, because, perhaps, he did  
not know the Carduus: For Theophrastus exprefly says, that  
the κἀκτος, so he dalis the Cardnut, did not grow in Greece;  
But there is a great Similitude between the *Acanthus* and theCar-  
duns, elpecially the smooth *Acanthus,* Columella of the Cinara  
or Carduus thus lings.

*Nunc similis* Cacto *fpinifque minantibus horret,  
‘ °allida nonnunquam tortas imitatur* Acanthos.

T)i0siinrideS bring deceived with sth Similitude, and **the**μμβνυμιmisgives the *Acanthus* a Thyrsoidal Head, which is pro..  
Ter th the Ἄκανθα, OrCarduus. It seems as if Diofcorides alone  
joas mistaken In this Matter, because Pliny, in his Description  
ofthe *Acanthus, kias* nothing of ha Thyrsoidal Head; which  
proves also that.be took his Account of the *Acamlen,* as he did  
.that of the rest of the Plants, not from Diofcorides, but another  
Author, since he pastes by so 'remarkable’ a Characteristic.  
fr. Its Seed is oblong, of a yellow Colour, and the Plant has  
a.Thyrsoidal ’Head.” Diofcorides de Acanthe. In order to  
prove that the *AcantJjns* has not a Head like the .Thyrsus, ’  
put that such .a Head belongs to the Species os Carduns,  
which we call Artichoke, we inust 'edplain what is meant by.  
ἐνεφαλη θυρσοειδὴς, Thyrsoidal Head. The Thyrfin was a Staff  
belonging to Bacchas,'which had on the Top the. Figure os  
**\*a** Pine-cone with a Ribbon tied in a Knot, and the EndS heog-  
Jog.down- on each Sided , This is the Figure os the Thyrsos  
Jn'antique Sculptures. Some Authors assure'ns that it was  
a real Pine-cone, which was placed on the Top of the Thy rd.  
'siis, arid the Greeks elpecially calllr Κοὐρός, and the Thyrsus  
Ἰμάοφίροέν The Epigram on the Dedication os the Barchana-  
than Instruments has ‘ ί

-ι . Κρὶ *hdetra xlenpib iaroascpa zdsutkia*

.φανίφίρΘ. θύρσος-, which has a *xSsQ- at* the Top, that is, ai  
Pine-cone. In the Grammarians we find χωνορόροι, θυρσοφῖροί,  
‘The .botryceidal τ like a Cluster of Grapes J Fruit of the  
Pine, which the Woman carried in the Ceremonies of Bae-  
.chut, is called a Cone, because the Figure Os a Cone is  
like that os a Man's Heart. Now the Greeks say; that Bac-  
'cfiuS presides over that Part of Man, and therefore they  
performed that Ceremony in their domestic Mysteries. Hence  
the Matter of Fact is certain, though the Reason given for  
’in ha but a Trifles The religious Rites os Bacchus were a..  
kin to those of the Mother of rhe Gods. They had the  
siinte Rites and Symheher Hence in the Bacchae, a Tragedy

I\*‘ ...

of Euripides, Bacches says, Ρίηστε μβτρὸν ἔμαθ’ ΙυρΜματα.  
Now the Pine was sorted to the Mother of the Gods, and  
every Year, on a stated Day, was carried Into her Sanctuary.  
Antobius, Lib. V. The Day was the eleventh of the μά"  
lends of April, as it is marked in the Roman Calendar ef  
Constantine the Great, with *Arbor intrat;* which minf h\*5understood of the Intromission of the Pine into the Sancsmtty  
Of the Mother clf the Gods. The following Day5 Wein, “  
. Cased to various Solemnities of the same Goddess 5 *N^a71suri~  
rds Dies,* in the same Calendar, marked at the Ninth of  
Calends os April. *Hilarus,* at the eighth s *ilenflkiafr at- tbe*.Seventh ; *Lavatio,* at the Sixth. The Poet μάζ Pme-cones  
The Apples of Cyhele, Poma sumus Cybele3\* T“e fEE5also accounted holy to Liher and Neptunes Y.,TWi ‘πγ rt"  
Τύσῳ καὶ Ποσειδῶνι. Artemidorus. And the Strobdne, os *fesse*' Cone, is enumerated among the Play-thmg5 WE, μα\*

Titans amused the Insant Bacchus, by Orphens m ins Myste-  
ries, thus

Κῶιοι καὶ ῥομβοι, παίγνια καμπεσίγήι\*,  
Μήλατεχρύσεα,ι^λά» παρ Ἐκπερίδων λιγυφωνων.

These Verses are cited by Clemens in his Protrepticon»  
where he also informs us that all these παίγνια were after-  
. wards received aS Symbols in the Mysteries of Bacchus. U It  
" may he of Service, for your Conviction, to set before-your  
" Eyes the useless and insignificant Utenffls of your religious  
" Worship, as the Dye, the Sphere, the Pine-cone, [στροβιλεςΐ  
" the Apple, the Top, the Looking-glass, and the Fleece.’\*  
.&c. In this Passage Clemens Interprets the *tuorot of* Orpheus  
by ςῥαβιλοι, that is. Pine-cones. Arnobius therefore was in  
the wrong, when he rendered στρδβιλος and *xilenf* by Turbines  
in his Book V- It is certain that the Greeks used στρόβιλίς,  
and χῶνος, and also στρομβος for a Boy's Play-thing, called  
. by the Latins, Turbo, [a Top] ; but in this Place we are  
sure he means a Pine-cone, as the antient Scholiast, in the  
King's excellent Copy, rightly observed, κῶνοι ὸι στρόβιλοικαὶ ἐι  
εδὑρσΜ. Ὁ ΔιογεΜανός. And these are the Pine-cones, the Sym-  
bols of the Rites of Bacchus, which the Bacchas carried on  
the Top os their Thyrsi ; these made the θυρσοειδῆ Μφαλῆν,  
’ as we see it in antient Monuments. For this Reason Gram-  
marians interpret θύρσους by κώνους, because they have Pine-  
cones on their Tops, Κῶνοι. δι πὸρσοι καὶ στρόβιλοι, HesychiuS.  
Os the same Shape are the Heads of the Cardui, [Artichoke]  
being made up of Leaves placed like Scales, and-running  
. -up to a Point like a Top, forming ί Cone. Thus Columella .

of the Cinara,  
*Nunc pinea vertice surges'.*

This is the Carduus with a γεφαλὴ θυρσοειδης, not the *Acan..  
thus,* which, if it he Brank-Urfins,saS no Body doubts, has  
a Head Very different from the Figure of a Pine-cone, or  
rather no Head at ail. \* There is no Doubt to he made then,  
but Dioseorides confounded the Marks of ἄκανθα, properly so  
called, with those of ἄκανθρς. The first has a κίφαλἤ θυρσο-  
ίιδης, which rises like a Pine.cone. the other has no such  
Thing. We have many other Plants lest us described by  
the Antients, with the Head of a Thyrsus, which are known -  
by the Very Character not to he the same as our modern  
Herbalists would have them. Dioseorides describes the Alisina  
to have καυλὸς λεπτὸς, άπλὴς, ὑπερ πηχυν, ἔχων κεφάλμα  
ε&υρσοειδές\* that is, « a {lender, plain Stalk,, above a Cubit  
" high, having at Top the Head of a Thyrsus, or like a  
.7 " Thyrsus." How this Place has been tortured and interpo-  
lated by very learned Interpreters, for want of knowing the  
χηφάλιβν :θυρσοειδέ4. From the same Ignorance they take  
Plants fur the Alisma, which have not that Characteristic.  
Pliny spoke right os the Alisina, and according to the Mind  
°f. Oinse0 tides, though he had it not from him: Caule sim-  
plici ac tenui, cubitali, capite Thyrsi. We are therefore  
to search for such a Plant with a Thyrsoeidal Head, as is  
here described, that it may he the true Alisma. The Thy-  
mum Graecum, that the Epithet of κεφαλωτὸν, bears the  
Head of a Thyrsus, whence it is called by the Greeks θυρσίον.  
The little Heads os the CirsiunI are θυρσςιειδὴ, and are these-  
fore by Apuleius called Thyrsiculi, I. e. κωνία (for θύρσοι are  
κωνοιτι Herba Cirsion Thyrso est bicubitali, trigono,’ inse-  
rius summitate rotunda, eum Thyrsiculis purpureis atque ca-  
nefrentibus. This Character shews that the Cirsium or  
Crission is not the Bugloss of Leonioenus, which has no small  
Heads of that Shape. The Herba impia (or Eilagp) in Pliny,  
. Lib. 24. Cop. I9. Thyrsi modo vestita atque capitata. Hence  
note, that the Thyrsi were not only headed but cloathcd; and  
indeed the Stem of the Thyrsus was, for chc most bound  
about with Ivy. Whence the θοὐρσογ κατοκίοσίις

πλοκαμοις in AnacreorL Nothing h more common in Au-  
thors, especially the Poets, than Thyrsos hedera velatos &  
Frondibus amictos, which, it is plain, must IInderfined  
of the Staff of the Thyrsus arrayed with Jyy leaves. Pliny,  
’ Lib. I6. Cap. 34 speaking os Ivy, says, « ch^ Alexander, for

Ρ the Novelty of the Thing, returned from with

« conquering Army, crowned with Ivy, affer. the Example  
« of Liber Pater ; and the Thracians used it in their scored  
" Solemnities to adorn the Thyrsi of the aforesaid Deity,.  
" and their Helmets and Shields/' Yon see the Thyrst  
were adomed with Ivy, which was so trite and obvious a  
Circumstance among the Poets, that the Author of a Greek  
Epigram on a female Votary of Bacchus, who forsook the  
Service, and consecrated her Arms, puts for Thyrsos,

παραῤῥίψασα δὲ κισσὸν,  
χεῖρα περισφίγξω χρήσοδέτῳ σπατ«λου.

Anacreon in an Epigram, where he had first named Λόρσ^'»  
as η τὴν θύρσιν ἔχουσ’ Ἔλικωείας, soon after substitutes κίσσις,  
to express the same Thing,

Αιωτύσῳ δὲ eijasj

Κιορὶν καὶ σταφυλὴν,

that is, the Thyrsus adomed with Ivy. Euripides in his  
Bacchae has *xlenttor* μάκτικν for a Thyrsus,'

Ἀλλ’ *oon* μὸν.κικύπι *llencrfu* μάτα

In another Place he has *nlenvvc* θοὐρσους, and in the same **J**Tragedy represents the Thyrsi crowned and adorned with Ivy,  
and in many Places thereof the Thyrsus is called *Mtxavot f&AQri*and'aloofysv κλάδΘ". So the Poet, ’

*Et Foliis lentas intexere mollibus Hastati*

He means the Thyrsi woven about and eriwsapped in **the**Leaves of Ivy. Hence the Sutiles Thyrsi in the Priapeia,  
which\* were woven about with the sewed Leaves of Ivy;

*Liber sutilibus committit pralia Thyrsis. (*

The Thyrsi were covered with IVy-leaVes sewed to one ano-  
then So the Sutiles Rosie, of which were made the Coronas  
Sutiles.

\* I have been the more prolix on this Subject, because **I**know some Men, who would seem to know more than **the**vulgar Learned, incapable of bring convinced, that the Thyrsi  
were arrayed with IVy, because in their precious Stones and  
antique Monuments they see nothing but a smooth Pole, with  
a bare Head like a Pine-cone, and a Ribbon hanging down  
on each Side. But I do not see the Wisdom of giving Cre-  
dit to a sew Stones against the Testimony of so many Au-  
thors. Certainly nothing can he more silly than a Sort of  
Antiquaries, who derive all their Knowledge from Stones,  
whether wrought with Letters or Figures. What they can-  
not find in Stones, they helieVe exists no where. Such is  
the Literature of curious hut injudicious Persons. For **the .**same Reason will they deny that there were any Thyrsi which  
had their Point covered with Iay, because their Stones afford '  
no such Figure. But we have abundant Mention of them in  
the Books of antient Authors, winch are the true and cer-  
tain Monuments of Antiquity. Maerchius, to begin with '  
the (lightest, in Lih. I. “ The Lacedemonians worshipped also  
\*" the Image of Liber Pater, holding a Spear, not a Thyrsus **j**" for when he holds a Thyrsus, whet does be more then carry  
iC a covered Weapons whose Point is enwrapped and hid **in**lambent IVy?'' Macrobius here seems to think that **the**Thyrsus was nothing but a Weapon, whose Point was coVer-  
ed with IVy. And indeed it is certain there were Thyrfi  
of this Form, but Very different from those we have explain-  
ed, which had a Pine-cone for their Head. Nay, even that  
Spear, held-by the Image of Liber Pater, which was wor-  
shipped at Lacedemon, was such a Sort of Thyrsus with its  
Point wrapped in Ivy. They were called λογχωτὸι .lyoryoos,  
. and in one Word θυρσἐλογχρι, which signifies, headed like a  
Spear, whose Iron was enveloped and hid by the Jvy. Justin  
Martyr mentions them, " The Bacches, says he, under in Ap-  
pearance of Peace, carry *leoyyau* prefixed to their Thyrsi. Pm-  
perry λόγχι signifies the Iron or pointed Head of a gpeas, whenoo  
λελογει^μένα 'ακἐντια, praepilatae hafhe, aut pilo inspicam.  
Spears headed or pointed with Iron. Praepilatae in another  
Sense is the same aS ἐσφαιρίμενα, rounded, not from Pilum a -  
pointed Iron, het Pila, a Ball, which was fixedthn the Point of  
their Spears, when they Ikirmished in Sport. I have seen learn-  
ed Men-at a Loss here. In the Greek Epigram On the Priestess  
os Bacchus renouncing her Profession, and consecrating **her**

‘ Arms, : & -;:

ST ϊ Γ 3 Γ ‘M&'ff’V L

*Terra το* λογχωτον a, τιε περισφύρε,γ,

thisPalr 'ofSp^s ur Thyrst were headed with imm In the  
Aitensms in Proclus, the Couraur boim .θυρσίνλΟγ^ν. pmle-  
my it barely,*θυρσβν.* Among the threatening Arms of the  
\* a Ιμά1 2nfl Death, Strabo reckons θυρσίλσγ^Λ

οπλα. sub. j. were Tfa e . one

. had a λσγ^ς with a Poms, but covered with Jvy, it ]h0lnd

*isot* appear; and the other had a Pine-Cone placed on it. The  
Bearers'of the first were *lumgulmajexat, of* the other εωνβφοροι. Both  
Thyrsi were adorned with Ivy. lfhe old Epigram Καὶ SdurK, *ete.*before-mentioned, calls the Staff of the Thyrsus green, because  
os the I eaves of Ivy which covered it: This was a harmless  
Thyrsus, that had no Iron. Hence Euripides introduces his  
Bacchar tearing and scattering abroad the Bodies os Bulk χειρές  
*amajuris durst,* which he would not have said, had their Thyrsi  
hem headed with Iron. Sometimes the bare Staff, bound with  
Ivy, served for the Thyrsus ; as it appears in that extraordinary  
fine Agate, which represents the Orgta of Bacchus in Sculpture,  
explained by Scaliger and CasauboIL One of the Bacchie is  
there seen'helding a Staff; bound about with Ivy Leaves instead  
of a Thyrsus. He that denies it to he a Thyrsus, does bur  
triste; the' it has neither the conoeidal Head, nor the Point en-  
veloped with Ivy. Sometimes the Thyrsi were covered with  
Garlands and Ribhens, instead of Ivy. Athenaeus, *lib.* vi'  
speaking of a Procession in the Bacchanalis, says, " They had  
" in them left Hand a Thyrfus crowned with Garlands." No  
precious .Stones, or others, represent such a one ; nor do I re-  
member ever to have seen it painted on Walls:

Now, since the 5υρσ»»δἡς κιφαλ,ε is named by Authors, and  
the Heads of some Plants likened to it, it is reasonable we should  
understand it of the Thyrsi with a Pine-Cone Head, winch was  
by sar the most common Form of the Thyrsus. Such a one is  
very conspicuous in the Carduus, not in theToptarian Acanthus, .  
which Dioseorides confounded with the Acanthus properly so  
Called, which is the Carduus.

' Of the ./Egyptian Papyrus; to winch Pliny in like Manner  
assigns the Head of a Thyrfus, it is harder to determine. The  
Bush of Hain of the Papyrus, as drawn by those who have seen  
it, has nothing which can allude to such a Shape. It does not  
rise turbinated into a Cone, but rather from a narrow Base grows  
wider. He who has seen the thick Knot of Fringe winch they  
call Houpe, a TUFT, may think he has seen the Bush os Hair  
of the Papyrus. It is also much like the Whists used to brush  
dusty Clothes. Strabo says no more of the Papyrus, than that  
It has a (lender Stalk, ἐπ ἄκρῳ *rylpeoee* χιείτην, which has a Bush of  
Hain at the Top ; but of what Figure he does not inform us. '-  
Pliny thus expresses himself. *Decern non amplius cubitorum longi-  
tudine, in gracilitatem fastigatum Thyrsi mode cacumen includens gi*Here you see the Head of the Papyrus running up (lender like a  
Thyrfus. He means the τὸ άκρον; and the τήν *xpeiras,* which it  
bears, in ἀκραι But 'tis very salse that it ends in a Point like a  
Line, after the Manner of a Thyrfust Nor does it mend the  
Matter to say, that learned Men, who had been in .Egypt, had  
a Draught made of the Plant when it was in its Perfection j and  
the Hair opened and spread, which before its Expansion was  
contracted and drawn up into a conic Form. It is plain by the  
Figure, that it begins to expand at its first Appearance, as we  
fee it happen in almost all umhelliserous Plants: For in this;  
from a (lender Base it spreads itself at the Top: but the con-  
trary happens in such as first are contracted into a Cone, and  
afterwards expanded and'inlarged by Maturity, like the Arti-  
choke when it flowers. And Lobel exprefly informs us, that'  
**the** Bush of Hair of the Papyrus, which is its Flower, does not  
spread like that of the Cyperus, but is rather compressed like  
that of Fennel Gyant. Pliny tranflated his Account of the  
Papyrus *verbatim* from the Greek of Theophrastus, which in  
the common Edition reads, Κίμην ἔχβνταΐ ὰχρείαι ἀοθινῆ, *lumfma  
31 ὅλως οὐδένα.* Pliny Tedders it *in gracilitatem, etc.* as before.  
When I saw the Lain was tranflated from the Greek, and the  
Greek manifestly corrupted by the Latin, I endeavoured to  
amend it, by reading κόμην ἔχώτας ἀκρέαν δσύσίνηνύ Nor indeed  
otherwise could I have thought that Pliny had fairiy tranflated  
his Author. Now I have not so good an Opinion of Pliny, as  
not to have a better of Truth, winch agrees Very ill with what  
Pliny says of the Hain of the Papyrus, tint it runs up to a Point  
like the Thyrsus. It Theophrastus recorded the same, he has  
hot regarded the Truth: But as his Words are corrupted, he  
might appeal from Pliny's Version, or his own corrupt Text to  
the true and genuine Reading as he wrote it. I suppose he wrote  
κόμίον *sjquircai* ςαρθηκοἱην instead of ἀχρείαν tioikei. Try your utmost;  
it is the truest and most genuine Reading yon can come at.  
Pliny himself, who constantly takes νἀρθηκα for Thyrfus, shews  
that Theophrastus wrote it thus. Of this we have a sain Exam-

- ple under euphorbium, which by the Greeks is described m he  
δένδρβν *raestesuiuile.* Pliny tranflares it *Specie Thyrsi,* in the Pisoe  
under Debate, by the true Greek Copy, the Papyrus hath  
«ὅμην ναρέἀπό,ην, which Pliny renders *Thyrsi modo fastigatum in  
gracilitatem cacuman.* Νἀρετηξ was something carried by the Greeks  
in Honour of Bacchus, aS well as δὑρσος *i* whence there are  
ναρθηκοφόμι *stdaxfis* and θυρσχφὀμε. Authors often put one for the  
other ; *raestesu squecyquiis,* and *Sopliv siaxjquiue* are frequent with rhe  
**Greeks.** The ,ἐνἐνξ was properly a Staff or Red cut out of the  
Shrub Ferula [Fennel Gyant]. Masters shuck Scholare an  
the Hand with it ; whence *ferula magistrales.* - Becausc it was  
light and spungy, a Blow with it din no Harm ; and for that  
Reason was used to chastise School-boys, who are said by the  
Satirist *manum ferulae subducere.* It is also used fur any stick or

Rod. that is a sit Instrument of Castigation; on which Adcoirn?  
it may he called also a Thyrfus; for θύρσυς sometimes is a plain.  
Staff Euripides calis it βάκτρονχίασχνον, and ximnscs κλἀδον, a Staff  
bound with Ivy. in Hesychius *Sippoc, gullidur, suxtrfa CaJcypeedi  
i selumdur.* It is also a νάρέηξ, but properly of the Ferula Shrub.  
Pliny, *lib.* xiii. *cap.* 22. says of the Ferula; " that no Wood  
" was lighter; for which Reason, bang easy to he carried, it  
" was chosen by Old Age for a Staff" Old Satyrs are com-  
monly introduced in the Company of Bacchus with a Ferula.  
These are the ναρετηκοφόρα. The Bacchae usually went with  
Thyrsi, which also may he called νάρέηκις, if they were made os  
the Ferula, as, on the contrary, the Feruhe might go by the  
Name of Thyrsi, especially if carried in the Solemnities of  
Bacchus. The Stalks of Plants were also called Thyrsi by the  
Latins, winch are also edestestat, provided they be hollow, aS are  
Reeds, and all those os rhe serulaceous Kind. Therefore the  
νάρθηξ and the θὑρσος, bring both carried by the Bacchantes,  
might the sooner be taken one for another. However they differ  
not a littie. The Thyrsus was sometimes a Bacchian Spear with  
an Iron Point, enveloped and covered with Ivy. This was the  
λογχἀτὸς θὑρσος. At other Times the Thyrfus was a Staff, like-  
wise enveloped with Ivy, or without Ivy ; and having on its  
Top a Pine-Cone, which was one of the Symbois of Bacchus.  
This is the κωνὀφορος θὑρσος, from whence comes the κεφὰλὸ θυρσοειδἠς  
in many Plants. But the ,άρετίξ is the Plant itself, called by the  
Latins Ferula; which being consecrated to Bacchus, was on  
that account heme by the Bacchantes. Pliny, *lib.* xxw. *cap.* r.  
says; "the Ferula is delicious Food to Asses, but mortal Poi-  
" son to other Cottlewherefore that Animal is dedicated to  
*Libor Palar,* to whom the Ferula was consecrated. The Greeks  
write, that the Ferula was sacred to Bacchus, because Fire  
used to be kept in it; for Wine also was of an igneous Quality,  
’θε,ος. τῶ πυρὶ Ητον ίχεε μὲνό.. The Person, in the Greek Trage-  
dian, says, " I search fora Fountain of Fine that lies hid in the  
" Ferula." Hesychius, " laid up in the Ferula; for they  
" made Use of the Ferula to kindle their Fires; whence\* it was  
" appropriated to Bacchus, both on account of the Bonfires at  
" their Feasts, and because Wine is ofa hot and fiery Nature.'\*  
It is a noted Fable of Prometheus, who brought the Fine he  
stole from Heaven to Mortals in a Ferula. Other Reasons are  
given why the Antients consecrated this Shrub to Bacchus. It  
is a light and hollow Plant, and is therefore very suitable to an  
idle and everlastingly drunken Deity. Bacchus himself carries  
one in the Bacchae. Euripides, ὁ Βακχεὑς y ἔχων φασἀδπ *qmajfea  
anisuar, lx rdestesuq dtaau.* Interpreters render this, *gestans ignitam  
facem piceae, quae ex ferula endcat*; which is ridiculous and ab-  
surd. \ The Fire is laid up and preserved in the Ferula, does not  
*erncori,* burst out of it. Hence νἀρβηξ πυρικοίτας in the epigram,  
in which *the Fire is kept inelased.* The Poet's Meaning is, that -  
Bacchus carrying both a Torch and Ferula would spring forth.  
Torches, *i. e. m vnxas,* aS well as Thyrsi and Ferula», were  
used in the Orgia of Bacchus. Hence some expound Sherai by  
λαμπάδπς; as others *decestescoi* by Thyrsos. Hesychius, tioamu,  
κλάδοι, λαμπἀοἳς, λόχνυι. These are the three different Arms of  
the Bacchantes, the Thyrsi, the Torches, and the Feruhe.  
The same Euripides plainly distinguishes θῥατας from νἀρέηκας in  
these Words:

Θύρσον δί τίς *pMsiSs etc.*

***io e. “*** One struck the Rock with a Thyrsus, and there gushed  
" out Water; another smote the Ground with her Ferula, and  
α the God sent forth Wine." Silvanus in the Poet is said to  
Come shaking Feruhe and Lillies, . .

*Vinit et agresti capiti Silvanus honore.  
Florentes Ferulas et grandia Lilia quassans.*

Which must be understood os the true Shrub of the Ferula;  
Bacchus also *isc* **νἀρθηκος άισσων; in the** Tragedian, shakes a true  
Ferula which was consecrated in him ; whence there were  
ναρθηκβφὀροε in his Mysteries as well as θορσβφέμ». It is a Very  
noted proverbial Verse.

**Πολλὰ μὲν Μρβηκυφὀρθι, παυρθὶ *δέ* τι Βἀκχοχ;**

Because they were also *Svfcrapipes* whence many Interpreters  
rendered νἀρβηκας as if it were ῦὑρσους. Among these was Pliny, ‘  
who took ναρβηκίνην κὀμην of the Papyrus to mean such as was like  
the Head *os 2 Thyrsus.* But the Philosopher spoke of the **Top**Of the Ferula Shenin

‘ That the Ferulas Of the Schools were made of this Shrub,  
Martial dearly shews in this Distich, .

*Invisa namum Pueris, igrataque Mupistris,  
Curia Promethee riooure ligrta sumus.*

The same is plain from the Greek Epigram on a Scheolmaster  
dedicating his Stock, after leaving his employment, *via.*

**ΣκύσοΜι πρβπυδαγὸν, ἰμένΓα Ta καὶ πυμκώταν  
Νἁμὲνκα, κροτἀφων πλάκτορα ντοπαίχων.**

**X** read πυρικοίτον *oddurxo,* instead of παρακοίτον in the Copy t In  
.Suidas it stands πανακεῖταν. The Epithet πομκβίτοις bestowed on  
the Ferula, is an Elegancy expressing its **Use** in holding **and**

keeping, of Fire Of the seme Ferula was the Physicians Mal-  
lous, ed&rf, which, thol afterwards made of Ivory, retained its  
annent Name. *Mcrticl. ...*

*Artic ebur medica Narthecia cernis habere.*

*Glojsc Malleus,* νάιθηξ *iarrgulos.* Hence Martial joined these Nar-  
.thecia with Whips and Ferulas; and hence *npriusopla* in Diofco-  
rides, which relates to that ίονμασις. Puliation, exercised on  
the Bedies of venal Slaves, in order to recall the Blond and  
Spirits into the extenuated- Parts, by frequent Strokes of the  
Ferula. This is the edvrd ιατρυῆς of the Glossary, which ren-  
ders it Mdlens/ But Ί do not think that Martial’s Narthecia  
are to he taken in this Sense, thol soon aster the Subjecti of  
Whips and Ferulas follows. No; for *rapiAn* or ιαρθηἀιον,  
signifies a little Pot or Box to held Ointments, and the Design  
of the Poet plainly shews that it must fo he understood in this  
Place: ♦♦ Thou seest, says he, that Narthecia of Ivory contain  
" the Gifts of the medical Art, which Pactius had rather were  
his ownthat is. Ointments.

i Hence the antient Physicians often gave this Tide to the.  
Books which they composed on the Art of Medicine. *Galen,,  
lis. or De . Camp. Medic, secundum Genera, cap.* 3. " Eras,  
μ fays he, composed a Treatise of the Composition of Medi-  
" cincs, which be intitled Νάρθηξ.” He mentions also the  
Ιςάρθηξ of Cratippus, which was a Book of Compositions. The  
Νάρθηξ of Soranus is cited by Aetius. . The Νάρβαίι as I said,  
was a Box to keep Ointment, Myrothecium. Hence one of  
the most correct Copies of Homer went by the Name of Έκ *ri*μόρθιαος. The Reason why it war called fo was, as Strabo telis  
us, *lib.* xiii. because Alexander the. Great had hid it up in a  
Box, νάἐνΛα, most richiy adorned, which he found in the Per-  
sian Treafury. I This ,άρθιεξ is the fame which Pliny calls *Scri-  
nium unguentorum,* a Box of Ointment, adorned with Gold and  
precious Stones, which being found among the Spoiis of Darius,,  
was pitched upon as the fittest Repository for Horner's Works,  
that the most valuable Production of the human Genius should  
be laid up in the most exquisite Piece of human Workmanship/  
Scaliger was in the wrong when, in an Epistle, he interprets  
the ναρόέκιον, appointed by Alexander for the keeping of a cor-  
recl Copy of Homer’s Works, called ἀπὸ τί νάβπκοςν a more  
sacred Repository, in which Jewess were kept, or perhaps  
Ointments. Why Boxes of Ointment are fo tailed I know  
riot, exceptit he from the Form of a Ferula, which might give  
Occasion to call a round Box by that Name ; for the Fcrula is.  
*i* light and hollow Sort of Wood, as bring Reed-like, ααλαμόὸνστ  
*major.* More than that, it was a Custom to gather fweet-scented  
Herbs into Bundles, and lay them between the Calami and the '  
Feruhe, to preserve their Fragrancy. *Theophrastus, lib.* ix. *cap.*

16."Hence any Box or,Repository for keeping Ointments;  
came to be called improperly νβρθηίκιον andniflrf. This is the  
very Truth. There is another νάρθηξ among ike Physicians, sig-  
nifying a Stay to a Bandage [Splints]. Νάρθιεξ is also a Porch or.  
Court belonging to the Temples and Cathedrais of the amient

t Christians. , .

These Things were necessary to be explained, which, for  
want of knowing, have hitherto east a Mist before the Eyes of  
Botanists as to the Meaning of δυρσοιιὸους κεφόνλῆς The Gram-  
marians expound κόνειον by *idAnii* not that μόνειοη and «ἰρθηξ.  
Ferula and Cicuta, are the fame, but because they are of a  
Ferulaceous Kind. The Greeks called it κώρκον,ΌΓ κώιον, be-  
caufe, when its Flower begins to pass into Seeds, it turbinates  
towards the Vertex,, and forms the Figure of a Cone. This last

' Remark I thought necessary .to be added.

A C *A* N U S. A Species of Thistle, called *Acanus Theophrasti.*See Carduus.

ACAPNON. *‘Axeanir:* A Name of the Sampsuchum, or  
Marjoram. It alfo signifies dry wood, from » Negative, and  
*uusini* Smoalc. *Goriaevs.*

ACARDIOS. Ἀνὰρὸιος. Fearful, depressed, saint-hearted.

*Castell. ... . :*

ACAPai, orACAKUs. **A** small insecti, said by Aristotle  
to breed in Wax. ., .-

. . It signifies also an InseiEi like a Louse, which harbours in,the  
Skin. *Castellus* from *Aldrevandus,* and *Pise. ,*

A CAR NA. The Fish Thistle. See Carduus. ...

ACARNAN. \*'Λκαρναν,\*Α,εοιρρος,"Ακαρα. A Sea Fish, men-  
coned by Athenaeus^ Rondeletios, and Aidrovandus. \_ It is said  
to be easy of Digestion, and to miord good Nourishment. *Castell.*‘ ACARON. The wild Myrtle. *Blancard.*

ACARTUM. Red Lead j called asso A2EMAFOR. *Ru-  
lcmdus.*

AC ATA LE PSI A. ’Αχωταληψίο.. incomprehensibility, or  
Uncertainty in Science ; the contrary of which is CAT ALEPsrs,  
ἀβτάληψες, certain Knowledge.

ThisWord is taken Notiis ofbyCasteJlys υ out I do not know  
why it claims a Place in a Medicinal Dictionary, erri.pt because  
it occurs in Galen. - ,

rLACATALIS. A Juniper-berry. *Ccastantine.*

ACATASTATOS. ΑαατάΓατος, from a Negative, and  
' καύσαμιε, which,-amongst other Significations, implies to fix,  
rflehlrfh, or render certain. Inconstant.

This is applied-to irregular Fevers, where the Periods .cr  
Exacerbation are uncertain, and the Appearances in the Urine  
perpetually changing. ; χ *: s*

It is alfo applied to shivering Fits in Fevers, which tetum at  
irregular Periods; sometimes every Day, sometimes every other  
Day, or every third Day. . ' :

. Or it is applied toUrines,whith are turbid, but do not deposite  
any regular Sediment. .. - .. ..

AC AT ER A. The larger Or black Juniper. *Siancarde  
Briaiseljius. - -*

ACATHARSIA. Ἀααίονρσία, from a Negative, and  
καόσίρει to purge. It signifies an Impurity of the Humours.  
Thus Hippocrates, in his Treatise of Diseases, *l.* in. informs  
us, that if the Head aches violently from a Plenitude of the  
Brain, ’tis a Sign the Blood is loaded wish sinpun: (άκαθαρσίη.  
σημαίνει). And in the same Book he says, in Apoplectic Cases,  
the Brain is silled with much Impurity (πλνβῆ πολλῆς αἐναίαρσίας).

It is alfo applied to the Sordes, or dinpurirmi of Wounds.

ACATO, or ARAxOs. Soot. *Rulandus.*

A C A U LIS, of *a* Negative, and *Caulis* a Stalk or. Stein. ...

**A** Plant is said to he *Acaulis,* or without Stalk, whoseFlower  
rests on the Ground. , \_ -

ACAULOS *magrm Flare Case}. Bauhin, is* theCarline  
Thistle. ss , ; sss.ss

**ACAZDIR. Tin; called also ALKArN ALduraA. Ct-***seellus. Ksdandus. Johnston. , /*

ACCATEM. AccATtlM. The here as AuRICHAhe  
CUM, which fee. . , - :

ACCELERATORES URINAE., .SO called .from  
their Ufe in expediting the Ejection of Urine and Seed. Authors  
have heen mistaken in the assigning the Originations of these  
Mufcles, either to the SphinctiT Ani or Tubercles of the Osta  
Ischii. They arife fleshy from the superior Part of the Ure-  
thra, as it pastes under the Ossa Pubis, and encompassing the  
nhemal Part of the Bulb of its cavernous Body, iroth Mufcles  
meet on the inferior Part, and march according to the Length Of  
the Seam of the Skin in the Perineum, parting from each other.  
They ascend to their Insertions On each Side the . Corpora Caver-  
nofa Penis. \_ ' '

- Besides the Use commonly aseribed to these Muscles, in  
compressing the Urethta in driving out the Remains of Urine,  
and promoting the Ejaculation .of the Semen in Coitu, .(which  
Action is chiefly done by the last described Part , of them cm\*  
bracing the Urethra as they pass to their Insertions On each Side  
the cavernous Bodies of the Penis j they also assist the Eremites  
Penis in its Erection, by driving the Blond contained in the Bulb  
of the cavernous Body of the Urethra towards the Glands in  
greater Quantities, whereby, it becomes distended, the Vehis  
which any off the refluent Blond from the Corpus Cavemofutn  
Urethrae, at that Tinae bring allo comprest by the Tumefaction  
of these Muscles. *Coopcr. .* : .s ... :

ACCESSIO. AcCEssxoN. It signifies the Beginning of  
a Paroxysm, or Fit of an intermitting Fever, τ  
. ACCESSORIUS. Willis has given this Name toa par  
ticular Nerve. . ' '

The *Nervi Accesserit* belong to the eighth Pain,. and arise his  
several Filaments from both Sides of the Medulla Spinalis 0f the  
Neck, sometimes higher and sometimes lower. Each of them  
runs up between the two nervous Planes which oorne out from  
the Spinal Marrow, to form the Vertebral Nerves,' and they  
gradually increase in their Coursi: upwards, by means Of several  
Filaments which they receive from the posterior nervous Planed

Having reached above the first Venctitat mill Neilonis fixed  
to the Backside of the Ganglion of the Nervus subloccipitalis,  
or that of the tenth Pair; and having, at the upher Part of this" -  
Adhesion, received two Filaments from the posterior Portion of  
the Medulla, they part from the Ganglion, and continue their  
Course upward. .These two Filaments are sometimes without  
any Communication with the Ganglion, or with rhe anterior  
Plane; *so* that they seem rather to belong to the *lstervus Accefsm  
ruts* than to the Sub-Occipitalis. - ‘

They enter the Cranium hy the great Occipital Foramen.  
and having communicated with the 0rigin of the SubrOccipitaim  
or Nerves of the tenth Pain, and with the great Hypoglossi or .  
ninth Parr, they return out of the Cranium with the Nerves *A*the eighth Pair, or Sympathetici Medii, whh whinb the- C0m\_  
mumcate in then, common Passage through the Comium.

As foon as they got withOut the Ctilehim, Q(th of '

off a considerable Branch, which divides into two. One is very  
short, and onmediathly joins the Tnim- of the ρώ .  
other, which rs longer, joins the lheth Portion Qr firftwhich goes to the Tongue, They likewhe communicate with

thP°gloffus and Sympatheticus on each Side.

Afterwards the *Narvus Accesserius* runs backward and nerfo-

the Complotat, Occrpxwhs, ω

ACCESSU6. It signifies the approaching, or hexing car-  
nal Knowledge of a Woman. / -

' ACCIB. **Lead.** *Rolandas. Johnson. Castellus.*

AC CI DE NS. -The **same as SYMPToM, which see.**

ACCIPITER, *A Hawk, of* which there are  
many Kinds. That mentioned by Dale is thus distinguished.  
**- ACCIPITER, Ossie. Schred. V..I3.** *Accipiter Fringillarius,*Mer. Pin.iyoe Schw. A. I 89. *Fringillarius Accipiter vulgo  
Nlsus dictus,* AldroV. Ornith-i. 344. *Accipitor Fringillarius,*Ge&. de AVih. 43. Jons de AVib. IO. Charlt. Exer. 72. Ac-  
*Cipitcr Prinpillariusseu Recentiorum Nisus,* .Wist. Ornith. 5I.  
Raii Ornith. 86. Ejusd. Synop. A. IS. *Fringillarius,* Bellon.  
deSOyfe. I22. The Sparrow-Hawk. *Dale.*

The whele Bird; its Food and excrements are in Use:. .

. Oil wherein a Hawk has been boiled, is said to cure DIstem-  
pets of the Eyes, if they are anointed with it.

. The same Virtue is in the Fat. The same Oil cures all De-  
formities of the’ Skin. The Excrements are of so heating a  
.Quality, that Galen will not admit them as Part of the *Materia  
Medica.* But there are some who use them in Disorders of the  
Eyes; others however advise them in order to promote Delivery,  
taken inwardly, or by way of SDffamigation. Hippocrates and  
Pliny -prescribe them against Barrenness. *Dale:*

ACCIPITRINA. The same aS HlsiRAoIUM. Hawk-  
weed. - \_ . . λ - -

ACCRETIO. **ACCRETION, or Growth. SeeNUTRi-  
TION.**

AC CU B ITU6. This signifies lying together, in the same  
Bed, without any Venereal Commerce. ------

AC CURTATO RIA.- A Synopsis, or Epitome. The  
Word is used by Raymond Lully.

ACCIISATIOi The same as INDICATIO, which fee;  
*Castellus. - '-so. - . . .. - - .*

ACEDIA. Ἀκηδίη; from ἀ Negative, and ιέῆίος; Care;  
Carelessness, Neglect. " . . ’ ' -

This Word occurs in *Hippocrates de Libis in Hornine,* and  
embroiis the Sentence not a little. - The Interpreters translate it  
Panniculus, a Rag, from the Context and parallel Places in the  
same Author ; tho’ ἀκηδεη signifies no such Thing. Foesiui  
thinks the Passage corrupted; unless by ἀκηδίη Hippocrates means  
a Rag that has been much worn, *not worth Care,* and good for  
nothing else. This Conjecture seems right, tho’ Foefius does  
not think so himself. / - - - ..

ACEDIA is also used by Hippocrates in his Treatise on the  
Glands, to signify Trouble or Fatigue.

’ A CEPHALO th- Ἀκόφαμα, from a-Negairve, and *ilenatit*"aHead. ; - . - . -

This in applied to Monsters hern without Heads, of which  
there have been some Instances.

A C ER. .The Maple Tree; sb called, according to Voisins,  
of *accis,* because of the Very great Hardness of the Wood. X

It hath jagged or angular Leaves ; the Seeds grow together in  
hard-winged Veffeis. *Millen.*

The **CHARACTERS are;**

**I. ACER** *rnajus,* Ossic. Get.i299. Emac.I4Sam Mot. Pin.**I.**Raii Synopsis iii. 47O. *Acer mayus, inultis falso Platanus,* Jo Β.  
I. I68. Rafi Hist, ii. I70I. *Accr majus quibusdam Platanus  
dictum.* Chain 6I. *Acer majus Latifolium, Sycomorus falso dictum.*Park. Theat. I425. *Acer mmtaman candidam,* C. Β. Pin. 43OI  
Tourn. Inst. 6I5. Elein. Bat. 488. Boerhaave Ind. A. ii. I 34.  
Dill. Cot. Gist. 72. Rupp. Flor. Jan. I 2g. Buch. 3. *Acer man.  
tanurn candidum, aliis Platanus,* Jons. Dendr. I31. *Acer majus,  
sive Platanus Scotica Cardini,* Merc. Bat. h i6. Phyt. Brit. 2.  
The **GREAT MAPLEi**

. It grows in Walks and Church-yards, blossoms in May; and  
the Fruit is ripe in Septemher. The Juice that distils from the  
wounded Tree is: used in Physic, and supposed to be beneficial  
in scorbutic Disorders.

In the Beginning of Spring, when the new Buds swell with  
Juice, the Tree wounded in the Trunk, Branches or Roots,  
yields a sweet and potable Liquor in abundance, aS the Birch  
does. *Buxb.* Some use it for their ordinary Drink. *Rupp.* The  
Inhabitants of Canada-made a Sugar out of the juice of this  
Tree. See *Act. Philos. Ltrnd.* NQ I7I. *p.* 988. *Dale.*

*l* **2. ACER,** Offic. Chab. 6o. *Accr, Opulus,* Ment. Ind. 35;  
*Accr minus,* Gen Emac. I484. Raii Hist. ii. I7oO: Synop. iii.  
47O. Mer. Pin. 2. Merc. Bat. ii. I6. Phyt. Brit. 2. *Acer minus  
sive vulgare.* Park. Theat. I 4i 5. *Accr campestre et minus,* C. B.  
Pin. 43 I. Tourn. Inst. 6I5. Elem. Bat. 4S8. *Boerh. Ind.Nu.*234. Dish Cat. Gifil 55. Rupp. Flor. Jan. I 29. Buxb. 3. *Acer  
campestre, aliis Opulus campestris veterum,* Jonsi Dendr. I32,  
*Accr vulgare minori folio,* J. Β. I66. The MAPLE.

.It is common in Hedges, and blossoms in May. The Root  
is used in Physic. Infused in Wine, it is with very good Suc-  
cess applied in Pains of the Liver. *Pliny. Dale.*

To these-two Sorts Miller adds the following : .

**- ACER** *mayus Foliis eleganter variegatis,* Hort. Edin. The  
greater Maple, with striped Leaves, commonly called the striped  
SycQmore. .: . .. -

**ACER** *Virpiniamm, folia majore, subtus argenteo, supra viridi  
fplendente.* Plut. Phyt. The Virginian flowering Maple. i

ACER *Amocicamrn, folio maiore, subtus argenteo, supra viride  
fplendente, floribus multis coccineis.* The American flowering  
Maple, with larger Bunches of scarlet Flowers. ' ’

ACER *maximum, foliis trifidis, vel qteinquesidis Virginianum,*Pink. Phyt. The Virginian ash-leaved Maple. - . - . .

ACER *Platansides, Munt.Trrae* Norway Maple, with Plane-  
Tree Leaves. . — -.

ACER *Platanoidessoliis elegantor variegatis.* The striped Nor-  
way Maple. - » =. .. ::

ACER *trifolia, C.* B. R The Maple with a trifoliatedLeafi  
There is another Sort of Maple, which is Very common in  
Virginis, and is known by the Name of the Sugar Maple ; from  
which Tree the Inhabitants of that Country make a Very-good  
Sort of Sugar, and in large Quantities: But this Tree is at  
present Very rare in Europe; tho' I am of Opinion; that the  
People make Sugar from more than one Sort of Maple.? M. .  
Ray and DI. Lister prepared a tolerable good Sort of Sugar from  
our greater Maple; by tapping some of the Trees in their bleed-  
ing Season; and I have observed, upon cutting .off a Branch of  
the ash-leaved Maple in February, a great Quantity os a Very  
sweet Juice hath flowed out for several Days together^/ *Miller.*''ACERATOS. Ἀκήρατβς, from a Negative, and iptestes,  
or κιρἀννυμι; to mix. Unmixed, uncorrupted. It jo applied  
sometimes to the Humours of the Body by Hippocrates. Paulus  
yEgineta mentions a Plainer under this Name, but probably  
means *Acerm.* See ACE RIDES. : .

ACERBUS, ττροφνὸς. SourjHarsh. It is used to express such  
a sour Taste accompanied with Astringency, as we meet with in  
unripe Fruits. . .'

Sometimes figuratively it signifies prickly, στρυφναι ἄκανθαι.  
*Dios.cocides.*

- ACERIDES. ’Ακήρίοἳς; from αNegative,:andκηρὸςWax;  
Planters made without Wax are thus called. *Galm. .*

ACEROSUS, of AcUs, from αχυρετ Chaff. It is an  
Epithet of the most brown and coarse Sort of Bread, made of  
Flour not separated from the Brant

A C ES l A so A Greek Physician. All that we know of  
him is, that he was fo unfortunate in his Practice, that it gave  
Rife to a ProVeth, *Axuriac* ϊάσατε; *Acesias has had it under Handi*spoken of any Thing that grows worse for being taken Care of.  
This is quoted by many Collectors of Proverbs *srom Arastophanes.*

- An AcEsIAS, in the Opinion of Fabricius, different from the  
above-mentioned, is taken Notice of by Athenaeus, and num-  
hered amongst the Writers on the Subject of Preserving or  
Pickling. . '

ε A C e S I S. ’'Ακίαιέ. A Remedy, or Cure:

A C e SI U S. The same aS TE LE SPHORUS, or EVamerion,  
according to Pausanias. It is not known who or what is meant  
by this rim or pretended Person. He is represented in the Figure  
of a Boy on some antient Medals struck at Pergamus, which  
are preserved in the Cabinets of the Curious. See TELEsA  
PHORUs;

AC ES O. A Daughter of jEfculapius, sabled m have had  
great Knowledge in Physic. ’ Le Clerc is of. Opinion, that *Aceso*means allegorically the Purity of the Ain, refined by the Rays  
of the San, and rendered. Medicinal and Restorative m those  
that respire it thus in Perfection.

.ACESTA. Distempers which are curable. *Gorraus.*

... ACESTIDES; Thus the Chimneys of Furnaces, where  
Brass was made, were called; contrived narrow at the Top, on  
purpose to receive the Fumes of the melting Metal, and collect  
them, that Cadmia might be produced .in greater Quantities;  
*Diofcorides, Salmafu Hyl. Intrica.* See CADMIA.

. AC ESTIS.. ’Atilersp **A** sactitiouS Sort of Chrysocolla,  
made of Cyprian Verdigrease; the Urine of Children, and  
Nitre; *Pliny. ..* I- -

. AC ESTO PIS. Ἀαένιιρὶς; front dura Cure.

. It signifies strictly aFernalePhysician,and is used for. a Midwisea

AC ESTR A. Ἄκιστρα. A Needle..

. ACESTRIDES. 'Ακίστρίοἳς, from *aKlasceu,* to cure. Mid-  
wives were so called amongst the Greeks. The Word is used  
by Hippocrates in this Sense, at the latter End of his Treatise  
*de Cornibus. , ...*

AC ET ABU LU M. Κοπόλβ, Κοτυληοἳὶν, ‘θξύβαφον. The  
Herb UMBILICUS VENERIS, which see. .

**ACETABULUM** signifies a large Cavity in a Bone, which re-  
CCiVeS another convex Bone, for the Convenience of a circular  
Motion of the Joint thus articulated. Thus the large CaVity  
found by the Osin innominata is particularly called; which re-  
ceives the Head of the Femur, or Thigh Bone.

It is formed by the Juncture of the Os Ilium, Ischium, and  
Pubis, in it the Edge called Supercilium, the cartilaginous Ca^  
Vity, the impression at the Bottom of the Cavity, and the Notch  
in the Edge, are observable.

The edge, or Supercilium, is very prominent on the upper  
Part; on the Sides this Prominence decreases as they descend, \*  
and between the anterior and inferior Part it is quite lost. In  
the natural State It is increased by an additional elastic Circle.

The Cavity is proportionable to the Prominence Of the Edge,  
and consequently deeper on the upper and back Part then on the  
lower and sore Part. It is covered with a very smooth Cartilage,  
except from the Middle to the Notch, which terminates pre-  
cisely at the Edge of the Cavity.

This Portion *of* the Cavity which is without Cartilage, is  
what is called the unequal Impression, which is broader toward  
the Bottom of the Cavity than toward the Edge, and serves to  
contain a Ligament and a Bundle of Glands.

. The Notch is precisely between the anterior and inferior Por-  
ticn of the Edge of the Cayity, near the Foramen Ovale,  
which it, in a Manner, unites with the Cavity. The Situation  
of this Notch is oblique with respeA to the Direction of the  
whole Body in an erecti Posture.

The elastic Border of the cotyloidc Cavity may he reckened  
among the Ligaments. It is a Sort of additional Piece, strongly  
united to the Edge of that Cavity, but easily yields both Ways  
to any Pressure. It may he stretched out by pulling, and *ro-*covers and contracts again when that Force is removed. It is  
of a very singular Textore, being composed of elastic Fibres,  
interwoven together through its whole Circumference, and  
which, in several Places, are by Degrees inclined toward the  
bony Edge of the Cavity. It makes an intire Circle ; and where  
it passes over the Notch, the transverse Ligament hefere-men-  
tioned serves to support it, as the bony Edge of the Cavity does  
through all the rest of its Circumference. *WonsenVs Anatomy.*

**AcETABULuM** alfo signifies a Sort of glandular Substance,  
many of which are sound in the Placenta of fome Animals.

**. See COTYLEDON.**

**ACETABULUM** was also a Measure used hy the Antients,  
which anfwers to one eighth Part of out Pint.

It seems to have taken its Denomination from a Vessel in  
which Vinegar was brought so their Tables, which probably  
.Contained about this Quantity, and was called *Acetabulum* from  
*Acetum,* Vinegar. This Derivation is quoted by Chambers  
from *Agricola*; and it has the greater Appearance Of bring right,  
becaufe όξύβάφον, Oxybapbon, which is exactiy the same Mea-  
sure, feems to be in like Marmet derived from οξος, Vinegar.

Authors have taken some Pains to determine the Weight of  
the *Acetabulum* of different Liquids, in which they are not agreed.  
AS the specific Gravity of Fluids are various, the Weight of  
*the Acetabulum,* as well as all other Measures, must he so too.

ACETARIA. Salads.

A CETARIUM SCORBUTICUM. A Kind Of  
Medicine, or rather Pickle, recommended by Bates ; in which  
he advifes scorbutical Patients to dip their Victirais before they  
.eat is. It is made thus;

Take *of* the picked Leaves of Sea Scurvy-grass **three** Ounces,  
White Sugar six Ounces,

Salt of Scurvy-grass an Ounce; . ,

Beat all together, and add six Ounces of the Juice of Oranges.  
A C ET OSA, [of xedascis, eager, sour, L.] Sorrel, so celled  
of the Anglo-Saxon yap, four.

The Leaves of Sorrel are smooth, succulent, and tender;  
somewhat long, and sharp-pointed j ending near the Footstalk  
in two sharp Ears like Spinage; of a very sour Taste. The  
Stalk is long and slander, set with two or three smaller Leaves;  
and at the Top, a long reddish Spike of small staminous Flow-  
ers, which are fuccceded by a small shining three-fquare Seed  
The Root is about a Finger thick, branched, and full of Fibres  
of a yellowish brown Colour, abiding several Years. It grows  
every where in the Fields and Meadows, flowering in May. The  
Leaves, Seed, and Root are ufed. *Miller.*

**I. AcETOSA** *vulgaris, Oxalis,* Offic. *Acetofa.vulgaris,* Park  
742. Raii Hist. i. I78. *Acetofa pratenses,* C. Β. ii4. Hist.  
Oxon. ii. 582. Tourn. Inst. 502. Boerh. Lid. A si. 85. Dill.  
Cat. 67. Buxb. 4. *Acetofa major vulgatissema,* Schw. 5. *Acetofa  
vulgaris, 'sate Rurneae campestrirsus,* Mrmt. Herb. Brit. 22I.  
*Oxalis feu Acetofa,* Ger. 329. Emac. 396. Park. Pared. 486.  
**Chub.** 3I1. *Oxalis vulgaris folio lengo,* J. B. ii. 989. *Lizpathurn  
Acetofurn vulgare,* Rail Synop. in. 56. Common **SORREL.**

It grows in Meadows and Pastures, and flowers in May.  
The Parts of it used in Physic are, I. the Leaves, which are  
juicy, smooth, pointed, of a dark green Colour, and of an  
acid Taste ; 2. the Root, which is fibrous, yellow, and has an  
ashingent Taste., 3. the Seeds, which are of a triangular Fi-  
- gure, and of a bright red Colour. As to its Virtues; it is one  
of the principal Cardiacs and Hepatics, resists Putrefaction,  
creates an Appetite, reprefles Bile, and allays Thirst; whence  
it is most frequently given in common and pestilential Fevers.

*Dale. '*

The Leaves are of great Use against the Scurvy, and to that  
End are recommended to he eaten in the Spaing in Salads. and  
the Juice is frequently given among rhe other antiscorbutic  
Juices. The Root has no Sourness, but a hitter ashingent  
Taste; and is accounted serviceable against the Scurvy, and  
bilious Fluxes. The Seed is also very astringent, and is there-  
sore put into Diascordiutn, and other binding Medicines. *Miller*

This Plant is excellent in hot, his, putrid Constitutions,  
. abounding With Bile. *Bserhaave.*

The Roof of this Pisnt is not four, as Mattinolus affirms:  
it is, on the contrary, very bitter, very astringent, and  
nives but a saint **red** Colour to the blue Paper, whereas **the**Leaves give it as deep a Red as Alum. The Red from **the**Leaves contiones after the Paper is dry; that from the Roots  
vanishes, nothing remaining but a bro^m Spot. The essential  
Salt of the Sorrel is 2 Mixture of sal Ammoniac and Nitre; it  
crackles in the Fire, and smells of am urinous Spirit when dip  
solved in Oil of Tartar. The Bel Ammoniac feems to he most  
difengaged in the Roots, hechofe they ssain the hlUe Paper with  
a red Colour, which the Nare coold not do, hist in the Leaves  
their Acids are difengaged from a. great Quamity of acrid Salt,  
and become, in some Measure, like the acid Spirit of Sal Am-  
rnoniac, or that of Nitre, in the Roots these two Sorts of Salts  
are united with a bule foetid OS, and a pretty deal of Earth,  
in the leaves they are dissolved in a great Quamity of Phlegm.  
There does not appear any Vitriol in the Sorrel; *for* the Juice  
of its Leaves does not blacken the Tindture of Galls, any more  
than other Acids which have nothing metallic in them. SO that  
it is no wonder the different Parts Of the Sorrel have different  
Virtues. The Roots where the Sal Ammoniac, the Solphut,  
and the Earth predominate, are good to remove Obstructions in  
the Bowels.. They are prescribed in Broths, Decoctions, and  
opening Ptifans. The Leaves, on the contrary, which are so  
sharp that they set the Teeth on Edge, cool, by diminishing **the-**Fermentation of the Blood, and temper the Bile, or keep it  
from inflaming. Simon Paiilli relates, that in Greenland they  
give to thofe that are troubled with the Scurvy, Broths, or De-  
coctions of Cochlearia, with Sorrel Leaves , which correcti its  
Acrimony. It has been observed also, that the life of the Roots.  
and Leaves of this Plant very much relieve scorbutic Persons;  
Of a dry and bilious Constitution. The Leaves bruised, or  
roasted under the Coais, hasten the Suppuration of Tumours,  
as well as Leaven. The Roots stain Water with a red Colour ;  
and may ferve to cheat sick People who want to drink Wine,.  
especially if you add a little Juice Of Pomegranates. *.Martin’s  
seourofort.* See, under the Article SOT ANIcA, an Account of  
the Method of examining the Contents of Vegetables, by the  
Alterations they produce in the Colour of blue Paper, *etc.*

2. AcETosA *arveasts,* Offic. *Acetofa manor, feu Lujula,* Ind.  
Med. **III.** *Acetofa arveasts ianculata,* **C. B. 1I4.** Rati **Hist. L.**180. Dill. Cat. 52. Hist. Oxon. ii. 584. Boerh. Ind. A. ii. 86.  
Tourn. Inst. 503. Buxb. 4. *Acetofa minor lanceolata,* Parke  
Theat. 744. Munt. Heth. Brit. 222. *Acetofa lanceolate major,*Schw. 8. *Oxalis parva aurictdata rapins,* J. B. si. 992. Chub.  
312. *Oxalis tenuifolia.* Ger. 320. Emac. 397. *Lapathum ace.  
tofum repent lmceolatum.* Rail Synop. 56. Sheep’s **SORREL.**

This grows in Tillage Grounds ; its Leaves are in Use; it  
is more grateful to the Palate than the common Sorrel, and is  
besides endued with all its Virtues. *Char. Dale.*

This Sorrel is lower and smaller than the common, having  
many narrow sharp-pointed Leaves, each of which has two large  
Ears growing to the End next the Stalk, which makes the Leaf  
appear like the Head of a bearded Spear. They are sour, like  
the common. The Flowers grow in Spikes, as these of the  
former; are small and stamineous ; and the Seeds, triangular,  
and less than the Seeds of that The Root is small, and creep-  
ing in the Ground. It grows in dry barren Soils, and flowers  
in May. It is but rarely ufed, being supposed to have less Virnm  
than the common Sorrel. *Miller.*

3. ACETOSA *Romana rrtundifolia,* Offic. Munt Heth. Brit.  
224. *Acetofa rotundifolia hortenses,* C. Β. iIi. Rail Hist. I. Igo.  
Hist. Oxon. in 583. Boerh. Ind. A. in 86. Tourn. Inst. 503.  
Buxb. 4. *Acetofa Sabandica,* Schw. 2r4. *Oxalis Franca seeu Ra~  
mana.* Ger. 310. Emac. 397. *Oxalis saliva Franca five Ramona  
rotundifolia.* Park. 743. *Oxalis folio rotundiore repens, J.* B. in  
99I. Chain 31**1. FRENCH S0RREL.**

It grows in Gardens, the Leaves are used, and have the fame  
Virtues as there Of the other Sorts, *Dale.*

The Leaves of this Sorrel are of a glaucous or blewish green  
Colour ; they are broader, shorter, and rounder than the com.  
mon; and the Ears that stand on each Side, at their joining to  
the Footstalk, are very large. The Stalks do not arise to that  
Height; they are weaker, and stand not so Creel; the Flower  
and Seed much like the other.

This Sorrel is found in Gardens, and flowers in June, The  
Leaves are as sour as the common, and may he used indifferently  
with it, both in Medicine and Salads. *Miller. Best. Qffi.*

This Plant is of great Service in Physic. From the Juice  
decoded, well depurated, and inspissated, and afterwards said upin a subterraneous Place, is made an acid Salt, which stimulate,  
and purges, corroborates and astringes, and is proper for ,11  
Diseases attended with a burning, putrid, and conrin,,,] Fever.  
A Decoction of the leaves or Roots, in Whey of new Mils,  
is excellent against all lingering Diseases in general, where thher  
is an Acrimony tending to Putrefaction. IQ Const™ Syrup  
and Water are in Use. No Plant better pur?cs ua. ged %  
freculent Humours collecied in the Winter. A Handful of the  
Leaves helled in a Pint of Whey, is an «cedem Medicine in  
April, In short. It is one of the most effectied Rcmedes against

the Scurvy, if the Plant itself he eaten greens or in Juice  
drank - fur it helps a stinking Breath, fastens loose Teeth, and  
cures the Putrefaction of the Gums ; and is extremely beneficial  
in all Cases where the Bloed is too fluid, and the Vessels lax.  
They who spit Bloed, and are prone to a Consumption, find  
extraordinary Relief from taking the Juice hereof, which is of  
Use also externally applied ; for it is proper to cleanse sordid Ul-  
cers ; and the Leaves, contused with Fresh-Butter, are of .the  
greatest Service against such Carbuncles aS tend to a Gangrene.  
*Boerh. Hist. Plant. . \_ .*

To these three principal Kinds Miller adds the following: .  
AcETosA *Foliis crispis,* Co B. P. Sorrel with curled Leaves.  
AcETosA *montana maxima,* C. B. P. Greatest Mountain

Sorrel. . \* ‘ . ... .

**ACETOSA** *Pyrenaica, angustissimo et longissimo folio,'* Schol  
Bot. Pyrenean Sorrel, with Very long narrow Leaves.

**ACETOSA** *montana, lato Ari rotundo folio,* Bocc.Mus. Moan-  
tain Sorrel, with a broad Arum Leaf.

**ACETOSA** *montana pumila,s.agopyrifolio,* Bocc. Mus. Dwarf  
Mountain Sorrel, with a Buckwheat Leaf .

.AcETosA *tuberoso radice,* C. B. P. Sorrel with a tuberose  
Root.

‘ AcETosA *Calthae solio, peregrina,* **C.** B. P. Foreign Sorrel,  
with a Marigold Leaf.

**ACEToSA** *lucida, folio At riplids,* H. R. Pat. Shining Sorrel,  
with Orach Leaves.

' AcETosA *mayor Italica, semine rotundiore et glomerato,* Η. R\*  
Par. Greater Italian Sorrel, with a round glomerated Seed.

**AcETosA** *lanceolata angastisiolia elatior.* Mor. Hist. Taller,  
narrow-leaved, spear-pointed Sorrel.

**ACETOSA** *Ocymi folio, Neapolitana,* C. B. P. Neapolitan  
Sorrel, with a Basil Leaf.

’ Ac ET Os A. *Americana, follis longissimis pediculis donatis.* Ame-  
rican Sonel, with Leaves growing on long Pedicles.

- AcETosA *rotundifolla repens Eboracensis, folio in medio deli-  
quium patiente.* Mor. Hist. Creeping round-leaved Sorrel of the  
North. ‘

. AcETosA *arborescent, subrotundo folio, eX insulis Fortunatis,*PluinAlrnag. Shrubby Sorrel, with a round Leaf, from the  
Fortunate Blands.

AcETosA *Mufcoviticasterilis,* **M. H\* The** Northern barren  
Sorrel.

AS Boerhaave attributes - great Virtues to the native Salts of  
*Acetofa,* it will he proper to insert his Meshed of making them.

I. Take a large Quantity of broad-leaVed Garden Sorrel, in  
the Prime of its Growth, a littie before it flowers; let it  
be gathered early in the Morning, and well washed from  
Its Sand in sain Water, cut it, bruise it, commit it to a  
clean Linen Bag, and squeeze out all the Juice in a strong  
Press. ' This Juice will he Very acid» green, and thick as  
Mush *' st.* Dilute it with six times its Quantity of pure  
Rain-water, -that it may the hetter pass the Strainer; now  
filter it through a conical Linen Bag, returning it so often  
till at length it becomes pure, thin, and limpid; at which  
Time it will be gratefully acid. 3. Put the Liquor, so  
purified, into wide Glass Veffeis, and inspissate it by a Very  
*:..s* gentie Boiling, in a Place free from Dust, and over a dear

Fire; till the remaining Matter hecome almost aS thick as  
recent Cream, and strongly acid. I. Pour this thick Liquor  
. into a clean Urinal Glass, which it may fill till it reaches  
within its Neck; then gently pour ch the Topalittie pure  
Oil-Olive, to the Height os about, the tenth os an inch;  
and thus let it stand at rest for eight Months, upon the  
Floor os a Cellars By this Means the Oil preventing Fer-  
mentation, Putrefaction; and Ropiness, a Salt will he pro-  
duced resembling Tartar, which nearly approaches to the  
natural Salt os Vegetables. 5: The Liquor, therefore,  
bring now poured off, let the Salt be a’ little washed by  
the quick and sudden Affusion of cold Water,' to cleanse  
it os its adhering slimy Feculencies; then gently dry it,  
and it will he the native Salt of the Plant. *Boerh. Chem.*

**.. ACETOSA ESUR1NA. '** Eserine Spirit of Vinegar , which  
will he described under she Article AcETtrM. J

A.CETOSELLA. APlant thus distinguished byAuthors i  
Ac **E T OS E t. LA** *Lujula,' Alleluia,* Ossie. *Acetosclla et Lujula  
five Alleluja Officinarum,* Buxb. 5. *Acetosclla uulgogiPlenru.* Horts  
Lugd. Bat.-**2.:** *Acetosclla vulgatis et Officinarum,* Rupp. Flor.:  
Jen. IOI. *Trifolium Acetosuni vulgare,* C. B. Pm. 33o. Hist  
Oxon. si. I83. Park. Theat. 746. Rail Hist, intcofl. *Trifolium  
Acetosum vulgare Lsoula, Alleluja Officinarum, 'Nlatc.* Bot. i. 74.  
Phyt. Brit. 123?- *Oxys alba,* Mer. Pin. *go.* Ger. 1030".Ernac.  
I2OI. Raii Synop. iii.;28I. *Days flore albo,* Tourn. Inst. 88.  
Elem. Bot. 76. Boerh. IndzAl3I9. *Oxyssive Trifolium acidum,  
flore albo, J.* Β. ii. 387. *Oxyssive Trifolium acidum,* Chab.168.  
**WOoD-SORREL.***Dale. . .. .*

Wood-sorrel has a small, long, and scaly Root, inclining  
to a red Colour, with a great many fine slender Fibres. The  
Leaves are numerous, springing directly from the Root, each  
- on a flender reddish Stalk, about two or three Inches high,  
divided into three equal Parts, each in Shape of a Heart, of a

pale green Colour, and a pleasant sour Taste. The Flowers spring  
up among the heaves, upon their own Foot-stalks, consisting  
each of one single Leaf, divided into five Parts; in some Plants  
white, in others os a pale purple Colour. When the Flowers are  
fallen, the Seed Veffeis grow large and five-cornerfd, and when .  
ripe will burst asunder at the least Touch, casting abroad their  
small round Seed. This Plant grows in Woods and shady Places,  
and flowers in April.

The Leaves of Wood-sorrel, which only are used, are believed  
to excel common Sorrel in all physical Virtues, and are reckoned  
more cordial and useful in inflammatory Fevers, quenching  
Thirst, and allaying the Heat of the Stomach, which they  
strengthen, and create an Appetite ; they help Disorders of the  
Liver, and are good for the Dropsy and Jaundice. The Juice,  
when clarified, is of a fine red Colour, and makes a Very agree-  
able Synrp.

Officinal Preparations from Woed-sorTel, are a Syrup of the  
Juice, and a Conserve os the Leaves. *\* Miller.*

The juice of this Plant is somewhat oily, acid, and nitrons,  
therefore it is good in all bunting, putrid, pestilential Distempers.  
The Herb heiled in Milk and Water is an excellent Remedy for  
an Inflammation, Pleurisy, and all acute Diseases. Nothing bet-  
ter corrects the Humours, Bile, and Putrefaction, than this  
Herb; therefore it must he good for a Nausea and Want os  
Digestion arising from putrefied Bile, or any alcalescent Humour  
in the Stomach. Let the Patient eat this Herb like Lettuce, but  
without Vinegar, for it is sour enough of itself. It is a **fine**Remedy in a Diarrhoea, Dysentery, and Looseness;'therefore  
it should he often used in Physic. Its distilled Water is of no  
Virtue. The Taste of this Plant is an unpleasant Sour, penetrat-  
ing almost like the Juice of Citrons, and rather aperient than  
astringent. It is a Very good Medicine in burning Fevers,  
Inflammations of the Jaws, Buboes, Carbuncles, and the Plague.  
Contused green, and applied, it is useful in the Distempers last  
mentioned. There is an excellent Conserve made of it with  
Sugar. Ἀ Volume has been written of the Virtues of this Herb  
in the German Tongue, and translated into Latin, wherein you  
will find that the Plague has been cured, and the Gums that  
were eaten with the Scurvy restored and healed by the Use of  
it. *Boerhaave.*

ACETUM, Vinegar.

. This Fluid so commonly known has in all Ages been esteemed  
of great importance both in Physic and Surgery.

Hippocrates recommends it in Hysterical Disorders; and in  
Inflammations of the lUVer, and Diaphragm, mixed with Honey.  
See OXYMEL. But he says it is more serviceable in bilious,  
than atrabilarious Constitutions; for where Melancholy abounds  
it is prejudicial. And that it is more proper for Men than  
Women, because it is hurtful to the Uterus. *De Ratione Victui  
in Acatis.*

. By Galen Vinegar is represented as most attenuating; discu-  
tietit, repelling and antiphlogistic. He says in order m inform  
himself of the Effects of Vinegar, he applied the Thapsia to  
several Parts of the Legs, which in four or five Hours were much  
inflamed and painful. He then washed one Sore with Water,  
another fie anointed with Oil, another with Rosaceum, and to  
another he applied Vinegar, and found nothing gave so effectual  
Relief as the lasts \* ...

He says it penetrates all Bodies like Fine, and rutis thro’ **the**thickest and closest Cloths sooner than Water. That it diflolves  
scirrhous Tumours of the Spleen; and is an Antidote against **the**Poison of Mushrooms, and of the Thapsia, or Deadly Carrot.

It cures Hickups that are caused by the Putrefaction of  
Aliment that remains undigested upon the Stomach. I suppose  
he means an alealine Putrefaction; for then it cannot sail os  
being Very serviceable.

in burning Fevers that happen during the Heat of Summer,  
attended with greatThirst, or in Fevers that, happen in any other  
Season attended with Heat and Thirst, he recommends Vinegar .  
mixed with Water, as an effectual Remedy; and directs it **to**he applied to Achors that are mild, and require only topical  
Applications, and to **a** superficial Herpes, which he affirms it  
will cure. .

Vinegar with Sitters he directs for inflammatory Tumours  
tending towards a Scirrhus, especially os the .Spleen, because it  
attenuates without heating. And a Scirrhus in general, he says,  
may he cured by the Fumes of Vinegar received from a red-het  
Pyrites..

.. This Author also advises to-apply Vinegar n) the Nostrils os  
lethargic Patients, wherein Thyme, Pennyroyal, and Origanum  
have been boiled. This reviving, or exciting Virtue of Vinegar  
will he taken notice os hereafter from Boerhaave; mean time I  
must from my own Experience recommend it aS the most pow-  
erful Exciter known in Paintings, Hysterics, and all those sad-  
den-Disorders which are usually helled Fits, where it is os much  
greater Efficacy than any foetid Fumes, or Volatile Salts, which  
frequently are of littie Service, and often do a great deal os Hurts

The Virtues osVINEGAR according to DlOSCORInES.  
Vinegar refrigerates and astringes, is good for **the** Stomach.

and Creates ch Appetite. Stops all manner of Fluxes of Bloed,  
wither taken inwardly, or externally applied. And helled with  
**the** Food stops a Looseness. It is proper for Wounds, and pre-  
vents Inflammation if applied in greasy Wool (’Οεσυπηρετς) or a  
Spunge. It cures a Prolapsus of **the** Anus and Uterus, and **the**Putresaction and Bleeding of the Gums; it is serviceable for  
eating Ulcers, Erysipelas, Herpes, Leprosy, Tetters, and  
Films in the Eye, if joined with other proper Ingredients. It  
restrains the Spreading of phagedenick and cancerous Ulcers, if  
they are constantly fomented with it. A warm Fomentation of  
Vinegar with Sulphur relieves the Gout, and Vinegar applied  
with Honey effaces the Lividness from Blows and Bruises. With  
Oil of Roses (periry) applied in greasy Wool, or a Spunge, it cures  
the het Distempers os the Head. The het Steam thereof is effectual  
against the Dropsy, Thickness of Hearing, and Noise in **the**Fars; and Vinegar dropped into them kills Worms bred therein.  
A Fomentation of warm Vinegar, or a Spunge dipped therein,  
cures Swellings of the Glands and Itchings. The het Fomenta-  
toon is effectual against the cold Poison of Venomous Creatures,  
as on the contrary, the Cold Fomentation is a Remedy sor their  
het Poison. A Vomit os het Vinegar is effectual against all Sorts  
of Poison, elpecially the Papaver Spumeum, and Hemlock; and,  
taken with Salt, against Concretions of Bloed, or Milk in **the**Stomach, Mushrooms, the white Chamaeleon, and the Yew. A  
Draught thereof expelis Leeches out of the Stomach, mitigates  
an old Cough, and irritates a new one. It is good supped het for  
an Asthma, in Gargarisins, it stops Defluxions on the Throat,  
is useful in the Qttinsey, and Relaxation of the Uvula, and held  
in the Mouth het relieves the Toothache

. AS the illustrious Boerhaave has been indefatigable in his En-  
quiries concerning the Preduction of Vinegar, curious in his Re-  
searches into the Nature of it, and accurate in his Account of its  
Virtues, I cannot do a more agreeable thing to my Readers than  
make them acquainted with ins Sentiments on this Subject, upon

' which I shall take the Liberty to make some Remarks. Mean  
time I would advise them to read the Articles **FERMENTATION**and ACiDUM, in order to the better understanding whet follows.

After understanding the Effect of the first Fermentation  
of VegetableJuices, that is. Alcohol, or an inflammable Spirit, it  
remains that we consider the other Preduction of it. Vinegar,  
which cannot any ways he procured without previous Fermenta-  
tion, and that a double one ; for the Generation of. a Vinous  
Liquor must precede that of Vinegar, and then any Wine or  
Vinous Liquor is sit for this Purpose. For if yon mix with

4 any Sort os Wine a large Quantity of its own Lees, and the  
Flowers that rise to the Top, during its Fermentation, adding  
also powder’d Tartar, and the Twigs, Stalks, and Skins os **the**Grape, and the acid, austere Vine-leaves, which abound with  
**a** saline, tartarous Matter, and then stir these well together,  
and set them in a warm place, particularly in wooden Calks  
that are thoroughly penetrated with the Vapour of Vinegar, and  
in an Ain that is also impregnated with the Fumes of Vinegar,  
they will by this means undergo a second Fermentation, with a  
Considerable Preduction os Heat, and, in this particular, the second  
acetose Fermentation differs from the first. *Is* this is protracted  
too long, the Wine, indeed, grows sourish, het then it grows  
flat, and never becomes good Vinegar.

The remote Matter, therefore, of an acetose Fermentation is  
**every** Vegetable, which is capable of a Vinous Fermentation,  
provided it is first, by this, converted into Wine. The  
Matter from which Vinegar is immediately prepared, is every  
Sort of Wine, with this Circumstance however, that the strong-  
**er the** Wines are, the sharper generally are the Vinegars which  
are made from them, whilst the smaller Wines produce indeed  
Vinegar, but of a weak and more unactive Nature.

The Ferments by which an acetose Fermentation is most sue-  
cessfully promoted, are particularly these.'

I. The acid Faeces, or Lees os an acidish Wine, called the  
Mother of Wine. . . h

**. 2.** Faeces of Vinegar collected in old Calin, especially such  
as are well saturated with very strong Vinegar.

3. Tartar os an and Wins, reduced to Powder.

*4.* Vinegar itself, first well prepared, and brought to its  
greatest Degree of Acidity. \

: 5. - Old wooden Calks, which have beensar a long time full  
os the strongest Vinegar, and hence are thoroughly penetrated  
withits sharp Acid.

6. The frequent stirring up of the Lees in its own Wine.

7. The Stalks, Twigs, and Skins of Cherries, Currants, and  
Grapes, the Tendreis of Vines, and the like Parts of other acid  
austere Vegetables. ...

8. The acid Rye-leaven of the Bakers.

9. A Composition of all the preceding mixed together, espe-  
cially if there are fome Very warm Aromatics added to the Acids;  
for then the strongest Vinegars are produced.

. Glauber long ago gave the whole History of the Generation of  
Vinegar, with great Accuracy, and an Account of this was after-  
wards published in the *Philosophical Tranfactiora,* the Purport  
efwhich is aS follows.

**. TWO large oaken Veffeis are prepared in the Shape of Common**

Casts; in each of these, at about the Distance os a Foot from the  
Bottom as they stand upright» a wicker Grate is fixed. Upon  
these Grates are laid a moderately thick Stratum, os fresh, green  
Tendreis of Vines, and over these, such a Quantity of the Pedicles  
of Grapes from which the Grapes have been stripped, as is suffi-  
cient to fill the Vessel to within a Foot of the Top. When these  
two Veffeis are thus prepared, the Wine of winch the Vinegar  
is to be made is poured into both of them, but in such a Manner,  
that one of them is filled quite fulls the other only half full; and  
then every Day alternately, the Vessel which was half full, is  
filled out of the other, so that neither remains fall above twenty  
four Hours. After proceeding in this Manner for two or three  
Days, a Fermentation arises in the Wine with a sensible Heat,  
in the half filled Vessel, and this increases gradually every Day.  
Mean time the Motion and Heat are almost suffocated in the Cask  
which is quite lull, so as nearly to cease in the Space of **the**twenty four Hours, during which it remains suit Thus Fermen-  
tation and Heat are alternately excited and suffocated in the  
two oaken Veflels.

in this Manner the Operation is continued, till the Heat is  
extinguished, and there appears no more Motion in the half filled  
Vessel; and this is a Sign that the acetose Fermentation is corn-  
pleated, the Vinegar therefore must he then put up in Calks  
well stopped.

The hotter the Roan is where these Vefleis, in which the.  
Vinegar is prepared, are placed, the sooner will it be made; in  
France it is compleated in Summer in shout fifteen Days: But in  
cold Weather, and a cold Place, the Operation is more flow. But  
when either the Season or the Workhouse is very het, it is often  
necessary to sill the half filled Vessel out of that which is fnll,  
every twelve Hours; for otherwise there arises such a Heat and  
Fermentation in the Vessel half full that the Volatile Spirits of  
the Wine, not heing yet sussicientiy fixed, are dissipated by the  
Heat, and fly off hefore they can he properly intangled and con-  
Verted into the acid Spirit of Vinegar; And hence the Liquor,  
though it would he sour would at the same time he Vapid, and  
in no respect strong generous Vinegar. For this reason also,  
**the** Vessel which is half full, is always accurately closed with **a**Corer of Oak, that the foaming Ebullition of the fermenting  
Liquor may he restrained, and checked, and thus the repelled  
Spirits may act longer and more sorceably upon the austere Sub-  
stances underneath, and by the Reaction os them he better  
secured fromDissipation. But the full Vessel is not covered, but .  
left quite open, that the Air may have a free Access to the  
Liquor designed to he changed..

This is the second Fermentation, which tends to the Produc-  
fion of Vinegar, and there terminates. Vinegar is erroneoufly  
hy some esteemed a Liquor produced after the Evaporation of  
the inflammable Spirits generated by the first Fermentation; for  
this would he Vapid, and nothing like Vinegar. On the contrary,  
the more generous, and the more replete with Spirits the **Wine**is which is used for this Purpose, the hetter will the Vinegar be,  
and the weaker the Wine is, the less acid is the Vinegar prepared  
from it. For this reason, the strongest Malt-Liquors, if they are  
treated in the same Manner, yield an exceeding good Vine-  
gar, as do the richest Spanish Wines, in this Operation, **it**is particularly remarkable, that this Conversion of **Wine into**Vinegar is not brought about without the Generation of a con-  
siderable Heat during the Fermentation; whereas Must ferment-  
ing in the time of Vintage scarcely generates any Heat; and  
Malt-Liquor, notwithstanding the Violent Motion which is  
excited whilst it works, does not grow warm. E Heat there-  
fore always required for the Generation of an Acid ? It is certain  
that Com and Milk and Food prepared from these do not grow  
acid without Heat either of the Season, of artificial Fire, or that  
of the Body. And we find, tlftt a violent Fire converts Nitre,  
Sulphur, and Salt, which are not acid, into Spirits extremely,  
arid. Hence perhaps, upon Reflection, we shall find reason **to**believe, that almost every Change which is brought about in  
Nature, requires a certain Degree of Hast.

. in thisOperation, another Circumstance occurs which deserves  
our Consideration, which is, that whilst Wine is thus converted  
into Vinegar, this clear thin Liquor depofites an incredible Quan-  
tity of thick, pinguious, oily, and as it were soapyFaeces, which  
hang about the Sides of the Veffeis, the Vine Tendreis, and the  
Pedicles ofthe Grapes. Whence should this arise ? in the **Wine**there is not.the least Sign of any such thing, and in the austere  
Tendreis, and Pedicles, one would expect to find nothing lilth  
a pinguious oily Substance. And yet it is in this Manner formed  
‘froth the Wine; for if it is washed off it will he generated again,  
insomuch that it is necessary once a Year to clear away all stut  
gross unctuous Matter, for otherwise, when the Wine was pur  
into the Vessels, itwould not be changed ro a thin ssinrp Vinegar,  
hut so a thick, corrupted, pinguious Liquor fit for no Use **wha4.  
eVer. . .**

But Care ymust he taken to clear the Pedicles, and Twigs,  
from this pinouious Matter which adheres to thcm, hy a sirdoen  
Affusion of Water upon them, which must he. suffered  
thro' them, lest if it should remaim it stjoutj deprive them Qs  
their acid Ferment, with which **they are now** impregnated.

**After’** this **the** Grates, Sides, and Bottoms of the Vessels, in  
which the Vinegar is made, are cleared with the same Caution,  
and as soon as ever the pinguious impurities are removed, the  
Grates, Twigs, and Stalks are disposed aS hefore, and are then  
again fit for making Vinegar; till, by a long Use, the same oily  
Crust will he formed again; which evidently demonstrates, that  
the Wine actually throws out an Oil whilst it is changed from  
its own proper Nature to that of Vinegar. At the same time  
too, theacetific Ferment remains intheVefieis, Grates, and  
Stalks; and hence, when these Vessels have been used a const-  
durable time, they acquire Very strongly the Power of converting  
**Wine** into Vinegar, and with the Grates, and Stalks &c.  
become as it were spungy Reservoirs of Vinegar.

It is farther to he remembered that as Alcohol, prepared  
from Very strong old Malt Liquor, can scarcely he distinguished  
from that drawn from the richest Wine, so here the same Malt  
Liquor, treated in the Manner explained, may he converted into  
Vinegar, as goed, pure, and fit for any Use, as can he made  
from the best Wine; nor is it easy to find any Difference hetwixt  
them, except what is owing to the Bitters put into Malt Liquor,  
to make it keep, which give-it a Colour and Taste different from  
what it would have had, if prepared from Com alone. In other  
respects they are inthely the same.

The Effect therefore of this second Fermentation, when com-  
pleated, is the Preduction of goed Vinegar, in order now to  
understand this the better, let us consider what Vinegar is.  
Vinegar is an acid, penetrating, fubpinguious. Volatile, Vege-  
table Liquor, produced from Wine by a second Fermentation ;  
**the** first Part of this which rises in Distillation is truly add, **and**hy no means inflammable, but extinguishes Fine and Flame, like  
Water; and by these remarkable Properties, Wine is distin-  
guished from Vinegar.

Wine, then, by one ierinentation is prepared directly from  
vegetable Juices; Vinegar, by a second Fermentation, from  
**Wine** that is already made. The Volatile Part that first rises from  
Wine in Distillation will take fire, and rife into a lucid Flame,  
hut the most Volatile Part of Vinegar, winch rises first like  
"Water, puts it out. This; therefore, is an Instance of a Very  
extraordinary Preduction of one thing from another of a different  
Nature. Some of the most able Chymists have called Vinegar  
**a** Volatile Tartar of Wine, because Tartar is the most acid part  
of Wine, but not Volatile ; Vinegar, Wine converted into **a**volatile Acid; and they were sarther confirmed in this Opinion,  
hecause Wine generally deposites a Tartar, and Vinegar, if  
**it rest** never so long, produces not the least portion of it, though  
**as** it is deprived os a great deal of Oil in making, and hence is  
rendered more acid, it should seem reasonable to expect it would  
generate a greater Quantity. It must he confessed that what  
remains at the Bottom of the Retort; after the Distillation of  
Vinegar, seems to approach near to the Nature of Tartar, but  
yet, upon examination, we find it a Substance Very different from  
**it.** But it will he of singular Service to Chymistry, Medicine,  
and Natural Philosophy, to explain the specificNature of Vinegar,  
which I shall endeavour to do as follows.

Vinegar is a Liquor, distinguished by its proper Characteri-  
sties above specified, to which I shall only now add, that it is a  
volatile, oily, acid Salt; for its Oil, which Kes surprisingly con-  
cealed under a sharp, thin Acid, most evidently diseoVers itself  
by a great many Experiments.

This Compound is extremely useful, because it powerfully rts  
fists that dangerous Putresaction to winch animal Juices are Very  
subject, and at the same time it is rendered less acrid by reason  
of the oily Particles joined with it. This Liquor also is so pene-  
trating that it easily passes through Very dense Substances, (aS was  
observed by Galen) in its full Strength, and without any Separa-  
tion of its Parts, and will insinuate itself into all Parts of the Body,  
very few Vessels excepted, and thus being distributed thro' the  
greatest Part of the Vascular System, will there exert its proper  
Powers, especially aS it is then assisted thy the natural Heat,  
and Vital Motion. It also Very readily suffers itself to he mixed  
with every animal Fluid we are acquainted with, the Oil itself  
hot excepted, and thus by its Penetrability and Miscibility is  
productive of Very great Effects in the Body.

It effectually refrigerates in FeVers caused by the Stimulation os  
the Bile grown too acrid, of an alcalescent Salt, or of a Putre-  
faction prevailing in the Juices of the human Body, or by venes.  
mous Bites, and at the same time allays the Thirst which accom-  
panies thefe Disorders. And hence in these Cases, we have  
nothing extolled more by Dioseorides and Hippocrates, than  
Oxycrate, or Vinegar and Water, especially when rendered  
milder by an Addition os Honey. The Surgeons are acquainted  
with nothing of greater Importance in many external Maladies,  
as an Erysipelas, Phlegmon, or putrid Ulcer, in Virulent Bites,  
.there is not anything more efficacious than Oxycrate. It is so sar  
from intoxicati ng, that whereas fermented Spirit of Wine is the  
chly thing that inebriates. Spirit cfVinegar on the contrary proves  
a Remedy for Drunkenness when it is excited; even though a  
Man is quite funk in Sleep from the Abuse of Spirituous Li-  
quors, he may be roused by giving him Vinegar. Hence, in  
exciting the Nerves, and adding Motion to the Spirits, scarcely

any thing is of greater Service. In weak, languid, drowsy, and \*  
lethargic Patients, and those much subject to FaintingS and Vo-  
mitings, aster having tried the most celebrated chymical Produc-  
tions in Vain, I have frequently at last given Relief by applying  
Vinegar to the Nose and Mouth, or giving it internally. And  
sarther, which perhaps only those who have tried it would rea-  
dily helieve, in convulsive, hypochondriacal, and hysterical Cases  
I have often known.it do goed (and for these purposes it is  
strongly recommended by Hippocrates in many Places). Justly,  
therefore, did Hippocrates and Galen recommend it to Hypo-  
chondriacs. in a true Putresaction and deadly Corruption os the  
Humours, and for stopping the Progress of a Gangrene, nothing  
is equal to it; and this I affirm from experience. But the fol-  
lowing Observation renders all sarther Arguments upon this Sub-  
ject superfluous. During the most extreme autumnal Heats,  
when animal Substances are strongly inclined to run into a putrid  
Santes, Flesh and Blood are preherved from Corruption by fprin-  
kling them plentifully with Vinegar. But, with all due Deference  
to the Opinions of those whe think otherwise, I attribute an atte-  
nuating Virtue to Vinegar. For if it is mixed warm with the  
Blood, or its Serum, it is so sar from coagulating them, and  
from generating polipous Concretions by its Admixture, that it  
attenuates them, and agreeably resolves Coagulations already  
formed. In acute Fevers, therefore, in malignant burning  
Fevers, in the Plague, the sinall Pox, Meafles, and the like  
Distempers, Vinegar is an excellent Medicine, whilst Volatile  
alcaline Salts are used with much Prejudice and Danger to **the**Patient, because by their stimulating Acrimony they increase  
the Velocity; and of Consequence the Density of the Bleed.  
Consistent with this waSthe Practice of the illustriousFrancifcus  
de le Boe Sylvius, whe, if not the inventor, was at least a great  
Favourer *os* the Sal Volatile Oleofum; for by the Help os whet  
Prophylactic did he Visit his Patients in the Plague with Safety ?  
It was by only drinking first an Ounce or two of Vinegar: And  
he informs us, that having once omitted it, he for this Neglect was  
punished with a severe Pain in his Head, in short we are not  
acquainted with a more Certain and effectual Sudorific; for  
Vinegar, either diluted with Water, or alone, will procure **a**plentiful Sweat, in the Plague; and other malignant Diseases,  
where other things seldom answer.

Vinegar seems to he generated hy the Combination of **the**inflammable Spirit, produced by the first Fermentation, with  
an Acid somewhat more fixed, which lay concealed in the Wine;  
for these inflammable Spirits’are not lint. Perhaps therefore these  
Spirits, hy the second Fermentation, may he united with **the**essential Salt of the Wine, that is, the Tartar. This I leave to.  
mature examination, only adding, that it seems aS if the Spirit of  
the Wine was altered in its Nature, and had put on that of Vine-,  
gar. And if this is true, this is the only Way commonly known  
of truly changing the Matter of Alcohel into something of **a**quite different Nature.

Perhaps the finest essential Salt of Wine is the Tartar which is  
generated, from it; and which is utterly consumed in the making  
of Vinegar, ’ though in the Process there is nothing separated from  
it, but a thick Oil; for if the purest and most defecated Rhenish  
Wine is, whilst new, put into a clean Calk, it will produce a- -  
great Quantity of the best Tartar, when at the same time if the  
Very same Wine is by the above described Process converted into  
Vinegar, and stands ever so long; it will never generate the least,  
Portion of Tartar, and yet, as I before observed; there is nothing  
deposited or formed, during the second Fermentation, that in  
any respect resembles Tartar, but only a pinguious, tenacinus  
Matter, that is widely different from it.

in the Distillation *of Wine;* the Spirit produced by the first  
Fermentation comes over before the Water; but in Vinegar  
prepared by the second Fermentation, the watery Part rises first,  
and when this is drawn off, an acid Spirit succeeds, which is  
always the stronger and more acid, the sower it is drawn.  
Whence we perceive, that the first Fermentation renders its  
Productions Volatile; but the second makes what it generates  
inore fixed. The Action therefore of Fermentation appears  
very surprising, which from Must, that is sweet, produces **a**Wine, which inclines to an Acidity; and from a Fluid Void os  
Alcohel hefore, generates it; and again, from a sweet Liquor  
forms an Acid; and makes the Matter of Alcohel afford some-t  
thing in every respect widely different from it.

The Promoters of this second Fermentation are,  
**i.** A sufficient Degree of Heat.

2. The free Access and even Admixture of the Ain.

3. Motich, Conquafiation, and frequent stirring os the Liquor  
in the open Ain.

4 **The** Addition of some very warm Aromatic during **the.**Fermentation. The Impediments to this Fermentation are  
every thing which retards the first Fermentation, except that  
stirring the Liquor about is here of service, whereas in the other  
it does harm. See **FERMENTATION.**

. We see here that Boerhaave attributes an attenuating Virtue to  
Vinegar, contrary to the Assertions of many great Men, who heve  
set it in a Very different T ight. I am sensible, that the Effects of  
Vinegar Upon Blued out of the T irnits of Circulation will not

determine these it has upon theiamc Fluid, whilst circulating  
in theVcssels. However the Question whetherVinegar mixed with  
the Blood fresh drawn from a Vein, preserves, or destroys the  
Fluidity of it, seems of importance enough to deferve Examina-  
tion, especially as Men of considerable Figure in the Profession  
of Physic have maintained Assertions in regard to this directiy  
opposite to each other.

in order to satisfy my self Of the Truth, July 29. I741, I  
got a Surgeon to take some Blond from the Ann of a Boy about  
fifteen Years old, who was in a Fever.’ He took it in four dif-  
ferent Tea-cups, each of which held an Ounce and a half.  
Into the first I put three Tea-fpoonfulis of the best White-Wine  
Vinegar I could get, as soon as ever the Cup was near full, and  
stirred it round two or three nines.

in the fecond I put none, but stirred it as near as I could in the  
same Manner I did the first, that I might he fute the moving it  
had an equal Effect on the Fluidity Of the Blond contained in  
both the Cups.

in the third Cup I put four Tea-spoonfuls of the same Vine-  
gar, and stirred it in the same Manner.

In the fourth Cup I put none, - and stirred it in the seme  
Manner.

In half an Hout, the Blood in the second and fourth Cup was  
coagulatedthe Blond in the first Cup was coagulated but very  
little, and that in the third not at all.

About sour Hours after, the Serum was perfectiy separated  
from the Crassamentum in the fecond and fourth.

The first was not much coagulated. The third fcarce at all.

The next Moming the Blond in the fecond and fourth was the  
same as the Night before.

That in the first coagulated, but nof strongly,. and without  
any Separation.

That in the third was somewhat thick, but still preserved its  
. Fluidity. I believe thofe who have represented Vinegar as a  
Coagulafor of Blond, have been led into this Error by the Effect  
which the stronger Mineral Acids have upon Blond; for thofe ’  
make it coagulato very soon, and strongly, as ’Us probable  
Vinegar would do, had it the same Quantity of Acid in it; but  
strong Vinegar contains ouly about fourteen Grains of true Acid  
in an Ounce, whereas there is three Drams and six Grains, that  
is, I85 Grains of Acid, in five Drams of Oil of Vitriol. Now  
the fame thing in different Degrees has frequently very different  
Effects on the fame Body.

However, fo far as may be judged by Effects, Vinegar may  
be said to he a great Attenuator of the Blond, whilst in the  
Courfe of Circulation; and at the fame time, which is very extra-  
ordinary, preserves the Texture of the Blond, and keeps it from  
that Dissolution, which it is inclinable to in the Plague, and  
pestilential Fevers. This will appear less wonderful, *if we* con-  
sider that Vinegar as an Acid prevents Putrefaction, as was  
observed above; and that when the extremely elastic Panicles of  
the Acid are mixed with the circulating Fluid in a just Propor-  
tion, the Heat of the Body rarefies and expands them with a  
Force sufficient to break thro’ and destroy the Coagulations or  
Concretions of the Blood, which are the very Essence of Inflam.  
mations.

I say in a just Proportion, becaufe the Bland may he over-  
charged with the acid Particles, ’Trs for this Reason probably  
that Hippocrates advises Vinegar in Fevers, dlluted with Water  
and mixed with Honey; for, as Galen expresses it, Vinegar adds  
Wings to Water, and enables it to penetrate into the most ex-  
treme Parts of the Bedy.

Ccelius Aurelianus advises to blow Vinegar into the Nofe in  
anEplleptio Fit.

Upon reflecting on the Appearances in both the Fermentations  
necessary to the Generation of Vinegar, I mink there is Reason  
to believe that the Acid of Vinegar is a new Production, but that  
it rather ley concealed and enveloped in the Oll of the vegetable  
Juice, till disengaged from it by two Fermentations, which are  
nothing more than continued Efforts of the extremely elastic  
Acid, assisted by a proper Degree of Heat, to disunite irfelf from  
the vegetable Oll, which disperses it, and detains it, thereby  
prevenung it from flying off, and mixing with the Ain, of which  
perhaps it was originally a Denizen, and from whence it may  
be entertaining to trace it, till it d inn tangles itself from the ve-  
getahleJuiccs, and exhaling, leaves the remaining Fluid tasteless,  
and vapid, being only Water with a small Portion of mucilagi-  
nous and unactive Oil.

It is sard under the Article AcIDUM, that there is an Acid  
perpetually floating in the Air. phis Acid is so strongly attrac-  
ted by alcaline Salts of all kinds, that in rime they become so  
saturated therewith, as to he entirely neutral. Now alcaline  
Salts ate the great Promotors of Fertility, insomuch that, unless  
the Earth is sufficiently saturated with them,, no Vegetable of  
any kind will grow in it, became these Salts are absolutely  
necessary to -the Formation of a saponaceous, neutral Men-  
struum, capable of dissolving Earth; for otherwise Earth, which  
is incapable of Solution by Water alone, could nor enter the  
Pores of the Roots, and contribute to the Fomr-tion of the  
solid Parts of Plants.

If we examine all the Substances in Nature, that are used to  
promoto Fertility, we shall find they contain an alcaline Sals.  
Thus all the Parts or Excrements of Animals contain an alca-  
line Salt; and the seme kind of Salt is found in all Vegetables  
that have undergone Putrefaction. Thus Laine allo contains an  
extremely volatile and penetrating alcaline Salt, of singular  
Efficacy in fertilizing barren Lands. Amongst Tames may he  
reckoned a Kind of Sal Terrae, to he discovered by its Effects  
in all Countries For Earth, by the continual Action of the Sun  
upon it during Summer, is in some Measure calcined, and fur-  
nished with a Salt of the Nature of Lime. Hence the Advan-  
tages of a Summer Fallow, as the Farmers call it, which is only  
exposing the naked Earth to the Influence of the Sun. Hence  
asso the great Fertility of Meadows from Inundations; for the  
Waters having in their Passage taken up arid dissolved large  
Quantifies of this Sal Terra., deposites them upon the lands  
they overflow.

But this is no where so remarkable as in AEgypt, whose pro-  
digious Fertility feems to depend intirely upon this kind of al-  
caline Salt; for the Water of the Nile being gathered in the  
parched Mountains of Ethiopia, collects in its Passage this Salt,  
which it afterwards deposites on the Soil of AEgypt.

This Kind of Salt is perhaps that which the Inhabitants in  
all Ages have collectid in great Quantities, under the Name of  
Natron, which is not unlike the Cineres Clavellati, and may  
he used for the same"Purpofes.

When thefe alcaline Salts ate committed to the Earth, and  
consequently exposed to the Air, they attraS the Acid floating  
therein, till they are saturated therewith, and become neutral.  
At the same Tune they attraci the Moisture, and with it the  
volatile Oils of Animals and Vegetables floating in the Ain.  
Thofe then, mixed withthe Oil of the Earth, being digested by  
the Heat of the Sun, form a penetrating, neutral Soap, which,  
when diluted by the Rains, becomes a Menstruum capable of  
dissolving Earth, or reducing st to Particles sine enough to enter  
the Pores of the Roots of Plants.

I call this Soap, becaufe it has all the Ingredients of Soap in  
its Composition, and answers the same End, that is, it dissolves  
Concretions of Earth, or, in other Words, Dirt. And I be-  
lieve every Bedy has observed the Earth to foam and father upon  
a hasty Shower of Rain. The Ingredients of Soap are an alca-  
line Salt, and Oil. Now, all Oils contain an Acid, and this  
Acid neutralizes the alcaline Salt, as it mixes with it, in the  
Formation of Soap. It is, perhaps, on account of this Acid,  
that Oils flame; for Acids, the’ not readily inflammable, yet  
flame with the utmost Violence, and greatest Degree of Ex-  
plosion, when once set on fire. And I do not recollecti any  
Bedy in Nature that will flame, that has not an Acid in is.  
Turpentines, which are vegetable Oils, and contain a great .  
Quantity of Acid, are remarkable for the Violence of the Flame  
they emit. . , ,

From this Sapo Tenae, or Soap of the Earth, is made that  
neutral Salt which we call Nitre, perhaps the greatest Dissolvent  
in Nature, and for that Reason a Medicine of the greatest Im.  
portance in the Practice of Physic. It must be observed here,  
for the better understanding and Confirmation of what I am go-  
ing to say, that the Acid of the Ah which enters the Compo-  
sition of common Nitre, is not lost or destroyed, but ouly  
disguised and concealed under the Mask of the alcaline Salt  
and Oil with which it is united, and from which it may again he  
separated, as it actually is in making Spirit of Nitre. ,

This saponaceous Menstruum then, together with the dissolved .  
Earth, is conveyed into the Pores of the Roots *of Plants, where*a Part of the Earth and Salt is employed in the Formation of the  
Solids, and a Part of the Oil ferves as a Cement for loosing the  
Particles of Earth together, which otherwise would not cohere,  
but fall from each other like the Ashes of Vegetables, which  
are nothing but Earth and Salts deprived of their cementing Oil  
he Fine. Mean time the Juices, deprived of Part of their  
Earth, Salt and Oil, -are somewhat acid; that is, the Auld in  
some Degree disengaged from the enveloping Oil, neutralizing  
Salts, and austere mirth, has Liberty to acti and affeci thegans of Taste. But as the Plant approaches to Maturity,  
of the Oil and Earth received by the Root is employed in Ac-  
crefion ; They mix therefore with thejnices, and contributo  
by Degrees to their Neutralization,. which in farther promoced  
by the Heat of the Sun, which digests them together, and mjxc,  
with them itself; for Heat is a Bedy, as has heen provof ma\_  
ny Experiments; and according to he different Degrees has  
the Power of neutralizing Acids, or expelling thcm stam thrSubstances to which they adhered ; but I do n0t st.

Proved, by Experiment, that it ean utterly dctiroy

It must allo he remembered this Vegetables imbibe the Asp,  
and no doubt the Axed thereof And indccd thi, ἀρ  
Resprranon is not less necessity to Vegewhhe th.m An,maTfor without .m open intercourse with the Ast no PIant στὴ  
away difS- If we farther con-  
sider, that this Sort of Resmratron is performed by Means of the  
Leav es, and shat in most Plants the d

**3**

nd wither as the Fruit approaches to Maturity ; we mav, per-  
haps, find Reason to believe, that the Juices of Vegetables  
receive an additional Acid by Respiration, which ceases by De-  
grees, when the Add is no longer of Use, and when the Neu-  
tralization of the Juices are necessary to the Maturation of the  
Fruits. , ,

And this will he farther confirmed by most of thefe Vege-  
tables that produce aFnut very acid when full rips, as theLernon,  
Orange, Citron, and others of the same kind ; which do not  
lose their Leaves as the Fruit ripens.

Upon the different Combinations of the Acid, alcaline Salts,  
Oils, Water and Fine, depend the different Tastes of Vege-  
tables. Hence also some Plants are salutary and medicinal, whilst  
others are deleterious and fatal, to Animals that eat them. How  
far the Acid may he concerned in rendering them poisonous, I  
cannot determine, but it is well known that Acids, when naked,  
are the greatest Poifons known in Nature, the, when properly  
combined with Things of a different Nature, they are not only  
salutary, but endced with excellent medicinal Virtues:

- The Example of the Vine may serve for an Illustration of  
whet I have advanced, whose Juices in the Spring are much in-  
clinable to Acidity, whilst the solld Parts, that is, the Tendrels  
and Branches, incrcofe surprisingly fash The Juices of the  
Emit, that is, the Grape, are allo very acid till arrived at their  
full Growth, and neutralized by the Accession of oily and alca-  
line Particles, and the Admixture of Heat or Flee; a great deal  
of which last is necessary to bring them to Maturity.

When thofe Juices are neutralized that is, full ripe, they  
arc sweet, or, in other Words, the Acid is inveloped in Oil  
and a Portion of Earth and Salts, and mined with Particles of  
Fire; for an Acid thus modified seems necessary to the Form-  
ation of a sweet Taste, as is evident in Sugar and Honey.

' Thus Must and Wort are sweet; which put in a proper  
Vessel, and fer in a sufficient Degree of Heat, begin to fer-  
ment; that is, the Acid, which is extremely classic, begins to  
expand, and to disengage itself from the inveloping Osh .Mean  
time, a Part of the Acid flies off with so prodigious a Force,  
that no Vessel is strong enough to confine it: This is whet He!-  
Inont called the Gas Sylvestris, or .Savage Spirit, which is the  
most Iudden and deleterious Poison known in Nature; and to a  
-Portion of this remaining in the fermented Liquors the intoxi-  
cating Facultyof inch Iamuors is indisputably owing.

.' This Gas Sylvestris I call acid, because it has an acid Smell,  
’and because itScxpansive Force is greater than that of any known  
:Body in Nature, except the Acid of Nitre, to which it seems  
*'nearly* relaced.

- Mean time, the more gross Particles of the Oil are separated,  
and rise to the Top of the fermenting Liquor in a Froth, where  
.they condense by Degrees, and" become at last heavier than the  
Limior, when they sink to the Bottom, and remain there under  
the Name of the Lees, of Mother of Wine; ’ but in Malt-Li-  
quors it is called Yeast, or Barm.

When this first Fermentation’.is compleated, the liquor  
**-changes** its sweet Taste for one. somewhat inclinable to Acidity;  
-and the siner and fighter Parts of the Liquor, separated from the  
heavier by Distillation, will take sine, and flame, which there-  
-fore must he an Oil attenuated by Fermentation, containing an  
.Acid. - . - ". - ss ™

During the second Fermentation, more gross Particles, which  
entered the Composition of the Oil, and inveloped the Acid,  
’ are separated from the Fluid, and deposited on the Sides and  
- Bottom of the containing Vessel ; and then the naked Acid is at  
. - Liberty to act, and assedt the Organs of Taste with that Senfa-  
'tion which we call four. But if .the second Fermentation is  
-'carried on a little too far, the Acid making its Efcape, mixes  
'with the Air from whence it came, and leaves the remaining  
-Linuor a tasteless vapid Mass. ; . . t

What Galen observes in regain to vinegar, makes very much  
Tor what I have "advanced. This Anther tells us, that Vinegar  
in its penetrating Quality refembles the Northern Air. . Now  
. Hoffman informs'us, that those who are concerned in the mak-  
**ι** ing Nitre observe, that the NorthenLand Easterly Winds savour  
-the Production *of* Nine, that is, bring the Acid,: which'fixes  
On the Earth, impregnated with alcaaine Salts, .and renders it  
'nitrous.' . . ... **5:2**

i Tis probably ^ Portion of this Acid, which uniting with the  
-grosser Particles of the Oil, sixes to .the Sides and . Bottom of  
- Gaiks, and forms Tartar. Hence that incoercible Spirit or Gas  
.-.which rises from- Tartar .in Distillation, and which cither per-  
-spires through the Lute, or bursts the-Vesseis.. See **TARTARUS:**‘' If it should, he mentioned, as an Objection in whet .1 have  
ε sain, that thesipint of Wine is lighter than Water, and rises  
- first in Distillation; hut that the Acid of Vinegar is more fixed,  
ϊ and rises afrer-the .Water , in would not much embarrass the  
- Astain. For'when, the Particles of the Acid are divided mi-  
. nutely, and kept from ioiningibythe Tenacity of the Oil, they  
, must necessariiy.he affected by a less Degree of Hear than when  
- their Gravity is increased bytheirUnion, which happens as soon  
- as .they are in someMeasure released, from thein Confinement.  
. And then.their:.Cohesion must ,be\_considerable,, -for Acids

are, of all Fluids, the most ponderous, and consequently very  
solid. .

What I have said above in regain to Vinegar, will he greatly  
confirmed by the following Experiments and Observations made  
byLeewenhoelc.

I have had repeated Sollicitations from some eminent Men of my  
own Neighbourhood, to undertake an Examen of some Salts,  
but hitherto have not been able *to* comply with their Request,  
not ouly because the Business required an infinite deal of La-  
. hear, hut because what I had already bestowed thereon proved  
unsuccessful ; and besides, in this Sort of Observations which  
I designed to make concerning saline Affairs, the Heat and  
Cold of the Ait might cause various Changes in the Figures  
of Salts: I invented therefore a new Way of searching into  
there Matters, which hewever did not suecced with me alike  
in all kinds of Salts.

Some Wine Vinegar (of which I buy a Barrel yearly for the  
. Use of my Family, and keep it a whole Year) after Iliad  
kept it about three Months in my Cellar, had contracted Inch  
an Acidity, that it far surpassed all the Vinegar that ever **I**had before. A Quantity of this, whenever exposed a sew  
Hours to the Air, entertained my Sight with a vast Number  
of Corpufcles, which I used to call the Salt of Vinegar, re-  
presented P. I. *Fig.* A, acute at both Extremities. Many  
of them had in the Middle an oblong Figure, of a brownish  
Colour ; others, of which there were also Multitudes, shone  
like Crystal, as in *Fig.* Β. Some of these oblong and brown-  
ish Figures had a olear Light appearing in their brownish Co-  
lour, as is shewn *Fog.* C. In another Part impeared a few  
oval Figures, some of which carried in them a Light, of an  
oval Form, as in *Fig.* D. Among these of the aforesaid Figures  
Α,-Β, D, I often fancied I saw many with a Cavity, as if  
we beheld the. Form of forne Ship i and sometimes there  
appeared such a one as, I said, belonged to the first Figure,  
with one half brownish, and the other pellucid. Sometimes  
the Corpufcles rested on one another, as in *Fig.* E. I ob-  
served now and then some Corpufcles that made but one half of,  
these in A, B, C; as you see in *Fig.* F. Many of the Cor-  
puscles in all the before-mentioned Figures were extremely mi-  
, nute, so as to become invisible. Theft 1 mentioned, which  
**I** call the Salt of Vinegar or of Wine, were sound in Vinegar  
in so great Plenty, that I discovered some Thousands *ini* small  
Drop, besides an incomprehensible Number of small Gloa  
bules, fix of which, I judged, would go to make up one of  
Blond. Besides these I observed yet. a far greater Number  
Of smaller Globules,, the least Sort of which was fo minute,  
that thirty-six of them would make but one of Blood. ‘In  
short, it seemed incredible and inconceivable how such a  
Multitude of Particles could he contained in io small a Quan-  
tity of Fluid, especially limpid, such as Vinegar is. All  
those Corpuscles then, which 1 call the Sait of Vinegar, **I**suppose to be thofe acute and pungent Parts which imprint on  
the.Tongue that Sensation or Taste which we call acid. And  
though I found these Parts to be of this Bigness by the corn-.  
mon Microscope, I did not question but there were far sinaller  
than the smallest here expressed; and that all these Figures,  
. both great and sinall, are only composed of a great Number  
of sinaller Particles, of the same Figure, as I have Often had  
Opportunity of observing; when I have viewed Sea Water,  
br common. Water, in which Salt has been dissolved, in *a*Microfcope. What sine, sinall, and quadrangular Figures  
come Out of it; fo minute, that a thousand Myriads of them  
. would not equal the Bulk of a gosid Sand 1 And these minute

Particles of Salt, though increasing in Bulk on all Sides from  
the Moment I first fee them, yet retain their elegant quadran-  
gular Superficies nearly: Hence I conclude, and mite, **for**granted, that I find no acute Particle in Vinegar, which is  
not composed of a great Number of other Particles os the  
same kinin ... .. . , ’ i

I placed a cylindrical Glass, of two Fingers Breadth in Diameter,  
with Vinegar in it, in. my Parlou- and let it stand there open .  
almost eight Weeks ; at the End of which; I found an in-  
finite ten rnher *of* Particles of Salt swimming on theSuper-i  
ficies, which having well inspectsd, I could clearly perceive,  
what before I had not been able to find out, that these saline  
Figures were furnished with a Cavity sc for thefe Cavities,  
. in many Particles of Salt, appeared to iny Eyes very sensibly.

Some of them, whofe Cavities were there remarkably visible,  
I took care should he drawn, as you see them, *Fig*. G.  
and for others, which afforded ouly a Side-prospeol, you fee  
a part of their Cavities represented accordingly. *Fig.* Hs  
You have also a little Eel,, olive and full-grown, *Fog.* LM ;  
and another dead, at its full Growth, which I killed that the  
Painter might the better distinguish it, as you see in tioNO,  
with this intention, partly that the Smallness of the saline  
Particles contained in the Vinegar might he the better per-ι  
cloned by comparing them with the Greatness of .the Eel,  
(first taking Nonce, that the Figures above explained and  
the Eels, were taken by a common Microfcope; but that .

Vasily more numerous saline Partides were by me discerned  
in the Vinegar, which could by no Means he discovered by  
that Glass); partly that I might confute an Error winch

\* many have imbibed, who account for the Acidity of Vinegar  
merely from our Sense of the Punction of these Eels, who  
prick our Tongues with their sharp Tails. . This, I by j i5 A  
Mistake; for if we should suppose it to he trues it woulth  
follow, that Vast Quantities of Vinegar would he insipid, be-  
cause destitute of these Eels; and in Winter, when they die,

. all Vinegar would he insipid.

**I** went on with my Enquiries into Vinegar, and examined such  
as had imbibed a Solution of Crabs-Eyes, because these ate  
said to absorb all the Acidity of Vinegar. If this were trnei  
those acute Particles above described must, of Necessity,  
assume other Figures, either blunter, or more soft and flex-  
sole ones, with which they could not prick our Tongues, nor  
impress thatSensation on them which we call an acldTaste. For  
this Purpose I took several new Glasses, and in them put some  
Crabs-Eyes, first broken into small Fragments only, that I  
might not be incommoded by the Sand if pulverised; and I  
found that the oblong little Figures above-mentioned, that  
were sharp at hath ends like a Weaver's Shuttle, were all  
changed into others, which had an oblong quadrangular Base,  
from which'.they ascended pyramidioally, appearing like  
anguinus and polished Diamonds, represented *Fig.* P.  
Some few had a square Base, as in the *Ng.* Qj and a few  
others a Parallelogram, aS in *Pig.* R. These two last Figures  
I judged to have been formed by Accident, from a Defect of  
sufficient Matter so Compleat all **the** Sides. *Note, “* **-The**" Size of these Particles must not he compared with the  
" Siseof thebesore-mentioned faline Particles, contained  
“ in simple Vinegar; because thefe saline Particles were  
" drawn by the Help of a Microscope, which magnified  
" Vastly more than that which I had used in drawing the for-  
" mer, because it was impossible, by any other Means, to  
" discover their Frame." The Number of these saline Par-  
tides was vastly great, as amounting, according to my rude  
Calculation, to more than six thousand in the Compass of a  
small Drop, no bigger than two Grains of Barley; and what  
**I** chiefly wondered at, almost all these Particles were os **the**same Sire, which I had never observed' in other kinds of  
Salts. I also poured out the Vinegar which contained the  
Crabs-Eyes, while the Effervescence continued, and it sent  
forth Plenty of Bubbles; and in that Vinegar I found an in-  
finite Number of saline Particles, with quadrangular Bases,  
as before; but I could not perceive any Particles of that kind,  
**' os** which I said Vast Numbers were contained in the Vinegar  
before the Crabs-Eyes were put into it. The Effervescence  
being over, and the Bubbling almost ceased, I took into my  
Mouth shout a third Part of a Thimble-full of this Vinegar,  
that I might know how it tasted ; and I could perceive no  
Acidity, but a Sort of bitterish and Very nauseous Taste. I  
also put some Pieces of white Chalk into Vinegar, and found  
that they raised as great an Effervescence and Bubbling as **the**Crabs-Eyes would have done, and that the acute Parts of **the**Vinegar produced alike Number of saline Particles, and . that

. the acid Taste in like Manner Vanished aS before.

Leewenhoek observes, that Vinegar kills the Animalcula,  
which are discovered by Microscopes in the white Matter which  
adheres to the Teeth and Gums, as will he farther taken Notice  
of under the Article **ANIMALCULA.**

1 next took Wine under my Consideration, sand entered upon  
a fresh Examen of my own, which was Very good and plea-  
sant, and in France, for its sine Taste, is called by a new  
Name, *Vin de Dafnoifelle,'* it comes from Orleans, and is  
brought down the River Loire to Nantes. I discovered a Vast  
Number of Very fine and exquisitely shaped Figures in is, and  
Multitudes of the utmost Minuteness, which, on the present

' Occasion, -1 will call the Salt of Wine.. Many os these Fi-  
gures agreed with the saline Particles I before proved to. he  
in Vinegar, in some of them you might not only see a  
Cavity, but they weresso increased in Bulk, because I had  
. left the Wine to stand four and twenty Hours open in my

Parlour, as to become equal to the bulky Particles of  
Vinegar, before described; as you see in *Fig.* S. I Oh-  
served also some blunt Figures, - whese Extremities were  
round, without sharp Tops, aS in *Fig.* T; and there were  
several, which were blunt at one ‘End, and sharp at the other,  
.Fig.. V. Some differed from thefe last only in that they had  
one End flat, and not round; *Pig.* W. A sew of them were  
oblong, and looked like an oblong Rectangle; *Fig.* X. Many  
had their two longest Sides somewhat rounded, and the two  
shortest strait, almost in the Form of a Beer-Barrel; *Fig.* Y.  
Some few represented a perfect Square, others were twice as  
long as broad, bnt about the shorter Sides terminated acute-  
wife, with a remarkable Swelling in the Middle, answering  
the Form of a flat-bottomed Boat with a flat Head and Stem,  
as in Fig.. Z. As all these Figures, in infinite Numbers,  
were pronsscuochy lwinuning about in one small Drop of

Wine, It was extremely pleasing to View so great a Variety  
of such elegant Figures perpetually traversing one among  
another, and wandering about the Wine. I did not doubt  
bnt the saline Figures, above taken notice of, might im-  
print an acid Savour on our Tongues, were they not inve-  
loped and depressed by Vast Quantities of sweet Particles,  
which are contained in this and all other Sorts of Wine, and  
cannot he separated from them without raising in them a Very  
strong Fermentation. For as soon as Wines begin the least to  
ferment, than Sweetness Vanishes in part, and as the Fer-  
mentation proceeds, goes off gradually, till at last all their  
sweet and grateful Savour concentrates, and degenerates into  
the most acid of all Tastes, and for Wine gives us Vinegar.  
This Phaenomenon confirms me in the Opinion that the  
grateful Savour of Wine proceeds from such Parte as are  
neither too sweet nor too acid, where not one prevails above  
another, by which means the Wine obtaining a just Tem-  
perature, and a certain Harmony of Parts, affects out  
Tongue and Palate with such a Savour aS we call grateful.  
And this we are taught by daily Experience, when we mix  
different things, which used alone would be too sweet, or sat,  
or acid. One instance shall serve for many. The sharpest  
Vinegar helled over the Fire with Butter till they are well  
mixed makes 4 med grateful Sauce. . As to the Sweetness of  
Sugar, which is itself a Salt, it consists in this: That though  
the Particles of Sugar are acute and angulous, yet they are .  
easily resolved when immersed in Water, especially in a  
warm Place, such as the Month, where they are not only re-  
solved in a Moment, and united with the Saliva, but acquire  
such a Flexibility aS to give way to all other Particles on the  
Tongue; by which their Complaisance they impart to us the  
Sense of Sweetness. These things being supposed, and infer-  
red from Experiments, it will he Very easy to account for  
the different Savours os Wines, even though they are pro-  
duced by the same Vine. For not only the Grapes growing .  
in the mountainous Part of the Upper Palatinate, which de-  
clines towards the South, might taste sweeter, because more  
exposed to the Sunis Heat, but eVen the acute, or sharp-  
pointed Parts of Wine, might acquire a still greater Rigi-  
dity, and so become more inflexible. 'We see also the Rear  
son whyWine left for some time to stand open in the Air loses  
its grateful Savour, namely, because many os its saline Par-  
ticles run together into one Mass, or become, one saline Part;  
and this Diminution of the saline Particles, which is made by  
the Concretion of many-small "into a few great ones, cannot  
affect our Tongue and Palate with so grateful a Sensation, as  
would arise from the Titillation of more hut minuter Par-  
tides.

The DISTILLATIoN of VINEGAR into an Actio WATER, ah  
**ACID SPIRIT, an EXTRACT, a SARA, and OIL, and  
FIX'D Salt. \*** ' S’ ” '

Fill a tall narrow Glass-Cucurbit three fourths sail with old

Vinegar prepared from the best Wine, and with a mode-  
rate Fire draw off one .fourth.. \_ This then will be light,  
and limpid, will he. dispersed all oyer the Alembic in the,  
. form of dewy Drops, and will rundown like Water, nor  
in Striae like Spirits; the Taste of it will he somewhat acid,  
and if it is thrown uponiFlame it will extinguish it like  
.Water. -If this Water is distilled again to one half In 4  
Clean Cucurbit, the Part, that comes off first consists chiefly  
of Water, and is of excellent Service where a very mild  
Acid is required. In this the Writings of all the Chymists  
have agreed. : Vigani, .however, hgni Iaken the liherty in  
assert, that the Liquor which .fust tishs [h this Uistilhut0n

... of-Vinegar Is inflammable, .and wist

. upon Fire. To determine therefore this Controversy, 7 I  
shall relate what, upon Examination, I have sound to he  
**the** Fact. I .took twenty Pints os Vinegar, which waa  
made in France, and thence brought here directly,. and  
which had not yet acquired the utmost Degree of Acidity,  
- and putting it as it was into a Very large Glass Retort, with  
a great deal of Patience, I distilled ut with a yeiy gentle \*  
Death upon this m my great Surprizoa Vapour  
the Receiver, which when it came to he once, formed othe  
Streaks, just such as appear in the Distillation os Wine I  
proceeded in the same gentle Manner, till these Striae were  
succeeded by some-dewy Vapours dispersed aheua Δ  
same Manner as happens in the Distillatiottns water and  
69? inunediately removed what came offfinL  
which had a Taste like common Spirit ofWine diluted with  
, φα yrnegar. ἐνι φα it wa, thrown upon , bright  
Flame, it burnt bke Spmt ofwine.r/when the fX  
\megar, however, was better than a Year oku  
iquirgthe ame *capipem* the Sucosi wi ώἐνἄκ  
ἐνι wbat omeoff firftwas net ^1βωωΒΗβtut a mere watery vapour of Vinegar. Hence I Ik -n ’  
" lte ΑῖᾶντιiSike intimately ώ

**Hsod»Aadof-.hcVmeSir. tUhence.theTvamfnX .**

Vinegarstill continues .vinous, but gradually grows sharper  
and sourer; that then all the first inflammable Spirits, are  
changed., and none but those which are acid remain ; that  
somewhat therefore truly inflammable is by this Means con-  
verted into Vinegar, which is not inflammable afterwards ;  
and that for these Reasons what the Chymists have asserted  
is true, though Vigaru’s Opininn must he allowed so like-  
wife, if understood of new Vinegar.

I then increased my Fine a. little, in order to distil the Re-  
mainder of the old Vinegar,which was three fourths of the  
whole; and kept it up in this Degree, till I had drawn off  
two thirds of the Residuum,. fo.that now there was only  
one Pint left in the Retort of four LInade use of at first.  
ThisIaquor then appeared inDrops likeDew,was of a much  
more acidTaste than the sooner ,not of a disagreeable Smell,  
but somewhat ernpyreumatical. It was heavier too than  
the former ; for bring mixed with it, it subsided to the het-  
tom. This may properly he called distilled Vinegar. -

Let the remaining fourth Part he distilled with a still stronger  
Fire out of a Glass Retort into a Recinver not too cold,  
a very limpid Liquor will come over exceedingly .acid, and  
fo penetrating that it will insinuate itself through the Lute ;  
but it will scarcely rise, unless it is urged with a great De-  
gree of Fire, and then will heat the Receiver so much, as  
to endanger its breaking. EVen here, however, there is  
no Appearance of Streaks; and if this Liquor is thrown  
upon Fire, it extinguishes it. Proceed then till there re-  
mains only a twentieth, or less, of theVinegar first made use  
of. This last Liquor will- have an empyreurnatieal Smell.

This being done, there will he lest at. the hettom of the Re-  
tort, a'black, thick, add, oily Liquor, smelling Very  
. strong of an Empyreums, winch being urged with the-last

Degree of Fine, will yield an exceeding acid, heavy, ern-  
pyreurnatical,. foetid Liquor, and an Oil of a surprisingly  
foetid Smell, whilst there remains a black, 'add Caput  
Mortuum in the Retort. This being burnt in the Open  
lire, yields a- bright Flame, and produces some brown  
X. Faeces,. in which .there is a large Quantity of an acrid  
alcaleseent Salt. .

Hence then it appears, that there does not remain the least  
’ Appearance of Alcohol in so large a Quantity of Vinegar,  
that there is nothing here of the Nature of Tartar, but  
that the whole, a very small Part only excepted, is become  
volatile; and that Vinegar Is absolutely of a different Na-  
Hire from any other Acid winch we are at present acquaint-  
'" ed with.

, These Things I-have gohe through in this Manner, in order  
to give am Insight into the Nature of Vinegar from its  
Composition and Resolution. This Operation, however,  
would he both roo tedious and.chargeable for preparing

: . distilled Vinegar for common chymical Uses. For this  
7 Purpose therefore,, we take *λ* Copper Still, well tinned  
within, and fill it three Paris full os Vinegars, and then  
ς “ fixing on a Glass Head, proper for this Use, we distil with

**. a** Worm, by a Fire sufficient *tor* make the Vinegar hail.  
**- The** first fourth Part that comes off, we collect by itself,  
and afterwards draw off two Quarters more, : which *we*/ keep under the Tide of distilled Vinegar for chymical  
"Operations; 'The other fourth that remains in the Still

may he saved too, till by repeated Distillations a-fufficient  
y ' Quantity.os' It is got together, and then it will serve *for*preparing the strongest distilled'Vinegar sor some particular  
Uses. I have always, however, found it tainted by cor-  
roding the Copper,. for: which. Reason it is dangerous to .  
.... presenhe in internally. - , ...or- ...... :

eeim th. j **ss.hei οὐρ.ς. REMARKSso,.:, , '**

’ ’This'distssied Vi.negarin a saline, oily Acid, possessing **the**^same Virtues which, are, shove ascribed to Vinegar ; but more  
penetrating, active and Volatile, because freed from all terre- -  
strialfinpurities.’TheSapa that remains in the Retort aft» seven .  
Eights is drawn off by Distillation, is a most noble antiseptic Me- -  
'ditane, used el these mternally or externally, but on account of -  
-its horrible Taste; itniust he taken mixed with a great deal of .  
“Sugar or Honey, as Angelas Sala has observed. This Sapa is a  
true detergent acid Soap; winch becomes continually more effi-  
cacious in Proportion at It grows .thicker; sor by this Means  
it gradually grows of ainore oily Nature. By this Experiment,  
- we learn further hew wonderfully the distinct Elements of Bodies  
\* - may Tie concealed among each other 5. sor. who could believe  
- that afterWine was grown sine, itoould contain so much of an  
oily Matter, as we see it deposites in the making of Vinegar ?  
Who, from Vinegar so thin and sharpjocould expect a black,  
\* oily, thick, inflammable .Sapa ? Or who could possibly imagine,  
- that in the most-limpid distilled Vinegar,.which in Thinness Vies  
. with Water, thereshould he an invisible pinguious Oil, and that  
too in great Quanti ty, in the mean time, some of the most emi-  
nent Artists have observed, that if the’Adid of distilled Vinegar  
:is combined with Powder of Lead in such a Manner, as to pro-  
'duce the Sugar Uf Lead, it then coale sees-with that into a pin-"  
t.. ...

gulons, tenacious kind of sweet Sugar; and that if this is then  
gently dried, and distilled in a Retort, it yields an oily I inuor,  
which burns like Spirit *os sstl*me. So rhar hence it fimms as if the  
latent sulphureous Pars, which was concealed in the thin Vine-  
gar, discovers is self by this Operation, and is, aS it were, rege-  
nerated, Unless you would rather imagine, that a combustible -  
Oil is separated from the soft metalline Body of the Lead hy rhe  
And of the Vinegar, and consequently that the insin mrnable Li.  
quor drawn off owes its Origin intirely to the Meted This,  
however, I confess, does not seem probable, because the lead  
when it is corroded by the acid Spirit of Nitre, though it pro-  
duces a rough sweetish Vitriol in Distillation, does not, that **I**know of, yield such an inflammable Liquid, as it does when it is  
horroded byVinegar. And then, besides, upon the Mixture os the  
purest Spirit of Wine with the most thoroughly calcined Salt  
of Tartar, there is regenerated an inflammable Liquor, aS evi-  
dently appears in the Preparation of regenerated Tartar.. No-  
thing, however, here, is more surprising, than that the *exceed-  
ing* acid Faeces of Vinegar should afford an alcaline Salt. Boer-  
*haaue Cheta. Proeefs* 51.,

The RECTIFICATION of DISTILLED VINEGAR.

Take any Quantity of the distilled Vinegar of the preceding  
Process, and with a gentie Fire, in a tall Cucurbit, draw  
off half the Quantity. The half that comes off keep by  
- itself; aS do likewise ’that which remains in the Cucurbit;

That which rises will be light, limpid, watery, and less  
. acid,, whilst that which remains after Distillation will he

an exceeding strong; sharp, distilled Vinegar; and heavier  
than the former.

**’\* REMARKS. .'**

The Rectification therefore of Wine and Vinegar are  
effected in a quite different Manner. In the former, the first  
Volatile Part is the best; in the latter, that which is more fixed,  
and is left behind. - Hence Vinegar, by boiling, is rendered  
stronger and more sharp; Wine, by bring boiled, becomes  
weak, thick, turbid, disagreeable, **and** vapid. And for this  
Reason, if Flesh, Cartilages, Bones, and Skins, - are helled a  
great while in Vinegar, they are, bythe Action of tire Acid of  
the Vinegar, which is agitated; and grows stronger during the  
boiling, reduced at last to a thick liquid Matter. This strong  
distilled Vinegar is useful, in particular, in all Solutioris of Me-  
. tais; for these require a pretty strong Acid. *Boerh. Proeefs* 52;

**.The** DISTILLATION of'VINECAR, as directed by **the**College, is thus performed:

Take enough of the\* best Vinegar to fill two thirds of **a**Retort, which place in . warm Ashes ; and distil first with  
.. /..a mederate Heat, to. bring over the Phlegm; then increase

l the.Fire by Degrees,.so as .to finish the Operation with **a**

I ...ss-strongHeaL / .i. .‘

t The RECTIFICATION of DISTILLEIJ VINEGAR hy the Help  
. si so. of VERDIGREASE.

if Plates of the best red Copper are corroded by the Spirit  
, that exhales from pressed Grapes,, after the Must is sepa-  
rated, and they are laid together fill they grow warm, and  
emit 4 spirituous Vapour, there will he an Efflorescence  
generated upon their Surfaces, of a bluish-green Colour!

: :iThis is scraped off and saved, and then the Plates are again  
...heated in the same Manner, by winch Means they afford  
more of the same Efflorescence; ....

This than heing collected together is called Verdigrease;  
which therefore in Copper corroded by this Spirit, and com-  
hined with it. And this cannot he successfully prepared  
in any Places, where there are not these Faeces of Must  
possessing such a sharp and penetrating Power. This Spirit  
therefore is not properly an acetose Spirit, but one rather  
of a middle Nature, betwixt *n* true Acid and a ferment;-  
ed Vinous one. 2. Take some inf this Verdigrease, that

. has an agreeable Colour quite through its whole Mass,,  
pound it, put it into a clean Glass Cucurbit, and pour  
upon it such a Quantity of rectified distilled Vinegar aS is

, sufficient to Cover it to the Height of ten inches. Set **the**- Cucurbit in a pretty great Heat, *viz.* erne about a hundred  
and fifty Degrees ; and with aStick keep the Mixture fret  
quentiy stinting, arid in a short Time the Spirit of Vinegar  
will he tinged of a beautiful deep green Colour. Let it  
stand to settle, and then decant the clean Liquor Very  
gentiy, without, pouring off any of the Bottom ; and upon  
the Residuum pour some more distilled Vinegar, and digest  
it ; . stir it, and let it stand quiet, and decant as before.  
Repeat this Operanon as long aS the Vinegar continues to

' he tinged; and then all these coloured Liquors, mixed lo-  
gether, are called a Tincture of Copper. When the  
Verdbyease will give out a Tincture no longer, there will  
he a great Quantity os it still lest undiflolved.

**Let the** tinctured Liquors he filtered through Paper, and **then**he distilled in a clean Cucurbit, with a Heat of two hnh-  
dred Degrees, till a Pellicle begins to he formed on **the**

Very green Liquor that remains. The Fluid then that  
comes off will he limpid like Water, aqueous, and but  
little acid. Let the inspissated Liquor he set by in a Cel-  
lar, and it will, in a short Time, shoot into most beauti-  
ful, green, pellucid Crystals, which will fasten particularly  
to the Sides of the Glass, and incrustate is over. Pour off  
the remaining Liquor, aS nicely aS you can, from the cry-  
stalline Crust, which must he dried aS gently as possible in  
a het Air, and carefully separated from the Glass ; and so  
kept, that it may not he affected with too great a Degree  
of Heat, for fear of its becoming opakei Let the decanted  
Liquor he again inspissated to a Pellicle, and then formed  
into the same Crystals, which must he treated with the  
same Caution as the former. And thus yon must proceed,  
till by this Means all the Copper that was Contained in the  
Verdigrease is reduced tothese pure Crystals of Verdigrease,  
winch in the Shops go commonly by the Name of distilled  
Verdigrease. If this is reduced to Powder, it gives a most  
beautiful Figment. If it is sprinkled upon a foal Ulcer,.  
it excites Pain, forms an escar,- and inns dries up the  
Mouth of the Ulcer; whilst at the same time an Inflam-  
mation is excited underneath, which separates the Crust,  
by which Means the worst kind of Ulcers are sometimes  
happily cured; for it is os the seme Nature as the Caustics  
made with Merciiry and Silver!

When you have got a sufficient Quantity of such Crystals,  
put them in a Glass Retort, and distil them with a Fine  
gradually increased, and you will have first a small Quan-  
tity of a watery Liquor, which must he kept by itself, or  
thrown away. When this is drawn off, there will suc-  
ceed an acid, pinguious Liquor, which will run down in  
Streaks, is considerably heavy, and is the most saturated  
with an Acid os all the Liquors that can, by any Art what-  
eVer, be prepared from Vinegar. Basil Valentine therefore  
recommends this for the Solution of Pearls, in his Menu-  
*ductio Medicinae,* and Zwelser being acquainted with this,  
boasted of. his *Acttum Esurinunt,* pretending to he Master  
of the Alcahest, for which he was sharply handled by Ta-  
chenius. Whan the Operation is over, there remains the  
Powder of .the corroded Copper, which may he again dis-  
solved in distilled Vinegar, and he formed into greed Cry-  
stals aS hefore. . .su . .

**.. .... .j / RE MARKS. . .. *’ -f . sc***

This fermented Acid is the strongest that can be procured  
from Vegetables, and consequentiy pofleffes the most-excellent  
Virtues, both chymical and medicinal; -that can he expected  
‘from such an Acid. Asit is efficacious therefore in restoring an  
Appetite, where it is destroyed by a Putrefaction of the Bile,  
sor other Humours, hence it has obtained the Name of *Acetum  
Esurinum,* Hungry -Vinegar. But in those Cases where **the**Appetite is palled by a predominant Acid, which the Physicians  
are sensible is often the Case, there this only increases the Cause,  
and so proves prejudicial. This Acid, however, by being mixed  
with absorbent or alcasious Substances, will lose its acid Virtues  
in the same Manner aS all others do; and therefore Zwelser,  
who asserts the contrary, in this Case must not he regarded, in  
order now to understand the proper Effect of this Operation,  
we must observe, that distilled Vinegar consists of Water, and  
an Acid. This Acid is attracted out of the Vinegar by the  
Copper, whilst the Water is unaffected by it, and left by itself;  
The Acid then adheres to the Copper, and subsists with It in the  
Form of a solid Body ; and scarcely at all altered, till by **the**Force of the Ftre it is separated from It in its former Nature,  
- and then it leaves the Copper reduced to Powder, but without  
. any Alteration. This now, as sar as I have been able to inform  
. myself, cannot be effected by any otherhnt Copper; *for* Gold,  
. Silver, Mercury, and Tin, are not dissolved by it ; and though  
Iton and Lead are,, yet they change it in such a Manner,' that **a**.pure aoetose Acid cannot-he procured-from .them again, but  
’ something of a Very different Nature. Hence then we see whar  
. a prodigious Difference there is in Solutions; the Acid of Vine-  
gar is attracted into Copper, and is thence procured again by  
Distillation, Very little altered, being only freed from its watery  
\ Part; Lead attracts the same Acid into it, and rejects the Wa-  
ter; and yet,, if you endeavour to separate it by Distillation,  
yon have an oily pinguious Liquor, *of* a quite different Nature  
. from that os Vinegar; and if Iron is dissolved by the same Acid,  
~ it yields nothingagain but Water, and surprisingly altered. And  
aS sor other Absorbents, or fixed or Volatile Alcaliss, if it is  
i. combined with any os them, it never returns back again a pure  
Acid s .so that, perhaps. Copper alone, or Verdigrease made  
' from it," is theonly Bodywe are acquainted with that is disposed  
to sharpen and exalt the pure Acid of Vinegar.

This is called by some of the Chymists, *Acetosu Esurinai*and by some Dispensatory Writers, *Spiritus Aceti.*

The Antients, as well as Moderns; had various Preparations  
of Vinegar, calculated for different Purposes; of these I shall  
mention some, for to describe them all would take a Volume.

The first is *tdaeDxabne*; of which Dioseorides gyves the foi-  
**. lowing** Account, *l. v. c.* 23. ' . ἄκ ἄκ

**- ᾶ . OXALME.**

Vinegar impregnated with Salt, *or* acid Brine, which they  
call *Oxalme,* used as a Fomentation, Cures spreading and putrid  
Ulcers, and the Bite of Dogs and Venomous Creatures. It stops  
the Bleeding that follows upon Lithotomy, is immediately aster  
the Operation it is poured hot into theWound; and is good for a  
Prolapsus Ain, Dysenteries, attended with Corrosions os **the**Intestines. It is given in Clysters, but it must immediately he  
followed with one os Milk. It also cleanses scald and scabby  
Heads, that are washed therewith.

**THYMoxALME.**

The Antients prescribed the *Thyrnoxalme* for Weakness of **the**Stomach, for the Gout, and for Inflations. The Dose is aheut  
a Quarter of a Pins, diluted with warm Water. It purges  
black and gross Humours. It is made after the following Manner:

Take an Acetabulum (two Ounces) os bruised Thyme, as *s*much Salt; of coarse Meal, Rue, Pennyroyal, each a lit-  
tie; put them all into a Pot, and Pour upon them , three  
Sextarii (Pints) of Water, and as many Cyathi (four  
Ounces and a half) of Vinegar; cover the rot with a  
I .then Cloth, and let it stand in the Air. I. *Dioseorides, l.* v.  
*c.* 24. ' - *. ..' - A*

**Ac ET UM AMINUM is White-wine Vinegar.** *Ridandus.  
Johnsons si si.*

**The** three following are from BATES.

**/ACETUM LETHARGIRITES.** *Vinegar of Litharges*

Take Litharge of Gold powdered four Ounces,' ξ ζ; “  
Of the best Vinegar half a Pint; 1 V.J

Digest sor three Days, often shaking the Vestel; then *fil-  
trate it. . "si su* i - στὴ

It is designed only, as a Wash for a red Face, and to **cure**Pimples. ‘ - Ψ X . ' .4.

**ACETUMMELLIs.** *VinegarosiNoney. fr*

Take Honey a Pound, of the best Vinegar three Pints ;- distil  
in a Sand-Heat, and rectify.' -'sc...

It is laid to dissolve Stones, without preVions Calcination.

**ACETUM PESTILENTIAL^.** *Pestilential Vinegar.*

Take of the Roots os Angelica and Zedoary, of each an  
' Ounce, Juniper-berries two Ounces, Rue three Handfuis,  
the best Vinegar three Pints ; set them macerate together,  
and strain them. . . . - 'Ἀ'

Bates recommends it as .a Suffitus, dr Gargarisin j in. **Tipte**of pestilential Infection. ’ ’ . Ἀ si si. .. - *'scr-y*

*AcETva RoskcBDui. sVinegar.of Roscs.sz.:r*st. ‘ ... . . { ἰ . so'

Take of red Roses clipped from their white Heels ope Pound,  
the best Vinegar one Gallon , less them’ stand to infuse in  
. the Sun, put up in a well closed Vestel, forty Days;

then strain off the Liquor. *' ss\_ - si 's si si ‘. 'rsi*

This is sooner made by heiling the. Ingredients together in **a**Bath-Heat for a few Hours. *Pharmacopoeia Ndinburgensisu*

The Vinegar *of* Roses'is seldom used hin ju Embrocations for  
**the** Head or Temples, in some kinds *sis* the. Head-ach,- **where**it frequently does great Service. ^Jnceyv...' .

l It might likewise’be usefully addessto j ulaps, Draughts, or  
the like, in InalignantFeyessa Whein corded Aeids are required.  
*.Shows, Notes.* δ ί -y ncein *Ztcr-’i. .- so*

‘ ἔ **s ACETUM RUTAOEiUM..;: hy -**

Infuse the Leaves of Rne 2nd Scordilim, -that\* is,'Water  
Germander, picked'from\* thei thick Sulks, each three  
. - Handfuls;' Juniper-herries and:Angelica Roots,, each-two

Ounces; zedoary and SeVile Orange-peels; **eachimqe**. (Ounce, in the best Vinegar eight Fmhe: Let them diged  
v for a Month, and then pressi the Vinegar from the ingre-  
dients ; which keep forDsei Ἀ;r 'Y "*' si i* ᾶ καὶ sir

- This is not prescribed, or kept imthe.fihepSi but is so easily  
made by any private Family, and is so good a Medicine so pro-  
. cure Sweat, upon any 'Threatnings of a Peyes, or upon -a Sup.  
- seis, that it is Very well .worth any chess maxing, and keeping  
= in case of Necessity. It may he given from half a Spoonful, m  
r two or three Spoonfuls, in any convenient warmLioUOr. . And  
‘ if the Patient is kept., warm with Cloths, in cannot Tail of  
' raising a Sweat; and it is the best Succedaneum to Treacle-  
water in the World,, **where** that cannot he had sor **a** sudden  
Occasion. *.Quincy:* ςις \_ so. '. ν:~ .

**ss In** the same Manner a Vinegar is made wish Elder, men-  
tioned in the Edinburgh Pharmacopoeia, under the Title of  
*- Acetum SambuAnum,* winch partakes os the Virtue os the Fjthey  
**' AC ET UM SCILLITICUM,** *Vinegar of Squills, As* thus prepared  
- , according to *Diosc errs des. ' ..*

- Take white Squish; and having clearijed them, cut them  
. - mm Slices, **and** shing-them on **a** Lins, -so **aS not** to touch

.- 'one another, and let them hang in the Shade to dry forty  
Days. Take of these a Pound (the Pound was about ten  
Ounces) and infuse them in six Quarts of goed Vinegar;and  
let them fend macerating in the Sun seven Days in a Vef-  
sol well stopped. Then take out the Squills, squeeze them ,

- ’ and throw them away, hist strain off the Vinegar into a  
Pon and set it aside for Use. Some put a Pound of **the**Squills into five Pints of Vinegar. Others infuse the same  
Quantity, as foon as they have cleaned the Squills, without  
drying them, and let them macerate for six Months , and  
this Sort is of a more 'molding Nature.

- Vinegar of Squills is good to consolidate the too lax and humid  
Gums, and fasten loose Teeth. It is excellent to heal putrid  
Ulcers in the Mouth, and for an offensive Breath. Drinking  
of it hardens the Throat and Jaws, and make them callosis, it  
helps the Voice, and renders it Hear and sonorous. It is admi-  
nistered to such as labour under Infirmities of the Stomach, have  
weak Digestions, to epileptical, vertiginous, melancholy, and  
mad People, It is given allo in hysteric Fits, in Disorders of  
the Spleen, and the Sciatica. It wonderfully clears and revives  
infirm Persons, renders the Body found, and gives a good Co-  
lour. It quickens the Sight, and, dropped or poured into the  
Ears, helps Thickness of Hearing. In short, it is goed for  
every Thing except internal Exulcerations, Pains of the Head,  
and Distempers of the Nerves.

It is to he drank every Day fasting, beginning with a small  
Quantity, which by Degrees may he increased to a Cyathus (an  
Ounce and a half). Some prefcrihe twice as much or more:

The *Acetum Scilliticum,* or Vinegar of Squills, as directsd by  
**our** College, is something different from this of Diofcorides.

**ACETUM SCILLITICUM,** *Vinecar of Squills.*

Take that Part of the Squills between the outer Leaves arid  
the Core, cut it into sinall Pieces, which cleanse and ex-  
pofe to Heat for thirty Days ; and put one Pound ofit in-  
to a Bottle with sin Pints of the best Vinegar; and in the  
Summer Time let the Vessel, clofe stopped, he placed in the  
Sun for thirty Days; then open it, and strain it out for Use.

This is sometimes used of itself, but chiefly made into Oxy-  
inel Scilliticum.

Vinegar of Squills is said to he the Invention of Pythagoras,  
**or** that he learned the Use of it from Epimenides, , her began ar  
the fiftieth Year of his Age to take feme of this Vinegar: ,every  
Day, and to this it was attributed that he lived in permit stealth  
to the Age of a hundred and seventeen. It is esteemed to pre-  
serve the Hearing, and open the auditory Passage, used by Way  
of Gargarium. The auditory Passage is the fame as whet has  
been called, by the Mote, the Tuba Eustachiana, but it was .  
first discovered by Alcmaeon, a Disciple of Pythagoras. *Galen.  
Pliny. Sckuhcius.*

**AC** ε **τ UM Tn Ε RI Ac A I. E,** *Treacle Vinegar.*

Take of the Treacle of Andromactius. or that of the College  
of Edinburgh one Pound, heft Vinegar two Quarts, digest  
them together, with a gentle Heat, jor three Days, and  
afterwards strain off the Liquor. *Pharmacspaia Edinbur-  
gmfis.*

This promises very fish; for being art admirable medicated  
Vinegar; and in many Cases preferable to Treacle-water; as  
particularly where a sirdden Sweat is required, a venomous Bite,  
or any Infection received, *etc.* On which Account something  
like it richly deserves a Place in all publick Dispensatories, and  
consequently in the Shops. *ShavIs Netes.*

To thole I shall add the Oxymels, that the Preparations of  
Vinegar may not he separated.

*Oxyrnel* **ascDIOSCORIDEs.**

Oxymel is made after the following Manner: . \_

Take two Pints and a half Of Vinegar, One Pint of Sea-  
water,' ten Pints of Honey, and sive Pints of common  
Water ; mix them together and fet the Liquor over the  
Fire, and let it boil up ten Times; then take it off,- and,  
when it is cool, pout it into a Vessel.

Oxyrnel is goed to exper gross Humours, and help such as **ate**troubled with the Sciatica, Gout, or Epilepsy. It is a Remedy  
for the Bite of that Viper, called heps, and for the Poston of the  
Peplus [μηκω'νειον] and white Chamaeleon [ιξιαν] arid, used as a  
Gargaristatis good for a **Quinsy.**

Very different from this is our Oxyrnel as dirolled by the Col-  
lege under the Name of

**OxYMEL SIMPLEX,** *staple Oxymel.*

Take two Pounds of the best Honey, of Whito-wine Vine-  
gar one Pint, and hell them over a gentle Heat into **the**Consistence of a thin Syrup.

**OxYMEL coMyosITUM,** *compound Oxymel.*

Take of the Roots of Fennel, Srnallage, Patstey, Butchers  
Broom, and AspaIagut, each twU Ounces, of the Seeds of

Smallage, ParCey,FenneL and Atmiseeds, each one Onceosi  
Aster the Roots are washed and fiiced, and the Seeds bruised'  
Inside them together in ten Pints of Water and one Pint and  
a half of Vinegar. The Day following boil them by a mo-  
derate Fire, to the Consumption of a third parr of rne Ej.  
quor, strain and clarify the Remainder, and rnia with it  
three Pounds of Honey, and over a gentle Heat, with coni

- timed Scumming, boil it to the Consistence of a thin Syrup,  
S. A. *Landen Dispensatory.*

**. OXYMEL PECTORALE,** *Pectoral OxymA*

Take of the Roots of Elicarnpane and Florentine Orrien, ea ch  
half an Ounce; slice, bruise, and boil them io a Quart of  
Spring-water, till it comes to a Pint and a half; to the  
strained Liquor add of unprepared Gum Ammoniac on  
.Ounce dissolved in four Ounces of Vinegar; add also sour  
Ounces of Honey 5 then hell them together, sourn the Mat-  
ter and strain in *Edinburgh Dispensatory.*

This promises to he a very effectual Medicine, and seems ood  
Of the best that was ever prescribed in this Form; it is some-  
whet fiaufedris indeed, bur it will doubtless; cause a large Ex-  
pectoration, and cannot but he serviceable in asthmatic and phthi-  
sical. Cares. ’ .

**OXYMEL PECTORALE,** *Peslcrol Oxymel. '*

Take of the Roots of Elicarnpine, Asarahacca, and Gin-  
ger, each six Ounces ; or Florentine On-ice, Galangal  
Roots fiiced, and white Pepper a little bruised, each three  
Ounces, Spring-water, ten Pints, White-wine Vinegar, six  
Pints ; steep them together twenty-four Hours, then hell  
to ten Pints; strain and, add Honey six Pounds; then  
boil and clarify ; to which add of the Extract of Liquorice  
half a Pound, and make into a Syrup.

This is an efficacious Detergent, and greatly promotes Ex-  
pectination ; for which Purpose it is much given in all asthma-  
tic Cafes, and where the Breast is dogged with viscid Humours,  
two Or three Spoonfuls are ordered to he taken at any Time.  
*Pharmacopoeia Pauperisms.*

**OxyMEL SCILLITICUM,** *Oxymel of Squills.*

Take of Honey three Pounds, and of Vinegar of Squills a  
Quart; hell them together to a Synip; observing to fcum  
. . it in the Operation. *Linden* and *Edinburgh Dispensatory.*

It is faid. Acetum Scilliticum suffers no Obstructions to Se  
generated in the Body, dissolves all Beginning Coagulations,  
keeps the Body open, and provokfes Urine.

Oxymel of Squills is a gentle Vomit, if taken in a largo  
Quantity, and inclines to a Naufea in a small one. Add to  
this, that it is somewhat nauseous to most Palates, and for  
these Reasons it would .be somewhat difficult to introduce  
It into Practice as a Preservative against Distempers. But  
as a Remedy it is deservedly in great Esteem, and much used.  
There is a pretty and commodious Way of giving it loaded with  
some agreeable compound Water, and Syrup, which takes off  
the disagreeable Taste in some Degree, and prevents it from  
causing Estons to vomit. In Dropsies and Asthmas, the soli  
lowing Mixture is frequently given at Bed-time, and is of great  
Efficacy, as it relieves the Shortness Of Breath, and is very  
diuretic.

.Take of strong Cinnamori-whinr, Synsp of Balsam, each  
half an Ounce ; Oryinel of Squills two or three Drams,  
mix them.

Many other Forms of this Kind are contrived to suit parti-  
cular Cases either to he taken at once, or by Spoonfuls osten rd.  
peated. SeeOxYMBL. SeeSotIILLA. SeeApoMELt.

Chambers makes ailittle Mistake, when he says, the College  
.retains the Acetum Theriacalc Norimhergense, for.upon the last  
Regulation, which happened many Years heforeMr, Chambers  
wrote his Book, it was lefrouI.

The Chemists talk much of their philosophical Vinegar; but  
have nut been so obliging as to inform . us what they mean,  
It is prohably either Mercury itself, or some mercurial Water. -  
, The Account Lagneus gives of it is thus: *Acetum Philesepbortem  
esc Denigrdtia nestrat qua est Lignum Diysclutimis verae.* This  
Definition I give as a Specimen, but it will neither admit of  
.being translated.or understood. A Solution of Butter of  
Antimony in .Water is sometimes called Acetum Philostr,  
phorum. . .

ACETUM RADICATUM. , Boerhaave thinks the Tar-  
tarus Regeneratus is the *Acetum Radicaturi* of the bid Chemists.  
See **TARTARUS REGENERATus,**

**ACHAHL Alum** Water. *Johnsen.*

ACHAMELECH. The same as Acamecti.

ACHAOVAN, **brACHAOvA..**

. \_ Some take an Herb, very like Chamomile, which they call  
Athan., or *Ucborx,* and sometimes *Alacuan,* for *Achaava.* This  
Herb grows very plentifully in Egypt, and especially at Cayro,  
**in a Place** called Shechic. It is not quite so high aS Chamomile,

stint veryinnoh resembles it in Flowers, and Pevetsew in Leaves.  
Troin. Alpinus has osten gathered is green, and found it of an ch-  
Inure, het not Very agreeable Taste and Smell. Others perhaps,  
on the Authority of AVisene, who said, that *Achaava* was of an  
.acid Taste and Smell, have mistaken it for another white aro-  
mafic Plant, almost as acrid as Origanum. Hence it appears,  
that AVisena was not quite wrong, when he told us, that the  
Flowers of *Aebaova* came nearest those of Marum in Smell and  
Taste, meaning the above-mentioned Plant of an acrid Taste  
and Smell. - But whether it he the true Marum or not, I can-  
not determine. *Prosser Alpinus de Medicina AEgsotiorum.*

ACHARISTON. Αχἀριστσν. From *a.* Negative, and χἀρκ.  
Thanks, because esteemed too precious to he given away. It is  
an Epithet of many Antidotes and Collyria described by the  
antient medicinal Writers. There are two Collyria under this  
Tide mentioned by .ietius, both of the ashingent Kind, arid  
called ἐρικηῤοτ, from ὲείκη, *or* Heath, which is one of its In-  
gradients. Galen gives the Forms of two as follows, which  
are likewise astringent. The first is the dry *Acharoston cfi* Philo-  
xenus, which was thus prepared.

Take of Cadmia ten Drams, of Chalcitis eight Drains,  
os Aloes two Oboli, of Verdigrease two Oboli, ten Grains  
of Pepper, and one Dram os the Flower of Roses. Beat  
them all together.

The other *Acharistm,* which the Egyptian Physicians used; in  
the. most obstinate Rheums, with good Success, especially on  
robust Constitutions, was the following. ,

Take of Cadmia sixteen Drams, of Acacia eight Drams,  
of Copper calcined and washed eight Drams, Of Opium,  
Berries os Erics, Myrrh, each four Drams, of Gum  
sixteen Grains j put them in Water, and use them with  
Woman's Milk; 7

Celsits describes another which he intitles,  
*Theodoti Collerium five Acharistum, viz.*

*e* Take of Castor, Indian Spikenard, each p‘. L of Lycinm,  
Juice of Poppies, each an equal Quantity, of Myrrh p. ii;  
of Saffron, Ceruss washed. Aloes, each.p; iii. os Cadmia  
botryitis washed. Calcined Brass, eachsp. Viih of Gum  
p. kviii. of the Juice of Acacia p. *xx.* of Antimony the  
same Quantity. Put them in Rain-water. )

Another *Acharoston* is ascribed to Antiochus, and described by  
*Marcellus, Lib.* 8. - : ; . - . - . . .’ ”

*. Achaiiflos* IS also the Name Of an Antidote described by Actins,  
Lib. I 3. Cap. I09; and also by Marcellus, whose Advice is,  
to aik the Fee os the Patient immediately aster the Remedy is  
administered j for many, says he, whose Cure has been quick,  
have behaved ungratefully, whence the Antidote took.its Name  
*Acharisius,* that is tossy. Thankless. Bur see the Receipt,

Take os Cassia, Myrrh, white and black Pepper, Castor,  
Galbanum, Styrax, Saffron, Costns, Opium, Spikenard,  
each an equal Weight, Honey a sufficient Quantity, The  
Dose is the Bigness os a Bean ; it is a Remedy for old Pu-  
rulencies in the Breast. Taken in Hydromel it cures the  
Cholic and Distempers of the Liver; hut in Oxymel is its  
proper Vehicle for Disorders of the Spleen. *Gorraus,  
Med. Dof. ,*

. ACHATES, an Agate, a precious Stone, which takes its  
Name from a River of Sicily, so called, where it was first  
found. It is various, not only in Colours, but in the Very Ima-  
ges of Things, which it represents, not done by the Hand of  
the Painter, but formed by Nature itself. For the Veins and  
Spots run in and out, and intermingle in such a Manner,  
that sometimes you see the Figure of a Dove, and then is is  
called *Phajsachates*; sometimes that of a Horn, whence it is  
named *Eerachates* ; sometimes a Tree appears, *or* perhaps two,  
or more, like a lithe Wood, which giVesit the Title of *Den.,  
drachates.* In others of these Stones you fee the Resemblances  
of Chariots, Rivers, several Sorts of Birds, and Cattie,, and  
Men among the rest. Pyrrhus, King of Epirus, had an Agate  
.Stone, in which were represented the.nine Muses, and Apollo  
holding his Harp, not the Work ofArt, bur drawn by Nature,  
the Spots, aS Pliny says, so happily said and interspersed, that  
each of the Nine had her proper Symbol. . India abounds with  
this Sort os *Agates:* They are of a black, dark, or Ash Colour,  
or like that of Coral, the Skin of an Hyena,’ Lion, or Pan-  
ther : This latter they call *Pardalitm,* the other *Leortim,* and  
*Lemiideiran.* These Colours, edurer rally the first named, are  
sometimes striped with Veins of White, and then the Stone is  
called *Leucachates,* sometimes with Blood-coloured ones, and  
then it is *Haimachates,* or with Red, like the Sarda or Corne-  
lian Stone, winch make it a *Sardachdtes.*

But though it is said to tahe its Name from a River of Sici-  
ly, it is found in many other Countries, aS Pliny remarks. It  
. still retains its old Name, changing only one Letter.

Of this Stone, especially that Sort called *Leemiion,* is made  
the Plaister named Diachaton, which heals the Bites of Venomous

Creatures, diseuffes hard Tumours, and Strumae 5 find maturates,  
suppurates, and breaks an Abscess. See it described *Artius, lib.*15. *Gorraus, Dof. Med.* Held in the Mouth, it quenches Thirst  
in Fevers. *Dale.*

**ACHATES.**

.frsuler, Ossie. Worm 96. Met. Pin. 2OP. Boet. 245. Charlt.  
Foss. 54. De Laet.79. Schw. 357- Aldrov. Muf. Metall.  
9O4. Calc. Mus. 247. Geoff. Praelecti 7S. *Lapis Jujsu  
Achates Antiquorum, Agatha vulgo dictus.* Cup. Hort. Casus Supp.  
2.44. The **AGATE.** *Dale.*

*Agate* is a precious Stone, reckoned commonly between the  
Opake and Transparent, of different Colours, and marked with  
Spots or Specks ; which are imagined to represent Trees, Fishes,  
and other Things. The finest come from the East-Indies, the  
common Sort from Germany, Bohemia, *etc.* Great Virtues  
have been attributed to this Stone, both Cardiac and Alexipharr  
mar.; but they seem all to he imaginary. *Geoffroy. . : \**

ACHEIR. Ἄχειρ, from α Negative, and *yscf,* a Hand. It  
signifies without Hands. *Galen.* . 1 ;.r

ACHEMENlS. Au Herb mentioned by Pliny, which was  
sahled hy the Antients to spread Terror throughout an Army,  
and make them fly, if thrown into the Midst of it. - ί  
ACHICOLUM. This is used by Coelius Aurelianus, Acute  
L 3..c. I7. to express the Fornix, Tholus, or Sudatorium of the  
antient Baths, which was a hot Room where they used to sweat\*  
It is also called *Architholus.*

ACHILLEA. A Species of the Millefolium, Called AchilT  
les's Iron Wort, which will he taken Notice of under the Ar-  
**ticleMILLEFOLlUM. - . . '**

ACHILLEA MONTANA. Five-leaved Mountain Rag-  
Wort. It is a Species of the Jacobaes, which see.

These are sometimes spelt Achyllea with a ry, but that is not  
right, as they take their Name from Achilles.. - ' )

ACHILLeION. . A Sort os Spunge proper, for making  
Tents, so called from the Use Achilles is laid to have made os  
it. *Gcrrceus.*

ACHILLEIOS. A .Sort of Maza made of Achillean Bar-.  
*len. Gorrceus. ...*

ACHILLEIS. Άχλλήις.' A large Sort of Barley men-  
tioned by Theophrastus; It was thus called, according to Gar  
len, from .4. Hushandrnan, whose Name was Achilles. Bur st  
seems more probable, that it derived its Name from its bring  
the largest and best Sort of Barley, as Achilles was the best War-  
rior in the Grecian Army.

It is mentioned by Aristophanes and Sophocles.

’ Hippocrates in his third Book, de Morbis, gives the Prepa-  
ration os Barley-water made with this Sort, which he recom-  
mends as . proper to he drank in burning Fevers, and this is the  
first Instance os the Use os Barley-water, a Remedy of great Effi-  
cacy in the Case he directs is for.. Take, fays he, of *Achillean*Barley, dried, a Hemina (κβτύλην about half a Pint) take off  
the Beards (ἀθέρα) and wash-it, then pour upon it a Gallon  
(χέα, about fix Pinas) of Water, and boil it to the Consump-  
tion of one half; cool the Remainder, and give it for Drink.  
And soon after he advises the *Achillean* Barley as an Ingredient in  
an Infusion, which he directssor a Jaundice.

ACHILLES. This Hero.is said to have been taught Medi-  
ane by Chiron the Centaur his Tutor. His Spear was endued  
within medicinal Virtue, and cured the Wounds it made. ’ It  
was of Brass, and Pausanias relates, that it was in his Days preu  
served in the Temple of Minerva at Phaselis, a City of Pamphi-  
lia. This Spear was the Gift os Chiron to Peleus the Father of  
*Achilles,* as we learn from Homes, Iliad Id. V..143. I44. Te-  
lephus, it is said, was cured, by *Achilles* with this Spear; but  
Pliny says, his Wound .was healed by the Achillea, a Plant in-  
troduced into Medicine by *Achilles,* and from whom it takes the  
Name. Others attribute the Discovery of the Virtues of Ver-  
digrease to this Hero, an Ingredient very useful to Surgeons, and  
of great Importance in the Cure of Ulcers.

ACHILLIS TENDO. See **TENDO ACHILLIS.**

ACHIMBASSI. The Name of an Office, or rather Officer,  
at Grand Cayro. It signifies the chief Physician, or Prefect 0f  
the Physicians. His Business is to examine into the Qualifica-  
tions os those who' practise Physio in that City, licerrfc  
them. Little Regard is paid to the Merit and Learning of che  
Person who is made *Achimhassi,* for the Balsa of Cayro'aiways  
confers it on the Person that pays him most for And this  
Officer considers aS little the Qualifications of the Candidates  
who present themselves for Licentes, het, Uke SpinitualCourts, permits every Body indisersmateiy to prachls, provided  
- they pay their Fees. *Proffer Alpinus.*

ACHIOTI.. This is the *Orlam.* Offic. Mont Exot io  
CornrneL Punt. Ulual.*sulsana. sa*

««.Item. *Cat* Host. Lugd. Bat.464. Pluck. Almag.ui

209. r. 4. *OrsU^s, ^sUr^.Pdd.*

Prod. 357. υπἐν,ίοη. (Ed. ιΜ) 6ς. (Ε. ,6 g)fTJ? Ger’ S5f Δ\*«ι/« M&L *cm.  
€ AbkiaMextcana fructu Castanea, cocci-*

***setSA*** am. joat Dendfixs.

, S. R ***t.*** 4I0. ***stiiiHa Amsrscaita maxaae tinaa.***

rar, Tourn. Inst. 242. Boeth. Ind. A. 2o8. *Arbor finium re..  
gundarrem,* **Sfalig. ARNOT TO.** *Dale.*

*Ps* **CHARACTERS** *are,*

*Α.* broad, roundish Leaf 5 a large. Carnation-coloured, pen-  
rapetalous Flower; and short, pyramidical Pods, prickly, and fun  
of Grain.

It is cultivated in New Spain and Brasil.

The Tincture made of the Fruit, and used in the famous  
Composition, called Chocolate, is thus prepared: They take the  
Grains, when thoroughly ripe, and infuse them in het Water.  
What sobsides is made into Lozenges, which are used in dying  
Wool, or aS a FucuS or Paint for the Face, commonly known  
by the Name of Spanish Wool.

The Tincture, mixed with some suitable Water, either  
drank, or outwardly applied, mitigates the Heat of FeVers,  
stops the bloody Flux, and discusses Tumourst *Pifon.*

-.TheRoucou, which the Indians call *Achiotl*or *Urucu;* **the**Dutch *Orleane* ; and we *Raucoii,* is a Meal os Flower, which  
the Inhabitants of the Leeward Iflands, and St. Domingo, make  
from a little red. Grain or Seed, which is sound in a Hulk or  
Shell

... The Shrub, which bears the Roucou, produces, according to  
Father du Tertre, from the Root several Shoots that grow into  
Shrubs, and divide themselves into several littie Branches:  
The Leaves are Very like those ofLilac, and bear twice a Year  
several Clusters of Flowers, that are white, miked with red,  
and in Shape like those of black Hellebore. The Flowers are  
full of a vast many little Stamina, or yellow Threads tipt with  
red : At the Fall of the Flowers come dark coloured Buttons  
all haired, or bristled, with fine littie brown Points, which do  
not prick at all. When they are ripe, there are in the Middle  
two double Seeds, or Kernels, intirely surrounded with a Kind  
of Vermillion, or liquid red Dye, which the Natives call Roe-  
*cou:* It is with this they paint themselves when they travel a-  
broad; het, before they use it, it is mixed 'with ^certain Oiis  
which’they draw from some Seeds.

. The Europeans do it with Linseed Oil; they beat it in a Mor-  
tar with this Oil, and, after they have reduced it to a Mass, they  
send it into France, *etc.* where they use it to colour Wax yellow,  
when it is too pale, and likewise to give a Colour to Chocolate.  
There are likewise those who beat it in a Mortar without Oil,  
and make it into a Mass, or into. Cokes; which, being dissolved  
in Urine, makes a red Tincture, which stains as well aS the best  
Dye in Europe, and is a Very good Commodity.

\* This Account inf *Roucou* is quite , different from that of the  
Sieur Francis Rousseau, who wrote me Word it was a Tree of  
eight or nine Feet high, whose Leaves were like those of thePeach  
Tree; after which came Hulks, or Shells, much like the Ches-  
nut Shell, furnished with little Prickles throughout; within it  
is a little red Seed, which they bruise in a Mortar, or on a Stone,  
and that-they put into a Vessel of Water, in short, the *Rjsucou*is made in those Iflands after the same Manner as we make  
Starch, not according aS Mr. Meuve has described, but just as  
our Starch.makers work ; and after it is made into Cakes, and  
dried, it is brought hither.

This last Relation of the Sieur Rousteau is much j uster than  
the first ; for as much as the Cods or Hulks I have, exactly a-  
gree with his Description. Besides it is easy to see by the *Roucou*which we sell, especially when it is good, that it was never  
steeped in Oil, in that the good Small of the true *Saucou* makes  
it distinguishable from any Mixture. Again, we ought to un-  
deceive those who believe, that the *Achiotl* is made aS the Sieur  
Blegny describes it, when he says, that it is the thickened Juice  
which is drawn from the Fruit of the *Achiotl,* which is a Fruit  
Tree of America. That this Emit is a red Seed or Grain,  
which is sound in great Plenty in large round Hulks, or Shells ;  
that, when they take this Seed from the Hulks, they stamp or  
beat it in a Mortar, and then press out the Juice, which they  
.set afterwards in a hot Place, to evaporate the Moisture, and,  
when it grows thick almost like Paste, they work it into several  
Forms or Shapes; which, bring thoroughly dry, are properly  
called *Achiotl:* For on the contrary, it is certain, that the  
*Roucou* is made like Starch, and that it is impossible to draw a  
Juice from it, fince the Matter, out of which it is made, is a  
reddish downy Substance, which is sound sticking to the Seed  
that is in the Hoiks, which they cannot separate without Wa-  
ter, in the same Manner aS our Starch-makers separate the Meal  
from the Bran to make Starch of; and .not any Juice expressed, ,  
or drawn from the Grain, as that "Author would have.

Chuse such *Roucou* aS is of an Office or Violet Smell, the driest  
and highest coloured you can get. *Raucou* of this Kind is that,  
which ought to he called *Achiotl',* for the chief Part of that we  
sell is moist, foul, mouldy, *lie.* so that, in a Worth it is unfit to  
he given inwardly, mixed in Chocolate, or otherwise. It is  
.much used by the Dyers. There was brought formerly from  
these Iflands, and also from Holland, a *Raucou,* in little Cakes,  
of the Shape os a Crown-piece, which was endowed with a  
great many Excellencies, and Very good for internal Uses; which  
is quite contrary to what we have brought at this Time, which  
is in great square Cakes, like Marseilles Soap, Ur in round

Balis, and which is sometimes so base and stinking, that it is  
almost impossible to hear it. '

The savage Americans cultivate the Shrubs that bear the  
*Roucou* with great Industry, because of the many Ufes they make  
of them : Such as, first, to adorn and furnish their Gardens,  
and from thence to cover or thatch their Houses. Secondly,  
being a hard dry Wood, it serves for Fuel. Thirdly, **the**Bark serves them for Cordage, and to make Linnen. Fourth-  
ly, they put the Leaves and Root into their Sauces, to give  
them a Relish, and to tinge them *os* a. Saffron Colour. Fifth-  
ly, from the Seed they make the *Raucou,* as well to paint their  
Bedies when worked in Oil, especially on great Days of Re-  
joicing, as to exchange for other Commodities with Advan-  
tage. *Pomet. .2.*

*Roucou,* called by the Indians *Achiotl,* or *Urucu,* is a dry  
Paste, made from a lirtle red Seed, which is found in a longish  
Hulk or Cord, that has the Shape of the Mirobalans, but prick..  
ly, almost like those of Chesnuts. Authors are not agreed a-  
hour the Kind of Tree, or Shrub, that bears this Emit; some  
saying that the Leaves are like those of Lilac, and others Peach  
Leaves.

To prepare *Raucou,* they bruise or pound the red Seed, then  
they dilute it with Water, and pass it .through Strainers, to sepa-  
rate the Bran, or grosser Parts ; afterwards they dry this into-**a**Sort of Flower or Starch. Chuse the driest, os a Violet Colour.  
The Dyers use it chiefly, though it is sometimes made Use of  
in Chocolate. If it he pure, it strengthens the Stomach, stops  
Looseness, helps Digestion, promotes Respiration; and pro-  
Yokes Urine. *Lernery. . »*

ACHIOTE. The red Grains os the *Achiotl,* shade into  
Lozenges, or Pastils, for'mixing with Chocolate or Dying. *Raii  
Hist. Plant. - .*

- ACHLADES. A Sort of wild Pear that grows in the Moan-  
tains of Crete. *Raii Spinos. Stirp. Eurep.*

- ACHLYS. Ἀχκός, Darkness, Cloudiness, and is general-  
ly applied to a close, foggy Air, or a Mist. Hence ἀχλσῶδες  
όμμα, a dark, or misty Eye, or that fees with Difficulty,  
mentioned by Hippocrates as a bad Symptom in acute Disorders.  
Praedicti L. I. 46. and again in the Coacae Praenotiones 2I8i  
Hence also the South-Winds' are called άχλυώδεἐς by the  
same Author, A ph. 5. l. 3. because they incline to Dimness os  
Sight, and, as Celsos observes, make all the Sen les dull, L. 21  
C. I. Those also who, during.a Fever, are affected with a Dim-  
ness of Sight are called Άχλυώδἐες. Coac. Praenot. 35. Tho'  
others think it means those who labour under violent Agitations  
os the Humours; or where the Colour- and Complexion are  
altered and obscured by Distempers. But Galen interprets it of  
those who, during Sickness, lose that usual Lustre and Liveli\*  
ness observed about the Pupil of the Eye, during Health.

*Achlys* (Ἀχλής) also signifies condensed Air in theUterus,  
*Hippocrat. de Morb. Mul.L.* 2. - ι

It farther signifies a small Mark or Scar over the Pupil of **the**Eye, lest upon the Cornea by a superficial Exulceration, as Ga-  
len interprets it. Or, according to .ZEtius, the Exulceratiori  
itself almost covering the Pupil, of a very light blue Colour.  
And thus 'Αχλύες is to he understood. *Hippocrat. Praedict.***D 2. - - ...... -. '**♦ ACHMADIUM, or **AcHIMADIUod.** A Corruption of  
the Arabic *Achrnan,* or *Achiman,* Antimony.

. ACHNE. Ἄχνη. This signifies Chaff and the Froth of  
the Sea, or of Water in general; or any Thing that is light Or  
soft. ‘ -

But it is used in a different Sense by Physicians; and thus  
Hippocrates Epidem. Sect. I. N. I6. seems to explain it, when  
enumerating many Circumstances of bad Presage relating to the  
Eyes, in Fevers, amongst the rest mentions, καὶ τδ ἐπιξηραινομί-  
**νον οιὁν ἄχνη,** something dried upon them like Froth By this.  
Physicians, .who have attended the Sick, will know he does not  
mean those hard Concretions like Gum, that sometimes glue  
the Eye-lids together, but a Sort os soft, white Mucilage that  
swims in the Eye, which is Very frequent in Fevers. And in  
this Sense Ἄχνῶδες, Coac. Praenot. 225. is to he taken, though  
Foesius has thought proper to substitute Ἀχλυῶδες instead of it  
in this Place. ' -

’ Nor is this peculiar to the Eye, for Hippocrates *de inter-  
nis Affect,* speaking of an Exulceration of the Lungs, says, that  
sometimes in this Case the Fauces are full of *ffeygrsi) 2* frothy  
Matter: The interpreters tranflate it Lanugo, which I doint  
think expresses the Meaning of the Author.

*Achne* also signifies Lint. Thus in a Fracture of the Nose,  
when the Cartilage is depressed, Hippocrates, *Mochl.* 2. and de  
*Art.* 18. advises to support it with Lint wrapped up in something  
that will not irritate, and introduced into the Nostriis.

The same Author directs Lint to he dipped in the Gall os  
an Ox boiled in Oil. and to he used as a Pessary, to procure  
Conception, *(de Morb. Mulierum, L. s.)* and again *de Morb.  
Mulierum, L.* 2. he uses Lint for a Pessary with other IngrC'  
dients.

. ACHOR.

The *Achor* is a sinall Ulcer in the Skin of the Head, which  
seems to he the Effect Of a salt .and nitrous Phiegim It-diss

tsha'rgB an ichor, not quite so thin as Waler, tint yet so thick  
as Honey, which fast is like whet issues from the κόρι’ι (or  
Favi). For thefe swell and break into many Holes, which shed  
n Honey-like Humour; they allo form themselves, into small  
Tumours not so large as thefe of the *Acbor. Gal. de Tumaribus.*

Among the Diseases which affecti the Shin of the Head may  
be reckoned the *Acbor,* which is a Sort of preternatural Tu-  
mour that takes its Name from some signal Property belonging  
to is. For it is perforated with very small Hoke, which con-  
tain a thin Humour, moderately viscous. Much resembling ano-  
ther Disease of the Skin, called κέειον *{Favus,* Honey-comb)  
in which the Perforations are larger, and discharge a Humour  
much like Honey (that distills from the *Favi,* Or Combs). *Gal.  
-de Comp. Phar.*

What they call an Acbor possesses the Skin of the Head, and is  
full of fmall Perforations which difcharge.a min and moderately  
viscous Ichor. Another Distemper, much like this, is what  
they name the κήριον *lFavus.)* This has large Perforations,  
which contain a Humour resembling Honey. *Qribastus ad Eunap.  
L.suc.cr.*

An *Acbor* is an external Sore of the Read, full of little Perfora-  
irons, which discharge a Humour much like Ichor, whence the  
-Diseofe, or Sore itself, is called an *Acbor. Trallianus, L.* X.  
*c.* 8

. Now you must know that the *Cerion* is a Disease like an  
*Acbor,* only greater. For the Mouths of the Perforations, by  
which the Humour issues forth, referable thofe of the Honey-  
comb. Wherefore the.Difeafe was named by the Antients  
*Cerion* ; but in *Acbors* thefe Mouths, or Outlets of the Humours,  
are invisible. *Trullian.* Lib. r. Cap. 4.

.. Among Difeafes of the Head which break Out in the Skin;  
there is one which is called an *Acher,* where the Skin is full  
of very final! Perforations, which discharge a viscid IdioI.  
Alike to this in Kind is whet they call a *Cerion,* in which the  
Perforations are large, and contain a Honey-like Humour, re-  
sembling that in the Honey-combs of Bets. *Acginct.* Lib. 31  
Cap. 4. .

. Whet they call an Acbor has its Seat in rhe Skin of the Head,  
which it perforates with many final! Holes, through which it  
discharges a moderately vifcid Ichor. The *Cerion* is a Dis-  
ease, much of the fame Nature, but having larger Perforations,  
which contain a Humour resembling Honey, and called Melice.  
Iis. *Atius,* Lib. 6. Cap. 68.

Acbor is an Ulcer upon the hairy Scalp perforated with a great  
many little Holes, which contain a Humour somewhat vifcid:

It differs from the Favus and Tinea, only in Degree of Vi.  
Iulency, the CauIe of all three bring a corrosive Salt Humour  
fretting the cutaneous Glands.

It is called *Favus,* when the Holes are large, and like those  
of aHoneyrcomb ; and *Tinea,* from the Similitude of the Holes  
to thofe made in CIoaths by Mothe. But generally *tlumTinea*is taken for a dry Scab on the hairy Scalp, with filthy thick  
Scales, and a stinking Smell, to which Children are very siib.  
quit, whose Facesit often also affects, in which Cafe it is called  
*Crusta Lactea,* and is often mild and inconsiderable, but some-’  
times malignant and dangerous. There is also a worse Species  
of the *Tinea,* or Scabbed-Head, covering the whole Scalp with a  
chick cinentious. Scurf, very troublesome from its violent Itch-  
ing, and foetid Smell, and is not unfrequently very difficult to  
turd. The Patients for the most Part are pale, and discolour-  
ed This Disease appears more frequently in Infants, than Ad-  
ults, and is caufed generally hy a bad Diet, either of the Nurse,  
or the Child, from which a corrupt Blond is generated, which  
produces these Ulcers. But sometimes they invade grown Per-,  
sons, Nmd resemble a Sort of Leprosy, when they are very dif.  
ficuldy cured. Oftentimes allo in Persons afflicted with **the**Venereal Disease, not only the hairy Part of the Head, but that  
without Hair, and especially the Forehead, is affectid with dry  
Scales, and scabby Ulcers of this Kind, which they call the  
*Puri Scab.* Even the Venereal Gummata, and Tophs Of the  
Head, as they often ulcerate, may in some Measure he num.  
bered amongst there; But altho’ the Ulcers hesore-mentioned  
are perhaps different from one another, yet as the Method of  
' Cure is the fame, I shall not here feparate them, but will treat  
of them together, and shew hew they arc to he cured. There-  
fore, when they are very mild, it is convenient to evacuate the  
noxious Humours, by repeated Purges with Mercurials, efpeci-  
ally Mercurius dulcis, and correcting the Blond in the Intervals,  
if the Patientis Age will admit of it, with a Decoction of the  
Woods, and with alterative Powders, Pilis, and Efienoes. If  
the Disorder is in fucking Children, they may take the Pow-  
ders, and their Nurfes also the Diaphoretic Powders, Pilis,  
Decoctions, and Essences. The Scab, or Scurf, may he anointed  
with Cream mixed with a little prepared Ceruss, oftentimes in  
a Day, or with G’l °f ESS5 °uly, or with a little Gil  
Wax added to it, or with Ointment of Ellcampane, Diaporn  
pbolygos, Ceruss, Or any fitch Preparation of lead ; observing  
at the seme Time a proper Diet, and keeping the Body warm.  
By this Method, not only the mild Sort of thofe Ulcers bmis  
but even those which ate somewhat more stubhem,' especially  
if Calomel he **given** cautiously, **and in a sinall** Quantity, **as an**

Alterative, or even rf tritile Mercury he mixed with the **Oint-**ments oflead. . . ... .j-.... ....

In the more obstinate Sort of thefe Ulcers, especially if the  
Patient will not take Mercurial Medicines, a Cure will not he  
effectsd, unless the Hairs. are first pulled up, ; to which these  
Ulcers are strongly annexed, which is done either. By Degrees,  
or all at once, with a Pleister made of common Pitch, melted  
over a flow Fire, and forced upon thick Cloth, or Leathery  
and, the Hair being first cut off olofe down to the . Scab, -the  
Whole must he covered with it, whilst warm, that it may stick1.  
The Head must afterwards he kept very warm. The Plaister  
must remain on the Part, twelve or twenty-four Hours, and  
then must be strip: off. at once by Force, together with-the'  
Scabs and Roots of the Hair ; but this is not done without giving  
considerable Pain, and making the Head bleed. After the  
Blond Js wipedoff with Rags, the Head must he bathed with  
Oil of Bricks warm, with a little Oil of Wax added to itj  
and a Plaister of Frogfpawn, impregnated with a little Cam-  
phire, or one made of Rosin,,is to he applied over it, and must  
he renewed daily, till the affectsd Part appears clean. Then -it  
must he anointed with OiI of Eggs, -Or Essence ofArnher, till  
it is intirely healed. The internal Medicines, with proper  
Diet mentioned before, must he continued i among which,'  
Antimony, either by itself, or mixed with a small Quantityof  
Flower of Brimstone, is of excellent Service, and forcibly ex-  
pels .the offensive Mauer. But, in the Beginning, Ointments  
prepared of Mercury, or Sulphur, must bestrictiy forbore ; for  
it has been often observed, that they repel the corrupt Matter,  
and thereby hazard the Patient’s Life, which they would riot do,  
were proper Internais given sufficiently before. *\ ' r*

In sicabby Ulcers in the Face of Children, which are Com-  
monly called *Crusta Lactea,* or *Acheres,* the internal Reme-:  
dies, hefore commanded, must he given to their Nurses, as well  
Purgatives as Correctsrs. But. in thefe Infants; the noxious  
Humours must he evacuated by often Purging, and in the Inter-  
vals with Powders of Diaphoretic Antimony, Crabs-Claws,  
Crude Antimony, and Flower of Brimstone. When thefe  
have heen used some Time, let a Liniment he made of Cream  
with Chalk or Ceruss, with which let the Scabs he anointed  
often in a Day; or in its Stead, with Oil of Tartar per Deli-  
quium; or Oil of Eggs, with a little Oil of Bricks. But  
Ointments made os Mercury, or Sulphur, as is just now said,  
do much Hurt in weak Bodies. But if Remedies of this Kind  
have been unskilfully made Use of too soon, as is very often the  
Cafe, and the Children are thereby made ill, then both the  
Nurse and’Cbild must take internal Sudorifics, Powders, Essen-  
ces, and Potions, .with warm Drink, and a warm Regimen,  
and the Use of them must be continued, till the morbific Matter  
is thrown out, and the Child is well again. *Hiestcr. Chirurgi*L. 5. C.to. . i . *mi’ '. . .. c 1*

. The Danger, attending repellent Applications in these Ul-  
cers, .is seen in the following Observation from *Tumer.*

**. OBSERVATION.**

Iwas fentfor, says he,' in much Haste, to a Gentleman’s Child,  
labouring under a.convulsive Fit, and perceiving a strong Smell  
from the Head, whilst I tried to bleed him, and was about to  
cup him for want of getting away any Blond thereby, **I**asked the Servant whether the Child had any Breakings, oiit,  
or fore Head: The Nurse told me it had a violent running  
Head two Days before, but it was much slackened by an Ap-  
plication they had lately put on, and in a fair Way to dOwell: I after enquired for the Medicine, and found it to he  
no other than Nutritum; from the Coldness thereof, and re-  
percussive Nature, the Matter was drove inwards upon **the**Brain, exciting this cruel and ‘ deadly Convulsion, in Opped  
sition to all Endeavours by Bleeding, Blistering, Cupping,  
with Anti-fpasinndic and Ann-epileptic Remedies,

The following Plaister is. reckoned almost insassible in thia

Disorder. *: a*

TTake of Pitch one Pound,  
Verdigreafe in sine Powder two Drams, .  
Flowers of Brimstone an Ounce, -  
Hogs-Lard hast an Ounce,

Boil all gently over the Fine for a Quartorof an Hour, COn-  
stantly stirring them.

- This, after the Hair is cut off very olofe, mnst he applied in  
the same Manner as the Pitch Plaister, before-mentioned, and  
tom off, and often renewed again, till the cedr pujim b„  
the Roots. r 1

r. AC^IDBISTOS. Αχοριστος, from α Negative, and χωρὴς,  
keparatc. inseparable, and is understood of Accidents, Sym-  
broms. or Signs, which are inseparable fiOm Things.  
***lSIAFStlaI. “ s***astriSH^AS a Λ ^1. Pof-Trtt. Thc Fruit is more four,  
astringent and drymg then rhe othcr PearSj Th**stογχνη. *ircreaus. J***

ACHREION. Ἀχρρίβν, from α Negative, sand σχρίέα,  
*Ufesulnesu Useless.* It is applied by Hippocrates to the Limbs,  
which, through Weakness, are become useless. *Foesius.*

ACHROL 'Ἀχροοι, from -α Negative, and χμά. *Colour.  
Pale,* in this Sense it is used by Hippocrates *(An Victus Ratsu  
ane in Acutis).* Galen explains it pale through a Deficiency of  
Blood. And Hippocrates *(Epidem. L. 6. Sect: 6. Apb.* **I9.J**jnentinns it in this Signification, as a bad Circumstance, when  
. consequent to a considerable Haemorrhage of the Nose.

ACHROMOS. Calvus, the first Tranflatorof Hippocrates  
into Latin, has made a Very great Mistake, by making *Achro-  
mat* a Woman, who was posiefled *of* an infallible Secret for a  
Dysentery ; and this probably led Tiraquellus, the great Civili-  
an, into the same error. The Passage of Hippocrates in Ques-  
tion is thus in the seventh Book of *Epidemics,* πορνείη ἄχρωμΘ-  
δυσεντερίης ἄκφἐν - The Sense of this is Very obvious, *Jhamelefs  
(excessive) Whoring, is a Remedy for a Dysentery.* A Very ex-  
traordinary Prescription, and one, I believe. Very seldom made  
Die of in this intention. However, Hippocrates is not the on-  
ry one that mentions it. .ZEtius says, that *Venereal Commerce  
dries up Chronical Dys.entcries ,* and Paulus repeats this almost in  
the same Worth. From these some amongst the Moderns seem  
-to have transcribed it.

- .A Want os Attention to whet has been said by later Authors,  
with respect to this Method of Cure, arid the seeming extra-  
Vagance of the Remedy, probably made Calvus look out for  
-another Sense.- Ἄ ' νύ ' ......

. ACHROUS. ’A/P«, from Λ Negative, and χρβα, *Colour.*In the Opininn of Salmafius, it . signifies and is applied to

Flowers of that Colour by Theophrastus.

.... ACHY.; Ἄ2υ. A Species: of Cassia growing in Arabia,  
called also (δαφνῖτης.) *Daphnilas. Gorrceus.*

ACHYRON. Ἄχιρον. This properly signifies *Eran,* or,  
*JChassf,* or *Straw.* . Thus in pituirons Disorders of the Uterus,  
Hippocrates *sae.Natura Muliebri)* advises *a.* Fumigation of moist  
Bran (ά/υρα νοτερα) of. Barley ; the interpreters tranflate it  
*Straw.* The fame Author directs it frequentiy either as an In-  
gredient in Fumigations, or Cataplasms, in uterine Disorders,  
both in his Treatise quoted above, and that *de Mortis Mulierum,  
f.* 2. By comparing the Passages together, it seems more pro-.  
hable he means Bran, than Straw or Chaff

*Acheron* also signifies a Straw, Hals, or any small Thing  
that sticks upon a Wall. Thus Hippocrates *(Prance)* men-  
tinning the fatal Symptoms which occur in acute Fevers, In-,  
stammationsof the Lungs, A Phrenitis, or Cephalalgia, amongst  
others, specifies the picking *frsudel-* from the Wall, which ColfuS  
interprets, any small Thing that stacks in it *(siqua minuta emi-,  
neat ).* This is a Symptom which occurs frequentiy, and I be-  
lieve, Physicians generally find this Prediction of Hippocrates  
too true. '

ACIA. This is mentioned by ColfuS, *L. 5. C. 26.* and has  
much puzzled the Learned, who are divided in their Opinions  
about it, some taking it *for* a Needle, others for the Thread.  
Johannes Rhodius has wrote a whole Volume, about it. Put the  
Account Fabricius Aquapendente gives of it seems most rea-  
sonable. ’ \_ . ; -ἐν

. ColfuS having just before mentioned the Suture, and Fibula,  
says, *utraque optima est ex Ada molli, non nimis torta, quo mitius  
Corpori insideat. - .*

Nence Aquapendente interprets *Alia* a Kind θί Thread.  
*Filum,* he fays, comprehends the *Liman,* and *Acia. Liman* is a sin-  
gle thin Thread as it is spun. *Acia* is a *Filum* or Thread com-  
posed of a double *Liman,* and twisted. The *Italians* call it *Accra,*or *Paste.*

ACICYS. Ἄκικυς, from α Negative, and κἐνυς, *Strength,  
Vigour.* It signifies weak, infirm, or sains, and in this Sense  
It is used by Hippocrates *[de Morns, .6.4.) . .*

ACIDA. ACIDS. All Things, that affect the Organs of  
Taste with a pungent Sourness, are called *.Acids.* But the Chy-  
mists call all Substances *Acide,* that make an Effervescence with  
an *Alcali.* However, this does not seem to he a true Characte-  
ri stic os *Acids,* because some *Acide* will make an Effervescence,  
upon bring mixed with *Acids* of a different Kind ; and alcaline  
Substances will do the same with Alcalies ; and *Acids* with Bo-  
dies that are neither alcaline nor acid, but neutral.

. Another Mark of *Adds* is, that they change the Colour of the  
juices of the Heliomopium, Rose, and Violets, Ted, whereas  
animal AlcalieS turn them green. I mention animal Alcalies,  
because others will not always do it.

. A sew Years ago, it was the Fashinn in Physick,. to explain  
the Nature and Causes of Diseases, by the Doctrine of Alcalies  
and *Acids,* and from this to deduce Methods os Cure; but this,  
like all other Systems, dropped to the Ground, when Experi-  
ence had made it appear salse and insignificant, without doing  
much more Service to Physic, than demolishing the Galenical  
Doctrine os the four Elements, four Qualities, four Degrees,  
and four Humours, which had been the more satai, as it had  
obtained Credit for a great many Centuries, and had prevented-  
farther Redearche into the Nature of Diseases and Remedies,  
.2nd consequently had retarded the Improvement of Physic.

With respect to *Adds,* if I mistake not, they have another  
very obvious Characteristic, which will better discover them in  
Bodies, than either Effervescence with Alcalies, or producing a  
red Colour when mixed with the Juice of the Heliotropium,  
Roses, or Vinlets. What I mean is, that all Bodies whatever,  
that will flame, contain either a manifest or a latent *Acid,* and  
that *Acido* are the only Bedies in Nature, that are convertible  
into that Species of Fire, which we call Flame, Boerhaave  
has, by a great Number of Experiments, endeayoure6.ro prove  
Oil the Pabulum or Foed ofFire, and 1 know of no Oil chat has  
not an *Acid* in it, insomuch that I believe an *Aquil* essential th  
the Composition of Oss Vegetable Oils contain an *Asm. in*Tome manifest to the Taste, and from molt others it m..y he-  
separated by Distillation. \*Tis this *Acid* that makes Oiis so  
readily mix with alcaline Salts, which are by this Junction  
neutralised, and converted into Soap. Hence alfo Oiis are en-  
abled, in a certain Degree of Heat, to dissolve seine Metals,  
And \*tis upon Account of this *Acid,* that Oiis preserve animat  
and Vegetable Substances immersed in them from Putrefaction.

Alcohol, or pure Spirit of Wins, is a vegetable Oil subti-  
lized by Fermentation, and probably for the Reasons given un-  
der the Article ACETUM, it contains ah *Asm.* and for that  
Reason readily flarnes..

Vegetables flame Jo long as a black Oil remains in them,  
but no longer; and 'tis manifest that this black Oil contains ad  
*Acid,* both by the Smell and Effects. Thus the Fumes os  
Charcoal have an arid or sulphureous Smell, 'and are fatal to  
Animals that are confined with, it in a close Room. Bees-  
Wax is an Oil of the Vegetable Kind, containing an *And,* and  
therefore it flames.-

. Mineral Oiis in general contain a manifest *Acid,* as the  
Oil of Coal, Petroleum, Naphtha, , and all Sorts os Bitumens,  
\_ In animal Oils, the *Acid* is not so manifest, but seems diP  
guised by a large Portion of Volatile alcaline Salts. But **we**may conclude an *Acid* enters its Composition ; first, because af-  
ter it is cleared from the membranous Colls which Contain *it,*and the Bloodvessels which enter if, tho’ kept never so long,  
in does not putrefy like the other Parts of Animals, nor dees it  
afford a Nidus for the eggs of infects, and breed Maggots.  
But, if it has once been deprived os a Part of its alcaline Salts  
by boiling, it will keep for Ages unaltered air'd untainted in **the**hottest Seasons, of which Tallow Candles inay serve aS an ob-  
vious Instance. Now *Acids* are the grand PrelerVativeS against  
Putrefaction, and known Destroyers of those Kinds of insecti  
that breed in animal Bedies.

Secondly, because animal Oiis do not only preserve them-  
selves, but also all other animal and Vegetable Substances im-  
mersed in them from Putrefaction; and on this depends **the**Art os Potting Various Kinds os Meat.

. Thirdly, like Vegetable Oiis, they readily inix with al-  
caline Salts, which they neutralize, as is evident in making  
some Kinds *of* Soap.

Pure *Acids* are not easily inflammable by common Means,  
because perhaps of their Solidity, and strong Cohesion. But  
when *Acids* are divided into exceeding fine Particles dispersed in  
the Interstices of other Bedies, and by Means of some other  
Substance set on Fire, they burst into a lucid Flame, and ek-  
plode with the utmost Violence.

I remember some Years ago, Mr. Lemon, a wholesale Apo-  
thecary, was cutting a Retort, which had foine Days before  
been used in making sweet Spirit of Nitre, with a hot Ring os  
Iron, as is the common Way. None of the Spirit remained,  
in the Retort, except a small Portion that adhered to the Sides,  
not considerable enough to he Visible ; hut this Quantity, small  
as it was, took Fire, and burst the Vestel, with a Noise not  
less than that of a Cannon, and a Force that drove the Frag-  
ments of the Retort out of the Cupola of the Laboratory, to **a**Considerable Distance.

- Other Instances of the predigions Explosions of *Acido* setOn  
Fire, we meet with in Hoffman's Experiments with fuming  
Spirit of Nitre, and aromatic Oils. This great Philosopher and  
Chymist mixed, in a common Wine-glass, a Drain of genuine  
Oil of Cloves, with the same Quantity of the fuming Spirit of  
Nitre; the Mixture instantly burst out into a Very lucid Flams,  
with an excessive Ebullition.

The same fuming Spirit, mix'd with Oil of Sassafras, Oil of’  
Turpentine, or Oil of Caraway, in like Manner takes Flame;  
but it is not so vehement, as when mixed with Oil of Cloves.

No Flame, we are acquainted with, is so fierce and penetra-  
ting as that of Lightning. And this, it should seem, can he  
produced by nothing but the aerial *Acid* set on Fire by some  
Means not so easy to he determined.’ But it may give us some  
Light in this Affair to consider, that, during Very hot Weather,  
the Air abounds with Vegetable, animal, and perhaps mineral  
Oiis ; and this is so remarkable with respect to vegetable aro-  
matic Oils, in het Climates, rhar they are perceivable by **the**Smell at a prodigious Distance from the Place where the Vege-  
tables they exhale from grow.

It seems therefore possible, that these Oils, when' confined in  
the Clouds together with the *Acid* of the Air, may, by an effer-

**iseloence,** like that Os **the** fuming Spirit of Nine with Oil of  
**Cloves,** he kindled into Flame; or the extremely volatile Oils  
Buy at least serve aS a Medium to set the aerial *Acid* on Fire,  
which, when pure and unmix’d, is not, that we know of, in-  
flammable.

Thunder and Lightning are nearly imitated by Gun-powder,  
and this receives all its Force and explosive Power from the *Acid***of** Nitre, the principal Ingredient in its Composition; for the  
Powder of Charcoal performs the Office of Tinder, and catches  
**the Fine,** which is instantly communicated to Sulphur **the** third  
ingredient, and the Sulphur lights the acid Spirit of Nitre into a  
Plame. .

It is observable that the *Acid* of Nitre is the very same  
with that of the Ain which causes Lightning, for the alcaline  
Earth, which is the Basis of Nitre, is neutralised by the *Acid  
hi* the Air,, as has been mentioned under the Article Acet Uu, ,  
mid will be farther explained under the Article NrTRuM.

It is a manifest Error to explain the Explosion of Gun-  
powder by the Rarefaction of the Air contained in it, for I  
have yet met with no Experiment which convinces me, that  
Air is capable of bring rarefied by any Degree of artificial Fire,  
*Io* as to take up above three Times the Space it does naturally  
in a warm Summer’s Day. In this Case the Instance of the  
Fire Engine will not make against me, for the Weight there is  
railed by the Vapour of Water, which, though it will not flame,  
has an expansive Force greater than even Gun-powder itself,  
upon the Application of Fire in a certain Degree. -

Upon the Whole, I consider Wood, and all other Bodies that  
flame, as a Sort of natural Gun-powder, perpetually exploding,  
**hut** with a less Degree Of Violence, hecause the *Acid,* disie-  
initiated in every Particle Of the inflammable Matter, is in **a very**sinall Proportion to the other Ingredients.

It may not he amiss, in this Place, to take some Notice ofan  
Error, which I apprehend the Patrons of the Mechanic Philo,  
sophy have sell into, with Resped to the Solution of hard mine-  
sal Bedies by acid Spirits. They tell ns, that the Solution  
is performed by the Attraction of the acid Salts of the Men-:  
struum to the dissolving Body, and the Repercussion Of the  
.elastic Particles *of* the Salts, and that by these Means the'Sur-'  
faces are worn off, till the Body is intirely dissolved. This At;  
traction betwixt the Particles of acid Salts and metalline Bo-  
dies may possibly prevail, but, if it was the Cause of Solution, it  
would be retarded by Heat, which universally impairs the At-  
fraction of the Particles of ’the Bedies to each other, whereas  
Heat always promotes the Solution. It seems therefore more  
reasonable to believe the Solution of metalline Bedies performed

, in this Manner -. When a metalline Body is immersed in **an:**acid Menstruum, the Fluid enters the Pores thereof, and car?  
Iles withjta Part of the acid Salts, which are very hard and  
pointed. Now as the Heat of the Atmosphere is never exactiy  
the same for many Moments together, -het perpetually altering,  
the Size of the acid Particles must alter in Proportion to **the**Heat, for all Bedies in Nature expand by Heat, and contracti  
by Cold. And by this Expansion I apprehend the Cohesion **be-**twixt the metalline Particles is dissolved by Degrees, and **the**Metal, thus divided, becomes invisible as it swims in the Men.  
flruum. flat if an artificial Fire is applied, and the Heat in-  
creased, the Solution goes on with more Effects and is sooner  
performed, aS the expansive Force Of the acid Particles is aug-  
mented.

Silver is dissolved by Aqua Fortis, the proper Solvent of Gold  
. is the acid Spirit of common Salt. ' It seems as if Gold remains:  
untouched in Aqua Fortis, because the acid Particles in this Spi-  
rit are not sinall chough to enter the Pores of Gold. And Sil-  
ver is not assailed by Aqua Regia, hecaufe the acid Particles of  
common Salt are fo extremely sinall, as not to he capable Of an  
Expansion by any Degree’ of Heat we are acquainted with, suffi-  
cient to dissolve the Union, and destroy the Cohesion of the Par-Jtides of Sllver, which has Pores much larger than those Of  
Gold.

**I** make no Doubt, but *Acide* are of some great Use in  
the (Economy of the World, because they are so universal.  
In the Bowels of the Earth we meet with them in almost **every**Mine, and Mineral; bitt particularly in those prodigious Rocks  
of Salt, which are sound in almost every Country, and which  
the industry of a great many Ages has nut been able to ex-  
Iiaush Such are thosein **the** famous Salt **Mines** in Poland, and  
**cut** Own in Cheshire, where vast Quantities are got every **Year,**and exported. Not to mention the Quantities of *Aside* that  
are hourly discharged from the Bowels of **the** Earth, in the  
Salt that may he sound by **a** nice Examination in **the Waters**of every Spring, the freshest not excepted.

In the Air the *Acid* is universal, and that in every Part Of  
**it,** insomuch that it seems the very Principle in it, which is so  
necessary to mimal and vegetable Life, that neither can subsist  
without in. And I am inclined to believe, that, if any Part  
of .Ain is deprivedof its *Acid,* it loses at the same Time its  
Fb flinty, It is remarkable that the *Acid* abounds most in  
the Ain, when the Winds blew stout the East and North, and  
when the Weather is serene. This Hoffman informs us from  
**the Observations of these who ate concerned\* in Nine Works,**

who remark, chat, principally during these **Winch,** therr alcalinfe  
Eartiris impregnated with an *Acid.* **Now** as **these** Winds **ate**remarkably cold, and as acid Spirits, that of Nitre particularly,  
increase the Coldness of Ice toa prodigious Degree, I think  
there is Region to believe, that the aerial *Acid* is more con-  
corned in the Preduction of Cold in the Ain, then is generally  
imagined. The Analogy betwrxt *Acids* and Cold, and betwixt  
*Alcalies* and Hear, is very remarkable. Heat promotes the Pu-  
trefaction of animal Bedies, or, in other Words', destroys the  
Cohesion of the Particles of which they are composed, and **then**the Oils. Sals, and Water fly ossi as they are of themfelves  
volatile, as soon as they tan break their Union with the **inert**Earth that detained them.- Alcaline Salts in the same Manner,  
promote Putrefaction in animal Substances, and the Dissolution  
of all Bedies whatever, and are’therefore ikefuily employed in  
extracting Tinctures from hard Bodies that will not yield it  
without their Assistance. Alcaline Sake also, as the Lapis In-  
sernidic. Salt of Hartshorn; and all others in a greaser or a less  
Degree, A they are stronger' of weaker, induce the very fame  
Kind of Efcar an the Part of living Animals, as aolual Fire will  
do if applied tothem. . '

On the contrary. *Acids* preserve animal Substantes froin  
Putrefaction, that is, preserve the Cohesion of theirtompohent  
Parts, and prevent then Dissolution. Cold 'does the very  
same. ""st u . -*'' s ’ - -"r*

The stronger *Acidi,* applied lb the Fleshof living Anrrnais,  
cause a Gangrene of the Pacts they touch, but of a Nature  
very different from that produced by Fire and alcaline Salts.  
Excessive Cold brings on a Gangrene much Of the fame Na-  
ture. We are told by People that have travelled into *rosy* cold  
Climates, that the Coldness of a Glass has sometimes taken  
the Skin off their Lips. aS they have been drinking Brandy but  
of it. And this is exactiy the EffeA of a strong *Acid. .*

Physicians have observedtbat the South-Winds favour pefti-  
initial Constitutions of the Air, especially if the Season hep-  
pens at the fame Time to he moist and rainy, and . that the  
Malignity of pestilential Distempers is abated by the Winds  
which blow from the North, or North-East, and cool serene  
Weather. So that there is Reason to helieve, in one Cafe, that  
the Dissolution of the Juices, usual in pestilential Distempers,  
is promoted by Heat, and the Contagion propagated by an alca-  
line Putrefaction ': And in the other, that this Dissolution is  
restrained by Cold, and the alcaline Contagion destroyed by the  
aerial *Acid.* . e . .

Upon reflecting on the great Similitude betwixt the Effects os  
*Alcalies* and Heat, and hetwixt the Operation of *Acias* and that  
of Cold, Thavc been often inolinable to think, that Cold is it-  
self, as well as Fire or Heat, a Body, and capable of bring  
-fixed and detained in other Bodies; and that, aS Heat is **the**Principle which, uniting with Earth and Oil, constitutes alcaline  
Salts, so Cold, concentrated, and joined to vegetable Or mineral  
Bedies, is the very Essence of those Salts which we call *Acid.*And farther, that the Esservefcencc, which eofues upon the  
Mixture of Alcalies and *Acids,* happens for the very fame Rea.  
sons that an Effervescence much like it is raised, upon immerg.»  
ing a red-hot Coal, or Iron, in cold Water.

That Cold is a Body there are some other Reafons to helieve,  
Thus, Cold contracts every -Part of Matter we are acquainted  
with in the Universe; that is, it makes the ultimate Particles of  
which Bedies are formed approach nearer each other, and lessens  
the Dimensions of the Compound. Now I cannot comprehend,  
hew Cold, if it was not Matter itself, could adin this Manner  
upon Matter. These Things I recommand to the Considera.;  
tion of Gentlemen who arc entertained with Philosophical Re-  
searches, and shall only make this farther Observation, that in  
case Alcali and Fire mean the fame/Thing, and *Acid .is the*same as Cold, the chymical Philosophers, in accounting for all  
the grand Operations in Nature, by the Action of Alcalies and  
*Acide,* were not much mistaken, though they, do not seem to  
comprehend the Reafon why they were in the Right.

I have, hinted before, that *Acide* are the great Preservatives  
against Putrefaction in the Air, and we shall find them not ]est  
useful in this Refpeci in the Sea, For that vast Body of Water,  
which we call the Sea, would putrefy in hot Climates partiar-  
larly, and het Weather, and consequently no Animals couid e4.  
thcr live in it, or near is. This great Inconvenience is pre-  
vented by the *Acid* of the Salt which is dissolved in Sea-water.  
Now, as Putrefaction is promoted by Heat, it should stem  
**a** greater Quantity of Salt is necessary to prevent PutresafiimI  
in hot Climates than in Cold. And accordingly, it has been  
discovered by an Experiment made by a Friend of Mr. Boyle’s  
at his Request, that the Sea-Water increases in Saltness the  
nearer it approaches the Line. Arid other Experiments make  
it appear, that a Pint of Sea. wator in the Mediterranean ωη-  
tains an Ounce *of* Salt, hut the same Quantity of Water in  
the Baltic only half an Ounce. 1

*\_ The medicinal* Virtues *A Acids* are ^ry whenFood,- taken m too large Quantifies for the Action ofStomach to digest, porcfy in **the** stomach **xeddinwhine,.**Or when any- **examined mice; in the towardi**

**an amidine Putrefaction. Or in thefe or whcre\_**

the Blood tends to Dissolution., These Virfeeg win he more  
particularly specified under the respective Articles, where they  
are indicated. See that Part of the Article ALCALI, where  
the Disorders caused by an Akalefceoce of the Juices, ate  
**treated** *of. .. . \**

But I must not omit to mention, that the acid Water  
which rises first in the Distillation of Turpentine, well sepa-  
rated from the Oil, is the most admirable vegetable *Add* known,  
in the Opininn of Boerhaave, and I think it is universally al-  
lowed to he endued with great medicinal Virtues, Floyer, in  
his Treatise on an Asthma, recommends it as an extraordinary  
Diuretic. . . Ψ.. . , .. ...: - . .

... Some Notice was taken of the .Effects of *Acids* upon Blood,  
under the Article ACETUM.. I shall only infcrt here what  
Boerhaave observes upon this Subject. - . .

χ The *Acide* of Moselle and Rhenish Wine, Vinegar, and  
distilled Vinegar, dilute the Bloed, scarce alter its Colons, and  
in some Measure prevent its Coagulating. The *Acid* of Nitre  
instantly coagulates it, and turns its Colour bluish ; the *Acid* of  
Sea-salt likewise soon coagulates it, and changes it of a grey  
Colour, inclinable to Black. The acid Spirits of Vitriol and  
Sulphur also bring it to a firm Mass, which is generally whitish.

Hence appears the fatal Error os those Physicians, who  
unjustly condemn *Acids,* under, theisalfe '.Notion: of.their  
Coagulating the Bloed, by an Argument wholly derived  
from Milk ; whilst Hippocrates from a closer Observation of  
Nature judged, that Vinegar was proper in inflammatory Diss  
tempers, though the Blood is thenceTendered more dense. .And  
we cannot safely pronounce concerning the Effects of *Acide* up-,  
on. the Blood, unless it be first distinctly explained what Kind  
of *Acid* is understood : The Use of mineral *Acids* is danger-  
out, but of Vegetable *Acids* more wholesome ; and it frequent-  
ly happens, that the Things, which really coagulate the Blood, are  
supposed to dissolve it. *Boerhaave's Chemistry; .. .* i . ,  
. The following Observations. upon; *Acids* made by the-last.,  
quoted Author, are both entertaining and instructive. . Bur he  
seems to err when he says. Vegetables receive all their *Acide*from the Earth, whereas it is highly probable they imbibe some  
from the Ait. ......

Count Marsilliss Observation on Sea-plants only proves, that  
in these the Earth is not sufficiently united with the alealine  
Principle, Io render the Salt fixed, and that they contain a less  
Quantity oi *Acid* than some Plants which fix them Root in the  
. Earth. *s.:..* I Ἀ.Λ .

- The *Acids* of Vegetables are either .native, or produced by  
the Help of Fermentation. Native Vegetable *Aads.* seem to  
owe their Origin intirely to the Juices which the Plants draw  
out of the Earth winch nourishes them ; and hence, perhaps,  
ail these may he looked upon aS belonging originally to the fossile  
Kingdom, especially aS Plants winch grow in the Sea, and have  
not their Roots inserted into the earth at its Bottom, consist  
purely of alcalescent Parts, and in Distillation yield an oily,  
volatile Alcali, as the illustrious Count Marfilli, in his Writings  
upon this Subject, informs as, he long ago observed, in some  
Vegetables the native *Acids* discover themselves evidently4. as in  
Sorrel, the Trifolium Acetosum, and the Juice of all Fruits,  
whether the pulpous or Summer-fruits, especially whilst unripe,  
fur, when concocted by the Heat of the Sun, they grow .more  
mild. The Sap also os all Vegetables which rises in the Spring  
is almost as acid as Vinegar. Many Woods also and Aromatics  
Contain a true *Acid,* winch however, is not so manifests In  
Guaiacum, Sassafras, Cinnamon, and a vast many more of the  
like Kind, who would eVer have suspected an *Acid,* if it had  
not been manifested by Distillation? Who would believe that the  
most noble Balsams contained such an *Acid,* as Turpentine yields  
easily and in great Quantities by Distillation.? But as *Acidi* can  
scarcely he obtained pure and without Mixture, it is exceedingly  
difficult to give a distinct Account of their proper Actions: The  
Virtue of some of them, however, upon certain Bedies, isevi-  
dent; thus we see the fresh Juices of Oranges, Citrons, and  
Lemons dissolve Lead, Tin, Copper; and Iron, and sa capable  
of strongly calcining them, like fossile *Acide.* The acid salts,  
however, are formed into solid Globules, in a disserent Manner  
from the other; for their most acid liquid Juices being pressed  
out, filtred, inspissated, and then set to rest in a cool Place,  
shoot, into saline Globules, not unlike Tartar, and containing a  
a true Vegetable *Acid.*

. But Fermentation seems more and inore to exalt the latent *Acid*of Vegetables. For the Juices of Vegetables, that am exceeding  
ripe and sweet, appear to have scarcely any Thing of Acidity in  
them, as we see evidently in the expressed Juice of Grapes.  
Who can perceive any Thing like an *Acid* in Cassia, Manna,  
Honey, and Sugar; and yet, when these are rightly fermented,  
and set a-working, the *Acid* presently appears, but especially  
when the Wine begins to grow finer and more sobtile. In ripe,  
mealy Cora,, is there the least indication of an *Acid ?* And  
yet, when this has fermented but a very little while, is disco-  
vers an Acidity. As these *Acids,* now, thus produced, are of a  
something different and more subtile Nature than the native  
ones ; hence, to. distinguish them,, we may he allowed, for the  
future, to Call them vinous *Acids.* These Vinous *Acids* then

are of two Sorts; for either they are dispersed through the Win?,  
in Form of liquid *Acids* ; or else in Time collect themselves to-  
gether in the Wine, and fix themselves to the Surface cf the  
-Vestel, in the solid Form os Tartar. - And these fermented  
vinous *Acids* have pretty nearly the same Virtues as the preced-  
ing native ones.

But the *Adels* of Vegetables, predated by a second Fermenta-  
tion, I will call by the Name of Acetose. For if any known  
Wines are, by an Admixture of austere,-acid, crude Juices, made  
to undergo again a proper acetose Fermentation, they will he  
converted into Vinegars, will consume their own Tartar, be-  
come much more acid , and will acquire a stronger and  
more durable Acid, which will remain even in Distillation :  
Hence in Vinegars there is obtained a pure, active Acid, and  
then they are called pure, distilled, acetose *Aads.* These last  
are of such incredible Service and efficacy in Chyinistry, - that  
hence all other Menstruums likewise have been called Aceta ’  
by the Chymists. '. .. - - : - - τ- Y

' But among *Acido* we must take Notice likewise of ferments,  
ing *Acide* ; by which we mean. Vegetable Juices, that are in  
the Very Act of Fermentation, and thus in a Kind of mid-  
dle State between that which is natural to them, "and that  
which they obtain when the Fermentation is compleated ; for,  
during this Time, the most elastic Part of the fermenting  
Liquid acquires such a Power, as is not to he equalled-by  
any Thing I know of in all Nature. For if this(Sylvestris)  
savage, incoercible, explosive, acid Spirit,7 rising from a vast  
Quantity os fermenting Vegetables, should pass through a very  
small Vent-hole into the Nostrils os. the strongest Man, it  
would strike him dead in an Instant. If it does not act with  
all. its Force, it causes a sudden Apoplexy j is less powerfully- still,  
a Loss of-the Senses,.with a Paraplegia if Very lightly, only  
a Vertigo.. The Truth os all this has been too certainly evinced  
by melancholy Instances. -Hence we come to have a more per-  
sect Idea7 os the more immediate Cause of Drunkenness, and the  
Tremors upon the Nerves that are consequent to it; And  
hence we see the Occasion of that surprizing Phenomenon men-  
tioned by the illustrious Cornaro, in his noble Treatise, wrote  
in the Praise of Sobriety, where he telis as, as. he grew in  
Years, he was annually, just before the Time of Vintage, trou-  
bled with a Languor, and Lowness of Spirits, which would  
not give Way m any Medicine,- or Regimen, but increased sei  
aS to become extreme, till, upon drinking new Must, he -re-  
cruised this exhausted Spirits, and re-assumed his former Vi-  
pour: This then he continued to enjoy till the Wine of that  
Year; began to grow old, and then relapsed into his usual De-  
bility, and was forced to walt for a fresh Recruit of new Wine,  
to set him to rightsagain. From all this then we evidently  
learn, whet an incredible Effect this fermenting Acid has upon  
the Bedies of Animals, either for their Detriment, or their Ad-  
vantage. Whence does it happen that she Cholera Morbus in  
so short a Time becomes so fatal ? Certainly from Must, and  
ripe Summer-fruits, actually fermenting in the Stomach, and  
smaller Guts, and, by the Explosion of their Spirits, contracting  
the Muscles os these Parte into Spasms, that often prove mortal..  
Of this there is a remarkable Instance in the Philosophical  
Transactions, where the Anatomist, St. Andre, gives a Very  
accurate Account *of* the Body of a Man that fell into a Cholera,  
upon drinking a large Quantity of bottled Ale, of which he  
died, in the Manner there described. AS by these Accounts the  
singular efficacy of such an *Acid* evidently appears, so likewise  
it seems exceeding probable, that those Spirits, considered as  
a Menstruum, produce often upon other Bodies Very surprizing  
Effects. And I have sometimes doubted, whether this wonder-  
ful Spirit is not fixed in Tartar, and afterwards, when by the  
Action of the Fire, in the Distillation of this Salt, it is set at  
Liberty, does not produce that classic Vapour which the Chy-  
mists have always observed to he so prodigioufly elasucas to burst  
to Pieces all their Glasses, let them he ever so large.

It is however certain, that Bedies which we intend to dis-  
solve, if mixed with Liquors in the Very Act of Fermentation^  
will he dissolved by them in a very different Manner from what  
they would have been, if put into the very same Liquors, when  
not in Fermentation. A manifest Instance *of* this we see in  
green Herbs, when thrown into fermenting Must, or Wort ;  
for hence we have a Liquor, in which all their Virtues seem to  
he most equally united into one and the same Liquid, and after-  
wards to act with a joint Efficacy. And thus also the different  
Ingredients in the Theriaca, or Venice Treacle, when they are  
mixed together with Honey, are reduced into one homogeneous  
Mass, and conspire together in the same Operation. *And hence  
appears the Folly of those, who in this, and the like Coreposttiansu  
substitute Diacodtum instead of Honey, thereby spoiling the -Medicine.*

But pure, thin, acetose *Acids,* are procured, pretty much in .  
their natural Form, from Vegetables exposed to the Fire: For  
if you take a Stick of Wood, a green one in particular, and  
lay it upon a clear Fire, in such a Manner, that both the ends  
shall he out, then the Fire, acting upon the middle Part of the  
Wood, will fuse the Humours contained therein, and expel  
them at the Extremities, in the Form of Water, with a Hissing  
and Froth. This Liquor, upon, examination, appears to he a

*pom Acid,* has all the Properties of *Acido,* and the distblving  
Qualities common *to* them. Hence, we loam, that .the Smoke  
cfWood, that which is green particularly, gives the Eyes Pain,  
by the. acrid *Acid* which it disperses all about. This, likewise,  
when it penetrates into Flesh or Fish, that are hung in Smoke,  
tinges them with a red Colour, and, by its Acidity, prevents  
their growing putrid, or rancid. And this *Acid* is exceedingly  
like those that exist naturally in most Trees.

But again, there are difcoVered other Very fingular *Acide,*that are in some Measure of a balsamic and oily Nature, which  
are drawn from Vegetables by Fire in a close Vessel, hath  
*por adstensim* and *descensum.* Thus, the Wood of Guaiacum,  
Juniper, Oak, and a great many others, if reduced, to dry  
Shavings, and carefully distilled in a Retort, yield a limpid,  
reddish Liquor, which jo Very acid, somewhat oily, and has a  
good deal of the Smell of a Herring dried in the Smoke. And  
the Liquid thus prepared is strongly acid, and may he rendered  
stronger by Depuration and Rectification, and then the solvent  
Virtue of this Menstruum is perfectly singular, in the Human  
Body, it produces wonderful Effects, by attenuating, prefer-  
ving, stimulating, and resisting Putrefaction, and carrying off  
the noxious Matter by Sweat and Urine. If in these Menstruums,  
therefore, the Virtues of medicinal Plants are diflolved, .the So-  
lutions become exceedingly efficacious, aS they act by their Very  
subtile, penetrating, singular *Acid,* and exalt the Qualities of the  
Bedies dissolved in them. - Of all these Vegetable *Acids,* there-  
fore, it is true, that they are capable of intimately dissolving  
many animal. Vegetable, fossile, and metalline Substances:  
By Digestion and Coction, they dissolve.the Horns,.Hoofs,  
Bones, and Flesh *of Animals :* The Shells os Fish, and other  
Animals, they perfectly corrode into a pellucid Liquor: And.  
- Metals they dissolve, except Mercury, Silver, and Gold.. . -

- Art, therefore, has sought out and discovered Other *Acids,*which are able to dissolve Mercury, Gold, Silver, and other  
Fossils, which were unaffected by Vegetable, *Acide,* and these  
are .not easily digestible by the Power of animal. Bodies. For  
Vegetable *Acido* may, by the Action of a strong healthy Body,  
especially ifassisted by a considerable Motion, he so changed, as  
to lose. their acid Nature, and he converted. Into another Kind  
of Salt: But those *Acids* that we are at present acquainted with,  
which are Capable of dissolving Mercury, Gold, and Silver,  
are not so easily subdued by the concoctiVe animal Powers;  
but bring superior to them, for the most Part, destroy them.  
And hence these become generally Poison to Animals, exeept  
in a Very few .Cases, where a putrid Alcalesccnce prevails, aS  
when alealine Poisons are taken in: by them, or in a putrid  
State os the Humours, aS where a pestilential Virulence, or an  
universal Putrefaction, in the Small-’pox, threaten immediate  
Destruction.

Fossile, native *Arids,* are rarely to be met with, for it is now  
discovered; that the medicinal Waters, once looked upon aS acid;  
approach, in every Character, nearer to an Alcali \* There is  
often, indeed, a Vapour observed in Mines, which resembled a  
suffocating, sulphureous *Acid,* and by other Marks demonstrates  
its Acidity: But it is Very seldom sound alone, and Very pure,  
in a fluid Form. '

But whenever it happens, which is Very often the Case, that  
It meets with a solid Body, which is capable of attracting that  
*Acidi* it then unites with rt,.and becomes fixed, and palpable:  
And, when it is afterwards drawn out os that fixed Body, it  
then sails under the Notice *of* our Senses; and then, aS sar as it  
is possible to judge, appears to .he always one and the same. -

For, if it lays hold os a pinguious Fossil, it produces Various  
Kinds of Sulphurs, which, is they are burnt, emit Fumes, which  
bring collected, refrigerated, and mixed with the humid Air,  
yield the Spirit, or Oil of Sulphur *por Campanam,* If you take  
- this, and put it into a clean Glass Vessel, and expose it for a  
considerable Time to a Heat equal to that os boiling Water,  
you will distil from it a considerable Quantity of pure Water,  
which, whilst the Sulphur was burning, had insinuated itself  
. out os the Air into the acid Fume of the Sulphur; and there  
will then remain at the Bottom a ponderous, thick, caustic  
*Acid,* which in every Character resembles the purest Oil of Vi-  
triol, except in this alone, that it contains nothing of a Volatile  
Metal, which is always found mote or less in Oil os Vitriol.

But if this *Add* happens to corrode Lime-stones, it then pro-  
duces Alums, which are different, according to the Diversity  
of the Matter which is mixed with them. All these, if they  
are first lighly calcined, and then with an intense Fine urged in-  
,to Vapours, will, by the Condensation of these, yield a Liquor,  
which, when it is purified according to Art, is nearly the **same**.with the former procured-from burning Sulphur.

Again, if native green Vitriol is by the Help ofa moderate  
.Hear reduced to a dry, white Powder, and then expossd to a Fire  
gradually increased to the extremest Degree, it wist emit white,  
cloudy Vapours, winch, collected into a Liquid, and accurate-  
ly depurated, is the very seme again as was obtained from Sul-  
phur, and Alum.

The blue Vitriol also, treated in the same Manner, yields  
**R** Liquid which is the sama With the former, nor can it be di-

stinguished from them, **when** rectified according to Art, as **the**Artists express themselVes. All **these** acid Liquors, if urged  
with a Heat of five hundred and sixty Degrees, begin so  
boil, emir white, cloudy Fumes, which disperse themselVes all  
around to considerable Distances, and destroy all known-Ani-  
Inals, sand even Insects

But, if these Fumes are drawn into the Lungs by Inspiration,  
they immediately excite a most troublesome Coughs which ad-  
mitS of no Cure, which is succeeded by a suffocating Dyspnoea;  
and almost immediate Death ; or perhaps a most troublesome  
and incurable Asthma. Oil of Sulphur, Alum, both Sorts of  
Vitriol, aS soon as, by the Action os the Fire, they are raffed  
into Vapours, by Combustion, Distillation, Dr Ebullition, have  
exactly .the same Effects. Any of these *Acids,* united with **a**pinguious Oil, produces Sulphur; with a calcarinus Earthj  
Alum, with Iron, Vitriol os Iron; and with Copper, Vitriol  
of Copper : From all these Considerations, then, we collect,'  
that it is one and the same *Acid,* which is found native amongst  
all Sorts ofFossils, and is so Very ponderous, and requires so great  
aDegree osFireto make it boil.

The Properties os this *Acid,*- are. First,' That it is naturally:  
the heaviest ofall *Acide.* To Spirit os Nitre its specific Gravity  
is aS ii Io 9 r To .Spirit os Salt, aS II to 8 : To Aqua Fortis,  
as II to 9 sv Andto distilled Vinegar, nearly as I I to 7, *Mem. de  
bac Rap. des Sc.* I699. r. - - ’

Secondly, .It is of all .frnfithemost fixed ; for, in the Heat of  
boiling Water, it never emits any Fumes, for; the' the Water-  
which adheres to it . may-rise in Vapour, the *Acid* itself never  
does in such a Degree of Heat, for it requires something mores  
than five hundred and sixty Degrees of Heat to make it boil, and.  
then it emits noxious Vapours. . ’ ..si

. Thirdly; These *Acids* bring perfectly freed from all their Wa--  
**ter, .by** a strong Fire, and by this Means rendered Very pure,‘-  
heavy, and acid. Very greedily attract into them Water out of  
the Air, , and by this Means dilute themselves, and increase in  
Weight. ..- S

’ Fourthly, When rendered Very pure, they immediately, upon  
the Affusion of cold Water upon them, grow surprizingly hot..'

Fifthly, This *Acid* induces such an Alteration on Sea-salt,  
Fountain-salt, and Sal Gem, by the Assistance of Fire, that  
in Distillatinn they yield a Spirit of Salt; mixed with Nitre, it  
causes a .Spirit of Nitre to rise from it; and if it is mixed with  
many Other Bedies, dissolved .by acid Spirits, it sets them free'  
from their solvent *Acids,* by dillodging them, and rendering them.  
Volatile, whilst it often insinuates itself into and fixes in their Pla-  
ces. Upon this Principle it is that Alum and Vitriol, is they are  
first calcined, and then mixed with Nitre, yield Aqua Fortis ; if  
with Sea-salt, Spirit of Sea-salt: For in the Colcothar there  
still remains a' latent *Acid* of Vitriol, exceedingly strong, and  
so fixed, that the Fire was not able to expel it, which, bring  
mixed with Nitre, makes the acid Spirit os the Nitre rise into  
Aqua Fortis, which is the pure Spirit *of* Nitre without any  
Mixture of Oil os Vitriol ; but at the same Time that Part of  
the Vitriolic *Acid,* which remained in the Calx of the Colco-  
thar, is lest at the Bottom with Part of the Nitre, and produces  
**there an** exceeding fixed Salt, like Vitriolated Nitre; and the **same**happens with Respect to Sea-salt. '

Sixthly, It readily dissolves Iron, het Copper somewhat flower,.  
Silver with a good deal os Difficulty, and Mercury not in less  
than five hundred and sixty Degrees of Heat: But it will not .  
dissolve either Lead or Tin.. In other Respects, this *Acid* agrees  
with all the rest. It has this too in common with some, that  
it will perfectly dissolve Camphire into liquid Oil, which, by the  
Affusion of a large Quantity of Water, revives into true Cam-  
phire.

Another fossile *Acid,* which we are acquainted with, in pro-  
duced from Nine only, insomuch that there never was seen ut  
the World a single Drop os is, except what was distilled fr0nxNitre. For is Nitre is intimately mixed with three Times theQuantity of Bole, Clay, Brick-dust, or any Thing of the like  
Nature, and then urged with a Very thong Fire, a great Partof it will he converted into red Fumes, which being condensed  
into a Liquid, it is then called Spirit os Nitre. Gr if dry  
Nitre is mixed with an equal Quantity of Oil of Vitriol,  
distilled in the strongest Sand-heat, gradually increased, the farnrSpirit os Nitre will he procured from the same hart Of rc|p  
Fumes.

Or Lastly, Nitre rubbed and mixed with an Quantity  
of the Calx of red Vitriol, or Alum, and then urgedwjch J  
Very great Degree of Hear, wiU then emit rim &rnc Furae.  
and from them yield a Spirit of Nitre, which in js aij  
as pure, as the former ; but is then called by the Chymish Aqua  
Fortis, Aqua Stygis, and Aqua Docimastim. spbis *sfrsta.  
howsoever prepared,* rs the same in every Reshea, andher, ’  
Property; for if these is My Difference, it iilcallso  
v\*lf by any Expairnatt. And it'has this in .

w LAgrowsΉσ?' Fire» « fa\*  
ῖίἌτ7 Silver into very biwicauffic

iascely **be effiAed** by any other *esu; wcn gul 00 of vi*

will not do it without Difficulty; It diflolves also Mercury,  
Tend, and Copper. Gold however it will not touch ; and scarce-  
ly diflblves Tin. This *Acid,* when it Is intimately united with  
the Metal it diflblves, adheres to them with a considerabis Force,  
so as to remain united with them, in a very strong Fire. An  
Instance of this is. Silver dissolved in this Manner, which fuse  
hers itself to he melted into the Lunar Caustic, without letting  
go its corroding *Acid.* Mercurius praecipitatus ruber, red Mer-  
cury praecipitate also, when it is rightly fixed, - will for a long  
Time resist an intense Fine, before it parts with the *Add* that  
adheres to it. . ' ’ X

- \* Sea-felt, like Nitre, when it is pure, discovers no Sign of ch  
*Acid,* but if it is treated in the Manner just mentioned, in Re-  
gard to Nitre, it Is changed into a volatile acid Liquor. \* For  
if, to prevent its Melting, it is mixed with three Times its  
, Weight of Earth, and then urged by a Fire increased, gradually,  
to the greatest Degree, it will he dissipated into dense, white  
Prunes, that float about, are very-volatile, and,being collected,  
form a Liquid of a golden or green Colour. If distilled with Oil  
of Vitriol, it yields the same Liquor, but more volatile. And  
is mixed with the Faeces of distilled Alum, or Vitriol, and af-  
terwards exposed to a Very strong Fire, it will then, in like  
Manner, give the same Spirit of Sea-salt. And these Spi-  
jits, prepared in these three different Ways, ‘are -intirely one  
.and the same, and they will he the same, if made with Sal  
Gemmae, Fountain, or Sea-salt. This Spirit has this Peculia-  
rity, that if it is drawn from the purest Salt, and you repeat  
the Distillation upon fresh, pure Salt, when it hegins through  
the Violence of the Fire to grow exceeding het, it emits white  
Fumes, and diflblves Gold, which no other *Acid* in Nature is  
able to penetrate. It likewise diflblves Tin, Mercury with a  
flatulent Noise, Iron, and Copper. Silver it does in no Man-  
ner affect; nor does it perfectly diflhlVe Lead : So that this again  
is an .frisf perfectly singular in its Kind . .

Hence, therefore, it appears, that Spirit of Nitre, and Spin  
nt of Salt, are two perfectly distinct Things, though at the same  
Time they are furprifingly alike, and are converted into each  
other with a great deal of Ease. Thus, if Spirit of Nitre is  
cohobated in a glass Retort, upon Nitre that is exceeding dry,  
and purified with the utmost Skill, so that there is not the least  
Grain of Sea-salt in it, you wist then have the Very choicest.  
Spirit of Nitre, growing better and better upon every Cohoba-  
tion, and fitter for' the Operations proper to this Spirit. But  
if this Cohobation is performed upon common Nitre, which is  
not purified hy Crystallization, then the cohobated Spirit of  
Nitre .will lose the Nature of Spirit os Nine, and will acquire  
the Properties of Spirit os Sea-salt, or Aqua Regis, and will dis-  
solve Gold. If we Carefully examine this extraordinary Fact,  
we shall easily perceive, that to this natural Nitre there must ad-  
here somewhat of Sea-salt, which intermixes itself with the ni-  
irons Spirit in Distillation, and thus from Spirit os Nitre pro-  
duces Aqua Regia. And this again appears evident froth the  
following Experiment: Take one Part of pure decrepitated dry  
Salt, reduced to Powder; put it into a clean Retort, and pour  
upon it four Parts of good Spirit of Nitre, or Aqua Fortis; di-  
stil it then, according to Art, to the utmost Dryness, keeping  
your Sand-heat Very strong to the last, and the acid Spirit, which  
is thus procured,' will he no longer Aqua Fortis, but Aqua Re-  
gia, which will diflblve Gold, but will not touch Silver. If  
you examine then the Salt that remains at the Bottom of the  
Retort after this Operation, by Solution, Filtration, and Cry-  
stall station, you will have a true, pure, inflammable Nitre. *Du  
Hamel.* Hist, de l’Ae. Roy. des Sc. p. 158. *Boylda* Orig. Forms,  
Ρ.215. ' ''

Again, Take one-Part of the purest Nitre, and two of the  
best Spirit of Sea-salt, and distil them in a proper Manner in a  
' Retort, there will come over a Spirit which will diflblve Gold  
much easier and sooner than Spirit of Sea-salt. And if the Salt,  
which remains aster the strongest Distillation, is dissolved in  
Water, filtredand crystallized, it becomes goal inflammable  
Nitre. *Boyle,* Ib. from p. 2I5-to 224. *Bean.* Chem.35, 36.  
163. *Hiffin.* Differt. Chem. Phys. L. 3. t)bs 20.

Hence therefore it appears, that Aqua Fortis becomes Aqua  
‘Regia, as soon as ever Spiilr of Nitre and Spirit of Salt come  
to he mixed together, in whatever Manner, and almost in what  
Proportion soever: And sarther, if any Portion of Sal Ammo-  
niae, Sal Gemmas, Sea-salt, Fountain-salt, the Sal Febrifugus  
of Sylvius, or true Spirit ofSalt, is mixed with Aqua Fortis, an  
Aqua Regia is always produced.

In this History of *Acids* it is particularly remarkable, first.  
That *Acide* arc so easily generated from Substances not acid 5  
as appeared above under the Article of Vegetable *Acide.* Wine  
also, which was not in the least acid, was by being close stopped  
.up in a clean Bottle, and tied to the Sails of a Wind-mill, con-  
verted in three Days into good Vinegar, according to the Ob-  
servation of Monsieur *Himberg,* Mem. de I’Acad. Roy. des  
sc. T. 2. jo II.

Secondly, It is sarther remarkable, that *Acide,* when they are  
once generated, are scarcely altered by Fite, though exposed  
-to it ever so long: For Aqua Fortis, Aqua Regis, Spirit of  
Nitre, Spirit of Sals, and Oil ch Vitriol, included in Glasses

hermetically sealed, and exposed for sour Years th the equable  
Hear of an Athanor, retained the same distolving Power. Vine.,  
gar only was grown Insipid, and acquired an aromatic Smell ;  
and the Spirit of Salt had begun to corrode the Glass.

Thirdly, These very same *AcHs* soft then. and Nature;  
whilst they act as Menstruums upon solvend Bodies, Thin  
Monsieur Kornberg very ingcniouily inferred from a tedious Ex-  
periment performed with Mercury and Spirit of Nitre. *Du  
Hamel..* Hist, de l’Acad. Roy. des Sc. p. 442, 444. . : .

." Hence it is evident that the strongest acid Menstruum is, by  
dissolving its Object, converted into at. insipid, inactive Fluid,  
not unlike Water, and deprived of the proper solvent Power  
which it before was endowed with. And bench, perhaps, if is  
not improbable, that these *Acids zre* generated and perish. For  
what Person living has ever discovered any Spirit of Nitre in the  
World, which was not first procured from pre-existing Nine ρ  
And.yet Nitre is produced from Earth, silled with animal Ex-  
crements, lame; and an Alcali, and Air ; or from pure Spirit  
of Nitre attracted mm a pure Alcali, particularly one that is  
fixed. Rich and sat Earths also, if defended from the Rain, and  
prevented from consuming thetr Strength by nourishing. ofVege-  
tables, are all found hy Length of Time to he impregnated with  
a fertile Nitre,-if Care is taken that no Sea-salt comes at  
them. *Boyl.* Soept.Chem.

' Hence then it is evident, that the actd Spirit of Nitre is, by  
the sole Action of Fire, produced from pure Nitre; whereas  
native Nitre is preduced withoutany'such Spirit first existing in  
any sensible Form. *-Ti :*

Fourthly, These *Acids,* whilst they diflblve Bedies, become  
concreted with them, are changed and converted into new ones,  
and thus from one give Rise tn a great Variety: For Spirit of  
Nitre dissolves Silver, Lead, surprisingly-alters Tin, Copper,  
Mercury, Nitre, Antimony, Zinedj and Emery, and with these  
forms new Bedies, that are different in Taste, Smell, Colour,  
Density, and in every Effect.'. *Boyl.* Mech. Qual. 118,119.

Fifthly, All these *Acids* agree in some Particulars, het differ  
in others. - .

They agree with Regard to their Composition with Alcalies,  
the Effervescences'thence arising, and the Generation of new  
Salts from this Union. As also in these Composition with  
Chalk, Corals, Crabs-eyes, Pearls, Mother of Pearl, the Shells  
of Cockles, Limpins, and Oysters, Stones, Bones, Hoofs,  
quick and flaked Lime, Iron, and Copper. ' For all these  
are generally dissolved by all Sorts of *Acids* sooner or later, who.  
ther st is affected quietly or with a great Effervescence; These  
Bedies, when they are thus dissolved, always attract into them  
the *Acid* os the Solvent out os the Water, with which that  
*Acid* was before diluted. And then the -Matter thus dissolved,  
by this Means united with its solvent acid Salt, is converted in-  
to a Kind of Salt, and admits of a Dissolution in Water, so  
long as the *Acid* adheres to it; though these Bedies, before this  
Mixture, were no Ways dissoluble in Water. But when this  
*Acid* is again by any Method removed from the dissolved Mat-  
ter, then this constantly appears again in the Form of an Earth;  
which most powerfully resists Solution by Water. Hence it  
appears, how very much we may he imposed upon by Water,  
whilst, judging of it by its Appearance, we make Use of it in .  
our Operations for pure elementary Water ; whereas, in Rea-  
lity; It may contain in it various Kinds of dissolved Bedies,  
together with their Solvents. And hence. Effects are frequent-  
ly supposed to he produced by simple Water, which, in Fact,  
are owing to these latent Solvents and Menstruums. And this  
happens the more easily, hecause *Acide* in general, when they  
are accurately united with the Bodies above-mentioned (Metals  
only excepted) mA perfect Saturation, lose all theirs Acrimony,  
and commonly all their Taste, and thus he perfectly concealed.  
Thus, for Instance, let Spirit of Nitre be perfectly saturated  
with Crabs-eyes 5 this Solution will he a limpid, and almost,  
insipid Liquor; and when diluted with sain Water, siltred, and  
kept for some Time in a gentle Heat, it will have the Ap-  
pearance of pure Water; but, upon pouring into this a strong  
fixed Alcals, the whole Mass of Crabs-eyes, before dissolved, ,  
will immessiately fell tn the Bottom, and might impose a Be-  
lief upon' the Unwary, that , this was generated from pure  
Water.

These *Acids* sarther agree in this, that, by dissolving Bodies,  
they not only become united and concreted with their Solvends,  
but are sarther at the same Time changed in their own Nature:  
For it is demonstrated by undeniable Experiments, that the  
most acid *Acids,* whilst they conode their Objects, are truly  
changed by them, and pur off the Disposition, not only of an  
*Acid,* but of a Solvent also. Thus Spirit of Nitre, for in-  
stance, when it has corroded Mercury; and is separated from  
it again, presently loses the Power of dissolving it any more.  
Another Property of *Acids* in Common, is their turning Vege-  
table Juices of a red- Colour, as appears in the Turnsole, Ro-  
ses, and Violets. And again, they all agree in this, that they  
do not so much alter the Bodies they diflblve, as they are al-  
tered hy these themselves. This is sound to held true in almost  
every Case. Vinegar, in dissolved Lead, does not continue  
Vinegar there,, nor is separated Vinegar again from it j but

the Lead is recovered persect Lead. Spirit of Nitre dissolves  
Mercury, and the Mercury is procured from it again exactly  
**the** same; but the Spiritof Nitre, when it is separate d, innothing  
like what it was before. Hence it appears, that it is common to -  
all *Acids,* that a great deal.of them are continually perishing.

These *Acids,* however, differ Very widely, first of all,, with  
Respect to the Proportion between their true ssridurand the  
Water it is mixed withe Thus, in an Ounce of the best  
Vinegar, there are eighteen Grains os *puce Acid,* and all the  
rest Water : In an Ounce of Spirit *pi Salt,* seventy-three  
Grains of true *Acid,* the Residue pure Water: An Ounce of  
Spirit of Nitre gives two Drams, and twenty, three *Gatins*of *Acid,* the rest Water: The same Quantity of Aqua For-  
tis, two Drams and twenty-fix Grains in And lastly, an Ounce  
of Oil of Vitriol yields-shut Drams and sixty-five Grains; os  
*Acid,* according th the Observations of Monsieur *Himberg,*Hish deJAe, . .. .At-.

Secondly, This Very *Acula* when pure, in every particular  
Sort. of -it, differs surprisingly in its dissolving Power :.. For  
the *Acid* of Nitre, hailed with Gold,» has-scarce any Effect  
upon it,-except that; in changes it.black;’ whereas it difiolVes  
Silver immediately.: And , the Contrary is.-true of Aqua Re-  
gia. Hence it is evident, that, the *Acid* does not act there  
so much as an *Acid,* as a Body endued with a peculiar Virtue.  
.Thirdly, *Acids* differ, in ithis Respect, that, whilst they dis-  
solve their Objects, some of them are changed a great deal  
more than others ; thus, .Spirit of. Vinegar, in diflblved Lead,  
hecomes an oily pingnious Spirit: But Spirit of Nitre, whilst  
it corrodes Lead, is not altered in thss Manner.

Fourthly, The same *-Acid* is Very much changed by acting  
upon-some particular Bodies,.but Very; littie, or not at all,  
' when It .acts upon , others. Thus,; distilled Vinegar, in the  
Solution ofLead, is altered in the Manner I just now observed;  
if it corrodes Iron, itIoses all its former Nature, nor can it be  
ever recovered from it again ; but if Copper is corroded by it  
into a Rust, and then dissolved into a green Liquor, and  
from this Crystals are procured , these Crystals will con-  
tain an exceeding strong: Vinegar,; and ; if distilled in a Re-  
tort, with a great Degree of Fire, yield : a Very strong acid  
Spirit of Vinegar, scarcely: in the least altered, though it: ad-  
hered so tenacioufly to the Copper. Hence then it appears,  
what different Changes *Acids* undergo, by bring united with dis-  
serent Metals; which is true also, with Respect toother Bo-  
dies. All *Acids* in general may he diluted with Water. They  
may be mixed with Spirits, as Spirit of Nitre with Alcohol,  
with a prodigious Heat, : very red Fumes, and an Effervescence  
. which almost bursts out in Flames. - They may he combined  
also with Oils ; Spirit of Nitre, sometimes, with such an Agi-  
tation as excites Fire;. for the most Part with an intense  
Heat. Oil of Vitriol also, mixed -with Alcohel and Oils,  
generates a prodigious Heat. But, whenever *Acids* are intimate-  
ly united with Oils, somewhat bituminous, pitchy, or sul-  
phurous,is almost always produced ; whence often arise very  
extraordinary Changes, 6

*Os. Diseases caused by a predominant* Acid *in animal Bodies.*

. It is to he obserVed, that all animal Juices are formed ei-  
ther of Vegetables, or other Animals taken into the Stomach,  
and thence transmitted to the Intestines, where, by the Power of  
the digestive Organs, they are converted into a balsamic neutral  
Chyle, neither .alcaline nor acid ; and this, so prepared, is by  
the animal Actions mixed with the Blood, in such a Manner,  
thatthe Whole together forms one uniform Mass, fit for Nutrition,  
and adapted to supply all the Exigencies of the animal CEcono-  
my. - Butin the digesting and assimilating Organs are weak,  
or the Aliments taken in Quantities disproportioned to their  
Strength, they are not converted, in; the Manner mentioned  
above, into a balsamic; neutral Chyle, het, putrefying in the  
Stomach and intestines, acquire that Sort of Acrimony, which  
they would produce upon Putresaction. m any Place out of  
the Stomach, in an equal Degree of Heat and Moisture And  
in this Case cannot properly be said to digest in the Stomach,  
but rather to putrefy. Hence, as the Food is either of an alca-  
lefcent or acescent Nature, an alcaline or acid Acrimony pre-  
’ Vails in the Juices formed from it. Those Aliments are called  
Alcaleseent, whose Juices become alcaline upon Putresaction ;  
those are called Acescens, whose Juices upon the same Occa-  
hen contract an Acidity. '

The Aliments, from which acid Juices are formed, are all  
those winch are usually railed farinarynrrs Such amongst many  
others are Wheat, Rye, Barley, Oats, Beans, Pease, Millet,  
and Rice. If these are mixed with a sufficient Quantity of  
Moisture,'they ferment, and grow acid, in a Degree of Hear  
not exceeding that of the Atmosphere in warm Weather ; bat  
-when mixed with a little Moisture only, they do not so **ea-**sily ferment, but form a Kind oftenaceouS viscid Substance like  
Glue. : Milk is to he numbered amongst acescent Aliments;  
and all the Parts of Vegetables, which are naturally acid, or  
capable of being rendered so bv Fermentation, supply the ani-  
mal Juices with Acidities. Such are all the Prints which are  
usually termed Fructus horaei, **as** APples, Pears, Apricocks,

Peaches,' Nectarines, Plums, Oranges, Lemons,’ Citrons,  
Cherries, Mulberries, Currants, Rasberries, Strawberries, Ely  
derberries. Figs, Pomegranates, Cucumbers, Melons, jujubs,  
and many others of this Sort.. .Η.’ς. .so

These, though generally excellent Foed, especially she those  
who are accustomed to. a plentiful Diet of. Flesh, yet become  
noxious, by Reason os their Acidity, when taken into the.Body  
in Quantities too large for Digestion and Assimilation. These  
Quantities cannot he exactly determined, for the digestive  
Organs of the most robust: may he overloaded, hut these are  
capable of digesting and assimilating a much larger Quantity,  
than when the Fibres os .winch these OrganS.are composed are  
relaxed and weak, and. cannot act sufficiently upon these Ali-  
ments, but suffer them Io .retain thein natural or acquired  
Acidity in the Stomach and Intestines. Thus we find Giris.  
in a Chlorosis, studinns sedentary People, and Children, whose  
Fibres are either through Infirmity, naturally, or for Want of  
Motion and Exercise relaxed, contract an Acidity of the Jun-  
ces, by eating.acid or acescent Aliment. As Exercise braces the  
animal Fibres, and promotes.Digestinn,To Resh ora Defect  
os Motion, relaxes the Fibres,’ and retards or hinders Digestion,  
and may therefore he reckoned amongst thc Causes os an arid  
Acrimony in the Juices formed from acescent.Food. . -

. A Deficiency os good Blood, in the Body-may -also he num-  
bered amongst the Causes productive os an acid Acrimony from  
acescent Aliment. For the Chyle, formed from this Sort of  
Foed, will,, like Milk, turn acid, unless mixed with a Quan-  
tity of good Blued- sufficient for its perfect Assimilation.. **Hence  
the** Rule os Horace, ; ... ,

— -ῆ ΰ *vacuis committere Verner..: . ’ "-i-  
si Nil nisi lene deces,-*

may be taken very justly, in.a medicinal as,well as culinary  
**sense. ' . .. . ;**

.: The original Seat of this Acidity is in tine Organs os the first  
Digestion. These are the Stomach and Small intestines ; hut  
from these, by Degrees, it is propagated to the Receptacle. of  
the Chyle, from hence to the Blood, and lastly to all the Hur  
mours separated from it. ? ; -

This acid Acrimony is productive of many Effects, both  
troublesome and dangerous to the animal ^Economy, aS,

Acid Eructations, which have in some Cases been so sharp, **as  
to** induce a Stupor of the Teeth.

A Sensation os Hunger by contracting the Fibres of the  
Stomach. Put it must he obserVed that tins does not confirm  
.the Doctrine *of* those who assert that all Hunger is caused  
by an *Acid,* for there is not the least Portion of an *Acid* to he  
discovered in the Stomachs of the most rapacious, and const-  
qnently most hungry Quadrupeds, Birds, or Fish.

.; Cardialgia, or, aS it is usually called, the Heart-bum, from  
a Stimulation of the Cardia, or left Orifice os the Stomach,  
which is endued with a most exquisite Sense, by the acid  
Juices contained in the Stomach. This Species of Heart-bum  
is cured by Chalk, or any other alcaline Absorbent. But  
there is another Sort caused by an alcaline Acrimony, which  
must he treated with diluted *Acide.*

Coagulations of the Aliment taken into the Stomach, **espe-**cially if it happens to he Milk; Pains, Flatulencies, and spa-  
smatic Contractions of the Intestines, but particularly of the  
Ileum. These are caused either by the Acrimony os the acid  
Juices, stimulating the sensible Membranes os the Intestines,  
or., winch I helieve is much more frequently the Cafe, by  
**the** Rarefaction of that extremely subtile and elastic Vapour,  
which arises from Vegetable Juices during the Action of Fer-  
mentation, which has been called by some of the Chymifis,  
Gas Sylvestris. These Symptoms often arise to such a Degree  
of Violence, as to constitute that Distemper which is called  
the Cholera Morbus, and which without a great deal of cam  
will sometimes he so acute, as to prove fatal in a sew Hours.  
**See** CHOLERA MoRBUS.

. As these Acidities mix with the Bile in the Duodenum,  
they must necessarily alter its Nature, and render It unachvc.  
And as the Bile has a considerable Share in affimilatino' the  
Aliment, and converting it into ^rood Chyle, thin Assimiim.  
tion must he prevented, in Proportion aS the Bile, by Reason  
of any foreign Admixture, deviates from ita Own Natures  
The same holds good in Regard to the Pancreatic Juice, and  
the Saliva, both which, in a natural State, contribUte to **the**Digestion of the Aliment, and the Conversion of it mm a  
balsamic Chyle, capable of entering the LajQeal Vchehe and  
mixing with the Bloed, without communicating to it any  
Acrimony, either alcaline or acid. But when the Action  
of the above-mentioned Juices is impaired h

Pnmae Vras, an aad Chyse is formed, and the very Excrements,  
discharged from the Intestines, hetray ω SnjeU

By **a** careful Observation of theft W(. difcoveran aad Acrimony to prevail in this StOnuch

ςιἐνἐννύουοη, and Inteaft οί  
Prma: Viz' tefore K  
fe& 4. Begi. teaufe then the D.fcders, arifin. from -  
**are** not fo ofily lemcdod. But, whtn qui

esteslar Secretions are-affected, the Cafe becomes much more  
difficult and dangerous, so ...

, When the-acid Acrimony reaches the Bloed, and juices.  
It is discovered by its Effects. Thus, when the acid Chyle  
is communicated to the Blood, as it cannot, by the Force  
. ps the Circulation be intimately mixed with it, so . as to form  
one uniform Mass, the Blood loses, by Degrees its florid red  
Colour, and. the Patient, in Consequence os this; becomes pale.  
Os this we srequentiy meet with Instances in weak Chil-  
then, and Girls, Of a lax Habit, labouring under a Chlorosis,  
whose Blood, as it appears when Jet out ofthe . Veins,. is  
white instead of red, mixed with some Streaks of red Blond.  
Hence also the Serum of the .Blood is chylous/ as it appears  
after standing a sufficient Time to separate, -t .si

The Secretions from the Blood,- thus infected with Acidi-  
ty,: are also frequently acid.. Thus; in Women of a lax-Habit,  
we sometimes meet with, acid Milk, l The Saliva is also in  
some Cases infected with an Acidity, and even the Sweat  
has an acid Smell. But the-Acidity of the Sweat : is not in  
all Cases a bad Symptom ; for in Fevers, where the Juices  
have had aTinidency/to an alealine Putrefaction, these. Sweats  
are a good Sign, as they, discover that the Danger from an  
alealine Putresaction is at an End. - This Symptom is taken  
Notice of by .Hippocrates, and ranked amongst those of good  
Presage. .cirj. ' . oi -so

From this State.. of the Blood Obstructions in i the .capillary  
Vessels are generated, and hence troublesome: Itching of the  
Shin; Pustules, very frequent after eating great.Quauritiesof  
Fruit ; Ulcers winch are pale, stow in their Progress, and diffi-  
cult to heal; .,. :1 \_ - et sp.:~sta: l: :...

- . Hence also Coagulations of the. Bloed, which render it unfit  
for Circulation, and consequently for Nutrition, and the Uses  
of, the animal (Economy.

-'.But the acid Acrimony has.yet a? worse Effect when is  
reaches the Nerves, nervous Membranes, and the Brain; for then,  
byssimulating these sensible Parts,itsis productive of Convulsions,  
epileptic Fits, an irregular Circulation of the Bloed, and at last  
Death, of .which Children afford too frequent Examples,

From whet has been said with Respect to an *Acid* abound-  
ing in .animal Bodies, many Disorders, to which sedentary  
People, and Women of a lax Habit, are subject, may he dis-  
covered and understood. But it will he particularly usefill in  
explaining the Distempers to which. Children are sobject, in  
whom all the Causes of an acid Acrimony seem to contri-  
bute to their Destruction,\* as acescent Aliment, .Laxity, and  
Want of Motion..

. Poor People, whose Food is principally of the farinaceous  
Kinds .os .Vegetables, and who eat but little FIesh-meat, are  
subject to these Disorders, but would he much more so with-  
out the strong Exercise they generally use; for Exercise, as was  
before observed, by strengthening the animal Fibres, and pro-  
moting the Digestion os the Aliment, and Assimilation of the  
Chyle, prevents an acid Acrimony from being formed in the  
Juices. -- ..... . . .4. -. . ; ; . / / ’

. Artificers also who are concerned in the Preparation of  
. acid Spirits, or who use them in their Trades, are very sub-  
ject to contract Acidities in their Juices. Of this Sort are  
those who prepare Ceruss, and Scarlet-Dyers.

Disorders from a prevailing *Acid* in animal Bedies are to he  
cured in general by such Things as are directly opposite to  
the Causes of Acidity. Thus, Aliments are to he used which  
are of an alcaleseent Nature, or which tum alealine upon Putre-  
faction. Such are Broths made of the Flesh of Birds, Quadru-  
peds, or Fish; Jellies made of the same; and the Flesh of these,  
winch best answer this End, either roasted or boiled. .. .  
ν These Vegetables also which contain an aromatic alealine  
Oil, aS they are opposite to Acidity, are in this Case .proper in  
Medicine or Food. Of these the illustrious Boerhaave gives the  
following Catalogue :

|  |  |
| --- | --- |
| *.. Absinthium* | Wormwood. |
| *: Alliaria Allium* | Sance alone, or Jack by the Hedge.  Garlick. ..... |
| *Anethum* | Difl. . „ \E |
| *.. Anther a* | Wholesome Wolssbane\* - |
| *Angelica* | Angelica. |
| *Anisum* | Anise. |
| *; Apium, Ccleri -* | Smallage. |
| *Aristolochia longa* | Long Birthworth. |
| *Aristolochia rotunda* | Round Birthwortin |
| *Armoracea* | Wild Radish. |
| ***. Arum*** | Cuckow-pint. |
| *Afclepias* | Swallow Wort. |
| *Asparagus* | Sparrow-grass. |
| *Asphodelus Albus* | White AsphodeL |
| *Basilicum* | Basil. |
| *Brassica* | Cabbage. \_ - |
| *Calamus Aromaticus* | Aromatic Reed. |
| *. Calamentha* | CalarninI. |
| *Carduus Benedictus* | Holy Thistle, |
| ***. . Cardaus Mariog*** | Indies Thistle. |

|  |  |
| --- | --- |
| *...Crsrum '* | ClonrawaI.. .... . \* |
| *. Caryophjllata / .* | Aveas, i - |
| *; Caryophilli Aromatici .* | Cloves, so- |
| *. Cochlearia* r- | Sourwy-grals.- |
| . . ῖ Ἀ - | Onion. ,. - |
| *Centaurium minus ; e'* | Lesser Cenfeary. |
| *r . Daucus . r* | Wild CinrmI. ,- |
| *. Eruca* | Rocket. - |
| *. Eryngiurn- . -* | Erynsso. S. χ |
| t *F-rysinum* | Hedge Mustard. ? |
| *s.. Eupatorium . .. ; ;* | AarimonI. : j |
| *Calqnga major* | Greater. Ὁ aiangais. |
| *- : Galenga minor -* | Lesser Ginlangais. . ” |
| *.: Helenium t* | Elecampane. |
| *: Lepidium* | JDittandes, . .. .' |
| i. *Majorana . . '* | Marjoram.) |
| *rtiMarrhuhium- Auri. ...* | Horehound. - |
| *Matricaria* Ἀ .. | PeVersew. -;. - |
| *...;Meuareon* | Spurge Olive. |
| *z -Napus y., ii -* | Navew gentle. |
| *Nasturtium* | Crefles. |
| *Nepeta* | Cat-mint, Or Nep. |
| *Origanum* | Origany. |
| *Pipor !* ί - | Pepper.;; -- - - - |
| r.*Porrum - .* | Leeks.-, ---ξ - y |
| *\*. PyrAthmn* | Pellitory of Spain. |
| *: Raphanus* .\_ \_j | Radish. |
| *Puta* | Rue. |
| *so Sapartaria* j L τ " | Soap-wort. |
| *Satyrion ,* | Satyrion. ) . . . ; ; ’ |
| *.-Serpillum* | Mother;of Thyme. |
| *Sabina* | Savin. |
| *\_ Saturesa .* ,1 \; χμ | Savory. ./ 7 |
| *Sedum acre vermiculare* | Acrid vermicnlated House-leelci |
| τ *Sinapi* | Mustard. - |
| *Squilla* | Squill. |
| *. - Thymus,, i* | Thyme, . |
| *Thlafpi* | Treacle Mustard. |
| *Victorialis* | Spotted Ramions. |
| *Urtica.* | Nettie. - |
| *..; Tsedoaria.* | Zedoarys. |
| *‘ZsiriZibcr* | Ginger., , |

: Amongst Foods that are proper to destroy, an acid Acris  
monyin the Juices,, are,

. First, those aquatie Fowls that prey on Fish or Frogs.

'. Secondly, Those Pirds which devour Insects; for in these  
the . Volatile Salts are rendered highly alealine, having under-  
gone, a double Sublimation, or rather Rectification, first id  
the . Body of .the Fish, Frog, or Infect, and next in the Fowl or  
Bind that eats it. . - i ' sc..

A third Species of Animals, proper in these Disorders, are  
those which, though their Food;is-Very simple, yet by exlv  
eeffive Motion have their; alealine Salts highly exalted, and ren-  
dered extremely alcalired and penetrating. so-.

.. A fourth Sort are Fish of Prey, and Shell.sish.

Amongst the first Sort is the Duck, of which Lemery  
says, that which is tame yields mnch Oil, volatile Salt, and  
-Phlegm;; but the Wild Duck-yields more Volatile Salt, and  
less Phlegm. It is for this Reason the last have a higher  
Taste than the tame-Sort. To this Class belong all Fowls  
of the Duck Rind, as the Teal, Widgeon, Macrense. The  
Bittern yields more volatile Salt than the Duck.

The Goose. All Fowls of the Goose Kind yield a great  
deal *ns* Volatile Salt, -, but they that .are wild more .than the  
ramehert. And it may. be laid down as an universal Rule,  
.that wild Animals , yield more. Volatile Salts, and those os  
a mere alealine Nature, *by* Reason *os* the greater Motion and  
Exercise which they use, than these which are tame. It is  
on Account os the Volatile Salt in Geese, that their Fat is  
- yery penetrating. It. should seem. that the Solan Goose,  
whose Oil, upon Fusion, emits a Very penetrating and foetid  
Smell, and whose Flesh is of a very exalted Taste, should  
.contain the greatest Quantity of alealine Salts of any of the  
Goose Species. ......

Boerhaave reckons the Larus, or Sea-mew, amongst these  
.Fowls of Prey. . - .

Amongst the second Sort are the Sparrow, Chaffinch, Mavis,.  
Eellsare, and Lark, which yields a great deal of Volatile Salts  
.aS does the Partridge, Pheasant, Quast, Land Rail, and Plover.  
*.Lemery. . .*

Of the third Species are the Woodcock, Snipe, Hare, Deer,  
and Wild Boar, all .winch contains large Quantities of highly  
exalted Volatile Salt. .

The Eggs os the Binds or Fowls mentioned above, as wail  
aS their Flesh, are excellent Food, when an acid Acrimony pre-  
vails.

Almost all Sons of Fish may he numbered amongst the fourth  
Species, because they either prey upon- other Fish, or Infects,  
.and yield a very Volatile alcalme Salt. - .

That the Meaning of. the Words *Volatile Salts, so* often  
used, may he understood, I must take Notice, that the Salts  
of most Vegetables are fixed ; that is, - they do not rife in  
Distillation, being detained by a. large Portion os Earth,'to  
which they are strongly united. But. this Earth is separated  
from them by Putrefaction, insomuch that most Vegetables,  
which are putrefied, yield- in Distillation a volatile Salt, much  
like that of Animals. . And as the Dissolution of vegetable  
Food in the Stomachs of Animals has the same effect up-  
on it, as Putrefaction, that is, disengages the Salt from the  
fixing Earth, for this Reason all the Salts of animal Bodies  
. are Volatile, highly alcaline, and of a penetrating Nature.

The Salts also of many Plants, that have an aromatic Aeri-  
Sony, yield a Volatile alcaline Salt by Distillation, as Mustard,  
orie-radish. Scurvy-grass, and many other Of those specified  
in the Catalogue given above. It is these Salts in animal and  
Vegetable Substances that neutralize and destroy the acid Aeri-  
mony prevailing in the Primae Vise, and the Animal Fluids.

With the Aliments specified above, Boerhaave advises every  
three Hours a Glass of the following Wine, containing three  
Ounces : - ' v .

Take French White Wine a Pint and half.

Salt of Wormwood two Drams, mix together

There are many Sorts of Medicines which either destroy  
the *Acid,* or render it ineffectual, so that the Acrimony thereof  
can do no Hurt. For this Reason these are to be used in an  
arid State of the Juices.

Absorbents seem to claim the first Place amongst these,  
because, when immersed in *Actds,* they have the Faculty of  
destroying their Acrimony, and rendering them mildand in-  
offensive. . . .. .

This Class consists of the.dried Bones of Pishes, as the Jaw-  
bone ofsthe Pike. ' - .

Os the eyes. Claws, and Shells of Crabs, Crevices, and  
Lobsters. ' .

Os the Shells of Oysters, and other Sea-fish of **the testace\***ouSKinch ' ' " , - -

Os Coral, Pearl, and Mother of Pearl -  
Of Chalk, Bole, Osteocolla, and sat marly Earths.  
Amongst these are also the Lapis Haematitis, Filings of Tin  
andiron. .’ l

. Some os these Absorbents are attended with the Inconve-  
tiiencies mentioned under the Article ABSORBENTIA: That  
is, they mix with the Viscidities which they meet with in  
the Stomach and Intestines, and with them form a tenacious  
Kind of Mortar, if I may so call it, which sticks to the  
Stomach and Intestines, and does a great deal os M1S  
. chief This however may he prevented by giving them either  
mixed with gently cathartic Ingredients in small Quantities,  
or elfe by giving gentle Purges, repeated at proper intervals  
anting their Use.

Hoffman is of Opinion, that the Medicines of this Class do **a**great deal of Mischief by .increasing Viscidity in the Stomach  
and Intestines, unless they meet with an *Acid’,* and in this Case  
they are os great Service, not only by destroying and tak-  
ing off the Effects of the acid Acrimony, but by forming a  
neutral Salt, which is os itself an admirable Resolvent, and  
well adapted to cure the Disorders proceeding from a redundant

Hence the Mischief that young Giris do themselves, who  
are inclined to whet is usually called the Green Sickness,  
by taking great Quantities of Chalk, Lime, and other Ab-  
sorbents, is accounted for and understood. They are directed  
by Nature to eat these, in order to relieve themselves under  
the uneasy Sensations they perceive in their Stomachs from  
the Stimulation of the acid Acrimony. But as they take  
them in great Quantities, and without proper Purges to cany  
them out of the Stomach and intestinal Tube, when they  
have had their good Effects, they form viscid Concretions,  
which hinder Digestion, stop the Orifices of the Lacteals,  
and consequently prevent a Supply of Chyle from being con-  
veyed to the Blood, and henoe Weakness, Inability to Mo-  
tion, Paleness, and the rest of. those Symptoms which Phy-  
sicians observe in Girin who have used themselves to eat these  
'Absorbents. ...

This natural Inclination to Things capable of relieving the  
'present Disorders which affect Animals, is common in the  
. Brute Creation, and is called Instinct ; and Physicians, by a  
-careful Attention, may daily discover something of the same  
Kind in Man, which directs to what will relieve. And it  
'is probably for this Reason that Hippocrates lays it down  
sot a Rule, that *those Meats and Drinks, though net altogether  
fo proper, which are agreeable to the Patient, are to be priferred  
‘ to those which are bettor, but unpleasant.* Aph. her 2. 38.

Diluters also are sometimes proper in these Cafes, because the  
more an *Acid* is diluted, the weaker it is, and consequently  
- acts in a less Degree. Thus, the stronger *Acidssm.* the Quan-  
- . tity of a single Drop, will corrode and destroy the Skin or  
Flesh of any Animal that it touches. But, .when the same  
-Quantity of *Acid* is diluted with a large Portion of Water, it  
becomes innocent and inoffensive.

: Tt was doubtless this Consideration that directed Dr. Syderhe  
ham to give large Quantities os warm Water to one that had  
taken corrosive Sublimate, both by the Mouth as a Vomit, and  
by Way of Clyster. " ’ '.

t But these Diluters must he used with Care and Caution, for  
they relax and weaken the Organs of Digestion, and thereby in-  
crease one Couse of Acidity. .". I

... These Diluters are either Water itself, or Decoctions of ani-  
tnal nr Vegetable Substances made with Water. . - τ

. Another Class of Medicines, which give Relief in an acid  
Acrimony, consists of such Substances as sheath the Spicula,  
or sharp Points of the *Acid,* and prevent their Action oh  
the sensible: Membranes, and at the fame Time defend the  
nervous Fibres from its Acrimony. Bur these are subject to  
the Inconveniences mentioned above in Regard to Diluted ι  
that is, they tend to relax still more the Fibres of the Or..

’ gans of Digestion already too weak. Amongstthese are the  
following: . ... *s.: c. . .. - -*

**. Almonds, hath sweet and bitter. ' — '**

Pistachio Nuts. .l ’

Common Nuts, Filberts,-Walnuts, Cocoa -Nuts, of which  
Chocolate is made, - . - -

Seeds of the white Poppy. - - :

. The expressed Olis of all these, and of Olives. .  
Jelly Broths of Flesh or Fish.

To this Class also belong the oily aromatic Vegetables,of which

I have given a Catalogue above. .

There is another Class of Medicines of great Importance,  
where am acid Acrimony prevails, because, upon bring mixed  
with *Acids,* they immediately raise a strong Effervescence, ‘  
destroy the *Acid,* and are themselves at the same Time de-  
stroyed, both together by chair Union forming a new Species  
of Salt, neither alcaline nor acid, but neutral, which isen- po  
dued with considerable medicinal Virtues, being gently stimu-  
.lating, diuretic, diaphoretic, and-resolvent.' :

The Substance, which induce this great and 'sudden Altera-  
lion *inA.cids,use*

Fixed alcaline Salts, prepared from burnt Vegetables of any  
Sort, ' - : :

Volatile alcaline Salts distilled from animal Substances, putre-  
fied Vegetables, or alcaline aromatic Plants.

Soaps, either fixed, aS Venice Soap; or Volatile, as the Vo-  
**iarile,** oily, saline Spirits, distilled from Blood, Urine, Harts-  
horn, or Silk, the Ossa Helmontians, made by the Uninn of  
a highly rectified Spirit .of Wine with a strong. Spirit of Sai  
Ammoniac. **See OFEA HELMoNTIANA.. .**

i To this Glass also belong Volatile alcaline Salts united by  
repeated Sublimations with an aromatic Vegetable Oil, of which  
Boerhaave gives the following Example t

**0**

Take the purest Salt of Hartshorn an Ounce,  
Chemical Oil ofLemons a Dram; unite them by repeated  
Sublimations in a tall glass Vessel

These, however, must he used with great Care and Caution,  
for whenever the Blood jo moved with too much Violence, and  
any Degree of a Fever is raised, these will infallibly increase it,  
and the concomitant Symptoms, introduce others, and endanger  
the Life they are intended to preserve.

All the Classes of Aliment and Medicines, specified above,  
are very good Assistants in the Cure of Disorders proceeding  
from an acid Acrimony, but are not sufficient alone to com-  
pleat it; for, so inng as the Organs of Digestion remain in  
**a** State of Laxity, acescent Aliments will again produce the  
same Acrimony, and renew the Disorders depending thereon.  
For this Reason the Cure must he compleated by a corro-  
borating Regimen, and strengthening Medicines, that is, such  
as restore the Fibres, Vessels, and Membranes, which com-  
pose the Viscera concerned in the Digestion and Assimilation  
of the Aliment, to that Tension and elasticity, which are ne-  
cessary to the Performance of their respective Functions,  
Aliments adapted to render the weak Fibres of- the digestive  
Organs, and the animal Fibres in general, strong, are such aA  
require but a small Action of these Organs, in order to oon..  
vert them into good Chyle; and even these ought to he taken  
in very small Quantities at a Time, and to .be repeated frequent-  
ly, that is, the Quantity, and Frequency of Repetition, must  
he proportioned to the Power of digesting. For nothing can  
he more irrational than to imagine that strong Aliments, and  
those in large Quantities, can contribute to the Strength of an  
Animal, whose Organs cannot digest them sufficiently for the  
Formation of good Chyle. 7

It is for this Reason, that Hippocrates lays lt down aRule, that *the more pru notarise,* that his yim more Aliment  
.you give to *impure Bodies, the Msilssof y9U*

Aliments of the most easy Digestion are

I. Mils. Which is » Son of Chyle tiody prepares, aid  
give dK Stomach bet Viiy little Trouble to diieft iti But it  
παρνομι Eoos α Aci\_

ity rn tbe&wmA and Inteffino. fcraufe it will be fcfea  
tocurdhi. whcnmuKdwth thefe; but when acid Acri.

Ynony in **the** Priinae **Vise** is destroyed, it affords an excellent  
'Nourishment, if given in Quantities at a Time, not superior  
to the Powers of Digestion, sor then it will not he subject  
to turn acid. But Milk loses all its medicinal, and a great  
deal of its alimentary Virtues, *if* once boiled. It must therefore  
he taken warm from **the** Animal that gives it.

The Milk of a Woman in the Flower of her Age, that uses  
a good Diet, and moderate Exercise, is of all others the best.  
Next to that Astes ; then Goats, and lastly Cows Milin  
*Boerhaave.*

*2.* The raw White of an Egg just laid, before it has  
had Time to cool. This approaches Very near the Nature  
of the Serum of the Bloed, heing designed for the Nutrition  
os the Chicken during Incubation. But this, like Milk,  
loscs its Virtue when boiled. It may he taken in new Milk,  
mixed with an equal Quantity of Water, provided no Aci-  
dity, in the Prime Vise, forbid the Use of Milk.

3. Broths, prepared from the Flesh os young healthy Ani-  
mals, accustomed to moderate exercise, carefully cleared of **the**Fat. Amongst these Chichens claim the first Rank; next  
Veal, then Mutton, and Beef the last. The Fat is easily  
separated from them, when suffered to grow cold. They are  
best when helled in a Vessel, stopped so close, as to prevent  
the most subtile Parts from exhaling. *Boerhaave.*

4 Aliment in Various Forms may he contrived to he made  
from Wheat Bread, or Biscuit, moderately fermented, to de-  
stroy the Viscidity, to which all farinaceous Vegetables are  
subject. Boerhaave^ Directions are, to hell eight Ounces of  
Bread, or Biscuit, with three Pints of Water for an Hour, in  
a close earthen Vessel, and then to strain it through a.Sieve.  
This may he mixed with Milk, Broth, Wine, Beer, or Water,  
RS the present Circumstances of the Patient shall render either  
.the one or the other most suitable.

A Very small Quantity os these Aliments should he taken  
every Hour, or every two Hours, according aS the Organs of  
Digestion shall .he found to he more or less in a State of  
Imbecility, but never to Satiety, or, to use the common Ex-,  
pression, till the Belly is sash *Bterhaave. "*

I am sensible there are some, who think Directions, in Re-.  
lation to Aliments of this Kind, deserve more the Notice of  
Nurses, or those who are employed in culinary Offices, than  
Physicians. But nothing can he unworthy the Regards os a  
-Physician, that can in any Degree contribute to the Core  
.os Diseases. Those who have been Witnesses os the prodi-  
gious Effects of a well regulated Course oLFood, obstinately  
persisted in, sor a sufficient Length of Time, in Cafes where  
rhe best chosen Medicines have proved ineffectual, will not he  
displeased that I have been thus particular. . .

Wine is a Part of Aliment not to he neglected. Thofe  
that are proper, in the Case before us, are such as by their  
Abundance os Spirit, and Stypticity, manifested by their ain  
stere rough Taste, contribute to the necessary Elassicity and  
Tension of the animal Fibres. Such are Florence Wines,  
**the** stronger French Clarets, the black Greek Wines, and  
some of the Spanish. .And to these the Spirits of Wine, pro-  
perly managed, may he added, generous Malt Liquors, and  
strong Mead. *Boerhaave. »*

Amongst Simples, all those that abound with earthy austere  
Particles, and all aromatic Bitters, are adapted to brace **the**animal Fibres, promote Digestinn, and destroy the original  
Cause of Acidity. In Regard to these, see a more particu-  
lar Account under the Article LAx I TAS.

But nothing is more effectual, by Way of Medicine, in these  
‘Cases, than Bitters, wherein Steel is an Ingredient. For Steel  
has great Virtues, both as it is highly destructive of an *Acid,*and effectual in corroborating the animal Fibres.

\* This Regimen, and these Medicines, are of Very little Im-  
portance without Exercise, which must be adapted to **the**.Strength and Condition of the Patient. For Motion promotes  
the Alcalescence of the Juices, and universally increases  
Strength, os which the robust Legs of Chairmen, and Arms  
-of Watermen, afford obvious examples. .

*l* The different Sorts of Exercise, proper to restore the lost  
x ‘Elasticity to- the Fibres, are Riding, Walking, Sailing, and  
Frictions, for a more particular Account of which **see the Ar-**ticles LAxITAs and CYMNAsTICA.

. ACIDULE. Thus cold mineral Waters have been called,  
-which contain a briik Spirit,' to distinguish them from THER-  
-M.E, which are those that are hot.. . -r

The Name owes its Original to a Supposition, that these  
-Waters were acid, which latter Observations and Experiments  
-have proved to he without any Foundation.

These mineral Waters, both hot and colds were called by  
-the Greeks Ὕδατα φαρμακωδἤ, or ἀυτοφυῆ, *Medicinal Wa..  
tors,* or *Waters producedsiponianeousu.*

Galen relates, that in this Days many People purged them-  
falves in Spring and'Anturnn by the sulphurous, bituminous, and  
ι nitrous Waters , and that those, whe were subject to the Stone,  
drank them by Way of Precaution. And Caelius Aurelianus  
*Chronicor. L.* 3. *C.* 2. recommends drinking the Waters of  
' POTILIA (he means CUTrLiA,) and NEPI, in that Disor-

der which he calls *Stomachica Passes.* **Le Clere is** therofore  
mistaken, when he says, it does not appear that Caelius Au re-  
lianas made Use of mineral Waters internally..

The Waters of Cotilia are mentioned by Pliny in the sol-  
lowing Extract, whe is more particular with Respect to the  
Uses and Advantages of mineral Waters, than any of the  
Antients, and has amongst some sabulous Accounts given others  
which daily Experience proves to he true. I shall therefore in-  
sert what he says upon this Subject, aster having remarked, that  
tho’ ACIDUL.JE properly signifies, the *brisit, cala mineral Waters^*is will he impossible, in treating of them, to separate them  
so sar from the warm, as not to take some Notice of the  
Latter. ...

**PLINY, Book 3I. Chap. 2.**

*Gs. the different Qualities of Waters, and their medicinal  
Vicrues.*

Medicinal herrings, and those very plentiful ones, are found  
every where in many Countries, some cold, some hot, and, in  
some Places, both cold and het, with a Very small Distance he-  
tween them ; as among, the Tar hells, a People os Aquitain, and  
in the Pyrenean Mountains. Some cure Diseases by their kindly  
Warmth, or piercing Cold, at.d rise out of the Earth sor the sole  
Benefit of Mankind above all other Creatures, To these Waters  
are the Gods themselves obliged sor the increase of their Number  
and Names, and Cities for their Original, as Puteoli in Campa-  
nia, Statyelhe in Liguria, and Sextiae in the Province of Nar-  
bonne. But no Pinoe; both for Plenty and Variety, is better  
stocked with them, than the Bay of Baiae, or has them endued  
with more Kinds of Virtues, aS they are differently impregnated  
with Sulphur, Alum, Salt, Nitre, Bitumen, or a Mixture of  
Acid and .Saline ; the very lsapour of some of them is bene-  
ficial. Those, called the Posidian, are os such Force as to  
heat the Bagnio’s, and make the coldWater in the Bathing-  
tubs to boil, and thoroughly dress Meat. Those which be-  
longed to Licinius Crassus send their Vapour out to the Sea it-  
self,. insomuch that something salutary to Man is found amidst  
the Waves.

.. Generally speaking; they are good for the Nerves, and help  
the Gout and Sciatica. Some Are proper in Luxations and  
Fractures. They empty the Abdomen, cure Ulcers. They  
are particularly beneficial to the Head and Ears, and. those,  
called the Ciceronian, are good sor the Eyes. The Sinuese  
san Waters, in the same Country (Campania) are reported to  
cure Barrenness in Women, and Madness in Men, and those  
In the Bland .denaria, to cure the Gravel, as does also that  
called Acidula, four Miles from Teanum Sidicinum. This  
last is cold. The same Virtue is in that os Stabianum,  
which is called Dimidia, and another in Venafranum that  
homes from a mineral Spring. The same Benefit is experienced  
by those who drink of the Veline Lake, and os a Fountain  
in Syris, near Mount Taurus, aS Marcus Varro reports; and  
Callimachus says the same Thing os Gallus, a River of Phrygia.  
But this last should he drank with Moderation, lest it should  
cause Madness, aS it happens to those whe drink of the red  
Fountain in ./Ethiopia, according to Ctesias. The Waters of  
Albula, near Rome, cure Wounds S These are extremely cold:  
But the Cotilian Waters in the Country os the Sabines, which are  
also remarkable for their Coldness, seize the Bedy with a Kind  
of Suction, so that a Person almost sancies himself bitten, bring  
of excellent Benefit to the Stomach, Nerves, and the whole  
Body. A Fountain in Thespiae,, and the River Elatum in  
Arcadis, promote Conception : The Fountain Linus, in the  
same Arcadis, preserves the Child in the Womb, and prevents  
Miscarrying. On the other Hand, a River in Pyrrhes, called  
Aphredistum, causes Barrenness. The Lake Alpbion cures the  
Leprosy. Varro telis us, that one Titius, a Man of Pretorian  
Dignity, was so disfigured with that Disease, that he had the  
Face *of* a marble Statue. The Cydnus in Cilicia cures the  
Gout ; On the contrary, the Water in Troezene makes the  
Feet distempered. Tungri; a City of Gallia, has a famous  
bubbling Spring, os a ferrugineous Taste, which remains last  
on the Tongue, and is not perceived before. It cures Ter-  
tians and the Gravel; set over the Fire, it first grows turbid and  
thick, and at last turns red. The Leucogaean Springs, between  
Puteoli and Naples, heal Wounds and sore Eyes. Cicero, a-  
mong his Wonderful Curiosities, took Notice, that the Hoofs  
of Cattle were hardened in the Reatine Marshes, eudieus re-  
lates, that there were two Springs in Hestiasotis ; one called  
Cerone, winch made the Sheep black that drank of it; and the  
other Melan, which made them white; bur those, which drank of  
herb, were pye.balled. Theophrastus writes, that the Crathis,  
in the Country of the Thurii, made Sheep and Oxen white, but  
the Sybaris black: Nay, the Alteration was Visible in the In-  
habitants themselves, for they who drank of the Sybaris were

-blacker, harder, and had curled .Hair, but the Drinkers of  
the Crathis were white, soft, and strait-haired. In Macedo-  
nia, they whe desired a white Breed, drove their Stock to the  
Aliacmon; such aS fancied black, or brown, kept theirs by the  
Axius» - The same Author telis us, that in seme Places all

**Tsangs, eyen the Fruits tire produced of** a dark Colour, as  
Aamong the Messapii; that the River Aleos in Erythrae breeds  
Hain; in Bodies. In Boeotia,- by the Statue os the God Tro-,  
-phonius, near the River Orchomenon, are two Springs, one  
Causing Memory, the other Forgetfulness ; from whence they  
**rake,** their Name. In Cilicis, by **the** Town of CoseuS runs **a**Brook, called Nus, which quickens **the** Senses of such as drink  
of it, aS Varro reports. But in the Island Cea is a opting»  
which causes Dnlness; another at Zama in Africa, which  
Hears and heightens the Voice; that a Loathing of Wine comes  
**on such as have** drank **os** the Clitorian Lake. Polycletus  
speaks of a Fountain near Soli in Cilicia, that ran with Oil ,  
Theophrastus of another such in Ethiopia. Lyons telis ns of  
**a-** Fountain in India-, that lighted Torches , such another is  
said to he at Ecbatana. Theopompus ssys, there is a Lake  
**in** Scotufls, which brass Wounds; Juba, that there is a Lake  
among the Troglodytae, called the Mad Lake for its ill Quali-  
ties; that thrice in the Day-time it becomes bitter and sallo  
and then grows sweet again ; the like Changes it undergoes  
in the Night ; and that it produces white Serpents, twenty  
Cubits in Length. The same Author relates, that, in a Foun-  
tain of Arabis, the Water mounts with such a Force, as to cast  
**off** whatever Weight is pressed upon it. Theophrastus relates,  
that the Fountain of Marsyas in Phrygis, at Celaenae, threw  
out Stones.' Not sar from thence are the two Fountains of  
Claeon [Weeping] and Gelon [Laughing] which took their  
Greek Names from their effects. At Cyzicum is Cupidis Well,  
**of** which, whosoever drinks, as Mutianus believes, is freed from  
love. At Cranon is a hot Spring, but not to an extreme  
Degree,-whose Water, mixed with Wine, preserves the Heat  
of the Mixture three Days in the Vessel: And at Mattiacum,  
in Germany, beyond the Rhine, are hot Springs, whose Wa-  
fers keep their Heat three Days after they are drawn. At  
the Brinks of the Springs are Pumice-stones, generated by the  
Waters.

If any one thinks these Things incredible, let him know,  
that greater Miracles of Nature are no where to he found  
than in the Waters. Ctesias telis us of a Pool in India,  
Called Siden, in which nothing would swim, but all sunk ;  
and Ccelius says of out Lake AVernus, that the very Leaves  
funk in it; Varro, that the Binds which flew over it fell dead.  
On the Contrary, in the Lake ApuscidarnuS, in Africa, all  
Things float, and nothing finks. The same Thing is observed  
of the Pythian Well in Sicily, aS Apion relates, and of a Lake  
In Media, and of Saturn's Well. In Judaea is a Brook that  
dries up every Sabbath Day. Some of thefe Wonders are os  
inch a Nature aS to strike uS with Horror. Ctesias writes of  
**a** Fountain in Armenia, that produced black Fish, which gave  
present Death to the eater of them. I have heard of the like  
Sort near the Rife of the Danuhe, which holds till you come  
to a Spring in the Bank of its Channel, where that Kind of  
Fish ends; for which Reafon the Head of that River is supposed  
to he at this Place. The like is reported of the Nymphs Pool  
in Lydia. In Arcadis, by the Pheneus, there runs out of the  
Rocks a Water, called Styx, which kills on the Spot. But  
Theophrastus informs us, that there are small Fish in it, which  
are also rank Poison ; and in this Respect it differs from other  
deadly Fountains. Theophrastus also speaks of deadly Waters  
at Cychri in Thracia ; and Lyons of some among the Leon-  
tines, which killed the third Day after drinking theni. Varro  
tells us of a Fountain by Soracte, four Feet in Breadth, which  
as Sun.rife works up, like a boiling Pot, and overflows, and  
that the Birds, which sip of it, lie dead on the Spot. For some  
of these fetal Streams, it must he observed, have an ensnaring  
-Quality in them, and an alluring Aspect, like the Nonacris of  
Arcadia. They take this to he hurtful by its excessive Cold-  
ness, since it petrifies aS it runs. Quite other Circumstances  
attend that of Tempe in Thessaly, .whose Very Sight strikes a  
Terror ; it is said that Iron and Copper are corroded by its  
Water. Its Head is but narrow, and, what is remarkable,  
embraced all around, aS it is said, by the Roots of a Siliqua  
Sylvestris, ever blooming, with Purple, and the Brims are  
Hovered with a green Herb peculiar to it. In Macedonis,  
not sar from the Sepulchre of Euripides, the Poet, two Streams  
mix, one of most wholesome Water, the other deadly. In  
Perpcrerue is a Fountain, which makes the Ground stony  
wherever its Water comes. The same Property belongs to  
the hot Spring at Delium in Euboea; the Stream washes  
against the Sides of the Rocks, and these grow in Height.  
In Eurymenae, Garlands, cast into the Fountain, turn to Stone.  
At Colossi is a River, into winch you oast Bricks, and pull  
them out converted into Stones. In the Corycian Grotto'S  
the. Drippings Of the Water harden into Stone ; at Micza  
In Macedonis, they petrisy as they hang from the Vault;  
*st* Cerycum, after they are fallen off; in ‘some Places both  
Ways, and form Pillars of a discoloured Hue, as in the large  
Grotto of the Rhodians at Phausia in the Chersonesus.

Thus far we find, by the Evidence of Pliny, whet the An-  
fients knew of mineral Waters, and they have been used **ever**fines, more or less, as different Fashions in the Theory of Physic  
have happened to prevail. And yet» what is greatly to be la-

mented, the Practice of Physic, so far as mineral Waters an:  
concerned in it, is at this Day in a great Measure empirical.  
No-body having discovered a Method ofdetermining the essicts  
of mineral Waters a priori, or before a Number of tandem  
Experiments have shewn their Efficacy. Hence, though every  
Country abounds with mineral Waters, but very sew have  
been introduced into Practice, and eVen these originally by  
Accident. And, indeed, very little was known of the Nature  
of mineral Waters, till Hoffman, by some well adapted Experi-  
ments, discovered the Errors of former Writers upon these  
Subjects,-and laid a Foundation for farther Advances ; and onr  
Own Countryman, Dr. Shaw, improving upon Hoffman, has  
carriedthis Enquiries farther, insomuch that we are now in **a**sair Way ofbringing this Valuable Part of the Materia Medica  
into more general Use, and to hetter Purposes, as we may he  
more able to ascertain the Effects of different mineral Waters,  
in different Coses, when a sufficient Number os Experimenti  
have been made upon their Plans.

It is to the last-mentioned Authors, and Dr. Slare, I stall  
he principally obliged for what I shall say on this Head ; and I  
shall he Very particular, as the Importance of the Subject seems  
to demand it, for I am inclined to believe, that if all the Vir-  
tues of mineral Waters were understood. Physic, in the gene-  
ral Acceptation os the Word, would he no longer of much Use  
in chronical Disorders, which might then he cured by a Me-  
shod safe, expeditious; and agreeable, and, perhaps, much inore  
effectual than any other which Physicians have yet contrived.  
**I** am not singular in this Opinion, as will appear by the follow-  
ing Observations of the illustrious Hoffinan.

1. It appears, that mineral Waters, both of the het and  
Cold Kind, are of such Virtue and Efficacy, for the Prefcrva-  
tion of Health, and the Cure of Diseases, as in the highest De-  
gree to exceed the Shop Remedies, prepared by the nicest *Art:*And we are well assured that this Fact cannot he disputed, but  
by such as derive their Arguments from their Ignorance and  
Indolence,, and are no Way competent or experienced Judges  
in the Case.

2. Thefe Waters approach, the nearest ofany Thing in Na-  
ture, to what has been so much searched after, an universal  
Medicine, suited to the Cure of all Diseases. But there is  
no Occasion for any fuch laborious Enquiry, whilst we find  
Waters, adapted to all Kinds of Disorders, spontaneoufly ofler  
themselves. And I would sain know whether any Physician,  
os practical Knowledge and Experience in his Art, can say of  
any ether Medicine, what we certainly know to he true of  
Waters, *viz.* that they effectually cure, both with Expedition  
and Safety, yet occasion no Loss os Strength; but gently ope-  
rate by all the Outiets os the Body; and thus discharge, at **eve-**ry Pore, I the Matter which generates and breeds DifeaseS.  
For these Waters not only readily dilute, propel, and carry off  
Collections os impure Humours, lodged in the Stomach and  
Intestines, but likewise admirably promote the Discharge os all  
peccant, saline, and unctuous Matter, by the Conduits osU-  
tine ; and at the same Time breathe out the more subtile **and**rarefied pernicious Particles, by that general Strainer Of **the**Body, the Skin

3. These Waters, besides their Power os evacuating, are also  
possessed os a singular alterative Virtue ; insomuch that there  
is no other Remedy, hitherto known, so fit for dissolving  
viscid and clammy Humours, diluting and tempering fuch  
as are sharp and corrosive, correcting and changing such as am  
acid and austere; and for Opening, and breaking away Obstmc-  
tions and Coagulations in.the finer Vessels. Add to this, that  
they have a most definable, strengthening Virtue, whereby they  
nobly brace us, and recover fuch solid Parrs ns thc j,  
have lost their natural Tone or Springiness,, or become stack  
and remiss. And, what is more extraordinary, they produce **all  
these** good Effects, without occasioning any subsequent Mif\_  
chief; and therefore may, with the utmost Safety, he given,  
not only to Persons in a State of Heaich, bur cven to thclo inthe weakest Condition, Women in Chad-hed, old People, and  
Children. In short, they have alf0 thin Particularity, ther.  
they may he innocentiy and advantageoufly used in different  
Constitutions, and Ages, at. al] Seasons of the Year; not ex.  
cepting the Winter itself ...... 4

4. What is still more wonderful, but no less certain every  
Capital mineral Spring seems endowed with qund distchhe  
Virtues, so as to produce contrary Effects. Thus, if the ex-  
cintions of the Body are too large, these Waters chech ώβΗΙΖ'ιΓ n *°\* lf 'lenlkia'00* fmasq the very fame Waters  
*φαμὲν mcreafe* them. Again, ii the fisft  
pameularly the Stomach and the Duodenum he Over.iheded  
with a bilious Matter, they without Vinter difch^ge itVomit ; and, on the contrary, soon cure thet ζ

olent Vomiting wherewrth hypochondriacal pexfonj. .....

Flux beta» large, stopped, or observes not he natural Peeicnin  
there rs no hetter Remedy, hitherto discLX^E .10ds\*  
Waters, for bringing thefe Disord t0 mineral

5. Another singular Instance ςγτ ch- rrnoss ππτ.ι., .  
Goodness of Providencherhe me Design, Wisdom, and  
nence, tn providing mineral Springs is.

that they have this Advantage above most other Things, *that  
they* are not very subject to lose their Virtues, or fall to Ruin or  
Decay. For the’ this has sometimes happened, yet the rnoreeapiral  
and serviceable Springs, of medicinal Use, have certainly re.  
tamed their Virtue through the Course of many Ages, and  
afforded a sufficient Quantity of Water, even in the hottest  
Seasons, whilst other common Springs have been dried up.  
They have also continued to abound with the fame Quantity  
of Principles, or Ingredients of the same Quality, in an equal  
Proportion of the Water. And lastly, though the Bowels of  
the Earth, through which these Waters run, are pregnant with  
Metals and Minerals, some of them prejudicial and poisonous to  
the Body; yet the Waters of these Springs dissolve and dried  
up none of this Kind : But, as if directed by an Appetite of  
Choice, impregnate themselves with only fitch Principles in  
their Passage, as render them highly agreeable to the Solids anil  
Fluids of the human Bedy.

Since, therefore, there are so many Advantages derivable to  
Mankind from medicinal Springs, whence they were held ,  
*sacred* by the Antients, who can help wondering at the fupine  
Indolence and Neglect both of Philosophers and Physicians, in  
nut examining into their Principles, Operations, and Effects ?  
The greatest Part of the Authors, upon this Subjecti fecm to  
have wrote hood-winked, fo as not to have seen She real Prin-  
ciples and Ingredients of there Waters; But on the contrary,  
to have imagined in them Matters whereof they could trace  
not the least Marks or Signs. Whence it has happened, that  
not only the Physicians upon the Spot, but these likewise of  
other Countries, who had not the Opportunity of examining our  
Waters, have held them very fufpect, precarious, and dangerous,  
and therefore advised their Use only to the robust, the strong;  
and the healthy ; bring very apprehensive of doing Mischief at  
least, is not occasioning fudden Death, by prescribing a Course  
of Waters which they thought abounded with the Principles of  
so many Minerals, opposite and destructive to the human Bedy,  
unless all the Parts thereof were persectiy sound and intire. In  
this Point, however, such Physicians have not ached consistent.  
Iy with themselves, for their Custom has been to make these  
Springs, as it were, their last Resource for the Cure of chroni-  
01 Disorders, which had reduced the Patient to the utmost  
Extremity, after all other Remedies failed, as if Persons, who  
had fo long laboured under inveterate Diseases, could he supposed  
to have their Viscera found and untainted." Sucti Physicians,  
therefore, notwithstanding all the Darkness and Distrust which  
may hang upon their Minds in this Matter, must acknowledge  
that mineral Waters cannot, at least, but he innocent; if they  
here do no Mifchief, or highly serviceable, if they effeci a Cute,  
in Bodies so worn Out and weakened by a Distemper, though  
they should not understand the Reasons whereon the Thing  
depends.

And if I shall have made any useful Discoveries in this Sub-  
jecti whet led me to them was a firm Resolution, to take no-  
thing upon Truss, nor measure the Skill of Physicians by po-  
pular Opinion ; but myfelf to try, as far as my Abilities went,  
and examine every Thing by the Roles of Reason. And finding,  
by Observation and Experience, the superior Excellence and  
Usefulness of mineral Waters in the Art of Medicine, I thought  
myfelf obliged to profecute my Enquiries with a Caution .and  
Exactiiess, proportionable th the Importance of the Affair.  
Thus, by the .with-holding my Assent to the received Notions  
upon thisHead, and coming personally to Examine into rhe true  
Nature, Principles, and Virtues of these Waters, by the Means  
of chymieal and philosophical Experiments, I sound the greatest  
Part of what had been said of them by Authors, to he false and  
fictitious. And heing once thoroughly convinced of this, I  
held it incumbent upon me to Oppose the Errors every where  
strongly prevailing to the Disadvantage of the Art I *piofefs,*and support my own Discoveries with all the Light and Strength  
of'Reason I could give them. And, in the Courseof these my  
Enquiries and Endeavours, I have heppily discovered certain  
Springs of uncommon Virtues, and advantageously introduces  
them into Physic. And if others will proceed in the same  
or a better Manner, I question not but their Labours will he  
crowned with the same or hetter Success ; which is what I  
earnestly wish for the Benefit of Mankind. *Hiffman.*

' DI. Slate seems to have been one of the nrst who was fensi-  
ble that the popular Notions, with Rofped to mineral Waters,  
were erroneous. His Observations, are worth inserting. Bub  
1 must Observe, once for all, that I have seen remarkable In.  
stances of the Effects of our own chalybeate Waters in some of  
the Cafes mentioned by pliny, as in the Gravel ; but for Hy-  
flerics,' promoting Fcecundity, and preventing Misiarriages,  
they are not to he equalled by any Medicines, Or Method I am  
acquainted with, and will very’ seldom sail of answering this  
good End, if the Case is retrievable by any Means whatever.  
.This makes me very easily helievc the Virtues attributed to the  
Spaw, and Pyrinont Waters, in the following Pages, to he  
rial But, I must confess, I never yet saw the least good Fffeci  
Ϊreduced by either of these Waters, in any Case whatever, the’  
tried them in many Cafes, till their Success, at least in my

Hands, contradictsd the Chan iced they have acquired, an  
made me, for that Reason, rise them no more. I don't say  
this with a View of derogating from the Reputation of these  
Waters, het to fhew, that they either lose their Virtues at this  
Distance from the Fountain, or, which is more probable, that  
the wholesale Dealers in Medicines have found Methods Of  
counterfeiting these Waters, in fuch a Manner, that the spuTnous have the Appearance of the genuine, without the least  
Participation of their Virtues. -

DI. Jordis, 2. Fellow *of* the Royal Society, with whom I  
kept a Correspondence sor above thirty Years past, practised  
Physic at Franckfurt, and often at Swalhech in Summer-time .  
I desired him to examine the Spaw-Waters, and give me an  
Account of the Contents of that *Sowr. Brunn* or *Acidula* (so  
much celebrated for its Virtues, and Concourse of Persons of the  
greatest Quality). Ho gave me an Account of some Ocres or  
fcrrugi neons Parts, which he calcined and tortured in the Eire,  
to make them confess their sulphur Original, but, in all hrs Ex-  
periments, did not satisfy- me that the Water held one Drop of  
an Acid by Distillation, *etc.* That which gave me the first  
Suspicion, that the chalybeate Watetsdid nor contain any rough,  
or vitriolic, or acid Salts in them, proceeded from an accrden./  
Ul Use of a strong iron Water, in which I dissolved Soap, and  
found it lather and wash my Hands well ; and then I ufed  
Wash-ball and shaved with it, and tried several other Waters  
of this Sort, winch did the same; and much Better than some  
Pump-Waters.

I confiilted my Palate, and tried whether I could discover any  
Sharpness or Acidity in our English Steel-Waters at Tunbridge,  
at Black-Boy in the Parish of Franfield in Sussex, Hampstead;  
Sutining-hlll in Berkshire, *etc.* but I was so far from discover-  
ing any such Thing, that these Waters feemed rather.to leave a  
sweetish Flavour or Fare-well hehind : Thus many alcaly Salts,  
if nicely examined (of the fixed Kind) have affeSed my Tastes

I made Experiments with several Berts of such Spirits as are  
apt to ferment with Acids ; fuch as Spirit of Hartshorn, of  
Sal A mmoniac, *etc.* het these made no Ferment, nor any Mo-  
tion or Change in these Waters.

I considered the Diseases in hurnan Bodies, which these Wa-  
ters were prescribed, by Physicians, to cure, that they were of-,  
ten such as procceded from sharp; acid, or acrimonious Caufes,  
as Cardialghe or Heart-burnings, sour Vomitings, corrosive  
DiarrhceaS, Colics from Scurvies, and Stranguries ; and that;  
for these Distempers, fwnirejaing and aicallfate Remedies are  
made Use of.

I consider thefc Waters, as containing in them the Properties  
of Iron j and I sind by Experience, that it is most opposite to  
Acids, being one of their great Corredtors, and therefore rather  
io be esteemed an Alcall.

I. Take forne Filings of Iron, suppose a Drain, and pout  
oh them about an Ounce of the milder Acids, fuch as Vine-  
gar, Verjuice, or the Juice of Lemons, and it will destroy the  
Snarpness of these juices: Or, if you pour on these Filings  
mineral Acids, as the very corrosive Spirit of Nitre, or of Salt,  
or what is called Oil of Vitriol, they will immediately lose  
their Acidify, he disarmed of chest sharp Points, and hy Eva-  
poration give a Salt that will taste sweetish, and is by Chenjists  
called Saccharum Mart'., if duly prepared, which is safelygi-  
ven inwardly, and is esteemed a good Altering Medicine.

a. Steel beaten to a sirie’Po.wder is, without any farther  
Preparation, given inwardly with great Success for stomachic  
Disease, as in the .Green-sickness, hypochondriac, and various -  
other acid and acrimonious D inflections.

I considered Milk to he a very proper and obvious Subjecti  
to bring .this Controversy to a plain and unquestionable Peel-  
siofl. 1 made this Experiment with all possible Exnceness: I .  
first provedthe chalybeate Waters, more particularly the Spaw-  
Waters, hy trying whether they tiog 1 with Galls. These he-  
ing Eery good, I put part of the Waters to cold Milk; some  
I only made luke-warm, and siime I'boiled together, in equat  
Proportions: Bin .they were so far from affording any Curd or  
Coagulation, that they continued several Days without heing  
sour.

s Since .mineral Waters, especially thefe that are chalybeate,  
ate of fuch important Use in Physic, and have gained amongst  
us so just a Reputation for their excellent Virtues, and are the  
neatest Refuge in very potent and obstinate Diseases, this has  
made me lodge it a Work not urn ceptable to Virtuoso's, efpe-  
cially these of the Faculty of Physic, to have this Medicine  
isairly examined, its genuine Properties asserted, and whet was  
called an Acid, to he demonstrated an Alcaic Is it not a Sort  
of Justice due to tin World, that -the Germans who sent us  
over these Waters, with this false .Charndler of four Waters,  
should banish this misguiding Term from their Spaws ? It is  
from this Mistake, that their Physicians do prohibit the Use  
.of all Manner of Lduricinia, as if they were as noxious as dead-  
ry Poisons, whilst they are in a Course of their medicinal  
Waters.

Since this Prejudice has prevailed very much amongst most of  
out Water-drinkers in England, I do amiss, that I have he-

**lquentiy** advised, in **some** Cases, Milk **to he** Een daily in **the**Evening, through a whole Course of Steel-Waters, with good  
Effect :°Nay, I do affirm, that some others could not bear the  
Waters without having a third Part os Milk, or more, mixed  
**with** them, and have continued them so for many Weeks,  
**with** good Advantage: Nor do I find **the** least Reason to pro-  
hibitthe Use of Milk in a Course os Bath Waters, having  
been here above a Year and half, making the best Scrutiny I  
van into the Properties, Virtues, and Vices (if they have any)  
**os these** Waters. , . .

Since our Experiments discover, that, those Things, which are  
**os** a sweetening alcalisate Nature, do so Very well agree with  
**these** mineral Waters, it will appear by the following Expe-  
riments, that Acids do Very much disagree. I put but one  
Drop os Oil os Vitriol to a large Glass full of strong Spaw Wa-  
ters, which, before the Addition os this Acid, did give a deep  
Purple to the Solution os Galls, but now would not give **the**least Tincture, though I put in four times aS much of the Galls.  
From hence,! conclude, that the Virtues ofthe chalybeate Ingre-  
dients, which I take to he the Lise and Soul of these Waters,  
were so far bound up or destroyed, as to have lost their cordial  
or corroborating Faculty; and that the Bile or Gall in the  
human Bowels could not he able to separate the chalybeate  
(which are the only medical) Particles, and mix them with **the**Chyle, in order to any End in Physic. Let this he a Cau-  
tion to those that design to make these Waters pass better by  
Urine, that they do not make use of any Acids, it heing a  
common Practice to use Spirit os Vitriol, Spiritus Nitri dulcis,  
*etc.* as a Diuretic., unless it should so happen, that they  
have a Design to take off, and divest them of their warm, cor-  
dial, or altering Power, and so to bring them near to common  
Water; which I must confess we are forced to do, especially  
**in the** Use of Bath Waters, in some hot inflammatory Cases;

I shall conclude with one short Experiment in Favour os our  
Alcalies; that if you put any alcali Salt, volatile or fixed, such  
as Volatile Salt of Hartshorn, , or os Sal ammoniac, or fixed Salt  
of Tartar, of Wormwood, or any other true Alcali, you will  
then destroy the above-named acid Spirit, recover the Virtue of  
**the** Waters, and dispose them to give their Tincture aS they  
used to do in their natural State,

Having procured about a dozen Quarts of Pyrmont Waters  
this last Summer, I made some Trials with them. I sound by  
, the Taste that they contained a rich chalybeate Virtue, and also  
made a Very brisk and lively Impression on the Palate, more  
grateful and spirituous, than the best Spaw Waters **I ever** tasted.'  
The Spaw Waters are looked upon. aS most excellent, if they  
sparkle a little in the Glass.. But these, in Summer Time, when  
poured into the Glass, nay, sometimes even the Bottle, as soon  
as the Cork was opened, and the Air was admitted, would  
make a notable Ebullition, somewhat like bottied Cyder, though  
-this was soon over; but they did yet continue their smart and  
brisk Taste, and high chalybeate Relish to the last Drop, though  
we were some Hours in drinking them off In the Winter-  
. time, these Waters do not sparkle, nor ferment, at least mine  
did not; but they were not carefully preserved, being exposed  
in cold Collars where our Beer or Wine stood in the Winter,  
and yet notwithstanding, they lost not rhe chalybeate Taste,  
and also retained a very pleasant brisk Gust. These Waters  
have been reckoned in the Number os the German *Acidula,*' and some of my Friends, tn whom l gave a Glass ofthe Wa-  
**ter,** have ascribed to it a sham Taste, and have been ready to  
**run** away with a possessed Opinion os its bring sour : But when  
I required them to call back that hasty Assertion, and to con-  
sides it better, whether that Taste was really *sour* or acid, , they  
have been forced to recant, and confess, that the smart and  
brisk Taste misted them to call it Acid, or truly Sour. Thus  
Cyder, and soft Ale, when bottied, will give such an acute  
Affection to the Palate, when it is sar from being sour: And  
even Volatile Alcalies 0f Salammoniac, or of Hartshorn, may  
**be** made to give the like Pungency to the Tongue

in order to a more nice Enquiry, whether any Acidity **were**discoverable in there Pyrmont Waters, we dropped in considera-  
ble Quantities, both uri spirit of Hartshorn, and of Spirit of  
Sal ammonias, both justly preparedhet could not discover the  
least limitation or Motion to appear upon this Conjunction;  
as it usually does with an Acid. I made a yet more, nice and  
-certain Examen of these Waters, by mixing Milk with them,  
sometimes in equal, sometimes in double Proportion ; and  
in Various Degrees of Warmth, both in lukewarm Degrees,  
and also with a boiling Heat ; het I could not perceive any  
: Curdling; het rather, on the contrary, the Water preserved the  
- Milk from Coagulation, sor sour or five Days, eVen in Septem-  
her, it heing hot Weather.

' Take a Very littie Gall in Powder, about half a Grain, to a  
: Glass of a Quarter os a Pint; this does in a Moment render  
sit turbid, and make a dark Purple, especially if you stir it :  
- hut, if you drop the Powder on the Surface of the same Water,  
it then causes a fine blue Tincture. Is you will make a Very  
fine Tincture pleasant to the Spectator, take five Leaves of  
. - djfong green. Tea, put them into the Bottom of a Glass, holding

a Quarter of a Pint, and you will see these Leaves unfold them-  
selves, and, in a Quarter of an Hour, tinge the Water with such  
a cerulous azure Blue, that few Vegetables do afford the like.  
We observe, 'that the longer these Leaves, or any other Styp-  
tics (which are the Precipitators) do stay together, the more  
they degenerate into a deep Purple, or esen in to an atramentous  
Colour. *r -*

In Reference to the internal Use of these Waters, I drank  
about a Quart at a Time, aster this Manner : I first began  
with the Spaw Waters, which I procured Very good, and drank  
them for a Week, and they agreed Very well. I then drank **the**Pyrmont Waters for three or four Days, and continued **the**Use of these Waters alternately, until I had drank about twen-.  
ty Days. By the Result of my Experiment, it seemed to **me ..**Very plain, that the Pyrmont Water was more agreeable, gave  
more Strength and Spirit, and was as much or more prese-  
table sor its internal Virtue, as sor its excelling the other in a  
brisker and more sprightly Taste. -  
There is another Excellency in these Waters, which wist  
make them more useful to us,, than any foreign chalybeate Wa-  
ters we yet know ; because these will keep better, being  
not so soon spoiled by any accidental Insinuations os Air, as **the .**Spaw are sitbject to be. The chalybeate Mineral is here the-,  
roughly dissolved and well united, and mixed in the Water, th  
that it does not easily precipitate; for which Reason it Inay also,  
the better pass the Vasa Lactea, and eVen enter into the "Mass  
of Blood itself, and work the more considerable Effects. That  
this is not a bare Hypothesis, may he proved by this Experiment.

Having suffered the Spaw Water to he exposed in a Bottle  
which was half full, and unstopped twelve Hours, I examined it,  
and found it taste just like common Water ; but the Pyrmont  
Waters, that were opened to the Air after the same Manner,  
tasted strong of the Mineral, and gave their Tincture aS at first;  
nay, they continued thus for full two Days, and perhaps might  
have done so longer, but I thought that Time sufficed. I may.  
fairly conclude, that, since the Spaw has been very beneficial  
**to** our Patients in chronical Diseases, these Waters of a much  
superior Virtue will surpass them in conquering many of our oh-  
stinate Distempers.

Having had lately fome Discourse about a purging Quality  
contained in these Waters, I am now enquiring into the Truth  
of this Question, whether they in reality do contain any purg-  
ing Ingredients or Properties.

I evaporated about a Quart of this Water *ad siccitatum* **; ί**then poured on the Reliquiae some Rain Water, enough to diss'  
solve and take up the Salts, and exhaled that Water, and had **a**Grain or two of the Salts, that tasted muriatic, such as most  
River and Pump-Waters give. It is well known, that **the**purging Waters have a Very bitter Taste, and by the learned  
Dr. Grew,, that Salt was.called *Sal catharticum amarum,* which  
distinguished it from all other Species of natural Salts: That os:the PyrmontWates, above-mentioned, has no Relation to this,  
but to the Sea.Salt, not heing in the least bitter.

It is also well known, that, unless our Waters he impregna-  
ted with a considerable Quantity os this bitter Sals, they will not"  
purge at all 4 Two dr three Grains signi symothing, nor **have**the least cathartic Poweri Tor Example,' put two Drams os  
the purgi ng Salts to a Quart of common Water; and this Quan-  
tity will give but a Stool or two, to one who is naturally Very  
easy to work upon. I have examined several other chalybeate\*  
Waters, and sound much the like Ingredients, - and **never any.**that I could suspect to carry any purging Properties.

I think we can much better demonstrate, that the chalybeate  
Waters do contain styptic Inff restringent Virtues, because they  
owe their Birth to the Iron Mineral, and more particularly to  
the Pyrites, which Dr. Lister suggests (not without some Rea-  
son) to he the Parent even os all Iron Ores, as it is doubtless **the**Cause of all .chalybeate Waters: Thus I have often examined  
the Solution of the Pyrites by the Rain-water at Deptford, and  
at other Places where Copperas is made, and sound it a very;  
strong chalybeate Water. It is imm this Mineral we have oua  
strong styptic and constringent Medicines, for external and interrf  
nal Use ; we have our Powders and Salts of Steeb or Vitriol of  
Mars, from hence; nay, even those obstinate and inveterate  
Diarrhoea’s, which have baffled rhe Force of all Medicines, have,  
by a judicious Use of Tunbridge, and other Lon Waters re.  
ceived a Cure. ......... ».

But, notwithstanding all we can say, is will his retorted chat  
there IS Matter of Fad and Experience against us, that the  
Waters really in purge at Pyrmans, wimm thev am drank.  
Tim we.do allow to he true, that Tunbridge Waters do not:only purge, but sometimes Vomis, whCn drank jmd ingreat Quantity ; het. our Phyheians imvc tjk Irreffu.

uncy. and we hear of μα (ἐν Complaints, where they oblige

And we- do all agr«,

**" τδ Λ ώη?’. “d do °ft feme θΡ“.**

Ρτ 2-““'"? of Wattr dins « Ρνὰμός  
wss ς«6°,0Γ Quarts. It is νοῦ

onder that their weght forces than throushthe Boweb -  
for *,ssr* common Ww dmk haSily. and in mis άἐνοὐρ,

will do the same. Whereas, if you take this Method, and  
will drink Pyrmant, or any other chalybeate Waters leisurely.  
Viz. a Pint Glass in an Hour, or rather two Hals-pint Glasses,  
you may drink three Pints in so many Hours, without Danger  
of losing them by Dejection. But if any one will he careful,  
and take this Caution with him, he will scarce sail of Success,  
that is, let him he very quiet and still, both in Bedy and  
.Mind ; the less he stirs or walks, the better he will pass off  
his Waters by Urine. And though this will appear a Paradox,  
especially to those Physicians, whe practise abroad, and com-  
mend to their Patients much Action in Walking, yet I know I  
have hath Reason and Experience on my Side. To avoid Pro"  
lixity, I shall not declare them at thts Time, and shall only  
ink Leave to mention one Observation I have made, that none  
of our English Steel-waters do strike such a Purple as the foreign  
celebrated chalybeate Waters do ; sor ours do give a more turbid  
and dark Colour, and the worse the Waters are, the blacker  
Sediment they make. Those of Iflington abound with a coarse  
Oker, the Mineral is not well diflhlved, but gives an atramen-  
tarious Colour ; hut the Pyrmont Waters excel all I have hap-  
pened to examine in its bright coeruleous Lustre. *Slards Dissert.  
Philos. Trans.*

*An Examen of Mincral scFalers.*

- The admirable Virtues, and extraordinary Efficacy of mineral  
Waters, both the.cold, winch are called *Asidulae,* and the  
hot, named *Ίher nice,* in perfectly curing the most obstinate  
and inveterate Diseases, are so well known and attested, by  
long Use Time out of Mind, and an infinite Number of ex-  
periments, as to put the Matter beyond all Question. But  
whence these Waters derive their sanative Power and Vir-  
tue is a Thing not so commonly known ; and, really, there  
are Very few who know how -to search out the Elements and  
Ingredients, in which their wonderful Efficacy lies, by achy-  
' mical Examen.

Now there is no better Way to discover the Elements of me-  
dicated Waters, than by evaporating the Liquid by a gentie  
Heat, either in a Tin Vessel set over hot Embers in the open  
, Air, or, which is better, in a glass Cucurbit,- carefully saving  
the Liquor that goes through the Alembic, that the Propor-  
tion of the Solid to the Liquid may he obtained. It then  
the Evaporation he made to a Dryness, and the dry Mass,  
left in the Cucurbit, he accurately weighed, we have the  
true Weight of the ingredients, which are of a more fixed  
Nature, and, though of a different Texture, mud he exa-  
mined. - -. - 1 .  
. First, then, a Solution *of* the Residuum must he made with  
pure Water that is distilled, which is always requisite for  
the more accurate Examen os Things chymically prepared,  
for many Spring-waters contain much of the Elements of  
Earth and Salt. : in this Solution the Salt is separated, and  
the earth remains, which is less soluble in Water. It is easy  
io know, whether this Salt he alcaline, by mixing it with an  
Acid, for then it forms a Sal Tertius, or neutral Salt ; or.  
with Sal Ammonias, in which Case the Volatile urinous  
Smell betrays it. Or it may he known, when a Solution  
of sublimate Mercury in Water is added to it,, for then a  
yellow Powder precipitates ; or if it gives a green Colour to  
Syrup of Violets mixed with it.

.. The Case carries a little more Difficulty, when the Salts, left  
after Evaporation, are not of one and the same, but of diste-  
rent Kinds : AS when, for Example, alcaline Salts are  
mined with those that are neutral, such are common Salt,  
or calcareous Salt, as Aphronitrum,. or sulphurous Salt,  
which : approaches to the Nature of Arcanum duplicatum,  
or vitrinlated Tartar. Hence if may well he ashed. How  
shall these he separated from .one another ? It must be done  
alter the following Manner 2.1 Pour common Water on the  
dry Mass, and, aster a gentie Agitation, let it run off. By  
this Means there will remain a saline Powder, not easily dis-  
soluble, such. aS; are all your middle Salts, for alcaline Salts  
readily dissolve in Water. There in another Way of separat-  
ing neutral Salts from alcahne, and that is, by Crystalliza-  
tion , in which. If rightly performed, every middle Kind of  
.Salt, best fittedIo receive a solid Figure, first descends in  
the Form of. Crystals, there. remaining nothing hut a lixivi-  
.Ous Liquor, which swims a-top, and receives with more Dif-  
ficulty a solid Form.. : ψ -.mi i :.

.1 Here another Question will arise, viz. How may the genuine  
Nature .and Properties, of the middle Kind of Salts, he found  
out ? You are to know then, that no other Salts are eon-  
Veyed out of The Bowels of the .Earth ‘in the Vehicle of  
Water, than either common Salt, ora Kind of neutral Salt,  
of a vitriolic and sulphurous Nature, being made up os the  
-Acid os Sulphur or Vitriol, and a Sort of Salt, or Earth,  
of the alcaline Kind : The formes, that is, common Salt,  
may Very well he distinguished, partly by the Savour, and cu-  
bical Figure, which Crystall iaati on gives it, and partly, by  
Emitting, when mixed with Oil of Vitriol, a Copious whim

Fume, of a most penetrating Smell; the other Salt, ' which  
derives its Original from an universal, subterraneous, fulphurouS  
Acid, is thus tried, Vin. Mix two Parts of the same with one  
Part of Sait of Tartar, and one of Powder- of Charcoal, and  
let them incorporate and fuse together in a Crucible over a  
melting Heat; there will then be produced a rnd Mass, of  
a fulphurouS alcaline Taste, much refembling the Liver of  
Salphur, and from which, with highly rectified Spirits, *of  
Wine,* is extracted the true yellow Tincture of Sulphur,  
which stains Silver with a sooty Colour.

From a Solution of this Mass with Water, by an acid LI.  
Qnor, is precipitated the true Lac Sulphuris; a manifest Evi-  
dence, that the mineral Sulphur, which is compounded of t^  
universal Acid, and inflammatory Principle, is revived in  
this Process. I not only sound this true, in all Salts pro-  
cured by Art, which are compounded with rhe Acid os  
Vitriol or Sulphur, bUt alfo by Means ns this Procefi ρΓΟ.  
duced a fulphurouS alcaline Masi out of all the mjddle salts.  
Common Salt excepted, which are found in the mineral  
Waters, both cold and het. bur wich ypim Difference, that,  
is the middle Salt he compounded of an alcaline Salt and  
the Spirit of Sulphur, the easier is the Fusion by Fire, which  
becomes far more difficult, if this Acid he united with a ter-  
rene, or gypseo-calcareous Element, such as is the Salt in  
whet they call the Aphronitre which adheres to Smnes.

Besides alcaline and middle Salts, there is, in Very many of the  
cold mineral Waters, a Vitriolic Salt, which is seldom of  
a fixed Nature, but, sor the most Part, subtile and volatiles  
This same Salt is known to he in all Waters and Liquids,  
not so much by the Taste, as by the dark-purple and  
blackish Colour they receive from the fine Powder of Galls,  
or the Rinds os Pomegranates, or an Infusion of the Flowers  
of Pomegranates. The Volatility of the Spirit os this Vi-  
triol, or rather ’ of the Acid of this Mineral, which, in  
Conjunction with martial or olearous Particles, constitutes  
the subtile Salt of Vitriol, appears especially in .this, that  
mineral Waters, which take a black Tincture from Powder  
of Galls, and drank make the Excrements black, is exposed  
a-while to the open Air in a ' warin Place, immediately lose  
their Vitriolic Taste and Faculty of changing their Colour,  
which happens yet much sooner upon 7a gentle Boiling and  
Ebussition.

There remains yet something to be examined in mineral  
Waters, and that is their very subtile spiritouS Element, which  
seems to he of an aereo-ethereal Nature, and to have an ela-  
stic Property. The Presence and Abundance of this are  
manifested, not only by the Vapour, which strikes the No.  
striis, but also by their Effect -on the Head in drinking. **To**this Principle also it must he ascribed,chat mineral Waters,  
especially the cold Springs, poured out of one Glass into. an.  
other, raise Plenty os Bubbles, which stick to the Sides of  
the Vessel.

- But these Bubbles rise in still greater Plenty; and with more  
Force and Celerity from the Interstices of these Waters to  
the Superficies, .when they are mixed in equal Proportion  
with Moselle or Rhenish Wine, or any other that contains .  
a subtile Acid, and a little Sugar. For so they look well to

the Eye, and become os a delicious Taste, the Vapours pro-  
ceeding from them in such Plenty, that they seem to smoak.  
This Effervescence, by which these Bubbles are principally  
raised, depends on the Conflict of the alcaline Salt, which  
prevaiis in mineral Waters, with the subtile Acid of the  
Wines.

This spiritouS Principle, residing in **the** Waters, is also **the**Cause why Vessels, or Bottles, close stopped, when heated,  
burst. with great Vehemence, a sure Evidence of the Vast ex-  
pansiVe Power of this Very sobtile Matter..

Moreover, the Existence of this spiritous Element, which  
ennobles mineral Springs, may Very conveniently he tried, in  
a Vacuum, by Help of the Air - pump, in which so great a  
Quantity of Bubbles rises to the Superficies of the Vessel,  
that they seem like a Liquor heated to a Degree of ebullition.  
. j Such Springs therefore, as have undergone an Examen, and  
do not produce the like Effects and Phaenomena, are to he  
esteemed of much inferior Virtue. For it is that most subtile  
mineral Spirit, which endues the Waters and their Ingre-  
dients with such extraordinary Virtues, fo aS not only with  
Speed to enter and penetrate into the very inmost Recesses  
and Emunctories of. the Bedy, bur to communicare greater  
Strength, and Power of Moving, to the solid Parts, and the  
Fibrae Motrices, for the more ready Passage of the Waters  
through the tubulous Frame of out Bodies, by which not only  
the Veffeis are cleaned and freed from all Obstructions, bur  
.the Secretions and Excretions of useless PartS are in an extraordi-  
nary Manner promoted.

But as there is no Spring-water, which does not afford some-  
thing earthy, and hardly soluble, aster Evaporation, so we  
find the same Thing in mineral Waters, whether hot or  
.cold, even in those that have the greatest Reputation for me-  
dicinal Virtues, Now the Nature and Properties of this

**gross** Substande Ought also to he inquired infiJ. Por them  
sre Various Kinds of Earth, through which the Waters  
take their Course, some Parts of which are easily taken np by  
Waters, because of their intestine Motion.

The Things, which get into the Pores of the Water, are  
Chiefly these: *Limy,* okerous, clayey; and even finny Earths.  
**The** Matter of **the** limy Kind is known by its Efferve-  
**scence** with an Acid, and also by Burning, in whichiff ac-  
quires the highest Acrimony. If there he Vast Quantities of  
this limy Earth in the Waters, especially het Waters, it  
separates in Cold Weather, and sticks to the Vessels and Pines,  
that Contain the Water, and, in a little Time, coVers them  
over with a stony Crust, as we see in the Caroline Baths,  
which contain such Plenty of alcaline and limy Earth, that  
Stones of vast Bigness are formed in the Vessels and Pipes  
that held them. If the Sediment, or Precipitate, which;  
after Evaporation and Crystallization of the Salts, remains  
in the Filtre, is of a yellow Colour, which, in Calcining,  
changes to red, it is a Sign of a martial or strong Matter,  
which never sails to exert its wholesome Operations on the  
Human Body, by its gently ashingent and corroborating  
Virtue.

But this okerous Substance, though it takes its Colour from  
Iron, will not suffer a Solution by an Acid, because it is  
of the Nature of Clays. Many Waters are full of this  
Sort of bolar and martial Earth, without any other saline  
and spiritons Ingredient , whence they are of no small Service  
**in the** Core os Chronic Distempers, both drank and used as  
Baths. In this Class we may reckon the Spring at Freyen-  
wald in the Marquisate, at Bibra in Thuringia, and Leuch-  
stad in Meissen, whose corroborative, drying, and diapho-  
retie Virtues, especially when used by Way of Bath, cannot  
he too much commended.

If there he any Thing stony in mineral Springs, it may rea-  
dily he known by Elutriation with a sufficient Quantity of Wa  
ter, by which all the subtile terreous Parts are dissolved ; for its  
Weight carries it to the Bottom, and will not easily suffer jit to  
he moved out of its Place.

Besides the hot and cold mineral Waters, in which it was  
**our** first Assertion that Alcalies predominate, there are also  
medicinal Springs, impregnated neither with Acid nor Alcali,  
nor capable of tinging Syrup of Violets, but containing on-  
ly in Salt of a middle Nature, which may best he procured'  
by Evaporation. Of this Kind, chiefly, are some Springs  
first discovered by me some Years ago in Bohemia, at the  
Town of Zetliz, two Miles from the City of Toepliz,  
whose Waters, are very bitter, laxative, and contain a con-  
stderable Quantity of a middle Salt, which is much of the  
feme Nature and Virtues with Aphronitre, or artificial Epsom  
Salt. *Hoffman, Obs. Phys. Chy.*

I

*' The following Particulars, relating to seme of the principal mi-  
literal Walers in Germany, will, it is to be hoped, both en-  
courage, and enable the Curious, who live near any mineral  
Springs, of wbich there is grent Plenty in England, rut yet  
taken sufficient. Notice of, to examine into their Contents and  
respective Natures, that their Efficacy, in the Cure os. Disc  
eases, may be rendered more certain, and more generally known  
io the World.* r

**I.** AS it is certaim that medicinal Springs, whether of **the**hot or cold Kind, sound in different Countries, differ consi-  
derably with Regard to the Principles or ingredients they con-  
tain; and again, in Point of Purity os the Waters, whence  
some become serviceable in one Sort of Distempers, and others  
in another 4. some of them usefid in this Constitution, and  
some in that; it becomes a Matter of Importance, to deter-  
mine the precise Virtues and Efficacies of different Springs,  
by the Means os sure Experiments. And to lead others into  
a regular and just Method of doing this, or of discovering  
inch Springs, as are .of greatest Efficacy for the Cure of Dis-  
eases in every Country, is the Design of the present Section.  
**To** render the whole Matter familiar and intelligible, **we** shall  
proceed in the instructive Way of Examples, rather than **Pre-**cepts ; and lay down Sets of Experiments, that we **have** Our-  
selves made upon the Waters of certain Springs of the greatest  
Character and Reputation in Germany: Whence at the same  
Time we shall have an Opportunity of confirming their medi-  
cinal Virtues by Experience, and Instances of Persons who  
have drank them with Sueceft; and thus of demonstrating their  
Virtues to he agreeable to the Contents, which our Trials ma-  
nifest in them. -

2. We begin wlth the Pyrmont Waters, which, on Ac-  
count of their penetrating Nature, and quick Passing off, held  
**the** principal Place among cold Springs. It is remarkable of  
thefe Waters, above all others, that the glass or earthen Ves-  
sels, filled with them at **the** Spring-head, and well stopped  
down, easily burst to Pieces, with considerable Violence, upon  
shaking, or bring gently treated. So that, if Flasks of it are  
**to he** tarried .to distant Places» it ss aocedary Dot tq fill **them**

**to the** Top ; or else, to let them remain open for some Heins,  
that their volatile elastin Spirit may in some Degree fly off. -

3. *Is* these Waters he drank cold, upon an empty Stomach,  
in the Morning, they not only brisitiy strike the Nose with  
a subtile penetrating Vapour, that rises from them ; but also  
render the Head giddy, as if the Person had drank too much  
Wine.

An They sometimes operate by Stool; and this the more  
powerfully, when they are not drank at the Spring-head, but  
carried to some Distance before they are used. And the Matter  
they thus discharge out of the Body, is of a blacker Colour  
than happens upon drinking the Waters of other cold Springs.  
But they lose all their purgative Virtue, by bring long exposed  
to the open Ain; and in that Case do not tinge the Excrements  
hisck.

.. Dr. Slam finding, upon Evaporation, no bitter cathartic Salt  
in these Pyrmont Waters, will not allow them properly purga-  
five ; but attributes this Effect to their being drank hastily, or  
in large Quantities; in which Case common Water would **have**the same Effect. But, from the Account here given, they ap-'  
pear to he somewhat purgative, by Means of their Volatile  
vitriolic Spirit ; which is also Vomitive, when it largely abounds  
in Steel-waters; as appears by an eminent. Instance in the  
newly discovered strong chalybeate Waters of Passi in France.  
See *Hist, de VAc. Ray. An.* I720.

5. If Tea-leaves, Balaustian Flowers, or powdered Galls he  
thrown in a Glass of this Water, it first acquires a blue Co-  
lour, which soon after turns to a Purple, and at length a  
Black: Winch shews, that black Colour proceeds from a Con.,  
centration of the Purple ; and that the blue Colour is nothing  
more than a faint and dilute Purple. But, if a littie Spirit of  
Vitriol he dropped into the Water that is thus tinged, all **the**Colour presently Vanishes.

6- If any acid Spirit, whether of the stronger Kind, sech  
as Spirit of Vitriol and Aqua Fortis ; or of the weaker, such  
as Vinegar, Lemon Juice, or Rhenish Wine, he mixed with .  
this Water, it causes a manifest Ebullition, and throws up a large  
Quantity of Bubbles to the Top with Violence, and a Vaporous  
Exhalation. . .

7. On the other Hand, if any alcaline Liquor, whether of **the -**fixed Sort, aS Oil of Tartar, or of the Volatile, as a dilute Spi-  
**fit** of Sal Ammoniac he mixed with this Water, no observable  
Conflict or Ebullition ensuesS But the Water only becomes **a**littie thick and white. And if now Spirit of Vitriol he dropped  
into it, so aS Io saturate the alcaline Principle, the Water again  
becomes pellucid and transparent.

8. Upon mixing an equal Quantity of Cow'S Milk along with  
this Water, the Milk does not curdle, but rather becomes more  
fluid; and is by this Means preserved from turning sour; which  
affords an indisputable Proof that this Water abounds not with  
an Acid, 4.

This Particular is sarther confirmed of these Waters by Dr.  
Slare; who found they did not curdle Milk, eVen when boiled^  
in an equal Quantity with is, but caused the Milk to continue  
several Days without turning sour. . . . .

9. IfSyrup os Violets he mixed with this Waler, it turns of a  
deep green Colour; which presently disappears again upon the  
Addition of a sew Drops -‘of Spiritof Vitriol, -- . i)

io. Upon evaporating forty-eight Ounces ofthis Water oyer  
a gentie Fire, we obtained two Scmples of a dry Matter; one  
half whereof bring put into a proper Glass, we let sall there-  
on thirty Drops os Oil of Vitriol -; upon which them ar0fe a  
strong Ebullition, and a fine rarefied Vapour that sharply strucis  
the Nose, in the same Manner as whan Oil Os vitriol is poured  
upon common Salt. Upon the other half os this Matter  
we poured some pure Spirit of Vitriol, winch and- a con-  
flict therewith, and turned in into 2 bitterish saline Substance ;  
leaving behind a considerable Proportion os a chalky Earth,  
winch, when washed in lain Wares, no longer raute '  
Vcscence with an acid Spirit.. ... - . t

. “‘.OP^expofing several Pints of Pyrmont Water in **a**large Silver Vessel, for twenty-four Hours, to the open Air, **we**sound it so much altered from. ite original State and Disposition,  
as scarce to he distinguishable for what it fo flugwhh oher  
“quihy .«\* ανρμα. For «o the Tafle it had quite loftite mi.  
neras, brills, and penetrating Nature, and becaher, perfectly

a changed in its Transparency, and became  
thick and turbrd, with a fine yellowistr Earth fasten totom. And when the Liquor, that floated above powdewas poured *off,* it no longer made .my Ebullition with Acu  
ofViste P°wdcred greenish with Syrup

**12.** From these several Particulars It plalalyappeare cho  
5{i?Ont.Wa?? coPtoufly abound in a pure, penetrandg  
WSSTileKffiSpint’7her?n P^Pxiand diifingaishin^  
virtue and Efficacy depend, her this high] ΧἼμ  
aple, so long as ir cimvm to Cbl. p\_E

: che of the Water, assumes rim Natuherof Alr,ss.

**1 hemg also joined with a sohisnceyheshnXbi**

Nature of Vitriol, has a Vitriolic Taste, renders the Excre-  
ments black, and, makes an inky Tincture with Galls, There-  
fore, whilst this Principle remains in the Waters, it thus ren-  
ders them extremely active and powerful in opening Obstructi-  
ons, and promoting the Secretions os the Body. Bas, when  
once this Spirit is gone from them, all their medicinal and di-  
stinguishing Virtue and Excellence is lost, or goes off along  
with it. And as these Pynnont Waters copioufly abound with  
this spiritouSPrinciple,and consequently have a strong Operation  
and effect , it is evident that the Use of them is rather fitted to  
Inch as are of robust and corpulent Habits, than for Persons of  
a soft, delicam, and tender Constitution. Yet they may,, with  
great Safety and Advantage, he drank by the Weak and Infirm,  
in a sinall Quantity *, Or* diluted with other pure and whole-  
some common Spring-water. They are also Very advansagebufly  
mixed with an equal Quantity of Milk, and thus become emi-  
nently serviceable to Persons troubled with the Gout and Scurvy,  
-of which we heve seen numerous Instances, in our long Expe-  
rience of these Waters.

I3. Next to the Pynnont come the Waters of Egra; ashear-  
ly approaching them in Virtue. For altho' they do not abound  
so largely in Spirit, het are of a milder Nature; yet for this  
. Reason they are drank with more Successjand at present are more  
frequented than the Pyrmont Wells: An immense Quantity  
thereof is also yearly sent to foreign Countries.

14. Upon pouring Spirit of Vitriol into this Water, there  
. arises a manifest Ebullition, though not so large aS in the Pyr-  
mont Waters.

I5. Upon mixing Oil of Tartar with this Water, it still **re-**mains transparent or limpid, without any Thickness or Foul-  
ness ; whereas other mineral Waters generally turn muddy or  
milky, upon dropping an alcaline Liquor into them, on Ac-  
count of the common Salt or chalky Earth they contain.

I6. If this Water he fresh taken from the Spring-head, it  
turns purple with Galls; but alters not its Colour therewith,  
when carried to any great Distance; unless the containing  
Vessel were Very exactly closed, which is a sure Indication  
that it contains extremely httie, if any Thing, of an Irony  
Earth.

I7. With Syrup of Violets it turns of a dilute Green,  
which shews, that the alcaline Principle rather predominates  
in it.

'. IS. Α Solution of the Vitriol of Iron, being added to is,  
throws down yellowish Clouds, or a dreggy Matter, to the Bot-  
tom ; though this is rather owing to the Vitriol itself, that was  
added, than to the Water , which thus distblVes and spreads it,  
whilst the Acid of the Vitriol meets with the alcaline Salt of the  
Water, and lets go its fine Particles of Iron. -

19. Upon distilling twelve Ounces of this Water, in Bal-  
neo Mariae, we first obtained a perfectly insipid Phlegm, and  
twenty-four Grains of a dry saline Matter at the Bottom;  
upon this Matter we poured Oil of Vitriol, but there ensued no  
Struggle or Effervescence, nor any Volatile Fume, which shews  
this Water contains no Proportion of common Salt.

20i Hence it is manifest, that the Waters of Egra **Owe**their purging Quality to them large Quantity of bitter Ca-  
thartic Salt , which is of a neutral Nature, in Respect 1O  
Acid and Alcali; and this purging Salt is yearly prepared  
from thefe Waters, hy boiling, and sent away, in Very large  
Quantities, to foreign Countries. The Salt has no Virtue  
different from that commonly called Epsom Salt, and if an  
Ounce os it he dissolved in a Pint of Water, it purges ad van-  
tageoufly, or gives three or four Motions without Distur-  
bance. These Waters are also highly commendable, on Ac-  
count of the Subtilty, Lightness, and Purity of their aqueous  
Part; and may in this Respect he preferred to the Pyrmont  
Waters, which abound with a Copious Oker, and a chalky  
Earth. It is therefore agreeable to Reason and Experience,  
that the Egra Waters are well fitted *for carrying off* Visci-  
dities, especially in the first Passages, and washing away the  
obstructing Matters in hypochondriacal Persons, or those of **an**ill Habit of Body, and discharging such Matters by Stool I and;  
again, sor opening Obstructions in the Blond-Vessels of **the**Viscera, and dissolving any tough, clammy Humours lodged  
therein. \* . .. . o

2 I. We next proceed to the Seim Waters, which for their  
Excellence are celebrated sar and near; and, on Account of  
the mild Manner they act in, are drank with singular Advan-  
tage, even in extremely weak and emaciated Constitutions;  
especially by consumptive Persons, or those of weak and unsound  
Lungs. ...

' 22. These Waters make an immediate Effervescence wish  
any Acid, whether it he strong or weak, and if mixed with  
Rhenish Wine, and a httie powdered Sugar, they bubble up in  
a violent Manner, with a crackling Noise and Fume, whilst the\*  
whole Mixture appears like frothy Milk.

23. When mixed with an equal Quantity of old Hock, they  
turn dinky, or appear of a brown; reddish Colour, in the same  
Manner as when Ost of Tartar, or strong Spirit of Sal Ammo-  
Rise, is poured into a generous White Wine.

24. The Taste of these Waters is not sprightly, penetrating;  
and tartdh, like the Waters of other brink mineral Springs; bur  
somewhat lixivinus upon the Tongue.

25. They turn not blue, or purple, much less black, with  
Galls, nor tinge the Excrements inky in the Course of drink-  
ing then.

. 26. With Oil os Tartar they turn niilky, but let sail no **Se-**diment m the Bottom.

27. Twenty-sour Ounces of this Water, being gently ex-  
haled away, left behind it a Dram and twelve Grains of a  
saline Matter, which being again dissolved in Water, and pasted  
through Filtring-paper, afforded a Lixivium, from whence we  
obtained two Scruples of a pure alcaline Salt. To a Solu-  
tion of this Salt we put a Solution of Mercury sublimate ;  
whence a fine yellow Precipitate, or Turbith Mineral, gradually  
sell to the Bottom. We had also the Pleasure of seeing an In-  
fusion of Rhubarb turned into a beautiful red Colour by this  
Solution. :

28. This same alcaline Salt also, being mixed with Sal  
Ammoniac, bound up the Acid thereof, and set free the Vo-  
latile urinous Part, so that it rose in Spirit, and briskly struck  
the Nose, which are all evident Signs of a fixed Alcali.

29. Having saturated twenty-four Ounces of this Water with  
Spirit of Vitriol, then gently exhaled away the Mixture to Dry-  
ness, we procured a Dram and an half of a neutral Salt; like to  
the Tartarian Vitriolatum. *.. ‘ - l*

30. We know of no medicinal Waters which so easily  
run into Putrefaction and Stench as these, insomuch that  
the Bottle must he perfectly filled, exactly stopped down with  
Cork, and carefully pitched over, to preserve them sound. ,

3I. If this Water he exposed to the open Air, in a wide  
Vestel, for twenty-four Hours, it intirely loses its original  
Taste, and becomes lixivinus, aS if Oil of Tartar had been  
dropped into it, and yet there salis no yellow Substance to  
the Bottom. »

32. An attentive .Consideration of these Phaenomena wist  
clearly shew, that this Spring plentifully abounds with the  
Matter ch a pure alcaline Salt, of which it contains a larger  
Quantity than any other in Germany. Yet it holds no bit-  
ter calcareous Salt, nor any Principle of Iron; whence it has  
no great purgative or astringent Quality, hut principally ope-  
rates by Urine. Again, this Spring is but sparingly suppli-  
ed with the fine Volatile mineral Spirit; and, for this Rea-  
son, proves of a Very mild and gentie Nature. All which  
bring considered, it follows, that thefe Waters are not only  
innocent, but may frequently he used with great Success and  
Advantage, even by such aS are of the weakest Habit *of Bo-  
dy; and* particularly in scorbutic, phthisical, and nervous Dis-  
orders. They may either he used alone, or, whet is still bet-  
ter, mixed, with Assis, or GoaPS.milk ; which Method of  
drinking them I first, with good Success, introduced above  
five and twenty Years since, and numerous Physicians, with  
the same Success, have followed my Example. I think, I can  
assuredly affirm, that for diluting and washing off acid and  
ill-concocted Humours, correcting the ill Habit of the Blood .  
and Juices in arthritical .or gouty Persons, and for relaxing  
and restoring the contracted nervous Parts, there is not a safer,  
2. sorer, more immediate, and effectual Remedy, than the SeltZ .  
Watersorank with Milk, ’. ρα , .

33..W e come next to the most noted Spring in all Ger^  
many, the Waters whereof are extremely pleasant to the Taste,  
and commonly called by the Name of the Tonnstein Waters.  
\* 34. These Waters have inis in common with all other  
Brisk .and cold. Springs, that they cause an Ebullition with  
Acids; and on this Account, when mixed with Sugar and  
tart Wines, froth up, like Milk, with a great Smoke and  
hissing Noise, thus discharging nuffiberless Bubbles, as it were, Sin a thick Mist or Steam.

-35.\* They afford no Tincture with Galls, but preserve their  
natural Clearness when, mixed therewith, which shews, they  
Contain no irony or Vitriolic Particles. - - -

36. They turn Syrup of Violets os a saint Green, like all  
other sprightly cold Springs, which shews they abound with an  
alcaline Principle. ” 1

37. If Ost of Tartar he dropped into them, they presently  
turn milky, and let fell a light Sediment, winch shews they con-  
tain coinition Salts or somewhat of a chalky Nature.

- 38. By standing any considerable Time in an open Vestel,  
exposed to the Air, they also lose their pungent Taste and  
Transparency.

1 39. When evaporated in a pewter Bason, set over the Fire,  
there appears a Skin upon then Surface, exhibiting various Co-  
lours, which is a Phaenomenon that does not appear in other  
Waters of this Class. ε

40.- Twenty-sour Ounces of these Waters being evaporated  
**to** Dryness, there remained two Scruples of a solid Matter,  
which being again diflolved in sain Winter, and properly dri-  
ed, .yielded one Scruple of Salt,, and another of chalky Earth.  
The Salt was put into a Glass, and a sew Drops of Oil of  
**Vitriol poured thereon.,** which presently. Caused a great Ebld-

heron, that sent out a thick pungent Vapour, exactiy of the  
some Kind as arises from a Mixture of common Salt and  
**Oil** of Vitriol.

. 4I. Hence it plainly appears, that the Tonnstein Waters con-  
min little alraline Salt, but a large Proportion of common Salt,  
chalky Earth, and mineral Spirit j whence they prove of a mild  
«nd gentle Nature, so as to *aSt* powerfully neither by Stool nor  
Urine. They may therefore, with Safety and Advantage, he  
«sed hath in chronical and acute Distempers, either alone or  
mixed with Wine, so as to serve instead of Malt-liquors, which  
**are** very seldom proper in Distempers. They seem also capable  
of heing still farther applied, with Success, in the Cure of hypo-  
Thondnacal Diseases.

' ... 42. The Wildung Waters have a great Affinity with thofe of  
Tonnstein, and are commonly used rather in the Way of Diet,  
than Medicine

43. They afford manifest Signs of an alcaline Principle, as  
in airing a ConfliQ and fmall Effervescence with Acids. They  
**also** appear plainly impregnated with a **sine** mineral Spirit, he-  
cause, if loam exposed to the Ain, they lose them peculiar mineral  
Taste. . ..

44. They afford no Tinctiire with Galls or Balaustian Flowers,  
**and** turn but sightly green with Syrup of Violets.

45. Twenty-sour Ounces of this Water, upon Exhalation,  
rfiord us four Grains of alcaline Salt, and eight of an extremely  
white Earth, soluble in Spirit of Vitriol.

46. From these Experiments it may appear, that the Wildung  
Waters are of a milder Nature than any hitherto examined, and  
therefore highly proper to he tiled, either alone or with Wine,  
instead of the ordinary Drinks. And althol they are not well  
fitted for overcoming obstinate chronical Disorders, or cleansing  
**Che** first Passages, yet they may he employed to good Advantage,  
for tempering and diluting the sharp Juices in gouty and scorbutic  
Cases.

***iyj.* The** Swalbach Waters bring kept in Bottles but lightly  
stopped, they grow foetid, and deposita yellow Sediment. ..

. . 4S. It fresh taken up, and mixed with Galls, they turn purple,  
and, drank at the Spring-head, tinge the Excrements somewhat  
blackish, which shews them inclining to an irony Nature.

49. They make an Effervescence with Acids, turn thick and  
milky with Oil of Tartar, and, if exposed to the Open Air, in-  
tirely lofe their grateful Taste and laxative Virtue.

**5o.** Twenty-four Ounces of this Water left, upon Exhalati-  
on, aimost two Scruples of a saline Matter, a third Part whereof  
was a Kind of OkeI.

**5r.** Hence it appears, that the Swalbach Waters are of a  
middle Nature hetwixt those ofEgra and Pynnont, and may, by  
Reason of their sine mineral Spirit, and subtile irony Principle,  
'not only promote the Excretions, by Stool or Urine, but at **the**same Time strengthen those Offices of the Parts, and consequent-  
**ly** are of great Use in hypochondriacal Cofes.

:i 52. Though we ourselves have had no Opportunity of exa-  
mining the Waters of theSpaw, yet we cannot omit giving  
iome Account thereof, from the more eminent Writers upon  
them, but especially from Henricus ab Heer, who has wrote an  
elegant Treatise thereon, inthled *Spade arene,* and partly aim  
from the physical Essays of Vallerius.

53. It the Spaw Water he carried to any great Distance from  
the Spring, in well stopped Bottles, it lets fast, after some  
considerable Time, a fmall Quamity of Matter like yellow  
Oker. i;

**.54 . A** single Grain of powdered Gash will presently tings  
**an** Ounce of this Water of a deep Purple, hut, if **the** Water he  
first heated, it changes not its Colour with GalisI

55. These Watersdo notcurdleMilk, and, when mixed with  
Wine, throw up a hot. Steam, almost like boiling Water, that  
' fmelis very gratefully, and othihits an agreeahieSightofsparfc-  
ling Bubbles to the Eye. ' " ; : , , :;

56. This Water seems to intoxicate, hist that Effcciisccm-  
inordy over in a Quarter of an Hour. s ; -

57. The Spaw Water is specifically lighter than comrnondi-  
stilled Water, by one Grain in about an Ounce and a hast.

. 58. Twelvc Ounces of this Water yield,; by Evaporation, **a  
Grain** and a half of a white Powder.' *l* χ

59. Supposing theseExperimenujuil.it will appear from them,  
that the Spaw Waters are perhaps as light and subtile, *as* any of  
the cold Springs, their specific Gravity felling short of common  
distilled Water. And as they contain het a final! Proportion of  
Earth, or saline Matter, and a large orre of the universal mineral  
.Spirit, it is easy to conolude, they must have great medicinal Vim  
tues, which are very fully expressed by Henricus ab Heer, who  
principally recommended the drinking of them in Diseases of the  
gladder and Kidnies. the Gonorrhoea, and venereal Ulcers of  
the Mouth and Tongue. But besides thefe Virtues, which seem  
peculiar to the Spaw Waters, they have others in common with  
**the** cold medicinal Springs. . .

60. The Buch Waters make a strong Effervescence with Oil  
of Vitriol, and turn Syrup of Violets of a deep Green, hist give  
no Tincture with Galls. .

\* 6 I. Upon dropping a Solutio,” of tile. Vitriol of hap jo-

to them, some light curdly Matter gradually sells to the Bet.  
tom.

62. Twenty-four Ounces of this Water afford, by Evapora-  
tion, twenty-two Grains of saline alcaline Matter, which, heing  
again dissolved, gives sixteen Grains of pure alcaline Salt, and six  
of Earth-

63. Upon dropping Oil of Vitriol upon this Salt, there arose a  
Violent Ebullition, but no Vapour at all, like what common Salt  
would have afforded.

64. Thefe Waters, the’ drank in a large Quantity, do not  
purge, yet operate powerfully by Urine ; but, if a proper Quan-  
tity of Spirit of Vitriol he added to them, it produces a Salt,  
that immediately gives them a different Taste, and purgative  
Virtue. . .

65. They are impregnated with a copious mineral Spirit,  
which, flying oss, leaves them in a Manner insipid.

66. Hence it plainly appears that the Buch Waters excel, on  
account of their remarkable Purity, .Lightness, and Subtilty ,  
and by heing impregnated with a saline Alcali, and a copious  
elementary Spirit. , But because of their Adjacency to the Egra  
Waters, and the hot Caroline Springs, they are almost neglects -  
ed by the Inhabitants , and the Physicians, who practise there,  
seldom prescribe them, except while the Course of Bathing is in  
Hand at the Caroline Springs. - But ’tis somewhat strange that  
the Buch Waters, which, in medicinal Virtue; , do not fall  
short ofthose of Seltz and Tonnstein, should not he exported to  
other Countries; especially as they keep excellently, when the  
Bottles are well stopped down. *Hoffman.*

s We have hitherto examined such medicinal Springs as come  
under the general Name of *Acidula,* which, in reality, owe  
their operative Matter in Part to an alcallne Principle. We  
next proceed to examine such as fall not under this Denomina-  
tion, but are of their own peculiar Nature, and abound with  
very different Principles. And among these we shall give the  
first Place to sirch as receive their Virtue from an irony Sub-  
stance, whence they have been antiently called STEEL WA-  
**TERS.**

Among Steel Waters, we reckon the Waters of Radeherg,  
Lauchstad, Behran, Freyenwald, and Weissenburg ; all which,  
if carefully examined, are found to contain no other visible ef-  
fective,Matter, besides a very sine Crocus of Iron, cornmndioufly  
received and harboured in an exceeding light and elementary  
Water. For they do not manifest, nor fo readlly lose their  
copious, sine, fpiritous Part,, as the others above-mentioned;  
nor partioipate of an alcaline Principle; as neither making an  
Effervefcence with Acids, nor turning Syrup of Violets green.  
They also differ from most other medicinal Waters in this,  
that they turn of a black Purple with Galls ; and when long  
exposed to the open Air, or helled; they let fall a yellow Sedi.  
ment: Nay, the Matter they throw up manifestly exhibits to  
the Eye their peculiar Nature, and the irony Principle they  
abound with: For not only the Confines of the Spring are  
sometimes coated over with a yellow Oker, but the Insides of  
the Pipes are lined with the same Kind of Crust; and Ἀ like  
Substance they deposit after standing some Weeks. This okery  
Matter, proves, upon Examination, to he no other than Iron re.  
duced to a subtile Flower, of a natural Crocus Martis, like tin  
artificial ‘, as appears from hence, that it-may not only by.Cal-  
cination he converted into, a true Crocus; but allo, if mixed  
with an equal Quantity of Sal Ammoniac, and put into an ig\_  
nited Crucible, there arise from it bright .and fragrant Flowers,  
which, bring, collected and thrown into Spirit *A.*Wine, aimed  
an excellent TinAure of Iron. .

- To examine the medicinal Virtue of there Steel Waters, her  
shall sind them endued hath with an operative and strengthening  
Property, so as to be advantageously used, as well internally as  
externally. Thur, when drank, they loosen the Belly, het  
strengthen thePody and Stomach, provoke the Appetite, and may  
therefore he very safely and serviceably nfed in inch Distempers,  
as give Way to any Preparations of Iron. Their external Use,  
in the Way of Bath, is very considerable, for strengthening arid  
cherishing benumbed and motionless Limbs, curing Pains,  
Contractions,. or Relaxations, and for drying and healing up Ojd  
Ulcers. And the’used for this Purpose in the Way of Bails,  
made but gently warm, yet they heat the Body, open rhe Pores  
of the .Skin,-and provoke .Sweat; especially if the Patient gper  
directiy from, the Bath rd Bed.

- Thtio Steel. Waters are very common in England . there is  
scarce a County that is nor furnished with several. Where there  
are Coal-mines, almost every Spaing is impregnated with Steel;  
and the Waters discharged by the Soughs made for draining  
these Mines, deposit this Sort ..of Oker mentioced he hefs.  
man .; .

Our Ancestors attributed the medicinal Virtue.; of these Wa.  
hiss, in the miraculous Influence cssomeSaints, in Imitation of  
the Heathens, who dedicated particular Springs to the Gads.  
This rs whet Pliny means, in the Paffege qu0ted when  
he says, the Gods are obliged to Waters for the thereof, of theis  
Nutnbut.i Jo like Manner we .may thet thf. Saiats arc

pbhged to our Waters, fora Part of rhest । estes,.

This however proves both the Antiquity of the Mineral  
Waters, and the Reality of their Virtues.

There are other medicinal Springs, which can neither he  
reckoned among the Acidulas, Thermae, nor Steel Waters; but  
are of their own peculiar Nature, and contain a pure, neutral,  
bitter, purging Salt. These kind of Springs are Very rare in  
Germany, (and none of them known to this Day, besides those  
which I some Years since discovered at Sedlita in Bohemia;  
and after having carefully examined their Principles, taught their  
Use, and introduced them with good Success) but Very com-  
mon. in England; for those of Epsom, Dulwich, Norths!, *etc.*and many others, appear of this kind. These will he taken no-  
tree of as their Names occur.

Before I came to examine this noble Water; is had never  
been of any domestic Use; only there ran a rumour among the  
Inhabitants that half a Pint of it would purge. There was this  
remarkable observed of it, that though in theWinter, and in rainy  
Weather the Spring flowed much freer than in the Heat of Sum-  
mer, yet it always retained the same Taste, and, as I after-  
wards sound, the same Virtues and Quantity of Salt. For an  
Instruction to others, whe may happen to he less versed in the  
Examination of unexperienced Springs, I shall here deliver my  
whole Procedure on this Occasion.

1.1 first poured a Quantity of the Water into a clean, crystal  
Glass, where it appeared perfectly limpid and transparent; but  
to the Taste proved remarkably bitter and saline.

- 2. I then let sail into it a sew Drops of the stronger Acids,  
such aS the Spirit of Vitriol, Spirit of Nitre, *etc.* but perceived  
no Signs of any Ebullition; and as it turned not green with  
Syrup of Violets, I was hence well allured it abounded with  
no alkaline Principle.

3. It did not .turn purple upon mixing with Galls, which  
shewed it contained no stony Substance.

' 4. Upon mixing with Oil of Tartar it grew somewhat thidk,  
as generally happens when any chalky earth is harboured in  
Water.

5. Upon a flow evaporation of twelve Ounces thereof, Ϊ ob-  
tinned two Drams of a bitter neutral Salt, like that in England  
called Epsom Salt. '

\* Upon the Strength of thefe Experiments I recommended the  
Waters to the Physicians near the Place, to he used instead of  
the rough and coarse Purgatives of the Shops, and intreated them  
**- to** go upon a fuller Discovery of its Virtues; but scarce any one  
of them thought me worth their Attention, till a Very savourable  
Opportunity happened to establish the Reputation os these Wells.  
For in the Spring of the Year I72I; when the Empress came  
to the Caroline Waters, she made use of those of Sedlitz, in  
the Presence and by the Advice of her chief Physician, whem I  
had acquainted-with my Discovery, and before whem I after-  
wards repeated my Experiments; Upon which, we with Can-  
'non gave of the Waters to Persons labouring under intermitting  
Fevers to great Advantage. This excellent Physician afterwards  
returning to Prague along with the Empress, recommended these  
Waters to the Nobility of Bohemia; upon which an immense  
Quantity of them was sent both to Prague and Vienna, where  
they were fully approved for purging advantageoufly, and  
strengthening the Stornach. And in the Autumn following,  
**the** Nobility and Gentry of Bohemia, whe yearly flock to the  
Hot Wells at Toplins, drank these purging Waters with great  
Success. - And now the Fame of them reached to Dresden,  
Berlin, and others os the most considerable Cities, where at  
present they use the Sedlitz Waters as common as those of Egra.

But as the principal Virtue of these Waters resides in their  
Salt, and aS the Carnage of them to distant Places is trouble-  
some and expensive, I persuaded a Chythist of TopHta gently to  
evaporate the Water, so as to obtain its pure Salt for public  
.Sale; and the Event proved answerable to our Expectation;  
sor he now yearly disposes of Very large Quantities thereof, and  
-sends it to distant Countries.

The Character of these Waters heing thus established, I  
went upon examining more narrowly into the Nature of the  
Soil adjacent to the byring; and the Search was attended with  
this Advantage, that we discovered another Spring near Seyd-  
schutz, not fer distant from the Sedlitz, though it lies somewhat  
higher, flows in plenty, and has a bitter and more saline Taste.  
And it seems, upon the whole, unquestionable, that this Spring  
Tuns down to, and supplies the Water at Sedlitz. The Prin-  
ciples however of this Spring, and the Nature of its Salt, dif-  
fer not from thoseof the other, for upon examination they both  
exhibit the same Phaenomena, though the latest discovered af-  
fords the largest Quantity of Salt, twelve Ounces thereof yield-  
ing two Drams and ten Grains, and six of a chalky Earth.  
The Reason seems owing to this, that the Spring which lies  
higher is less exposed to the Reception of the Rairt-water than  
that of Sedlitz, which lying lower, may he easily weakened by  
the Rain, or the Admixture of other Waters.

AS this Salt has a great Relation to that called Epsom Salt, we  
will here deliver the Experiments we made on herb, the hetter  
-to manifest the peculiar Nature of each. The learned Dr. Grew  
was the first who from the Waters of Epsom prepared such a

kind of hitter, purging Salt, and wrote an elegant Treatise on  
the Subject; But as twelve Ounces of the Epsom Water will  
not afford above half a Dram of Salt, ’tis certain that the Salt  
which commonly goes by the Name os Epsom Salt, and is sent  
into foreign Parts in large Casks, and sold sor less than Sixpence  
the Pound, cannot he prepared from those Waters, but is rather  
an artificial Thing. And in Fact, 'tis not rally prepared in  
England from the Bittern, or bitter Liquor that remains aster  
the making of common Salt, bur also at Leipsick, and other  
Parts of Germany, in Very large Quantities. And it appears  
plainly, that a certain aluminous Acid, mixed along with the  
alkaline Earth of common Salt, is contained in the Bittern  
which affords it. Bur it is remarkable, that all Salt-springs do  
not yield this neutral purgative Salt, perhaps only because the  
Salt-waters do not run upon Beds of Alum-stone.

**i.** The Sedlitz Salt is of an opake, show-white, or milky  
Colour; but the Epsom Salt more transparent and watery ;  
whence its greater specific Gravity, and Disposition to relent in  
the Ain

2. The Sedlitz Salt, whether in a solid Form, or dissolved  
in Water, tastes much bitterer and more nauseous than the  
Epsom.

3. Both of them, when thrown into an ignited Crucible,  
melt and lose one half of their Weight in a watery Vapour;  
but the Sedlitz Salt flows clear and thin like Water, whilst that  
of Epsom is more Viscous and tenacious.

4. Neither of them in the least diffolves with the highest  
rectified Spirit of Wine;

5. Both of them melt along with Pot-ash and powdered  
Charcoal, into a Mass like the Hepar Sulphuris; but the Mass  
made by the Epsom Salt turns with Water of a much deeper’  
green Colour than the other; and when the Solution is precipi-  
rated with an Acid, affords a much larger Quantity of Lae  
Sulphuris.

6. Both of them, when miked with Vitriol, calcined to Red-  
ness, and put into an ignited Crucible, fend out a Vapour line  
that of Spirit of Salt, and this Vapour is soon followed by that  
of the volatile Spirit of Vitriol.

7. With Syrup of Violets the Sedlitz Salt turns greets, but  
the Epsom blue.

8. A Solution of either coagulates with Oil of Tartar; so  
that scarce any thing salis out when the Glass is inverted; but  
the Sedlitz Salt coagulates strongest.

9. In like manner a clear Solution of either becomes Very  
turbid upon the Addition of Spirit of Sal Ammoniac, and affords  
**a** large Quantity of cnrdly Matter.

*io.* An Ounce of Water will dissolve an Ounce and two  
Scruples *of* Sedlitz Salt, but only an Ounce of the Epsom.

II. A rich Solution of the Sedlitz Salt appears of a yellow  
Colour; whilst that of the epsom Sait remains limpid, without  
discolouring the Water;

I2. .The Crystals they hoth afford by Solution end Evapo-  
ration scarce differ at all, except that those of the Epsom Salt  
are larger and more beautiful, in some sort resembling Nitre,

i3. The Epfom Salt, bang kept for sortie Days upon a Sand-  
heat, loses its Transparency, and becomes in Appearance like  
that os Sedlitz; from all which it is manifest, that these two  
Salts have a great Affinity, as well in their Principles as these  
Nature and Virtue.

The Experience of Inch as have drank these Sedlitz Waters  
confirms them serviceable for washing off all crude. Viscid, acid,  
bilious, and corrupted Humours, lodged in the Stomach and  
Intestines; and this in so safe, easy; and agreeable a Manner  
by Stool, that nothing *seems* hetter disposed, or more effectual  
for the Purpose. Other medicinal Waters, though they may  
move the Belly, yet require to he drank in large Qparintiesthe-  
fore they will operate, and therefore easily pall the Stomach ;  
whereas these operate quick, and in a small Dose; so that three  
or four Tea-cups full generally prove sufficient, and the strongest  
Constitutions scarce require more than a Pint. There is also  
this Property attending these Waters, that they require not to  
' he used for any long Time, but only *for* eight or ten Days **at**most, and that too intermediately. And as they exceed **other .**purging Waters in the Quickness and Efficacy os their Opera-  
tion, so then Whelefomness and purgative Virtue recommend  
them before all other purging Medicines in Use; scarce one  
whereof but operates mote or less than was intended, weakens  
the Patient, gives him a Sickness at the Stomach, and lessens  
his Appetite; whereas the Sedlitz.Waters, though they purge  
briskly, have none of these ill Effects, -nor occasion Dryness of  
the Mouth; but rather, by their Bitterness, relieve the Sto-  
mach, and provoke the Appetite. We ran therefore affirredly  
affirm; that there is not in any Dispensatory, nut in all the Co-  
talogue of Drugs, a Purgative that operates with inch Safety,  
Efficacy, Agreeableness, Quickness and Certainty, as these  
Waters. And in ease of hypochondriacal Disorders, **I never**found any thing so serviceable as this Water. And I have known  
several, whe remaining highly costive sor inany Years together,  
recovered, by the Use os this Water, the natural Habit of other  
**Men in** that particular. These Waters are also sound eminently

Waters are extremely het, and nearly resemble the Pipsine  
Springs in Rhetia, which continue to run from the Month of  
May, when the Sun begins to dissolve the Snow upon the Tops  
of the Mountain\*, to the and of September. And although these  
het Waters of Toplltx held not the least saline or earthy Matter,  
so that when mixed either with acid or alkaline Liquors, they  
preferve their natural Clearness, and after a total Evaporation \  
leave no solid substance at the Bottom; yet they have consi-  
derable Virtues upon account of their Purity and Lightness: in  
both which respects they exceed even sine Rain-water: And  
hence they become highly serviceable in the way of Bathing, for  
the Cure of externa! Disorders; as in Contractions, Dry ness,'  
Rigidity, Stiffness, and Want ofMotion in the Iambs; by relax-  
ing and strengthening the Fibres, and giving a due Circulation to  
the Blond and Spirits. They allo prove beneficial in this way,  
where the internal, tendinous, and nervous Parts are affectid; as  
in hypochondriac Disorders, the Colic, the Asthma, Con-  
tractions and Distentions of the Limbs; especially if the Bath he  
not too het, but lukewarm. . Whence it is my constant Advice  
to have thefe Waters fetched home, and a Bathmg-tub silled with  
them; because Persons cannot well hear the excessive Heat of  
the Bath; and therefore the Spring without the Town, com-  
monly called the Sulphur Bath, is of much more frequent Use,  
and sound whelefomer, though, exceptiog its temperate Heat,  
it is exactly of the fame Nature as that within the Town. And  
as all Physicians agree that the lightest and purest Waters arethe  
wholesornest, and as the Piperine Springs afford an eminenit in-  
stance hereof, no doubt but the Toplitz Waters, though drank  
cool, may prove serviceable in many Distempers; notwithstan-  
ding the Custom of drinking them is not introduced, any farther  
than the miking of them with Wine.

This Subtilty, Purity and Levity, is allo the true Reason of  
the Virtue and Efficacy of some other Springs in the Cute of Dis-  
tempers ; and particularly the Schlangenbad Springs of Hesse,  
which contain ho saline; earthy, imny, or other mineral Prin-  
ciple, that can by any Art he extracted from them; and are no  
other than an extremely simple, pure and light Water, which ne.  
vertheless, both by drinking and hashing, has very remarkable  
Virtues and Effects. The same Reasons recommend the Schleu-  
sing Spring, called in the German Language, Witherns-brunn.  
for these Waters have all the Marks of Purity and Excellence,  
and if put into the exhausted Receiver throw up abundance of  
Bubbles, do not grow thick, or precipitate any thing upon ike  
Addition of Oil of Tartar, a Solution of Silver, or Sugar of  
lead; but leaving all their impurities in their Passage through  
the Sand and stony Beds, receive no change from the common  
Experiments of Galls, Acids, Alkalies, *etc.* and when evapo.  
rated, leave no earthy Substance hehind them. Hence the purer  
and lighter such Waters are, the more they should he esteemed ;  
as their Wholesomness, and Power of curing many chronica!  
Disorders depends thereon: For thus they are fitted for readily  
entering the sinest Vessels of the Body, and for dissolving arid  
carrying off viscous Humours.

From the feveral preceding Examinations we conceive it  
plainly appears, that Mankind are liberally, supplied with, medi-  
cinal Springs, of different Natures, admirably suited to the Cure  
of different Distempers. Thus, for Example; if the first Passaher  
of the Body require to he cleaofed of their grosser Excrements;  
there are numerous Springs that answer this Intention, heyoed  
all Comparison better then the Medicines. oltheShops. 'In pur  
ocular, among the het Springs are ike .Caroline, and those of  
Aixla Chapelle; and among joe cold ones, thofe ofEgra, Sedr  
litz and Ratzeburg. If serous Humours are to be carried ossiby  
Urine, the Seltz and Embsene Waters aniwer this intentioni  
If weak Viscera want to he repaired and strengthened, the pyr.  
mom Waters do it effectirally. jf grub .the viscid Humoursare  
to he discharged, and the.obstnriled Viscera to he relieved; if  
weak Fibres require to be strengthened, and the Kidneys and  
Bladder to he .freed from thein finny Matter,.\_the Antonian,  
Winning and Spaw Waters are sovereign for these Purposes.  
If saline, sharp, and tarmreous Juices, which cause the Gout  
and Rheumatism, require to he diluted and corrected, and rhe  
nervous Pans of the Bedy to, he. innocently relaxed and fet μ  
rights, the pure Water, of Schlangenbad, Seitz, *etc. assist* in  
the most effectual manner, especially if mined .with Milk. Lastly,  
is corrosive, bilious Humours are to he rendered mihi ff.ml  
perase, and the weakoiedTone of the Stomach and intestines  
to be restored, the Steel Waters, in thcsc.Cases, ,w of emi-  
nent Service. ... .. ‘

. The external Usi. of Mineral Springs is no lessmituble to ike  
various Disorders os the Bedy and its Pans ., Thus, for instance,  
when the Fibres of the external Parts are. too thy, herd ced  
ersspy, hashing in the Toplitat Embleue, Pipttioe or schisn.  
eenhad Springs, relaxes, softens, and rather, thein hijabim heu^  
than any other Means hitherto known. Again,. in theTans are too weak, flack and moist, ike bred Waters power-  
fully hrace. them up, dry, strengthen xed tham/ Τ.conclude when Swellings are to he discussed, vsscous and {her  
gain Humours to he disputed or dried upj Blemish^ xed Eoss  
nils of the Skim whether in μα ponn of

serviceable in ill Habits of the Bedy, Obstructions of the men-  
strual Discharges, at the time when they first begin m mips ortowards the Decline of Life, in fcothutick Cases, in Dispositions  
to the Piles, against Worms in the Bedy; and in short, for  
curing and preventing many other Distempers, if drarch with th.  
necessary Rules and Cautions.

, As these extraordinary Virtues of the Waters seem principally  
Owing to their Salt, it is proper to enquire whether the Salt  
could not he obtained from them, so as to produce the same  
good Effects. It is certain that a Salt may he thus procured,  
which being dillolved in Water shall make that Water have some  
Resemblance with thefe of the Mineral Spring; but whether any  
Art can make the Imitation perfecti and in all respects equally  
serviceable with the natural Water, may he questioned. For it is  
evident upon Experience, that there is a great Difference betwixt  
fitch Mineral Waters as are taken up at the Spring-head, and  
such as are artificially prepared by dissolving the Contents of the  
Imai! Waters, gained by Evaporation, in the purest Spring  
Water; for the artificial do not pass so readily through the Body,  
nor fo effectirally raise a langnid Appetite, increase the Strength,  
nor purge so west as the natural. And this evidently appears in  
the present Waters; which bring drank at the Spring-head, or  
elfewhere, out of Vessels well shipt, have not only a bitterer  
Taste than if the same Quantity of Salt they afford were dis-  
solved in a less Proportion of fresh Water; but allo sin Drams  
of the Salt will fcarce purge so often as a Pint and a half of the  
Waters themselves; which contain but three Drams of Salt.  
Whence these natural Mineral Waters, besides the fixed sallne  
Particles, intimately mixed therewith, are likewise impregnated  
with a sixbtile, though insiped, aerial Principle, that by its Fine-  
ness and Elasticity, forces its way through the slender Cavities  
of the Canal, and as it were, opens the Passages for the Water  
*io* followit; in such a manner, as greatly to increase its Opera-  
tion: And this is not ouly to he understood of purging W aters,  
but of all other Mineral Springs. For a free Access of the Air,  
and the Heat of the Fire, strangely alter, impair, and destroy  
the Connexion, Arrangement, and Mixture of the Parts, which  
give medicinal Waters their Virtue and specific Efficacy.

If therefore the Attempts of this kind should fail, we might  
have an Eye to the Production of some other Salt, wherewith  
to impregnate common Water, in imitation of the purging  
Waters. Thus Glauber’s artincial Salt has fame Resemblance  
with the Epsom Saltand proves, if the Point of Saturation be  
exactiy hit, a Salt of a neutral Nature, of a bitter Taste, and  
a purgative Virtue. But its Taste is much more pungent than  
either the Epsom or Semite Salt, though it contains a larger  
Quamity of Water, insomuch that if laid upon a warm Sand-  
siinrace, it melts and runs like a Water, and loses one third of  
its Weight. Again, if dissolved in an equal Quantity of W ater,  
and exposed to the Air, it coagulates into a solid Mass. On  
the other hand, if Oil of Tartar be added to the Solution, it  
does not coagulate,as the Sedlitz and Epfom Salts do. However,  
there are several other neutral Salts procurable, by means of Oil  
Of Vitriol, not only of a bittcrTaste, but also, when given largely,  
purgative; ofwhicti kind is *the Arcanum Duplicatum,* or *Tartarum  
sotrialaium.* But then, again, the Bitterness, and purgative Vir-  
tue are much greater in the natural Salts, and their Parts more  
. subtile, as plainly appears from hence; that thefe natural Salts  
readllydissolve in about an equal Quamity of Water; whilst the  
artificial require four times their own Quantity to dissolve them.  
. The *Tartarum Vitridatum* here meant is not in any refpedt  
like that commonlysoldin the Shops, theugh made of the fame  
Ingredients. This is somewhat bitter, exactiy neutral, and per-  
haps as good a Medicine in all Sorts of inflammatory Concretions  
\_ as nan he procured by Art. That of the Shops is very add,  
and capable of doing a great deal of Mischief, and not of the  
least Efficacy that T could -ever discover. See **TARTARUS**

.- Besides the above mentioned purgative Waters, that abound  
with a bitter neutral Saltcornposeo dur chalky and an acid Prin-  
ciple, there are many Others, as that of Ratzeburg, *etc.* which  
afford nor only a calcarinus Salt but a considerable Quantity of  
common Sals. ..Andthese kind of Waters areof considerable Use  
for cleansing the Stomach and Intrstinfs of tough, visoid Hu-  
rnours, restoring the Appetite, promoting Digestion, and re-  
medying such Crudities and. Flatulencies, as produce spasmodic  
Difprders in the remote Parts of the Bedy. But it is not . proper  
*ta* drink them in any large Quantity, or for any Length of Time ;  
whence they are less suited to those Di sea frs which seat themselves  
deep in the Vilcera, and procced from Obstructions therein;  
became a long Use of Waters is required to remove these Ob-  
structions from the sine Canais whereof the Visoera consist.

. They may however he fisted to this Purpose by mixing and di-  
luting them with other Waters. , ' .

. There are other Springs, which upon the strictest Examina,  
Don scarce manifest the least Signs of a nentmi or alkaline Salt,  
or of a mineral or irony Earth; and yet are hjjoly valuable on  
acccunt of their extreme Lightness and Subtilty: And 0f this kind  
there are several het as well as cold Springs. A het Spring of  
Phheipol Note of this kiredin that of Toplics, where the

Ulcer, to he removed 5 **the** Caroline and Aix la Chapelle Baths  
are excellent.

Through the whole Course of our Enquiries into the Pnnci-  
ples. Natures, and Uses of medicinal Springs, we have pur-  
posely avoided a large Apparatus of chymical and philosophical  
Experiments, and contented ourselves only with a few that are  
easy,' simple and conclusive; thus avoiding an Ostentation,  
which many have run into, and multiplied Experiments to no  
Purpose; for it is Labour lost to examine these Waters by mix-  
ing them with common Salt, Nitre, Vitriol, Alum, Copper,  
Brimstone, Orpiment, and numerous other mineral Bodies,  
since no such Experiments can manifest to the Senses any other  
Principles than what we have in our simple Method discovered,  
as will he evident to such as are well Versed in natural and ex-  
perimental Enquires. .

For the sameReason we have purposely omitted the hydrosta-  
tical Trisis of such as, by the Means os Water-poises, or Hy-  
grometers, examine the specific Gravities of Liquors; for  
though it might at first seem probable, that the Weight of Mi-  
neral Waters is thus discoverable, as it is in Wine, Malt Li-  
quors,-Urine, common Water, and Lixiviums; yet whoever  
attentively considers it, will find this kind of Experiment Very  
fallacious in Mineral Waters: For it appears by repeated Ob-  
servation, that the Hygrometer plunged into these Mineral Wa-  
ters, when taken first from the Spring-head, floats high, and  
shews their Gravity much greater than it is; and that when the  
Day following it comes to he plunged into the same Parcel of  
Water, it finks lower, and makes the Water seem lighter.  
And aS no pne that we know of had before taken notice of  
this Phaenomenon, we examined into the Cause thereof, and  
found it owing to the Presence or Absence of the subtile, ex-  
pansive, aerial Principle, that plentifully abounds in these Wa-  
ters, when fresh taken from the Spring, and buoys up the In-  
struments, as if it were so much Ain striving to get out, and  
rising in Bubbles; but after this Spirit is exhaled, the Instru-  
ment no longer meets with the same Resistance which kept it  
from itsdne Station, and therefore finks down deeper. Whence  
It appears, that the elastic Power of Bedies may pass for Gravity,  
. or .that the Power of elasticity and Gravity are equal. .

I Neither does the hydrostatical Balance determine the precisi  
Gravity of Mineral Waters, or the exact Quantity of their Con-  
tents, if we wait till this subtile elastic Principle is exhaled; fol  
then, the Waters' commonly become turbid, and the okerjo  
Paris fall to the Bottom, whence their true Gravity cannot he i  
assigned ; much less can the Hygrometer examine the Gravity ’  
os Hot-well Waters, hecause all Waters rarely» and become  
lighter with Heat; insomuch that if the Instrument be plunged  
into the Waters while.hdt, they seem to be extremely heavy, by  
malting the'Instrument float higher T hut much lighter when,  
cold, by suffering*sit* th sink lower. *Hoffman. .*

The-Objections to. MINERAL WATERS Considered, and  
RULES laid down sorTendering sinth WATERS safe and  
effectual in the CURE of DIsE ASEs. 'From *Hissnum. .*

~ L Though the Virtues of medicinal Waters are great,, and  
their Use extensive, yet they have this in common with ail-  
other Medicines, that their good Effects depend upon a proper  
Administration. To administer them properly, requires a Know-:  
ledge inf the Circumstances both os the Patient and Distemper,,  
so as judicioufly to suit'them in every Case.. And aster under-,  
standing the Distemper, its Causes, and the State of the Patiens,,  
there is nothing inore necessary than a thorough Acquaintance

' with the Faculties and Virtues os medicinal Waters, and the  
Manner wherein they operate. The Sinn hf this Knowledge  
not only directs to the Choice os such Waters as are best appro-  
priated .to the Distemper; but likewise so disposes and regulates  
their Use, that the desired-Effect must necessarily follow.. On  
the contrary, if these Particulars areς disregarded, no Wonder  
is they who rashly advise .the Use . of Waters should thereby In-  
jure their Patiente; unless. by Accident. And yet it is certain  
that these Waters are hut as an Idol to rhany Physicians, or a  
Thing whereof they; without, sufficient .Ground, believe and  
relate . numerous idle Fables. Many, in this Particular, are  
guided by a childish Superstition, and apprehend great Danger  
from the Use os such Waters; so that they prescribe them only  
ip desperate Cases, or as a last Remedy in reputed incurable  
Diseases. But my Experience of them, in a Course of many  
Years Practice, besides the particular Experiments I have used  
to examine them, have convinced me, that these Apprehensions  
are groundless; thatTucbrWaters are at the same time the most  
efficacious and most innocent of all-the Medicines hitherto dis-  
covered ; and that they never sail of Success, where the Phy-  
sician knows how to apply them seasonably and in the true Man-  
tier? I will therefore here deliver ..what I have observed upon  
the imprudent, and unsttilfid Use of these Waters; the happy  
Effecti I have observed, upon the true.way os employing them ;  
and .the necessary Ruins and Cautions for the Direction of others;  
that none, if possible, niayhereafter complain they have used this  
excellent Gift of Nature to their Prejudice, or in Vain.. -τι.

. st. In order to strike at the Root of the Errors, which stsil  
prevail to the Discredit of Mineral Waters, we must here re-  
touch the Ingredients whereof they consist, and by Means where-  
os they act. There are some who suspect most of the Ways of  
Vying and examining the Nature of these Waters aS uncertain  
or fallacious ; and it must he acknowledged, that there in no  
absolutely perfect Method of determining their precise Contents,  
by reason of the numberless Bodies they wash in the Bowels of  
the earth; but on the other Hand, no cate, that understands the  
true philosophical and chymical Way of enquiring into Waters,  
will deny, that though we cannot precisely determine every in-  
gredient they may possibly contain, yet we may certainly dis-  
cover and demonstrate the principal ones, and those whereon  
their Operations and Effects dependi But let it he here ob-  
served, that whoever thinks to gain any real Knowledge in this  
Subject by consulting the Writings of the Ancients, will find him-  
seif greatly disappointed, and receive nothing for his Labour but  
an absurd Collection of Imaginary Principles; and .yet it is fur,  
prising, that even in the present Age, when fuch a great Light.  
of Natural Philosophy is set up, tlhere should he fome, who,  
through a Veneration of Antiquity, a Love of Contradiction,  
or I know not what other Reason, obstinately cleave to the  
Opinions of the Ancients.

IIL It is a prevailing Notion at present, among mast os **the**Writers upon Mineral Waters, that they contain a Vitriol like  
**to the** common Vitriol, of Iron, which is **she** Opinion of the  
better, or more experimental kind of Writers ; and in order to  
countenance this Opinion, they laborioufly endeavour to prove,  
that Mineral Waters exhibit the same Phaenomena as a Solution  
of that Vitriol in Common Water. The Experiments they pro-  
duce on this Occasion are these.

. ' I. That Mineral Waters, and common Water impregnated  
with Vitriol, -have nearly the sameTasta.

.. 2. That both of them turn purple, upon a small Addition  
of Galls.

3. That hath of them , turn to a kind of Ink, with a larger  
Addition of Galis. x. ....

. ike That neither os them will curdle Milk.

5. That both of them grow thick with Oil of Tartar, and  
let sell a Sediment.

6. That the Earth they both afford upon evaporation, as also  
’ the okery Sediment they spontaneoufly let sail, make a eon-  
siderable ebullition with. Spirit of Nitre, and send out a Smoke -  
in the same Manner as the Vitriol of Iton would do in the like  
Cale ..

sp. And lastly, that the Salt, properly extracted from the in-  
sipid earth, has a pale Colour, an irregular Figure, and produces  
the same Effects as Vitriol of Iron. And by these Arguments  
there are some who think they sufficientiy prove the Existence  
of an actual Vitriol in Mineral Waters.

. IV.. But this Opinion rests upon weak Pretensions, which  
need not all of them he separately considered, hecause they  
make nothing to the Proof of the Assertion ; we shall therefore  
only consider. the capital thing among them, winch being over-  
turned, the rest will sail of Course. No one who uses his Senses  
can possibly doubt but there is fornewhet of a Vitriolic Nature  
found in Mineral Waters; for not only the Taste, but the  
Sight confirms it, by their turning inky with Galls, etes But.  
the single Question is, whether tins Vitriolic Matter he the same .  
with the gross corporeal Vitriol in contmonUse? Which has-  
hitherto been proved by no Arguments nor Experiments. For -  
the Vitriolic Matter in medicinal Waters .is Volatile, but **the-**common Vitriol sixt; so that their Nature and Operations are -  
intirely different. Thus it is evident by numerous Trials, that:  
the AdditiorOos Galis to the Waters of het mineral Springs ἱ  
causes hut a Very small Change of Colour, unless the Water be.  
fresh taken from the Spring-head; and when it has stood any  
time exposed to the open Air, it no longer changes Coinur at :  
all. jt is true, that in the briflc Waters of cold Springs this ν ..  
Tincture appears blacker; hut here also the natural irony Taste  
immediately Vanishes upon their being exposed to a gentle Heat,.,  
or the open Air, and then, they strike a dinky Colour with Galis «.  
no longer. So that the strongest Steel Waters, **even** those aft  
Pyrrnont, when heated, or suffered to stand in **the** Air.soI.  
twenty-four Hours, afford no Signs of a vitriolic Nature. Nor .  
has anyone Of those who argue so earnestly fora solid Vitriol in ν  
Steel Waters been able, thy their utmost Endeavours, from as  
hundred Pints of these Waters, to extract and .exhibit to the:  
Eye a single Grain os Vitriol. For though Helmont, in his I  
fourth Paradox, declares, that by the Means of Distillation he  
obtained a Vitriol from the Spaw Waters; yet this plainly ap\* I-  
pears to he one of his Pretences, as no other Person, by the.  
same Operation, though ever so exactly performed, could oh- i  
tain an actual Vitriol from them. The Conclusion upon **the -**whose is, that these kind of Waters really contain somewhat  
*os* an irony Nature, which, being joined with a sulphurous.

, Spirit, . resembles Common Vitriol only in the Taste and the i  
i Colour it gives, without any sarther approaching to the Na-’.»  
ture thereof; arid consequently that they err who, upon hearing

the Name of Vitriol mentioned about these Waters, judge of  
them and cry them down, as abounding with the gross or Com-  
mon Vitriol of the Shops.

**V.** There is another Error deeply fixed in the Minds of Phy-  
ficians, aS if Mineral Waters, especially those of the cold brisk  
kind, contained an acid Salt; as their common Name Aaduhe  
seems to imply; and according to this Notion, their Virtues  
have been theoretically judged of, without Practice. This was  
the constant Opininn of the Writers upon this Subject, except  
Giurius, who, in the Year 1667, published a Treatise at Paris  
with this Title: *The Secret of the Acidulae newly discovered, in  
which the common Opinion of the Acidity of Mineral Waters is t/oer-  
tbraum.* But the Book itself no way answers to its Title; but  
is full of Vanity, and promises more than it performs. There  
have indeed been some who allowed of an alkaline Salt in Hot  
Well Waters; but no one hesore myself experimentally proved  
it true os the Aciduhe, or brisk and cold Springs. For though  
Henricus ah Heer, in his Account os the Spaw Water, exprefly  
declares, that not only those, but most of **the** Acidtrhe in Ger-  
many made an Ebullition, and yielded a warm Fume upon mix-  
ing with Wine, at the same time diffusing a grateful Odour,  
and throwing up numerous Bubbles to a considerable Height;  
?et this Author never suspected they abounded with an alkaline  
'rinciple, but declared himself for their containing an Acid.  
We have, in the preceding Pages, *so* sally proved the contrary  
os this Opinion, or the actual existence of an alkaline Principle  
in these brilk mineral Springs, that it is heedless so dwell longer  
. upon it here. And the same we have also done with regard to  
their fine mineral classic Spins, whereon their Virtues have **a**great Dependance.

VL We next proceed-to consider the Various Virtues of  
\* Mineral Waters, when used internally. And here we lay it  
down as certain, that their Virtues, are greater and more nume-  
rous than those of any other Remedy, however specious or highly  
commended. A Knowledge of which Truth has given occa-  
- fion to a considerable Error; *for* hence many have presently a-  
scribed the particular Virtues'of these Waters to- the Ingredients  
they contained, without alinwing any thing considerable to **the**pure Water, or Vehicle,, wherein the more medicinal Parts re-  
side. But when, upon full Examination, I found that neither,  
the pure alkaline or neutral Salts, nor the fine classic Spirit with  
which these Waters are impregnated, were able to produce  
Inch Effects, or work such Cures, separate from the Waters  
that contained them, I discovered that the efficacy of Mineral  
Waters, both in preventing and Curing Diseases, was in a great  
Measure owing to the Water itself; and that the other Prim  
cinles served only to quicken or stimulate its Operation. And  
this will appear more manifest from an exact Knowledge of the  
Laws of Circulation,. Secretion, and Excretion in the human  
Body; for as. all the Juices of the Body require to he in a con-  
tinued Motion, and aS they neceflarily consist of a large Propor-  
’non of an aqueons Fluid, it is agreeable to Reason and Expe-  
rience that there is nothing in Nature which approaches nearer,  
oris more agreeable to them than Water; and accordingly there  
are several . Instances of such, as by a daily Use of Water for  
their common Drink have prolonged their lives to a great Age,  
and relieved themselves from stubborn Distempers. And no  
Wonder, since Water is **a** Fluid capable of preserving all **the**Juices, and all the Offices ofthe Body, in their proper or natural  
State, preventing the more subtile, earthy, saline and sulphur-  
ous Particles hedged in the Juices from introducing Putrefaction  
**or** Corruption, and capable *of* thinning and dissolving all **the**viscid, clammy. Or tenacious Humours, that are apt to clog and  
obstruct the finer Vessels, in short. Water is that Fluid which  
assists and promotes all the excretions by Stool, by Urine, by  
Sweat, and other Out-lets, so as to discharge and wash away  
all the Matters prejudicial to the Body.

VII. What adds a Confirmation to our Proposition is, that  
there are .numerous Springs which afford no sensible Mark of  
Continuing a truly saline, or mineral' Principle, and yet have  
medicinal and curative Virtues, which cannot therefore he justly  
atthbUIed to any thing fo much aS the Purity, Thinness, and  
Lightness ofthe Water itself. but then as pure Water can have  
Iso considerable .Effect, tinless drank in a large Quantity, since  
when taken in a small one ir often proves more pernicious than  
serviceable; and since m drink it in great Plenty might easily  
over-burden Nature, or prove mo much for the Power of **the**Body to dispense with, and thus produce Stagnations, Extrava-  
sations, *&c.* To ’ prevent thesa InconVeniencies, nothing can  
appear more proper than m quicken such Water with fome  
saline and activeMatter; for such a Matter will not only stimu..  
late the moving Fibres of the Body , and accelerate their Mt,.,  
fion, but also help to dissolve any groin or viscid Humours ad-  
hering to the Sides of the Vessels, and obstructing the. Circula-  
fion of the Juices. Hence it .is manifest, that the additional  
Efficacy of Mineral Springs is considerably owing to such saline,  
active and spintons Principles as naturally enter chnir Compo-  
sition; though we should not attribute more Io them chan they  
deserve, or may by Experiment he demonstrated m perform.

VIII From the same salse Notion of the Effects of Mineral

Waters has proceeded another considerable Error. For **there**are *wustI,* even among Physicians, who conceive that the Whole-  
somness and Virtues of these Waters can he no way so well  
judged of, as by the large Quantity of Ingredients they afford  
upon Evaporation, without considering that Fire is no trusty  
Operator in this Case; for by Means hereof only the more fixed  
'Principles of the Waters are made manifest, and not their sub-  
tile ones, whereon it is certain that a Part of their Virtue de-  
pends. Thus the terrestrial, chalky Matter wherewith many  
Waters are loaded, rather hinders than promotes their desired  
Effect, especially when their Hear and spiritous Principle has  
left them. Whence the Waters of such hot Springs coming to  
cool,, and stand for seine time in the Ain, if they are afterwards  
drank, they occasion many Disorders, and pass not so readily as  
when drank fresh from the Spring-heed. And of this we have  
a remarkable Instance in the two Caroline Springs formerly men-  
tinned.

IX. Since therefore Physicians themselves have run into great  
Errors, with regard to the Principles and Powers of Mineral  
Waters, it is the less to he wondered that, from such salse and  
theoretical Notions, several absurd and pernicious Opinions  
should have spread concerningthe Use of these Waters. These  
Opinions we come now so examine, aster having thus prepared  
the Way. There are many whe pass their Censure upon Mi-  
neral Waters from Hear-say, without having ever visited the -  
Wells themselVes, or been Eye-witnesses of their Effects ;  
hence, after the common Manner of Men, they fancied num-'  
herless noxious ingredients in them, and boldly Ventured to de-  
clare them a kind of Violent dangerous Remedy, winch they'  
currently stigmatize with the Name os a Horse Medicine, as **a**thing unfit to he used in any hut robust Constitutions. But as  
great Authority as this Notion stalks about with, we shall make  
it plainly appear to he directly opposite both to Reason and Ex-  
perience. And I would willingly know whe can pretend that  
**pure** Water is a violent Medicine ? For certainly there is no-  
thing in Nature more safe or innocent. I would next ask,  
what Medicine the whole Art of Physic affords more safe than  
Salts, especially those of the neutral or alkaline kind ? What in  
more mild or gentie, and indeed more serviceable in weak Ha-  
bits than a subtile, astringent, or irony earth, mixed with **a'**kindly Salt, and kept dissolved in the lightest and purest Water ?  
**in the** last Place, I demand what can possibly add greater  
Strength to the Body than a subtile, insipid, spiritous Fluid ?  
And yet these are the active Principles, which, being kindly  
mixed in medicinal Waters, give them all their Virtue, And  
hence thev are so sar from Violent, thatall their Operations are  
performed agreeably, and without Disturbance, so as when they,  
purge or vomit, to occasion no Loss of Strength, no Loss os  
Appetite, no Sickness, even when they work in their power-  
fullest Manner; but rather raise the Appetite, strengthen **the**Stomach, and recrulr the Spirits. When they pass by Urine,  
they occasion no Strangury or Sharpness, but gooff with a Dess  
gree of Pleasore. When they operate by Sweat, they do is  
without occasioning any Faintness, or other Disorder. Nay,  
we have seen Persons of. hath Sexes, of the' tenderest Constitu-  
tions, and labouring under Fevers, Bleedings, *etc.* Women  
newly delivered, and brought ω the weakest State, undauntedly  
drink the het Caroline Waters without the least Disadvantage ,  
but on the contrary, these Waters excellently promoted all **the**Secretions, strengthened the Faculties, and finished a Cure. vAnd so innocent are these Waters, that Children and Women  
with Child may use them with Safety and Advantage; and Per-  
sons of delicate and tender Constitutions find them to operate  
with more Ease than the robust, and need use them but in a.  
moderate Dose. It must however he allowed, that the drinking  
of these het Caroline Waters, which are not of an agreeable  
Taste, in fo large a Quantity as that os ten or twelve Quarts 3;  
Day, or in the Compass of a few Hours, is nauseous and dis-  
agreeable, especially to those unaccustomed to it; hut from  
hence to call this a Horse Medicine, is arguing Very unfairly and.  
inconclusively; for it is no true Login that would prove the  
Violence of these Waters from the Largeness os their Dose, i

*The drinking os. Mineral Waters in such immoderate quantities  
seems the peculiar Cnstom of Germany, arid not adviseable but  
tepon extraordinary Occasions. We find in England, that two  
quarts of the Bath Water is esteemed a large Proportion, and the  
general Stint is a Quart, or three Pints. A Fla/k of the Spans  
or Pyrrnont Walers, dearth at several Draughts, is withe u,* ή  
*considerable Dose-, and four or five half .pint Glasses ofthe New  
T.unbridge-wells at Isiingtrn, a quantity generallysufficient.* Shaw's  
Notes upon Hoffman.

X, But though Mineral Waters, with regard to their Na-  
**titre** and Virtue, are an extremely safe and gentie Remedy; yet  
it frequently happens, by the ignorant Advice of Physiciaso, that  
they become a Horse Medicine with a Witness. for it is thepse-  
posterous Custom of some, either upon the Lay the patientthe-  
gins his Course, or the\_ Day before, in prepare his Body fOT rhe  
Waters, as **they** call it, by gwing him some violent Purge.  
Surely whoever considers this absurd Procedure, wist find is prc,  
judicial almost beyond Repair. For shch is the Namre of the

stronger Purgatives Of the Shops, as Coloquintida, Refin of  
Jalap, Scarnmony, Elaterium, Gamboge, *etc.* that by the  
Virulent and caustic Principle; whereon their Action depends,  
they may intirely pervert urdestroy the Tone and Strength of the  
Stomach and Intestines, and invert their natural peristaltic Mo-  
tion, by the immediate Contact they have with those Parts;  
And hew unseasonable this may prove, is manifest from hence,  
that nothing is more requisite towards securing the desired effect’  
of the Waters, than an unimpaired and intire Motion and Tone  
of these Parts, but the Use of such virulent and rough Purges is  
much more dangerous and fetal to those who are entering upon **A**Course of Cold Waters, by which all the Mischiess brought  
upon them from such Purges are rather increased than removed,  
through the Coldness of the Water; whereas the het Waters,:hy their Heat, in some Degree help to moderate these Disorders,  
resolve the Contractions, and restore the inverted Motion. But.  
the greatest Mischief which arises from this Violent Purging, and  
renders its ill effects observable to the Eye, is, that in a Day or  
two aster the first drinking of the Waters they do not pass fo  
readily as they otherwise would through all the Strainers and Out-  
sets of the Body, by Reason of the Constricture which such  
Purges leave hehind them in the intestinal Tuhe and Parts adja-  
cent, after the .same Manner, as daily Experience shews,, that  
the Body is bound up, or rendered more coshve, for several  
Days after the Use of Violent Purges.

XL, But as the Abuse of a thing should by no Means destroy  
its Use, we do not here condemn all Sorts of Purging, by way  
of preparing the Bedy for a Course of Waters; but only those  
of the Violent kind, which have a pernicious Quality. Particu-  
larly it is necessary, in some Cases, hefore the Course, to take  
a gentle lenitive Purge, when the intestines are clogged with a  
gross. Viscid Matter, which might otherwise hinder **the free-**Pailage of the Waters, prevent their effect, and bring on so.  
veral Inconveniencies. The same Caution is likewise to he used  
when Bathing alone is the thing intended, to prevent fresh Dis-  
orders,» vthich, through such an Omission, frequently happen,  
when Persons unwarily bathe in the hot Caroline Springs. But  
for this Purpose Choice should he made of such mild Purgatives  
as, without Disturbance, may **cleanse the** first Passages, *viz.*A Solution of Manna with Cremor Tartar, or half an Ounce  
os Epsom Salt, dissolved in half a Pint of Water, or a proper  
Quantity osany of thepurgingWaters,which may thus he taken to  
.Advantage a Day or two before the Course is entered upon ;hut  
if the Bedy has long been coshve, and the excrements hardened in  
the intestines, it is better to use an emollient Clyster or two, pre-  
: pared of Mallow-leaves, Marsh-mallow-roots, or the like,.

boiled in Water-gruel or Milk, with the Addition os Oil and a  
little Salt; but for such whose Bodies are open, or have not **the**first Passages blocked by any large Collection of Humours, it is  
sufficient to dissolve in the first Glass of the Waters about **three**

- Drams of the epfoni Salt, winch wonderfully facilitates their  
Passage. Lastly, they who are sufficiently laxative already re-  
quire no Preparative at all.

\* XIL That error deserves no less to he censured which leads  
Physicians, when the Course is over, to use Violent Cathartics  
to purge off the Remains of theWaters,without a due Regard to  
People's Constitutions, or the Regimen necessary in this Case.  
It is indeed certain, and confirmed by Observation, that when  
d Waters have heen freely drank for *2.* great Length of Time,  
' they are apt to collect and stagnate in Various Parts of the Bedy,  
’ ’ but particularly in the Folds of the Intestines, and that such

stagnant Waters should not he suffered to remain there, but ra-  
ther he discharged. This however is not to be done imprudent-  
. ly, or with Loss of Strength to the Bedy, but by mild and

gentie Means; whence it is the Business os a Physician to make  
Choice of fuch Medicines for the Purpose, aS best agree with  
the particularConstitution,Temper and Strength of the Drinker ;  
and upon this" Foundation not absolutely to reject the Use of  
the stronger Purges, but to prefer such as act by no Virulent  
Principle, yet have Strength and Briikness sufficient to perform  
**the** Work. And of this Kind are principally Manns, in a  
large Dose, quickened with any of the purging Salts, extract  
of Rhubarb, or Extract of Aloes; all which being Very easily  
dissolved by the Fluids of the intestines, act briskly, without  
sticking to the Coats thereof, without Vellicating them, or oc-  
casioning Violent Grtpings, Inflammations, *etc.* as Refin *os*Jalap, Scarnmony, and Gamboge, too often do, especially when  
given alone, or without their proper Correctives. But if any  
one is strongly attached to the Use of these Violent Purgatives,  
as thinking them more efficacious, let them by all Means he  
given in a small Dose, and along with a Dram or two of the  
Epsom or other neutral Salt, to quicken theiIOperation, and carry  
'them off; for it is now a thing well known, how much these  
kinds of Salts increase the Efficacy of the resinous Cathartics,  
insomuch that a single Grain of Scammony, or Refin of Jalap,  
when mixed along with ten or fifteen Grains of a neutral purg-  
ing Salt, shall operate better than six Grains of fuch a resinous  
- Substance taken alone; and this with greater Ease and Safety.  
But where a Person has naturally a robust and strong Stomach,  
of intestinal Tube, **wherein there remains a** large Quantity of

**the** stagnant Waters ; **then,** without Dispute, 2 stronger Pur-  
native is proper, and may he safely given, if the due Regimen  
he observed; that is, if the Body he well defended stance all  
Cold, the Patient keeps in a warm Room, and, both a lutle be-  
fore and after .the Operation, drinks emollient Broths, Water-  
gruel,- or the like, in order so defend the Stomach and Bowels  
from the corrosive Acrimony that might otherwise prove per-  
nicious.

*Riding m Horseback, or ether proper Malim artd Exercise,  
seems a good Expedient to prevent this ill Effect, and might  
therefore perhaps ha properly used, nt least after, is. not during  
a Course of the Waters. But Dr. Slare is of Opinion that the  
lflaters pose best is. the Persons who drink them Jit still, lie in  
Bed, or on the Couch. This appears yusi, rtith regard to their  
posting by Urine; but that not being the cniy Wap wherein fuch  
Waters act, and it' being necessary in some Cases that they,  
jhould also find their Way -through the Strainers of the Skin,  
and all the excretory Ducts, gentle Motion and Exorcise may be  
serviceable to that gencral Intention of the Waters, the making  
of them pose indifferently through all the Canals of the Body.*Shaw's Notes.

XIIL There is still another Error committed by Physicians,  
with regard to Purgatives, in the Case os Mineral Waters; for  
most of them prescribe het one Rind in all Casesand Constitu-  
tions, aS if Nature had framed all Bodies **to he** relieved by one  
and the same Medicine. Whereas it is certain, that to render  
Purgatives successful, they must be suited to the particular Con-  
stitution. Age, Sex and Disorder. Thus for such as have **the**Tone or natural Tensity of the Stomach and intestines destroyed ;  
such as are subject to Diarrhoeas, Women with Child, Women  
who have lately lain in. *etc.* the proper Purgative is Rhubarb.  
**Where the** Humours are sharp and acrimonious, where **the**Body is subject to the Gout, Rheumatism, or hypochondriacal  
Disorder, Manna and the neutral purgative Salts are best.  
Where the Bile overflows; in order to lessen its Quantity, and  
take off its Heat, there is nothing better than Tamarinds; but  
to invert this Order; and give the contrary Medicines in the  
same Cases, must needs produce different Effects.

XIV. There is a Question often started, to the Perplexity  
both of the Physician and the Patient,-υίζ. Whether it be always  
necessary, aster a Course of the Waters, to take a Purgative’  
before entering upon Bathing ? To which we answer. That its  
is nor always necessary; sor if the Waters have passed off kindly,  
without leaving any Signs of Stagnation behind them, either in  
the Feet, or Habit of the Bedy; and especially if the Cure be  
. used only as preservative, there is no Necessity sor satiguing the  
Stomach and whole Body with repeated Purging. And to  
speak Rpshin Truth on this Occasion, the Physicians have rather  
an Eye to their Fees; than the Health of their Patients, in ad-  
vising it. *I hope the German Physicians only deserve this Reproach ;  
those of our own Country that I have conversed with being generalist  
Men of more Honour Ahern lo enter into such mean Considerationsso  
unbecoming Gentlemen and Christians. Howeucr it is no Part of*i *my Busines.s to defend every Individual of the Profession from an*i *Imputation of unwarrantable Avarice. ' .* s  
ι But the Cafe is quite otherwise when the Waters are not diss  
charged in Proportion aS they are drank; hut actually remain be-  
hind in the Bedy; or when the Stomachs of hypochondriacal Per-  
sons are loaded with a Collection of Viscid and acid Matterdrom  
a Want of Digestion: in these Circumstances Purging must he  
recommended, unless we mean m expose the Patient to greater  
Danger by the Use of the Bath. But here also the Purges  
should he of the mild and gentie kind, such as Epsom Salt,  
Manns, Pilulae Russi, extractum Rudii, or the like.

XV. Having thus settled the Matter of Purging, we proceed  
to the Consideration os Bleeding, wish regard to its Service or  
Disservice in the Case os Mineral Waters. There are still re-  
maining amongst us many Physicians, who following Erasistra4.  
ths, Helrnont, and others of that kind, pronounce from Au-  
thority, without Proof, that Bleeding is a Remedy of all others  
the most disposed to let out the Treasure of Lise, and draw away  
the Receptacle os the Soul, and therefore at Once banish it the  
Kingdom of Physic. We shall not here enter into an Exami-  
nation of this Opinion; but shew that Bleeding is often proper  
in order to receive Benefit from drinking the Waters, and some-  
times so highly necessary, as not to be omitted without the  
greatest Danger. We do not however indiscriminately advise  
it to all Persons, but only to such as are too full os Bloed and  
Juices; and particularly in **the** Case of Women, whose men-  
strual Discharges are stopped, either through Pregnancy, or  
some Distemper'; and to those Men who are subject to an Hike  
morrheidal Flux, and find it stopped. Again, to such whose  
Vessels, through the whole Habit of the Bedy, are full and  
turgid. And lastly, to those accustomed to high Living, and  
a plentiful Use of Wine, or have **a** florid Complexion, and **a**full corpulent Habit.

XVI. That the naturalFluidS may readfly pass through all **the**Canals of the Bedy, it is necessary that the Vessels should not  
be overfilled with Bloed. Thus we plainly, find by Experi-  
‘ ence, that in a full and florid Habit of Body the Pulse heats

**lows** 2nd the Excretions move languidly; but al soon 25 **a**Quantity of Blood is taken away, the Pulse beats freer and  
stronger, and all the Secretions go on to better Advantage. Is»  
therefore, whilst the Body remaim lull of its own Bloed and  
Juices, the Waters should be drank in a large Quantity, they  
would not only move flower through the Velseis, but also stagr  
quite and corrupt; and by Reason of this large addinonal Quan-  
tity, they may drive the Bloed forcibly upon the more noble  
Parts, and thus produce Inflammations, Haemorrhages, Ob-  
structions in the Viscera, and many other Mischiefs, insomuch  
that Persons os this Habit os Bedy corning directly to drink the  
Waters, without taking away some Blood, run great Riinues-  
of their Lives. On the other Handy Persons who bleed a Day  
or two before they enter upon thia Course, have none of these  
Dangers to sear, but may drink the Waters with the desired  
Success; aS is well known to those who have prudentiy ob-  
served the Effect? of Mineral Waters. For it is a common Ob-  
serration at the Wells, that Persons who sound themselves ill  
upon first drinking the Waters, on Account of their not pal-  
sing off regularly, but oppressing and incommoding the Bedy,  
fo sar aS to determine them to quit their Design, yet having, by  
the Advice of another Physician, lost a little Blood, they have  
not only been soon relieved from their Disorders, but entered  
upon then Course again to great Advantage.

XVII. There are several Physicians who scruple prescribing  
the Use of cold Waters to such aS have weak Nerves, for fear  
of weakeningthem still farther. It must indeed he acknowledged, \_\_  
and Experience manifests, that the most dangerous Symptoms  
are frequentiy produced in the Bedy from external Cold; and  
that this happens in a much greater Degree when the Cold  
reaches to the internal Parts, which are unaccustomed to bear  
**IL** Thus we have Instances where the whele Bedy being fusse  
. denly cooled, has occasioned Loss of Sight, and a Trembling:  
**of** all the Limbs; where the Administration of a. cold Clyster has  
caused immediate Death ; with other Instances to the like Pur-  
poses. But for'these Reasons totally to reject the Use of cold  
Mineral Waters, betrays great Weakness and Ignorance. All  
that they justly indicate is, if the drinking of fuch Waters  
cold occasions any bad Symptom, the drinking of them cold is  
to be forbid, and a Method of drinking, them advised, which'  
shall render the Water suitable to the weak State of the Body..  
And this I have for a long time Very advantageoufly done, by  
directing the Bottles of the Water to he plunged in Baineo Ma-  
**rise,** till they receive a Degree of Heat more agreeable to the  
Bedy and the Palate; a fine Hole being first made with a Needle  
in the Cork, to prevent the classic Spirit, thus expanded by **the**Heat, from evaporating, and to keep the Bottles from bursting.  
Nor let it be apprehended that tins Treatment of the Waters  
causes an intire Loss of the mineral Spirit, whereon their Effi-  
cacy depends; for aS the Heat is not great, and aS a proper  
Caution is there used, a sufficient Quantity of the Spirit is still  
kept in. And though there he no Need os farther Arguments,  
fince Matter of Fact confirms the Truth hereof, yet we find  
that even the Waters of the hettest Springs, whose Heat is  
much greater thin that here recommended, are not intirely  
destitute of this volatile, mineral Principle.

**DISEASES wherein MINERAL WATERS are SERVICEABLE,  
contrary to the common Opinion.**

XVIII. Having thus given the necessary Cautions and Di-  
rections, aS well to Physicians as the Patients, with regard to  
entering upon a Course of the Waters; we now proceed to con-  
sider in what Distempers they are of more eminent Service than  
any other Remedy. But aS the. Catalogue of these Distampers  
is extremely large, we shall only speak to those wherein most  
Physicians rather think the Waters detrimental than advantage-  
ous 5 and shew the Erroneoufness of this Opininn, both from  
Reason and experience. ' .

XIX. And first, the Use of Mineral Waters is held danger- .  
ous in Violent Fluxes of the Menses and Haemorrhoids. The  
Reason upon which Physicians proceed in forbidding Waters in  
these Cases depends upon a salse Notion of the Causes of such  
Discharges, and of the Ingredients *os* the Waters, which they  
.take to he metallic, vitriolic, and styptic; and having found by  
Experience that Astringents are Very prejudicial in such Cases,  
they have forbid both the Use of .hot and cold Waters therein.  
But aS a Knowledge os the Blood’s Circulation discovers the  
true Cause of these Discharges, And as the Apprehension of styp-  
tic Ingredients in Mineral Waters is groundless, this Opinion of  
theirs must be rejected as idle and frivolous. A careful enquiry  
into the Cause os Violent Haemorrhages shews it to be no other  
. than an Obstruction to the free Circulation ofthe Bloed in certain

Parts of the Bedy. And thus the Blood having not itS due  
Motion through the Canals, impacted Matters are of Conso-  
quence generated in the Viscera, and rhe Obstructions necessir-  
ally rendered greater ; whence the Blood coming to thesc ob-  
structed Parts in a still greater Quantity, and finding nn Passage,  
of Course diverts, and breaks its Way through ^thim Paith  
where it has either been accustomed to find Vent, ΟΓ mners  
with the least Resistance when it Comes to he discharged with

Violence in the Parts above mentioned. The first intention  
therefore in the Care of these Disorders, is to open the Ob-  
structions of the Viscera, and to restate a free Circulation of  
the Bloed therein; and this can no other way he so effectually  
done; aS by the drinking os Waters impregnated with a gentle  
stimulating Salt; sor it is the Property os these Waters, by the  
large Quantity of then aqueous Part, to dilute and thin the  
stagnating Humours, and render them fit for Motion, whilst by  
shear saline Particles they dissolve the Viscidities, twitch and  
shake the Canals, and cause them to press, protrude and squeeze  
forwards their Contents; This appears to he the Rationale of  
the Cafe; and thus in sect Henrietta ah Heer expressly declares  
that the Spaw Waters are extremely well fitted for provoking  
**the** Menses, as appears by a thousand Instances, and yet are  
more successful than any other Medicine in flopping too large **a**Flux thereof.

XX. Bur that the Waters may with the greater Certainty  
. and Advantage have this Effect, proper Care must be taken that,  
the Bedy in such Circumstances he not charged with an irnmo-  
derate Quantity thereof, but he drank in a small Dose, and not  
too het. How necessary a due Regard to this Circumstance is,  
appears by an eminent Instance in the two Caroline Springs,  
where the Use of the most temperate of them, called the Mill-  
spring, has an admirable Effect in these Cases, whilst the com-  
mon Violentiy het one rather increases the Disorder. It is also  
of great importance, when the above mentioned Fluxes are  
large, that both before, in, and aster a Course of the Waters,  
all Aloetics, and the stronger Purgatives be carefully avoided,  
which put the Bloed into a violent Motion; and, if any Purges  
become necessary, to use in their stead thofe that are gentie,  
and of a strengthening Virtue, such as Epsom Salt, Rhubarb,  
Sena, *etc.*

XXI. And as these Waters have an extraordinary efficacy;  
in the stopping of Haemorrhages, their Virtue is no less consider-  
able in a Suppression thereof. And this Truth can he questioned  
by none but such as have never attended at the Wells ; for as  
a Stoppage of these natural and critical Discharges of the Blood  
proceeds intirely from an Obstruction, or spasmodic Contraction  
of the Blood-Veffels, through which it uses to run. Mineral  
Waters are wonderfully adapted to restore and promote thefe  
Discharges ; it heing the Property os fuch Waters to flow to **the**Extremities of the Blood-Vessels, and there soften or attenuate  
the grosser Substances that block up the Passages, and force it  
away by the elastic Property of their aerial Spint; and at the'  
same time, by the large Quantity of their pure aqueous Part,  
they relax the hardened and contracted Fibres, and thus again  
open the accustomed Passage to the Bloed. To confirm this  
Reasoning, we shall here infert the History of an extraordinary'  
Case, whereof ourselves were Witnesses, and choose it. aS a -  
singular Instance, out of a Very large Number to the same  
Purpose.

A Personos Distinction, about fifty Years of Age, of a Con-, ι  
stitution betwixt sanguine and bilious, long used to a Court-  
life, Wine, and a high irregular Diet, was seized with the  
Gout, and hemorrhoidal Flux, returning at stated Periods ;  
but without being much incommoded thereby, so long as he  
continued to open a Vein at proper Seasons. But bring, a  
sew Years ago, advised by some Physician or other to leave off  
Bleeding, under Pretence of growing in Years; and following  
this Direction, he was in the Summer Season afflicted with  
a Violent Colic, extreme CostiVeness, and Pain. His usual  
Physicians little suspecting the true Cause of the Distemper,  
ascribed it to the Gout struck inwards, and therefore rejected  
Bleeding aS a perfectly useless or dangerous thing. Another  
Physician heing called, and enquiring narrowly into the Cause  
of the Disorder, immediately ordered the Patient m have a  
Vein opened in his Foot, and to use. emollient Clysters..  
Upon this the Violence of his Pain was immediately lessened,  
and growing better by Degrees, he was carried at the proper  
Season to the Caroline Waters; by the internal arid external.  
Use whereof, he happily recovered the periodical Return of  
his Haemorrhoids and Gout, and was perfectly cured ns his  
Colic.

XXII. From too large Discharges of the Bloed-Veffels, **we**pass on to the immoderate ones of the Lymphatica; the more  
common whereof are the Gonorrhoea and Gleet ut Men and rhe  
Fluor albus in Women. With regard to Distempers of this  
kind, many Physicians imagine that Mineral Waters are impro.  
per; but HenricuS ab Heer, in his time, clearly remarked the  
Falsity of this Opinion, and declared that, hew doubtful foever  
others might he in the Point, the Spaw Waters w^ certainly  
serviceable in the Virulent Gonorrhoea, and produces Instances of  
his own Knowledge to confirm it. It is however certain that  
**these** kinds of Fluxes are generally increased use ofMineral Waters, whance thch Disrepute ut fuch Casta feanS  
Io have proceeded. For whilst Phyficismremfined ignorant ut  
the Causes of these Disorders, they attrib  
the Hux to an Increase of DIstempcr. but**Discoveries tn** Anatomy have given much better Light into the

**Seat and** Nature of such Distempers^ it is proper the Cures of  
them should he regulated accordingly. An obstinate Gonorrhoea  
or Gleet in Men generally has its Rise from the unskilful Cure  
of a common venereal Running, which corrodes the Prostato  
Glands, asd others belonging to the Parts Of Generation, and  
renders them scirrhous and fistulous. An inveterate Fluor assius  
proceeds from an acrimonious Humour, generated by a too vio-  
lent or frequent Use of Venery; or from a Humour introduced  
in the way of a communicated Taint, which ashawards insects '  
the Glands of the Vagina, Io as nor only to make them dis-  
charge their Juice in plenty upon the adjacent Parts, but the  
same Juice being allo infested, eats and corrodes the sine Fibres  
of the Parts it passes over, and thus occasions sharp darting Pains;  
Excoriations and Ulcers, whence proceeds the Matter of a viru-  
lent Flux. From this Account, which is taken from Dissec-  
tions, it olearly appears, that in order th wash away, dilute  
and weaken these inseAed Juices, softest the hardened Glands;  
strengthen the Fibres that are fretted and corroded, and join  
them again with the Other aintainted Parts, a Course of Mineral  
Waters is highly proper. And though it he true that whilst the  
Course is in hand the Flux will increase, yet, when the Course  
is over, there ensues a more certain and confirmed Cute. But  
in order to this End, balsamic Remedies, and a moderate De-  
coction of the drying Woods, are to he ufed in the drinking of  
them, by which Means the Cute may be surprisingly faci-  
litated. ...

XXHI. And no less serviceable is a Course of Mineral Wa-  
tors towards the Cure of Distempers seated in the Glands of the  
Body, whether proceeding from Obstructions or Relaxations of  
the glandular Parts; for such Waters have a very opening, di-  
Iuting, resolving, abstersive and strengthening Quality. TO  
gain the hetter Credit to this Assertion; we shall here subjoin

- the History of a curious Case that happened lately.

**Λ** Portuguese Lady os a noble Family requiring of her Physician  
a Purgadve by way of Prevention, he officiousiy prescribed her  
an Electiiary, upon the Ufe whereof she soon fell into a  
violent Salivation, that continued for almost eight Months,  
till it had brought her to the extremest Weakness, anrlren-  
dered her almost like a dead Carcass. The Caroline Waters

' were advised her, by the Use whereof; both internally and  
externally, with the Assisfeuice of gentle Purgatives at prof  
per Intervals, she not ouly got rid of her Spitting, but quickly  
recovered het former Strength and Beauty. It was remark-  
able in this Lady’s Case, that affer her Cine was compleat,  
-she by sitting longer in she hot Bath than was directsd, had  
nearly relapsed into her Spitting, and doubtless would have  
done Io, if her Physician had hot immediately prevented the  
Msschief by proper Purgatives. , ,τ.,

*' I have inserted these two Cases, as being remarkable, though  
net properly belonging so the Article* **ACIDU***LJE.*

XXIV. It is a current Opinion, that the drinking of Mineral  
.Waters proves prejudicial to the Lungs, and increases all the  
Disorders thereof'. : The Origin of this Error is apparently ow-  
ingto a false Notion of the Ingredients of thefe Waters, and  
an improper Advice of them to sixch Persons whose Lungs  
are already ulcerated and eat away; whence the Ignorance of  
Physicians has pronounced them prejudicial in pulmonic Disor-  
ders. It is manifest by inspection, and the Anatomy of tabid  
Bodies, that most Distempers of the Lungs arife from an Ob-  
-structiofi and Hardness of the Glands,. wherewith this Part  
so plentifully abounds. Hence proceed inveterate Coughs,  
Phthisics, Difficulty of Respiration, Asthmais, *etc.* in all which  
-Diseases the primary and sole intention should he to open and  
’dissolve away the Obstructions and Scirrhosities in the Langs,  
ctiatcause the Distemper; and this can , no other way he so  
readily effectid as by a Course of Mineral Waters. But to pre-  
vent their saline Acrimony, which is certainly unsuitable to the  
delicate spungy Substance of the Lungs, from doing any Mis-  
chief thereto, it is adviseable to mix. the Waters with Asses  
Milk, which Experience shews is the best for this Purpose; or  
esse with Goats Milk. And mixing the Waters in this Manner  
not only blunts and mollifies their saline Particles, but also .con-  
duces to temper and sheathe the Acrimony ofthe whole Mass of  
Blond, so as to render them eminently serviceable in Diseases of  
the Lam. We have seen numerous Instances of their gooa  
Effects, so drank in these Cases.

XXV. Whet we have above said about the Diseases of the  
Lungs, may also be.extended.to the other Viscera, and Diseases  
of the Lower Belly. The Writings and common Discourses of  
Phrftcians are full of the Mischiefs which they suppose Mineral  
Waters bring upon the Viscera, And indeed the Use of these  
Waters cannot he recommended where the Vifcera are con-  
sumed, or higniy tainted, where the Humours are extravasated  
on account of Vessels broke either in the Thorax or Abdomen,  
or where Impostbumations are formed. To prescrihe the drink-  
ing of Waters in thefe Cases, is to increofe the Disorder, and  
hasten Death: But this Restriction does nor reach to all the  
Diseases of the Viscera. The greatest Number of chronical  
Distempers, which come cn slowly, and .prove of long Con-

tinuance, proceed from an Obstruction in these Paris, and a  
Hindrance to the Circulation of the Blond; sor the Prevention '  
or Removal whereof there is nothing more serviceable than  
Minemi Waters, which preserve the Viscera in theis natural  
State, and open Obstructions. Thus they are admirably.pred  
vemive of the Scurvy, of the Asthma, of Abortion and Steri-  
lity, of the Dropsy and the Stone ; curative of an ill Habit of  
Body, and lessen a present Fit, as well as repel an approaching  
one, of the Gout; and all this is attested by Experience and Ob-  
servation. Whence it clearly appears hew idle and childish  
that Fear is, which many Physicians indulge, of the pernicious  
Effects of these Waters; though it is true, they have always  
at hand certain ingenious Companions ,and Instances of like Cases,  
as they mil them, which they ofc on all Occasions, with a  
plausible Shew to the People. .

XXVI. in the last Place, we shall say a Word of two of  
the proper Diet and Regimen to he observed in drinking the'  
Waters. For as no Remedy, without a proper Regimen, can  
have its Effect, so a Course of Minemi Waters requires- an ex-  
acti Care- in this Particular. There are two Errors generally  
run into by the Drinkers, *vizi* indulging themselves either too  
much, or too little. Some Physicians pre so scrupulous as to  
forbid their Patients the Use of all acid, saline and fpicy Meats,  
though perhaps thefe alone are pleasing and agreeable to them.  
But the Point of Exactiiess is, here, for every one not greatly to  
recede from his usual Cullom, otherwise the Appetite may he  
hurt. Digestion nor well performed, and Crudities and new Dis-  
orders generated. Others, who have a principal Regard to the  
Stomach, ouly advise the Use of spititous and arornadc things,  
which is a great Hindrance to the Business of Excretion; for  
common Experience testifies that fucti things bind up the Belly.  
Aheve all, Voracity, and turbulent Disorders of the Affections  
should he prevented, as great Enemies to Digestion; whence  
the Bedy is loaded with an useless Weight, and the Waters  
rendered ineffectual for subdning and discharging the Crudities  
of the Bodyi The Stomach also will he weakened and relaxed  
by this Procedure, and the Waters now plentifully drank re-  
main longer therein, and thus give rise to many Inconve-  
niencies. .. .. . .

How destructive the turbulent Passions of the Mind are, ap-  
pears from daily Experience in a State of Health, and unless well  
regulated; will- prove more pernicious in a sick State, and a  
Course of the Waters, .whereby the Humours and Foulness of  
the Bedy are put into Motion ; so that Apoplexies, Palsies,  
and the like nervous Distempers, have proceeded from a Mis-.  
conduit in this .Particular. To.conclude wish a wholesome  
Admonitiont Infirm Persons should not rashly venture: upon 2.  
Course of Drinking or Bathing, especially without the Ob-  
servance of a proper Regimen.; *Haffman.*

I shall conclude Hoffman’s Account of Mineral Waters  
with his Method of imitating them; but I cannot much re-  
comrnendit, heing unacquainted with the Efficacies of Wa-  
ters thus counterfeited. I should suspedt their Virtues to he in  
ho Degree equal to those of the gennine Springs. Experience  
may determine their. Effects, and Experiments in this Cafe arc  
more excusable, as Waters thus imitatedcan do no great Mist  
chief, if applied judicioufly.

. L As it is evident by the preceding Sections, that Mineral  
Waters, for the Prevention and Cute of. Diseases, have no  
known Remedy comparable to them, as all Persons cannot have  
the Opportunity of frequenting the Wells, and as the Spring,  
themselves are sometimes, though rarely, fubjecti to Decay, it  
becomes a Question Of Importance, whether;, from a Know-'  
ledge of the Principles and Ingredients of thefe Waters, they  
may not he imitated by Art, .Or the more common Waters  
of every Place he impregnated so as to produce the same  
Effects? Many Cbymists of the last Age held the affirma-  
tive; and in particular imagined, that cold Minemi Springs  
were eafy to he imitated. But they certainly went upon  
**a** false Notion, which with many prevails to this Day, .that  
these Waters owed theis principal Virtue to a vitriolic Sub-  
stance, and hence imagined that they needed but dissolve  
such a Substance in pure Spring-water, and the thing was done:  
But upon Trial they sound their. Error, for there is no solid  
Vitriol contained in thefe Waters. Nor is there a single In-  
stance of a Spring, that we know of, holding a Salt *fo her* like  
that of common Vitriol, aS when dissolved in Water to. turn  
inky with Galls, make a neutral Salt, or Tartarus Vitriolatus,  
with Oil of Tartar, and, upon evaporating, leave behind a Con-  
cretion, that, when ground with Niue, yields the Fumes of  
Aqua-fortin . .

II. To say a Foundation for a more successful Imitation of  
Mineral Spring we must observe that there are forne, both of  
the hot and cold Kurd, which contain no saline or minemi Prin-  
ciple at all, and are nothing but a very pure, subtile and  
light Water; which, however, has very considerable medicinal  
Virtues- If such Spring-water as this he not procurable, we  
may perhaps to as good Advantage’ use in its stead the purest  
Rain-water.

ITT. There'are certain Springs *di* a Very light and subtile'  
Water, containing no earthy or saline Principle, and only 2small Quantity of an irony Substance ; and these may properly  
he called Iron Waters; for they exhibit no Change to the  
Eye upon the Admixture of Acids or Alcahes; bus, by stand-  
ing or bring heated, deposite a yellow okery Sediment. It iss  
therefore, no Difficulty to imitate this kind of Water by Art,  
where a sufficient Quantity of a pure, light and simple Water  
is at hand. The Method is only to hell it in a Glass Vessel,  
with a littie of the more curious and subtile Oker sold in the  
Sheps; by which means the Water will acquire a like Virtue,  
when used both internally and externally, as those of the na-  
tural Iron Springs, ’

. IV. There are other Springs remarkable for the Lightness  
. and Subtilty os their Water, which, besides a sinall Proportion  
of Iron Oker, hold a considerable Quantity .of common Salt,  
whence theyderivetheir princi pal Virtue. .TheseWatersare some-  
what purgative,and advantageoufly used in the way of Bath. They  
suffer no apparent Change upon mixing with Acids or Alcalies,  
and do not abound with a mineral elastic Spirit. Such Waters  
therefore may commodioufly be imitated, by dissolving a little  
Sal Gem in the above mentioned natural or artificial Iron  
Water.

**V.** The Imitation of the cold and brilk mineral Springs is at-  
tended with greater Difficulty, if we would prepare them in  
such a manner aS to haVe the natural, quick and pungent  
Taste, Smell, and copious classic Spirit. I have, however, at-  
tempted to imitate them, by adding to the finest simple Water I  
could procure, contained in an earthen Vessel with a narrow Neck,  
first a little highly calcined and dissolved Salt of Tartar, next  
a littie Spirit os Vitriol, so aS to make an Ebullition, yet suffer  
the alcaline Principle , to predominate; then shaking the Vestel  
whilst it remained close stopped. By this means I obtained **a**Water resembling the natural in Taste, and that threw up nu-  
merous. Bubbles in pouring out. It likewise answered the na-  
tural Water in its Virtue and Effects; so that I have given it  
with great Advantage in such Distempers as required the drink-  
ing of the moderate, brisk, and cold Mineral Waters, where  
the natural ones could nothe procured. But if the Design he  
to imitate the Pyrmont Steel Waters, which abound with an  
Iton Oker, either the natural or artificial Iron Waters should  
be chose for the Purpose, and a somewhat larger Proportion of  
.Salt of Tartar, and Spirit of Vitriol he used ; but so that the Al-  
Cali may still prevail.

- There are Reasons to apprehend, that either this Expedient,  
or a worse, is practised at London and elsewhere, so aS to inti-  
Ute the Spaw, the Pyrmont, and other foreign and domestic  
Waters, in such a manner aS to pass undiscovered upon ordinary  
Judges. If these Dealers had Art enough to make their Imita-  
tions perfect, the Deceit were the more tolerable; hut as  
they commonly manage it, every Drinker, who cannot procure  
the genuine, had better make the artificial himself fresh as he  
wants it, which he may do by the Help of these Directions.  
And to those who are curious in this Particular, we recommend  
the purest Rain-water, and, instead of Spirit os Vitriol, **the**trie Spirit of Sulphur. But for a Method of imitating these  
Waters, which comes still nearer to that of Nature, we think  
proper to intimate, that many Experiments and Observations  
shew the mineral Spirit, the specific Virtues, and irony Plin-

’ ciple of Steel Waters to proceed from the Pyrites dissolved by'  
such Waters under Ground. Whence perhaps Beds of these  
Stones might he laid on the Course of a pure Spring, so as to  
grow hot, steam, and richly impregnate the Water that runs  
near them, without turning to Vitriol. The Experiment is  
recommended to the Skilful in Chymistry and Natural History.  
*Shavsts Notes. . .*

VL There are, besides these, certain purgative Mineral Wa-  
ters, which, though they make an Ebullition with Acids, yet  
leave a bitter neutral Salt upon Evaporation. These Watersare  
to be Imitated, in the same manner,, by the means of Oil of  
Tartar, Spirit of Vitriol, and Epsom Salt, or that prepared  
from white Manganeso and Spirit of Vitriol. And much after,  
the same way may he artificially prepared a Water abounding  
with an exquisite neutral sals, and capable of purging very ef-  
fectually. The way in to dissolve, in the purest and lightest  
simple Water, a suitable Proportion of Glauber's Salt; or a  
still better Method is by mining Oil of Vitriol with the white  
Manganese, fo aS to obtain from that calcarinus Earth, and the  
vitriolic Acid, a Salt after the same manner aS it is prepared by  
-Nature, and then difiolve this Salt in the pure Water, so as to  
equal the Proportions of that propofed to he imitated ; for Ex-  
ample, in the Quantity os about two Drams to twelve Ounces.

VII. Lastly, If any one desires *to* imitate the Caroline Wa-  
ters, which are extremely alcaline, and somewhat purgative,  
he should endeavour to procure not a light and subtile Water,  
but such as is loaded with a calcarinus Earth ; and drop into  
this, first the Spirit of Vitriol, and afterwards the. Solution of  
Salt *of* Tartar, till the Alcali manifestly predominates. The  
Spirit of Vitriol should he first poured in, that it may lay hold  
of the calcarious Earth, and therewith turn inro **a** neutral and  
somewhat-purgative Salt.

VIIL These are the ways, I have thyself fried» to Imitate **the**natural Mineral Waters sor internal Use. And upon examin-  
ing the Principles and Contents *of these* artificial Waters, they  
appear to held not only the grosser, earthy and saline Substances,  
but also something extremely like the curious, elastic, mineral  
Principle of the natural Waters, proceeding from the Action  
and Re-action attending a State of effervescences

They likewise, upon Trial, appear to have great medicinal  
Virtues, so as to be, with desirable Advantage, exhibited for  
cleansing the Blood, and curing numerous Diseases, according  
to their several intentions; though I cannot positively say, nor  
will pretend, that they come up to the Excellence of the na-  
tural Waters.

IX. It remains that we shew a Method of preparing Simple  
Waters for external Use, so as to supply the Want os Mineral  
Springs. We formerly intimated hew, by the Addition of  
Salt of Tartar, Pot-ash and Herbs, wholesome Baths may he  
commodioufly prepared; and shall therefore,.in this Place,  
touch upon such as may he made by the means of Metalline  
Scoriae. The most common and useful of this kind are those  
prepared with the Scoria of Iton, which abounds with the earthy,  
saline and sulphurous Substance of the Metal. And these are  
of excellent Service for strengthening and bracing up the Parts,  
and recovering weak and decayed Iambs, stopping Various kinds  
of Bleeding, and restoring the menstrual and haemorrhoidal  
Flux, where obstructed; insomuch that they may well he sub-  
stituted for the natural Iton Baths. . '. .

X. Adjacent to the Smelting-Huts, where Metals are run  
from their Ore, are to be found large Quantities of the Slag of  
Copper, Antimony and Cobalt, which abounding with Sulphur,  
Vitriolic Salt, and an earthy Principle, make serviceable Baths  
for strengthening the lost Tone of the Fibres, and relaxing them  
when they are too crisp. These Baths have likewise a detersive  
and cleansing Virtue ; so that, with Prudence, and a due Re-  
gard to Circumstances, they may be used on many Occasions.  
The way of making these artificial Baths, is either to take the  
Slags as they come hot from the Furnace, or else to heat them  
afresh, and throw them into hot Water, contained in a close  
covered Vessel, that they may Communicate their Virtue to **the**Water, which is afterwards to be-used either in the way of  
Bath or Fomentation occasionally.

To conclude, there are other artificial Baths prepared of  
Alum and Quick Lime, by hailing them together in fine Rain-  
water; and such Baths are highly serviceable in paralytic Dis-  
orders, and Weakness of the Limbs. *Hessenan by Shaw.*

Dr. Shaw has been more particular and intelligible in his -  
Method os examining Mineral Waters than any former Author  
on this Subject. As I would enable every Body concerned in  
the Practice of any Branch os Physic, and all curious Gentie-  
men, to make successful Researches into the Nature of pacti-  
cular Mineral Waters, I shall insert the Method of doing st  
from the above ‘mentioned ingenious and indefatigable Gentie-  
man, without the idleAfiectation of unneceflinyVariationS. And  
Tpresamethe importance of the Subject, to the Health and  
Welfare of Mankind, will render any Apology for the Pro-  
lixity of these Accounts of Mineral Waters superfluous.

. L Before we enter upon the Enquiry itself, it will he neces-  
sary to collect together the principal Instruments and Apparatus  
proposed to be used therein, that the Work may afterwards pro- \*  
ceed with less interruption.

. Π. And, first, the Mariner's Compass may he useful, in de.,  
terminingthe Situation of the Well, and the Course rrf the wa-  
ter to the Receptacle; because the Needle of this Compass  
pointing North and South (excepting for the VariatiOn) this pin-  
quirer may thence he enabled to lay hewn with Rxactnefc the  
Course or Windings of the Streams, and the refpective Sttua-  
tion of the adjacent Towns or Country.

III. For examining, the Water itsnispin Contents, .ind rhis  
mineral Substances found near the Confines os the Well Oj.  
Course of the Water, there will he required

**I.** Exact Scalesand Weights.

. 2. -An hydrostatical Balance.

3. Variety of Glasses, .common and chymicaL ὑ

4. Cements.

5. A Thermometer.

6. A Hand-Pump. . ' '

*J.* An Air-Pump.

8. Microscopes.

9. An armed Ioadstone, or touched -p her.

IO. Distilled Water. -

. II. Crucibles.

12. A Melting-Furnace. '

13. Fluxes, or Flux-powders,

**14.** Various Vegetables.

I5. Animal Matters,

**16.** Minerals..

ly. Artificial Substances.

-foe ' O he of three Sines, all of them

SE’ Drams Ounces’ orafew Pounds; and the WagMs

which is the medicinal, or Apothecaries Weight; the Pound  
whereof is twelve Ounces, the Ounce divided into eight Drams,  
the Dram into three Scruples, and the Scruple into twenty  
**Grains.**

\* V. (2) The hydrostatical Balance is an Instrument, or **a**certain Species of Scales, contrived to weigh Bedies in Water,  
so aS to determine their specific Gravity, as it also will do that  
of any Mineral Water, by weighing a certain Glass Bubble  
**therein, the** Weight of **the** Bubble in the Air and in common  
Water being known beforehand.

**VL** (3) The Glasses to he procured are, I .Such as may corn-  
inodioufly exhibit the Water to the Eye and. the Senses, and  
should therefore he crystalline, and some of them cylindri-  
cal. 2. Such as may bear Heat, and serve for Evaporation;  
**these** should therefore he shallow, and widen upwards. 3. Such  
as may confine the Water, as common Phials, Bottles, Glass-  
Eggs, and Bolt-heads. And An Such as may serve for Distil-  
Jation, as Glass-bodies, with Alembick-heads, or Retorts and  
Receivers.

VII. (4) By Cements are here meant those Matters, or arti-  
ficial Compositions, which being applied to the Mouths of  
Glasses, tend to preserve the contained Water in a sound State,  
by keeping it from all Communication with the external Ain,  
such as malted Rosin, Sealing-wax, or rather proper Mixtures of  
Wax, Turpentine, *etc:*

**Vlll.** (5) A Thermometer is of Use to determine the De-  
gree of Warmth or Coldness of the Water; being an lnstru-  
inent consisting of a hollow Glass-ball, wish a long and Slender  
Neck or Stem, filled to a certain Height with tinged Spirit of  
**- Wine,** and divided into Degrees along the Stem, so aS by the rising  
**or** sailing of the Spirit of Wine therein, to shew the Degree of  
Warmth or Cooiness of any Fluid wherein the Ball is placed.

IX. (6) A small Hand-Pump, made either of- Wood or  
Tin, with its proper Embolus, or Sucker, is necessary to raise  
the Water immediately from near the Bottom of the Well, to  
shew whether this differs from that taken up near the upper  
Surface; though other Contrivances may also he used for this  
Purpose.

X. (7) The Air-Pump, wish its Glass Receivers, is a pro-  
per Instrument in helping to discover the Proportion off Air, or  
volatile, fugitive Spirit contained in the Water; for spirituous  
Waters are found to throw up, and discharge a large Quantity  
**- of** Bubbles, when placed under the exhausted Receiver of the  
Air-Pump; and according to the greater or less Numher and  
Size of the Bubbles thus discharged, the Water is judged to he  
. inore or less aerial or spiritous. ‘

XL (8) Microscopes, or Magnisying-Glafles, may he used  
in examining whether any Visible component Particles can he  
found in a single Drop of the Water ; but moth successfully  
perhaps in determining the Figures of the Crystals, *cx* Salts of  
the Water, after Evaporation, or during the time of Crystal-  
Iization. It might also be. proper to examine all the other solid  
or visible Contents of the Water by the Microscope, both in a  
State of Mixture, .and after they are separated from each other.

XII- (9) The armed Loadstone, or touched Plate os Iron,  
is of use to discover whether any of the mineral Matters found  
pear the Confines of the Well, or among the dry Contents of  
the Water, are of an irony Nature j sor whatever the armed  
Loadstone, Dr avouched Iton Plate attracts, is generally allowed  
th be lron. Though other Prooss of this should also he procured.  
And perhaps the Loadstone will not attract Iton in all States and  
Circumstances; as unless it he pure .and perfect, or have all the  
Parts essential to malleable Iton; so that a mineral Substance  
may possibly he irony, though the Loadstone should not at-  
tectit. '- ς '

- XIII. (io) Distilled Water, or Water freed aS Itinch aS  
possible from all mineral, saline, .terrestrial, or other foreign  
Matters, is of use to discover the saline or soluble Contents of  
airy mineral Substance, or dry Matter of a mineral Water, by  
dissolving them from .the less soluble Parte, and giving them  
**again in** a solid Form, by Evaporation, **or** Crystallisation.. **The**Water should he pure for this Purpose; otherwise it might min  
Its own mineral or saline Matters along with those of the Mat-  
ter proposed to he examined, and so render the Experiment  
fallacious or uncertain. Now there is scarce a . better way  
known of procuring Water in purity, than by gentle Distillation  
inclean Glass Veffeis. . .

XIV. (II) Crucibles, or Melting-pots, made Of an earthy,  
.or stony Master, are useful in .trying whether the dry Contents  
of a Water, or other Mineral Substances, are metallie, or held  
any considerable Proportion of Metal; for if they do, the Me-  
tal may usually he . got out os them, by powdering the Sub-  
stance, and, if necessary, mixing it with a proper, Flux, then  
melting them together in a strong Fine

XV. (I2) A strong Fire is required m melt most metallic Sub-  
stances, so as to separate the Metal from them; though, in  
some Cases, a Wind Furnace, that is, a Melting Furnace, or  
Fine animated barely with a Current of Air, which it spon-  
itaneoufly draws to itself, is sufficient for this Purpose. But  
.where the Matter proves stubborn, or had to .melt, a.Fire

briskly agitated, or blown with a Pain of dotftle Bellows, like  
those of the Silversmith, or BiarHinirh, are usually required.

: TsVI. (IB) Fluxes, or Flux-powders, are any kind of Sub-  
stance, which being added to a Mineral, nr Ore, and melted  
therewith, causes it to run easier, and yield he Metal sooner,  
or in greater Plenty, than it would do when melted without Ad-  
thtion. Thus Tartar, or Argol, Nitre, or Salt-petre, Boras,  
Glass of Lead, Iron-filings, *etc.* are Fluxes, and should he  
mady at hand, in order m the Examination of the Mineral  
Substances that may occur, in the present enquiry.

X VIL (I4) Certain vegetable Matters are found to strike disi."  
serent Colours with different Liquors; and according to the  
Colour produced, an Indication is obtained of one or more par-  
ticular Substances contained in a Liquor. Thus if fresh Violets  
he suffered to stand for some time in a pellucid Mineral Water,  
and the -Water should now appear of a red Colour, hence an hi-  
dication would he gained that an Acid is predominant in the Wa-  
ter ; bur if a green Colour should thus he produced, this denotes  
that an Alcah prevails in the Water; but if the Water retains  
the native blue Colour of the Violets, this shows that the Wa-  
ter is neutral, or that neither an Acid nor Aloali prevails there-  
in. The Principal therefore of those Vegetable Substances,  
which have the Faculty of indicating, by a Change of Colour,  
the Contents of a Mineral Water, or other Liquor, should he  
procured, and kept in Readiness for our Purpose.

- XVIIL These Vegetable Subjects seem reducible to four  
Classes, *viz. ' νύνύ'*

I. Such as are astringent. .

- 2. Of a fine Texture. ' ' .

- 3. Purgative. :

4. Alterative. ....

- XIX. (I) Among Astringents Inaybe reckoned Green-sea,  
Oak-leaves, Oak-bark, Pomegranate-bark, Balaustian-stowers,  
Sumach, but more particularly Galls; all which are adapted  
to discover whether the Water he of an irony Nature, or con-  
tain any Particles of Iron, or the Vitriol of Iron. And this  
they do by turning such Water purple, black, or dinky; and,  
with time, precipitating a light, dushy Cloud, or inky Sub-  
stance to the Bottom. The GaUs for this Purpose should he os  
the blue, or strongest kind, sound, and newly reduced to Powder,  
which may he kept in a Glass close stopped. This Powder is  
used with greater Dispatch, Convenience and Exactness than a  
Tincture of Galls made in Water, which weakens their Vir-  
tue. The Tincture besides loses of its tinging Faculty bykeep-  
ing, and at the same time acquires a deep Colour, which may  
disturb the Experiments.

: XX. [2) Under Vegetables of a fine Tincture come the  
cosoured or colouring ones, which have their Colours easily al-  
tered by simple Mixture; such as the Flowers of red Roses,  
Mallows, Violets, Bluebottles, CloVe-Julyflowers, Lignum  
Nephriticum, *etc.* winch serve to indicate, by the Change of  
Colour they, produce in the Water, whet kind of -saline, or  
earthy Matters predominate therein. Thus; as was before oh-  
feryed, Violets turn a Water red where an Acid presides, and  
green where an Alcali; but communicate their own blue Co-  
lour where the Water is neither acid nor alealine. And thus  
dure common Water being neither acid nor alcaiine, ah Irifii-  
sion of these Flowers therein exhibits a beautiful blue Colour.  
And as pure crystalline Sugar also is neither -acid nor alealine,  
the Addition thereof to the Infusion of these Flowers introduces  
no Change of Colour ; whence the Syrup of Violets may he  
conimodioufly substituted for the Flowers, in the making of our  
Experiments. ( . . : . .. λ .

XXL (3) The purgative Vegetables of Use in our Enquiry,  
are chiesiySena, Rhubarb, Herrnodactyls, Mechoacan, Jalap, *etet*and this by the way of simple Infusion, Tincture, or De-  
coction, to discover some certain Contents, or solutive Powers  
of the Waters, but mere particularly the Salts thereof; .soy  
alealine Salts are found, in all Trials, to heighten the Tinctures,  
or Virtues of these purgative ingredients, or make the Water  
take up more of their Parts, especially if they be unctuous,: or  
resinons. .'-Neutral Salts are also found to have the like Ef-  
fect,. in a less Degree, whilst acid ones are -littie disposed to  
‘open . the Bodies of these Drugs, *css* make them yield strong  
Tinctures. . s :: ι

XXIL (4) Those commonly called the alterative, or dry-  
ing Woods, as Guaiacum, Sassafras, Saunders, *etc.* may he  
likewise serviceable in this Enquiry, and help to discover the  
Contents-of the Water, aS they will yield their Virtues to some  
Waters better than to others; particularly to such aS abound  
with aSalt capable of dissolving their resinous or unctuous Parts,  
Wherain their medicinal Virtue principally appears to consist.  
And by this means also some new Uses of the Water may pro-  
bably he discovered, *viz.* by applying it to the making of lher  
-fusions. Decoctions, or Extracts of various Drugs or Simples.

XXIIL (I5) Itis of Importance in the Enquiry to know hew  
the Water affects the animal Hinds, or other animal Substances,  
as this may not only give Tight inm the Contents of the Wae  
ter, bur also afford Directions for its prudent Use, and shew  
whet Effects may he rationally expected from drinking. And

here we should principally regard the Changes it produces in  
the fresh extravasated Blood of a healthy Person; in coagulated  
or dry healthy human Blood; in the Serum of sound Blood ;  
in morbid Blood of various kinds, as that of rheumatic, scor-  
butic, pleuritic, consumptive, hypochondriacal, and maniacal  
Persons; upon the Calculus humanus, or Stone of the Bladder;  
upon Gall-stones; upon the Chalk-stones of gouty Persons ,  
upon Matter, or Pus; upon Urine, recent, stale, and gravelly,  
*etc.* upon Viscid Phlegm, gellied Lymphs, and other sound  
and morbid animal Substances; especially as assisted with a De-  
gree of Hear equal to that of the human Body.

XXIV. (I6) It may he proper to mix different kinds of  
Minerals with the Water, to try if any remarkable Changes  
can be thereby produced, or the Virtues of the Water increase!,  
or its Contents the better discovered. And in this View several  
Ores, especially the softer, or more soluble forts might he used ;  
especially Iron-ore, Mundic, Marcasites, or the Pyrites, as  
also Time-stone, Alum-stone, Vitriol, Sulphur, and the Mineral  
Salts. Any of these Matters, if made to diflblVe in the Water,  
might produce considerable Changes therein, or increase its  
Virtues, *if they depended* upon Contents os the same kind.  
Thus, for Example, if any Part of the Virtue of the Water  
should depend upon Iron, the artificial Introduction os more  
Iron might heighten the Virtue os the Water. And so again,  
if Vitriol, Alum, or Sulphur, be naturally contained in the  
Water, these Minerals might he added to it in .a proper man-  
ner. So again it may be proper to try whether pure Silver will  
change its Colour, or turn black in the Water; or whether  
Lead, Quicksilver, *etc.* will any way dissolve therein, where-  
by a Knowledge may he gained of certain Contents, or Proper-  
ties of the Water.

XXV. (I7T The Head of the artificial Substances might ad-  
mit of great Variety; but.we will here single out the more  
. necessary Particulars, under the Classes of,

i. Alcalies,

2. Acids. -

*3. Metallic Preparations,* and Solutions.

. XXVI. (I) By Alcalies are here meant what the Chymists  
called fixed and Volatile alcaline Salts and Spirits. Fixed alca-  
line Salts are made, hy boiling the white Ashes of proper Vege-  
table Subjects, such as Common Billet Word, Bean-stalks,  
Vine-cutting, Tartar, *etc.* in Water, to dissolve the Salt out  
of the Ashes, then evaporating the clear Solution till a dry  
Salt he left hehind. Salt of Tartar is a principal Salt os thin  
kind, and has considerable Uses in the Examination of Mineral  
Waters; for as it dissolves more readily and fidly in Water  
than any earthy Substance, in proportion aS .it diffolVes, the  
earthy Substance contained in the Water will sell to the Bottom;  
fo that, by this expedient, a large Quantity of the Earth of a  
Mineral Water may he separated, and made to assume a dry  
Form. And as this Salt is alcaline, if the Water be acid, some  
Conflict or Ebullition may he expected upon mixing them to-  
gether ; for this is commonly the Case when an Acid and Alcali  
are mixed. Or, by a prudent Addition of this Salt, fo as just  
io take off the Acidity of the Water, a neutral Salt may he  
made, and, by a proper Treatment, rendered sensible, so as  
io afford a satisfactory Proof that the Waier was acid. Salt of  
Tartar also readily runs, by the Moisture of the Air, into a  
ponderous Liquid, called Ost os Tartar per Deliquium, winch  
may often he used with greater Convenience than the Salt itself,  
as it is purer, more.eafily unites with Water, and may he more  
oommodioufly dropped into it. But if either the earth, or  
Acid os a Water, should be light, fine, or almost imperceptible,  
fo as not to manifest themselves upon the Addition of a strong  
Alcali, a milder sort may be required, such aS thofe called Vola-  
tile alcaline Salts, or urinous Spirits, *viz.* the Salts or Spirits  
of Hartshom, Blood, Urine, *etc.*

XXVIL (2) We must likewise he provided of those .called  
Mineral Acids, or artificial acid Spirits; such aS the Spirit and  
Oil of Vitriol, Spirit of Sulphur made by the Bell, Spirit of  
Salt, Spirit os Nitre, *ete.* for these AcidS serve to. discover  
.whether the Water he alcaline. Thus for Example, , as Ost  
of Vitriol is a very strong Acid, a Drop or two whereof will  
communicate a perceptible Acidity to sour or five Ounces of  
Common Water, if a Drop or two of this Acid give no per-  
.Ceptible Acidity to four or five Ounces of a Mineral Water, it  
will hence appear, that the Mineral Water is alcaline, or im-  
pregnated with' something that hag a Power to blunt AcidS, or  
destroy their acid Nature, and turn them neutral. But where  
only a light, or subfile Alcali is contained in a Mineral Water,  
lighter Acids may he used for the Purpose, such aS Lemon-  
Juice, distilled Vinegar, Rhenish Wine, ; .. ῖ . . . -

. XXVIIL (3) The Metallic Solutions, or Preparations, usirally  
.made by Chymists, will he of considerable Service, not only  
- as they may confirm the Conclusions drawn from other Ex-  
periments; but also discover still more os the Contents and  
Properties of the Water.. Some of the most necessary ones are  
.the sollowing, *vix.*

I. A Solution of corrosive Sublimate in distilled Water,  
„ 2. A Solution of pure Silver in Aqua sortin

3. A Solution of Quicksilver in Aqua fortis.

4. A Solution of Saccharum Sarurnt, ot Sugar os Lead, in  
Water. .... ....

5. A Solution of Gold in Aqua regia. . *.e .*

6. A Solution of Copper, in Asin2 sorth 5 and another of.  
the same Metal, in Spirit os Sal-Ammoniac. : . \* I

7. A Solution os Iron, in Asin2 forth 5 another of **the**

same Metal, in distilled Vinegar, or any tart Wine; the Uses  
of all which will appear in the Course of the Enquiry.

L My present Design is to shew the Possibility of making  
an exact and satisfactory enquiry into the Contents of a Mine-  
ral Water; for till this also is shewn, we-shall not be prepared  
to entes upon the Enquiry itself; as the Business of examining  
Mineral Waters has not hitherto, that we know os, been re-  
duced to. the Form of an Ari- ot brought under the Laws of  
physical. Demonstration. Some Attempts, indeed, have heed  
made in this Way; but they are so imperfect as to leave many  
strong. Objections upon the Minds of the major Part of Na-  
turalists. Physicians, and Chymists. The Reason appears to  
have been this, that the Experiments hitherto offered, for de-  
termining the Contents of Mineral Waters, are generally .-  
flight and superficial, or by no means Verified, and Carried on in  
the Form of induction.

IL By induction we mean the Art of Enquiry, originally in-  
vented by the Lord Chancellor Bacon; and, in good measure,  
delivered by him (though never perfected) in the second Book  
os his *Novum Organum.* This Art is no more than a rational,  
or scientifical Method of investigating or tracing out the Na-  
hires of Things, so as to manifest by what Laws, Means, or  
Actions they physically exist, and produce then effects. It ap-  
pears in all Respects to he the best, ot most certain, if not the  
only true Art hitherto known, of promoting physical Know-  
ledge, provided it he practised with that Caution, and accord-  
ing to those Rules which itself delivers. The principal Uses  
of it are to shew what Methed should be observed, and what  
Experiments or Observations are to be made in every Subject;  
hew they are to he applied, what Particulars they bring to  
Tight, or whet Discoveries they afford ; nor does this Art ob-  
Iain its end, till certain Axioms, or general Conclusions are i  
formed by its means, comprehending the Nature of the Suhe  
ject, and directing to an' extensive Practice upon it. This  
Art, therefore, consists in a prudent and suitable Use of the In-  
vention, the Memory, Reasoning, and Experiment, all im-  
proved and assisted to the utmost; where invention directs  
the Articles of Enquiring, Reasoning directs the Experiments, .  
and the Experiments, when made, inform and sarther direct  
the invention and the Reason, so as to point out other ex-  
periments, till the Nature of the Subject is fully discovered.  
Thus, in the present Undertaking, this Art has directed the in-  
Vention, the Reason and the Memory, to cast about, and fug-  
gest, the first Heads os enquiry, and the Experiments to he  
made; but can proceed no sarther till the : Experiments  
themselves are made, or the Answers gained from Nature to  
the’ Questions proposed; after which, the Reason, from **the**new.Light acquired, may direct farther Experiments, till thua  
the Enquiry is brought to a Conclusion. - .. . . .. ι:

IIL The present Business is, therefore, to explain the Na-  
ture of the necessary Experiments, with the .way of conduct-  
ing them, according to the Art above mentioned, that they  
may give a clear and just Information, and not lead ha into  
Error. andConsuston ; but to do this in the amplest and most  
satissactory manner, would require an Exactness, Or Scrupulous  
ness of Procedure, which might disgust any but mathematical  
.Readers, and draw ns into a Length unsuitable-to the present  
Design. Though, aS the thing is of the utmost importance,  
not only to the present Enquiry, but likewise to all others of  
the like kind, it may he proper to dwell a littie upon it, with  
a View to shew, by way of Example, what Rigour is required,  
and what Evidence, or Proofs may he had in physical En-  
quiries,, and the examination os Mineral Waters. i

IV. The End os our present Enquiry is, to discover **thd**Contents, Virtues and Uses of a certain Mineral Water; but  
as the Virtues and Uses of this Water must necessarily depend,  
upon its Contents, Ingredients, or the Parts whereof it eon-  
fists, the principal Drift and Scope of the Enquiry must be  
Io discover, or,' as far as possible, to manifest these Contents,  
and bring them under the Cognizance of the Senses or Reason..  
. V. And here it comes first to he considered, from the ap-  
parent Nature of the Thing, and from some Knowledge of **the**Properties of common Water, and the Substances capable of  
dissolving therein, with what kinds of Matters the present Mi-  
neral Water .is likely to he impregnated. Now it in seif.,  
.evident, that the Contents of every Water must he such as are  
1 capable of lodging therein, without hindering its Transparency,  
and without giving it Properties different from those found in it  
I .by the Senses, or particular Experiments, otherwise it would  
5 not he the Water it is. . .

- VL Mineral Waters are generally understood to he- those  
running Waters, which receive any remarkable Quality or  
-Property in .the earth, whereby they.differ from common Wa-

**ter,** and thence become either more beneficial than that, m the  
Core or Relief of certain Diseases, or else more noxious or  
prejudicial to **the** Body. By which Definition, the Contents of  
Mineral Waters seem, aS the Name imports, limited to Sub-  
jects os the Mineral Kingdom- But aS just Definitions can  
never he given, till the Natures of Things are discovered, we  
shall make no farther Use of the present one, than to direct our  
Enquiry more particularly to the Discovery of Mineral Matters  
'in the Water; though without neglecting such aS may he of a  
vegetable or animal Nature: For as Vegetable and animal Mat-  
ters plentifully aheund in the Earth, and may he in the Course  
or Confines of a Spring, it is not impossible that certain Parts  
thereof should, *at some* Times, or in some Places, mix with  
the Water.

VIL But, to shorten our present Labour, it may he proper  
*to* contract our View, and here limit ourselVes to such things  
only, aS Water is commonly known to dissolve, and such as have  
heed found, by competent Trials, to exist in Mineral Waters ; .  
for we do not here undertake to write a System os Natural and  
Chymical Philosophy, but to shew the way of pursuing a par-  
ticular Enquiry into Mineral Waters, by means of suitable  
Experiments. ss

VIIL The Bedies capable of pennanentiy dissolving in Wa-  
ter, without hindering its Transparency, and such aS have been  
found to exist in Mineral Waters, feein reducible to four  
Classes, *viz.*

**I.** Salts.

**2. earths.**

3. Sulphurs. ' .. .

4. Fumes, or Spirits. \_ ' .

Now the Question here is, whether Natural Philosophy and  
Chymistry, even in their present States, may not supply ways  
of discovering, with physical Certainty, if any of these are or  
are not contained in a Mineral Water. From several Observa-  
frons and Experiments, which we have ourselVes made, and  
some also that we have read, we incline to think this possible,  
and now proceed to lay down the ways wherein we judge it  
may be effected.

**... (I) SALTS, εἴ**

IX. All true Salts dissolve in Water, this being one of their  
essential Properties, 'or Characteristics; and aS there are few  
Mineral Waters but whet, upon a common Analysis, are found  
to contain a saline Substance; and aS the principal Virtue of  
these Waters is sometimes found to reside therein, a primary  
Regard should be had to discover, whether a proposed Mineral  
’Water contains any Salt, to' determine the Species thereof, if  
known, assign its Proportion to the Water, or to the other In-  
gredients, describe its particular Properties, Virtues, and Uses,  
and produce or exhibit such Salt, or Salts, in their natural or  
true Form and Appearance.

: Χ. The natural Mineral Salts, or Salts supposed to he Mine-  
ral are, :

- I. SeaSalt, or common Salt.

’. - 2. Nitre. ’ ... - -

. 3. Alum.

- 4. Borax.

*5.* Sal Ammoniac.

**' 6.** Epsom Salt, or the Sal Catharticum amarum.

7. Dt. Lister's Nitrum Murale, or Calcarinus Nitre,

’ 8. The universal Acid. Ἀ

‘ 9. The mineral alcaline Salt.

**(I) SEA SALT.**

*XI. in* order to discover whether Sea Salt, or any other  
known Salt he naturally contained in a Mineral Water, it is  
previouily necessary to he acquainted with the Natures and Pro-  
Persies of these Salts, otherwise we might he at a Loss to know  
them, when they come in our way. .

ΧΠ. Some of the chief Properties of Sea Salt, as distinguish-  
ed from, all other known Salts, seem to be these, *vix.*

' L Its particular Appearance, its saline Taste, and its.Form  
bring either that *css* Grains, or cubical Crystals, when true  
shot.

2. Its preserving Quality, especially with regard to animal

’ Flesh. ‘

- 3. Its manner of decrepitating, or crackling, in, or over  
the Fire; and increasing the Strength thereof, when sprinkled  
over live Coals.

: An The particular Odour it yields in this Decrepitation, being  
that of the Spirit of Salt.

5. Its affording the true Spirit of Salt, in a dense, white,  
pungent Vapour by Distillation.; which Spirit, as well aS **the**Salt in Substance, turns Aqua fortis into Aqua regis, and thus  
jnakesa Solvent for Gold.

” 6. Its melting with Difficulty in astrong **Fire, and** at length  
passing through the Pores of **the** Crucible.

7. Its being recoverable from its own Spirit by the Addition  
**of**any pure and fixed alcaline Sait.

\* - 8. Its Spirit constituting. Sal Ammoniac with any volatile AN

**Cali; or the** Salt itself affords Sal Ammonisr by Snblimation-j  
aster being digested with Urine,

su remaining dissolved by common Water, in the Pro-  
portion css about six Ounces to a Pint.

Io. Its Facuity of precipitating Silver difiolved in Aqua sortis,  
so as to increase the Weight of the Silver, and render it volatile  
in a strong Fire. A previous Knowledge of thefe Properties of  
Sea Salt may sitssicientiy enable us to discover it in a Mineral  
Water, or under whatever Form or Disguiso it may happen  
to he met with.

Xlll. The known ways of discovering whether Sea Salt be  
contained in a Water, seem reducible to these three, bra.

**, I.** Addition to the "Water.

2. Evaporation, and Addition to the dry Matter.

**3.** Crystallization.

**(I) By ADDITION to the WATERS,**

-lAlV. Case I. To two Ounces of pure distilled common Wa-  
ter, contained in a white, crystalline, cylindrical Glass, add.  
Drop by Drop, sour Grains of a pellucid Solution of Silver,  
made in Aqua sortis, with one Ounce of refined Silver to four  
Ounces of proof Aqua fortis, and no Milkiness, Cloudiness,  
Change of Colour, or Transparency will appear in the  
Water. « -

XV. Case 2. To two Ounces of the same distilled Water add  
a single Grain of Sea Salt, let it perfectly diflolve therein,  
by stirring the whole together with a clean Glass Red; and

\* now dropping in four Grains of the same Solution of Silver,  
a manifest Milkiness, or white Cloudiness will appear in the  
Water, or a white Precipitate sail to the Bottom of **the**Glass. E

XVL Now, as nothing was added in the second Case, more  
than in the first, besides a single Grain of Sea Salt, it is manifest  
that the Solution of Silver, by causing a Milkiness, or white  
Precipitate, gives an Indication of the Sea Salt added to the  
Water in the second Case. Therefore, when such a Solution  
of Stiver causes no Change in a suitable Proportion of a Water,  
it may hence he suspected that the Water contains extremely  
little, or no Sea Salt; but if a Milkiness, or white Precipitate  
ensues,, that some Proportion of Sea Salt is lodged therein.  
. XVIL The chymical Reason of the Experiment is this,  
that Silver remains pennanentiy distblVed in its proper Men-  
strum Aqua fortis; andby no means so in the Solvent of Gold,  
ir Aqua regis, which will not touch Silver, but constantly  
precipitates it from its own Solvent Aqua fortis, on account  
of Sea Salt, or Spirit of Sea Salt; contained in Aqua regia»  
which constitutes the sole Difference betwixt the two Men-  
struurns. And therefore, when a Solution of Silver, made in  
Aqua fortis, is added to pure distilled Water, which contains  
no Sea. Salt; it mixes intimately therewith, the Silver here also  
remaining traniparentiy dissolved, and equally suspended, , and  
dispersed through the whole ; but upon the Addition os Sea Salt,  
which turns the Liquor into an Aqua regis, the Silver is im-  
mediately let loose, the Mixture grows white, or milky, and  
lets the Silver fall, according to its Nature, m a white Powder  
or Precipitate, to the Bottom. ,

XVIII. Case 3. To the like Quantities of the same Wat erf  
contained in several Glasses, separately add a Grain of,pure  
Nitre, pure Alum, and pure Borax, in all which therein  
no Mixture of Sea Salt, and into each Glass let, fall the Soln-  
tion of Silver as before, upon winch no Change of Colour,  
or Transparency will ensue, nor any Precipitation be made.

, And this appears to hold of all the Salts wherein no Sea Salt-  
is contained. ' '

Χ1Χ. Case 4. Mix together, in a clean Glass Mortar, equal  
or unequal Parts of pure Nine, pure Borax, and pure Alum,  
wherein there is no Sea Salt lodged ; put four Grains of this  
Mixture into two Ounces of the distilled Water, set the  
whole intirely dissolve therein; then add the Solution of Sil-'  
, Ver, as before, and still no Milkiness or Precipitation, like  
that in the second Case, will appear. And this also seems to  
held of any Mixture of Salts, provided there he no Sea Salt  
among them. - \_ :

XX. These four Cases, when duly considered and compared, -  
will shew that a Solution of Silver in Aqua fortis is a ready,  
. an exact, and commodious thing for intimating whether there be  
or he not any considerable, or eVen minute Proportion of Sea-  
Salt contained in a Water.- The same may likewise he done  
by a Solution of Quicksilver in Aqua sortis, or an aqueous So-  
lution of Sugar of Lead, though not in so exquisite and perfect  
a manner. This kind of Proof may sometimes, indeed, hap-  
pen to he fallacious, incompetent, or insufficient, because other  
Salts, or Substances, whose Natures and Properties are not  
hitherto known, may possibly he able to precipitate Silver in Soln-  
tion, aS well as Sea Salt does; whence such kind of Trials should  
not he proposed as demonstrative, but only aS probable. All  
the Inference, therefore, to be justly made from them, before  
they are otherwise Verified, or confirmed, is, that since it must  
with regard to the Truth of the Experiment, he the same thing

' whether Sea Salt -is added tn a Water by Nature, hy Acci-  
dent, or the Hand os Man; provided it he in the Water, we  
inay hence he furnished with a probable indication whether any  
Sea Salt, even in a small Proportion, he contained in a Water  
or not. We now proceed to more direct and infallible Prooss.

**(2)By EVAPORATION and ADDITION to the DRY MATT ER.**

XXL Case I. To half a Ftnt of distilled common Water  
add a Dram or two of Sea Salt, which being totally dissolved  
therein, evaporate the Solution, over a Clear Fire, tIll a dry  
- Matter remains at the Bottom. Tins dry Matter will, upon  
all Trials, be found to be Salt. Thus, for Example, lay  
a Part os it upon a Piece of clean Glass, and. add to it a sew  
Drops of well rectified Oil of Vitriol, and a considerable  
Heat and Ebullition will enfue, and a particular white, pun"  
gent Vapour, or Steam, arise, having the exact Smell of  
'Glauber’s strong Spirit of Sea Sait. -Now, as no other  
Salt, unless it contains Sea Salt, or the Spirit of Sea Salta  
is found, upon the like Experiment, to afford this particular  
Vapour and Odour, we have hence a clear Indication that Sea  
Salt was contained in the dry Matter, and by adding a snfli-  
cient Proportion of distilled Waterin this Matter, then eva-  
porating the Solution, the Salt may he easily recovered in he  
own pristine Form.

XXII. Case 2. AS Nitre and Sea Salt may happen to he  
mixed in a Water, and aS hath of them afford their respective  
Vapours, or Spirits, upon Contact of Oil of Vitriol, dif-  
'solve equal Parts of these two Salts in distilled Water, and  
exhaling the superfluous Moisture, put the dry Matter into a  
Retort, and adding Oil of Vitriol to it, distil in a Sand Heat,  
whereby a true Aqua regia will he obtained; that is, a  
Mixture of Spirit of Nitre, and the Spirit os Sa Salt, both  
-which Spirits are thus made to rife in Vapour, and coine  
over mixed into the Receiver ; whence we have a Clear in-  
dication that both Sea Salt and Nitre were contained in the  
'.Mixture; since no other Matters'besides these two in Con-  
junction are sound to afford the true Aqua regia.

XXIIL Case 3. Mix together equal or unequal Quantities  
of. Sea Salt, Salt of Tartar, Epsom Salt, Borax and Alum ;  
add a proper Proportion of Oil of Vitriol thereto, and the  
t peculiar, white, pungent Vapour of Sea Salt hern immedi-  
ately arise, and giVe a plain indication that Sea Salt was con-  
**tained in** the Mixture. And this appears to -held of any **o-**ther Mixture ofdissitrent Salts with Sea Salt, excepting Nitre,  
whose Mixture with Sea Salt was considered under the second  
**Case ;** for Nitre, upon Contact with Oil of Vitriol, yields  
**Its** own peculiar Vapour, or the Fume of Spint of Nitre,  
easily distinguishable from all others.

XXlV. Case 4. Mix 'together equal or unequal Parts of Sea  
\* Salt, Bole Armoniac, Chalk and Brickdust; then pouring  
Oil of Vitriol thereto, the peculiar Vapour and Odour of **the**, . -Spirit of Sea Salt inay still he remarkably observed and distin-

guished; and this Experiment also appears to held of the  
-Mixture of Sea Salt with any other finny, earthy, or mine-  
**-ral** Substances. λ

XXV. If this kind of Proof, depending upon the Know-  
ledge os the Smell, and Appearance of a certain Fume or Va-  
pour, should he thought precarious or inconclusive, aS it may  
bebv those who are unacquainted with the peculiar Sensation  
constantly impressed. by the Fume or Spirit of Sea’ Salt striking  
the Nostrils of anyPerson who has his Smell, the Experiment  
' . may be farther prosecuted, and rendered more satisfactory and  
conclusive; for if the Mixtures affording this Odour be distilled  
in a Glass Retort and Receiver, with a sufficient Quantity of  
Oil’ of' Vitriol, they will afford the true Spint of Sea Salt, ac-  
cording to all Trials,-and particularly by this, that it is con-  
vertible into Sea Salt again,foe the proper Addition of any fined  
alcaline Salt..’ tioss . ' : ". .' I

' XXVL The chymioal Foundation whereon the Success os  
these .Experiments with Oil of Vitriol depends, is this, that  
Oil of Vitriol being a strong Acid, and powerfully disposed to  
actupon Sea Salt and Nitre, so as to enter ‘ forcibly into their  
more fixed or gross Parta; at the same time that-this is done,  
their lighter or more, volatile Parte, are loosed from their Con-  
nection with the grosser, and left free to rise, according to  
their lighter Nature ; and thus, in proper distilling Vessels, come  
intally over the Helm, with the Assistance of Heat, leaving  
the more ponderous .and terrestrial Matter behind, .closely united  
with the Oil of Vitriol, aS we fee in the Distillations of Glau-  
bersss strong Spint of SeaSalt, and Spint of Nitre,

**' (3) By CRISTALI.I2ATI0N.**

XXVIL Case I. pilsolve any Proportion of Sea Salt in distilled  
Water, evaporate the Solution till a Film or Skin appears on  
. the Surface; then put the Liquor into a elean earthen Vessel,  
set it to shoot in a cool Place, and, in a sow Days , time,  
. great Part of the Salt will he found grained ; or is the So-  
lution - was not too high boiled, and a sufficient time was

. afforded, shot into Crystals of a Cubical Figure,

XXVIIL Case 2. Mix equal or unequal Parte os Sea Sait,  
Nine, and Epsom Salt, hy grinding them together in a clean  
Mortar; dissolve the whole in distilled Water ; evaporate  
the Solution over a clear Fire, till a Film appears on the  
Surface ; then set the liquor in a cool Place for some Days,  
and the Nine will he found to shoot first in its natural Cry-  
stals ; which being taken out, and the remaining Liquor again  
boiled to a proper Height, and exposed to shoot as before, the  
Sea Salt will he next obtained in its own peculiar Grains or  
Crystals. - And if the Experiment he carried farther, by boss  
ing the Liquor again, and setting it to shoot, the Epsom Salt  
wfll likewise he obtained, in the same Manner may any  
Mixture of different Salts he separated each in its own parti-  
cular Form or Crystals. The Rule in Crystallization is this,  
that the Salt winch dissolves most copioufly in Water, shoots  
last out of the Mixture; and that which dissolves the modt  
sparingly, first; whence Nitre shoots before Sea Salt, and  
: Sea Salt before Epsom Salt.

ΧΧΙΧ. This last Meshed of Trial, hy Crystallization,, may  
of itself he esteemed certain or satisfactory; but Joined with the  
Two former, by Addition to the Water, and by Evaporation and  
Addition to the dry Matter, it amounts te a physical DemoIi-  
stration: So that where they all agree, there can be no doubt'  
that Sea Salt is contained in a Mineral Water, treated after the '  
fame Mannes: For the first affords an intimation, that this Salt  
is naturally contained in the Water; the second shews, that it  
remains after Evaporation; and the third, that it is actually  
separable in its own proper Form from the Water, and may in  
this State be fairly examined, to try whether it has or has not  
the known Properties of Sea Sait. If any Scruple or Suspicion  
should remaim as to its bring Sea Salt, let it be strictly com-  
pared with a Parcel allowed to he Sea Salt, in all Respects, ac-  
cording to theCharacteristics above given of this Salt; and if no  
Difference appears betwixt the two, they must at least he ac-  
knowledged brine siuneltind.

XXX. It might indeed he here objected, that though Sea  
Salt should he contained in a Water, yet Nature may have so  
intimately, or, aS it were, undistinguishably and inseparably  
blended or mixed it in with the Water, or other Contents, as  
pot to manifest itself upon the severest Trials; as fixed alcaline  
Salt is concealed in Glass, Acid in Flint, or Sulphur, and Mer-  
cury in Metals; or as other Principles are in those emphatically  
called Mints, to distinguish them from Aggregates or-Com-  
pounds, where the Texture is loose, and the Parts much more  
easily separated. And this Objection must he allowed of Force,  
in forne Coses, till we can shew that eVen these Mixts can he  
separated by Art, or. have their ingredients rendered cognizable  
by the Senses or the Reason. This indeed belongs to a higher  
Chymistry than we are at present concerned with; otherwise,  
it might be made appear, that Mixts, with regard to their Ana-  
lysis, differ not from Compounds, provided we were furnished,  
with suitable analysing Powers, instruments, and Menstruums.  
Thus Glass may he, without much Difficulty, separated into  
the Sand, and fixed Salt that compose it; and Flints have their.  
Acid separated from them in the making os Glass, as we see in  
that Substance called, at the Glass-houses, Sandiver; and even  
the purer Metals may be analysed by the Burning-glass, and  
otherwise. But there is no Occasion m go thus sar for an An-  
swer to the present Objection, in the Case of Mineral Waters,  
till it can be shewn that Nature has made any such firm Mix-  
tures as those above mentioned .in Mineral Waters. On the  
contrary, numerous Experiments shew that the Principles here  
he loose, and may he separated, by ordinary Means, to such a  
Degree of Simplicity, aS clearly to manifest their physical and  
medicinal Effects, Virtues, and Uses, wherein oUr present En-  
quiry centers. We therefore presume, that the preceding Ex-  
periments, duly applied and considered, furnish us with a sure  
Method to discover whether any Mineral Water contains Sea  
Salt; and .is it does, to separate it from all other Things, render  
insensible,'and determine its Proportion.

XXXL ’ We have been , the fuller upon this first Article of Sea  
Salt, tosshewan Example of the inductive Method, which **we**would recommend in'Experiments, and particularly in prose-  
cuting Enquiries of. this kind, where the Foundations of phy-  
sical Certainty-have scarce hitherto been laid. And hoping **there 7**may be enough done in this strict Way, m shew the Nature os  
ti e Procedure intended, we shall, for fear of heing thought too  
minute and tedious, by frequentiy and circumstantially repeating  
the same kind of Experiments, endeavour to dispatch the re-  
maining Part in a more concise and summary Manner- \* '

(2) **NITRE.**

XXXIL The Characteristics of pure Nitre, or Salt-pens,  
feem.to.he chiefly these, *viz.*

I. Its peculiar Form, or hexagonal, prismatic Crystals, py-  
Ianudical at one End, when the SfaoQts 2^ frue

2. he particular sharp, or penetrating, coo], tiohdyspit-  
tetah.Taste. -e 7 -

3. fc oefevigg pds. a ,

**μαηανι,Γ fiond or rery Colour s u j,,.**

.Proving the red Colour of the Bleed, especially when inclined  
to he white, black, or sizy.

An Its cooling the Bedy, and lowering the Pulse; more re-  
markably in Fevers and Pleurisies.

. . 5. Its yielding a red suffocating Fume, or Vapour, in Distil-  
Iation, and thus affording a true Aqua sortis, or Spirit os Nine,  
which is a Solvent for Silver, but not of itself for Gold-

: 6. Its manner of flowing, or- melting, in a Crucible in the  
Fire, which is quick and igneous; though this Salt does not of  
itself take flame in the strongest Heat.

7. Its fulminating, and turning to a fixed alcaline Salt in Fu-  
sion, upon the Addition of Charcoal, Tartar, *etc.* with a eon-  
siderable Loss of Weight.

r 8. Its composing Gunpowder with common Brimstone and  
Charcoal.

- 9. Its being recoverable from its own acid Spirit, hy thepro-  
per Addition of any fixed alcaline Salt.

' XXXIII. These Properties of Nitre being laid down, it is  
easy to try if any Salt, supposed to he nitrous, whether sound in  
a Mineral Water or otherwise, he real Nitre or- not. And  
hence it is manifest, that by Nitre, or Salt Petre, we do not  
mean’ the Nitrum Murale, or calcarinus Nitre of Dr- Lister,  
whose Properties will hereafter he delivered; nor the Nitre of  
the Ancients, which appears to have been a Very different thing,  
of an alcaline Nature; but our common refined Salt-petre, used  
in Medicine, Chymistry, and the making of Gunpowder; br-  
ing a neutral Salt, with regard to Alcali and Acid, though re-  
solvable by Fire and proper Additions into a strong Alcali and  
a strong Acid.

- XXXIV. The Ways of discovering whether this Nitre he  
contained ina Water seem reducible to four, *viz. . .*

I. By immersion, or steeping certain Bedies in the Water.

2. By evaporation, and Addition to the dry Matter.

- 3. By Distillation with Additions,  
4. By Crystallization.

(I) By IMMERSION,.or **STEEPING.**

‘ XXXV. If a little Nitre be dissolved in distilled Water, and  
Paper he steeped.a while in the Solution, then dried before the  
Fire; and, if there be Occasion, dipped and dried again; the  
Paper being now applied to a lighted Candle, or a glowing Coal,  
will immediately sake she, though not flame, and hum like  
Quick-match in a certain sparkling manner, *so* as to give a  
manifest Sign that it received this Property from Salt-petre; for  
Paper steeped in the like Solutions of Alum, Epsom Salt, fixed  
alcaline Salts, Vitriol, Borax, NitnIm Murale, Sea Salt, or  
any other of the known Salts, will not produce the same Phe-  
nomenon. Whence, if Paper several times steeped in a Mine-  
ral Water should, produce this Effect, or burn after the same  
particular manner, this would he an Indication that the Water  
contained Nitre.. . . . \*

4 XXXVL The Reason os the Experiment scarce needs to he  
mentioned,, as it is obvious that the Paper, by heing soaked in  
the Solution, becomes impregnated with the Water, and of  
course with Particles of the halt; and being afterwards dried,  
the aqueous Parts thus exhale, and leave the Particles of the  
Salt.Iticking in the Pores of the Paper, which being now applied  
to the Candle, it takes sire, and bums, or makes little fiery  
explosions, according Io the well known Property of Nitre,  
when mixed and fulminated with any inflammable Substance.  
But as this Effect may possibly be prevented, or not so remarkably  
follow, if other Salts should happen to be mixed in too large a  
Proportion along with .the Nitre, the following Case may help  
us to discover Nitre where it is blended with other Salts.

XXXVII. If equal or' unequal Quantities of Nitre, Sea Salt,  
: Epsom Salt and Borax he diflolved in distilled Water, and a

Piece of raw Flesh he steeped in the Solution *for some* Hours,  
' when it is taken out and examined, or compared , with a

Piece of the same raw Flesh which has not undergone the  
same Operation, the former will he found redder than the

. latter, or than another Piece of the same Flesh set to steep'  
for the same time in a Solution of the several Salts aheve

' mentioned, except the Nitre; whence it follows, that Nitre,  
according to its known Property, - was the Cause of this ad-  
ditional Redness. Is, therefore. Mineral Water should have  
the same Effect upon raw Flesh steeped therein, we may pre-

**- fit me that the Winter contains Nitre.**

XXXVlIL It should seem that Nitre gives this particular  
red or rosy Coin ur to raw Flesh, on account of some of the  
Blood still remaining therein; for Nitre acts powerfully upon  
Blood, so as to heighten its Colour, and long preserve it fresh  
and sound, even when stagnant or extraVasated. But, to. de-  
termine this matter, it might he proper to try, whether a  
Muscle so well washed and cleansed from its Blood (by soaking  
in fair Water, by injections into the Blood-vessels, or other-  
wise) as to appear white, could have any Degree of Redness  
restored to it by Nitre; or whether it will turnaTendon or  
sther white animal Substance red.

(2JBI EVAPORATIONand ADDITION to the DRY MATT Est.

XXXIX.. If Nitre he diflolved in Water, and the Solution  
evaporared to Dryness, the Nine will remain behind, and may  
he proved to he Nitre by mixing it with powdered Charcoal,  
and trying if it will fulminate and turn to an alcaline Salt in.  
the Fire; if it will make Gunpowder with Brimstone and Wii-  
low-coal; or if it will afford the peculiar red Fume of a parti-  
cular, nauseous, suffocating Odour, like that of Aqua sortis,  
by pouring Oil of Vitriol to it. And in the same manner,  
though Nitre should he mixed with several other Salts in a Wa-  
ter, aster Evaporation; to a dry Substance, Indications may he  
gained of its being among them ; but particularry by *ashling;*Oil of Vitriol to the compound Mass, and observing and **ex-**amining the Fume and Odour thence arising.

**(S) By DISTILLATION.**

XL. So again, if Nitre; aster the full Evaporation of any  
Water, remains mixed among the dry Matter, it may he dip  
covered by adding either Oil of Vitriol, calcined Vitriol, oi  
Brickdust thereto, and distilling in a naked Fire ; for thus **the**Nine parting easily with its Spirit, this Spirit will soon rise, and  
come over in red Fumes into the Receiver; only if Sea Salt  
happens to he in the Mixture, there may thus he obtained an  
Aqua regis, instead of a pure Spint of Nitre; though this also.  
gives a sufficient indication of the Nitre, aS Aqua regia cannot,  
he made without the Spirit of Nitre. To cany the Proof sar-  
ther, let Trial be made whether, by adding a sufficient Propor-  
tion of any fixed alcaline Salt to the Spirit thus procured, true "  
Nitre may not he recovered; and whether this Nitre in par-  
ticular will not serve in the making os Gunpowder, because  
it has been suspected, that regenerated Nitre will not.

**\ . .**

**(4) By CRYSTALLIZATIoN.**

XLI. *It need not* he mentioned, aster what has been said he-  
fore of Crystallization, that a simple.Solution of Nitre in.Wa-l  
ter being brought to a due Height, and *set* in a cool Place,  
will in a sew Days shoot into hexagonal, prismatic Crystals of  
pure Nitre; so that if any Mineral Water should contain \_ no  
Salt but Nitre, this may easily he obtained from it, by a proper.  
Evaporation, and subsequent Crystallization. Again, though  
several other Salts besides Nitre should be contained in a Wa-  
ter, they may, by repeated Evaporations and Crystallizations;  
be made to shoot separate, and thus he obtained pure, each in  
the Shoots or Crystals peculiar to itself, according to what was  
aboVe delivered, under the Article CRYSTALLIZATION, with  
regard to Sea Salt. And in this manner, therefore. Nitre  
may he obtained pure, and free from the Admixture of any  
other Salts which happen to he contained in a Mineral Water.  
- XLII. It will here be proper to remember, that nitrous or  
other saline Matters may possibly he contained in Mineral Wa-  
ters, and yet not be brought ur appear in a solid or true crystals  
line Form, without some particular Encheiresis, or Expedient  
suited to the Purpose. Thus it is a constant Practice, at **the**Salt-petre Works, to use a fixed alcaline Salt, inorder to con-,  
solidate or embody the Nitre, and make it short, firm, strong  
and regulat. The Cause appears to be this; that the Matters  
capable of affording such firm and solid helis are usually of  
themselves too acidfor many acid Matters are littie disposed  
to shoot and form themselves into.solid and hard Crystals;  
but, to *sit* them for this Purpose, require to have their prevail-  
ing Acidity destroyed, and the whole Substance brought to **a**neutral State, by means of fixed alcaline Salts, or terrestrial Al-  
calies, as .we see in the making not only of Salt, but also of  
Loaf-Sugar, Alum, .the artificial neutral Salts, *etc.* And these  
several Experiments and Observations properly applied, extend-  
ed and Varied, may afford us a Method os discovering with  
physical Certainty whether Nitre he contained in a Mineral .  
Water or not.

**' (3) ALUM.**

XT.ΤΠ. The more essential Properties of Alufii, *so far aS  
they* are hitherto known, seem to he principally these, *viz.*

i. Its peculiar Figure, or the Form of its Crystals, which  
consist of eleven plain Sides, five of them sexangulas, and **fix**quadrangular.

2. Its peculiar, sharp, rough, styptie, or astringent Taste;

3. Its melting aqueous over a soft Fine, and rising in **a**Blister; hut at length.to a white, light, spungy Substance,  
Called Burnt-Alum.

4. Its affording, when burnt, an acid Spirit, somewhat **site**Oil of Vitriol, by being distilled ina strong Fire, even'without  
Addition. . \*

5s This Spirit constituting Alum again, by heing properly  
united with any fixed alcaline Salt.

- 6. Its pdrtrcnisr Uses in striking and fixing certain Colours  
along with other Ingredients, as we see in the Art of Dying,  
Leather-dressing, the making of red Inks, *etc.*

*- J.* Its being the only Salt, that, with soitable animal, or  
vegetable Substances, will make the black Phosphorus, or Py-  
IonheIns.: - .

The black Phosphorus is a black Powder, now usually  
made with Wheat Flower and Alum mixed together in a  
certain Proportion, and calcined to a certain Degree, till  
it acquires the Property of taking fire spontaneously in the  
Open Ain, and appearing like a ginwing Coal.

.8. Its near Affinity with Vitriol freed from the metallic Part  
it contains.

q. Its serving like Vitriol in obtaining the Common Kinds of  
Aqua fortis from Nitre,

\_ XLIV. The more satisfactory Ways of discovering whether  
Alum be contained in a Mineral Water seem reducible to  
three, wiz.

- I. By the Taste.. .

2. By Evaporation, and treating the dry Matter, /

3. By Crystallization. -

**. (I) By the TASTE. -, '. ss.**

'-XLW It is easy to distinguish, by the Taste, any consider-  
able Proportion of Alum diflolVed in Water; but is the Pro-  
portion should be Very minute. Part os the Water may be ex-.  
haledTand the Remainder- tasted; for Alum wall not evaporate  
by bring boiled in Water; so that thus the Proportion may he  
greatly increased, till at length, if there be any of this Salt in the  
Water, it will come to \* he perceived thy the Taste. And this  
Case may often hold, though other Salts besides Alum should  
happen to he lodged in the Water, such as Epsom Salt, - Nitre,  
fixed alcaline Salt, *etc.* Put the Salts, or other Substances which  
mixed with Alum in a Mineral Water seem the most likely  
to confound the Taste, or prevent its perceiving the Alum, are  
Sea Salt, Acid, Vitriol; styptic irony Earths, Chalk or lime-:  
stone corroded and diflolVed by an Acid or otherwise; so that,  
though a Water actually Contains Alum, yet the Taste shall 1not with Certainty discover it j whence Recourse must he had  
to particular Experiments, more subtile and exquisite than the  
Taste. We cannot at present suggest or recollect any satisq  
sactory Experiment for determining, by Addition to the Water,  
whether Alum, either alone, or mixed with other Salts, he  
contained in a Mineral Water; though the Plant called Ragged  
. Robert is said peculiarly to turn any Water red wherein Alum  
isdiffolved.

**fa) By EVAPORATION, and TREATING the DRY MATTER.:**XLVL When Alum is the only Salt contained in a Water,  
it may easily he discovered and rendered sensible by EVapo-  
ration, and trying whether the dry Matter, upon Examina-  
tion by the Senses and particular Experiments, does not main.,  
fest all the known Signs of Alum. But when this Salt happens  
to he mixed with others, let the dry mixed Mass be laid upon  
**a** hot Iron. Piste, where the Alum rising in a Blister, and sepa-  
rating from the rest, in the Form of Burnt Alum, may he af-  
terwards dissolved in distilled Water, and brought by Crystal-  
lization to the true Form and Appearance of Alum. This Mo-  
shod, indeed, may prove imperfect, especially when other Salta  
that swell and rise in Blisters upon a hot Iron as well as Alum  
happen to he mixed therewith, as Borax, and the ealcarious  
Nitre do, though in a somewhat different manner;. so that, ifr\*  
this .Case, a farther Illustration -and Confirmation must he had  
from the surer Meshed of Crystallization.

**(3) By CRISTALLIzATIoN.**

. XLVII. Although a Water should be truly aluminous, yet  
it may not be practicable, as was also observed under Nine,  
to make the aluminous Matter crystallize without the Assistance  
of a proper Expedient for the Purpose. Hence, even at the  
Alum Works, the Alum does not appear in its true rocky  
Form at the first Operation, without the Addition of Kelp and  
putrefied Urine, whereby we are directed to use the same Ex-  
pedient occasionally. And thus if a Water should contain any  
Number of Salts, besides an aluminous one, this may, by Cry-  
stallization properly repeated, he simarated from the rest, and  
rendered sensible in its own natural Form.: \* i

**(4) BonAx.**

. XLVIIJ. Borax is a Salt not hitherto allowed to he sound  
native in England, fur which Reason we shall, in this Place,  
treat more lightly of if .. though-in natural History is of Conse-  
quence in Chemistry and Physics, as bring a Salt of a Very ex-  
traordinary Nature. Its discriminating Properties are chiefly  
these, *viz. .*

ἐν I. Its Form and Appearance, aS brought to ns from the  
East IndJ.es, which is that of dirty Lumps, or a coarse, saline  
and particularly foetid Substance, mimed with much Unctuous,  
earthy and stony Matter; and in this State it is ooin'monly called  
Tineals or Tineat.

. 2. Its pure and intire Crystals, when refined, bring, octa-  
gonal Prisms very .finely cut, though seldom obtained perfect  
in the ordinary way of refining it. -

3. Its particular Taste, not easy to he described, as being  
ssveetish, sharpish, and somewhat urinous or lixjvious.

4. Its Property of soldering Metals, or malting them easily

unite, or take held of each other 5 more particularly the Parti-  
of Gold. ...

. 5. Its making an excellent Flint for Metals and Certain Ores,  
and, by being melted with a proper Proportion of Sand or.  
Flint, turning, in a Very short time, th a hard Glass, capable of  
rutting common Glass almost like a Diamond.

6s Its extremely Vitrescible Nature, so as by itself, witha.-  
moderate Heat, and in a sew Minutes time, .to become true  
and permanent Glass. " - ’ *- s*

XLIX. Th eWays of discovering whether Borax he contained  
in a Mineral Water are principally two, *ViZt .*

**I ..By evaporation.**

2. By Crystallization.

τι) Since this Salt does not exhale by helling in Water, (aS  
appears in the refining of it, winch requires long hailing) if any  
of it he diflolVed in Water, it will he left behind among the  
dry Substance gained by a total Evaporation, which dry Sub-  
stance being laid upon a hot Iron held over a common dear  
Fire, if any Part tints melts aqueous, and: rises high into a white  
spungy Mass, this may he collected separate, and examined by.  
the Senses and particular Experiments, according to the Proper-,  
ties above laid down, whether it be Borax, Alum, or the calca-  
rious Nitre; for all these rife at first somewhat in the same  
manner; but if the Fire he continued, or raised to a proper  
Height, the Borax soon melts-a second time, and turns to-  
Glass, which Alum and the calcarinus Nitre will not do;'  
whereby it may be readilyoistinguished from them. And this.  
Glass has ine same Properties as Borax itself, with regard to  
Soldering, fluxing Metals, *etc.* . ι

Lt (2) But to gain Borax in its natural Fotin and Appear-  
ance, separate from all other. Salts or foreign Mixtures, we  
must have recourse to Crystallization. And to obtain it in  
perfect or intire Crystals, certain Additions, Cautions, and En-  
cheireses are required, wherein consists the Secret of refining  
this Salt. Thus, in Particular, it is necessary,

I. To use a shong alcaline Salt, and -Lime-water.’ .

2. To make the Solution perfectly pure.

. 3. To cover this Solution whilst it remains hot, and suffer it  
to cool flowly.

4. To use proper metalline String for the Salt to adhere to.

5. Not to open the Vessel till the Liquor has been for sorhe  
time cold; And thus it may be discovered whether Borax, per-  
sect or imperfect, he Contained in a Mineral Water.

**(5) SAL AMMONIAC.**

LL Sal Ammoniac has the following Properties, which may  
sufficientiy distinguish it from any other known Salt, *viz.*

I. Its Taste is much more penetrating and quick than that  
of Sea Salt, and somewhat urinonS.

2. IT renders Water intensely cold, whilst continuing ini  
dissolve therein.

3. By Crystallization it shoots into a kind of light, feathery,  
or showy Substance. - ' t

4. When mixed with any fixed alcaline Salt, it yields a pun-  
gent Volatile Vapour, that strikes the Nostriis like Salt of Harts-  
horn ; and if the Mixture be sublimed, a dry, volatile, alcaline  
Salt is thus obtained.

5. It has the Property of soldering or Joining Tin and Cop-  
per together.

6. It will, by itself, with a proper Degree of Heat, totally  
sublime, unaltered in its Nature.

7. It causes certain Mineral Waters, and even MetalS, so  
sublime along with it. . .'

8. It turns Aqua fortis into Aqua regia, on account os the  
Spirit of Sea Salt winch it contains.

- LIL A Knowledge of these Properties, and of the Doctrine,  
already delivered, will enable US m discover whether this Salt  
he contained in a Mineral Water, *viz.*

.. by. the Taste, especially after a large Proportion of the  
aqueous Moisture is evaporated.

2. By trying whether the Water, after a large Evaporation,  
will promote the Union of Tin with Brass or Copper in the  
way os Soldering.

- 3 ’By exhaling the Water to a day Remainder, and putting  
this Remainder to common Water, to try if in will increase tin.  
Coldness thereof.

4. by dissolving with Water the Salts contained in the dry  
Remainder, and crystallizing the Solution, to try if anv tme  
Sal Ammoniac may he thus obtained J 1

(6) **EPSOM SALT, or** Sai **CATHARTIC UM AMARUM.. :**

LIB. Some of the principal Properties of the Sal Catharti-  
eum amarum, whan perfectly ptm., chefollowin-  
Phe^uli ?ryflaIs’ which appe2r line fined icy\*

Lwhe her When Viewed against the

sssssp b m a HeaP’ and viewed by Re-

**^t°inhelshem MiraWcalfosentLtes  
fecSMSA\* fcnCTiat**

*i.* The considerable Bitterness arid penetrating Nature of its  
Taste, whereby It seerns to sink deep him the Tongue, whilst  
it dissolves quick in the Month.' \*

3. Its dissolving totally and readily in its own Weight.of com-  
**mon Water, le**aving **the** Solution coagulable into a white and  
almost solid Substance, by the Addition of rectified Spirit of  
**.Wine**

4. When perfectly pure, and totally separated from Sea  
-Salt, *it* neither grows het, nor makes any Ebullition upon the  
Addition of Ost of Vitriol.

- 5. Its Solution in Water does not turn white, or 'milky,  
wish the Solution of Silver in Aqua' sortis, provided the Salt he  
perfectly pure, whence we may have a Ted of its Purity, and  
'inaire Separation froth Sea Salt. ’ ’

6. It has a quick and strong , purgative Virtue ; but so like-  
wise has that artificial Salt, - called Glauber's Sal Mirabile.

*\* - f.* When innind with powdered Charcoal, and set in a  
'strong Heat, it totally exhales, and yields a copious sulphurous  
-Finns, ' '

LIV. BY these properties we may be enabled ‘to discover  
"with Certainty whether the Sal Catharticnin 'amarnm be con-  
rained in a Mineral Water, *mix. si f.,*

~ I. By a remarkable and particularly nauseous penetrating  
Bittentess sound upon tasting the Water, especially aster some  
-(Considerable Evaporation of its aqueous Part; for this Salt will  
.not fly off in the Evaporation, as we know from the manner  
of preparing in, aster inng boiling at the Salt-works, where'it  
Is made from SeaSalt, after all the sea salt is shot, when the  
remaining liquor,, called Bittern, by a farther Evaporation and  
-Crystallization; affords the Sal Catharticurn ainarutn. ..

s 2. As this Salt appears to be the most soluble in Water of  
.any Salt, except Sugar, we are not, by the Law of Crystal-  
lncetion, to expect it should appear till the other Salts 'are'first se-  
parated froth the Mineral Waters that hold it; after which, by  
a fresh Evaporation and Crystallization, it may he gained in its  
trueFigure, and he proved to he pure and perfect, by sts hav-  
ing the several Properties aheve enumerated.

**(7) NITRIJM.MURALE, or the CALcARIoUs NITRE.**

LV. This Salt is not only said tn he found in Mineral Wa.  
ters, but also to he procurable by powdering and boiling the  
Mortar of old Walls, ind crystallizing the clear Solution or  
Lixivium. The Properties of it, so far as hitherto known, are  
chiefly these, *viz. .*

- It Its Crystals, when perfect, are long and flender, consist-  
ing of four, and sometimes of five unequal .parallelogram Sides;  
hut ohe of the Points of two plain Triangles, and the other of  
**two** flat Squares;

' 2. It is lightiy bitter to the Taste, and does hot readily dis-  
solve, in the Mouth, nor with the Sensation os Cooineis, as  
irhe Nitre does.

3. It is a neutral Salt, or neither acid noralcaline, though Very  
different from Salt-petre, with which it has been confounded,  
as not bring disposed to make Gunpowder, nor Aqua fortis,  
nor to fulminate with Charcoal in the Fire, nor to turn to a  
fixed alcaline Salt;

4. When kept upon a hot Iron Piste over the Fire,.it rises  
in Blisters, and turns to a light, spungy, white Substance,  
which, when farther urged by Heat, does not vitrisy, but re-  
rnains loose like Lime. The sureWay, therefore, of discover-  
ing whether this Salt be contained in a Mineral Water, is by Eva-  
poration and Crystallization carried to’ their due Length, and  
examining the Salts separately obtained, to see if any one os  
them answers to the Characters here laid down.

**(8) MINERAL ACIDS.**

LVL Acids are of various Kinds, or Vegetable, animal, and  
. mineral, with their respective Subdivisions as Leinon-juice,  
Rennet, Spirit of Sulphur, or Oil of Vitriol, *etc;* Put what  
we are here inore particularly concerned with is, the Mineral  
Species, or fuch as bring naturally contained in the Earth niay  
come to mix with a Mineral Water. And that something of  
this kind happens in certain Waters, appears to have been  
generally believed, aS all the brilk or spiritous Mineral Waters  
are th this Day called by the Name ofAciduhe. This Opi-  
nion seerns to have arisen first from the Taste of these Waters,  
winch is sharp, quick, brisk and pungent, whilst the Waters  
are fresh ; and, secondly, *from* a Supposition that there is one  
gaiteral or universal Acid contained in the earth; which' Acid,  
by corroding or diflblVing a suitable earth, makes Alum; oi  
by saturating itfdfwith Copper, or Itch, makes the reipectiw  
Vitriols of those Metals, *etc.*

LVIL Now, in order to determine whether this, or any  
other Acid, he contained loose or unrnortified in a Minera  
Water, we should, as in the former Cases, he previously ac-  
quainted with the Properties of Acids as Acids. And these Pro  
perties seem reducible to the three following, *viz.*

TTheTaste,when rightly informed and prepared, and the Sub  
ject properly applied, or in a sufficient Degree of Strength n  
. he cogrunahle. Thus, though the J nine of Lemons, and Spin

of Sulphur are acid, yet they'may be so largely diluted wisS  
Water, as not to he distinguishable by the exactest Taste.  
And that the Taste may be ill instructed, or, m squial more pro-  
perly, that the Judgment may form a wrong Conclusion from  
the Sensation called Taste, is certain, hecaute rhe Taste, which  
some call brilk, quick, or alcaline, has by others been called  
tart, sous, or acid, which has been the Cafe in several Mineral  
Waters. Ἀ proper Habit of Judging, or a kind of learned  
and exercised Taste, seems theresore requisite in this Α since, .

2- The Change of Colour which Acids (or Liquors wherein  
any Acid Presides) produce with certain vegetable Subjects, or  
artificial Preparations, is a more exquisite way os Trial than the  
Taste, and discovers .a much more minute Proportion os an  
Acid than is cognizable by the direct Senses, unassisted by this  
Expedient. These Experiments are Various; thus though a  
Water he hut lightiy acid, a sow dried red Poses, or fresh  
Violets, will give it a fine red Colour, as may easily he tried .  
by adding a few Drops of Spirit of Salphut, Oil of Vitriol, *etc.*to distilled Water, and then putting in the Roses, Violets, or  
their respective Syrups. .So again, If a Water he acid, the  
Addition of a little Oss of Tartar per deliquium will remarkably  
alter the Taste of the Water, and give it, for some small time,  
a Degree of Bri&ness, Quickness, or Pungency upon the  
Tongde, which it had not before, and take off the Acidity  
either totally, or in part, according to the Proportion os - the  
Oil osTartar added. ...

. 3. The third, and most essential or distinguishing Property of  
Acids, is that of becoming neutral with Alcalies, and thus  
forming a new thing, intirely different in its Properties and  
Effects from both.. Tins may easily be tried in Juice of Led  
mons, and Salt of Tartar., a due Proportion os which makes  
the famous antiemetic, neutral Mixture os Riverius ; in distilled  
Vinegar, and Salt of Tartar, which make that extraordinary neu-  
tral Menstruum and Medicine, called Regenerated Tartar; in  
Oil of Vitriol, and Salt of Tartar, which make the true Tar-  
tarum Vstfiolatuin, *etc.* And hence we are furnished with  
three principal , and, if taken together, three sure Ways of de-  
termining whether a Mineral Water contains any Add in the  
Form os an Acid. . - ’ .. . , . .

LVIII. The Particulars that may tend to invalidate or elude  
there Trials, are the Volatility, the Paucity, and the Mixture  
of the Arid with other things. Is the Acid of a Mineral Wa-  
ter should he Volatile, and, at the same time, little in Quan-  
tity, we inay endeavour, by a careful Distillation, to separate,  
honcehtrate, or reduce, it *po* a sinall Bulk, , wherein at may  
hear a large Proportion to the aqueous Vehicle that contains it,  
and, in this State, make, our Experiments upon st, if they should  
not. he capable oLdiscovering it in the natural Water itself;  
Again, if. the Acid he .small in Quantity,Sui tes a more fired  
Nature, so as to sustain a helling Heat, without flying off, Eva-  
poration will easily concentrate, or bring is into a less Compass,  
and fit -it the hettes for our Trials. But if it should he mired,  
or intimately united with an alcaline salt Earth, or metallic Sub-  
stance, it is hot to he expected that in this State it should di-  
rectly manifest itself upon *these* Trials; as not being the thing  
. we here intend, or are concerned with, aS now making *aii*Ingredient in a mixed Body, where its own particular Nature  
is destroyed or. abolished; though more powerful Agents, as  
for Instance, a Violent Fire, or a proper Distillation, with  
suitable Additions, might here break the Connexion, and re-  
cover she Acid, as we fee in the Distillation os Nitre, Sea  
Salt, Asuin, Vitriol, *etc.* where the Acid is separated from'  
the earthyor metallic Masters, wherewith it was before inti-  
mately and strongly united.

**(9) MINERAL ALCAiIns.**

LIX. Alcalies are of two general Kinds, earthy and saline -  
we are concerned with both os them in the present Enquiry)  
By earthy Alcalies are ineant all those earthy Matters, winch  
of themselves scarce dissolve in pure Water, but being added  
in a sufficient Proportion th Adds destroy or abolish the Acidi-  
ty thereof, and forth a new thing, of a neutral Nature, that in  
'this hew or compound State manifests no Signs of a prevailing  
Acid or Alcali. And of this hind are Chalk, Lime-stone,  
Crabs-eyes, Oister-shelis, Egg-shells, *etc.* Thus if common  
Water he acidulated with Oil os Vitriol, and a littie Chaik he  
scraped into it, an Ebullition or Conflict will presently arise;  
during which the Water has a brisk or quick lively Taste ; and  
at length, when the Point of Saturation is hit, all the Acidity  
will’he abolished, not only th the Taste, hut so sar, that **the  
exactest** Experiments commonly used to determine Aloalies and  
Acids will here manifest no Signs of either. And this. is **a**certain Characteristic, or the proper Meaning os an Alcali.

I.X. Saline Alcalies are of two Sorts, fixed and Volatile.  
How fixed Alcalies are obtainable by Art has been shewn  
aheve: And some of their principal Properties are the followir^,  
ties. - ' \_

I. They have a fiery or extremely acrimonious Taste, but  
. no Odour.

2. They are caustic, and, if strong, eat or consume the  
Flesh, when applied thereto.

3. Being long boiled with Ost and Water, they male

4. Of themselves they are fixed in the Fine, so as not to  
lose considerably os their Weight therein.

5. They readily grow moist, and run into a Liquor, by at-  
tracting Water our os the Ain.

6. Melted with Sand, or any Vitrescihle earthy Matter,  
they make Glass.

7. Added to Spirit of Nitre, or Spirit os Sea Salt, they bring  
these Spirits back to their own Salts respectively.

8. They turn a Solution os Sublimate in Water yellow or  
red; Syrup os Violets or red Roses green, *(Ac.*

LXI. Volatile alcaline Salts appear to differ but littie from  
the fixed, except in those Properties which depend upon their  
Volatility; for these also are caustic and fiery to the Taste;  
-but, on account os their Volatility, bristly strike and shake  
-the Nerves os the Nose, being spontaneously Volatile, and flying  
away in the open Air, and, in Distillation, rising sooner than  
Spint os Wine. These also regenerate Nitre and Sea Salt from  
then Spirits; though the Salts thus regenerated are semi-Volatile,  
or much more Volatile than the natural, bring in this respect  
like Sal Ammoniac. And, lastly, they produce the saute Changes  
os Colour, upon Mixture with other things, as the fixed.

. LXII. Under this Head os Alcalies,1 therefore, our Expert-  
ments must he directed to discover whether an' earthy, a fixed,  
saline, or Volatile Alcali he contained in a Mineral Water.  
And, first, if a volatile Alcali should he contained therein, we  
-see it may be reasonably expected that this should manifest  
sitseis by in Odour,- by Additions, Or by Distillation. The  
Odour os a volatile alcaline Salt, if any such he contained in a  
Water, may he perceived by immediately applying the Nostrils  
thereto, especially as fresh taken up from the Well; for if a  
Very few Grains of the Volatile Salt of Hartshorn, or a few  
Drops of the Spirit of Hartshom, or Spirit of Sal Ammoniac  
he mixed with a Glass of sair Water, the Odour of them is  
very distinguishable. Again, if any Volatile alcaline Salt reside  
or be a loose Ingredient in the Water, it will give Signs of it-  
self, by changing Syrup of Violets green; or\* the like Experi-  
'-rnents by Addition; though these Experiments will not of  
themselves determine whether it he a fixed or a Volatile al-  
caline Salt, because they both act alike, with regard to such  
Experiments; fo that here the Assistance of Evaporation or  
Distillation may he used to shew whether the Salt will rise by  
Heat, or remain among the dry Matter, after a total Exhala-'  
tion os the aqueous Parts.' And if any considerable Proportion  
os a Volatile alcaline Salt should be lodged in Water, a gen-  
tie Distillation would easily separate it from the Bulk of the  
-Water, and bring it over first in the Form of a Volatile or  
-urinous Spint or Salt, as we constantly find in the Rectification  
os Volatile urinous Spirit, or Salt, with Water.

♦ LXlII. If a fixed alcaline Salt he contained in a Mineral  
.Water, it is easily discoverable by the Addition of such things  
as are known to produce a Change of Colour therewith, though  
these will not distinguish it .from a Volatile alcaline Salt; but  
.then evaporation is a ready expedient, whereby a dry Matter  
bring procured from the Water, the fixed Salt may he dissolved  
or taken up by distilled Water from the rest, and thus he ren-  
dered sensible in its own Form ; at least this may he done after  
the other Salts, if there are any, shall haVe been separated from  
it by repeated Crystallization; for fixed alcaline Salt will not  
easily crystalline, or perhaps not at all, unless it some way or o-  
ther unites with an Acid. . \* *c -*

LXIV. If earthy Alcalies, or alcaline Earths, he contained  
in a Mineral Water, these also are easily separable from it,  
and rendered sensible by evaporation, and afterwards taking up  
the saline Part of the dry Matter by distilled Water; for thus  
all the grosser earthy Substance will he left bchind. But hew  
different earthy Substances may he. separated from each other,  
we shall presently shew; for we are not here concerned with  
grosser metallic earths, but those of the finer alcaline kind,  
which in some Degree approach m the Nature os fixed alcaline  
.Salts, and may therefore in part remain permanently mixed  
or dissolved in a Mineral Water, without hindering its Trans-  
parency, or even pais the Filtre along with the saline Matter ;  
for such a kind os Earth iS found to adhere or unite in fixed  
alcaline Salts, and may he separated from them by repeated So-  
lutions and Filtrations, feme os this Barth each time remaining  
in the Filtre. And so much fur the general Head of Salts.

o

**(2) EARTHS.**

. LXV. By Earths we here mean all those more fixed Parts of  
a Mineral Water, which remain behind aster a perfect Elixa-  
tion or Separation of the saline Matters by means of a boding  
Water, whether these fixed earthy Parts he cal carious, metal-  
lie, sandy, stony, marly, okety, *etc.* And though possibly all  
the Species of Earths, when reduced to a sufficient Degree of  
Tenuity, or Fineness os Parts, may ledge in the Pores of Wa-  
ter, without hindering its Transparency ; yet those that have,

by a proper Analysis, been sound in Mineral Waters, seem  
chiefly reducible m three, quiz. The calcarions, finny, and okery j  
but if 'any others should he contained in a Water, they line-  
wise may he discovered, separated, and rendered sensible. For  
as Earths do not evaporate by Heat, especially not by the Heat  
of heiling Water, whatever of this kind is naturally contained  
' in a Water, will, after a total Exhalation of the aqueous Parts,  
remain among the dry Matter lest at the Bottom ; which dry  
‘ Matter being once or twice boiled in distilled Water, and the  
’ Liquor each time filmed, all the more gross terrestrial Matter  
will thus remain behind in the Filtre. So that if only one  
Species of Earth he contained in a Mineral Water, it is thus  
easily obtained, and made to appear in its natural Form.

LXVL But’ if two or more earths are suspected in a Wa-  
ter, let Care he taken, from the Beginning of the Evaporation,  
to observe whether any terrestrial Particles concrete or unite into  
small Grains almost like Dust or fine Sand upon the Surface of  
the Water; for these bring carefully taken off and dried, may  
prove a different Sort of Earth from that which falls to the  
Bottom in the Boiling, as there thus seems to be a. Difference  
in their specific Gravity, or Fineness of Parts. So likewise two  
'different Earths may be obtained separate, by permitting the  
. Water to stand for some considerable time in a wide-mouthed  
Glass, loosely covered to keep out the Dust; for thus an earthy  
' Skin will often gather on the Sursace, and an okery Substance,  
or metallic Earth, fall to the Bottom, or line the Inside of the  
Glass. i - ‘ ? Ἀ ...si μά τι ;

LXVII. Precipitation is another Method of separating **the**earthy Contents of a Water, aS particularly by adding a fixed  
alcaline Salt thereto, which causes the earthy Matter to sail to  
. the Bottom, so as that it may he easily separated by the Filtre,  
and by being well washed and dried appear in its proper Form ;  
and thus he submitted to n farther Examination, by means of  
’Lotion in pure Water, and a proper Degree os Fire, whereby  
its simple and compound Nature may he discovered. ....

LXVIII. The distinguishing Properties os a calcariout earth  
are chiefly these, *viz. \_*

i. Partly to dissolve without much Difficulty in the Mouth,  
as if it approached the Nature of fixed alcaline Salts. . I τ

2. To make an Effervescence with Acids, and take off their  
Acidity. : .

3t To become .highly sharp, corrosive, or caustic, like  
lame, by bring burned, or long detained in the Fine- '

4. Not to melt, or Vitrify, with a strong Heat. '

LXIX. .Stony Earths, as sound, in Mineral Walers, **ate**known,' 'ἐν ' si

i. By their quick selling to the Bottom os the Water in  
boiling, andheing ufually the last that remain after a perfect  
washing and Separation os the Salts and other earths by re-  
peated Affusions of sair Water. . . . . ρ

2. By appearing like true Sand, and melting into Glass **in a**strong Fire with fixed Alcali. - ;

LXX. Okery Earths are distinguishable,  
**” I.** By their'natural yellow, reddish, or red Colour..  
\* 2. By growing redder after Calcination.

" 3. By their rough, styptic,' or astringent Taste..

4. By their yielding some Proportion of Iron upon Fusion.

LXXL In like manner all the Earths, whether metallic;  
fidphurous, or sahne, as Ores, Semimetals, Marcasites, Vi-  
triols,' *etc.,* have their peculiar Properties, and may be difco-  
Vered or brought under the direct Cognizance of the Senses, if  
lodged in *a* Mineral Water; especially by means of Lotion,  
Elixation and Fusion, either alone, or with the Addition os pro-  
per Fluxes, according to the Rules of Metallurgy.

(3) **SUI-PHURs, ' ,**

LXXIL Several Mineral Bedies go under the general Deno-  
mination of Sulphurs; aS Brimstone, Orpiment, Petroleum,  
Bitumen, *etc.* But we are only concerned with those at pre:,  
sent that may he concealed, undistinguishable to the Eye, in  
'Mineral Waters; and such are chiefly supposed to he Brimstone  
and Orpiment: But as Orpiment is not allowed to he found  
native in England\*, we need not here he sollicitouS about it,  
any farther than to rectify some Mistakes which have crept  
abroad to its Disadvantage, as if it were, what, it is not, a poi-  
sonous Mineral. The true native Orpiment, or Auripigmen-  
tum, is a yellow, sulphurous, shining, or spangly Mineral,  
consisting os littie Flakes or Scales, like Talc, and comes to ns '  
from Greece, where it is dug out of certain Mountains. It is  
a Very different thing from all the Species of Arsenic, which  
are artificial Preparations of Cobalt, a poisonous Mineral found  
in Mishis, where the several kinds of Arsenic are prepared.  
Orpiment being reduced to Powder; and sat in the Pine quist  
flame, and emit a white or yellowish Fume, yielding **the**Odour of common Brimstone ; and thus changing the Surface of a  
polished Iron Plate held in it of a white, yellow and tegidissi Co-  
lour, leaving a Proportion of sandy Earth behind. It utegi his  
Painters as a Gold Colour, and for making sympathetic [tile  
It is sold common at the Colour-shops, without this suspicion  
of Its beingpoisonous any more than Antimony, Bchuttone.

-and some have used it medicinally, by the Way os Fumigation,  
and sor venereal Ulcers; and others internally, sor the Asthma,  
Without finding it prejudicial. Upon the Whole, Orpiment ap-  
pears related to Antimony; which is also a sulphureous Mine-  
ral, that remains innocent so long as it is joined with its Sul-  
phun, bur proves emetic, or deleterious, when separated from  
it; and, in like Manner, not to mention other Corresfonden-  
,cies, does Orpiment. We have been the more particular in  
this Account, because some eminent Persons, not distinguishing  
betwixt Orpiment and Arsenic, have erroneoufly imagined, that  
possibly mineral Waters might he poisonous, on Account of their  
.containing Orpiment ; and again, to give the Characteristics of  
it, whereby it may he known and distinguished ; though, as  
-was before observed, it is not native in England. But, if it  
were, and though any mineral Water should he impregnated  
with it (of which no Instance has hitherto appeared) yet, the  
same Experiments, that serve to discover Brimstone in a mine-  
ral Water, may also serve to discover Orpiment.

. LXXIII. Some os the principal Characteristics of Sulphur or  
Brimstone are these. Viz.

**I.** It melts readily over a soft Fine, and soon grows hard again  
in the Cold.

2. It is Very inflammable, and burns with a livid or blue  
Flame; at the same Time diffufing, from a very small Quan-  
tity, a copious and peculiarly offensive suffocating Vapour or  
Fume.

3. Being thus burned under a glass Bell, this Fume condenses  
into a highly acid Liquor, called *Oleum Sulphuris per Campo.,****num..***

.4 . It is absolutely necessary in the making of Gun-powder; as  
fulminating and having its Nature intirely destroyed by Nitre in  
the Deflagration.

5. It readfly unites in the Fire with fixed Alcali, and thus  
makes a dinky red or liver-coloured Mass, which, being diflblved  
in Water and precipitated, affords an extremely foetid Odor, like  
that of a rotten Egg.

. 6. Being distilled with Quick-lime and Sal Ammoniac, it af-  
fords a yellow, smoking, and highly foetid Spirit; so likewise do  
**these two** sulphureous Minerals, Orpiment and Antimony.

: .7. Its Solution, in a Lixivium of fixed Alcali, Changes Silver  
black.

8. Being melted and mixed with Quick-silver, the whole turns  
presently to a black Mass.

9. It dissolves into a Balsam by heing helled with Oil.

**Io.** It demetallizes Iron, applied thereto when red hot, and  
has other surprising Effects upon Metals.

LXXIV. These Properties of Sulphur may fufficientiy enable  
us to discover, whether it he contained in a mineral Water ; the  
Ways of doing which seem reducible to two, *viz.*

i. By Additions to the Water.

2. By treating the dry Matter lest aster Evaporation. But  
we are to observe, that Sulphur, in ah unmixed State, does  
not easily, or perhaps not at all, disiblve in pure Water, nor in  
acid Liquors; though it does in such as are alcaline ; whence it  
is chiefly to he expected in mineral Waters of an alcaline Na-  
ture. And here it may he easily discovered, by laying Pieces  
of pure Silver in the Water, to fry, if they will he discolour-  
ed or turned black therein j or by adding a Solution of Silver to  
the Water, to try if any Blackness ensues. The Odor also  
heing like that of rotten Eggs, or a soul Gun-barrel, will usual-  
ly discover such a Mixtureof Sulphur. But (2) a more gene-  
ral and satisfactory Way is, to evaporate the Water, and examine  
the dry Remainder, by laying Part of it upon a het Iron, to see  
if thus any Thing melts easily, takes Fine, or burns blue, with  
the peculiar Odor *of fined-Brimstone* j or if by burning, Un-  
der a glass Bell,1 it will yield the Oleum Sulphuris. And, last-  
Iy, let Spirit of Vitriol and Water he added in a sufficient  
Quantity, to a Part of the dry Remainder, whereby a Precipi-  
ration of the Sulphur, if there is any, will he made; which  
now falling, in the Form of a Powder, to the Bottom, may  
be collected separate, sublimed into Flowers, or melted, and  
thus reduced to a solid Lumpof Brimstone, like the common.

**(4) FtiMEs or SPIRITS.**

. LXXV. By Fumes or Spirits we here mean, id *i* general  
Sense, those fugitive or Volatile Parts of a mineral Water,  
which ipontaneoufly fly off from it in the open Air» or flint the  
Body of the Water with a less Degree of Heariinan serves to  
raise the mere aqueous Parts thereof in Vapour, or by common  
Distillation. ἐν... - .

i LXXVL The Fumes or Spirits of tins Kind, having never  
hitherto been collected separate and examined, it cannot he  
expected, that we should here describe thxir Properties or Es-  
sects ; but aS there is sufficient Evidence in shew, that Inch  
Spirits or subtile fugitive Matters do lodge in certain mineral  
Waters, more especially in those of the brisk, alcaline, and cold  
Sort ; and that they Very readily desert the Bedy os the Water,  
upon standing open, or sealing a small Degree of Heat ν (thus  
leaving the Water more spiritless and Vapid) our best Endeavours  
-shoalsshe used to manisest,or render sensible, to separate, collect,  
arid examine these-Spnits, in order to determine thctr Natures,

Properties, and Uses. And the W2vs ut doing thi; {imm ram.s-  
cib.e to the following inn, *viz.*

i. The Smelt

2. The Taste.

3. The Sight.

4. The specific Gravity.

5. Expansion- .

6. The exhausted Receiver os the Ain.pump.

7. Distillation.

8- Effects upon Drinking.

9. Additions.

IO. Direct Collection and Weight.

LXXVII. (I) Is a mineral Water, when a Osass of jt  
Is fresh taken Up ur the Well-head, and applied near rim jjoJ.  
striis, shall prove to have a brisk, quick, or pungent Odor;  
btir loses this Odor after standing sor some Time in this oped  
Air, or seeling a small Degree os Hear, in may he presumed,  
that such .a Water naturally contains what may he called a Spi-  
rit ; at least it will hence he certain, that the Water by stand-  
ing open, or seeling a sinall Degree of Heat, loses the Proper-  
ty winch it had; when fresh, os striking the olsactory Nerveg,  
In a particular Manner, so as to cause a certain Sensation deno-  
minated by that particular Odor.

LXXVIII. (2) So likewise, *if* a mineral Water should  
have a brilk, pangent Taste, when fresh taken up, but loin if  
soon after, by standing in the open Air, or by being exposed to  
a moderate Warmth, this also would afford a Presumption that  
the Water naturally contained a Spirit.

LXXIX. (3) Again, if a Glass os the Water, when fresh  
taken up, should manifestly sparkle and throw numerous Bub-  
bles to its Surface; or, when shook in a Glass close stopped at  
the Mouth, and then immediately opened, should appear to  
displode or throw off a large Mist or Vapour, and appear to  
bubble, or sustain a strong Internal Conflict, or. Commotion in  
its minute Parts, but not do the same, or in a much less  
Degree, after standing in the open Air, it would hence at least  
he probable, that the Water naturally contained a Spirit, or,  
subtile, active Part, winch readily quits the less active,.and sties  
off into the open Ain. ,

LXXX. f4) If the specific Gravity of the Water he taken  
in the .Well, or immediately after it is brought up in a proper  
Glass for the Purpose, and if, upon repeating the Experiment  
some Time after the Water has stand exposed to the open Air,  
in the same Glass, it should now prove to have a considerable  
greater Degree of specific Gravity than before, that is,.if ini  
Parts should thus appear to have come doser together, .or **the**Bedy. of the Water to he grown denser, this also would plainly  
intimate, .that the Water naturally contains a light or Volatile  
Substance, which keeps its Particles at a greater Distance, whilst  
that Volatile Substance remains therein; but fishers them to come  
Closer together, after it has deserted the Water.

LXXXI. (5} If thin glass Vials, or comthon Bladders,  
silled or half filled with a mineral Water, and well secured at  
the Orifices, he brought before the Fire, or set in a dry hot  
Copper; and if. other the like Glasses or Bladders he also filled  
or half, silled with the same Water (aster having stood in **the**open Air) and secured in the same Manner; and the Bladders,  
containing the first Water, should distend or burst sooner than  
those contained in the second; or, if the Viais containing the  
former should break sooner (with the same Degree os Heat)  
than those containing the latter; this would shew that the first  
Water held something more elastic, spiritous, or expansive than  
the other. The Experiment with the glass Viais might he made  
by setting them in a Copper of Water, with their Necks com-  
ing out at Holes made in the Cover, so as to prevent any  
Danger from their Bursting ; for thus the Heat would he ap-  
plied equally, and might he exactly measured by a Thermo-  
meter, made with Oxl or Quicksilver ; though there may he  
some Difficulty in procuring Viais, or Bladders, of the same  
Degree of Strength 5 but then it may he tried, whether **the**mineral Water, fresh taken up, will not break a Glass which  
could not he broke by a Parcel of the same Water which had  
fined open for some Time, .

LXXXH. (6) Ifa Glass os the Water, fresh taken up, he set  
tinder the Receiver of an Air-pump, along with another similar  
and equal Glass of the same Water, alter it had stood exposed to .  
**the** open Ain, or a moderate Heat; and *si,* when Air is drawn  
out of the Receiver, the former should sparkle more, or throw up  
**a** much greater Number of Bubbles than the latter ; it would  
hence appear, that the former contained more Air, or more of  
an explosive Substance, or Spirit, than the larter.

- LXXXIIL (7) Is a mineral Water be, atthe Well-head, .di-  
rectly put into a clean Remrt, and a Receiver he immediately  
luted on, with a Piece of wet Bladder, tied tight with a waxed  
Thread; and now the Retort he directly placed in a Balneum **Ma-**here, or proper distilling Furnace ; if any Thing, like Air, or  
Wind, shall appear to puff through the Luting, or covered  
Joint, at the Very Barinning of the Operation, or, aS soon as  
**the** Retort grows moderately warm ; or if either the Retort,  
or Receiver, should burst, without any manifest external Vio-  
lence, or imprudent Management of the Fire ; this would shew

.that an explosive Vapour, or Spirits, thus came from the Water.  
And if the same Effect did not follow upon the like Distillation  
of a Parcel of the same Water, that had been heated before, or  
exposed to the open Ain, the former Conclusion would he con-  
siderably Verified.

LXXXIV. (8) If a mineral Water, when drank fresh, at the  
Well-head, should have a Kind of intoxicating effect, or give a  
Considerable Degree of Alacrity, or occasion the Head-ach, a  
Drowsiness, &c. but have no such Effects, when drank in the  
same Quantity, by the same Persons, aster having been warmed.  
Or after having stood *for* some Time open ; this also may shew,  
that the Water, when fresh, naturally contains a Spirit.

- LXXXV. (9) Isa Glass Of any mineral Water, fresh taken  
-up at the Well-head, bring mixed with a light Acid, or particu-  
larly with Rhenish Wine, and Sugar, should make a strong  
Ebullition, with a large white Froth, or Foam, and discharge  
a Visible Mist, or Vapour, to a considerable Height; and, dur-  
.ing this Conflict, taste extremely keen, brifk, or pungent, but  
do thus in a much less Degree, upon the same experiment,  
after having stood, for some Time, open to the Air, it will  
hence also appear that the Water naturally contains a light,  
subtile, active Matter, or Spirit, which it loses by standing in  
the Air. So again, if a mineral Water should, when fresh,  
or perfect, change its Colour remarkably upon the Addition of  
the fust Powder of Galls, and turn with it either purple, dusky,  
or inky; but not ch this at all, aster the Water has been taken  
op, and suffered to stand in the Air sot a few Hours.; it would  
hence also follow, that the Water naturally contains a Spirit, in  
our Sense of the Word; and that this Spirit is, at least in Part,  
an actual volatile Iron, or Volatile Vitriol Of Iron, as no other  
Thing is found to have this Property.

LKXXVI. We come, in the last Place, to an Experiment,  
which may, is it succeed, he of itself esteemed conclusive, but join-  
ed with all, or some os the foregoing, will amount to a physical  
Demonstration. The experiment is this: Take a Vial, a Bolt-  
head with a proper Neck, or a common Quart Bottle, and nearly  
fill it with a mineral Water, at the Well-head ; have in Readi-  
thins a fine limber Bladder, well rubbed, and made thoroughly  
supple, or pliable, by oiling it On the Outside, and rubbing it  
betwixt the Hands, with Care to squeeze all the Air our, in  
which State it should he carefully, weighed, in an exact Part of  
Scales; immediately tie the Neck-part of this Bladder over the  
Mouth of the Glass, with a waxed Thread, aS tight aS possible;  
then remove the Glass to a proper Furnace, or gentie Heat of  
Sand, or Water, where, if upon standing a while to grow  
'warm, the Bladder appears distended, as if it were blown up,  
squeeze the Neck-part os it, to gain a Vacuity,’and there again  
carefully pass a waxed Thread ( which also should be weighed  
before-hand, or along with the Bladder) and Dow, taking off  
rhe former Ligature, the Bladder may he removed, and weighed  
again, to see what additional Weight it has gained by the Mat-  
ter,, or Spirit, wherewith it is distended, allowing (is weighed  
in the Air, and not in Vacuo) for the Difference of specific  
. Gravity betwixt the Bladder flaccid and distended. Or so full  
blown and empty: And, if any absolute Weight he gained, this  
is the Weight of the Spirit contained in the Quantity of Wa-  
ter made Use os, provided the Experiment was perfect. And  
thus the Spirit of a mineral Water may, perhaps, not only he'  
made sensible, as Air in a blown Bladder, to the Eye, the Touch,  
*Src.* but also he submitted to a Variety of other Experiments, in  
order to discover its Nature, Properties, and Uses. And here it  
should he particularly examined, whether the Spirit he a Simple  
Or a Compound; if a Compound, how it may he resolved,  
hew imitated, how introduced, artificially, into Water, how  
It is naturally made, or whence it proceeds, *See.*

LXXXVII. We have now, in our Manner, gone through the  
four general Classes, under which the principal Contents, or In-  
gredients, os mineral Waters, seem to he reducible; Viz. Salts,  
Earths, Sulphurs, and Spirits; for the mere aqueous Part, which  
is the Vehicle, or Menstruum, of the Whole, we have here no  
:particular Regard to, as bring not, strictly, in ingredient in  
Inineral Waters, but a Kind of general Instrument, or Agent,  
. whose Properties, Office, and Use 'belong to another 'En-  
quiry. - . - ' ' τ '

' - LXXXVIII. But it will recur, to the Imagination, that there

may still, possibly, he Salts, Earths, Sulphurs, Fumes, Spirits,  
or many other Things of an unknown Nature, that, either in a  
' smaller or larger Proportion, entering the natural Composition,  
**or** Mixture, of mineral Waters, are such, aS no Experiments,  
hitherto devised, can any Way discover, or render sensible.  
This Objection, indeed, is readily suggested by the Imagination,  
bnt hew far the Reason approves os -it, remains to he Consi-  
dered.

:. LXXXIX. No onedolerably acquainted with the present State  
of Chymistry and natural Philosophy, will pretend, that either  
of them is arrived- near to Perfection; or, that the Ways of  
making a true and proper Analysis of all natural and artrsioini  
Bodies are hitherto known. On the other Hand it must he  
allowed, that many useful Separations, Compositions, and **Re-**compositions of -Bodies have already been made ; and that many

more might still he made, if natural Philosophy, and ChymL  
stry, were sarther improved. - But with Regard to mineral Wa-  
ters, when the Aflair is stilly examined, it should seem that the  
Means of discovering their Contents, Virtues, and Uses, are  
already in the Hands of Man, and that nothing more is want-  
ing to compleat the Work, than a prudent, scientifical, and  
guarded Manner of using these Means ; or, to speak plainly,  
the principal Thing required is the Art of Induction. For,  
even the present, common, and Very imperfect Chymistry sup-  
plies us with numerous Experiments, and sure Ways of discover-  
ing the Contents osLiquors, and bringing them under the di-  
rect Cognizance of the Senses; and a higher or more philosophi-  
cal Chymistry, as now practised by many skilful Philosophers,  
will here penetrate sarther ; so that, if Chymistry should Conti-  
nue to improve, scarce any Analysis, of this Kind, would, at  
length, prove too hard for it.

XC. But, to come closer to the prefent Objection, What ate  
those Things, suggested’ by the Imagination, to he contained in  
mineral Waters, which no Experiments, hitherto known, can  
discover *? Let* us consider, whether these Things are not Crea-  
tures of the Imagination; for so they must he allowed, by Men,  
to he, if they are not discoverable by Sense, Experiment, or Rea-  
'son. But if at present discoVerable by Sense, or Experiment,  
the Objection Vanishes, aS depending upon a Supposition that  
they are not thus discoverable at present. The Strength of the  
Objection, therefore, seems to he this, that the Imagination,  
'by hasting about, suggests to the Reason, that there are many  
compound, or mixed Bedies, which cannot, by any Experi-  
ments hitherto known, he resolved into their constituent parts,  
so aS fairly to exhibit these Parts, in their simple State, separated  
from each other, and unaltered in their Properties j but that  
either some will be so changed, or fly off, in the Operation,  
aS not, by a Re-union, to exhibit the same Subject again ; or,  
with Regard to mineral Waters, that these may naturally con-  
tain Various Parts, so subtile, so intimately united, or of a Na-  
ture so utterly unknown, aS not to he reached by any Artillei.  
ry of chyrnical Experiments. ; and yet, that these Waters may  
manifest particular Virtues, or perhaps have pernicious Effects,  
in the Body, on Account of some latent Properties in them,  
which no dead, languid, or incompetent Trials, made out of the  
Body, are subtile or exquisite enough to discover.

XCI. We have endeavoured to obviate this Objection, in the  
Course os our Procedure; but to clear it up more exprefly, and  
answer it fully, with particular Instances, and Examples; it  
would lead us too sar from our Purpofe, and engage ns deeper  
in Chymistry than is at present necessary. Those, therefore;  
who require more Satisfaction, in this Point, than they can de-  
rive from the present Enquiry (though we hope that will he  
sufficient) may please to consult the chyrnical Lectures, already  
more than once referred to, -particularly those which treat of  
Water, and of synthetical and analytical Chymistry. We shall,  
however, here add, as a Supplement to the Way, already laid  
down, fur discovering the Contents of mineral Waters, the  
general Method os making an Analysis thereof, whereby what.,  
ever known or unknown Substances, especially those os a fined  
Nature, contained in a Water, may he rendered sensible, or  
brought to their true Form and Appearance, so as to he farther  
examined, or have their respective Natures and particular Proper,  
ties disclosed.

*A general Method of analysing mineral joratcrs.*

**I.** Let the first Intention be to make R natural Analysis of.  
the Water, or to see what Changes it will spontaneoufly un-  
dergo, or what Parts, or Matters, it will separate into, by  
standing in open and close Glasses. Thus, low, cylindrical,  
open Glasses, being filled with the Water ar rhe Well, let.  
them he directly examined by Eye, the smell, and the Taste;  
and again, aster standing for an Hour, two Hours, four Hours,  
a Day, or several Days, to discover the sensible Alterations ocoa-  
stoned by this Standing, as compared with more of the Water,  
fresh taken up; and particularly to find, whether any visible  
Separation of Parts ensues, and if a Scum appears on the Top,  
or a Sediment at the Bottom, let them he carefully collected and  
preserved, for farther examination; observing to keep a Diary,  
or Register, os all the Phenomena, and the whole Procedure.  
And let the like Experiment, or Observation, he made in GlaI.  
ses exactly closed, to discover the Changes which the Water  
will then undergo, in its sensible Properties, and the Matters  
it thus separates, or throws off to the Top, Sides, or Bottom  
of the Glasses.

- II. Let the Experiment, in some of the open cylindrical  
Glasses he prosecuted, by keeping them in a Warm place,  
the aqueous Part is totally exhaled, and only a Substance  
-left behind; which, bring reserved, may he compared wilth  
dry Substance gained from the same Water, by Evaporation  
-over theFire in order to shew, whether them he μὲν re.  
marltable Difference betwixt the two dry Substances, thus pro-  
***, ULdurT*** be to make an «aS chymicn

Analyis *of* the water, and to compare it with the famer.

in order to this, let a certain Quantity of the Water, *suppose*five or six Pounds Troy, be, at the Well-head, put into a glass  
Retort wish a wide Neck, and a dean glass Receiver he im.  
-mediately luted on, in an exact Mariner; let the Retort now  
he directly placed in a proper Furnace, and worked with a mo-  
derate Heat, so as barely to make the Water simmer; and pro-  
ceed, with this Degree os Heat, till all the aqueous Part is  
come over, and only a d,y Substance lest at the Bottom of the  
Retort'; then, letting the Vessels cool, takeaway the Receiver,  
Carefully weigh the aqueous Liquor, and keep it a-part in a  
clean well-stopped Glass; and, lastly, separate the dry Matter  
from the Bottom of the Retort ; weigh it, whilst thoroughly  
dry, and put this also into a clean dry Glass, to he kept well  
stopped.

IV. *At* the Beginning of this Operation, as soon as the Retort  
grows warm, let Care he taken to observe, whether any vola-  
tile or explosive Vapour comes out at the Joint, where the Lut-  
ing was applied ; for, if there does, this shews that there is a  
Spins, or sight subtile Matter, separable from the Water, tho'  
not capable of bring thus collected; whence we are admonished  
to use another Method, in order to render it still more sensible,  
and subject it to particular Experiments, according to the Direc-  
tions of the preceding Section.

- V. The aqueous Part, obtained by the Distillation, may he  
examined with Various Additions, or by applying it Varinas  
Ways, in order to discover, if in any Respect it differs from  
pure dishlled common Water, or whether it he impregnated  
with any saline or mineral Particles, like those found by the  
same Trials, in the natural mineral Water. Thus, as was for-  
merly observed, is it contains any Sea-salt, it will he apt to  
turn white with a Solution os Silver; if any Vitriol of Iron,  
it will turn black with powdered Galls ; or, if any Sulphur,  
united to an alcaline Salt, it will turn black, in Time, with  
almost any metallic Solution. And thus its Difference from  
common Water, or the mineral Water, that afforded it, may  
he assigned by a proper Variety of Experiments.

) VI. Let Part of the dry Matter, lest behind upon the Distil-  
lation, he put to, or gently helled with five or six Times its  
own Weight of the purest distilled common Water, thus freed  
and before-hand Proved, by particular Experiments, to be freed  
from any sensible known mineral Particles ; for by this Means  
-all the saline Part os the Matter will he taken up by the pure  
Water, in the Form of a Solution; which being filtred, eva-  
porated to a proper Height, and set to crystallize, will thus give  
out its Salt, In the Figure or Form peculiar to itself.. .And tho'  
several Salts should he lodged in the same Solution, they may all,  
hy repeated Evaporations, and Crystallizations, he obtained sepa-  
rate (according to what has, more than once, been observed be-  
sore) and examined to try whether they are of a known or un-  
known Kind : And though the Kind of any Matter, thus pro-  
cured, should happen to he utterly unknown ; yet certain cby-  
micaland philosophical Experiments might he contrived to dis-  
cover its Properties and Uses, according to the common Rules  
os Chemistry, and experimental Philosophy. Thus, for  
Example, it is easy to determine whether any Salt, thus obtain.,  
ed, he of an acid or alcaline Nature, by knowing the Pro-  
perties of each Kind, as they are above laid, down; for acid  
Salts turn red with Syrup os Violets, and become neutral with  
Alcalies, &c. And alcaline Salts turn green with the same Syrup,  
become neutral with Acids; cause Sal Ammoniac to emit a Vo-  
latile urinous Vapour ; turn a Solution of sublimate yellow, &c.

.\* VII. But the Difficulty may seem greater to determine  
the neutral Species of Salts. And here we learn, from natural  
History, and Chymistry, that the neutral Salts diflblved, or  
washed out of the Bowels of the Earth, by Water, are chiefly  
Sea-salt, and such aS consist of a sulphurous, or Vitriolic Acid  
(that is, an Acid like the Acid of Brimstone or Vitriol) and a  
Salt, or earth, ‘of an alcaline Nature. But Sea-salt is easily  
discovered by Its Taste, cubical Figure in Crystallization, and  
the particular white Vapour which it largely affords upon mix-  
ing it with Oil of Vitriol. The other Kind of neutral Salts  
may be distinguished from all others by the Property they have  
of producing or-regenerating Sulphur, upon being mixed, and  
melted with Salt of Tartar, and powdered Charcoal. Thus,  
for instance, is two Ounces of such Salt he mixed with an Ounce  
of Salt os Tartar, and an Ounce of powdered Charcoal ; andshe  
Mixture he melted-in-a Crucible, there will thus he produced a  
reddish-coloured Mass, of a sulphurous alcaline Taste, .that gives  
a'high yellow or golden Tincture to rectified Spirit of .Wine;  
which Tincture will discolour Silver, or turn it black ;and, bring  
precipitated by an Acid, affords a true Lac Sulphuris, that may  
he sublimed, and melted into Brimstone, like the common.

- VIn What remains hehind, after a perfect elixation, or to-  
tal Diflblution of the saline Matter, by Means of-he'ding Water;  
comes under the general Name of earth; winch by repeated  
Washings in pure distilled Water, and each Time pouring off  
the Water, may happen to he separable into terrestrial Mat-  
ters of different Kinds, according to their different Natures, or  
specific Gravities; as, for example, into bolar earth, or Oher,  
calgarious Earth, and Sand, or other Specie of Earths; which.

if thus separable, may he examined by particular Additions, or  
by the Fire, in order to determine their Kinds and Natures ;  
as, whether they are vitrescinls, or convertible into Glass, by a  
strong Fire of Fusion; or, -whether they will calcine, and turn  
into a Kind of Lime ; or, whether *they* will yield any known  
or unknown metallic Substance or Regulus. But, if the terre-  
strial Matter he not thus separable by Washing, let the Whole  
.he examined in the Fire, to try, if it will here separate into  
Parts os different Kinds, as it may, if a Compound, into a  
calcarinus, a metallic, and a glasty Part, heing either assayed  
alone, or with the Assistance os Boras, Glass os Lead, or other  
suitable Fluxes. And if the metallic Portion should he small, so  
as not to he collected separate, let it he fused with the Powder of  
pure crystalline Glass ; to see if it will thus tinge the Glass of  
any particular Colour; whereby a Conjecture may he formed of  
the Species of the Metal it contained; aS, whether Iron, Cop-  
per. Silver, Sc. which, reduced to a Calx, are found to give  
specific or respectively different Colours to crystalline Glass in  
Fusion. - υ

. IX- And aster this Manner we apprehend that a tolerable ex-  
act and instructive -Analysis may he made, and an useful, if not  
satisfactory Account given of the Contents and Virtues of any  
mineral Water. . ... .

X. It is but just, at the Conclusion of this first Part of our  
Undertaking, that we ask Pardon of the Reader (who may he  
much better acquainted then ourselves with the Ways of examini  
ing mineral Waters) - for having dwelt so long upon the Method  
of doing it, and inculcated some Particulars several Times over i  
But, to say the Truth, aS the Treatises, which we have read upon  
this Subject, appear to us far from laying the just Foundations of  
the Thing, or from observinga proper Form of Induction; and  
as many have objected to the Thing itself, on a Supposition of its.  
heing precarious and uncertain, we sound ourselves in some  
Measure obliged, for the Sake of the Many, to -trespass upon the  
Patience os a Few, and endeavour, even by some Degree of Re-  
petition, to set this Matter in a fair Light, that every one might  
he able to exercise a free Judgment upon it. And in this Respect;  
it is to he feared, we have rather fallen short than exceeded;  
*Shaw. ....*

- Thus much I thought prober to specify with Respect to mine-  
her Waters in general, and of some sew in particular, by Way os  
Example. The Virtues and Uses of the British mineral Wa-  
ters will he sarther taken Notice of, as their Names occur..

- ACIES. Because *Acies* signifies the sharp Edge or Point, of  
Instruments, which are generally made of Steel, some Authors,  
of the middle and lower Ages, have called Steel itself *Acies,* and  
thus Rulandus interprets it. But the - Name is arbitrary; .and  
has the Authority os no Author of Credit, that I know of, Io  
support it. ' . . 1 .. .

*Oculorum Acies* also signifies the Sight, but I : think *Acies*alone, without mentioning -the Eyes, is never used in .this  
Sense. *i ,* ς

ACINESIA. ‘From α Negative, and κινέω, to move. . Tm-  
mobility in general. But it is used by Galen toe express the  
State os Rest of the Pulfe, or the small Space of Time which  
passes betwixt the Contraction and Dilatation of the Artery.  
*Galen,* de Differentia Pulsuum, L. I. C. 7.

ACINIFORMIS, or Ac I Nos A. *Tunica.* A Coat of the  
Eye, called also *Tunica Uvea.* See UvEA.

ACINOS, Stone or Wild Basil.

*The* **CHARACTERS** *ore,*

. It hath Leavesdike those ofthe leiser Basil. The Cop of the  
Flower is oblong and furrowed. . The Flowers are produced in  
Punches, on the Top of little Foot-stalks, which arise from  
between the Foot-stalk of the Leaf and the Stalk of the Plant,  
in which it differs from Serpyllum. *:Miller. api .*

Itis *th&detfQ-* Diosc, the *Acinos,* Offic. Dill. Cat. Giff. 125.  
Rivin. Irr. Mon. *Acinos Rivini,* Rupp. Flor. Jen. 188. *Acinos  
Angltca,* Merc. Bot. I. Id. Phyt. Brit. 2- *Acinosmdtis,* J. B. 3.  
259. Rail Kish i. S53. Synop. 3.238. Chain aiii. Buxb. 5;  
Boerh. Ind. A. 176. *Acinos Jive Ocyrnum Syluestrescsiffi* Oxon. 3s  
4e4. *Acinas Ocyrnum Sylvestre,* Ger. 548. Emao. 675. *Asm.  
nos Clinopodium arvens.e Ocyms sude, -Cl.* B. Pin. 225.. Tourn.  
Inst. I95. Elem. Bot. 163. *Acinos minus feti vulgare.* Park.  
Theat. 2I. WILD BASIL-

- It grows on chalky Hilis, and flowers in June. The Herb  
is ufed, and checks the Overflowing os the Menses,, and a Diar-  
rhcea.- It cures Boiles, and St. Anthony’s Fine, being washed  
with the Decoction. *Dioseorides.*

Its Virtues are much the same with those of Calamini, but a  
little weaker. *Bocrhaave.*

- - The London Herb-women sell it instead of Mountain Poleyv  
*Dado.*

Miller mentions another Species of this Plant, called,\_.

*: Acini pulchra Species.* J. Β.. Broad-leaved Austrian W ild Ba-  
sil This is preserved only in botanic Gardens.

ACINUS. It fignifies,strictiy,a Grape, het is applied to many  
other Fruits, or Berries, that grow in Clusters, as those of El-  
der and Ivv ϊ these are distinguished from Baccae, a Sort of

Berries that grow single, as these of the Olive, or Laurel  
But *Acinus,* in the common Signification, as now used, is. the  
Stone of a Grape; hence *Uva exacinata,* Grapes that have the  
Stones taken out. *Sail* Hist- Plans. *Dale* from *Galen,* de All-  
mentorum Facultatibus.

Hence fome Anatomists have called Glands, that grow toge-  
gether in Clusters, Atini *Glandulose,* as these in the Liver.  
*Blsncard. . .*

ACIS. Ἄκις. It signifies in Hippocrates the Iron Head *cd*a Spear, or Dart, or any wounding Instrument.

ACMASTICOS. Ἀχμάστικος. The Name of a particu-  
lar Sort of continual Fever, of which Actirarius gives this Ac-  
count: Of Fevers arising from Putrefaction, fome are called  
continual, or continent (συνέχεις τε καὶ σύνοχοι) others, inter.,  
mittent (διαλείποντες). Of the former, thofe are called Ifni  
toni, or *Acmastici* (ἰσότονόι τε καὶ ἀκμάστικοι) which, during the  
whole Course, maintain themselves at the fame Pitch, or Vis .  
Err, without either increasing or diminishing in Point of Vio-  
ct Others are called *Epacmastici ldurdecsticitlum)* and thefe  
make a Progress and Increase, in Force and Violence, to the  
Time of their Solution, The third Sort are called *Paracrnastici  
(aaeCyugulatipri* which diminish by Degrees, till they at last in-  
thelyceasc. " , . .i

-ACME. 'Αχμη. This in’general signifies that State of any  
Thing, wherein it is in the utmost Perfection, and thus Hip-  
pocrates feems to explain it in his *Tteatikde Prisca Medicina.: L*

The Word ofually.signisies the State of an animal Body, ar..  
rived to its full, Vigour, and before it begins to decline. Hence  
the medicinal Writers have applied it to that State of a Diftem-  
per wherein it is increased to its utmost Degree of Violence,  
In this Sense Hippocrates ofes.it *Apla g.* and io. se. I . and in  
many other Places. ' , ,

*riAcme* also is a Term in Gymnastics, used to express the  
highest Pitch Of Exercise, and in this signification it is used by  
*Coleus , , .*

- Foesius is Of Opinion, that άκμας should he read instead of  
ἄκναί, in Aetius, *Tetrabib. L. 4. C.* I 3. and chat here it signi-,  
fies a small Pustule, or Pimple, so called, heraufe it generally  
arifes about the Time (τῆςἀκμῆς) that the Body is in full Vi-  
gout; and, in Consirmation of this, he quotes a Passage from  
Cassius, who thus interprets’Ἀκμαστ. " ... /1..

..Quincy makes a Mistake, when he derivesάστιμη from ἀκ-  
μήζω,, to grow strong, or to he in full Vigour, for ὀἱζ-μάζω is  
derived from ακμη. Others derive it from Λ Negative, and  
μήμνβ, to he weary; but this feems far fetched, and not much  
to the Purpose. And indeed ἀκμη feems to he itfelf a Radis,  
from whence some other Words are derived ‘ -

- i *Acme* also signifies a sharp Point or Edge. :i

ACMELLA. This is called *Acmella,* Ostin. *Akrnstla, Aha-  
nella,* Hertn.rMufl Ze'ylfry.X *Carysentliotruan.stidensSalumleusn  
Amelia dictum, Bieyn. iDiAntt.* But. 12... *Chrysanthemon Bidens,,  
feu Bidens Zeylanicum, sure luteo. Lamii folw, Acmella discum,*Ejusa.20. *Cannabina ala Bidens Urticae folia Indita lithrnirip.  
tica,* D. Honon. AS. Philos. Load, N. 257. p. 363. *Senecie  
India Orientalis Ocymi majoris folia profunde crenato,* Pluk.,  
Almag..343. Phytog. 3I5. *Ceratecephalus Basques foliis Atrnel-  
Ia dictus.* Acti Reg. Par. A. I720. p. 326. **ACMELLA, ACH-  
MEIiiA, andADMELLA.-** *Dale. . ...... ...*

It grows plentifully in the Island of Ceylon, and is brought  
from thence into Europe. .' . . .. .’..injss

Ray gives thesollowing Account of the *Acmella* firom P. Hot-  
ton, Professor of Botany at Leyden. - - .

e The Plowed of .this Plant grows on the Top of the Stalks,  
and consists of a great many tubulous yellow Floseulea, \_which  
by their Union form a Head sustained by a.Perianthium of  
six Leaves, .When these Flofcules fall off, the Seeds appear,  
which are of a dart Grey, long, and smooth, except that of  
the Top, 'immediatelyunder the Flofcuks, they are furnished  
with a double Beard, which makes them forked or horned.. The  
Stalk .is -fquare, and cloathed with Leaves that grow by Pairs,  
like those of. the Lamium, Dr. Nettle, but longer, and more  
pointed. .

. It has obtained great Reputation for its Virtues in dissolving  
theStorre.. An Officer, in.the Year. I69O, affirmed to; the  
Dutch East-India Company, that he: had Cured above a hun-  
dred of the Stone, and nephritic Complaints, by this Plant;  
And the Governor and supreme Councll, in the Island of Cey-  
lon, gave the same Year two instances of Patients, who.hed  
been cured of the Stone by this Plant, in whom a great Num-  
her of sinall Stones, and a great Quantity of Sand, had been ex-  
helled, with very little Pain .. - , ;

In the Year I699, the first Surgeon of the Hospital in the  
City Colombo, in Ceylon, confirmed, the Efficacy of the *Ac-  
mella* in the Stone, and nephritic Disorders, by Letters to Pi  
Hotton. ’ This Surgeon says, he observed three Sorts of the  
*Acmella.* The sirst with a pale green Leaf, a nd yellow Seed ,  
the second with a Leaf of a deep Green, and yellow Seed,  
the third with a black Seed, and much larger Leaves then the  
other two; which last, he soys, are of the greatest Virtues.  
He adds, that each Plant produces above ten tbmr&nd Seeds.

He farther says, the Leaves and Seeds are the most esscctiial, bet  
that the Root, Stalk, and Branches are used, . :

The Leaves are gathered .before the Flowers appear, and are  
dried in the Sun. These are either taken in Powder, mixed  
with some convenient Vehicle, or in Infusion like Tea.

A Spirit is allo prepared by Distillation:fromthe Rocs,  
Stalk, and Branches, infused in Spirit of Wine. . , .. .i ,.γ

Another Surgeon of the above-mentioned Hospitio iays, he  
ufed the Flowers, the Extract of the Root, and the Salt, with  
Success, in Pleurifies, Colics, and Fevers.

TO the Description of this Piant given above from Horton,  
may be added, from Johannes Philippus Beeyueus, chat the  
Root is white and fibrous*j the* Stalk almost-soar-square, about  
a Foot high, and divided into Branches ; the Leaves oblong,  
mncronared,. somewhat rough, and separated on the Edges.  
The Flowers grow on the Extremity of each Branch. , . : -

Breyneus fays, this Plant is diuretic, that in cures nephritic  
Pains, expels the Stone from the Kidnies, relieves in Isehtiries,  
Stranguries,and Dysirries,and that it restores the Menses, when  
suppressed. The Leaves are endued with the greatest Virtues\*  
which consist in the Fineness, Volatility, and Penetrability  
of their . Particles, whence they provoke Urine and Sweat, open  
Obstructions, stimulate to Excretion, expel the Stones from th?  
Urinary.Passages, and, if nor very herd, dissolve them. For  
thefe Purposes it must he .given by Way of Infusion, like Tea,  
in pretty large Quantities, and repeated two or three Times, a  
Day, always warm. But at the seme Time a great deadinsdi-.  
inting Liquor must he taken; and alloLiquorice, Syrup ofMarsh  
Mallows, or something os a. (oft relatiog Quality, should-dur  
given with in.. - 5 . - - - -i i X .. ' - :;n

Or Arack, impregnated with this Spirit, may he taken twice  
or three Time a Day, in a Glass of Rhenish or French Winej  
of some Anti- nephritic Deccction, always adding mi it Syrup  
of Marsh Mallows, for then Gravel, or Stopes, are expelled with  
very liine Pain. . . . -5- -m *s-ior.*

ACNE. Ἄκνη. Gorraeus interprets this a sinall hard The  
hercle -arising on the Facer Foesius thinks it should he read in  
Aetius, from whence Gorrsetrs quotes is, Ἀκμας’, instead; of  
Ἀκνας. SeeAcME. ' *re.*

ACNESTIS. "'Ακςηςις. That Part of the Spine of the  
Back, which reaches from the μετἀκρενον, which in the Part  
betwixt the Shoulder-blades, to the Loins. This Part feems to  
have been originally called so in Quadrupeds oniy, because they  
cannot, reach it to fcratcti, from α Negative, and κνάων to  
fctatchi ; r \_ \

It is also the Name , of an lHerb, mentioned by Nicander,  
which some.take for a Nettle, othersfor .a Squill.; *Gerraus.*

ACO. Α,Fish, called also Sarachusr anuSarachinus, and  
Aquo. .th is mentioned by. Aldrovandus, and is said to he very  
goodTood.f It is common in Epirus, and iLOmbardy, tatd in  
the Lake Comorn the Datehy of Milan, ' .. .st o

- AC0E. Ἀκοη. The Sense of Hearing.

ACOELIOS. Ἀκείλιος, from Λ Negative, and χοῖλβς,,  
the Belly. , Without Belly. : It is applied to those who are in  
wasted and extenuated, as rd appear as if .they bed no Belly;  
*Castellus* from *Galen. ; -* i. ... : -.0 : ,

ACOITUS. Ἀν.οι.ος. Au Epithet for Honey, iienuontd  
by Pliny, because it has.no Sediment, waictiis amlied4.obrn^  
*Caastantine: ../. : . : . - -* i - .; ' ‘ .

' ACOLASTOS. .Ἀμόλαστ«, from *λ* Negative, and κολάξειιν,' 1to restrain. It signifiesjowd, or obsoene.. .Hippocrates, *Epidi  
Ii.* 4. S.st. speaking of a young Man in a Fever, lays, he be-  
gan to talk idly, as he thinks, on the eighth Day (τρόπον **τὸν**ἀκολαστον) in a very obfcene Manner. . :

ACON. A missive Instrument, mode Use of hy the Antients  
in them Exercises. Schulzius thinks st was not mnce different  
from the Dishes: ῤ See DisCus, 7. . -- ‘ .

. ACONE.. Ἄκόνη. A Mortar.. ThusToesius and Gerraeua  
explain the Word which is used by Hippocratesjin the latter Part  
of his .Treatise *de Rasome Victus in Acutis; iaAplaat atilumr,*beating the; Ingredients,-mcntioned before, in a Moftat. Hip-  
pocrates allo mentions it in his little Piece, *de videndi Acia,*where he directs a Piece of the'Flos AEris (ἄνθος χβλκί) to he  
levigated τπρέράκίνην) against a. hard Stone, or Whetstone, as  
Foesius seems to understand it. But L do not see the least  
Reason to believe, the Author means two disseram Things in  
there *two* Passages. In both Places, the Ingredients to he pown  
dered are very hard, and scarce reducible to a- Powder in **a**Mortar. Jo the First, Ebony and burnt Copper jin the Second,  
the Flos AEris, which feems to be a Sort of Scoria of Coppers  
It is therefore more probablc that the Author in heth Places  
means by Ἀμὲνβ, a Stone so levigate upon, such as theApothe.  
caries now make Use of jor the same Purpose, And this is  
the more likely, because the-Word, in its most -genemi Sense,  
signisies.a hard Stone, or Whetstone; xed because- Diofcorides,  
L. I. C. 129, mennpoingEboas, says, it acquires a reddish Co-  
lour, τειφύοῦσαἐπ ἀκίνος, which I should tranflato *lemajated m  
a Stone. '*

ACONION. Ακονιον. This was a particular Fotin of a  
Medicine amongst the ancient Physicians, made of Powders

levigated Ort a Stone, and probably, like Collyria; used for Dis-  
orders of the Eyes, as may he inferred from Dinseorides, .L I.  
*C.* I29, who, speaking of the Effects of Ebony on the Eyes,  
says, it operates better εἵ τις ποιύσας ἐξ αυτῆς ἀκόνιον, if is is  
reduced to the Form of an *Aamlum* : And *L.* 5. *P.* 344. speak-  
ing of the Lapis Hzmatites, he says, of in are made Collyria,  
and (Ἀκόνια) *Acama.*

ACONITIFOLIA. A Name Of the Artapodophyllon Ca-  
nadeofe Morini, mentioned in Boerhaave’s *Index.*

ACONITON. Ἀκένιτον, or'Aninm, from « Negative,  
and Kovia, Lime Or Pleister. It signifies Not plaistered, and is  
applied to Vessels not lined within Side. Thus Dlofcorides, *L.  
4. C.* 65, directs Cantharides to he put into a Veflel (Ἀκίνι-  
τον) *rum picatum.* The Interpreters translate it; *not pitched.*Bence we may infer, that it signifies, in general, nor lined with  
any Thing.

ACONITUM. Wolfs-bahe. [Ἀκόητον, which some de-  
rive of Ἀκένη, a Whetstone, or Rock, because it grows on  
hare, rocky, or stony Places ; according to Psiny, which Ety-  
mology Ovid follows, where he says:

*Quae, quint nascuntur dura vivacia cante,  
. Agrestes* Aconita *vocant*

Others of *λ* Negative, and Κονις, Dust, because it grows with-  
out Earth ; others ofἈκςυν, Ἀκη, Dart, because the Barbarians'  
used to person their Darts therewith, others of Ἀκοιι^ομαι, to  
accelerate, because it hastens Death.] The English call it  
Wolfs-bane, of the Anglo-Saxon, UhJfes-BMof

*The* **CHARACTERS** *are.*

It hath circumscribed, roundish, divided Leaves. The Flowers  
consist of four Leaves, which are shaped like a Monk’sHond.  
Each of these Flowers is succeeded by three or more Pods,  
which contain several rough Seeds. *Miller.*

There are many Sorts of the *Aceratum.*

**i I.** *Napellus,* Offic. *Napellus vetus caeruleus.* Ger. 823. Emac.  
972.- *Napellus vetus.* Park. Theas. .3I8. *Napellus vetus stare  
caeruleo,* Park. Parad. 215. Buxb. 233. *Napellus store caeruleo.*Rivim Rupp. Flor. Jen. 234. *Aconitum caeruleum feu Napellus  
primus, G.* Β. Pin. I83.. Tourn. Insh 425. Elem. Bot. 337.  
Boerh. Ind. A. 300. Hist. Oxon. 3. 463. *Aconitum magnum*-Napellus, Chain 53t. *Aconitum magnum, purpureo store, vulga  
Napellus,* J. B.4. 655. Rail Hish I. 702. MoNKs HOOD.  
' i. *Aconitum Panticum,* Offic. *Aconitum luteum Ponticum,* Ger.  
S2I. Emac. 970. *Aconitum Dycectomcm,* Chub. 53I. *Aceni-  
tum liycectsnum luteum, C.* B. Pin. 183. Hist. Oxon. 3.462.  
Tourn. Inst. 425. Elem. Bot 337. Boerh. Ind. A. 3Ο&. *Acs-  
niturn luteum Panticum serotinum flare albide,* Park.Theat: 3IO.  
*Aconitum store Piaturi, store luteo pallescente,* J. B. 3. 652.  
Rail Hish I. 704. Dill Cat. Giss. 97. *Napellus fieri Antes,*Rivin. Irr. P- Buxb. 233. Rupp. Flor. Jen. 234. **WOLFS-  
BANE.** *Dale. .*

: Both these Sorts are cultivated in Gardens, flower in July,  
and are alike endued with a pernicious Quality to Man and  
Beast: The. letter is called by Diosoorides *Lycoctanttm,* and.  
*Cynactemam,* that is, Wolfs-bane, and Dogs-bane, and is de-  
soribed to have a Leaf like Ἀ Plane, Duly longer, blacker,  
and thicker indented, to have a Stalk like the PedicleofFem,  
hare and about a Foot high, to contain its heed in oblong Pods,  
and to have a blackish Root like the Sea-oninn. 1

3. *Anthera, Antitbora,* Offic. *Anthora,* Park. Pared 2ts,  
*Aofhora, seat Antitbora,* Chub. 530. *Anthera, Jive Acmiiurn far  
lutiserum,* Get. 820. Emac. 969: *Antitbora store lutee Aconiti,*J. B. 3. *όόο.* Rail Hist. i. 705.- *Aconitum falatiserum, five  
Antbora,* C. B/Pin. 184. Tourn. Insh 425.' Elem- Bot. 338.  
Boerh. Isid. A. 300.. *Acsmtiumseducisencm luteum temeiseliurn, Jive  
Antbora,* **Hist: Oxon. 3.4631 HEALTHFUL WoLrs-BAKE.**. ΐ This is cultivated in botanic Gardens, and flowers in June.  
-Its Root is used, which is final!, thick, and branched, of a dark  
brown. Colour without, but of.a pole whitei within, of an  
acrid Taste, and unpleasant Smell; ’ *Dale.*

The *Antlsora,* according to. Monsieur Toumefort,. is a  
-Plant. something, scarcer than: Gentian, and is a Species  
*of the Aconite,* though this is a Counterpoison to sirch as eat  
the Root.of*the. Aconite,* or. deadly.Wolfs-bane..LIt is for  
this Reason Bauhine calls -is *Accntttum scalutiferwn,* the. teasing  
*Aconite,* or *Anthera:* This is compered of two short wedge-like  
Roots, very bitter, white, and fleshy within,., .but brown on  
the Outside, and decked with Abundance of Fibres. . The  
Smilt arises about two Eeet highe- sorroanded with ninny long  
Leaves; . the Flowers grow about the Stalk like an Ear of  
Cora, are yellowisti, and like a Head covered, with a Helmet;;  
the Seeds are black, wrinkled, and grow in Sheaths, or mem-  
thranous Celis, five Or six of them joined together..; The.Roof  
.of this is a goed Antidote. The Peasants who gather this on  
the Alps, and Pyrenees, ofe.it with Success again so the .Bi ting  
:of mad Dogs, and to cure the Colic ,. they l take it set a so-  
vereign Remedy .for those who have cit the *Tbora,* or deadly  
*Alumite. Pomet. -* ... f —..inrced ssljo;

‘ The *Acsrdtium folutisertrn,* or *Anthora, juast Antitbora,* be-  
**.caule** this -is reckoned **a** Counter-poison.to. that called **the**

*Thora,* which is a Sort of Ranunculus, or Crow-foot, and  
of the Species of the *Accrete,* or Deadly Wolfs-bane. The  
Root is useful in Physic, as being alexipharmic, cardiac, sto-  
machic, and goed against the Wind Colin. It mt? ins a .  
great deal of volatile Salt, and essential Oil. *Limery.*

TO these three Species Miller adds the following; '  
Atsninen *luteum majus, ampliore caule, ampliaribusque soliis.*Doth The largest yellow Wolfs-bane. J

*Acerni., n Pyramidale rsndtijiorurn.* H. R. Par, Pyramidal  
Wolfs-bane with many Flowers.

*. Aconitum Lycactsmm humili caule ac minoribus foliis.* Dwarf  
Wolfs-bane with lesser Leaves.

*Aconitum Pyrenaicum, ampliore folia tenuius laciniato.* Tourn.  
Wolss-bane of the Pyrenees, with larger leaves, cut into nar-  
row Segments.

*Acmitim caeruleum napelli sure,* C. B. P. Autumnal Wolfs-.  
bane, with a blue Hower.

*Aconitum coma inflexa, foliis angustioribus,* C. Β. P. 283. Nar.rrow-leaved Wolfs-bane, with infiexed Heeds.

*Acsndum coma iastexa,foliislatioribus,* Tourn. Broad-leaved.  
Wolfs-bane, with instated Heads.

*Aconitum inflexa crnia maximuni,* C. B. P. Wolfs-baue,with  
the largest instexed Heads.

*Aconitum, feu Napellus* I.*stare roseo,* C: Βι P. Wolfs-bane,  
with a Rofe-coloured Flower. . . ,.

*Aconitum, feu Napellus 1. fiirealbo,* C. B. P. Wolfs-bane;.  
With a white Flower, .

*Aconitum, fea Napellus t. sure ex' caerulea et alba variegate,* C.  
B. P. Wolfs-bane, with a Flower variegated from blue to white.  
*. Aconitum violaceum, scu Napellus* a. C. B. P. Wolfs-bane,  
with a Violet-coloured Flower.

*Aconitum purpureum, scu Napellus* 3. G. B. P. . Wohis.brXe;  
with a Purple-coloured Flower. . .

*Aconitum caeruleum minus, five Napellus miner,* C. B. P. Les-  
ser blue Aconite, or Wolfs-bane.

*Acmiiurn caeruleo-purpureurn, stare maxima, five Napellus 4.*C. B. P.. -Wolls.bane, with a very large Purple-blue Flower.

*Aconitum lycacttnurn orientale,store magne albe,* T. Cor. Eastern  
Wolss-bane, with a white Flower. *Miller. .«*

Some of thefe are called *Lycsctcmum* [in English Wolfs-bane] -  
hecaufe the Wolf-hunters used to mix them amongst Flesh, and  
lay it for the Wolves, who, eating the fame, were poisoned.

All these Plants are poisonous on Account oftheir caustic and-  
suffocating Quality, by which such Animals, as eat of them,  
heve their Deglutition stopped, while their internal Parts arc  
corroded.

. The third Sort is said to heari Antidote, but Matthiolus was.  
the first who discovered this, and all the rest have no more than  
transcribed him: Therefore Baubinus does well in advising us  
not to trust to him, because he himself transcribed them from,  
others. *Boerhaave. , '*

Galen advifes, aS an Ariudofe against the Poifon Of *Acrnitum,*a Handful Of Rue bnrifed, to he drank in Wine unmixed with  
Water, and says, in this Cafe allo, the sat Broth Of a Hers'  
may be of Service.

ACONITUM HYEMALE. Winter Wolfs-bahe

.' This lias Leaves like thofe of the Wolss-bane; the Flowers  
(which are produced in the Center of the Leaves) are like those  
of the Ranunculus, with many Stamina, or Threads in the  
Center, and in all other Respects agree with the Hellebore, to -  
which Boerhaave has made it a Congener.

.- It is one of the earliest Flowers in the Spring, often appear-  
ing in the Middle of January,, and therefore deserves a place in  
every curious Garden. , Λ ' ' / mini'

ACONTIAS. ‘ Άκοντίας. The Name of a very poisonous  
Serpent, mentioned by AEtius, Paulus, Lucian, Aldrovandus, and  
others. It is alfo called Cenchreas, and Jaculus. , See CENi.  
**CHREAS.** *Castellus. Ceastantiae..* ’ ; λ λ ’.itio.

ACOPIS. Ἄκοπες.. The Name of a precious Stone, like  
Glass, marked with Spots of a gold Colour, thus named, because  
Gil, iwherein.it has been boiled, is said to he a Remedy against  
Weariness. *Pliny. Constantine. --* . .».ισ .Γσ-τσ. -

It is derived from α Negative,’and Κόπος, Weariness.

ACOPON. . Άκοπον, from *a.* Negative and Κόπος, Wearj:.  
ness.'.. It signifies originally whatever is a Remedy againfl Wein.  
nefs,. and is used in - this Sense by Hippocrates. *Afh.8. E.* a.  
But, in Time, the Word was applied to a Sort of Ointment of  
a particular Consistence, of which Celsos gives forne Examples,  
*L.* 5. *C.* 24. And the Forms of many more are to he found in  
the Works of Gaien and other medicinal Writers.

-. \* ACOPA. (Ἀκοπα) allo signifies, not eaten by Moths. Thus  
-Tiveopbrastus. speaking of the Citron, says, it preserves Garments  
'’Axona (which Pliny explains by *Arcetque Animalium noxia)*from being eaten by Moths..

ἐν jin Regard to .the.Medicines, called *Acesia,* the following Pas-  
sages from Galen and Paulus will suffice to give an Idea of them.

The End'andIntent of the *Acopa Pharmaco zse* known by  
the very Name; for Indispositions of Body which are caused by  
Tong or vehement Motion, whether they asiecti the whole System,  
. or the Parts principally exercised are called Κόπηι , *Lassetudes.*. Now such Indisoositinns are mostly troublesome and incommodi- -

cns to Persons, while they are in Action or Motion» hets if ari-  
rived at a Inore than ordinary Pitch, are subject to disturb their  
Repose aster their Toil But in Time Physicians applied the  
Name *os Acopa* to other Remedies besides those which were  
intended against Lassitude ; thus Applications for inveterate  
Pains, which lay deep in the Body, for Difficulty of Motion,  
sor Hardness, Tension,, or scirrhous Tumor of any Parts were  
called *Acopa,* provided their Consistence was the same, which  
is much like that of the liquid Cerates, made Use of sor Frac-  
tures and Luxations. For the most liquid of that Kind of  
Composition is what the modern Physicians call a Corelaium,  
the next are the Acopous Ointments, and then comes the liquid  
Cerates, of a thicker Consistence than the two former. After  
these follows the Cerate of tender and soft Ingredients, as it is  
called, and last of all, the Amolynta [Things that will not foul]  
much like what are properly called Epitherns. Next after this  
Class follows the Composition of Plaistets, which also admits of  
no small Difference in Degrees of Consistence. Wherefore some  
Physicians have called a certain Composition Ceratornalagmata,  
giving it that Name merely sor its Consistence, which is not so  
liquid as that os Epitherns, nor yet so hard as what belongs to  
Pisisters.

As all these Differences do not express the Virtues of the Re-  
medies, hut only, give an ldea of their Consistence, so the Appel-  
Iation of *Acopa* formerly signified the Qualities of the Medicines,  
but afterwards denoted only their Degree of Consistence. For  
this Reason they were obliged to name them with Distinctions  
as, for Example, this was a laxative *Acopum,* that an emollient  
or wanning one; this an Anodyne, another a Drawer ; or, as  
they were suited to particular Disorders, as, for Instance, the  
Palsy, the Sciatica, or Pleurisy, or all Pains in general. *Gal. de:  
Comps Med.* 6. 7. C. 2i. .

Those Remedies, which at first were called *Acopa* [relieving  
Lassitude] extended their Name, by Degrees, to other Medicines  
of a like Consistence, eVen though intended to raise a great Heat  
in the Body. *Idem de Comp. Pharm.secundum Lar.*

*Acopa* took that Name, because they were Remedies at first  
provided against the evils and Infirmities proceed ing from Lassi-  
tude, such as Tensions, Pains in the Bones, &c. They are also  
proper oii many other Occasions, for some of them are warming,  
others mollifying. *Algin.* Z. *j. C.* jq.

ACOPOS. A Plant, mentioned by Pliny, said to. he the same  
as the Anagyris ('Ανάγυρις) of Dioscorides, which, Gerard says,  
is the Bean Trefoil. - -

ACOR. Sourness. In a medicinal Sense it generally signi-  
fies what, under the Article AcInUM, I have called Acidity, or  
an acid Acrimony in the Stomach. Helmont says, the Vital Fer-  
ment of the Stomach, which digests the Aliment, is endued with  
a specific *Acor,* hut that this Acor is not the Ferment itself, but  
only its Organ. Later Discoveries have proved all this Doctrine  
Chimerical.

ACORDINA. Indian Tutty. *'Rulandus.*

A CO RIA. Ἀκορία, from a Negative, and Κβρέω, to satiate.  
It signifies, according to the Derivation, Insatiability.: But iff  
Hippocrates, *Epid, fa 6. Sect. An Aphor.* 20. it means nothing,  
more than a good Appetite and Digestion. .. . .

ACORITeS VINUM. A Wine, mentioned by Dioseori-  
des, made by infusing eight Ounces of Acorus and as much Lied  
quorice, for three Months, in six Gallons of Wine. It is good-  
in Disorders of-the Pleura and Breast, and provokesUrine. - *Dio-,  
fcorides, D5.CoJig.su* - Ἕ *sat*

ACORNA. Ἄχορνα. Α Plant, mentioned by Theophrastus,  
os the Thistle Kind. It is described ashaving a Stalk and Leaf  
covered with a pricklyDown and acute prickly Leaves, like the  
Atractylij, or Distaff-thistle. s'.

Pliny seems to take it for a Tree Of the Bex Kind, likeIhe  
Hally, or Juniper. . . "νύ i :1. ."

ACORTINU6. A Lupin. *Rulandus.-* 'i

' ACORUS. Ἄκοῥαρά '

This is the *Acorus verus. Calamus aromaticus,* Ossie. *Acorus  
turns,five Calamus Officinarum,* Park. Theat.-14o. Rail Hist. 2.  
I3I3. Synop. 3. *Aoffiy.* Men Pin. E. *Acorus verus, sive Calai-  
mus aromaticus Officinarum,* C. R Pin. 34. Theat. 626. Boeth.  
Ind. A. 2. I67. Dill. Cat.'Gissi i IO. Bux6. 5. *Acorus verus,  
five Calamus aromaticus, CscQointsic].* Plants UsuIR *Acorus  
verus, Officinis false Calamus,* Ger. Emac. 62. *Acorum legist:,  
mum,* Rupp. Flor. Jen. 261. *Acorus vel Acerilum, Calamus sard,  
ernatiais,* Chab. 244.. *Typha aromatica clava rugose,* Hist. Oxon.  
**3.246. SwEET FLAG or CALAMUS.** *Dale.* - ' Α

This Plant is distinguished from all others, in that among its  
Leaves, winch are much longer and narrower than the Iris, or  
Flower-de-Luce, there arises one or two like the rest. Only soin-  
what narrower, thicker, and-rounder towards the Top, near to  
which Come forth single juli, rarely two,in Shape like the Catkin  
of the Hasel, or like long Pepper, but ending more taper, -and  
standing up obliquely from the Leaf. . - - l

The Root is thick, full os Joints, and-spreads itself on the up-  
.per Part of the earth, transversely, and not sinking deep in it,  
ς beingfull of large white Fibres, increasing much, and soon tak-  
. ing a.great deal of Ground. It has a strong Smell, not so plea-  
\* sent while greed, but -growing more grateful .and aromatic .as

it dries. It grows in several Rivulets and watery Places in  
England, as about Norwich, and in Cheshire, and Surrey,  
according to Mr. Ray; but what is used in the Shops, is most-  
Iy imported from abroad. It produces its Catkins in July and  
August.

The Routs, which only ate used, are hot and dry, opening and  
attenuating, and good for the Obstructions Of the Liver and  
Spleen, provoke Urine, and the Menses, help the Colie, resist  
Putrefaction, are useful against pestilential Contagions, and cor-  
rupt noxious Air, are an Ingredient in the Theriaca and Mi-  
thridate, and are outwardly used in sweet Bags and Perfumes.  
*Milder. . /*

It is a Stomachic, warms and dries. Consists of sine Parti-  
cles, attenuates and opens. Its principal Use is in Obstructions  
of the Menses, Spleen, and Liver, in the Colin, &c. *Schroder.  
Dale. . . . . '*

It is a Cardiac and Stomachic. The Root is good in acid Cru-  
dities of the Stomach, and Gripings of the Belly thence proceed..  
ing; in Obstructions of the Manes owing to the Stomach; in the  
Dropsy and Scurvy aS a Cardiac, in the Asthma it provokes  
Spitting. The *Acorus* is seldom exhibited in Substance, but most-  
ly prepared; the Root is an ingredient in.many Compositions,  
*Boerhaave.*

Chuse your *Acorus* new, well grown, cleaned from the Fibres,  
hard to break, os an acid Taste, accompanied with an agreeable  
Bitterness, of a sweet Smell, and very aromatic 5 it is fur this  
Reason it is more known by the Name of *Calamus aromaticus,*though altogether improper, than that of the *Acorus.* This Root,  
which is commonly of the Thickness of a little Finger, and  
about half a Foot long, is brought to us from several Parts of  
Poland and of Tartary, and likewise from the Ifle os Java,  
where it is called Diringo. *Pornet.* τ

.. This is different from the true *Calamus aromaticus. Lemery.*

The Description os this Plant, given by Miller, answers pret-  
ty exactly that of Dioscorides, who says, the Root of the *Acorus*has a warming Faculty, that the Decoction of it is diuretic, and  
good in Pains of the Pleura, Thorax, and Liver, Colics, Rup-  
tores of the Vessels, and Convulsions. It Consumes the Spleen,  
iures the Strangury, and is effectual in the Bites of Venomous  
Animals. It is an excellent ingredient in warm Baths for ute-  
rine Disorders. The Juice of the Root clears a dim Sight, It ‘  
is a good Ingredient in Antidotes. *Dioscorides, L. I, C.* 2.

*Acorus adulterinus, Psceudo-acorus, Gladiolus luteus,* Ossie, 'ευεδό  
rus *adulterinus,* C. Β. Pin. 34. *Acorus palustris,sive Ps.eudoiris, et  
Iris latea palustris.* Park. Theat. 1219. *Acorus nostras polustris,*Merc. Bot *1. ih.* Phyt,. Brit. 2. *Iris latea palustris.* Ger. 46.  
Emac. so. Raii Hist. 2. II86. Synop. 3. 374. Rupp. Flor. Jess  
26. Toum. Inst. 36O» Elem. Bot. IP2. *Iris palustris luteAcsive  
Acorus adulterinus,* J. B. 2.732. Chab. 244 Dill. Cat. Giffi 79.'  
Buxb. 168: BASTARDACORUS. *Dale.*

. This Zrsqthat grows so common in Ditches and watery Places,  
bears Leaves like the common Flower-de-Luce, only somewhat  
longer and narrower 5 the Stalk arises higher, on the Top of which  
grow three or four Flowers, one above another, flowering gra-  
dually, in Shape like an ordinary Flower-de-Luce, only that it  
. wants the upright Leaves, instead of which it hasonly. two small  
Pieces ofLeaVes in their Places, The Flowers are succeeded by  
large triangular Seed-Vessels, containing three Rows of fiat Seed:  
The Root is long and slender, not running deep in the Earth,  
huta-flant. It flowers inSummer.

. The Roots , of the *Pseudo-acorus* are restringent, drying, and  
binding, and useful in Fluxes Of all Sorts; some commend it as  
a Strengthenerof the Brain and Nerves. It is hut seldom used.  
*Moder. Dale.. . -? .« .. .*

*. Acorus Asiaticus,* Ossie. *Acorus verus, sue.Calamus aromaticus  
Asiaticus, radice tenuiore,* Herm. Cat. Sort. Lugth Bat. p. Co  
Commel. Flor. Mal. 3. BoerfL Ind. A. 2. L69.. *Acorus Asiatirus  
radice tenuiore Hirmannes* RaiIHist. 2. 1P10. Hist. OxomA.  
246... *Acorus Brasiliensis aromaticus minor, Capitatinga, aliis Job.  
careealinga Pisans,siusilern. Acorusvcrus Asiaticus,radice tenuiore,  
vel Calamus aromaticus Gorsua,* Plrrk. Aimag. *Calamus aromaticus,*Gar2.ab Host. 2O0. *Calamus aromaticus Orientalis, sidia et ra. \_  
dice tenuiore.* Act. Philosophi Lend. NQ. 274. Ρ. ^43. *CapieAn  
tinga, aliis Jocarecatir^a-Aceri species.* Pisi 24I. Va embu,  
Hort. Mal. .11.99. Tab. Vazabu, Vazumoo.. Herm. Musi Ze.

ilan. **56.- ASIATIC SwEET FLAG. \***

It grows in both indies, the Root is in Use, and its Virtues  
are the same with those of *tiae-Aarus verus,* .or commonSwees  
'Flag. *.Dale.* d ‘.i ,  
τ ealmasius makes the following Observations on the *Acorum,*

It is now certain, that- the Root of the *Acorum,* which is  
isold at the Shops, and prescribed by most Physicians, is vastly  
«different from the *Acorum* of the Antients, and even endued  
\* with -con trary Caralities. Some think the *Aeonyn.* of the Mo.  
'dems to have been theold Butothus; bur I.rannotagree with  
them.- The Antients give the Butornus a Leaf ltior timt ut ΛLilly. Democritus, *in Excerptis Geeponieii, Lib. xi.Cap.mfi*υδρἀπτΛίς,ί thus writes of it : « The Butomus grows in  
" Marshes; it has Leaves like those of Lillies, which Cottle  
greedily ess, and sends forth many Shoots from one Root."  
The Common *Acorurn* has the Leaves .of Irin rather then Liny

They who would have the grea ter Qalangai to he the true *Ana.  
.rum,* are still wider front the Troth. The greater Gakngai  
grows only in India, and was quite unknown to the A orients,  
who had their *Acorum* from Pontus, Galatia, Colchis, and Crete.  
But the Description of the greater Gaiangai does in no Point  
agree with the Figure of the *Acorum.* I do not know how sar  
we ought to believe the modern Greeks,who interpret 'Ἀκορον by  
Κάλαμοςἀρωματικός. Hence, however, many have suspected  
what is commonly used for the *Calamus aromaticus* to be the  
true *Acorum. By* the same Argument might any one pretend  
that Schoenus odoratus was the same as Slum, because *To aiof is*in like Manner called σχσινος ἀρωμάτικύς. The Arabians call  
the *Acorum,* Ugi, or Vari; but they do not seem to know the  
Plant. -Serapio describes it in the Words ofDioscorides, nor does  
he cite any ArabianAuthors who had described it. AVisena lays  
that the *Acorum* was the Root of a Plant like the Papyrus, that  
is, Alburdi; so the Arabians call theNiloticnSJuncus, which was  
the Papyrus of the Antients. But the *Acorum* of the Antients has  
**no** Resemblance to the Papyrus. They have indeed hath pointed  
Leaves, but of a different Figure; and they disagree in many  
other Respects.' And yet in the Granada Lexicon *Burdo Accrue*is explained *Gladiolus.* They seem to haVe called it so, because  
**the** *Acorum* is an aquatic Plant; for the Greeks did not only  
Call the Egyptian Plant, but also exiMthe common Ruth, by the  
Name of παίπυρος. And the Author of an antient Arabic Lexi-  
con interprets the Word, which signifies a Rush, Biblon.

AVisena writes that this *Acorum* of his grows in Waters and  
Streams. In Neophytus, and the spurious Works of Dioseo-  
tides, I find it called Πεπμῥακμν ; which, perhaps, was written  
for Παπυραπὸν, as the Latins called this *Acorum,* from its Like-  
ness to the Papyrus, Papyraceum. From such an Author, and  
inch a Name, does AVifena seem to derive his Information, whan,  
he wrote that the *Acorum* was a Plant like Papyrus, In a very  
antient Copy os Apuleius, *de Herlds,* it ins read Piperapium, in  
One Word, which, it is pretended, should he written separately.  
Piper Apium5 because soon after he relates, that the Herba Ve-.  
nerea (so he calls the *Acorum)* was hung in the Bee-hiVes, to pre-  
vent the Bees from swarming and flying away. But I do not  
take this to he a good Reason for the Name I and am thorough-  
ly of Opinion that Piperapium was written instead of Pipera-  
Cium, as it is in Neophytus. It is Very common, in antieut  
Books, to change P for C. So the barbarous People at this  
Day pronounce DiptamnuS for Dictamnus ; and in Tyro’s Notes,  
and a Very antient Copy of Seneca, we find Cercopithepus for  
CercopithecuS. Nor do I question *lsutAcorurn* was nailed *Ph.  
peraciurn,* instead of *Papyraceum,* from its Likeness to the Pike\*  
Pyrus, aS AVifena would have it, who also affirms the *Acorum*to have as rank and noisome Smell On the Contrary, all the  
Antients write that its Smail was no Way dissgreeahher Thus  
DioscorideS says of the Root of *Acorum .* “ That it had a lrit-  
" ing Taste, and no ungrateful. Smell." The same lay Pliny,  
Galen, and all **the** rest. That Author then seems to **have**taken another Plant, for the *Acorum,* perhaps, the common  
Spathula feetids, for that, as well as the *Acorum,* has the Leaves  
**of** the Iris,, only Josser and narrower. The interpreter also of  
Serapio renders *Acorum* by Spathells, winch is .the same assipa-  
thula, and has the Signification of Gladiolus, by which Name'  
*Acorum* is tranflated in.the Granada Lexicon. And the Gladios  
has Aquae ss commonly called the *Acorum,* but the Spathu la foe-  
tida does not grow in Waters, but under Hedges and Bushes.  
**The** Pseudo.Apuleius says, that the *Acorum siseovrs* in Gardens,  
and cultivated Pisces, and Meadows; it differs thesesortiosroni  
she true *Acorum,* which delights in watery arid marshy Places,  
Indeed, the Antients themselves did nut call barely one Thing  
by rhe Name of *Acorum.* Pliny relates, .that the Root of Tfey-  
myrsine was, by some, called *Acorum, Lab.* g.5, *Cap. stfr Nec  
nan suvenacntur qui Oxymyrsutes Radicem Acorem vocant, idecqyes  
quidem hanc Acociin vocare malunt t* .So’.the Place must he reach  
For the Sake of Distinction, and to avoid ^confounding-them,  
.some called one of them *Acorlen,* and the other *Acorem,* fry  
the Index it is written, *Aaron sive Acriori,* read *Acoyast five  
Nlcorirn.* It is certain then, that, the *Acorum* of Apuleius .is not  
die .true One, which grows in watery Places, μ Pliny also at-  
tests, though he differs from Dioscorides as Io the Colour os  
.the. Root.. Dioscorides makes in whitish, Pliny black: “ The  
" :ifroroe,says he, has the Leaves of the Iris, hut narrower, and

with a longer Pedicle, a black Root, and not so frill of  
es Veins." The true *Acorum* .is shewn and described by.Qu-  
sins, *Histor. Libs. so.* which he makes Io .have white Roots.  
.The Bottom of its Stalk is, aS it were, triangular, like the Pa-  
pyrus; instead os a Flower, it bears a Panicle, or Catkin, 4t  
Its first Appearance, like the young Catkin os .the Haste.  
Jt delights in watery Places. Consult this .Author by all Means.  
Apuleius says that his *Acortim* is hard Io he found, nor can he  
.known, before it..is in Flower. .Diosijorides tells us-that the  
**best** was found in .Colchis and 'Galatia, which was exiled Sple-  
nium, from the effect it had of diminishing the Spleen. ’Neo-  
phytus has the same. It .was called Splenium,-from -curing Dis-  
orders of the Spleen, as Thapsia was called ὑπώπιρν, front Cur-  
ing Lividness in the Face -arising from Blows.’ Pliny agrees  
with Dioscorides, aS to the Countries where the best; may behad.

A COS. Ἄκος. Medela. A Remedy.

\* ACOSMIA, Ακόσμια. From α Negative, and Κζσμος, Or-  
der. Irregularity, principally in Fevers, with Respect to the  
Crisis and critical Days.

Costellos, from Pollux, says, they, who were bald used to he  
Qhed Acofmoi (Ἄκβσμβιτε becaufe they had lost the great  
Comment, the Hair ; fur Κδομος. signifies Ornament, as well

ACOUSA. Ἄκουφα, from a Negative, and έκκόν, voluntas  
ay. Galen explains ἄκχσαι by-πεπληρομέναι,φαΖί, and is fol-  
lowed by some of the Commentators on Hippocrates, as Coed  
dains and FoesiuS ; but there does not seem to he the least Foun..  
potion for this Interpretation. The only Passage, where there  
Is any Possibility that is should signify *full,* is in the first Book  
*de Mathis Maiierum.\** where Hippocrates, in delivering the Cau-  
ses os Miscarriages, says. Women miscarry os Children which  
are Very finall, because such Children are usually Very weak ;  
and they also miscarry of Children that are very large I Hence  
It is no Wonder that Women miscarry, ἄκησαι, involuntarily,  
or without manifest Cause. That this is the true Meaning of  
this Passage, appears by others in the same Author, where he  
lays, that one frequent Reason why a Woman miscarries,  
without evident Cause, is, because the Womb is too rigid to  
he extended in Proportion to the Bulk of the Child. And *it*is for the same Reason, that Women who .go through their  
Time Very wall, when big with only one Child, yet miscarry  
frequentis, when they are with Child of two. See the Article  
**ApoRTUs. '**

. ACOUSIA. Inyoluntary. This is often applied by Hip-  
pocrates to Tears, which, in Distempers; flow involuntarily,,  
from whence Presages are to he drawn. See LACHR-YMJE.

ACOUSTICA, from *’Axoitis,* to hear. Remedies against’  
Deafness are’thus'called.

ACRAL An Arabic Word. It seems to mean that Disorder  
which in Men is called a *Satyriasis,* and in Women a *Furor  
uterinus. Castellus* from *Avisma.*

ACRAIPALA, Άκραιπαλα. From *a* Negative, and κραι-  
σἀλη. Crapula. A Surfeit, Drunkenness, Medicines are thus  
called, which either prevent or cure Surfeits or Drunkenness.

ACRALEA. Ἀκραλέα. This is explained by Galen Ἄ-  
**κρΐα.** The Extremities, I suppose, he means.

ACRAS. Ἄκρας.- Thus the Pyrum Sylvestre is called by  
Ray, by Mistake, for Ἀχράς, Achras, the wild Pear. It  
is restringent and *drying. When cut into* Slices and dried,  
Pliny recommends a Decoction of it for a Looseness. The De-  
coction of the Leaves and Fruit is also of Use in **the same** Casea  
*Rail Hist. Plant.*

ACRASIA. Ἀκραστα or Ἀκρηίία, from α Negative, and  
**Χίραννυμι,** to mix. Intemperance. The Temperance of the  
Antients was Very great, with Respect to Drinking. They .  
used to mix four .or five Parts os Water with one of Wine. This  
we may gather from a Passage in Caelius Aurelianus, who in-  
forms us, that, in a Catarrh, Asclepiades directed his Patients  
io augment the Quantity of their Wine to double or treble  
what they used to drink in. Health, insomuch that he made  
them drinlr half Wine and half Water. Hence **the** Drinking  
Wine unmixed was called Ἀχρασία, by a Derivation which is  
retained in Latin and English, sor *Tempero* is the same as **afv**μάννυμι, to mix. Hence the Word was applied to Excess of  
any Sort, as in Eating, Drinking, Sleeping, and Venery. And  
It is used in this Sense frequently by Hippocrates, and .the Greek  
medicinal Writers from him!

Sint /Ἄκρασία) ACRASIA is also used in a Very different  
Seine byHippocrates, and in many Places signifies .the same as  
*Acraiia (llen&Tsm.),* Weakness, Impotence, Or Inability fof  
Motion. ^Ακρασία, in this Sense, should have the seme De-  
rivation. aS Ἀκρα'τίι\*. \_ . . . - -

' SCRATIA. Itoin « Negarim and *ofdT&p*

Strength. Irnbecillity, or Inability sor Motion. This, And  
the Adjective ’Ακρατης, is Very common in HippocrateS,.Galen,  
and rhe other medicinal -WriteIs. It is either applied to **the**whole .Body, deprived of'Motion, or any particular Part, as  
the Tongue, when .by Distemper rendered incapable of articu-  
lating the Voice. They are also applied -to 'the Stomach and  
Intestines, which, through Weakness, cannot .retain the.Ali-  
inent received, but too soon discharge it, either by Vomit, *csf*by .Way. of Diarrhoea. ' ;

'Αἀρατίς Is used in aflense somewhat different byHippocra-  
**tes,** *Epidesn. fa 6. Sect.* 8. *Aphorism.* 45. in **the** Opinion os his  
Interpreters. The Passage is thus, **av** *tnacr* ἄκρατἤς φοβςφίς.  
This, they say, means that a Physician should distinguish when  
4t is proper to terrify a Patient that is unruly, and cannot cun-  
.tain himself. Is this Interpretation is right, 'Ακραγής .in thin  
"Place signifies unruly, or incapable of restraining themselves to **a**proper Conduct.

ACRATISMA. Άμάτισμα. **A** Breakfast amongst the  
okl-Greeks, consisting of a Morsel of Bread soaked in pure lin\*  
mixed **Wine.** *Caostansine, Castellus. sp*

The .Derivation of this-Word is the same aS that of *Acrasia,*hecuthe thy Wine, tried on this Occasion, was not mixed with  
'Water. ’

ACRATOMELI. ’Αζρατὸμελι. The lame aS Mulsum.  
Wincmixed with Honey,, See **MULsUM.**

ACRATOS. "φαρατος or SAxprrrG-, from α Negative,  
and εμράννυμι, to mix. Pute, simple, unmixed. This is ve-  
ry often used by Hippocrates, and applied to the Excretions of  
different Sorts, and is always of very bad Prefags. Thus, in  
his *Pranscianes,* he observes, - that, in all painful Disorders of  
the Pleura - and Lungs, the Spit should appear mixed with yel-  
low, and that 'tis a dangerous Symptom if it is all yellow.  
without any Mixture (ξάνθον *ixfntor).* And immediately af-  
ter, he telis us, that, if the Spit is so unmixed as to appear,  
black, it is a very bad Circumstance.

This is again repeated, *Coac. Prance.* 39Ο. in. almost the  
same Words.

With RefpeA to whet is discharged by Vomit, he Observes,  
(Ρσταποί.) theta Mixture of Phlegm and Bile is heft, but that  
what is more unmixed (άιφητέστεἱαι) is much worfe. And  
*(Coac. Pranet.* 560.) be fays, whet is discharged by Vomit in  
small QuanDties, and by a little at a Time, if bilious, and un-  
mixed, (Ἀαρηται) is of bad Presage, in too copious Purging,  
and Pains of the Loins. Anil again, *sPradict. L.* I. *62.)* he  
says, unmixed (Ἀκρητα) Vomits, attended with Anxiety, and  
Restlesness. βΑσωδέα), are very bed And stioilon. *L. 2:  
Sect. 2.)* he observes, that in Vomits that are taken on Ac-  
count of a Fever, if what is discharged, at the End of the Ope-  
ration, .begins to appear unmixed (ακρητέστςρα) ’tis a Sign of  
Putrefaction. , -

The same Author also condemns sincere and unmixed Stools.  
As in *Apher. 6. L..* 7. where he says that, in chronical.  
Disorders, Loss of Appetite, sincere or unmixeil Stools are  
bad. The Reading here, in Foesius, differs from that ofHeur-  
nius. In the first, the Stools are called Ἀχρηται; in the last-  
χωλωδιτε; but the Sense Teems pretty much the fame either  
Way, what is meant bring probably bilious Stools without any.  
Mixture. Perhaps, it would he right to insert both Words.,  
In the same Section; *Aph.* 23. these Sorts of Stools are again ta.  
ken Notice of, as of had Presage.

Galen says, Hippocrates means, by these Stools, fitch as are  
not mixed, with any watery Moisture, but are all of one Colour,  
either yellow, black, aeruginous, or porraceous. - . .

Hippocrates asso applies’λκρητυς to Blood discharged from the  
Nose, and this is always mentioned as a had Symptom. Ga-  
len explains it of Blond that is biack and thick, . In the Case'  
of philifcus, which is the first of the first Book of *Epidemics,* it  
is said that. On the fifth Day about Noon, this Sort of Blood  
(Ἄκρητον) distilled from the Nose. The next Day about Noon  
he died. Physicians; who have- observed some few Drops of  
thick black Blood discharged from the Nose of Patients under,  
much the same Circumstances as Phlliscus,. will know what  
Hippocrates means by Ἄκρητον, better than it can he explain-  
ed by Words, and will he sensible that Galen’s Interpretation,  
is right. - Haemorrhages of the Nose in Fevers are critical and  
salutary, when the Blood is in siuch a State of Fluidity, as to  
admit of its being discharged in sufficient Quantities,' But when  
the Blond is thick and black, as in the Case: of philiscus, for.  
that Reason a Crisis histhe Blood-vessels is prevented, and the  
Patient, after fuch an Effort, generally perishes. - ,

Ἀκρητον allo signifies Wine unmixed, as *Mrum io in like*Manner used in Latin. 'i

But "Ακρητο f is. asso used by Hippocrate, to signify vehement;  
excessive, intemperate, and is applied by him to the Symptoms  
ofDifeafes, totheCatamenia, toTaleness, to. excessive strong  
Aliment. And by other Authors to a Diarrhoea, to Anger, to  
Heat, or any Thing in Excess.

ACRE.. \*Arye. It signifies the End ‘of Extremiry.of the  
Nose. *star-* - Ἕοὐρ.εἴ

- ’sACREA. ’'Ακρεαί The Extremities, among winch are  
reckoned the Arms, Legs, Nose, and .Ears. From these some  
Presages are drawn ini Distempers. Thus,Hippocrates, Prlonisti  
L. I.'43. observes, .that- sudden Changes of the Extremities,  
with Rcfcedi to Heat and Cold, are bad Symptoms. This is  
repeated, *Coac. Prana.* 50. and in the very same'Words.  
Coldness of the Extremities is -asso mentioned in many Places  
of the *Epidemics-,* as attending Fevers of an ill Sort, which is  
represented as a very had Symptom, if they don’t grow warm  
again without Difficulty,

- 'Ἀκρεα is allo applied to the Extremities ofAnitnals used by  
Way of Fond. -Thus, *Epidem. L.* 7. a Part of AlcmanS  
Diet is said to he κώληνας ὑὸς *defier* ἔφθων; which Celsus calls  
*-Trunculi fusum, L. R. G.* 20. and places amongst Aliments of  
good Nourishment. They seem to he what weandl Petty.  
Toes.

‘ ACRES PERGN,; Ἀχρέσπερον, fromvAxppf, extreme, and  
’Ernipoi, the Evening. The Beginning of the Evening, or  
. 'Night, in the Sense of Hippocrates. *Foesius. Gorraus. Con-*

*Jlantisu. Galen.*

ACRETOPOSIA, ἈκρετΜτοσία, from “Ακρητον, Wine  
unmixed with Water, and Πόσις, Drink. It signifies the  
. Drinking of Wine without any Mixture of Water. *Castellus.*

ACRIBES. Ἀκει.δός. The Meaning of this Word is ex-  
’ plained by Galen in his Treatise *de Simple Mad. L.* 4". Ce 24.

When, says he, I shy, a Thing is exactiy (Ἀκρι&ους) thus, or  
thus, I mean, that it is purely so, and, as much as is possible;  
void of all other Qualities.

A Tertian, which ceases within twelve Hours; is called, an  
exaci (Άκριβὴς) Tertian. But. if the Fit exceeds that Timg,  
it is not an exaci Tertian (ίκἀκρεσηί). *Ortbascus. .*

ACRIMONIA. Acrimony. The different Species Of Acrid  
mony are taken Notice of under the respective Articles. Any  
Thing is laid to he acrimonious, that is pungent, stimulating,'  
and corroding, aS Bodies which are aicaline, acid, and tnur  
riatic.

ACRIFOLIUM. Amongst the Old Botanlsts, it is applied  
to any Plant with a prickly Led-

ACRlS. Ἄκεις. This properly signifies the Top of a  
Mountain, and hence in applied to the sharp Extremities of frac-  
tured Bones, as in Hippocrates, *de Arst'culis.* But Foesius thinks  
*’'Or.tsf* should be read in this Place.instead οίἌκριστ. \*ORper  
signifies much the fame.

' AcRis, ’Awi;,also;signifies a Locust, an Infeft,which the  
Parthians and Indians eat, and which was St. John’s Fond in  
the Wilderness, as is fuppofed.

ACRISIA. Άκρισια,. from α Negative, and Kfike, to  
judge, or separate. It signifies that State of Crudity and  
Inconcoction of the Juices, which prevents a Separation of the  
morbific Matter, and the consequent Expulsion of it out of the  
Body,, and is directiy the Reverfe to a Crisis.

Galen explahis it," by either no Crisis at all, Or one that is  
made with much Difficulty, Or which is ineffectual for the  
Relief of the Patient, who, aster it, does not grow better,' but  
ratherworfe than he was hesore. See CRrsis. \_ -

ACRITON. Ἄκμαν.. This is explained by Galen by  
Άδιιάρετον, not separable, not distines, confused, or of which  
we can form no Idea.

‘ Gorneus says, it signifies immense or infinite.

ACRIVIOLA, [of *Acer,* sharp, and *Fieia,* Violet, i. e. Sharp  
Violet] commonly, called *Nasturtium Indicum,* or Indian Cress.

*' A .* **. Tw CHAEACT ERS** *are.*

The Leaves are round, umbilicated, and placed alternately ;  
the Stalks are trailing ,. the Cup of the Flower is quinquefid ,  
the Flowers consist of five Leaves, which are in Form of a Vio-  
let ; the Seeds are roundish and rough, three of them succeeding  
each Flower. \_ . .

. There are five Varieties of. this Plant in. the English Gar-  
dens, quiz. ‘ .

I. *Acriviola,* Frith Cms. Τ. 935. The lesser Indian Cress. :.  
*. 2.~Acrivisla, storefolpsiureo,* Boerb. The lesser yellow In-  
dian Cress.." ‘ -

~ 3. *Acriviola, maxima oderata,* Boeth. The great Indian  
Cress. .. . ; .

*4.4. Acriviola, maxima adoratae, stare fulphureo,* Boerb. - The  
great yellow Indian Cress. ‘ τ ' ” . ' - '

τ 5. *Aprivicias maxima oderata, store pleuri* The great double  
Nasturtium, or Indian Cress. *Miller: -- sc*

This is esteemed a good Antiscorbutic. The young Shoots  
and Fruit .are ufed in Pickles. It abounds with a volatile, oily;  
acrid Salt 7 c τ 7 ἰ τ'’ ' ς'

ACROASIS, Ἀκρόασμ, or Ἀκρόησις. It signifies an Au-  
dience. Harangue, Lectirre, or what in foreign Universities  
they call a College. - . . -

' Hippocrates, in his. *Oath,* distinguishes Παραγγίλια - from  
Άκρίασιστ; by the first probably meaning aPrecept, or Aphorism 5  
by the second. Leisures upon it, in order to explain it, or  
Doctiine delivered in Words.' This Meaning is confirmed by  
the Use the seme Author makes of Ἀκροασκ in his Treatise,  
intitled ΙΓαραγγελιαι,' where he fays; *If you have a Mnnd ta  
make ari Harangue* (Άκροασιν) *for the Sake of the Populace, me  
beforeia Populace, de it withsut Dllentatirn.*

ACR0BYSTIA, Άκροβυστία, the Extremity of the Pre-  
puce, from/Axpci, extreme, and Bain, to cover. See AcRo-  
**POST HI Α. ’. . .** s ' ' " :

' ACROCHEIRIA,Ἀκμχειμή. AtRocnErREsrs, Ἀκρο-  
χείρησιστ. ACRoCHEIRIsMos, \*Ακροχ«ρισμός. Ftom^Axfir,  
extreme, and χἀρ,2. Hand. An Exercise amongst the απ-  
tionts. It seems to he a Species of Wreffling, where they only  
hold by the Hands, as the Derivation imports. Dacier says,  
the Combatants only sijueeced each other by the Hands, till  
one yielded to the other. ' It is mentioned in the second and  
third Book of Hippocrates, *de Victus Potione.*

ACROCHEIRIS. 'longam. This has the same Derivati-  
on as the preceding.

Gorraeus says, it signifies the Arm from the Elbow to the  
Ends of the Fingers, γήρ signifying the Arm from the Sca-  
pula to the Fingers Ends. ’ . -

ACROCHLIARON, Ακρο^ιαρθη. From "Αεεμς extreme,  
and χλιαρος, warm. - It signifies very warm, lukewarm, or as  
warm as a Liquid can conveniently he drank.

ACROCHOLIA, 'Ακροχολἱα. From 'λκρος, extreme, and  
Ἀ°λά, Anger. Violent Anger.

ACROCHORDON, ’ΑκροχορὸΐΛ. From'nept, extreme, and  
κ°μή, a String.

Galen says, the Antients Impose Names upon Things from  
Very odd Analogies, particularly in the Instances ofepinyctis,  
Acrochordon, and Nyctalops. .The First they called so, he-  
etatrfe it breaks out in the Night, the Second, because of its Si-  
tuation on the Surface of the Skin ; the Third, because they  
who are affected with it cannot see in the Night. *De Malhoda  
Medendi.*

An *Acrochordon* is a round Excrescente on the Skin, with a  
flender Base. *Galen, Def. Medic. t*

. The Greeks call that Excrescence an *Acrochordon,* where  
something hard concretes under the Skin, which is something  
rough, of the same Colour as the Skin, slender at the Base,  
and broader above. It is small in Size, seldom exceeding that  
os a Bean. One seldom.appears alone, but generally a great  
many at a Time, principally in Children. Sometimes they  
\* disappear suddenly, sometimes they excite a flight Inflamma-  
tiou, and sometimes suppurate..

If an *Acrochordon* is cut out, it leaves no Root behind, and  
therefore is not subject to grow again. *Celsus, L.* 5. Co 28.

By this Account we find *the Acrochordon* is that Species of  
Wart, which Wiseman calls Pensile. It is generally extirpated,  
when, it becomes troublesome, either by Ligature or Excision.  
See **VERRUCA.**

. ACROCHORISMUS, ‘Ακροχοριομός. Froth Ἄἀρος» extreme,  
and Κορίδο, to dance. An Exercise which consisted in Dancing,  
attended with Violent Agitations of the Arms and Legs.

Schulaius says, in the *Acrochorisinus,* they joined Hands to  
Hands, or Forehead to Forehead, and endeavoured to push each  
other out of the Place they stood in. .

ACROCOLIA, Ἀκμκἀλια. From Ἄκρος, extreme, and  
Κῶλον, a. Limb. These are the Extremities os Animals, which  
are used in Food, as the Feet of Calves, Swine, Sheep, Oxen,  
or Lambs; sand of the Broths of which. Jellies are frequently  
made. Castellus from Budaeus adds, that the internal Parts  
of Animalsare also called by this Name, in English Giblets.  
; They are recommended by Hippocrates *(de Mulierum Morbis,  
L.* 2.) as a proper Food, when there is a Tendency towards a  
Dropsy. And they are, in other Pisces, recommended as Feed  
of easy Digestion, and proper for weak Stomachs.

’ - ACR0DRYA, Ἀκρόδρυα. From Ἀμας, extreme, and *amaj,*properly an Oak, but taken for any Sort of Wood,. All  
Sorts of autumnal Fruits, produced by Trees, whether of the  
Nut, Apple, or Plum Kind. Strictly it is said to signify only  
’those Sorts of Fruits, that are covered, with a Shell, or Hussa  
But the Use made of it by Hippocrates, and the other medici-  
hal Writers, gives no Grounds for this Distinction. .

si ACR0LENION, / μάμὲνξυν». : Castellus says, this is the  
tame, as Olecranon, the great: Process of the Ulna.. I have  
met with the Word in no other Author.

ACROMION, 'Ακαίμιον. FroIn/Aaiw, extreme, andThiss,  
*she Shoulder, f* That Part of the Spine of the Scapula that re-  
ceiVesime Extremity os the Clavicula. See **SCAPULA. ;..***c::* ACROMPHALION, Ἀκφαφἀλιον. From Ἀκμς, extreme,  
*Bsid.Qfepeaua,* the Navel. The Tip of the Navel. *Gorreeus. ,*

ACRON, feherwi. It signifies, in a medicinal Sense, that  
which is most excellent in itS i Kind. Thus ἈκρωἹμαν, men-  
tinned by Hippocrates *de Morb. Mulierum,* signifies the .most  
«excellent’Sort ofUnguentuin Irinuin. *Does. : - o* i Ἀ’

ACRON, amongst the antient Botanists, was used to signify  
the Capitulum; Top, or Flower of Plants of the Thistle Kind.  
*SalmastusHyIJntsm... .'*

-ὑ AcRON. A.Physicisnof Agrigentum, a Contemporary of  
' Empedocles, who lived some, little Time before Hippocrates,  
Pliny represents him as hying in Friendship with Empedocles;  
but, the Learned believe,' from some Passages in Diogenes Laer-  
.tins, and Suidas, that Pliny was deceived into this Opinion, by  
.an epigram, made by Empedocles, as an Epithaph for *Acron,*-winch Pliny understood as a Compliment, but which in Rea-  
stitywas intended: as a Ridicule. And, indeed, it is not very  
'probable, thattheydhould agree, theirjSentirnents, with Respect  
7to Medicine,. bring directly opposite. Empedocles probably ac-  
soounted sortheAppearances in Diseases,and the Effects of Medi-  
innes,from the Principles of the Philosophy he professed, where,  
ins sssrwhthough remarkably successful in his Practice, thought  
-allManner of-Reasoning, in Matters, relating to Medicine, su-  
iperfiuons, and, therefore he is claimed by the Physicians os the  
LEinpiricflectias their Patron.: ἐνἐν

What we, seam sarther of *Acron* is, that he was not withonta  
.sufficient Share ofrVanity, affecting to he thought and called the  
riGhief of.the. Physicians, by a ridiculous Allusion to his Name,  
which bears the .Signification of Supreme.

vc Plutarch telheus, that *Acron* was at Athens in the Time of  
Ythe great Plague, 5 which happened , in the Bruning os the  
ξ Prdoponneffian Was, and that he advised the Athenians to light  
great Fires in the Streets, near the Sick, probably with a

-.View of purifying the Air. This is thy others related of Hip-  
pocrates. It was Very common sor the Antients to attribute  
- the remarkable Cores, and the extraordinary Methods of Prac-  
tice of one Physician, to many others of Eminence ; and the  
\_ Moderns have carried this Weakness to such a Degree os Ex-  
travagance and Follyj that even Reparties, made by Physicians

who have been dead some Centuries, are rehered os Phyficshni  
that arrive at any Degree *os* Eminence in every Age and  
Country.

Suidas says, *Acron* exercised the Profession of Sophist at A-  
thens, het Le Clerc thinks it a Mistake.

Le Clerc remarks, that the Vanity *cA Acrm* is a full Con.  
fetation of Celsos, who represents the Art of Physic as the In-  
vention of the Philosophers. Because, if it had been fo, *Acras,*who lived after Pythagoras, and at the same Time with ligni.,  
docks, and depended on Experience only, could not have had rher  
Insolence to arrogate to himself the supreme Place amongst rhe  
Physicians, in Prejudice of the Inventors of the Art.

ACROPATHOS, Ἀκρέπαδβς. From Ἀκρος, extreme, and  
Πάθος, a Disease. It signifies literally a Disease as theTby  
or superior Pars, Hippocrates, in his Treatise, *de Super-  
sintatlene,* applies it to the internal Orifice of the Uterus; and  
*{PrAcdict. fa* 2.) to Cancers, which appear on the Surface of the  
Body. These he calls ’Ακμὲναδ», by Way of Distinction from  
those, which are Κμὲντοε, hid or concealed in the internal  
Parts; unless by *sixestestestes* ha means those that are ulcerated,  
and by Κρύπτος, those which are not yet broke. *s*

’ ACROPIS, \*Ακροπις. From Άκρος, extreme, and the  
Voice. It is used by Hippocrates several Times in the seventh  
Book of *Epidemics,* aS an Epithet for the Tongue, which;  
either by Reason os Dryness, or some Imperfection in the Mu-  
scles, cannot articulate the Voice. And is also applied to **the**Patient labouring under such a Disorder. \_ .. .

ACROPLOA, Ἀκμὲνλοα. From Ἀκρος, extreme, andHAher  
to sail. Superficial. Hippocrates *(Lib.* x. *de Morbis)* having  
given an Account of the Disorders tor which the. Veins in  
the Lungs are sobject, adds, that the superficial *lsusiflenmajj*Veins on the Inside of the Pleura, or Side, are affected in the same  
Manner.

μ ACROPOSTHIA, 'Ακροποσδίη, or Ἀκμαοσδία. From ἀκρρς,  
extreme, and Πόσθη, the Prepuce, or the Skin which covers the  
Glans of. the Penis. The Extremity of the Prepuce. That  
Part which is cut off in Circumcision.

. Hippocrates *Aphor.* i9.. *L.* 6. and *Coac. Preened.* 5O4. repse-  
fentis the *Acroposthia* as a Part incapable of Re-union, if cut or.  
divided. And the same Author *sole Morbis, E.* 4.) tells us, that .  
this Part will discover a Stone in the Bladder, though other  
Signs os it, which he mentions before, do not appear. But he  
does not inform us in what Manner. However, Colins and  
Aretaeus explain this, by telling us, that a Patient, who has  
a Stone in the Bladder, endeavours frequently to relieve his Pain,  
by stretching or extending the Penis, Aretaeus says, as is they  
would pall out the Bladder together with the Stone ; for this  
Purpose they lay hold os the *Acroposthia,* in which arid the  
Glans there is an uneasy Sensation. They who have been  
racked by a Stone in the Bladder are very well acquainted with  
this Symptom.

.. ACROPSILON, 'Ακρόψελ». From άιρά, extreme, and  
ψίλος, bare. It signifies hare at the Top. Hippocrates *(Epi-r  
dem. L.* 4.) applies it to the Pedendum of a Boy, who was af-  
fected with a Tumour os both Hypochondria, and Exulcera-  
tion of the Navel. ,

ACROS. Ἀκμς. Extreme, uppermost. It is also used th  
signify the Very best of the Rind. See AcRON.

. ACROSAPES, Άκροσαπμ. From ἄκρος, extreme, and  
*erlumee,* to putrefy. Galen explains this, soon changed in the Su-  
perficies (Ἴπιπολἡς) but Foesius fays, some Copies substitute βμιχὑ  
for Ἴπέπολπέ, -which is most likely to sie right, for then it  
will signify, soon changed, or in a short Time. The Word in  
used by- Hippocrates in his Treatise, *de Ahmento.* The Pasr  
- sage is, - Συτκ» νέοεσιν ἀκρβσαπές. Foesius, *is* I understand his  
Meaning, interprets this Passage thus t *Aliment gentle boiled*(leviter coctum) *agrees with young People.* But the Explanation  
ΟΓἌκμααπές, given by Castellus, from Valesius, seems more to  
the Purpose. According to this, Ἄκρβσαπὲς signifies, *ease of  
Digefllen*; and then the Passage will run thus: *Aliments are easi-  
ly digested by young Men. Cys, Aliments are ease of Digestion in the  
Stomachs of young Men.* And this we find trne in  
ACROSPELOS. Ἀκρόσπὸος. τ A Name os the Bromua

Dioseoridis, or V ild-Oat-Grass. *Gorreeus.*

ACROTERIA. 'Ακμαήμα. The Extremities, or extreme  
Parts os the Bedy, as the Hands and Feet. Castellus adds the  
Head, and Galen the Head, Noles and Pars.

Hippocrates, *Aphor. I. Sect. 7.* marks a Refrigeration of **the**Extremities in acute Diseases, as a bad Symptom. And, in  
*Aph.* ids of the same Section, he pronounces a Refrigeration of  
the Extremities, in painful Disorders of the Belly, of bad Prey  
sage. In the Geneva Edition of Foesius of I657,  
It printed, by Mistake, for Ἀκμαημὲν. It is taken Notice of  
in the Treause, *de Ratione Victus in Acutis,* amongst other had  
Symptoms attending acute Disorders. It is a .littie aster  
mentioned as an Effect of Oxymel, given improperly in acute  
Cases. And again, aS a Symptom attending a Causes, or  
Burning Fever. In the same Treatise it is also mentioned aS a  
Symptom os a Sort of Fit, there described, when a Patient in  
Health is suddenly seized with an Interception, or Loss os Voice,  
.without any evident Causes #

It is universally the Doctrine of Hippocrates, and, stoin him, of  
all other medicinal Writers, that, in acute Disorders, it is asiood  
Sign to have all Parts of the Body equally het\* . And that it is avery bad Symptom, to have the Arms and Legs cold, whilst  
the Belly and Sides are hot, and this is consumed hy common  
Observation.

- Galen says, a Refrigeration of the Extremities is often caused  
hy Affections of the Cardia, or left Orifice of the Stomach;  
and that it is a most pernicious Symptom, when it happens in  
Inflammations of the Viscera. Physicians meet with frequent  
Confirmations of all this Doctrine, in Practice.

ACROTERIASMU6. Ἀκμνηηριασμής. An Amputation Of  
any of the Extremities. See AMPUTATIo. .

ACROTHOREX, Ἀκμὲνἀρηξ. From ἄκροςί extreme, and  
'δωμὲνσω, to get drunk. By the etymology, it should seem to  
signify one that is excessively drunk; and thus, Constantine says,  
some interpret it. But it is more generally taken to signify  
One that has drank till he has just attained the first Stage of  
Drunkenness, or, as we express it in English, is fuddled.

- ACROTHYMION, Ἀκροθόμι». From ἀπὸ, extreme, and  
Φύμβς, Thyme

A Species of Wart described by Celsos. It is broad at **the**Basis, but narrow at the Top, hard, and rough. The Top of  
it resembles the Flower of Thyme in .Colour, whence it de-  
rives the Name. The Top easily splits, and bleeds. It is nfn-  
illyabout the Size of an Egyptian Bean, seldom bigger, sometimes  
very small. Sometimes a single one grows on the Palms of **the**Hands, or inferior Parts of the Feet, but sometimes there are  
inore. Those are most troublesome, which grow on the obscene  
Parts, and most subject to bleed. *Celsius,* A. 5. Co 28. *S.* 14.

ACMO. Red Coral. *Rulandus. - Johnsen.*

ACTAEA.. An Heth, mentioned by Pliny, *L. C.* **7.**Ray thinks it the *Aconitum Racemosum,* called also *Cbriflophocia-  
tia. Herb Christopher,* or *Bane-berry.* This is, in the Opinion  
. of all Botanists, a very poisonous Plant. But Pliny says, **the***Actaea* may he given in the Quantity of an Acetabulum, that is,  
half a Quarter os a Pint, in internal Disorders of Women.  
Either therefore Ray, or Pliny, or the Botanists, who repre-  
sent the *Aconitum Racemosum* as poisonous, must be mistaken.

ACTE. Ἀπὸ. The Elder.1 See **SAMBUCUS.**

ACTIN. ’Αάτὶε, or 'Αἀτίς. A Ray of the Sun, or of  
Lightening.

ACTINe. Ἀχτινη. A Name of the Herb Bunias or Na-

' pus. *Gorreeus.* See NA Pus.^

ACTINOBOLISMUS. Ἀχτινοβολεσμής, ’Ακτινΐβολία. Irra-  
distion. It is applied to that instantaneous Action os the  
animal Spirits, by which. they convey the inclinations os **the**Mind to the Organs os Voluntary Motion.- It is also called Di?  
**RADIATIo.**

- ACTIO. ACTION. The Actions or Functions os the Body  
are divided, by the Writers os Institutes, into the Vital, Ani-  
mal, and Natural. The Vital are such as are so necessary, that  
the Individual cannot subsist a sew Minutes without their Exer-  
cise. Such is the Motion of the Heart and Lungs ; the Secre-  
tion of Spirits in the Corehellum, upon which the Motion of the  
Heart and Lungs depends; the Circulation of the Bleed and  
Spirits in their proper Vessels. - . - .

. The Natural Actions are such as are necessary for the Con-  
tinnance os the Animal, but not so immediately, but that it  
may subsist a considerable Time without them, aS the Digestion  
of the Aliment, and its Conversion into Blood. -. '

Under Animal Actions are comprehended those which consti-  
tute the Senses of Touch, Taste, Smell, Vision, Hearing, Per-  
eeption. Imagination, Memory, Judgment, Ratiocination, Af-  
fections of the Mind, and Voluntary Motion, without any or  
allOs winch an Animal may live, but not Very comfortablyt  
*Boerhaave. . " - -*

The Writers of Institutes, also mention other Actions, which  
they call Peculiar to the Sex, Private, or Public. Those Pecu-  
liar to the Sex, are of the Organs of Generation in each Sex ;  
Private Actions are such as regard particular Parts; Public Ac-  
tions are those which are performed for the Sake of the whole  
Body, as, the Action of the Stomach in digesting the All-  
merit. ... ' -

These are also called Functions.

But all Parts of the Body have *«a-Action* peculiar to them-  
selves. Thus, the Offices, performed by the Muscles, Vessels,  
Glands, and Viscera, are called their respective Actions, which  
.will he explained under the Names of each particular Part.. -

so ACTIVUS. AcTivE. It is applied to Medicines whose  
. Operations are quick and brisk, and such whose Effects are  
Jiidden and great. .

- ACTON. A Town about five Miles from London, fa-  
mous for a purging mineral Water, of which Dr. Allen gives  
the following Account : . . \* :. ῖ

Much nitrous Efflorescence appears in the Clay about the  
Well. \*

The Spring opens northerly; it is reputed one of the strongest  
Purgers about London: It is noted to occasion a great Soreness  
of the intestines and Fundament, which is reasonably referred  
**to the** Quantity of Salt they wash from, the Body, but the Pent-

tration of the Sait os the Water may make it inore pungent  
and keen. The Water was whitish, not so clear as Eplom,  
not saltish, but rather to me seemed sweet, with a little of **the**Bitterness of Epsom : It curdles with Soap, as do all

The Salt of this Water is soft, and pot crystallized, where-  
in it agrees with Epsom Sals, though I thought scarce so soft.  
The distinct Nature of this Water, or Salt of this Water, con-  
fists in that this Salt is more calcarinus, or of the Nature of  
Salt of Lime; for the Water; boiled high, disturbed a Solu-  
tion of Sublimate in sain Water, whence it precipitated 2 yel-  
lowish Sediment, a little more yellow than the Water, which  
It left white. And this Salt is likewise more nitrous, or hath  
more of the Nature os the Salt of the upper Soil, as appears in  
that it takes a pale Yellow from Gall, bur duiky and disturbed,  
as common Salt doth effect ; not *so dirty, nor so* apt to precis  
pitate aS Sal Calcarium. With Syrup of Violets it took a  
Green, with Tincture of Logwood, made with Brandy, a deep  
Red and Purplish, as nitrous Salts do with cold Tincture of  
Logwood, winch hot would give a full Purple. The Salt  
did not precipitate fine Silver, out of Spirit of Nitre, which  
common Salt would. A Pint and a half of the Water yielded  
forty-eight Grains os Salt, in which were six Grains and a  
half of reddish Earth, on which acid Spirits wrought. The  
Earth precipitated in Boiling.. " *Allerts History of purging Wa-  
ters. \_ .’..st:. .tiosi.*

ACTUALIS. ACTUAL. This is applied to Things which  
are endued with any Virtue, Faculty, or Property, which acts  
by an immediate Power inherent in it. It is the Reverse of Poi  
tential, which signifies *endued with the Power of producing parti-  
cular Effects. - ' / - -l-*

Thus a red-hot Iron, or Fire, is called the *-actual* Cautery;  
to distinguish it from Cauteries, or Caustics, that have the  
Power of producing the\* same Effect upon the animal Solids  
and Fluids, aS *actual* Fire; these last are called *potential Cautej.  
ricL.* Thus also heated Liquors are said to be actually het, *Actu  
calida ’,* but Liquors, which are capable of producing Heat in  
the Body, though themselves cold, are said to he potentially  
het. sou........ . . sa: sarti.

Hence the Words, *Actus* and *Actu,* may he understood.

The Logicians and Metaphysicians make Use of this Word  
in Senses somewhat different from this, but -it is sufficient, for  
the present Purpose to explain the medicinal Sense.

. David LagneuS, in his *Harmonia Chymica,* printed in the *7hea~  
trum Chymicum,* Vol. dur quotes from fEgidius a Definition os  
the *Actus Activorum,* in these Words *z Actus Activorum sunt  
in Patiente disposito : id est, Forma agit secundum Materiae Disc  
posttionerns* Castellus, instead of *disposito,* - quotes it by Mistake,  
*Dispositio..* The Reader, that does not understand Latin, wist  
not suffer much, because I do not tranflate it, for it is equally  
Nonsensein English and. Latin. - ss I ........

ACTUARIUS was-not the Name, but the Titie of John,  
the Son of Zacharias, a Greek Writer of the latter Agesjoa  
Title, which, though commonly bestowed son the Physicians  
of the Constantinopolitan Court, has her some Accident, of  
winch it is not now possible: to discover the Original, been ap-  
propriated to this Writer, whois now scarcely known by any  
other Appellation. - - - στ.,λ .- νὰ-..u

That he obtained the Honour of this-Title, is almost **the**only Incident of his Lise, os'which any Knowledge has de-  
scendedtoour Times-; but-his Works, which remain, afford sufs  
ficient Testimony, that he was not exalted- beyond his Merit,  
find his Dignity was not the Veil of Ignorance, hut the Distine-  
tion of Knowledge. Ἀ -Ἱ ' ἰ t ά : ι 7.1

His sixrBooks of *Therapeutics,* which he .Composed for .the Use  
of the Lord Chamberlainj -whewent on san Ambaffyinto the  
North, tho’ written, as he informs us, with Very little Study, and  
designedonly sor the private'Use os the Ambassador, contain, aa  
Dr.Friend observes, not only ajudicious Compilation of theWrit-  
ings of his Predecessors, het some Observations not to he found  
in the earlier Authors, as in his Section on the *Palpitation .of  
Ale Heart,* of- which he mentions two Kinds,sone proceeding  
from Plenitude or Heat, of Blood, which is the most frequent  
-Kind , land' the other fromι Vapours; and directs, how they  
may he .distinguished, by remarking that an inequality of the  
Pulse always attends that, which is the Consequence, of Plinii-  
tude, but not that which .is produced by Vapours. . For thin  
Distemper he directs to purge and bleed, .in -which he has been  
followed by'rnany of the greatest Physicians of later Times.

His two Books, concerning the *Spirits,* are observed **byDr,**Friend, to he abstracted from Galen, and to he of little Use in  
the PracticeosPhysic. - .... . r mi. -.so ῖ.ώ.ψ .τ .

- The Doctrine, relating *toUrine,* is very amply laid down by  
him in seven Treatises, in which at least, if we believe-his own’  
Testimony,- he has made large Additions to the Observations of  
former Writers. ' εἴ . - ί ' - ...\ rassm

Hetsplaced hy Fabricius in-theTime of Andronicus Palae-  
alogus, about the Year i3Oo, or, according to others, noo.  
But, as he is not mentioned by any Writer of those Times, **the**Age,in which helived, cannot he ascertained; nor have weedy  
other Knowledge of his Education, Studies, or Morals, than  
that with which we are sopplied by his own Writings, from

. which wt they, with great Certainty, learn his Sentiments *at*least, though we cannot tell hew sar they influenced his Com-  
ducti S

In the Conclusion of his Discourse upon *Urines,* he speaks  
with a just Severity of those that engross Truth and Science,  
and are displeased with any Improvements made public for the  
Benefit of Mankind. The Slanders of these Men, says he,  
ate infections, against which it would he more for the Interest  
of the World to find an Antidote, than against any Contagion  
or Disease; and perhaps a Remedy, os resistless and never  
sailing Efficacy, may always he sound in a generous Confidence  
in God, a steady Conduct, with Respect to those with whom  
we converse, and a Vigilant Attention to our Words and  
Actions. —

His Discourse, upon *shc animal Spirits,* is perhaps neither more  
nor less intelligible than modern Treatises on the same Sub-  
ject ; he. considers it as the Minister of the Soul, and the De-  
sign of his Book is, to prescrihe the Methods by which it may  
‘ he enabled most Vigoroufly to execute the Commands of the sue  
perior and presiding Power.

He had a great Propension to Theory and Ratiocination,  
het was not contented to form Systems in his Closet, but extend-  
ed his Speculations to Distempers and Symptoms with which he  
was only acquainted hy the Means of Rooks, which have always  
been sound sallacious and uncertain Guides. For he informs us  
in his last Chapter on *Urines,* that, having spent some Time  
in the Study of Nature, he found himself strongly inclined to  
that of Medicine, and applied himfelf to the Theoretic Part,  
aS most closely connected with natural Philosophy; het that he  
should have been totally discouraged from the Practice, by the  
‘Disgust and Labour with which it is attended, had he not diss  
covered, that a just and solid Theory of the Pathology was  
absolutely necessary to the Science of Physic. It was my Opi-  
nion, says he, that Methods of Cure, not sounded upon Rea-  
soning, never could he relied on ; and that a just Theory would  
make Physic not only a more easy Study, but a more successful  
'Profession. ’. ' ss

As the Authority of *Actuarius* is not sufficiently established,  
to miflead any of our Readers, it is not necessary to separate  
with great Accuracy his Errors from his just Notions. I shall  
only observe, that Theory may make Physic easy, but its Sue-  
cess must arise from Experience. /

*. The Work of* **ACTUARIUs** *are,*

*'' Seven'Bodes upon* **URINES,** never published in Greek, but  
translated into Latin, by Ambrosius Leo Nolanus, whose Ver-  
sion was revised by Goupilus, and is printed both in Octavo and

. in Hen. Stephen's *Artis Medica Principis. -*

*Six Books of* **THERAPEUTICS,** not yet printed in Greek,  
of winch the Fifth and Sixth were translated into Latin by Ru-  
ellins, whose Version was published at Paris. HenricuS Mathi-  
sius tranflated the whole Work; His Version is extant, in the  
*‘Actis Medicae Principis. ' .* . τ 'ἐν

*' Onestook os. the Actions or Asserti ms, and asecond of the Nu-  
trition os.the NKYtAAA.* **SPIRITS;** published in Greek at Paris,  
by Goupilus, with the Titie : Περὶ Σπρνιιῆς καὶ Πα&ίν τοῦ ψυκιχῦ  
**Πνεύματος, καὶ τῆς κατ’ ἀπὸ» Διαίτής.' . . -**

’ A Latin Translation of this Treatise, written by Julius Alex-  
andrinus TridentinnS, is printed .both singly, and in *feae Artis  
'Medicae Principes, ἐν . - .*

His Treatise,. *De Venae Sectione, De Dlaeta,* his *Regales* and  
*Commentarii in Hippocratis Afihorisinos,* are said to he remaining  
in Manuscript. ...... . .

’ ACTUATIO.' That Change wrought on a Medicine, or  
.’any Thing elfe, taken into the Body, by the Vital Heat, which  
is necessary, in order to make it act and have its Effect, is  
called its *Actuation. Castellus. \ -* ς . ..

' ACUITASi The fame as Acrimony. *Castellus,* χ '

ACUITIO. This signifies the .Sharpening an acid Medicine  
thy an Addition of something more acid ; or, in general, the In-  
creasing the Force of any Medicine, by an Addition of some-  
’thing that has the fame Sort of Operation in a greater Degree. .  
...ACULEI. The Prickles, or Thorns, os Vegetables. *Plan.,  
'card: - ' - ss ' '* ' ς *s' ' ;*

];TACULE0SA."A Name of the *Carduus Polyacdntbos.* Thistle  
'Upon Thistle. *Pay, Hist. Plant.' ri -*

7. ACULOS. \*A»nce. The Fruit or Acorn of the Ilex, or  
Scarlet Oak. Tt is sometimes wrote fA«he»)AoUL ON; in the  
ί neuter Gender. *Gorrceus. Foesius. Theophrastus. Hes. cents.*

*t-* Hippocrates *(de Victus Ratione, Lib.* I.) says, these incline to  
.Costiveness, but operate most this Way, when roasted.

Y ACUMEN. .This is a Tenn lately introduced into Anatcbr  
my by Henricns a Deventer, .in his *Ars Obstetricandi.* In Page  
’\*I7s, of the Edition of I725, he cash the Protuberances of the  
..Oda Innominata, on which we sit, the Ofla Sedentaria, which,  
ihe says,, are the Acnmina of the Ofla Pubis. And, in Page  
\ 16, he calls the Os Coccygis ths Acumen Offis Sacri, the  
- I pointed Partof the Os Sacrum.

' ' ACUMENUS. An AthenianJ Physician, mentioned by  
.Plato. . He was Father to Euriximachus, and a Friend to So-  
‘ oratesi "All that we know of his Sentiments, in Regard to

Physic, is, that he presenej Walking in the Air, as an Exercise,  
to Walking under Portico's, in which he was Undoubtedly right.

ACUPUN CTURA- *Acupuncture.* It signifies a particular  
Way of Bleeding, by making a great many small Punctures  
with a sharp Instrument, made of Gold or Silver. It is much  
practised in Siam, Japan, and other Oriental Nations, in all  
Parts of the Body, even on the Bellins *of* Women with Child.  
*Hoistcr.*

ACUREB. Lead. *Rulandus. fobnsat.*

ACURON. A Name of the Ahsma. gee ALISEA. *Die.  
sccrides.*

ACUS. A Needle.

There are many chirurgica! Cases, where the Use of Needlas  
is highly necessary ; in some of which a Cure cannot he com-  
pleated without them, as, in penetrating Wounds of the Belly,  
and in divided Tendons, particularly that great one on the  
Heel, called the Tendo Achillis, where an incurable Tameness  
must he the Consequence, if the extreme Parts are not joined  
together again hy the Needle; and in others, where, although  
the wounded Parts have been healed without them, yet the  
Length of Time, taken in the Core, and the unseemly Cicatri-  
ces left behind, especially upon the Face, and other exposed  
Parts, sufficiently demonstrate the Usefulness os these Instru-  
ments, and the Folly and Unikilfuiness of thofe Surgeons, who  
attempt to work without them.

In Amputations they are found to he much preferable to the  
actual Cautery, or any restringent Applications for securing the  
Blood-vessels, and preventing an Haemorrhage.

In the Operations of the Aneurism, Bubonocele, Lithotomy,  
and in all others, where either large Blood-Vessels are divided,  
or the Lips of the Wound require to he brought nearer toge-  
ther, they are very useful and much forward the Cure : And in  
some Cafes, as, in the Operation for suppressing a Cataract, and  
in the Hare-lip, the Core is wholly performed by them.

Thefe Needles are of different Figures and Sizes, strait,  
crooked, and flat, all Very sharp, and made of well tempered  
Metal, *siauguion.*

But those, used in the Hare-lip, ought to he three Fourths of  
their Length of Silver; and the other Part towards the Point of  
Steel, the stiver Pin bring not so offensive to a Wound aS a brass  
or steel one. *Sharp.*

Those used in the Cataract, the Hare-lip, for making Setons,  
and generally for the Suture of the Tendons, and for sewing up  
dead Bedies, must he strait. - -

‘ In Amputations, and in most if not all other Wounds, the  
crooked Sort are used, which, Dionis says, are preferable to the  
others, because there are no Parts of the Body to which they  
CannoI.be used more conveniently, than those which are  
strait. - ε

The different Figures, of most Sorts, used in the several Opera-  
' - tions, fee in *Tab.* II.

*Fig., r.* A crooked Needle, with its conVex and concave Sides  
' \* sharp. This is used only in the Suture of the Tendon,  
and is made thin, that but few of the Fibres of so (lender  
a Body as a Tendon, may he injured in. the passing of it.  
This Needle is large chough for the stitching the *Tendo*

*-. Achilus. et' - - ; . .*

*Fig. 2.* The largest crooked Needle necessary for the tying of  
any Vessels, and should he used with a Ligature os the  
Size of that it is threaded with, it taking up the speed -  
- matin Veffeisin Castration, or the aural and humeral Ar-  
teries in Amputation. This Needle may also he used in  
sewing up deep Wounds. .

Fig. 3ν A croohed Needle and Ligature os the most ostsel Size,  
bring not much too little for the largest Vessels, nor a great  
. - . ' deal too big for the smallest ; and therefore, in the taking  
up of the greatest Number\*of Vefleis in an Amputation,  
is the proper Needle to he employed. This Needle is Of a  
Convenient Size for sewing up most Wounds.

*Fig.* 4. A fmall crooked Needle and Ligature, for taking up  
the lesser Arteries, such as those of the Scalp, and those of  
the Skin, that are wounded in opening Abscesses.

Srg. I. A strait Needle, such as Glovers use, with 2. three-  
edged Point, used in the uninterrupted Suture, in the Su-  
tureof Tendons, where the crooked one, Hy. I. is not  
preferred, and in sewing up dead Bedies. *Sharp.*

*- ' .1 \* - \**

Great Care should he taken by the Makers of these Needles,  
to give them a due Temper, for, if they are too soft, the  
Force, sometimes exerted to carry them through the Flesh, will  
bend yhem ; is they are too brittle, they soap; both which Ac-  
- indents may happen to he terrible Inconveniencies, if the Snr-  
: geon is not provided with a sufficient Number of them.

It is of great Importance alfo to give them the Form of a  
Circle, winch .makes them pass much more readily round any  
\* Vessel, than if they were made partly of a Circle, and partly  
of a strait Line; and, in taking up Vessels at the Bottom of a  
deep Wound, is absolutely necessary, St being impracticable to  
turn the Needle with a strait Handle, and bring it round the  
Vessel, when in that Situation. The convex Surface of the

Needle is flat, and its Edges are sharp 5 its concave Side ta  
composed of two Surfaces, rising from the Edges of the Needle,  
and meeting in a Ridge or Eminence, so that the Needle has  
three Sides. This Eminence of the Substance of the Needle  
.on its inside strengthens it Very much, but is not continued **the**whole Length of the Needle, which is stat towards the Eye :  
some are made round in this Part, but they cannot he held  
steady between the Finger apdThumb, and are therefore unfit  
for Use. There have been Needles made with the Eminence on  
**the** convex Side, and a flat Surface on the concave Side, but I  
do not *sen* any particular Advantage in that Structure. *Sharp.*

**' , a**

*Fig.* 6. A Needle frequently *os* Use in tying up bleeding Arte-  
ries. From *Haster.*

*sts..* The Point of the Needle which is blunt.

B. The Eye.

**C.** The Head. - ’Ἀ

Fig.. 7. A Needle somewhat crooked, invented by Fabricius ab

Aquapendente, for perforating Fistula's of the Thorax.  
This is drawn somewhat too short.

Fig.. 8. A Silver Cannula, which, when introduced to the Bot-  
tom of a Fistula, serves as a Director for the Needle  
Fig. 7- - ’ .

Fig.. 9. A Needle for making a Seton. It is to he heated red-  
hot when used. From *Scultetus.*

*Fig., so.* A Needle for.cutting a Seton.

.’ Heister says, this may also he conveniently used for cut-  
ting the Cornea in a Hypopyon. But when thus used,  
a Slip of Plainer must he wound round it, at the Mark  
A, which serves instead inf ainEminence, to prevent it from  
going-too far.

Fig.. II. A Needle for perforating the Lohe of the Eat. At  
the blunt extremity it is hollow, and flit like a Larding-  
pin, for the ConVeniency of inclosing a thin Piece os  
Lead, which is to he left in the Perforation. .;

Fig.. I2. A Needle, which, Scultetus informs us, is used by the  
Italian Surgeons in Castration. But he recommends it  
for perforating Fistula's at the depending Part. The  
Concave Edge is sharp, the convex blunt. When it is  
. passed into a Fistula, the sharp Edge is to he guarded by  
a Piece of Wax.

Fig.. 13. A Needle with a triangular Point for the Hare-  
Lip. ? . -

Fig.. 14. A Needle with a flat Point for the same.  
*Pig.* 15. Another Sort of Needle for the same Use.

Fig.. I 6, represents the Manner of passing the Needles, and  
winding the Tbread round them, in the Operation for the  
t Hare-lip. ...

*Fig.* 17. A large crooked Needle, used in making a Seton in  
the Neck lengthways. *Horsier.*

*siFlg. iS.* A large Needle, Very sharp at the Point, to be passed  
through the Basis of the Breast before Amputation. *Scul-*

*; tetus. ' \ - . . . . .; ;*

*frig.* Io. Represents the Form os the Needle used by the An-  
tients for depressing a Cataract. This Instrument was of  
Silver. The Point was thin and round like a common

ς Needle.

*Fig.* 20. Represents another of the same Sort, with a triangn-  
\* - lar Point. . : -r ;. . ‘r.  
*Fig.* 2I. Another Sort os Needle for the same Use. . The Let-  
ter A represents a long flender Steel Needle. The Let-  
ter B one that is larges, C is the Handle, made either  
. of Silver, Brass, Ivory, or Wood.

*Fig.* 22. Another Needle used in Couching, with a Point some-  
r. whet broader, \ \_ . V

*Fig.* 23. Another, recommended by Briffeau, little different  
from the former, except that it has a Salens near the  
Point. . . /. ‘ :

Fig. 24 and 25, Represent two Needles, made Use of in the  
same Operation of Couching. *Pig.* 24, has a Sulcus at  
!. : the Point like the preceding, and is destined for cut-  
ting the Coats of the Eye; when that is done, the Needle  
*Fig.* 25, which : is more blunt, and more proper to de-

.. press the Cataract, must he introduced through the Sul-  
. . ens, and then that. *Fig.* 24, is m be withdrawn. - .

*Fig. 26* and 27. Two Needles to he used like those represented  
Fig. 24 and 25. From *Aspini. si su.*

*Fig.* 28. Another Needle, proposed by Albinr. The Point A  
is to be introduced into the Eye ; and, if ‘the Cataract is  
membranous, it is to he laid held of above the Part Cl. by  
depressing the Handle. B. Heister thinks this not redu-  
cible to Practice with any Advantage.

. Fig. 29 and 3O. The preceding Instrument taken in Pieces.  
*Fig.* A Ρ the Point with a Sulcus in it. . B is a

. - . Foramen, which receives the Eminence **D,** *Fig.* 30,  
. which is sastened by a Very small Pin at **C,** *Fig.* 28.

E , *Fig.* 30, is a thin Plate of Steel, which, by its Ela-  
sticity, keeps the Point C, *Fig.* 3o, eloso in the Sulcus

i atA,Hy.29. But when the Pars, marked B, Fig. 28 ’  
j and 30, is depressed, the Point C, *Fig.* 3o, separates from

the Sulctis A, *Fig.* 29, and so lays held of the membran-  
Ous Cataract.

Fig.. 31. A Needle, contrived for couching the right Eye,  
with the right Hand of the Operator, by Means of a  
Bend at C, wherein the Nose is received,' during the  
Operation.

*Fig.* 32. A Case to he screwed upon the Needle, *Fig.* 3I, in  
order to preserve the Point when not in Use.

**Fig. 33.** A Needle used in making a transverse Seton, with **a**Foramen at A.

Fig.. 34 Α Needle used in joining the Tendo Achillis by Sus.  
ture, when divided. Hiostcr. ' -

*Fig.* 35\* A Needle, proper for the Gastroraphy.

Fig. 36. The Acutenaculum, os, as the French call it, Por-  
taignille. \* . .

Fig. 37. Garengeot’s Acutenaculum.

ACUS PASTORIS, is a Name given to the Sdandix, Shep.i  
herds Needle, or Venus’s Comb. See ScANDix.

' ACUS MOSCHAT.A, is the Geranium Mosehatum. **See**

**GERANIUM. ’ - . \ ’**

AcuS is also a Fish thus distinguished:

AcuS. ARISTOT. *Acus fecunda sorties,* Rondel, de Pise.  
**I.** 229. *Acus fecunda fpectes Roruleletii,* Gefin de Aquat. 9.  
*Acus Aristotelis,* AldroV. de Pise. 102. Jons, de Pise. 36. *Acus*7. SalV. 68. *Acus Aristotelis, feu Acus fecundaspecies Rondeletii,*Raii Ichth. 158. Ejusd. Synop. Pise. 46. *ficus alterafpecies,sme  
Acus Aristotelis, Blennus aliquibus dicta,* Schons. Ichth. Ii. *Typhle  
marina,* Bellon, de Aquat. 446. *Peiimbuaba,* Charlt. Pise. 16.  
The TOBAcco-PIPE FISH. It is sound in the Adriatic Sea, or  
Gulf of Venice. Galen recommends the Ashes of this Fish,  
drank in some convenient Vehicle, for the Strangury. *Dale.*

. There is another Fish also called *Acus.* Both Sorts are esteem-  
**ed** very indifferent Food, being juiceless, and affording Very  
little Nourishment. *Castellus.*

ACUS also signifies Chaff.

ACUSTICUS. Ἀκουστικός. Belonging to Hearing. It is  
applied *to* the auditory Nerves; and to Medicines, or Instru-  
ments, used to preserve, or restore the Sense of Hearing. *Castell.,*

ACUSTO Nitre. *Rulandus.*

\_' ACUTENACULUM.. This Name is given, by Heisterjsto  
a chirurgica! Instrument, which the French Surgeons call Por-  
talguihe. It is a Manubrium or Handle for a Needle, contrived  
for the more commodious Management- of it in Operations,  
where some Force is required to make it penetrate., y See *Plate*IL *Pig.* 36 and 37.

ACUTUS. ACUTE. Galen explains the Meaning of this  
Word thus:

Many Physicians think, a Disease should be called *acnte,*which soon comes to a Crisis; and the Contrary to this, re-  
puted chronic. But this is an Error; for there is a Disease os  
a short. Date [βραχυχρόνιοντ not altogether, *acute,* and yet con-  
trary to a Chronie, Poly-chronic, or whatever other Name you  
.will please to call it.' This Disease, winch has no Name, is of  
**a** Nature opposite to *acnte,* and not without Reason. It is the  
Property os an *acnte* Disease, winch Archigernes describedIo he  
such a one as is dangerous for its Velocity, and Hippocrates by  
its bring attended with a continual Fever, to hasten to a Crisis,,  
for it takes the Name *oi acute* from a particular Species of Mo-  
tion : But it must soon cease, os Necessity, hecause it hurries  
' to its proper End ; for to move swiftly, is the same Thing as th .  
hasten to the Endos that Motion. The Disease, indeed, will he  
short on all Accounts, hut called *short* and *acute* in different Re-  
spects. " For the Colerity. of its Motion, it will he called *acnte ;*and, .because it is impossible to endure long under such Motion,  
jt will also be stiled semi. But it participates of the Nature of  
another Distemper ; for many diary Fevers, that owe their  
Rise to external Heats or Colds, Fatigue, Waking, Sorrow,  
Drunkenness, Anger, and the like, are both short and incon-  
siderable, and quite Void of Danger. None, whether Physician  
or otherwise, use to call thefe Distempers *acute* ; and therefore  
*short* and *acnte* are manifestly distinguished in these Very Iin-  
..stances. : : . - . 1

*Slew* is also confounded with *long* j though they convey dis-  
serent Ideas ; for *acute* is the proper Opposite to *flora,* as *store*is to *long.* To conclude, whatever Disease *\s acute,* is of short  
- Duration,- and whatever Disease is chronical must, os Neceshty,  
he flow. -. But it does not follow, that whatever is short must  
*he acute,* or-whatever is flow must, for that Reason, be chronical.

Galen is, in this Place, somewhat obscure. His Meaning  
seems to be,- that a Disease must move with Velocity to A Cri-  
.sis, and must he attended with Danger, in order to render st,.  
properly speaking, an *acute* Distemper. This Idea of an atifa  
.-Distemper is conformable to the Account given of it by Other Au-  
shots, and Galen himself in other Places. ' s ;

- Febrile Distempers, or Diseases attended with a considerable  
.Degree of Motion in the Bloed, and consequent Heat, and

which terminate soon, are usually called amongst *us acute Diseases,*to distinguish them from chronical Distempers, which arg longer  
in coming to a Period, and proceed with less Velocity. - - -

ACUTUS in general signifies sharp, or inrirling, or pointed,  
'whether is is applied to Medicines, Aliments, Instnmvents, Parts  
of the Beds, or any Thing else.

ADAL. . In the Sense of Paracelsus it signifies that Part  
of Plants, in which their medicinal Virtue consists: Or the  
pure and active Part of Plants, separated from the impure and  
inert.

ADAMAS. A *Diamond,* from α Negative, and Ααμάω,  
to conquer, because it cannot he broken.

*Adornas.* Ossic.Worm. IO2. Calc. Musi 2O2. Kentrn. 47.  
Schw. 358. Aldrov. Musi Metal. 945. Charlt. Foss. 36. Boet.  
115. De Laet. 1« Geoff Praelecti 83. The DIAMOND. A  
precious Stone, exceeding. hard, and of the greatest Value,  
colourless, and diaphanous like Water. The best come from the  
East-Indies.

AS th its Virtues, and those of other precious Stones, we  
chuse to entertain the Reader once sm all, with the Opinion of  
Paulus Ammannus, We differ greatly about the Names of  
precious Stones, while we are ignorant of some, which were  
known to rhe Antients, or call them by other Names. We  
are still more divided about these Value, which is merely  
arbitrary- But the greatest Difference of all is about their  
Operations, of which we have Accounts stuffed wish infinite  
Falsities, Superstitions, and Fables. It is not our present  
Business to consider their Names and Value, we shall, there-  
- sore he the more careful about their Virtues; and; because these  
„ Stones are taken inwardly, they- ought not th be counterfeit,  
and they are also to produce some certain, determinate, and  
natural Effect. But who knows all the Cheats, antLWays of.  
Counterfeiting, put in Practice among the Jews, Portuguese, and  
other impostors ? Intwo Respects especially they impose upon  
’ us ; first, as they put off Occidental for Oriental ones; for I  
presuppose, according to the common Opininn, that the best Stones  
Come from the east-indies, which is plain also from their  
vivid and sparkling Light; for, who does not know the Dis.  
serence between an Indian Diamond,, and the others ? Second-  
sy, pasting upon ns Fluors for precious Stones: In a Word,  
Glass for Diamonds, *fForrni pr* ιόI. The Effect of preci-

. ous Stones ought to he natural, from something really in them,  
some inherent Virtue,, which, according to. Faber, *Panchym.****L. An*** *S.* 4 p. 521. they are endued with, though, perhaps, not  
a little clogged bycorporeal Obstacles;'. ..By.’this Very Proposi-  
tion, 1 cut off all superstitious and sabulous Operations and  
Powers, which Authors have assigned to precious Stones, in-  
stead , of a determinate and natural Effect,, of which yon have  
Examples in Wierus, *de Cur. Moles, p. All,* &c. This Load  
of Lyes and.Vanities bring then discharged, I doubt, we&all  
find but little Reason, in our Way osPractice, to boast of  
our: Performances by the Force of Gems. To instance in the  
*Diamond,* the moil precious of them. all,, show much is our  
Profession obliged to its prevailing Virtue and Efficacy *i Why,*little or nothing c Eor.it is salse- and sshuinuS r - . I  
' I » That it. resists the Anvil and Hammer without Damage.

Ϊ 2. 'That' it ir a Jewel of ReConciliation,, extinguishing ma\*  
frimonial Jarrs. .... *-pris*

' 3. That, laid under the Pillow, Rediscovers Adultery. 1

4 That, to look upon a *Diamond,* hereditary im the Fa-  
mily, at set Times, produces theBirth of la new Member in  
that Family. . \_ ; ( -c

’ Away with that’ dark Veil os Fables, and let us see what  
Merit it has in Medicine. You. shy,it. cures the 'Dysentery:  
How. can that be true,. when it is commonly said to exulcerate  
the Intestines j But, suppose it were in, who shall sixth . Price  
on this Remedy *y.* for Jess than a Dram will hardly operate *3  
And R Diamond above* that Weight, is, to us, .inestimable.  
The like in to he said sor the Amethyst,‘..which .is thought to  
resist Drunkennesq iftaken. inwardly 4. shr, barely.womett. cm  
never have that Effect. This is in the Ntunher oi precious  
Stones, and is too dear for any Body hut Princes to purchase,  
especially when it is the Humour os most Persons, rather.to get  
drunk, than study how to avoid it *J The Fragments, of* ***the***stVesprectous stones, that is, the sapiure. Granate, Emeralds  
Jacinth, and Cornelian, Γ confess, are kept in the .Shops i  
but, if you examine into their Use and, Virtues,-yon'.will find,  
that *Fancy hadtsee greatest Shors in hriagesg. thesmStntessin-  
sm.thePfactiiescofPbysu,* that Princes and great Men might he  
taught to believe, that something-wpndersolly chrdial lies hid  
within .them, which, to speak rhe. Truth,, you may sooner  
find\* in the most common Flint, or anyOther Simple. ‘ T'speak  
my own Thoughts Υ He, who main tains the contrary, in to  
prove his ' Asiertion ; and, *a Man os. Practice will scorn to  
fpcah without Reason or Experiences* Now, why these prea-  
out Stones should contain fitch a comfortable and cordial Vis-  
me,’ we are to seek for a Reason, and Experience gives ns no  
Information ; therefore, I conclude, that, with Respect to their  
medicinal Virtues, -the Characters,they have acquired, are,more  
owing to Imagination than Reality. *Dale. .* ά. -t. . .

*Diamond,* the hardest, most transparent, and most brilliant  
jus all Gerris. It is of the Colour of the dearest Water ; but  
this Colour is sometimes mixed with white, yellow, or black.

which are reckoned Blemishes. *Diamonds* consist of crystal  
Laminae,. or Strata, laid upon each other, and the Joinings *sis*these Tables may he discovered by skilful J ^.pidaries,- and then  
they are easiry separated with -the Edge of a Knife. *Di****amveu****ls*are not calcinable by Fire, nor changeable by the Sun's Rays,  
if the plain Surfaces os the Platm he exposed to them ; but the  
Edges, or Extremities, easiry admit the solar Fire, and thed  
they are separated as before, and afterwards malted into a MS  
Of- Glass, winch retains nothing of the Splendor of the Jyim.  
*mrnd.* They are found only in the East-Indies, and in Brazil,  
but are not used in Physic. *Geisseay.*

The *Diamond,* by some, is reckoned poisonous r Others wist  
not admit it into the List of Poisons. The Accounts, in Favour  
-of *Diamonds,* are. more numerous, aS well as more credible,  
than those which would make us believe they are of a-poisonous  
Nature.- Bembus telis a Story os one Tristan Cihelete a Cy-  
priot, Ambassador of -Ferdinand, Ring of Naples, who killed  
himself by swallowing a *Diamond* that he wore in a Ring j  
but, when he adds- that he also drank Aqua Fortis, it remains  
a Doubt, whether the *Diamond* or the Aqua Fortis was the  
Cause of his Death. Again we are told from Aventine, that.  
the Poison with which a Monk of the Order of Praedicants  
killed Henry VII. of Luxemburg^, Emperor of the Romans,  
in the Eucharist, was made of a *Diamond.* But, it is hardly  
Credible, that so small a Quantity of Dust of *Diamonds,. as*was capable of bring mixed with one Host, as they call it, ..  
should work so great an Eflect; het it was, doubtless, a Poison  
of sar greater Force and efficacy. . , ' ‘

- However, that we may not he charged with omitting what  
Authors have written, concerning the Symptoms and Cure of  
those who have taken a *Diamond,* we shall relatewhatwe find  
in them, as follows : . ... . ἐν.

- The Symptoms, consequent on swallowing ai *Diamond* re-  
duced into Powder, are, a most tormenting Pain-of thebros  
mach and Intestines, which it excites by dissolving the Continui-  
ty of the Parts; this is followed by a SyncopeVand ends in Death;

The Cure consists, first, intrying all- Manner of Ways to  
eXpei the Matter of the Stone out of the-Body; - Here ’tispror  
per to hegin with a Vomit, which we are to provoke with  
Butter, sweet Oil, sat Hen or Capon strath, and the like,  
-1 If the Poison he got-dowrt to the intestines, we are directed  
to the Use of lubricating Clysters, prepared *of* Mallows, Marsh-  
Mallows, Linseed, sat Flesh. Broths, Oil; Butter, and such  
like, in order to scour it off. After this, they prescribe the  
Blood of a .Goat,- either, fresh or dried,-with sat Flesh-Broth,  
which, except it be done with an Intent to provoke Urine, is  
oertainly ordered in Compliance with the vulgar Opinion, That  
the Blood of a Goat brealts a Diamond. Some prescribe the  
true Balsam, to the Quantity of a Scruple; or two ; and **the**Patient is- to drink clear, diuretic Wine. If all these have no  
Effect, Recourse is to be had to general. Antidotes, and Reme-  
dies which are effectual in Corrosions and Ulcers of the Intesa  
tines, which mayhappem from the Nature of the Poison acting  
ohthofe Parts. *Sennestus. y''. '*

*ι AD.AM* AS-is also a Name given by Astrologers to the Moon.  
*Jdmsm. ' '* ἱ-’ιι, τ  
.ADAMANTIS.' .The Narne of a Plant, which, according  
toPliny, grows in -Cappadocia and Armenia. The Fable he  
relates of it. is, that -it will make Lions fall down, and disarm  
them ns their FirTcerinss..-L. : 2.4.- C, .I7. - - - - -  
*'-.'ADAMITUM, or ΑοςΑΜΙΤΑ.* -Thehardest white Stones,  
which, Paracelsus says, are *st* Species of Tartar. *Adcmnturnihae*cash these’Stones ; and *Adamita* the Stand in the Bladder. *De  
Tantarp. L.* I, . ο. ϊ. " *r* i  
:::ADAMUS. AD’Ast.- ThS first Man. Professions- have, by  
an unaccountable Vanity, endeavoured to extend their AntiS  
quity: beyond alL Bounds of Credibility.- Physic, or at least,  
some of its Professors, have been guilty os this Weakness ; -but,  
tesdothein Jushce,.-.the.iimt in in the soflowing lnstaneetaken  
from the Divines. .. .. ... ;- They say, Adaniwas inspired with-a Sagacity, which made  
him capable of discovering the specific Nature of all natural  
Productions at the first Sight, and that this made him acquainted  
with the medicinal Virtues of all Simples. This Sagacity, they  
fry,, was neeeflary, in order to enable him to give Names fig-,  
rnficant of the Natures of Things. This makes Adam not  
only the first Physician, but a much hetter than any os his Po-  
sterity enukl possibly he, without an equal Degree of Inspira-  
♦inn. ...

: It is added, that as Adam lived to a very great Age, and  
muffihave seen many medicinal and chirurgica! Cases, his own  
good Sense must have furnished him with a great Number of  
physiological Remarks, and medicinal Observations.

ADAMUS. ADAM.- This is used, in an alchemistical  
Sense, to fignisy the Philosophers Stone, which they call an ’  
Animal,- and say it has earned its invisible Eve in its Body»  
ever since the Momeatthey were united by the Creator. *Theocr.  
GheK.P..* 5C9. - -st. *'A-si ' - ;*

They also tell us, that this sacred Adamical Stone is sbrm-  
**ed *of* the** Adamical Mercury of the wise Men, which by its

Marriage and Unlon with the Female Eve, forms a third Sub-  
stance, which is, I suppose, their celebrated Stone. *Theatr.  
Cbscn. P.* 520.

'. ADARCES. What they call *Adarces,* is produced in Ga-  
latia, and is a Sort of Concretion of a saltish Humour, which  
is bred in moist and marshy Places by Drought, and concretes  
about the Reeds and Grass. Its Colour is like that of the sine  
Powder of the Assian Stone, Or Sarcophagus, and its Substance  
all lax and porous, much like the Bastard Sponge; so that it  
might he called the *Bastord Spenge of the Marjhes.*

It is a Topic adapted to rub and scour the Skin in a Leprosy,  
Sun-burning, Tetters, Freckles, and fitch like Blemishes, he-  
. ing in the Whole of an acrimonious Quality. It is also a  
Drawer, and therefore good for the Sciatica. *Diofcerides, Lib.*

5. *Cap.* I37.

*Adarces,* Offic. Boet 402. Matth. I377. Aldroy. Muf. Me--  
tall. 2I3. *Adarce,* J. B. 5. 8O4. Chais 575.

Whether the *Adarces of* Diofcorides he the same with DI.  
Plott’s, in his Natural History of Oxfordshire, I cannot deter-  
mine ; nor whether their Virtues he the same, has any one, that  
I know of, been at the Pains to try. The *Adarces* of Plotius is  
nothing but a Concretion of stony Particles, of a white Colour,  
- which one Water at its Meeting with another Water, suppose A  
Chalybeate, precipitates, and fo incrustares Grass, Twigs, and  
other Bodies floating by it . ..

Many learned Authors have observed such an.Incrustation ;  
Pancirollus, for Example, four M'he from Rome, without the  
Gate of Ostia, commonly called SI. Paul’s; and Doctsr Mar-  
tio Lister, in the Conduit d’Arcueil at Paris, whence he con-  
ceived a had Opinion of it, *s* the learned and worthy Gentleman  
concluding, that whatever lined the Cavities of the Pipes of  
'an Aqueduft with a strong Crust, would probably work the  
seme Effeci in the Reins and Biadder, especially if thofe Parts  
were infirm and tender. See his *Journey to Paris,* and *Esesay  
m the Stone.* If you would know more of the *Adarces,* read  
Boetius, p. 405. *Dale. -*

It is called alfo *Calemechnscs,* or *Calemchanus. Salmastus. '*ADARNECH. The same as *Auripigmentum.* Orpiment.

*Balandus. . - . .;*

ADARIGO. Castellus quotes this Word from Rulandus  
and Johnson, and explains it *Orpiment.* But neither of these Au-  
thors mention theWord. Johnsen has ADARIGEs, which he  
says is *Armmiacum,* which he transcribes from Rulandus, by  
Mistake, for *Adirige.* lam inclinable to believe he means the  
Salt, not the Gum, for hath have been wrote thus, instead of  
*Ammtrniacum. si . . ...... , . r .. .*

ADARRIS. Rulandus explains this by Flos-Maris, which  
should mean the Spuma or Foam of the Sea. But according to  
the German Word,- by which he tranilates it, - it seems to he  
seme Flower. However, ,1 am rather, inclined to believe it  
means the former. . « .. . . *. .y ... \ -su*

. ADARTICURATIO. A Species of Articulation Of the  
Bones, the fame asARTHRoDiA..; her ARTHRODIA. 7

ADAXOMAE. Castellus has latinised this’Word, and made  
it an Article in his Lexicon; The Word is from a Greet Verb  
ἀὸάζασθαι, to he affectsd with a painful Itching. *Gasque ’*. ADDEPHAGIA, or ADEPHAGrA’. 'fresuri, or ’Αὸὸη.  
φαγία. From aiwabandantly, andpdur»,;to;eas. Insatiabi-  
lity: A voracious Appetite. *Ccsastantine. GasteSius : : - :*

ADDITAMENTUM.. The fame, as EpIpHYsIsi\* The  
large Epiphysis of the Ulna, at the Elbow, is called AsiDITA-  
MENTUM NscATUM. *Castellus.* .. . . . . ' π

ADDITIO. ADrn.TioN. . When any :Thing that .is de-  
ficient is supplied by Surgery, it is called *Addition, Oflaiuns.*to distinguish it from another Part of Surgery, 'which consists, in  
removing whet is redundant, and superfluous, which -is called  
’.Αφαίρεσις, *Subtraction.* And of these two. the whole Art of  
Surgery consists. .i ’ 7 mi in

. ADDU CTOR. Many Muscles Are called by this Name,  
as of; :i

S ADDUCTOR MINIMI DIGITI PEDIS,. orTRAtis-  
YERSALIs PBDIs PL-ACENTINI, arifes tendinous from the  
external *Os Sefamcidaum* of the great Toe; finely adhering to  
-the tendinous Part of the *Adductor Pollicis,* scon growing fleshy,  
it passes over the Extrerhiry of two of the *Metacarpal* Bones,  
between them and the *Flexores Digiterum^osA* then, growing  
broader, is inserted into a Tendon that proceeds from the *Ex-  
panse) Tendinofa* in the Sole of the Foot, and partly into that  
cartilaginous Ligament that covers the Articulation of the first  
Joint of the third lesser Toe, with he cti *Metaturii,* some , of  
.its fleshy Fibres bring contained upon the same Part of the  
IittleToe. . - - : .

ItsUse is to bring the third and fourth lesser Toesmearer the  
other two and the great one. *Douglas. . . . -*

ADDUCTOR OCULI, arises tendinous and fleshy, .from  
the Edge of the Hole in the *sphenoidal Bane,* that transmits the  
*Optic Nerve* between the *Obhquus Major* and the *Humilis: - -*Is inserted by a thin Tendon into the *Tunica Sclerotica,*where it respects the great *Canthus.:. - -*

Its Use into bring the Eye toward the Nose. *Douglas.*\_ ADDUCTOR POLLICK MANUS AD INDICEM,  
ANTITHENAR RIOL Arises from the Outside of the up-  
per Part of *isuOs Metacarpi Indicis. . -*

/Is inserted into the first Joint of the Thumb, fending off a  
thin Tendon, which runs along with the *Extenser Pellicle  
Longus.* ... 7.

.. Its:. Use is to drawthe Thumb nearer the Fore-Finger.  
*Douglas.*

ADDUCTOR AD MINIMUM DIGITUM. Arises a  
little tendinous, hut chiefly fleshy, from the whole Length of  
*the Metacarpal* Bone, that sustains the Middle-Finger, from  
whence its Fibers, contracting equally on both Sides, run up  
jo the Thumb.

It inserted into its second Joint, a littlehelow One of its Seed-  
like Bones. . ‘ ;

.Its Use is to bring the Thumb towards the Ring and Little-  
Finger. *Douglas. .*

. ADDUCTOR POLLICIS PEDIS. Arises by a long;  
thin, difgregated Tendon, from the *Os Calcis,* under the tendi-  
nous Part of **the** *Masses Carnea,* from the *Os Cuboides,* from **the***Os Cuneiforme Medium,* near the Insertion of the *Permaus  
Primus,* and from the upper Part *of* the Or *Metatarsi of the fo-*cond Toe: It is soon dilated in a pretty large Belly.

Is inserted into the external *Os Sefamcidaurn* of the Great-  
Toe. i - - ' ' " ,  
. Its Use is to bring this Toe nearer the rest. *Douglas.*

: ADEC. Sour Milk. Or Butter-Milk. *Rulandus. Johnston.*ADECH: Paracelsirs says. *Spiritum interius agentem Distric.*

*tioriis Causa Adech vocare selea.* The Author - of the Explications  
of the Words used by Paracelsirs defines AtjEcH, *the intofible  
internal Man* (or Part of Man) which impresses the Ideas or  
Forms of thofe Things on the Mind, which are visible or tan-  
gible by the external Man. Rulandus fays it is *the internal and  
imajscble Man,* which concerts; or fays the Plan of whatever  
the external and visible Man afterwards executes or imitates  
with the Hands. -: . . 6 " ss

This any one in bis Senses would probably call the *Soul,* but  
Enthusiasts. Alchymists, and Madmen; think-it-a Derogation  
from their Honour to make Use of th& intelligible Dialed of the  
Vulgas. - .so- 2;... - - - -

- ADEGTOS, .’Ahetio. From α Negative, and ὸάἀπό, to  
bite. It is an Epithet of those Medicines which relieve from  
Pain, by removing the uneasy Sensation caused by the Stimu-  
lation of acrimonious Juices, or Medicines. *Castellus* front Τι-  
*raquellus.s cis. ... - - ' -*

ADEDENTES. *Phagullanic,* or eating. See PaA GEindur  
NA. It isapplied to Ulcers. *Castellus. - -*

: ADEHEMEST, Α ton ONE c, or AL HO HONE c. Eulan.  
dus explains it by *Camina,* a thin Piece of Metal, a Blade; sc  
ADELOS, ’Αὸηλος. -From \* Negative, and ὸάλοί, manbr  
soft. Not manifest, insensible. 'Αὸελα πρόσκαιμα, are Things  
which Are :the Subjects of the Senses when they appear; but  
**which** at the present Time do riot appear; their being insensible;  
therefore is only temporary, which the Word πἐνκαιρα ’implies.'  
This is a Term of the Physicians Of the Empiric Secti - *Car.*neusfrom *Galen. - - .* ' τ τί,

ADELPHIA. Γπηη Ἀὸμας, a Relation. Thus Distetmi  
pers are called by Hippocrates, which are like, bear Relation;  
or Analogy to each other.. τ" ἐν. .

ADELPHIXIS.- 'Αλλφιξις, of the same'Derivation as *Adisc  
phia.*' The Analogy, Relation, or Similitude, which some Parti  
*of* the Bedy, and some Distempers have with others.' OS the  
Communication, Consenti or' Sympathy of seme Parts with  
others. *Hippecrates. Foestlum :- ‘* ; - .-i

o ADEMONIA, Αὸβμονία.; From a Negative, and .helqui,.  
a Genins. Divinity, or Fortune. 1 This is ;a .Word used some-  
times by Hippocrates, to express that great Uneasiness, Rest-,  
lefness, and: Anxiety, which Patients frequently complain 6f, in  
acute Diseases more especially, and is remarkable in some Kinds'  
of hysteric Fits, of which it is mentioned as a Symptom by  
Hippocrates in his short .Treaufe, *De his quia ad Virginem  
spectant.':'- - ’ '* ;ιξ « r;‘. ' ’ .’S.

. ADEN.: -’Aha. Ἀ Gland:-'.See GLANDULA.) ui " '  
. ADENIsS, Άλννὑί. From α Negative,.-and herr, Cprrnr.  
cal. It signifies inadvertently, carelessly, done without Gares,  
or Forecast. Foesius from *Galen* and *Hefoehlum. isc 'l l.-sc*

ADENOIDES, ’Ahisihis. From aha; ‘a Glahdquiand.  
**«Οος;** a Form. It signifies Glandiform, Or like a Gland, and  
is used as an Epithet for the *Prestatas* ; See PRoST AT.s.‘  
*! Castellus,* - \* ' .... τ. .ῖ

- ADENOSUS ABSCESSUS, **is a** hard, crude Tubercle, re. -  
fcrnbling a Gland, very difficult to he resolved. *Castellus* from.  
*Marcus Aurelius Severinus: '* i

"« ADEPHAGIA. See ADDEpHAGrA; ' i

ADEPS. -- *Fat.* This is an Animal Oil, .contained in the  
*Membrana Adipose,* **or,** as Boerhaave calls it, the *Mamhralum  
Cellulose,,* which is not a single Membrane, but a Congeries of  
**a** great Number of membranous' Laminae, joined irregularly

-th each other at different Distances,' so aS to form nnmeroas  
Interstices of different Capacities, which communicate with  
-each other. These Interstices have been named *Cellula,* and  
the Substance made up of them, *ffiae ceUulaus Substance.*

The Thickness of the *Membrana Adipose* is nor the same all  
over the Bedy, and depends on the Number os Larninz, of  
which it is made up. It adheres very clofely to the Skin, runs  
.in between the Muscles in general, and between their several  
Fibres in particular, and communicates with the Membrane  
which fines the Inside of the Thorax and Abdomen. -  
. This Structure is demonstrated every Day by Butchers, in  
blowing up their Meat, when newly killed, in doing which;  
they not only swell the Membrana Adiposa, but the Air insta  
nuates itself likewise in the Interstices of the Muscles, and pe-  
netrates even to the Viscera, producing a Kind *of* artificial Em-  
lphysema.

' These cellular Interstices are so many little Bags or Satchels,  
.silled with an unctuous or oily Juice, more or less liquid, which  
is called *Fat,* the different Consistence of which depends noton-  
.ly on that of the oily Substance, but on the Size, Extent, and  
Subdivision of the Celis.

It is generally known, that the illustrious Malphigi took a  
.great deal of Pains, about this Substance; that in Birds and  
Frogs, the Viscera and Vessels of which are transparent, he  
-thought he saw a Kind of Ductus Adiposi; and that, by pressing  
these Ducts, he observed oily Drops to run distinctly into the  
small Ramifications of the Vena Portae.

The Manufacture of Soap, the Composition os Unguentum  
-Nutritum, and the different\* Mixtures of Oiis with saline and  
acid Liquors, give us some Idea, at least, os the Formation of  
Fat in the human Bedy; but the Organ which separates it  
from the Mass of Blood, which ought to he the Subject of our  
present Inquiry, is not aS yet fussicientiy known.

Fat is more fluid in- living than in dead Bedies; It melts  
with the Heat of the Fingers in handling it, and its Fluidity is  
in Part obstructed by the Sacculi, which contain it. To take  
it intirely out of these Bags, the Method is to set the Whole  
over the Fire in a proper Vessel; for then the Bags hurst, and  
.swim in Clusters in the true oily Fluid.

This Substance increases in Quantity in the Bedy, by Rest and  
good Living, and, on the contrary, diminishes by hard Labour  
and a spare Diet. Why Nourishment should have this effect,  
is easily conceived, and it is likewise easy- to see, that an idle  
sedentary Life must render the Fat less fluid, and consequent-  
ly more capable of blocking up the Passages of insensible Tran-  
spiration, tbrough which it would otherwise run off.

*s* - Hard Labour dissolves it, and consequentiy fits it for passing  
**our** of the Bedy, with the other Matter of insensible Transpi-  
ration. Some are of: Opinion, -that it returns into the Mass of  
Blood, by the capillary Veins, and that it can, for some certain  
’Time, supply the.Want of Nourishment. -  
r By this, they- think, the long Abstinence of some Animals  
-may he explained; but, I am apt to believe, the mere De-  
crease of cutaneous Transpiration, occasioned by the continual  
Rest and Inaction of these Animals, has a great Share in this  
Effect., w ν - ’ ; . ρὶστὴ - ‘ su - -- - I-'--. - --

The proportional Differences, in the Thickness of this  
Membrana Adiposa, are determined, And may be observed to  
he regular in some Parts of the Body, where either Beauty or  
Use required it. . -... ι. νύ -

n Thus we find it in great Quantities, where the Interstices of  
the Muscles would otherwise have lest disagreeable hallow or Void  
Places ; but, heing filled, and as it were padded with Fat, the

. Skin is raised, and an agreeable Form given to the Part, *.s ...*

The Appearance of-a Person moderately *Ant,* ofa Person ex-  
tremely lean, and of a dead Carcass, from whichalFthe Fat **has**heen removed, proves sufficiently what I heve said,-'νοῦ ' δ'

In some Parts ofthe Bedy the Fat serves for a Cushion, ΡΠ-  
loam or Mattress, as on the Buttocks, where the Laminae and  
Celis are very numerous.in Other Parts .thistMembrane has  
few or no Laminae, and consequently little or noFat, aS cm the  
Forehead, Elbows, &e. όσ-4. n . ... \. *cz :*

ssln some Places.it seems to he braced down by a Kind of na-  
rural Contraction in Form osa-Fold; as in that Fold : which  
separates the Basis of the Chin from the Neck ; and in that  
winch distinguishes the Buttocks - from the rest of-the Thigh;  
Weobserve it likewise to be intirely. funk, or, ~as.it'were, per-  
serrated by: a. Kind . of Dimple Or Foffnla, as in the Naval of  
sat Persons. . . . : σοῦοῦ- - - - -

t; These "Depressions and Folds are never obliterated, let the  
. Person he ever so ssat, because theytare natural,’ and depend on  
the particular Conformation of. the Membrana Adiposa, the La-  
minae ofwhichare.wantingat.these Places.

The Fat is likewise of great. Use to the Muscles in preserv-  
ing the Flexibility necessary for -their Actions, and in prevent-  
ing or lessening their mutual Frictions. This Use as of the  
same Kind withithat. of.the-unctuous Matter found in the  
Joints. .... . σ I.

. Lastly, the Far Is. a. fine tidy Substance in its natural State,  
and may he. fome-Desence. against .the Cold, which we tint

makes more Impression on lean than on fat Persons. Lt is  
sor this Reason, that to guard theruielvesr against the execs,  
five Colds of hard W Inters, and to prevent Chilblains, Tra-  
fellers rub the Extremities *of* their Bodies, and especially  
their Feet, with lpiritous Oils, such aS that of Turpentine,

This .Mass of Fat, which makes an universsl Integument os  
4he Body, is different from that which is found in the Abdo-  
men, Thetas, Canal os the Spina Dorsi, Articulations of the  
Bones, and in the Bones themselves.

But the Differences os all these particular Masses of Fat eon-  
fists chiefly, as I have said, in the Thickness or Firmness of  
the Pellicles, in the Largeness or Smallness of the Colis, and in  
the Consistence, Fluidity, and Subtilty of the oily Matter.  
*Wtnsinds Anatomy. - .*

To this Account of **the** Fat I shall add that of the celebrated  
Leeuwenhoek.

After the Discoveries that I had made concerning the Cir- '  
eolation of the Blood, particularly that the Blood-vessels had no  
Endings, I began to consider hew the fat Particles could he  
formed, since I did not think that they were separated from **the**Blood, and came out os the Blood-vessels. But having now  
plainly discovered, that the so called Membranes were nothing  
but very small Vessels, and helieying that they were created sor  
no other End but to transport\* Nutri mens, as also that there was  
ho Circulation in these Vefleis, I imagined, that the Matter,  
which we call Fat, was brought into them, which, when there  
**was** too great a Supply of Nutriment, so that it Could not he  
forced farther on, must he driven out of these Vefleis ; for all :  
the Particles of Fat, that I have as yet observed, are inclosed in  
small Films. -.. . ... ’ ’

This Original of the Fat is to she much more credible, than  
that it should he forced out of. the Blood-Vessels; and yet how  
these satty Particles, which consist of large Globules, and those  
os still smaller Globnles (as it appears to me) arewnade and form-  
ed, I cannot as yet determine : As also where these Vessels,  
which' constitute what we call Membranes, have their Be-  
ginning, and how this Fat is brought into them.

' - I had in Iny Drawer a Piece os Ox’s Flesh, that I believe had r  
lain there about four Years, wrapped up in a Paper, which Piece  
I found in some Places to he covered with a Membrane; front  
this T cut off several small Slices along with the Membrane,  
and I sound that, near the Membrane, there lay about sixteen or  
eighteen nervous Fibrils, which, in the drying of the Flesh,,  
were *io* squeezed together, that they were almost twice as long  
as they were broad. - In some of winch I saw Very distinctly  
those Vessels which are in the Nerves; τι dur

νύ These nervous Fibrillae were inclosed by a Sort of Half-round,  
separating them from their muscular Fibres, which Half-round  
consisted of a Row of small tendinous Fibrillae,: each of which  
was about twice as thick as allair of a Manis Beard. *c* With-  
out these tendinous Fibrillae lay the muscular Fibres, that had  
been out through transVerfly, and in this Part ofthe Half-round  
there were several Apertures, which seemed in .the Microscope  
to he big enough for Hemp-seed to pass through them, which  
might well he taken sor Vessels, but that there lay- so many of  
them together. But, considering that the Nerves "are common-  
ly Covered with satty Particles, I concluded, that these Apertures  
were no Vessels, but mere satty Particles, which I found to **he**true when Lhad cut through them, and discovered that the in-  
ward Fat was eaten ’out by the Mites, which had lest only **the**Hulks, or Cortices, of the fat Globules behind, which Cortices  
I never had as yet been able to discover, because the Cortices  
of the sat Globules would, upon any Heat, melt away as sast as  
the inward Fat. --- --- \_ 1 .  
t I have formerly1 find, that the Matter which we call Meal,  
or Flour, in Wheat, Rye, Barley, Oats, and in all Sorts of  
Beans, is shut up, aSin.Were, in little-Cells, or Chambers, and  
that those little Colls are separated from each other by.thin  
Membranes, which are thinnest in-Wheat:- And as in .the  
Enquiry-into whet in called the Periosteum of an Ox or Sheep,  
I have often broke in Pieces the fat Particles thereof, -and as.  
often Viewed them through a Microscope ; so have I likewise  
placed a sew of the sat Globales upon a dean glass Piste, and ’  
held it : over a Coal-fire; or the Flame of a Candle, Till they  
were all melted and reduced into a liquid Matter; so that not  
only the Fat, which was shut up in the Skin of the sat Glo-  
bules,- but likewise the Skin itself was reduced to a fluid Mat-  
ter Land thereupon I immediately brought it before my Sight,  
and. Viewing it with Attention, perceived, when the melted Fat  
was hold; that there were different Matters inclosed in the said  
fat Globules; for there appeared an inconceivable great Num-  
her of exceeding small coagulated Particles, and the rest of **the**Parts, of which the Fat was composed, lay in one- smooth and  
**eVen** Substance, -and I have considered, whether there .might not  
he inclosed, in such a Globule of Fat, so many little .Cells and  
Partitions, aS we see in a little Grain or Seed, but, if it be so,  
is will remain concealed from our Eyes.

, . But having now again carefully contemplated these coagu-  
li lured Globule of Fat, many of which go to the nuking of one

little Bubble, I did ostensancy, that I saws that each of the said  
small Patti Hes was provided with such a transparent Deut, as I  
have before said, that the Meal Globules of Wheat, &c. are  
firmished with.

Nay, I have fancied to myself, though it did not appear to  
shy Sight, that each sat Particle is furnished with little Celis  
-within, like the Seeds or Prints of Plants. .

Since I wrote this, I was informed my Butcher had killed a  
Sheep of an uncommon Bigness, and that it weighed 140 Pounds,  
-without the Fat that they took out of it, aster it was killed,  
which weighed 5 I Pounds, so that the whole Sheep weighed  
above I90 Pounds.

I caused a Piece of the Fat that grew abont the Kidnies  
to he brought to me, imagining, that its sat Particles Would he  
of a coarser Grain than those of ordinary Sheep; for I have  
observed several Times, that the bigger an Ox was, the larger  
were the sat Particles thereof; and since not one Man in a  
Thousand has any Knowledge of the Contexture of these sat Par-  
ticks, for we find that there are not any two of one and the  
seme Figure, they being compressed by other Particles with  
which they are surrounded, I have caused some few of these  
sat Particles to he drawn, as between A. B. C. D. *Plate* IIL  
*Fig.* I.

Now when we meet with one of these little Bundles os sat  
Particles, as has frequently occurred to us, in which the fat Par-  
deles were sour Times this Thickness, I imagine, that such sat  
Particles cannot he produced out os one single adipose Vessel,  
hut that, out of such a Vessel several small Springs issite forth,  
and out of each of those small Springs proceed others still smaller,  
and that out of these Particles one larger fat Particle is formed  
like a Bunch of Grapes.

Now I cut off withR Razor the Fat in several Places os a  
greater Piece, as thin as I could, laying the thin Pieces upon  
several glass Plates, and put them upon a Coal-fire, so as to cause  
them to melt; and, being melted, immediately viewed them  
with a magnifying Glass, when I observed the Skins, or mem-  
braneous Coats ofthesht Globules lying ainong the melting Par-  
ticles, and in the said melting Particles there was nothing to he  
perceived but a limpid Matter, surrounded with small Air-  
bubbles.; but, when the. Fat was congealed, we could observe  
hut Very littie of the Membranes, because they were covered  
with the Particles of Fat, with which these Membranes*AAe*Skins had before been filled. . .... ’ am ;

I caused a sew of these Skins of the set Globules to beairawn,  
between E» F. G. H. *Platefrl. Fig. A.* During the laid Ob-  
servation, I fixed my Eye. with Attention upon the fat Parti-  
cles of the Sheep which had been melted, and were agaiurcoa-  
gulated ; and I Could, not hut judge, that these sat Particles,  
.which were exceeding small, were analogous to that internal  
Matter, wherewith some of the smallest little Seeds are furnish-  
ed, and, .in a great many of these exceeding small Particles, J  
could in clear Weather discover some Transparency. 2... j :. -  
: MoreoVer, I cut as thin Slices as It was possible of the Fat,  
yea, so thin, that five or fix of them did put weigh s Grain,  
and pur them into, a littie Water, in order to try whether *I*could make any sartherDiscoVeries thereby, with Respect to  
the small Particles of Tat, but it was in vain; only I saw  
stoatingtjpon the Water Very small. Particles ofFat, winch.were  
coagulated in a spherical Figure, and the very biggest of these  
sat Particles was nothigger.than. a Grain ofSand.: I placed, these  
’ -Particles upon a glass Plate, and viewing them with a Micro\*  
dhope,T:obserVed theiFigure, which I .mentioned, above,; aS  
.plainas before, andotherfiir Particles-seemed to he os a.differ  
rent Figure ; I put. one. of these, into the Hands of my Painter,  
or Designer, bidding him to draw what he had obserVed,, it  
bring the Figure of one of the said far Particles, which was  
coagulated on the:Water,as it is.represented between LKL. M.  
*Plate* III. Fry. i. which was not Very conformable with the other  
melted sat Particles ,.:for, .in the.doing it, all the Partielesdid  
not rnelt, for thesat Paiticlesare not all extracted by the.Wa-  
ter, and coagulated upon the .Water in smaller and greater glo-  
bular Particles;. and when we takeout os it the Remainder os  
the thin Slices of Fas, which stoat upon the Water, and view  
them with a Microscope; we find, that many of the sht Par-  
aicles appear intire To the. Eye; and whereas they were '.before  
very smooth and even; in their. Sides, they were, now'change  
ed into rough and uneven Particles; so that one should.he  
apt ter think, that there were two different Sorts of Parti-  
cles in the Fat, and. that .one Sort maited moreeasisy. then the  
other. . - -r .. . .;.-t  
. Now in order to get thefe anehed Particles of Fat out; of **the**Water, without altering them, I made Use of a . round Glass,  
and with it shimmed the Superficies of the Water, by which  
Means some of the coagulated Particles stuck, to th4 Glass;  
Moreover» I did again melt some of the sat Particles, which  
had been coagulated upon the Water, over a. Coal-fire, as they  
lay in the Water» and, when they were again coagulated,  
viewing them with a Microscope, I sound: the small na. Parti-  
cles to he yet smaller than those that were melted **out** *of* **the**

‘ Water. --

. In this last Observation I obserVed, with Astonishment, the  
inconceivable Number of Veins and .Membranes, which wercdiffused through the Fat, and the Multitude of separated sat Par-  
tides, that were involved in their several Membranes.

Aster this there was laid before me the Hind-quarter of a such-  
ing Lamb, over which was spread what we call the Net, or  
Caul ;. and having cut off some Pieces of the said Net, or Catd,  
upon which there was little or no Fat, with a pain of Sciflars,  
and placing them before a Microscope, I observed again, that  
the sat Particles, where there were Very sew of them included  
between the Membranes, were of a more globular Figure than  
in other Parts, where a good many lay together, and that in  
other Places they were pressed and bruised, which I fancy was  
occasioned by the Butcher's squeezing the Caul in that ρ]^  
with his Fingers ; and in another Place the fat Particles had '  
been so torn in Pieces, that I could see nothing remaining but  
the Skinsof the sat Globules.

Moreover, I saw that the sat Particles had fuch a Pinch,  
or Deut, in them, as I have shewn, that there were in the  
Globules os Flour os Wheat I from which Spectacle, I am  
confirmed, more than hesore, in my Opinion, that the sat Glo-  
bules might he separated intirely, or in Part, from the gkin .  
with which they are surrounded, by opening the Dents, without  
breaking the Skin. ,

Then I took off the thin Membranes, which encompassed  
the sat Particles, and Viewing them with a Microscope, obserVed,  
that the fat Particles had imprinted a roundish Figure on the  
Membranes inclining to a hexangular Shape, that it was a Plea..  
Ture to look on them ; hut in other Parts they were of an  
Figure. \* -

MoreoVer, I took a flat Fish, which we call *Plais.e,* **and**took off the Fat which adhered to the Vessels, or Bones, and  
viewed it with a Microscope, and observed, that the fat Parti-  
cles were of several Sizes ; and some were so small, that I  
judged that fifty of the least were no bigger than one great sat  
Globule; and moreover, I saw that many of rhe sat Globules  
had such a Dent in them, aS we find in the Meal or Flour of  
those little white Beans, which we call French or Kidney-beans,

Afterwards my Servant brought to me. the Fat of a Pearch,  
which was mineor ten inches long, and taking a little of it, I  
Viewed it with a Microscope, but could not discover any small  
Particlesinit, nor any internal Dent, as I had obserVed in the  
Fat of a small Plane. 'χνὰ

Aster that the Fat os the Pearch had lain an Hour or two upon  
she Glass,; I Viewed it again, and observed, that the Particles  
were become smaller, and that the Skin of the sat Particles,  
which as yet was beset with some fat Particles,. was, as it were,  
shrunk or wrinkled, and the Fat, that was burst out, lay about  
thesat Particles, and was so fluid and transparent, that we could  
not discover any Parts in It. u . : ;

From this Observation I began, to think, whether each of  
these sat Particles was not. provided with an Orifice, or Hols,  
putos which the Fat. might he protruded at :all .Times, as often  
aS the Parts of the Fish stood in Need of Nourishment, with,,  
out art intire Laying open the Skin Of the fat Globules; for, wI:  
Constantiy find, that when the Eggs of the Pearch, which wf  
call the Ros, increase imBigness, iss Fat decreases, and that in  
such a Manner, that when the said: eggs, or. Roe, are arrivedat  
their utmost Bigness,, .there, is seldom orhever.any Fat to befeexj.  
upon the Intestines of the Fish. χ ) r

As totheComposstionof Fafi itisformedthy a.finall Portion  
’of Earth,, joined with elementary Fire; acid.helt, and Water,  
according to the Account Geoffrey gives of it, who adds, that  
if Oil of. Olives andsspirie-ssNitie be mixed together, and  
digested, 4 Substance will she. sound imeveryRefpect resembling  
the Fat ofAnimais,./ .:ss: . ’’ ’ Ἀ

This confirms whatssssid under the Article of ACTD, in  
RegardT6.thesnhammaheity of animalOijs,.which*stat, so* **.4.**

As to the.medicinal UseofFat, Quincy having mentioned thaf  
of the Goose, .Dog, .Man, Viper, and Bear, .says, .these are to  
*he slums* with, in the IntearionofRipening and Drawing; because  
they are reckoned to he os a penetrating .Nature, and theresore  
suited to dissolve and rarefy the; Humours inclosed in Tumors,  
and bring thens, as it is. called,-to. Maturity. .. There are some  
speciheWirtuesiascribed tothese Jn. particular Cases, but they  
have not been supported by Reason or Experience. And they  
seem not possessed of any. Properties different from other stdin:  
stances ofstikeKind, unless what may arise .out.of rhe»- dissed  
rent Consistencies and Degrees of Volatility.

I apPrehend by this, that the Author means, there is little or  
no Difference with Respect to Medicine, betwixf the Fat of  
one.Animal and.another.. But if. we consider, chat pat in n0fcan hemogeneouS Substance,, but composed of.Principles greatly  
disterent from each other, as are Earth, Fire, Water, and acid  
Salts; and; again, thatanimal Fats have alwa- a fma1l P0rtioQ  
of alcaline Volatile Salts mixed with them, We (hisll find Reason.  
toheheve,.tbyt the Fates one Animal may.hayemedichndEi-  
sects, Veay distarent smm that of another, 35 the ρΓ0ρ0Γύ0ΙΙί!.  
Md cornbuBUons of the component Principles vary, rmd si  
Oe vrfaufe Sslts are snra ttthavolatildur by cedlating in

the animal Juices. I should suspect the Fat of Ahimalonwbo use  
little exercise, and live on Vegetables, to he the most lenient and  
mollifying; and that of Animals which move a great deal, or  
seed on other Animals, to he more penetrating, warming, and re-  
solvent, because, in these, the Jluces in general are more exalted  
and attenuated than in others.

Thus we see the specific Virtues, ascribed to some animal Fats  
in particular Coses, are supported by Reason ; and as for Ex-  
perience, we have that os all Mankind to warrant them, who  
have mentioned them from the infancy of Physic to this Day,  
unless a few, who have of late affected to determine the Effica-  
cy ofMedicinesby particular Theories, without consulting Ex-  
perience, the only sure Guide, which in the present Case, if  
carefully attended to, would have convinced Dr. Quincy, as ft  
has me, that the Eats of different Animals are actually endued  
with different medicinal Virtues.

? In the Course os this Work, I shall have frequent Occasi-  
ons of making Remarks upon this Folly of contradicting actual  
Matters of Fact, only because their Causes are not obvious and  
manifest. Mean Time I will give some Account of the the-  
dicinal Virtues os the Fats found in different Animals.

FATS OF BEASTs.

.. -- .. . .7 Of the **HORSE. . . -**

,. The Fat of the Horse is .properi for anointing luxated  
Limbs. *Dale.-..i ; : . ..* : 1;.

Of Cows, or OxEN. '

All Sorts of Fats are endued with the Virtues of Warming,  
Softening, and Rarefying. 4 . ... . ςοῦ ς  
- But that of Bulls, Cows, and Calves, is in some little De-  
greerestringent.- *Diofcorides. ...ss.ss..*

Beefs Fat, or Suet, is particularly recommended in Mortifica-  
tions of the Intestines, a Tenesmus, for Ulcers, and Chaps of  
the Lips, and gouty, or scirrhous Disorders. The Fat of the Bui-  
saloe is in Virtue like the Preceding. . *Dale.*

The Fat is emollient, and is used in Balsams, Ointments,  
and Planters. It eases Pains proceeding from Colds; cures  
Kibes and Chilblains, and heals the Chapping of the Hands, Lips,  
Nipples, Fundament, &c. *Pomet. ...*

.: Of LIONS. ’.

i The Fat of Linns is in Virtue like those of Cows, *. Diosto-  
rides.* ’ ... . ς .:L.’ ’. - S ... ” - . ' si -

The Fat os Lions, washed, according to the Directions os  
Diofcorides, and dropped into the Ear, eases Pains thereof; it  
is a good Application for Limbs in Danger of a Mortification  
from CokL It is useful in scirrhous Tumors, and. Kibes, *Dale. .*

**Of ELEPHANTI.**

\* The Fat of Elephants keeps Serpents and Venomous Reptiles  
away from those that are anointed with it. *Diofcorides.-*

**., Of STAGS. -**

. The Fat of Stags has also the same good Effects aS that of Ele-  
phants, in preserving from Venomous Reptiles. *Diofcorides.*

*s* Hippocrates, recommends the Fat of a Stag as a rnollisying in-  
gredient in a Pessary.' *Tie Natura Muliebri, L.* I.

The Fat of Stags is said to he good for mollifying Tumors,  
for Kibes, and for easing Pains. *Dale.*

. The Fat, or Suet, is equal to the best Emollient. It lenifies  
and softens. Callosities, Contractions, scirrhous and cancerous  
Tumors. *Pomet. - - ἐν - ' -*

of the GOAT. -s

Hippocrates recommends the Fat of a Goat aS a good mollify-  
ing Ingredient in a Peflaay. *De Natura Muliebri, L.s. -*

The Fat of Goats as somewhat astringent. The Fat of the  
He-goat is a powerful Discutient, and for that Reason a proper  
Topic.in the Gout, beat with Trickles of Goats, and Saffron.

*^Diofcorides. ~ ' su "'si*

The Suet, or Fat, of the Hergoat powerfully diseufles, is usesol  
in the Gout, cures the Strangury, ‘and relieves the Pains caused'  
hy the Piles. *Dale. -*

- We bring from Auvergne, near Lyons, and Nevers, a great  
deal of Goats-seet, it bring not only of some small Usein Physic,  
especially that of the He-goat, but is also used to'many different  
Purposes. It ought to he dry, of a clear White within and with-  
out, and take Core it he not mixed with Mutton Suet, which it  
is not easy to distinguish ; therefore do not deal with Merchants  
you cannot trust. ............

. Of SHEEP.- .

Hippocrates recommends the Fat of a Sheep as a mollifying  
Ingredient in a Pessary. *De Natura Muliebri, L. t.* anda *De  
Morbis Mulierum, L. 2. ‘ ‘*

The same Author advises the Fat taken from the Kidney of **a**Sheep, as preferable to any other, to he mixed with Elaterium  
shr the funning a Pessary, to promote the Menses. *De Morbis  
'Mulicyum, L. i.*

Hippocrates advises the Far of Sheep boiled with Lenthes and  
**W ine,** for washing painful KxHlrerations of the Uterus, *sire  
Morb. Mui. L.E*

And in many other Places he advises Pessaries os Sheep’S Far  
made up in Wool, as being very mollifying.

Hippocrams directs the Fat of a Sheep to he taken internally,  
to prevent a Miscarriage. *Dehisquceljterumnangertait. .*

Sheep’S Fat is a proper Topic in the Gout. *DioscariAc,*The Suet, or Fat, os Sheep, given in red Wine, checks Hike  
morrhages, steps Diarrhoeas, Dysenteries, and cures the Gripes.

- Of SwINE.

- Hippocrates advises theFatof Swine, boiled with Lentiles and  
Wine, as proper to wash painful Exuloerations. os the Wornh  
*De Morb. Mui. L.i.*

S wine's Fat, or Lard, is accommodated to Disorders of the  
Uterus, and Anas, and for Burns. *Diosioridcs.*

The Pat of Swine is said tO hear inis, than chat of othegi  
Animals, and therefore it is more proper, in refrigeratio g Oint-  
inents. It eases inveterate Pains in the Loins and joints.

The Fat of the Wild Boar has the same Virtues in a greater  
Degree. *Dale.*

**Os ASSES.: . ..**

The Fat of Alles is reported to make Scats of the same Co-  
lour with the rest os the Skin. *Diofcorides.*

Of BEARS.

Bears Fat is excellent for making the Hair grow; and a good  
Application for Kibes. *Diofcorides. .. sc - s .*

The Fat of a Bear warms, mollifies, and discusses. It cured  
Baldness, is" good for. the arthritic’ Pains, and cures Swel-  
ling?, os the Parotid Gjands, and other Tumors, as also Ulcers  
in the Legs. *Dale. ' su.*

Bears Grease and Tallow are brought from the Mountains  
of Switzerland, Savoy, and Canada- The Grease, if it he good,  
ought to be.fresti, or new .melted, greyish; gluey; and of a strong  
dll Smell, of a middle.Consistence, that is. to say, hetwixt hard and  
soft; and meddle not with that which is white and hard, bring  
mixed with Suet. This Fat, or Grease, is a sovereign Remedy  
**for** curing cold rheumatic Humours. \* It is also much Valued  
*for* easing Pains of the Gout, by rubbing the afflicted Part, and  
to make the Hair grow; fit being esteemed admirable against  
Baldness, especially when incorporated with Bees in Powder  
and Nut-oil. As for the Bears-tallow, there is but Very little  
of it brought into France, it bring little used, and that only'  
by those who will not come up to the Price of the Grease.  
*Pomet. . ’. '*

ς \* Of **FOXES.' . :**

' The Fat of Foyes is good in Disorders of the Ears. *Disco.,  
rides. .*

TheFatof the Fox is good for Convulsions, Tremors, and  
Contractions of the Limbs ; it is useful in Pains of the Ears;  
Wounds ofthe Head, and Baldness. *Dale. : -*

*Of the CAMEL.*

The Grease, or Fat, jo emollient, softening, and resolutive,  
proper *for* the Piles or Hemorrhoids. . *Lemcry.*

**' " ' Of the MOUSE. '**

.: At Venice they sell a Pomatum at an extravagant Rate, made  
of the Fat of Mice, which is famous for curing Baldness.

. . Of the CAT.

The Fat of a Cat in heating, emollient, and discutient, and  
wonderfully relieves Affections of the Joints. *Dale.*

Of Doos.

The Fat of a Dog 'is warmer than that os most other Ani-  
mals, and is given internally, to deterge and consolidate Wounds  
and Exulcerations, and therefore it is proper in a Phthisis, or to  
dissolve Blood coagulated by Falls or Bruises. Externally it is  
applied in the Gout, to ease Pains of the Ears, to kill Nits and  
Lice, to cure Deafness, and in the Itch. *Dale.*

Of **WOLVES.**

The Fat of the Wols is equal in Virtues to that of the ting.  
It warms, digests, cures Disorders of the Joints, and is good for  
Eyes that are inflamed. *Dale.*

If the Bridle os a Hotse is anointed with the Fat os a Wolss  
**it is** said the Animal will not move forwards.

C . . . . . -  
**..... t Of the OTTER.**

The Fat of the Otter is by Hollerns esteemed a Very good  
Ingredient in Applicatioris for Disorders of the Joints. *Dale.*

: Of the HEIjGL-HoG.

**The Fat of** the Urchin or Hedge-hog is reckoned by Hart-  
man **a** Specific in Ruptures. *Dale. - . . .. ...*

**Of the HIPPOPOTAMUS, or SEA-HORSE.'**

**The** Fat of the Hippopotamus, or Sea-horse, applied to the  
Pulse, or Stomach, relieves against Fits os the Ague, and is emol-  
lient and nervous. *Pomet.*

Of the **CHAMOIS.**

The Fat of the Chamois, or Gems (Copra Alpina) is re-  
commended in a Consumption, and Ex ulcerations os the Lungs.  
*Dale.*

- Of the HARE.

The Fat of a Hare, applied externally, has sech a drawing  
Quality, especially when old, that it is said to bring away Thorns  
accidentally fixed in the Skin, or Flesh. It breaks Abscesses, and  
Cures Pains of the Teeth. *Dale. . .*

**. Of the RABBET.**

The Fat of a Rabbet is useful for Indurations of the Joints  
and Nerves *Z' (Isuppose he means the Tendons). Dale.*

*-s et. so -* Of. the BEAVER.- ' -

The Fat of the Beaver is peculiarly adapted to Disorders of  
the Uterus, and nervous System, and therefore is useful ut Epso  
lepsies, palsies. Convulsions, and Apoplexies. *Dale.*

The Fat os a Beaver is used aS an Ointment against the Pal\*  
sy. Convulsions, hysterical Fits; Apoplexy, and'falling. Sick\*  
ness. Take half a Pound of BeaVers Fat, Oils of EossteVyS  
Nutmegs, Amber, and Mace, of each one Dram. *Pomet.*

. . -Of the TIGER. ...... - . *c.*

TheFat of a Tiger agrees in Virtues, with that of a Dog.

' gul '' 'Σπ,πέ , ...ἄκἐν.μά. ' . '  
....t,..-/. **Of the LEOPARD.**

The Fat of a Leopard is reported to he an excellent Cosme-  
tic. *Dale... . ...... ' ' '*

, Of the LYNX- ..''si ' -

The Fat of the Lynx, or Ounce, is recommended sor Limbs  
that are Paralytic, .convulsed, or luxated. *Dale.* \*. - s.f.

Of the **CROCODILE»**

The Fat of the Crocodile is recommended in Wounds and  
Cancers. *Dale.*

*Of VIPERS. - ’*

. The Fat of the Viperis sudorific, resolutive, and anodyne,  
, taken internally or externally, the Dose from one Drop to six.

*Libury.* **- - ς ; i ' . \* -**

**. Of HUMAN FAT.***' e*

Human Fat is said to strengthen and discuss, to relieve Pains,  
and cure Contractions, to mollify the Hardness of Scars, and  
to take away unseemly Marks left by the small Pox. *Dale. .. .*

Human Fat or Grease is brought us; from several Parts, as  
every Body knows in Paris j the public Executioner fells it to  
those that want it; fo'that the Druggists and Apothecaries sell-  
Very little. Nevertheless, they vend a Sort that is prepared  
with aromatical Herbs, and which is without Comparison  
. much, better than that which comes from the Hands; of the

Hang-man. This Adeps, or Axungia,.. is. reckoned Very good:  
for Rheumatisms, and other Diseases, proceeding from., a cold  
Cause. ...

’ Manis Grease is emollient, discussive, anodyne, and anti-  
paralytic. It is good against the Gout and contracted Nerves,  
made into anointment, as follows : Man's Grease two Pounds ;  
Gum Elemi half a Pound ; BeeS-wax and Turpentine, of each  
one Pound; Balm os Gilead or Peru, four Ounces; mix and  
make an Ointment by melting all together; *Pomet. . - '*

.: ῖ - - ' ' OR τηβ FAT OR BIRDS.. -

**Of GEESE. ς ' - foe - ’**

Hippocrates recommends the Fat of a Goose aS a mollifying ’  
Ingredient in a Peisary. *De Natura Muliebri, L.* I.

The same Author advises the Fat of A Goose, as a proper:  
Ointment for painful ExuloerationS of'the Uterus. " *De Morbis'  
Mulierum, L.* i. ’....'

.. Hippocrates says, the Fat os Geefe in the-best for Pessaries.  
*De. Morbis Midierum, L.* 2. And he advises Pessaries of Goose  
Grease in several other Placim

. Hippocrates advises to take the Fat of Geefe internally to'  
prevent a Miscarriage. *De ins quaeUterum ntmgerunt. -*

The Fat Of Geefe is proper in the Disorders of Women;'  
and is useful in Chaps of the Lips, to smooth the Skin, and to  
easePainsin the Ears. . *Dioseorides. . -*

The Fat of the Goose is more het then that of the Swine,  
and, because of its Subtilty, sooner penetrates and resolves, it is  
therefore, used as a Clyster in Erosions of the Intestines. It  
**makes** the Hain grow in an Alopecia, heals Chaps of the Lips,  
removes Noises in the Fare, Cures Spasms and Rigidity of the

Nerves, *(Tendons' 1 suppose he means)* and prevents Costived  
ness, espeaalsqin Children. *Dale.*

The Virtues of the Fat of Wild Geese are: the feme, but ut  
in greater Degree. so .. ;dinr

: . . ’ Of HENS.

The Fat of Hens is recommended by Diofcorides in the Dis.  
orders of Women, and is useful in Chaps of the Lips m  
sinoothe.the Skin, and to ease Pains in the ears. *Diosurtides.*

The Fat of Hens and Capons warms and moistens, is emojo  
lient and lenient, and is said to he of. a -middle Nature her  
twixt that of Swine and Geese, whose Acrimony it correcti.  
It is good for Chaps of the Dips, Pains of the Ears, and Phis  
styles on the .Eyes. *Dale. . . . - - „ )*

. - Of the OSTRICH. . '.n

The Fat os the Ostrich as a proper Application for the ner-  
vous Parts, by inunction it mollifies an indurated Spleen, and  
relieves nephritic Pains. *Dale* from *Schroder. ,'suet'*

The Fat is hotter than Goose Grease, and may he used wiss  
great Advantage to diflblve herd Swellings, relax contracted  
Nerves, and ease Pains." *Panic?. : ~*

... \_ : Of-the SwAN. - ~ -

The Fat of a Swan is emollient, lensent, attenuans, add  
therefore useful in the Piles,, and Indurations of .the Womb.  
it clears the Eyes, and, mixed with Wine, takes off. Freckled,'  
or Pimples from the Skin. *Dale..*

Of the **FRIGATE. - .... - . ......**

t .-. . ‘ ' ... *. .a*

The Oil or Fat of these Creatures is a sovereign Remedy for  
sciatic Pains, and sor all others, proceeding from a cold Cause.  
It is held in great esteem throughout all the Indies aS a pre...  
ciousMedicine. *Pomet. -* h -z

Of the SHELL-DRAKE. ' - νύ

The Fat of the Vnlpanser, or Shell-drake, is recommended  
in an Herpes, and Tumors of the Face. *Dale.*

- -ς - **Of the RAVEN.**

\* The Fat\* of the Raven is said to render the Hair blachy

*Dak. 1 ; .*

Of the PEACOCK.

' The-Fat os the Peacock, mixed with the Juice of Rue and  
Honey, as excellent in the Cure of a Colic. *Dale.*

*-.. . ...c*Os the QUAIL. - . - -

. The Fat of the Quail is said to he effectual in taking Spots off  
the Eyes. *Dale: ' . / - :*

Of the **TURTLE-DOVE:**

The Fat of the Turtle-dove is recommended as an Ointment :  
proper for the Kidnies,. Belly, Breast, and Groins, kiaio  
*Schroder. - .*

Of the VULTURE.

The Fat of the Vulture is peculiarly adapted to Disorders (if.

\* the Nerves. *Dale.*

- The Fat is. the only Thing belonging to the Vulture Kind  
that is sold in the Shops, and used to anoint withal in Pal-  
sies and other nervous Cases. *Pomet.*

Of the KITE,

The Fat of the Kite is applied in Pains of the Joints,  
*Dale.*

Of the finARROw-HAwK.

The. Fat of the Sparrow-hawk is good in Disorders of the  
Ryes, and all Diseases of the Skin. *Dale.*

*Of* the OWL.

The Fat of the Owl, either white or gray, sharpens the '  
Sight. / *Dale. - " . ....*

**Of the CRANE. ... -**

, The Fat of the Crane, instilled into the Ears, cures Deaf-  
ness. It mollifies hard Tumors of the Spleen, and other Parts  
of the Body, It also immediately relieves Stiffness of the Neck,  
*Dale. '*

Of the STORK,

The Fat of the Stork is good in gouty Complaints, and fur  
Limbs that tremble and are unsteady. *Dale.*

OF THE FAT OF FISH.

The Fat of River-fish melted in the Sun, and mixed with  
Honey, cleans the Sight, if the Eyes are anointed with it. Dis-  
*soocides.*

Of the PIKE.

The Eat ofthePike is used 34 an Ointment to the Soles, of the

Foot, and Breasts Of Children, in order to cure their Catarrhs  
and Coughs. *Dale.*

' The CARP.

. The Fat of a Carp is of Service in het Disorders of the  
Nerves or Tendons. *Dale.*

Of the DARE.

The Fat of the Dare is good *for* Pains in the Ears, and  
Dimness of Sighs, mixed with the Gall of the same Fish.  
*Dale.*

' Of the **GRAYLING.**

. The Fat of the Grayling wears away Specks and Filins  
from the Eyes. Melted in the Sun and mixed with Honey  
it takes away Spots of the Skin, and Marks lest by the small  
Pox. *Dale.*

Of the **TROUT.**

The Fat of the Trout is good for the Piles, and Fissiires of  
the Anus. *Dale.*

**Of the DOLPHIN.**

- The Fat of the Dolphin, melted and drank withWine,CUres  
**the** Dropsy. *Please Dale.*

. The Method of preparing Fat:for Use is thus laid down by  
the Compiler of the *Edinburgh Dispensotory : ' :::*

- The Fat, being first purged os in Membranes, Blood-ves-  
sels, and Strings, is to he washed in fresh Parcels of Water, till  
it will no longer tinge the same, red.;; then let it be melted,  
drained, and preserved from the Injuries of the Air.

The Antients were more curious,, and took greater Pains  
in preparing their Fat, as may he seen by the following Direc-  
tions from *Dioscorides. -A.*

Of the Fat of **HENS or GEESE.**

The Fat of a Hen or Goose, either new, or kept without  
Salt, is good in Diseases of the Womb; hut salted, or grown  
acrimonious with keeping, is hurtful to that Part. Take the  
fresh Fat of either of these Kinds, and, stripping it of the  
Membranes, put it into a new earthen Pot, that will held  
double the Quantity you design to preserve, expose the Pot  
carefully closed to the burning Sun, and let the Fat, as it  
melts, fall through a Strainer into another earthen Pot, till  
all he run off. Then remove it into a Very cool Place, and  
let it stand for Use. Some, instead of the Sun, place the  
Pot over hot Water, or Coals that give a Very gentie Heat.  
There is yet another Way of curing it. They take the Fat,  
and, clearing it from the Membranes, beat it, and put it in-  
to a Pot, where it is melted, with a little fine Salt cast  
therein. Then they strain it thro’ a Linnen Rag, and place it  
aside. This Sort is an useful Ingredient in Remedies provid-  
ed against Lassitudes. *Dioseorides, L.2..C. 86. -*

Os the Fat of BEARS and **SwINE.**

’ The Tat of Bears and Swine is prepared after this Manner :  
Take the newest and grossest, such as grows about the Kid-  
nies, and; shipping it os the Membranes, throw it into a  
good Quantity of Rain-water, perfectly cool; then break it,  
and rub it carefully with your Hands, aS. though you would  
reduce it all to Crumbles. Then wash it in several fresh  
Waters, and afterwards put it into an earthen Pot, that will  
hold double the Quantity.’ Pour in aS much Water' aS will  
cover the Fat, and set it over a gentie Fire, and stir it with  
a Spatula. When it is thoroughly melted, pass it through a-  
Strainer into Water, and let it cool. Let the Water drop  
clean away, and then shift it into .another Pot, first wash-  
ed, and, pouring in some Water, give it a gentie Melting.  
This done, take it off, and, having let it stand a little for  
the Dregs to subside, pour it into a Mortar first wiped with  
a Sponge. . When it is congealed, take it out, and, first  
**cleaning** it from the Dregs residing at the Bottom, give it a  
third Melting without Water. Then pour it back into **the**Mortar, from whence, bring well purged of all Feculencies,  
«move it into an earthen Pot, and place it aside well covered  
in a cool Place for Use. *Dioseorides, L. 2. Co* 87. -

Of the Fat of GOAT s, SHEEP, and DEER.

' The Fat os these Animals is thus prepared: Take either of  
them, wash it, clear it of the Membranes, and put it into  
a Mortar to he softened. Beat it, pouring in now and then  
a little Water, till nothing bloody fiscs to the Surface, or  
Greafinest swims at the Top, bur all looks clear and shin-  
ing. Then put it into an earthen Pot, with Water just  
enough to cover it, and set if over a gentle Fine, stirring it.  
When it is thoroughly melted, pour it into Water, and, as.»  
ter it is congealed, melt it over again in an earthen Pot  
first washed, and proceed as in the former Chapter. Aster the  
third Melting, which is without Water, strain it. into **the**Mortar first moistened, and, when it is congealed, remove it  
into your Pot, and lodge it as was directed for Swines Fat. *Dio-  
succides, L.* 2. *C.* 88.

Of the Far of OxBN.

^"2t ss alsato he chosen from theKidnies, stripped of its  
Membranes, and then washed in Sea-water. Aster .this, it  
-must he put into a Mortar, and carefully beaten with Sea-  
water. When all is dissolved, pour It utm .,n earthen Pot,  
vvith Sea-water enough to rife a Span above is, and host it till  
K E lost in Proper Smell. I hen for every Pound of Fat  
oast rn four Drams of Tyrrhene Wax, and k

Next (aster It js congealed) take away rhe Dregs that seeded at  
the Bottom, and put it in a new earthen Pot, whinh in t0 (rjnd  
covered every Day in the sun, tal the Fat has lost its  
Smell, and acquired a Whiteness. *Diosicrides\* Lib,* 2. *C.* 89.

*. Os* **the Fat of BULLS, PANTHE Rs, and LIONS.:**

Thy Fat Bnll5 i5 thus prepared*: Taken* fresh from the  
Kidnies, it is washed-in Tunning Water, then stripped from  
the Membranes, put in an earthen Por, and melted with a  
little Salt cast therein. After this they strain it off into fair  
Water, and, when it begins to congeal, they take and rub  
it well with their Hands in several fresh Waters till it he  
thoroughly washed. Then they clap it-into the Pot again,  
and boil it with an equal Measure of sweet-scented Wine.  
After it has boiled up twice, the Pot is taken off The Fire,  
and left to stand all Night. The next Day, if any Rankness  
Of Smell remains, it is removed into, a new- Pot, has more  
sweet, scented Wine poured upon it, and is treated aS'before,  
till all the ill Savour be Vanished. -Some melt it without Salt,  
especially for some Diseases,, in which Salt is accounted hurtful;  
but, thus prepared, it will acquire no. considerable Whiteness.  
After the same. Manner is prepared the Fat of Panthers, Lions,  
Wild Boars, Camels, Horses, and the like. *Dios.eocides,‘L.* 2.  
SADEPTA PHILOSOPHIA. - *Adept Philosophe.* . It is  
generally understood of that Philosophy, whose end is the  
Transmutation ofMetals, and the universal Remedy. The *Adepi  
Philosophy* is represented by Paracelsus as one taught by In-  
spiration from Heaven, and which cannot he communicated  
from Man to Man, though in other Places he tells it may  
he learned from those who are *Adepts.* Both he and Hel-  
mont have taken much Pains to inform us what it is not, but  
have not been, *so* obliging as to explain what it is. The  
Professors of this Philosophy in the Clouds are called ADEP-  
TI, *Adepts. ‘*

Paracelsus nails. that *Adept Medicine,* **MEDICINA ADEP-**TA, which treats of those Diseases only, which are contract-  
ed by celestial Operations, or communicated from Heaven;

Those, whose Curiosity may incite them to know more  
of this Philosophy, may consult Paracelsus'S Treatise, *de Oc-  
culta Philosiphla, L.* I. Co 8. . But I will not he anlwer-  
able that they shall meet with satisfactory information.  
- ADER. Rulandus explains this by *Lac recens sine Butyrp.*I suppose he means either new Milk before it is creamed oyer,  
or else fresh Butter-milk.

ADHERENTIA. ADHERENCE,growing together. Cam  
*stellus.*

ADHATODA. The Malabar Nut. '

*The* **CHARACTERS** *are, ’ .*

. The Leaves grow opposite ; the Cup of the Flower is'oh\*  
long, and consists of . one Leaf; the Flower is imonopeta-  
inns, of an anomalous Figure, and consists of two Dips ;  
the uppermost is crooked, and is raised in Form of an Arch ;  
the under Lip is divided into three Segments, and hangs  
downward; the Ovarium becomes the Fruit, which is in  
Form of a Club, and is divided into two Cells, in which  
are contained flat Heart-shaped Seeds.

There are but two Species os this Plant known at present,  
which are:

I. *Adbatoda Tieylanensium,* H. L. The common Malabar Nuts

2. *Adbatoda Indica; folio faligno, store albo,* Boerh. The  
Willow-leaved Malabar Nut, commonly called. *The Snap-tree.  
Miller's Dictionary.*

Its Virtue is to expel the dead Foetus, that heing the Mean-  
ing os *Adbatoda* in the Zeylanic Language.

ADHEHE. Sour Milin Butter-Imllt. *Rulandus.*

ADHO, or **ADO C.** Milk. *Rulandus.*

. ADIACHYTOS, Ἀδιάχιτος. From α Negative, and οἳαχόμή  
to diffuse, scatter, or he profuse. Decent in Point of Dress, or  
Habit. Hippocrates makes Use of this Word in his Treatise,  
*de decenti Habitu.* This great Man esteemed the Dress of a  
Physician of Importance enough, to take the Trouble of giv-  
ing some Advice upon this Head. He thinks the Character  
of a Fop derogatory from the Honour *of* a real Physician ;  
and describes a Set of Practitioners in his Days, who at-  
tempted to supply the Defects os Knowledge in their Profes-  
sion, by Ornaments of Dress. These, he says, -frequented the  
public Pisces, in order to deceive People by these Appearance  
into a good Opinion of them, and this for the Sake of Gam.  
He adds, that they may he known by their Dress, and that the  
greater their Extravagance is in this Respect, the more they are  
to he avoided, and despised, by those that see them. .

ADIANTHUM. Maiden.halr.

The Account DioscorideS gives of it is as follows:

*Adiannan,* by some called *Polytrichort,* has Leaves like the  
Coriander, indented at the Top, and growing on very flendes,  
black, shining Stalks, a Span high.

The Decoction of the Herb, drank, helps Difficulty of  
Breathing, and the Asthma, Disorders of the Spleen, Diffi-  
culty of Urine, and the yellow Jaundice. It breaks the Stone,  
binds the Belly, and relieves thofe who are bitten by Venomous  
Creatures. It is drank in Wine for Weakness of the Stomach.  
It provokes theMenscs, and the Lochia, but stops Vomiting  
or Casting up of Blood. It is applied in a Cataplasm against  
venomous Bites, to make Hair grow where loss and to dis-  
cuss fcrophulous Tumors. A. Lye made thereof cleanses  
soald and scabby Heads. Applied with Ladanum, Myrsim-  
num, and Oil of Lillies, os, with greasy Wool and Wine,  
it puts a Stop to the Shedding of Hair, and strengthens what  
is lest. The Decoction thereof, with the Lyes and Wine,  
produceth the same Effect. Given to Cocks and Qualls a-  
mong their Food, it incites them to fight. It is planted  
about Sheep-folds for the Benefit of the Sheep; and grows  
also in shady and marshy Places, on old mouldering Walls,  
and near Springs. *L.* 4. *C.* I 36.

The Moderns have given the Name of *Adianthum* to ma-.  
ny capillary Plants. The first is thus distinguished by An-  
thorS: . - Ϊ

I. *Adianthum vulgare. Capillus Veruris,* Offic. *Adiantum,*Cod. Med. IIIr. *Adiantum, sive Capillus Vineris,* J. B. 3.  
75I. Raii Hist. i. I47. *Alssantum, Capillus* sinaris. Chain  
555. *Adianthum verurn, five Capillus Fenoris verus.* Park.  
1049. *Adiantum foliis Coriandri,* Co Β. 355. Tonrn. Inst.  
543. Elem. Bot. 433. Hist. Oxon. 3. 587. *Capillus Vi-  
neris uerus.* Ger. 9S2. Emas, 1143. TRUE MAIDEN-

HAIR.

**ADIANTHUM** VULGARE. This is a capillary Plant,  
which, from a brownish, stringy Rout, sends forth black shin-  
ing flender'Stalks, near a Foot high, divided into several  
Very fine Branches, on which grow small, very thin Leaves,  
roundish, in Shape of Coriander-leaves, set on alternately on  
the Stalks ; on the Edges os the Leaves, when the Plant  
is come to its full Growth, are several small Folds, under  
which is contained a small Dust, which is the Seed.

This Maiden.hair is brought to us' from the Southern Parts  
os France, though it-is said to grow plentifully in the County os  
Cornwall.

This being the true *Capillus Fenoris,* is whet ought to he used  
in making the Syrup os Maiden-heir, and every where else,  
where the true is prescribed. But sor Want of it, it not heing  
to be had in'any Quantity, we generally use the *Triohomanes.*

This Maiden-hair is opening and attenuating, good for Di-  
stempers of the Lungs' and Breast, as Coughs, Shortness of  
Breath, Hoarseness, and the like; it is also accounted service-  
able against the Stone and Gravel, Heat and Difficulty of  
Urine. The only officinal Preparation in the Syrup. *Miller.*

*Adianthum, or* the true Maiden-hair of the fihops, is a Plant  
that bears several flender, blackish Stalks, of about half a. Foot  
or a Foot high, divided into fine delicate Branches, which are  
adorned with little Leaves, like those of Coriander, almost tri-  
angular, fragrant, and os an agreeable Taste: This Plant bears  
no Flowers ; its Fruit, according to Mr. Tournesort’s Obser-  
vations, is produced in a Folding of the End of one os the  
Leaves, winch, after it is stretched out, incloses several sphe-  
rical Coverings, which are caked to the said Foldings, and can-  
not he discoveredhut by the Assistance os a Microscope. These  
Capsulae,. or Coverings, are furnished with, as it were, a Purse-  
string, which, by its Contraction, opens it; they contain some  
little Seeds in them that are almost round: The Root is fibrous  
and black; it grows in shady, moist, or stony Places, against  
Walls, or Sides of Wells and Ditches : The best they have in '  
France, grows about Montpellier in Languedoc. *Lemcry.*

The Leaves of the true Maiden-hair are much used. They  
are said to purify the Bleed, by reducing the Humours mixed  
in the Mass thereof to a just Temper. It prepares and purges  
- Phlegm, and the Bile of both Sorts, that 6. the Bile, properly  
fo called, and what rhe Antients called the *Atra Bilis.* It dis.  
stpates Superfluities, resolves serous Humours, and carries them  
off by Transpiration. It provokes Urine and Sweat, and power-  
fully resists Putrefaction; hence it is given with Success in all  
Sorts of Fevers.

It in specifically adapted to cure all Disorders to which the  
Hair is subject. Thus it is a Remedy against Baldness, clears  
the Hain of Scurf and Filth, restores that which is decayed to  
its former Lustre and Beauty, prevents its sailing off, and pre-  
serves it from growing grey.

It excites all the Faculties of the Brain, tempers any Excess  
in the Humours deposited upon it,- and corrects in them what is  
amiss. It therefore depurates the animal Spirits, restrains het  
and bilious Vapours, and renders those mild, which are in-  
clinable to he acrid, acid, or narcotic. It is on these Accounts  
admirable in Want os Rests comatous Disorders, Epilepsies,  
Phrensies, Madness, Melancholy, Head-ach, and all Disorders,

and Tumore, which happen to any Part of the Head. It sharpens  
the Sight, and restrains and dissipates all habitual Fluxes of Hu-  
mours upon the Teeth, Ears, and Glands of the Neck and Fauces.  
By its agreeable Odour it exhilarates the Hears, and strengthens ,,  
**the** Vital Faculties. It is good in DiforderSOf the Breast, purges  
the Lungs, inciding and evacuating thick and viscid Humours,  
which stack to the Sides of the Branches of the Aspera Arteria.  
Hence it becomes an effectual Rernedy-against a Cough, Diffi-  
dully of breathing. Asthma, Peripneumony, Pleurisy, Spitting of  
Blood, sainting.FitS, and Heart-burn. ς-

It braces up, and restores a proper Tone to the relaxed Fi-  
bres os the (Esophagus and Stomach. It purges off Collections  
of the Excrements, which cause Naufeas, or Inclinations to  
Vomit. It quenches Thirst, and penetrates; moistens, and  
purges Very gently’ the Stomach and intestines. It cools the  
Liver and Spleen, and opens Obstructions formed therein, let  
them he never so inveterate. It wears away the Stone in the  
Kidnies or Bladder, and opens the urinary Passages, It is both  
a Preservative against, and a Cure sor the Jaundice and Green-  
Sickness. It is particularly useful to the Parts of Generation.  
Thus it prevents Sterility, expels Immundities, and the Se-  
cundines out of the Womb, promotes the Menses, if deficient, ..  
and restrains them, if immoderate, aS inches the Fluor Albus.  
It is of Service in Disorders of the Joints, and nervous System;  
and cures Stupors, Spasms, and Pandiculations, and windy  
Affections of the Muscles. It softens and resolves herd Con-  
cretions formed upon the Ligaments of the Joints, and, for this  
Reason, is serviceable in ischiadic Pains, and the Gout. It in  
also good against Tumors of all Sorts, whether hot or cold, .  
oedematons, scirrhous, inflammatory, or erysipelatous. It is  
also good in Wounds, Ulcers, Fractures, Luxations, and all  
Disorders of the Skin. *Ray* from *Petrus Formius.*

This is a Very great Character of a Plant, and perhaps  
stretched a littIe too sar; but we may learn from hence, that  
it has been esteemed as a great Deobstruent, and excellent Al-  
terative. And if we consider that most os the capillary Plants  
abound with a neutral, saponaceous Salt, which approaches to  
the Nature of Nitre, we may the easier believe that the ADI-  
**AN TH UM** may he possessed os great Virtues, in all Disorders  
where Obstructions are either the Cause, or the Effect. But  
then it must he taken in considerable Quantities, and those fre-  
quentiy repeated, and the Course must he persisted in dor a  
long Time. \*

The best Way of taking it is in Very strong Decoctions, oh  
infusions. -. - *set*

Mr. *Ray* observes, that hecaufe this Plant is temperate, in  
regard to all its Qualities, he is inclinable to believe the Vir-  
tues of st weak and inconsiderable. But we now know that  
the alterative and deobstruent Virtues of Simples, by no Means,  
depend on the Excess os any of their sensible Qualities, and  
therefore nothing can he concluded from this.

Somewhat like this, in Figure and Virtues, is the **AD IAN-  
THUM** CANADENSE, Maidenhair of Canada, much used by  
the French, and thus distinguished: . '

*Adiantum Canadenfe, vel Capillus Petieris Canadensis,* Cod.  
Med. 4. *Adiantum Arncricanum,* Corn, ys Raii Hist. I. 148.  
Fill. HoIt. Pisi 3. Tourn. Inst. 543. elem. Bot. 433. Boerh.  
Ind. A. 26. *Adiantumfruticosum Arncricanum,* Park. Theas,  
1049. *Adiantumfruticosum Brastlianum, Q.* B. Prod. 150. Pins  
355. Chomel. 83.' *Adianthum fruticosum Americanum, summis  
ramulis reflexis, & in orbem expansis,* Pluk. Phytog. I24. Al-  
mag. Io. Hish Oxon. 3. 588. CANADA, or AMERICAN  
**MAIDEN-HAIR.** *Dale.*

The Capillaries, or Maiden-hair, are little Plants that are  
brought intirely whole to us from several Parts; the chief **and**most esteemed are those which come from Canada, and are called  
*Maiden-hair of Canada,* and by the Botanists, *Adianthum alburn  
Canadenfe, or* the white Canada Maiden-hair. This grows  
about a Foot high, with a Very flender Sulk, hard and black-  
ish; from whence there arise small Branches,'bearing green  
Leaves, pretty deep indented, aS may he seen by the Figure.  
It grows likewise in Brasil. This is cultivated with great Care  
**in the** King’s Garden at Paris, aS well aS other Sorts of exotic  
Plants, which are brought from several Parts of the World, bffm  
Messieurs Fagou and Tournesort,the King ofFrance’S principal  
Physicians.

The other Capillaries that are brought from Canada, are  
made Use of for Syrups, which are boiled to a good Consistence,  
and have Ambergreese added to them. There are many Virtues  
attributed to this Syrup, especially for Coughs, Catarrhs, Did  
eases of the Breast, and to administer to Infants new horn^ with,  
a little Oil of sweet Aimonds. AS to the Choice of Maiden-  
hair, you must take fuch as is newest. Very green, and this least  
broke that you can get. *Pomet.*

In Canada, Brasil, and several other Parts 0 f A merira, there  
ί is a Sort of the dried Maidenhair, a great Dnd Ours,

: called by Co Bauhine, *Adicrnihum fruticosum Bresseicmmn,* and  
**. is the same** with the Maidenhair of Canada: The stalk in sten..  
i der, hard, and of a brownish Red, Or purple Colour, tending  
**ν** to black, divided mto many Branches, which hear little Leaves,  
**, almost** like the Common Sort, lung, and indented on one Side,

but whole-on the other, soft, tender and' fragrant; this  
is what is most Valued, as being the best scented of all  
the Maiden-hairs. It is common in several Parts *os* Ame-  
ties, and especially in Canada; so that the Traders pack up  
their Goods with it, instead of Hay, when they would send  
\*them to a distant Country. It is by this Means we have such  
Quantities of it; but it would he much better if they would  
pack it up in Papers or Bags, that would preserve the Scent  
and Virtue of it. Chuse such as is fresh, green, well scented,  
whole and soft to the Touch. This Plant contains httie  
Phlegm, a good deal of Oil, but not much Salt; it is  
pectoral, aperitive, and promotes Expectoration, sweetens the  
Blood, and provokes the Menses. *Lemery.*

The next Plant, called *Adiantbum* by Botanists, is the  
Wall-Rue, thus distinguished.

ADIANTHUM. Maiden-hain.

**ADIANTHUM ALBUM,** *Ruta murarla, Salvia vita,* **Offic.***Adianthum album.* Ran Hist. L I46. Synop. 48. *Adiantbum  
alburn montanum,* Herm. Hort. Lugd. Bat. Io. *Ruta murarla,*C. B. 356. Tourn. Inst. 54I. Elem. Bot. 433. ju Β. IIL753.

' Chain 555. Boerh. Ind. A- 26. *Ruta muragiia Jive Salvia Vitae,*Park. IO5O. Ger. 983. Emac. II44. WALL RUE, or RUE  
**MAIDEN-HAIR.** *Ftlicula petraea Rutafacie.* Hist. Oxon. iii.

585. *Murarlasemper virens vulgario.* Dill. Cat. 73. TRUE  
**WHITE MAIDEN-HAIR.** *Dale.*

This is a small low Plant, growing seldom above two or  
three inches high, its flender Stalks bring of a whitish Colour,  
whereon grow a few small roundish, stiff Leaves, resembling  
those of Rue, crenated a little about the Edges, of a whitish  
green Colour above, covered underneath, when come to its  
full Growth, with brown dusty Seed. It grows on old Stone  
Walis and Buildings, its httie fibrous Root abiding several  
Years. - .

This is one of the five Capillary Herbs mentioned in the  
*Dispensatory,* and has the same Virtues with the rest of the  
Maiden-hairs, and is sometimes used in pectoral Decoctions,  
and diuretic Apozerns.. -

This is the Herb that has been taken for the Hyflbp of So-  
lomon. It grows on Walls in hot Countries, and is of won-  
dersul Virtue in curing Disorders of the Breast. It tastes like  
sweet Oil, and cures a stinking Breath. .Bruised with warm  
Water and Honey, it helps the Asthma and other Distempers  
of the Breast; it provokes Urine, expeis Gravel, and is good  
in the Asthma and Pleurisy. *Boerhaave.*

The third is the *Adianthum nigrum,* Offic. *Adianthum nigrum  
'Officinarum,* J. Β. iii. 742. Rail Hist. i. I 52. Synop. 50. *Adi-  
. anthum nigrum vulgare.* Park. I049. *Adiantum soliis longioribus  
pulverulentis, pediculo nigro,* C. Β. 355. Hist. Oxon. in. 588.  
Boerh. Ind. A. 26. *Onepteris mas.* Get. 975. emac. I I 37.  
*Ftlicula quae Adiantum nigrum Officinarum,* El. Bot. 432. *Filicula  
qua Adiantum nigrum Officinarum, pinnulis obtusioribus et acuti-.  
ocibus,T.* Insta 542. BuXb. II3. COMMON BLACK MAIDEN-

**HAIR. .**

Tinis Maiden-hair grows about a Span high, its flender Stalks  
heing smooth and black, divided into many Segments, of small,  
firm, shining, green Leaves, notched pretty deep, and sharp  
pointed, growing on little Branches, sometimes two opposite

“ together, and sometimes alternately to the Number of twelve  
-or fourteen Pain, the Top ending line a Fem; the Backs *of* the  
Leaves halon the Margin covered with a brown dusty Seed;  
The Root is pretty large and fibrous. . ...

It grows in shady Lanes, and at the Roots of-Trees.

This also is one of the five capillary Herbs, and its Virtues  
the -same wish common Maiden-hain; and is accordingly used  
shr Coughs, and. all Affections of the Lungs, and Diseases of  
the Kidneys; some commend it for the Jaundice.

The fourth is the *Adianthum aureum, . et Polyiricheon aureum,*Offic. *Adianthum aureum majus.* Rail Hist. i. I 23. Synop. 28.  
Cat. Angl. Vii. 123. *Polytrichum aureum majus,* C. B. 356.  
Park. I05I. *Polyp. Apuleu, et majus quibufdam,* J. B. ili.76o.  
*Polytrichum Apuleu majus,* Chal. 558. *Polytrichum vulgare et  
majus' capsula quadrangulari,* DiH. Cat. 22I. *Muscus faxatilis,  
aid fylvesiris Trago,* El. Bot. 439. *Muscus capillaceus major,  
pediculo &' eapiiulo crassioribus,* T.Inst. 55o. Bux. 2I9. *Aureus  
capillaris medius,* Herm. Hort. Lugd. Bat. 43I. *Muscus corona-  
tus mayor pileolo villose aureo.* Hist. Oxon. in. 630. Boerh. Ind.  
A. 2I. *Musicus capillaris, feu Adianthum aureum.* Ger. I37I.  
*Musicus capillaris, feu Adianthum aureum majus.* Ger. Emac.  
1559. **GOLDEN MAIDEN-HAIR.** *Dale. -*

This is a large kind of Moss, with a Stalk three or four  
inches high, whose lower Part is wholly covered with small,  
short, hard and stiff brown Leaves; the upper Part is quite  
bare to the Top, on which grows a long roundish Head, or  
Seed-Vessel, covered with a woolly, sharp-pointed, reddish  
yellow Cop, which salis off as the Head grows ripe; the Root  
is small and stringy. It grows, in heathy, barren and boggy  
Ground, 2nd frequently on old Ant-hills.

This is one of the five capillary Herbs, though it is but  
rarely used.. Some Authors attribute as much Virtue to this,  
aS to the former Maiden-hain; besides which, it is said to he

very good to prevent the sailing of the Hair, and to make it  
grow thick, being boiled in Water ot- Lye., and the Head  
washed with it. Dale says the Decoction is commended sor  
the Pleurisy. *Millen.*

ALIA PL OROS. Ἀοἳάφαος. From α Negative, and οἳα-  
*pisu, to* differ. Indifferent, or without Difference. *Con.,  
si Online.*

It is sometimes applied to Foods.

ADIAPNEUSTIA. Ἀδιαπνευστία. From *er.* Negative, and  
διαανὰι, to perspire. It is a Symptom arising from the Density  
of the Pores, when Perspiration is deficient. It is mentioned by  
Galen, *lib.* Xi. *Meth. Med. Gorraus.*

It signifies nothing more than a Stoppage of Perspiration, the  
Cause or Consequence of all Distempers, whether acute or chro-  
nical. '

ADJAPTOTOS. Ἀοἳἀκτατος. From a Negative, andha-  
πέπέω, to stumble, or Aide. The Word signifies firm ; but in  
Medicine it is the Name of a Remedy against the Colic, which  
Galen, *lib.* ix. τῆς κἀτἀ τύσας, says consists of these Ingredients,  
*viz.* Stone Parsley, the Seed of Henbane, white Pepper, of  
each forty Drams; Juice of Poppies twenty Drams; Saffron six  
Drams; Opobalsamum three Drams; made into an Electuary.  
It seems to take its Name from its prevailing Virtue in all In-  
flammations. *Gorraus.*

A D I A R R H CE A 'Αδιαίρὀεα. From α Negative, and οἳαἡρέν,  
*perfluo,* to stow out, or through. It signifies an intire Sup-  
pression of all the necessary Evacuations of the Body, and Re-  
tention of the Humours which ought, to he discharged. *Foesius.*

A DIB. A Beast mentioned by Avicenna, which Castellus '  
takes for the Wolf.

ADIBAT. Mercury, in the Alchymistical Jargon. Ra-  
*landus. Johnson. . . .*

ADIBISI, *or ADIB12I. Testudo,* a Tortoise. The Ger-  
man Word which Rulandus explains it by, signifies a *Snail. Ru-  
landus.*

ADIDACUS. Rulandus calis tins ADIDE ALARcHOs;  
**AD1DA** LARCHos, *id esi,* **CALCECUMENON.** Johnson, the  
literal Transcriber of Rulandus, and Castellus, have both pru-  
dentiy omitted taking notice of this Word, and many more of  
the most difficult, because I suppose they could not explain  
them. As I have not met with the Word in any Author, ex- '  
cept Rulandus, lean only explain It in his Words, which I con-  
fess I do not know what m make *os.*

ADJECTIO. The same as ADDITIO, the adding of any  
thing that is deficient. *Castellus.*

ADICE. Άδίκη. The Nettie, is sometimes called by this  
Name. *Gorreeus.*

ADIPSATHEON. This is, according to Pliny,, a thorny  
Shrub, growing in the Iflands of Nigros, and Rhodes. *Pliny,*LxxiV. *e.* 13.

ADIPOSA MEMBRANA. See **CELLULOSA MEM-  
BRANA and ADEPS.**

A DIPS ON. Ἀοἳψον. From α Negative, and δίψα Thirst.

Hippocrates, in his Treatise *de Ratione Victus in Acutis,* says  
the Pthsans, by its Glutinousness, is (άδίψβν) Adipfon, that is,  
a Preventer, or Curer of Thirst; and in this Treatise he ap- .  
plies the same Word to Oxymel, meaning that it quenches  
Thirst.

.. Medicines were so called, because they prevented or allayed  
Thirst,’ whether drank, or in a Linctus, or Gargarism; and  
the Name may be applied eVen to such Medicines as. simply do  
not provoke Thirst. Now hecause Dryness is the principal  
Cause of Thirst, it is plain that whet quenches Thirst must he  
moist; and if it he cold besides, it is by so much the more ef-  
fectual; for Coldness preserves the Moisture, which Heat would  
consume. However many het things are effectual in allaying  
Thirst, as Liquorice and. Pepper in some, if held in the Mouth;  
the first hecause of its moist and clammy Juice, the other by its  
drawing Phlegm from the Head into the Mouth and Jaws. Of  
the same Virtue are cooling Potions and Eclegms, many of  
which are described by Galen, *lib.* τῦν κατὰ τὀπους.

ADIPSO6. Ἄοἳψῥα The Egyptian Palm. It is a great  
Tree, not streight but wreathed, .green, smelling like a Quince-  
tree, with a Leaf like Myrtle, Fruit like Copers, not good to  
eat, but of a pleasant Smell, not at all ligneous. The Fruit,  
a little before it is ripe, is called μυροβἀλα,ος [a MyrobalonJ  
when ripe and blackish φοεπκοβάλανος. Theophrastus calls this  
Treetiolonse., that.is. *Most, from* its Fruit; but it is called  
ἄοἳψος, because its Fruit, gathered before It is ripe, and tasted,  
restrains Thirst; or because, as Solinus relates, a Drink is  
made of its cool, sour and astringent Juice, which quenches  
like what is made of our Pears,. Apples, and the Fruit os the  
Service-tree. / .

**ADIPSos** is also Liquorice; so called by Theophrastus, Dio-  
scorides and Pliny, because with the sweet and clammy Juice of  
its Root it satisfies both Hunger and Thirst. Wherefore it was  
often given to hydropical Persons to prevent their Thirsh

ADlPsos is also the Name of a Catapotium, or Pill, com-  
posed by Asclepiades aS follows :

Take of the Seeds of Garden Cucumber and Purslane, each  
eight Drams, Gum-Tragacanth three Drams; dissolve the  
Tragacanth in the Whites of new-laid Eggs, and add it  
to the other Ingredients, which must he finely powdered,  
and all mixed together, and made up in the Form of Pilis.  
Dry them in the Shade, and let the Patient held one of  
them under his Tongue, and fuck up the Liquor that  
comes from in Galen mentions it, *lib.* vrii. τίον *sided rluma.  
Gorraus.*

ADIRIGE. Rulandus explains this by Armoniacum.-1 sup-  
pose he means the Salt, that heing of more general chemi-  
cal Use than the Gum Ammoniacum, is frequently called by  
Missake Armoniacum.

ADJUTORIUM. The Bone of the Ann, called usually  
the Humerus. *Castellus, from Johannes Anglicus, and Ve fastus.*

ADJUTORIUM also sometimes signifies a topical or external  
Remedy, applied to a Part affectid, in Aid of internal Me-  
dicines. *Castellus from Theodorus Pciseianus.*

ADJUVANTIA. Medicines are so called, which aid and  
assist Nature in the Cure of Distempers.

ADIYLIST0S. ’.Αὸεὀλιστος. From α Negative, and ίιελίζώ,  
to strain, or defecate. Wine not fined clear from the Dreg,  
or not passed through the Strainer, which was the usual Me-  
thod of managing fuch Wines as were kept in order to sin-  
wove their Taste; and was sometimes practised on others to  
lower their Strength, and make them milder and fitter for drink-  
ing. *Gorraus. .*

ADMIRABILIS. An hyperbolical Epithet given by many  
os the Chymists to particular Preparations of their invention.  
It is generally applied to factitious medicinal Stones, of which  
there are many. Lemcry says, that which he describes is by  
much the best.

Powder and mix together of white Vitriol eighteen Ounces,  
Of sine Sugar and Nitre each nine Ounces; of Alum  
two Ounces; Of Sal Ammoniac sin Drams; of Camphire  
bass an Ounce. Put this Mixture into a glaxed earthen  
Pot, moisten it to the Consistence of Honey with the  
Pickle of Olives. Put the Pot over a gentle Fire, and dry  
the Mixture leisirrely till it acquires the Consistence of a  
Stone. Keep it close covered, becaufe it otherwise rea-  
dily attracts Moisture from the Ain.

This Stone is detersive, vulnerary, and astringent. It resists  
Gangrenes, stops Haemorrhages, either dry or dissolved; it is  
used in Collyria for Cataracts of the Eyes, is applied to soor-  
butic Ulcers, and is an Ingredient in injections for GO-  
norrhceas.. .2 ' ’"

. Great Care must he taken, during the Operation, to mode-  
rate the Fire, otherwise the Camphire, by Reason of its Volatility,-  
exhales. But with all the Care that can he taken, a great Part  
of the Camphire will be dissipated; for which Reason a little  
Camphine may be added to it when it is used. *Lemcry Court  
de Chyrnie.*

Castellus quotes a Lapis Admirabilis from Junken.  
ADMISURAB. Earth. *Rulandus.*

ADNATA TUNICA. A Coat of the Eye, called also  
CoNjvNCTIyA, and ALBUGINEA. It is that which makes  
the White of the Eye.' It is formed by the tendinous Expan-  
sions of the Muscles which move the Eye. This Coat covers  
the whole Ball of the Eye, except the Fore-part, which is  
called the Sight, hut is not numbered amongst the proper  
Tunicks of the Eye. It is extremely sensible and abounds  
with Veins and Arteries, which are very visible in Inflamma-  
tions of the Eyes. *Wonsenv, Drake, Keil.*

Jt covets fo much of the Eye as is called the White, and be-  
ing reflected all round, it sines the two Eye-lids; ’ it being  
thus- returned from the Eye to the Inside of the Eye-lids, itese

. fectisally hinders any extraneous Bedies from getting behind the  
Eye into the Orbit, and fmoothe the Parts it covers, which

. makes the Friction lefs betwixt the Eye and the Eye-lids.  
*Cheselden.' s .: -*

ADNATA, **or ADNAscENTIA, are** thefe Offsets, which,  
by a new Germination under the Earth, proceed from the  
Lilly, Hyacinth, Narcissus, *etc.* which afterwards grow to  
true Roots, which the French call *Casque. Miller.*

**ADNATA** also signifies things that grow upon animal dr ve-  
getable Bodies, which are either inseparable from them,' as  
Wool, Hain, Homs, and Emits; or elfe accidental, as Fun-  
gusses, Misieto, and Excrescences. *Galas.*

It is sometimes fpelt **AGNATA. ' -**

... ADoc.--Milk. *Rulandus.. . .. .*

ADOLESCENS. The Iron Bars that support the Fire in a  
Grate, or Firmace. This is the Signification of the German  
Word, by which Rulandus explains it; but! do not keow by  
what Analogy Iron B315 are jo called. The German Word is  
GR END E RfIwhich will bear another Signification. Paracelsus,  
amonosi other Extravagances inclination to produce a  
Man without the Assistance of \* Female, probably with a View-  
ed rendering that Sex ofeless, for which he had no great Com-

piaisande. His Disciples say he actindly did produce something  
in the Shape of a little Man, by digesting Semen Masculinum  
inclosed in a Glass Vessel in a Dunghil. This Production was  
called the Homunculus of Paracelsus, which Sense the German  
Word will bear, and this answers better to ADOLEsCENs.

ADONION. Ἀίὑνιο». Gorrseus says this was a Species of  
Southernwood, which ofed to he sec in Pots, and served aS an  
Ornament for Gardens. .

ADONIS FLOS. Pheasants-eye. Red Matthes.

**The CHARACTERS are.**

The Leaves are like Fennel, or Chamomile ; the Flowers  
consist of many Leaves, which are expanded in Form of a Rose.  
The Seeds are collectid into Oblong Heads.

There are three Varieties of this Plant. '

I. ADONis *hortensis Flore minore atroruherste.,* C. Β. The  
common red Birds-eye. *Miller.*

This, Gerard fays, is called, by the Herb-women in London,  
*Rase a Ruby.'*

The Sced is thought to be good against the Stone. The  
Powder of the Seeds stamped given in Wine, wonderfully helps  
the Colic. *Gerard.*

The Flowers insured in Wine and drank, are found by  
Experience to relieve the Colic. *Ray from Parkinfm.*

2. Adonis *fylvestris. Plere luteo. Foliis longioribus.* The  
long-leaved yellow Birds-eye. *Miller.*

This, Ray fays, only differs from the former in the Colour of  
the Flower.

3. ADONIS *Hellebore Radice, Buplahabni Flere.* The Hel-  
lebore-rooted Pbeasants-eye, commonly called the Fennel-  
leaved black Hellebore.

- This is used by the Germans, in Medicine as the true Hel-  
labors. *Miller.*

AD OR. A Sort of Com called alfo SFELTA, and ZEA.  
See SFELTA and ZEA.

ADORAT. The Weight of four Pounds. *Rulandus.*' ADOS. Water wherein ton has heen extinguished, din-  
*landus.*

ADPLUMBATUM. This is a Word tiled no where, that  
I keow of, except by Scribonius Largus, 27I. He directs a  
Sort of Acopum, there defcribed, to be put into a Tin Vessel  
diligently covered, and (*adplambato)* foldered with Lead I sop-  
pofe he means. Cato, in giving Directions for making an  
Olive Mill, or Press, uses the Word *circumplumbato* in much  
the same Senfe. ’

ADRA RIZA. Blancard says the Root of the Aristolo-  
chia is thus called. I meet with the Word in no other  
Author.

ADRACHNE. The Strawberry Bay. It is thus distin-  
guished by Authors.

**' ADRACHNE** *Officinarum,* Park. Theat. 1400. Rati Hist. It.  
I577. *Adrachne Theophrasti,* Ger.. Emac. 1602. J. B. 87. *A-  
drachne Thelpinasti, Arbuto, seu Cemaro, prixime accedens,*Chab 4.' *Arbutus Folio nan Serrato,* C. Be Pin. 460. Pink. Al-  
mag. 49. Jami Dendr.65. Tourn. C0I.4I. *Arbutus Dioscuri.,  
dis vera Cometa dicta.* Wheel. Itin. 452. *‘The* **SrRAwBERRY**Bav. *Dalep.* 3I2.

It grows plentifully in the Iflandof Candy, on the Hills of  
Leuce, and in other Places among the Rocks, more like a  
Shrub than a Tree. It is an Ever-green, and its Leaves arc  
fo much like Bay-leaves, that they are not to be distinguished  
but by holding them to yout Nose; for the Leaf of the *A-  
drachne* has no Smell at all. The Bark of the Stem and all the  
Branches 4s so smooth, red, and shining, that they look like  
Branches of Coral. The Bark cleaves in Summer, and salis  
off in very thin Chips; at which time it loses its sine-red and  
shining Colour, and takes up with a Sort of Medium betwixt  
a pale and an Ash Colour. - It flowers and bears Fruit twice in  
the Year, as does, the Arbutus Strawthcrry-tree, and their  
Fruits arc so alike, that there is no Way of distinguishing them.  
But thisTree diffetsfrom the Arbutus Strawberry-tree, in that it  
grows only on. Hills, nor has the serrated Leaf, nor the Bark  
of its Stern ragged. - The Wood, of the Tree is extremely hard,  
brittle, and inflexible.

It serves the Peasants for Fuel, and the Women for Whirls  
to their Distaffs.

-- Theophrastus reckons thisTree among such as are not killed  
by strippingthem of their Bark, and are always green, preserv-  
ing the Leaves on their Topsin Winter.'

This Tree, in Crete, and all over Greece, is called *‘plaaunt,*Adrache *Bellus. ‘*

Bellonius observed these Trees in many Places of his Travels,  
particularly in his Journey from Aleppo to Antioch, upon the  
Hills, but robbed of all their Emit by his Fellow-travellers to  
eat on the Road; for it was ripe, and of a very invitiog Co-  
lour It grew in Clusters, and was of the Bignest and Colour  
of a Rasberry.

None who have read the Account of this Tree in Theophrastus,  
can doubt that the Tree thus described by Bessus was the Ac

*arachne* of that ancient Anther, which is confirmed by the Name  
Ἀὸρααλά, *Adracla,* by which the modem Greeks call in.

Ἀὸράζνη, *Adracne,* differs from Ανὸμίονη, *Andracne,* as Pliny  
would have us observe; for the latter is an Herb, by the Latins  
called *Portulaca* [Purflane] the other a Tree.

Mr. Wheeler observed this Tree in Achaia, near the Pente-  
. licien Hills, and saw fome of the Fruit at Smyrna. *Pat.*

ADRAM. Sal Gemmae. *Rulandus.*

ADRARAGL GardenSastron. Called also **ALTAR, AFAN.  
*Palandus.***

ADRARIGES. Green Ink. *Fodandus.*

ADRIANUS. We learn from Aurelius Vicior, that the  
Emperor Adrian had some Knowledge in Physic. This Cir-  
cumstance is of too much Importance fortheHonour of the Pro-  
fession to he omitted; though, upon the whole, the Art rather  
lost than got Reputation by this Prince, who died, as it is said,  
much out of Humour with Physic and Physicians, hecaufe he  
could not he cured of an habitual Haemorrhage, which at last  
brought on a Dropfy, which occasioned him to kill himself,  
inorder to avoid a lingering Death.

The Antidote which bears bis Name has been said to he his  
Invention. It is thus prepared:

Take of Pepper, and Seed of white Henbane, each twenty  
Drams ; of Opium ten Drams; of Saffron five Drams; of  
Spikenard, Euphothium, Amomum, Pellitory of Spain,  
Cyperus, Cardamom, Malabathnirn, or Indian Leaf,  
dried Leaves of Rue, Cassia, Castor, Seeds of Daucus,  
Myrth, Parsley, of each one Dram; of dried Rofes,  
and Seeds of Smallage, each a Dram and half; of Ginger,  
and Opobalsamum, each two Drams; Honey enough to  
make it into an Electirary.

The greatest Dole is the Quantity of a Hasel-nut, the least  
that of an Egyptian Bean. It is good for the Colic, taken in warn)  
Water hefore Sleep; for Infirmities of the Stomach, and those  
who cannot retain their Fond; it is given in Posea, (Vinegar,  
and Water]; for the Strangury, in warm Water; for spitting  
of Blond, in Pofcaj for the Dysentery, reduce it into Pilis, and  
Jet the Patient take a little warm Pofca after them. To con-  
sumptive People give it at Night in Hydromel ; for a dry  
Cough take it in a Linctirswith Honey; for the Bites of Spi-  
ders and Vipers, in Mulsum [Wine boiled with Honey]. It  
provokes the Menses, taken in Mulsum in which Penyroyal, or  
Calamint, or Rue bath been boiled. *Actius Tetr. 4. Serm.* i.  
*cap.* Io8.

ADROP. : Rulandus does not give much information in  
his Explication of this Word, which he calls ARAR, **LAPIS  
IPSE, AzANE.**

Ripley calls it UzIEUR, or **PLUMEUM RUBEUM.** *Thea-  
trum Chym.* Vol. ii. ρ. r 14. By this he means the Mixture  
of the Philosophers-Stone, or the Substance whence that is to  
he procured, as appears by a parallel Passage of an anonymous  
Anther in the same Collection, Vol iv. p. 474. Castellus is  
mistaken when he explains it Lead, for Lead, in thealchymistical  
' Senfe, is Antimony, as the Luna Philosophorum is the Regulus  
\* of Antimony; and thus *Adrop* is to he understood in David  
Lagneus, *Theatnon Cbymicuns,* Vol. iv. p. 726, who, from Ar-  
noldus, interprete *Adrop,* Saturnus, that is. Antimony, the  
Matrix of the Philofopbers-Stone.

ADROBOLON. Ἀὸμὲνλον. From μὲνος large, and βῶλος, a  
Glche, Bole, or Mass. The Indian Bdellium, which isa coarser  
Sort than the Arabian, bring impure, black, and in larger  
Lumps. *Constantine, Gorraus.*

- .ADROS. Ἀὸρός. Plump, of a good Habit, adult; in this  
fest Sense is is used by Hippocrates, *Lib. de Genitura.* Hence  
άὸνὰ, plentifully, mentioned by the same Author, speaking of  
purging melancholy Patients.

ADROs is allo applied to the Pulse, when it is ample and  
full, and the .Artery is greatly distended in all its Dimensions.  
*Gcrraeus.*

7 ADSAMAR. Urine. *Rulandus.*

ADSETil.ARF- This Word is peculiar to regetius; for  
I do not know that it is used by any other Anther. It signifies  
literally to go to stool. H« memions it /. in. *c.* 45, and in  
seme other Pisces.

: Castellus quotes it from the *Pei Rtestesa Scriptores.*

ADSTRICTIO. ADsTRICTioN. It either signifies the  
Retention of .any natural Evacuation by the Rigidity of the re-  
fpnisivr Emissaries, and is usually in this Sense applied to the  
Pores of the Sirin , and intestinal Excretion, or is tiled to express  
the stypne Quality of Medicines.

ADSTRINGENS. ASTRINGENT. Styptic.See STYpTIcA.  
. - ADULTERATIO- Adulteration of Medicines, or coun-  
terfeiting those which are genuine by something- like them in  
Appearance, though trot- in Efficacy. -This has been complained  
of in all Ages.; but is at present become a Trade so common,  
they lusters the Legislature finds some effectiral Method of  
purring an End to it, half Mankind will he destroyed, and the"  
Profession of Physic rendered utterly useless; for Physicians may  
prescrihe with great Judgment, and Apothecaries may admini-

ster with an ajuaI Degree of Honesty, and yet the Abilities of  
one, and Diligence of the other, will he rendered even preju-  
dicial to the Patient, If the Medicine, designed as a Relief, is  
- arth—y adulterated as not to he discovered unlefs fay the F.f-  
sects, which I know is too often the Case.

I am sensible that no good Effecti upon those whe are guilty  
os Adulterations can he expectsd from any thing I may sty, for  
they whe can reconcile themielves to Robbery and Munien,  
which is the Coofequence of Adulteration in a heinous Degree,  
are too abandoned to he reasoned out of their Iniquity.

In the Course of this Work, I shall do all in my Power to  
discover these egregious Cheats, by saying open the usual Me-  
thods of Adulteration, and specifying the Marks of genuine  
Medicines, and the Ways of knowing thofe that are coun-  
terfeit.

ADULTERIUM. Paracelsus, in his enthusiastical Way,  
has made a figurative Marriage betwixt the sensitive Soul,  
which be treats as the Husband, and the Bedy, which, in his  
Sense, is the Wife, Hence he culls overloading the Bedy  
with Aliment by the Instigation of the Appetite, ADULTERY.

ADUSTIO. **BURNING.** , Avicenna, in his Epistle to Ha-  
sen, *Theatr. Chym. p.* 869, explains *Adaestes* with the usual  
Obscurity of the Alchyrnists. *Adafiio antem est qpeando can.  
miscetur, out aduritur, aut corrumpitur Humiditas substantialis  
rei.* Castellus has taken no Care to render it more intel-  
ligible.

ADUSTION, otherwise called SiRIAsis, is an Inflamma-  
tion of the Parts about the Brain and its Membranes, attended  
with Hollowness of the Sinciput [Top of the Head] and Eyes,  
a pale Colour, and Dryness of the Bedy.

The Remedy is the Yolk of an Egg, with Oil of Roses,  
laid on the Forehead, in Form of a Liniment, for the Con-  
veniency of often changing. *Oribafws Syrup, lib.* v. *cap.* I 3.

Apply the Leaves of Turnsole, called *Scorpiurus,* (because  
**it** twists its Branches and Flowers like a Scorpionis Tall) to the  
Forehead; or the Pann of a Gourd, or the Skin that surrounds  
the Pulp OF a Pumpion, Or the Juice of Garden Nightshade,  
with Oil of Roses. P. *Acgrncia, lib.* i. *cap.* **I 3.**

ADYNAMIA. Ἀίοναρἀα. From a Negative, and ὸἀπόμις,  
Strength, or Force. Weakness, or Impotence from Sickness.  
See **ADUNATOS.**

ADYNAMQN. Of the same Derivation as the former.  
A Sort of factitious Wine, made by putting to two Gallons and  
a half of Must half as much Water, and boning it to the  
Consumption of the Quantity equal to the Water. It is made  
for sick Persons, for whom pure Wine would he too strong, for  
it is weak and of no Force, whence it takes its Name. But  
Dioseoridcs presoribes an equal Quantity of Wine and Water,  
to hell till all the Water he boiled away, and when it is cold,  
to tun it up in a Vessel well pitched. *Gorraus.*

ADY. The Palm-tree of the Bland of St. Thomas. It is a  
very tail Tree, exceeding even the Pine in Height, with a  
thick, bare, upright Stem, growing single on its Root, of a  
thin, sight Timber, and full of Juice; its Leaves Eke those of  
the cocciferous Palm-tree. Its Head shoots forth into a vast  
Number of Branches, which being cut off, of an incisiori  
made therein, they hang up a proper Vessel to receive the Tears  
or Juice that distil from the Wound; and this supplies the  
Place of Wine among the indians, and easily intoxicates. τ It is  
sweet when new, bur four in a sew Days; nor do the rest of  
the Branches which escape unhurt ever fail of bearing Fruit.  
The Inhabitants of this Island do not cut the Buds of this Tree,  
as the Indians do those of the cocciferous Palm-tree.

The intire Fruit is called by the Portuguese, *Caryoces,* and  
*Cariosse*; and by the black Natives, *Abanga.* Its outer Rind is  
yellow, under which is a yellowish Pulp, and aster that a hard  
blackish Stone, which contains a black Kernel, that is good to  
eat, and peeled of its Skin, is white. The Fruit intire is of  
the Size and Shape of a Lemon. . They eat it roasted,, and fre-  
quently at their Tables mix the whole raw Kemeis with Man-  
doc Meal. They believe thefe Kemeis to be of wonderful  
Virtue in restoring Strength to thofe whe pine under- a Dis.  
temper, and give their Patients three -of four of them' twice  
or thrice a Day, to comfort their Hearts. Besides this, they  
make in Oil out of the Emit, thin : They take the Pulp off the  
Stone; and mix it with a good Quamity of very het Water,  
-and afterwards set it over the Fire in boil a coosiderahle time,  
carefully stirring it; then it is taken off, and suffered to stand  
till all the Dregs, settle at the Bottom, after which, with a  
Jadle they take off the Oil that swims on the Water.’ This  
done, they repeat the Operation, by adding more het Water.  
The Oil is of the Colour of Sassion, concretes with Cold, but is  
otherwise liquid, eatable, and serves the Inhabitants for the  
fame Purposes that Oil of Olives, Or Butter, does the Nafive  
of our Climate; though, to speak the Truth, ft is inferior to  
either of them, both in Smell and Taste.

This Oil is in common Use with the Inhabitants for anointing  
those Parts of the Bedy which are stiff and contracted , and  
they say it is Of singular Efficacy in relaxing rigid Tendons.  
Thev anoint the whole Body with in also aster Exercise and

Weariness with Labour.. By Exercife, say they, the similar  
Parts of the Body exhale and are dried up, which ill Effects  
are prevented by a flight rubbing with this Oil. in short, it is  
their Acopon, and a noble Remedy, they say, against Lassitudes.  
*Pay's History of Plants.*

ADYNATOS. 'Αὸόνάΐοί. Its Derivation is the seme aS ADY-  
**NAMIA, and ADYNAMON.** in Hippocrates it signifies Weat,  
’ Feeble, or Impotent, and this Weakness is said to he a very  
bad Symptom, when it occurs in Difeases, where no Evacua-  
non has happened sufficient to account for it. When it is at-  
tended with frequent Stools, Lassitude, Pain in the Head,  
- Thirst, Want of Red, and theTatient mutters obscurely, so  
as not to be understood, it is a Sign of an approaching Deli-  
k"” "num. *Praedict. I* i. *Coac. Pranst. ,*

AEAZO. Ἀιάζα. Το lament, complain, exclaim, or groan.  
*Fuse Castellus, from Hippocrates.*

AEDES. Ἀαὸῆς From α Negative, and ήὸὑς. Sweet. Un-  
pleasant, Disagreeable. It is sometimes applied to Aliments.

AEDO1A. ἈιὸοΓα. Fromailbr, Modesty. The same aS  
**PUDENDA,** by which is meant the Parts subservient to Gene-  
ration in both Sexes.

AEGAGROPILA. From ἀιγ-αγρος, the Rupicapra, or Rock-  
Goat, Chamois, or Gems, andniam, a Ball. Velfchius wrote  
**a** Treathe On the Virtues of this. It is a little Ball found in  
the Stomach of Does and Goats in Germany, which some have  
pretended to he formed by the Doronicum, or Leopards Bane,  
on which these Animals feed, but it is now certain that it  
consists only of Hairs, which they swallow; and the like Balis  
are found in the Stomachs of Cows, Hogs, Boars, *etc.* and  
consequently are of no medicinal Virtue , though, from the  
falfe Opinlon concerning their Original, forne have celebrated  
them in Loosenesses, Haemorrhages, *etc.* because of the Plants  
from whence they conceived them to be formed. They have  
likewife been recommended in a Vertigo, because the Goats  
which produce them climb very steep Rocks without bring  
giddy. *Geoffnoy.*

AEGE1R1N0N. Ἀιφύρινοο. From ἄιγειρος, a Poplar. An Oint-  
ment fo called, becaufe the Catkins, or Fruit of the Poplar  
is one of the principal ingredients in iL Iris made after the  
following Manner:

In the Spring Season, when the Seeds of the Black Poplar have  
most Resin about them, bruife them, and put four Ounces  
of them into a Pint of fweet Oil; let it digest forty Days  
in the Sun, Or boil three Hours in a double Vessel *(a  
Circulatory I suppose)* and afterwards he strained. *Paulus  
Acgineta, I. via.* I. 20.

AEGEIROS. 'Αιγίιρος. The Poplar. ' Hippocrates recom-  
mends nine Grains of the Cretan Poplar to he taken bruised in  
black Wine; as a Medicine to promote the Expulsion of the  
Foems. Foesius interprets it the Black Poplar. See **POpULus.**

AEGIDES, ἀιγίίες. A Disorder of the Eyes. It is men-  
tioned by Hippocrates, *(Praedict.* /. ii.) where, in the Opinion  
OfFoesius, it signifies small white Creatrices in the Eye, caused  
by an Afflux of corrosive Humours upon the part. But he  
interprets .the same Word in a different Manner in his Com-  
mentary on the Passage where it again occurs *(Coac. Prams*218). Here, he fays, it signifies final" white Concretions of  
Humours, which stick upon the Pupil, and obfcute the Sight.  
.Castellus blames Foelius, for calling one of thefe Cicatrices or  
Concretions ἀιγὴς, which, he says, should be wrote ἀεγιἀς; but  
it is not certain that this Correction is right; nor do I fee any  
Reason to think the Word should be taken in different Senses  
in the two Passages quoted above. Crifpinus interprets άςγνῆς  
a white Membrane or Cicatrix in the Eyes, in Inflammations  
of the Eyes, where there is a considerable Afflux of Humours  
to the Part, we frequently 'obferve little white Specks to arise  
upon the Pupil, which sometimes increase fo much as to be-  
come a Film. These always disappear spontaneousty, as the  
Inflammation is resolved, and the Humours diverted- another  
Way . But if sharp painfur Powders, or Collyria Me applied,  
they are frequently so hardened and fixed, as not to bere-  
moved afterwards by any Means whatever. , „

These seem to he whet are meant by AEgides.

AEGIDION, Ἀιγίἐνἀ. From *deuris,* θΓ ἄκγὸς. The Name  
of a Collyrium described by AetiuS against Defluxions or Inflam-  
mations of the Eyes, *Aetius.* τ-'τ

AEGILOPS. Αιγιλωψ. The *Cerrus Mas majore Glande*(Park.) is called thus. Gerard mentions it under the Name of  
*Cerris majcre Glande.* Ηοι,με Oak, with **GREAT** AcoRKs.

*It in the Quercus Calyce echinats. Glande majore* ἀνγίλοψ.  
*Idaeorum, A/pris Maurarum, Cerrus Latinorum A* Cafp. Ban-  
nine. J. Bach, thinks it the Asprisof Theophrastus.

We sew the Cups of the Acorns osi this Tree at Venice,  
where. they ate Called Vallonia, taking the Name from Apol-  
Ionia, a City of Dalmatia, mow called Vallonia, whence they  
are brought.’ ’They use them for the feme Purposes as we do  
the Bark of Oak, namely; tordress Leather.

. The Cup of this Acorn, which was brought from Cape  
d’ Istria by Valerand Dourez, is thus described by-J. Bauhine:

Its Cavity was an inch and a half in Diameter, and some-  
what less in Depth. The Cup itself whs surrounded with a  
Multitude of thick stiff Prickles, fomewhat refembling the  
Fragment of a craggy Rock. It was not less than three inches  
in Diameter, and was hairy on the Inside; it. Scales were  
broad, and of a white Ash Colour. Whether the Tree was  
ever deseribed I cannot tell; for thefe' found on the Road  
from Pefaro to Rome, defcrrbcd by Lobel, I fuppofe to be the  
same with thefe we saw about the Lake of Bolfcna; but thefe  
Corn had smaller, sinoother, and lefs prickly Caps.

Nor does that seem to be any other, whose Branches were  
sent to Bauhine by Dalechampius. It had the Leaves of the  
common Oak, only longer, and more finely and deeply jagged,  
the upper Face shining, the under of an ash Colour. The Emir  
sticks dofe to the Wool, and the Cups of the Acorns were  
prickly and thorny, an Inch in Breadth, but the Acorn was not  
yet ripe, and the Cups were in every Resped like the prickly -  
Cup of the Oak of Burgundy.

The Leaves of the Cerrus observed by ns about the Lake of  
Bolsena in Tufcany wye exactiy such as Bauhine here de-  
scribes ; but the Cups of the Acorns were different from these  
of the Cerrus, which are called Vallonia.

The UIe of the Cups is to die Woollen Cloth black instead  
of Galls; but they give a fainter Colour, and not so lasting or  
valuable. *Roy's Hestory asc Plants.*

There arc fome other Vegetables called by the Name of *Aigi-  
leps,* as the

*Festuca Avenacea sterilis elatior,* C. Β. *Brsmos herba five A.  
venasterilisTaik. Bremss sterilis, Gnt. Ai gulps Mauhicde, I.* Β.  
**GREAT wlLD OAT-GRASS,** or **DRANK.**

The Roots are full of sinall Fibres, and entangled One with  
another; the Stalks rife several from one Root, a Cubit high or  
more, slender and divided by fevemi Joints or Knots, Often  
five, each Stalk bears a Panicle divided many Ways, little Bits  
of which hanging by long and slender Filaments, and com-  
pailed of several hulky Substances laid one upon another, put  
on the Appearance of a final! Ear, not much unlike the husky  
Heads of Oats, whh a long soft Beard, sometimes of a purple  
Colour. The Leaves are of a moderate' Breadth, rough and  
hairy at the Edges. When the Plant turns to Straws, the  
Root withers.

It grows by Hedges, Paths, and the Sides of Fields, in the  
Month ofMay. - '

The Root boiled in white Wine, and the Decoction drank  
for some Days together, is commanded by Tragus as a singular  
Remedy for the Worms in Children. *Pay.* - Λ

Diofcorides gives the following Account of it: - "

. The *Atgileps* isa small Plant, with Leaves like those OfWheatj  
but softer, and producing its Seed at the very Top, which are'  
two or threc in Number, of a red Colour, and inclosed in  
bearded Husks.

The Heth applied with Meal, by Way of Cataplasin, cures  
the *Aigileps,* and discusses Hardnessas. Meal wet with **the,**Juice, and after wards dried, is kept for the said Purposes.  
*Diofcorides, I.* iv. *c.* I39.

The second Sort of *JEgulps is the*

*Festuca hngissemis aristis,* C. Β. *Acgileps brrnaides.* Tab. Ger.

**BEARDED wILD OATS. -**

It shoots forth many sinall, narrow, oblong Leaves, - distin-  
guished by feveral sine Curls, among which arife three or four ,  
flender Stalks, S Foot high, bearing Oaten’Ears, with empty  
Husks, of a fpadiceous [bright bay] Colour, and armed with **a**very long Beard, which proceeding from leafy Hulks, leans all  
on one Side. \_ - . : . ....

*We* observed this Species more than once in Germany. Ta-  
bemarnantanus took notice of it between Worms and Franken-  
dale. Its flender Beard is often turned in the Manner of Curls.

The third Sort is the .....

*ALgileps Narbonensis,* Lob. *Festuca sene Atgileps Narbonenses,*Parin *Festucae Italica,* Ger. *Gramen Festuca* kiv. *Jive Festuca  
altera capitulis daris,* C. Β/HAvER GRAss.

It has a little white arid fibrous Root, which shoots forth  
some flender Stalks, about a Foot high. It has but-sew Leaves,  
and those best resembling the Leaves of Wheat and Barley; but  
softer and sinoother, -and hairy round the Edges: At the Top  
of the Stalk come -forth sinall Ears, procceding from two or  
three hard Heads, and consisting of fome striated Husks, that  
contain the Sced, which is like Barley, only somewhat {miller  
and broader, and three in Number, immediately under the Co-  
vert of an inner chesty Husk. From the Husks, and: nor from  
the Sced, comes forth a fine, sharp, oblong, white Beard.

It is very common in Sicily, Italy and Languedoc, and Prof ‘  
vence in France, in het and sandy Soils, and in Heids among  
Wheat and Barley *(Lib. C. B.sc* Cultivated in Gardens, in  
grows higher and bigger, the Ears consisting of five or his  
Heads, in Sicily there is a white and a hiwh herein.; ced  
the Beard is more raised. *Case Wo cise^ed m saj, squj..*

We have, more than once, bad Experience of its Virtue  
against the *Aegileps* ; hut in was in the Beginning of rher Dis-  
temper, and before it had made any considerable Progress. It  
is an Astringent and a Dryer, without much heating. **The**Seed made into Malt with other Com, communicates an in-  
ebriating Quality to the Beer. *Lob. Ray* I289, I290.

An *As gulps,* or *Anchilops,* is an Abscess in the Canthus of  
the Eye, next the Nofe, containing Pus, which breaking, either  
corrodes the Bone, or discharges itself at the Canthus, Or into  
the Nose. *'Gal in Isas. vel Medics, c.* 15.

Between the Bone of the Nose and the great Canthus near'  
the Eye, a sinall Tubercle,, like an Abscess, often riles, and  
usually breaking into the Comer, becomes difficult to cute, is  
not taken care of. *Gal. de .Compose. Med. sec. Lie.* Z. γ. e. r. .

An *Anchilops* is a Tumor in the great Canthus, containing  
*Λ* Collection of Humours, perforated or not perforated. *Galen.  
'Destrati Med. .....*

*AssAegilops* is an Abscess near the great 'Canthus. It isi  
difficult to cure, “because the subjacent Bone, from the Thin-  
ness of its Substance, is corroded.. *Act. lib.* vin- *cap. iso.*

An *Acgilops* is ad Abfcess between the great Canthus and the  
Nofe, which, if It breaks, -and is-neglected, caufes a Fistula  
even to the. Bone. - Before.it breaks and becomes, an Ulcer, it  
is called an *Anchileps. P. Acg.Eb.su. cap.* 22.

An *Aigilofs* is a suppurated Tumor between .the great Can-  
thus and the Nose. *P.Acg. lib.* vi. *cap.* 22.

' .An *Acgilops* is air Abfcess broken Between the great Canthus  
and the Nofe. Before it breaks it is .called an *Anchilops; and,***if** neglectid after it breaks,- turris to a Fistula, and spreads to  
the Bone, being then not easy. to he cured.. *Actuarius, lib.* L  
*de Diagnose Path!cap.* 7.durdur

in the Corned of the Eye next the Nose, a kind ofsinall Fi-  
stula discovers itself, from which a Humour constantly distils.-  
The Greeks call it *Acgilops,* andjo-'is 'a perpetual Nusance to  
the Eye. Sometimes in eats through the Bone into the Nofe.  
Sometimes it turns cancerous, when the Veins appear distended  
and crooked, the Colour pale, mid, the Skin hard, and being  
.easily irritated, it:raises an’Inflammation in theineighbouring  
Parts. It is a dangerous thing , to attempt the Cure of thole  
that are cancerous,” because it Only hastens Death.

". When this Ulcer penetrates into the Nose,- all Remedies are  
in vain, for the Patient will never he cured; but whilst it is  
confined to the Angle of the Eye, a Cure may the attempted,  
though even that is difficult i and the nearer the Foramen is to  
the Corner, the greater will he the Difficulty, because of the  
very little Room the Hand has to acts; but the Work is like to  
he the easier, -whilst the Distemper is recent. .

' The superior Part of the Orifice must he taken held of  
with, a Hook, then cut out '.all that is hollow, as in Fi-  
stula’s, till you come to the Bone, the Eye and other adjoining  
Farts being well defended. The Bone is to be well cauterized,  
and if it be carious, some apply Caustics, that a larger Portion  
of the Bone may exfoliate, such as Chalcanthum, Chalcitis, or  
Verdigrease, which last works more llowlyand With less Effecti  
than the two former. The Bone, thus cauterized, is to he  
healed as other Bones .are which are treated, inithe seme Man-  
ner. *Celfus. dih.* vih *cap.* j. mis

*Acgilops,* so called from ἀιξ, aGoat, and ed, an Eye, because  
People who have this Dictimper are said to hevea Cast of their  
Eye, which resembles that of a Goat, and which Virgil alludes  
.to, *Transuersa 'tuentibus Hircis..* Tanins AEgineia has givenit  
the Name or *AnchUope* before it is ulcerated, which Distinction  
has been observed by later Writers. When the Tumor is  
burst' it is called *Aigileps.* Avicenna calls it *Garah and At-  
.gaeah. - . . - . -*

It is a Tubercle in the inner Canthus of the Eye, and is el-  
**ther** fcrophulous, atheromatous, or of the Nature of a Meli ceris ;  
it is very apt to turn sinuous, and being so, whether it proves  
callous or not, is however called **a** *Fistula Lachrymalis. . Vise.  
num. ,*

The Matter contained in this Tumor is so sharp and puru-  
lent, that it corrodes not only the Skin, but even the Lachrymal  
Ducts, the Fat reared near the Sinnfles of the Eyes, .and some-  
times the Bones called Ossa Plana, and even the adjacent Bones  
of the Nofe, where It causes frequently a dangerous Caries.  
\_ Sometimes the inferior and superior Lachrymal Ducts are so to-  
tally eroded, that the Tears mixed with Matter continually  
**flow into** the Eye, from the Pundla I achrymalra, and at last  
cause a true Fistula Lachrymalis. But oftentimes Tears only  
\_ trickle from the Eye, when it is properly enough called Epi-  
poors. *Heister.*

In the Rminning of this Disorder, a Tumor with, and  
somefifries without Inflammation often appears superficially; and  
at other nines seated so deep, that unless the Part is pressed  
with the Finger it cannot he perceived. The Matter osten  
makes its Way under the lower Eye-lid, from the Tubercle  
there ulcerated, where it increases by Degrees till it runs over  
with the Tears. *Semertus.*

We generally find a Fistula Lachrvmalis Joined with the AE-  
*grleps,* which is chiefly owing to its being seated in such a

Manner, that the Teats and Matter cannot pass to the Nose,  
and so consequently must weaken and evrerki by Degrees the  
Lachrymal Bag.

The principal Cause of an *Aigilaps* is an Abscess consequent  
to an Inflam matron. I have seen it very osten caused by an  
Opthalmia, and the Smafl-pov. *Hiijler.*

The Causes of an *Aigilleps* arc the seme that produco the  
like Tumors in other Places ; but in some Cafe it is mane by.  
Fluxion, and appears first as a sinall Phlegmon. This Disease  
in frequently a Symptom os the Lues Venerea.

.If Jt is made by Congestion, as in the Atheroma, Steatoma,  
and Mellceris, the Tubercle is round, without discolouring the  
Skin; but if by Fluxion, thdn it appears red, with Pain and in- .  
stummation over the whole Eye. Sometimes it begins only  
with a weeping of that Comer, and is not disoovered till it  
affects the Eye with Rednels, and then, by Pressure with your  
Finger upon that Canthus, a mixed Matter may he discharged.  
Part of which is not unlike the White of an Egg. This Mat-  
ter sometimes eats through the Bone, and discharges itself  
through the Nose with a foetid Smell, -*JVifeman.*

/The *Acgilops,* if not taken in time, is difficultly cured.

It is asso very troublesome when seated deep ; but is worse  
if it bursts inwardly, becaofe it often corrupts the adjacent  
Bones : -

‘ If the Tumor is not inflammatory, as the Meliceris and  
Atheroma, the Cure is effectid not so much by Medicine, as  
by Surgery.

- If it turns cancerous, -it is very dangerous to attempt a Cure,  
as Death is often hastened by it, *Semertus.*

\_If the Ulcer he accompanied with Erosion, it will be apt to  
terminate cancerous,: in which Cofe the Cute is deplorable.  
*Wofentan. - .*

. - The Indication of- Cure is taken from the Condition of the  
*Acgilops,* whether it is in its beginning with Inflammation, Or  
Congestion, passing its Matter under the Cilium into the Eye.  
. In the Beginning, Bleeding and Purging are necessary, also  
shch Alteratives as are prescribed in the general Cute of Strumas,  
(See STRUMA) with Regulation of Diet accordingly.

Externally we apply Repellents to she diseased Part, to pre-  
vent Fluxion, Of the Waters of Purslane, Lettuce, Plantain,  
Horse-tail, Night-shade, and proga Spawn, with the Whites  
of Eggs, and Armenian Bole. To intercept the Matter, we  
apply Gum Mastic, Tacamabac, or the Rupture Plainer, to  
the Temples, and adjacent Parts.

- If the Tumor increase with Tension and Pain, it will he  
then reasonable to endeavour Discussion, by a Decoction Of  
Wormwood, Elder-flowers, Rue, Lentil and Vetch-meal,  
either in Wine or Water. If the Tumor tend to suppurate,  
it must the forwarded with a Cataplasm of white Lilly Roots,  
.Mucilage of Marsh-mallow-Sceds, Linseed, Fcenugreek, Wheat-  
flower, and Hogs-lard. When the Matter is well conceited,  
Ie2.it he discharged either by Knife; or Caustic. The only  
Caution is, that it must he opened at such a Distance from the  
Edge of the Eye-lid, that it may not divide; for in so doing,  
a remediless Blemish will be lest, and the Eye will he subjecti to  
Fluxion, and apt to water ever after.

If it is opened by Caustic it will require the greater Care.  
I, for the most Part, open them by incision; then digest them  
with a Dossil dipt in Oil of Rofes, and the Yolk of an Egg,  
lover which I apply Galen’s Cerate, Or such like, with a Com-  
Press dipped in some Of the before mentioned distilled Waters,  
to contemperate the Heat in the Part, and afterwards deterge  
with Honey of Rofes, and Syrup of Roses, or with this:

Take of common Honey two Ounces; Verdigtease a Dram ψ  
.; \_ Spirits of Wine. sour Ounces; boil them till one third Part  
is consumed.

Then dispose *them* to cicatrize with this:

Take Of yellow Myrobolans one Dram 5 Frankincense and  
? Myrth each two Scruples ; Tutry one Scruple; Camphire

: two Grains. Infusethern in Rose-water and white Wine,  
each sour Ounces;, then hell to a Consumption of a third  
Part, and filtre for Use And afterwards with Ointment  
of Tutty, and Lime-Water, and with good Compression  
cicatrize them. ’

' If the tllcer is fistulous. it becomes a FISTULA LAcHRY-  
MALIs, which see. *Wifeman.*

As the inflammatory *Agilcps* rather tends to Suppuration  
than Resolution: it must he brought to Maturation as fast as  
possible, lest perhaps by Delay it should degenerate into a  
troublesome Fistula. The Applications proper for this Purpofe  
are emollient Cataplasms, or Plaisters of Diachylon with the  
Grims. But as soon as Matter is known to he formed, the  
lower Part of the Tubercle ought immediately to he opened  
with a Knife or Lancet, and the Matter Being pressed out, the  
’ Abfrefe must he carefully deterged with the Oleum Philofophe-  
- rum, a digestive Ointment, or with Honey of Roses, with a  
IittleMyrrh,AEgyptiacum,or redPrecipitaie,and then the Ulcer  
must hie healed with some proper Balsam. But if the Abseess  
breaks of its own Accord, as it often docs, and the Aperture

Meth. *Paulus* is, in th e Opinion of Hr. Frnina, one of these  
unfortunate Writers who have been long rated below their Va-  
lue, and been despised for want of being read.

He appears, upon a careful Examination, .net to be so im-  
licite a Transcriber aS he is generally represented.; but to  
have considered the Practice of the Ancients attentively, and ’  
to have admitted or rejeched it upon just Cansideration. He  
sometimes dissents from Galen, and once ventures to hint his  
Disapprobation of the Doctiine established by Hippocrates him-  
self. .. ... - scsu.su si - 'so- si ...

. Li his sixth Book, in which he professedly treats of chiruI-  
final Operations, , and which herinll esteems the best Body of  
urgety produced hefoth the Restoration of Learning, there are'  
many Practices and Operations mentioned,'which'no': preceding-  
Author appears rd(have been acquainted withe

' He describes the several Sorts of Hcthia’s with great Exact-'  
ness; and verynincurnstantially iays down the Method of mak-  
ing the incision; when- the Gut cannot am replaced with-,  
out it. su‘. ' ' — .so. ....

The Quamtiosi' of opening the Arteries Behind the Ears hy a  
transverse Section, and the Apniieduosi of a Cautinyafterwards  
are very'accurately laid down” by lion'. \*’ ψ λ .

' He has 2. very exaA Account, of Bronehbtoniy; which is  
transsated by Dr.”Freind, ' and will be given under the Article  
BnoKcHoToMY; jet so;\*' th ά ” \*’ '

His Work in seven Books her been several ‘ilines printed in  
Greek. ’, ἌἼ*C. sisistaso si-si ‘ so.'***’ The Best** Edition is that *of* Alams 1528. .her \*  
1 The 'iec’onii, war. puhlifiiedam Basil 1738, by Andreas Cra-  
tander, finder the Care of Hieronymus Gemusseus, .who **made**feme Emendations in the Text, and added lome Notes.

It has been tranflate'd into Latin by three different Hands, Α1-  
banus Totinus, Tohamies Guniterius Andemacus, and Janus  
Comantis; to whom the. World is Obliged for many useful Re-  
marke upon dins Auther.--ἐν---' -

The Arabians call this Physician *Bules Ac, Agianitht.*

Herbelor says he lived in the tinie of the Emperor Heraclius,'  
and in the 'Reigri of Omar; the second Chance of the Mosul-  
mans, who died inthe Year of the Hegira 23, which answers to  
the Year of Christ 643. ’Honani, the Son’ ofIsaac, translated  
the,nine Bosiks οΓΡοίιΖκι *AIgineta*'into Arabic. I do not know  
whether he met with two more than are now extant in Greek,  
or whether thefe feven were 'divided in a different Mosiner, fo  
as totfiafce'ninc. Fabricius :is of Opinion, that the sixth and  
seventh Book, which are pretry "long, were each divided by **the**Arabian into’ two. X ' ss” . '

*It* is esteemed the peculiar Excellence of this Author to have  
understood the Disorder8 in which Women are fubjedt; he ac-  
poised the Name of *AstKadabeli,* that is, *Obstetricius,* hecaufe he  
used , to instruA MidwiveS in the Dufies of their Office, and  
teach them how to treat Women in Child-bed. *Fabricius.  
Ilerbeht. ~so* "ss τ

AEGLE. 'An allegorical Daughter of' AEfculapius. Le  
Clerc thinks by durse is meant the Light Of the Sun, which  
purifies the Ain.

\* AEGLIA. Ἀιγλία, οστἌιτλιη. According to Gomeus and  
Castellus the seme, as άιγἰς, AEgis,' or ἀνηεῆς, AEgias. - See AE=.  
**GtDES. /** 7' - -

AEGOCERAS. ’Αιγοεάρας. From ἁιρ a‘ Goat, and κἱρκς a  
Horn. Fcenugreek, so called from the Form of the Siliquae or  
Pods which it bears T these , were imagined to reiemble the  
HOmsofaGcan *Gorraus. - -*

AEG0LETHRON. ’ From *dura.* Goat, and ολιερος **De-**struction. j j; ί ' ' ' -

. Toumefortdescribes a.Plant by the .Name of *Chamaradeden-  
AnarPmitica, maxima, Mespilifolio, store luteo,* which he takes  
*io he the Agrlethrrn* of Pliny, and which he met with in  
Asia. ’ ' ' " -' -. - - ’ . - μ V

Iris a Tree which grows higher than a tall Man, within  
Trunk about, the .Size Of the ling. From this arise many -  
^Branches, subdivided again into smaller, which are uneven,  
weak, brittle, white within, and covered with a greyish Bark,  
naked except at their Extremities, where they are cloathed with  
Tufts of Leaves like the Medlar. These Leaves are about sour  
Inches long, and an inch broad in the Middle, pointed at both  
Extremities, but most so at that next the Pedicle, of a lively  
green, somewhat hairy, and bordered at the Edges with Hairs  
like the Eye-lids. The Rib of the Leaf is strong, and divided  
into Nerves which are spread on the Surface. This Rib i, only  
a Continuation of the Pedicle, which is three or four fine,  
. long, .and about a Line in Thickness. The Flowers grow at  
the Extremities of the Branches, eighteen or twenty tooether  
in a Tuft, each sustained by a Pedicle about an Inch^ong,  
hairy, and springing from the Ahe of certain sinas, membran-  
ous, whitish Leaves, seven or eight Lines long, xed ω many  
brand. Every Flower forms a Canal of two Lines and a half  
Diameter, superficially channelled, heisy ami yellow, inclining  
to red, which, *at about an* inch Distance from the Balis, is  
expanded, and divided into fine P2..ts, one of which is about  
an Inch long, and as much broad, which bending backwards.

iso foiall chat the Matted cannot discharge itself, in ought  
namediately to he enlarged with a Piece of prepared Sptmgc, or  
Sentian-root, or with the Knife, after which it must he treated \*  
wh said above. If the Bone is discovered to he carious, it will he  
vroper to dress in with Lint wet with. Spirits of Vitriol, Or Of  
julphur; or, instead of them, the Powder or Essence of Eu-  
thorbium may be used, and over the Dressings a Compress.  
lipped in Lime-Water, Or Iome cooling Liquor must he: apo  
plied, till the Caries is removed, and the Wound fit for heal-:  
ng. The Caries may sometimes he scraped css with the Rhe ’  
tioe. But the actiral Cautery applied' through a proper Can-  
nula forwards the Cure surprisingly; the Ulcer afterwards will  
he cured by Balsamics. *Iiciestes.* - τ

A young Gentlewoman abounding with acid Serum, was seined-  
with an Inflammation and Tumor in the great Canthusiofd  
.Angle of her Eye. She had been dressed by feme neighel  
ί bouringFriend till..the Inflammation closed .up her Eyejidsi  
Sand alarmed her by the great Discharge of a mixed serous Mat-;

ter. Γobserving the TutnorSperfectiy: suppurated, and the;  
Matter shining under the.Cuticula ready to .burst tbrougb,  
./opened it by the Point of a. Lancets without dinwing .one Drop  
- of Blood- The Matter discharged,. I dressed itwith.a Dose

sil dipped in the Yolk Of an Egg, with a Plainer of Galen’s,  
i Cerate, and Cloths dipped in red Wine over all, with-cosi-  
. yenient Bandage. The; next Day I took off the Dredings;.

and fomented it with a Decoction of the Leaves of Mallows,'  
.'Violets, Betony, Sage, and red Rofes, in Wine andWater,  
repeating the Dressings as before, and.lot-her blond in Hher  
Arm.-\_ At the Aext: Day’s Dressing, I found the Swelling

..of.her Eye-lid relaxed, .and the .exncend inshimniafion .miti-  
gated," but the Eye itself inflamed. I fomented and dressed.

*' z* the A'ofcefs with a Dossil dipt in Syrussof Rofes, applying a  
Pledgit of Ointment of Tutty over it, with a (oft Compress,  
thereupon, leaving the Eye of Liberty to he refreshed with  
:i.the. Air, and to be dressed with Breast Mint as they pleased,  
j To. the Forehead Frontlets were applied, to restrain and

intercept the influx .Lenient Purgatives and traumatic τ)4.

- coctions were prefcrined. The Orifice was kept open suf-  
ficiently for the Discharge of the Matter, and Convenienceof  
Dressing: Externallyrefrigerant and exsiccant Medicineswere  
applied, and a sew Drops of Tincture of Verdigreafe were

( added to the Syrup, in which I dipped my Dossils. .Yet  
notwithstanding my Endeavours, the Matter having made din

c Way into the Eye, -flowed both Ways in- too great a Quan-  
tity for some time. Upon which I dressed the Ulcer with, **a**

. Dossil dipped, in Precipitate, and applied over it a .Pledgit  
. with Vigo’s Ointment ofTutty with Compress and Bandage.

After I had thus digested it, I dressed it with a Dossil, dipped  
- in Aqua viridis,,which I lessened daily, and at last cicatrized

. . it firm., *IVifeman.* , \_... i . r-; 00

**The Bandage is the seme as for the Fistula Lachtynsalis,**

**See FASCIA.** Sj. j

AEGIMIUS. A Physician who was the first that wrotea  
Treatise on the Pulse, as we learn from Galen. His Country  
was\_Velia, or Elin, His Age is .uncertain. : Le Clercchinks  
be lived before Hippocrates. Pliny mentions one of thinName  
who was remarkable for his great Age, *lib.-rii. cap. dp.* haying  
lived two hundred Years. -As he says nothing more of him, - it  
is not known if he was the same avthe above mentioned,-or  
-another. 7 ‘ 7” . 1

’ His Treatise on the Pulse was entitled Πιρς Παλμήν, *Of Palpin  
tations,* which was the ancient Word to express the Pulse. Hence  
Schulkius concludes he must be very ancient, as having lived

- before the other Words afterwards ofed by medicinal Writers  
to express the Pulse were in Use. .. -.ι .\* ο.

Another Argumcnt fof the Antinuity of *Atgimias* is drawn  
from Galen’s representing him as the first who wroteon,-the  
Subjeci of Pulse, which cannot, he trne.uuless be was prior to  
Hippocrates, because the last named 'Author makes frequent  
Mention of the Pulse,

Schulxius makes a small Mistake in saying the *Atgimius* taken  
notice of by Pliny was of Vella j for Pliny only mentions his  
great Age, without specifying his Country.

.. AEGINETA (PAULus) a Physician of the seventh Century,  
was fo called from AEgina, the Place of his Birth, as appears  
from two Lines prefixed to the first Edition of his Works."

Παυλου πο,ο, μι γνῶβι, τοῦ γῆς ἐν πλίον ' r. i;

**Διαὸμαμότος, ἐκ γῆς Ἀιγίνης.**

*. This is the lp.crk of Paulus, a Naatisje of Aegina, who had  
.travelled carer thegreatest start of the World.*

This Circumstance of his Life is the greatest Part of what  
‘ is known of bint ς 2nd the Curiosity which the Mention of a

Traveller naturally minites, must remain unsatisfied, and **we**must confine ourselves to an Account of his Works.

That P.eputation of every kind is eapnainufly distributed  
cannot but be frequently observed; nor is it lest ofual for  
Authors, then for Men of every other Class, to he recompens-  
ed for their' Endeavours in a Manner disproportioned to their

Eke the other four,' forms a kind of Gothic Arch ; the Colour  
is a pale yellow, but more like Gold about the Middle. The  
other four Divisions are of the same Colour, but neither so long  
nor so broad. This Flower, is perforated at the Bottom, and  
at this Perforation arifculeted with the Pistil, which is pyrami-  
dical, channelled, and about two Lines long, of a pale green,  
somewhat hairy, and terminated with a crooked Filament two  
Inches long: which ends in a pole green Knob? Round the  
Perforation of the Flower-arife five Stamina,- shorter than the  
Pistil, uneven, bent and furnished with Heads frill ofa yellowish  
Dust, the Stamina- are of this .Colour, hairy from their first  
Appearance as far as the Middle, innd’ali befit to one Side, like  
those of .the-Fraxinella.’ The Pistil becomes a Fruit of about  
fifteen Lines long, and sin or seven Diameter, and dividedinto  
seven Or eight Apartments. Mr. Tom hesort never saw the Fruit  
npe.5 et sc,, ’’ her ss'”: *zso* -,“.ξ*set' γή\** -..υεν  
so Tne 'Leaves of this Plant are styptic. The Smell of the  
Flower is like that Of the-Himry-fuckle, shut stronger and in-  
toxicating. W -'--«aWiV-U-vx L--

MI. Tournefort goof Uirto tSH us, thathe-wits so taken  
with the Beauty of this Flower, that he made a Nosegay of it,  
which he designed as *a,* present, for. NumanCuprogli, aS that  
'.thneBassa of Erzerum, - whom he had the Honour to accom-  
pany on'the Black Seal, huthe was informed by his Chain that  
the Smell of it was thought to cause Vapours, and a Vertigo;  
and vyas told-by the Peopleof therCountry,; that .it.was esteemed  
prejudiciaLto.the Brain,. ; andnsi *am* „i .Vno -  
. Thefe Petiole have a, Tradition, probably founded on repeated  
Observations,that the Honey which the Bees , get from this  
:Flower,.stapifies those who eatsti; And inclines them to vomit.  
. 6 Diofcorides speaks of. this.Honey in much the same Terms,  
*lib.* ii. ced. 103. 0 About Heraclea in Pontus, saysthe, at curtain  
times of the Year, the Honey, makes thofc mad who eat of it,  
and raises asplentiful Sweat; this Effect is owing to the Flowers  
from whence; they ,gather,It?.' Thefe. whom it affects are re-  
sieved by . eating Rile, .and salt Meats: (ταρχὴς)., mid drinking  
Wine mixed with-Honey,. which are. to.he .repeated as often  
' as they are discharged thy Vomit *I 'suppose he meant Isemaj of  
Abetter Satses* Dloscorides adds, 'that thisHonry is acrid, and  
makes those freeze that ‘siness to it. It, takes'' away Freckles,  
by anointing., them .with it, . mixed with. Costris.; and with*'R*

’Proportion of Salt, Pliny safe ofAloes, it cutes Lividness from ;'BbitfA's y. ".7.7ῖ"οῦ: te. .

. TO this Pliny adds, that the same Disorders .are communi- .  
rcated to Dogs, that eat the Excrements of thofe who have taken  
this Honey.. ' . .. ' -

This Plant, and the *Chamaerodedendras Ptntica, maxima,  
folia Lauroccrast,’. store i caeruleo purplaaseentes gyow* about He-  
'raolea in . Pontus, now called *Penderactis, lumL.legul,* and are  
found in great Plenty upon, the .Coast, and inche .Woods all  
'theWay toTrebisondand heyond; so-so-so .

The Account which Pliny ' nives of the Plants from whence  
The Bees extracti this Honey, is more plain than’ either that of  
Dlofcorides an Aristotle, which last helieved that it was gathered  
Trom the Box-tree, and that it made thole mad who eat of it,  
:if they were well before ;; and .on- the contrary, cured thofe  
who were mad before they took it. The Passage in Pliny is  
\* thus, *lih.xxi. cap.* I3.; :

About /Heraclea, in Pontus, \_ forne Years the Honey'is ex-  
tremely pernicious. Authors have not informed us what Plant  
it isgathered from; what I have discovered of this I shall relate.  
There is, in these Parts, a Plant called *Asgrlethran,* from its  
. being Poison in Cattle, but particularly to Goats. The Flowers  
*. of* this, in a moist Spring, acquire a poisonous Quality when  
they wither. Hence it happens that the Honey is not every  
Year noxious. That which is poisonous is distinguished by re-  
. maining more fluid than the other Honey, and not concreting j  
the Colour also is more red, the Smell is different from that  
, of good Honey, and causes Sneezing, and it is more ponder-

Ous than that which is wholofome. These who eat of it cast  
- themselves on the Ground, and seek hy all Means to cool  
themselves, because they sweat immoderately. . ; -

The Antidote specified by Pliny is the same in .Diofco-  
rides. He adds, that -Mead prepared with this is innocent when  
it grows old, and that in the fame Country (Pontus) amongst  
the Sanni, there is another Sort of Honey, which, by reason  
*of* the Madness it produces, is called Maenomenon. This  
. Essea is said to be owing to the Flower of the Rododendros,  
with which the Woods abound. And that Country, though  
. it pats Tribute to the Romans in Wax, never sell their Honey,  
hecaufe it isPoifon. . . .

From this Paffaae Mr. Tournefort concludes, with very, good  
Reason, that -the *Acgsleihroa* is the Species of Chamaerododen-  
. dren I have described above; and that the Rndodendros, men-  
tioned by Pliny, is the *Chamarsdedendras maxima felio Liturc-  
cerast, store e caerulea purpurascente,* which he says may he  
called *Rcdcdendras Pontica Plinii,* to distinguish in from the  
common Rctiodenoros, Oleander, or Rofe Bay.

It is certain that the Oleander, or Rose Bay, Rododendros, does  
nor grow on the Coasts of the Erskine Sea, that Climate being

too cold; Very sew are to he forced beyond the ’ Dardahels j  
hut they arc vay common by the Sides of the. Rivulets in  
the Islands of the Archipelago. Henri, st is certain that the  
Rododendros of PoHths, taken notice of by Pliny, cannot he  
the Oleander, or common Rododendros. Tournefort, in  
these Quotations, has made some little Mistakes, which I have  
endeavoured to rectify. ϊο-4 μου - ' A.

e :Xenophon relates a very extraordinary Effecti of this Honey  
υριιπ theten thousand Men, which he commanded, in their  
Retreat. He tolis us .when they approached near Trebifond,  
they sound a great Number of Bee-hives, and the Soldiers eat  
prentifully of .the Honey. Upon this they were seined with a  
.Vomiting and Purging, which was succeeded by a Delirium,  
msomuch that thofe who were least assccled seemed th he drunk,  
.and the rest either mad or dying. The Camp had the Appear-  
ance of a Field of Battle, so many Bodies lying about, which  
seemed either- dead or orpiring. However nobody died by  
it ; for the next Day the Disorder ceased about the same time  
.that it he^n the Day before; so that the third or fourth Day  
the Men recovered, hist remained weak and saint, as if they  
-had'taken some strong Medinine.

... r Diodorus/ Siculus relates this Story with the lame Crrcum-  
-stances. The FatherJLamberti, a’ Missionary,'.relates, that  
The Honey which, the.her collect frnin a certain Shrub in  
,-Colchis or .Mingrclia, is dangerous and emetic. This Shrub  
che palis *Qleorulrp gialio,* yellow Oleander, which Tournefort  
thinks without dispute the same as the *Chamarodidendrss Pon-  
tica, Maspilifoldurjipee lutea,* or *Atgoletaren. ‘* The seme Lam-  
ctierti describes, the Smell of .this Flower, as betwixt "that of  
;Musk and yellow Wax. Tournefort says it is not unlike that  
; of the Honey-fudde, hut muchstrongeI.. *Memcires de I Academe  
.Bofale des Seleuses. ysyati. .. - .?*

AEGONYCHON. Ἀιγήυχον. Dioscorides, *Sb.* sir. *capi* I58,  
-fays the Lithespennon,, Gromwell, is sometimes thus called.  
-It is derived from ἀψ, a Goat, and W, theHoof. Because  
-of the Solidity and Hardness of theSeed, in the. Opinion of  
XGornetB. - her' ἐν.ἄκἐνso

AEGOPlsOSOPON. The seme as AEGIDI0N, which see.  
b.:3AEGYPTIACUM UNGUENTUM. A Composition that  
-;is ascribed -originally to Mefue, and has been received by  
Inost *Dispensatcries* that have been since wrote,/without any  
material Alteration, ψμὲν thus givenin'the *Dispensatory* of our  
Own College.. ’ si : T'' - ί

Take of Verdigrease, or of the green Rust of Brass sinely  
powdered fivo Parts; of Honey-four Parts; ofthe sharpest  
- rnegar seven Parts ;. boil them altogether ID a due Con-

sistence, and a dusky red Colour.

The Scum .of this Ointment is *aJledMel Acgrptiacum, Er.*gyptian Honey. . " ” ‘ ίί ,7 -

The Compilers of the *Edinburgh Difpensatssy* feem to have  
thought this too strong of the Verdigrcofe, and have lowered  
it ry increosingthe Proportion of Honey,

Take of Verdigrcofe, reduced to sine Powder, five Ounces;  
of Honey fourteen Ounces; Of Vinegar seven Ounces;

' boll- them-togetherover a gentle Fire to the Consistence

of ’an Unguent.

This is an admirable Detergent, and -much recommended  
bywhinrrgical 'Writers to-keep down sungous.Excrefcences in  
Ulcers; but it .is too corrosive, especially that of the *Landen  
Dispensaturi,,* except lowered according to the Circumstances  
ofthe Case. The Hint of this Composition is taken sioin  
Dlofcorides, who recoin mends Verdigrease helled with Honey  
for deterging soul Ulcers. And Aenus, *Tetrabsb. vf. Serrn.* ii.  
*cap.* 3. prescribes an Ointment very - little disterent from this.  
See **ABSCEssUs.**

It would perhaps he somewhat difficult to account for the  
Name of this Ointment, because none Of-the Ingredients bear  
any Analogy to AEgypt. Aedus however takes notice of an  
Application made ofe of by a certain Egyptian in the Cure of  
an Achor, wherein Verdigrcofe is a considerable Ingredient:  
Perhaps the Name may owe its Original to this, which indeed  
is not an Ointment, but a Plainer. *Tetrab.* it. *Serm. in cep.* 68.

AEGYPTION.'Ανηὑάΐιω. Very frequent Mention is made  
of this in Hippocrates, as a Topic in Uterine Disorders. Ga-  
len informs us there were sour things which went by this Name.  
First, the

**AEGYPTIUM OLEUM. ’Ανηώὕν» ἴλαιον, AEgyptian Oil, also**called Cicinum, which Diofcorides says was expressed from the  
.Seeds of the ,ίονι, (Ricinus) or, as we call it, Palma Christi; he  
represents it as unfit for internal the (ἀδρὑίον) but very proper  
for Lamps and Plaisters. . .

Actius informs us it was prepared in AEgypt from the Seeds t  
.the above - mentioned Ricinus, which was allo called Croton,  
by Bruisir^, Expression and Boiling. He recommends it in  
Leprosies,- Foulnesses of the Slain and Freckles, which he  
sa}.s it will take away by continual Use. .

The Second was the **AEGYPTIUM OLEUM ALBUM, ἀι-***apiu.ua* &.ai» λμόώ White -AEgyptian Oil, prepared, according to

Galeo, with Lillies, and called also Crininon, or Susinon O-  
Ieum. . This is probably the simple Oil of Lillies mentioned by  
Diofcorides.:. : ., ..

**e** third Sort of *Algypticn* was the αἰγήώμὲνμάρ **π** aired», *Use*

*guenttem Aegyptium Album,* white ^Egyptian Ointment, called  
also *Mendesium,* -ι4πέμυρβν,..οτ..σοὐσςνον *quifine* and is probablythat  
described thus by Diofcorides. ... . sc-.'.,

Take of Oil nine Pounds five Ounces ; os Calamus five  
Pounds and a Quarter; os Myrrh five Ounces; mix them  
' well with sweet-scented Wine, and then boss them. Then  
. strain off the Ofl, and, after infusing in if three Pounds  
and a half of Cardamoms, that have sheen bruised, and  
macerated ‘ in Rain-water, pour it bank.\* Let them ma-  
cerate, and then press them. This “done, take of this

- Oil inspissated three Pounds and a half; with Lillies a  
thousand in Number. - Strip these of their Leaves, and put  
them in a broad butnotdeep Bason, and' pouring the Ost  
upon them, stir them well with your Hands anointed  
with Honey. Afterwards let them Test a Day and a Night,  
and the next MorningTemoVe it into your Steve and-strain  
it, speedily taking off the Oil that swims upon the Wa-

ter that was pressed out with it; for this will not bear  
Water mixed with it, like the Rosaceum ; but,, is-they  
are heated together, "ferment and putrefy. It may he  
τ Convenient therefore to move it often from one Vessel to  
another anointed with Honey, first sprinkling a little fine  
Salt, and taking away carefully the. Impurities that gather  
upon It. Aster this, take the Residuum out of the Sieve .  
into the Bason, and pour on it an equal Quantity of Oil f'  
'impregnated with the fame Aromatics asthefore, and cast -  
‘ therein ten Drams of bruised Cardamoms. When Jon -

have .well stirred it with your Hands,r after a short.Rest, *l‘*‘ press it, and remove the Impurities of the Liquor.. Pour ς  
son Oil the third time, and do aS before, adding the Car-  
«laments and Salt,' and; working it with your Hands-a-  
nointed'with Honey.' -The Oil that comes off by the  
. first straining is the bell, the second next, and the isst

in Order is the worst. Then again take a thousand Lillies,  
and plucking off the Leaves, dispose them1 as hefore,-and ..  
pour upon them the Oil that was first drawn off, and pro- ..  
ceed with them in the same Manner aS with .the first .»  
.thousand, adding theCardamomsbefore straining.- This .  
done, pour on the second Oil, and likewise the third, oh-

. serving a like Process.sor each. aS for the first. The of- -  
tener you macerate fresh Lillies, the more Virtue and .  
Goodness will there be in your Ointment; hut when you  
think yon have done enough, add to every Preparation .  
of the best-Myrrh seventy-two. Drams, of Saflron. ten -  
Drams, Of Cinnamon seventy-fiveDrams; others put an  
equal Weight of Sassion and Cinnamon. -Bruise them and ἰ  
put them in a Bason os Water, and pour thereto the Oint-  
ment that'was first drawn; a’ little after pour it into small '  
dry Vessels, first rubbed with Gum, or Myrrh, or Honey .  
and-Saffron diluted with Water; Do the same by **the ;**

- \* fecond-and thud Ointment.. Some content themselves -  
' with a fimple.Ointmeur, made of the Oil of the Ben-Nut, .

or any other Oil, and Lillies. .. .. y .:. . «

What is made in Phoenicia and Egypt seems to excel others,  
and of this the best is that winch has the fragrant Smell of **the**Lillies. . ... ., .' .. ' ., -

It warms, softens and opens Obstructions os the Womb, .and l  
is good in Inflammations.os the same Part, and, in general, is ;  
very beneficial in Women's Disorders. It also cures scurry and  
. scald Heads, and soon removes the Blackness from Wounds  
. or Blows, .and makes, them of the same Colour with the rest of  
the Skin. Drank, it purges Bile downwards, I and provokes  
Urine; but it is hurtful to the Stomach, and Creates a Nausea.;  
*Diofcorides, lib. i. cap. 62. i*

The simple Oil of Lilies is probably that described by Paulus  
*Espsuaets, lib.* viu. *cap,* 2o.. . .. ..'-2. .

The Oil of Lillies he says (which others call Susinum, per-  
haps hecause it waS invented at Susse) is made of two  
Ounces of the dried Leaves of white LillieS put intoian  
Italic Point os Oil, and very closely stopped, so as nothing

. can transpine, and set to. stand three Days in the Sun.  
Then it is strained, the old Leaves cast away, and two  
. Ounces of fresh ones put to the Oil, which is to stand  
likewise another three Days, and then, to he.strained and  
kept up for Use.

The μάροναιγήκταν, Unguentum Argyutinm, without the Ad-  
dition of λευκὸν, Album, was, according to Galen, made oi  
the Flowers of the Acantha..' He says it was called *ftHlumiaf.*

Paulus rEgineta, *Sb.* Vit. *cap.* 2O. gives the Composition ol  
the Metopium; but it cannot he the same that Galen means,  
because the Flowers of the Acantha are not any Part of it  
Ingredients.

.thGYPTIUM LINUM. This is mentioned by Hippo  
crates *(de Morbis, lib.* ii.] speaking of the Cure of a Polypu

.in the Nose. 'He advises to cut a Spunge lround like a Bajsp  
of a Size to fit the Nostril, and to involve it in .Egyptian  
Flax, (λίνω *deyvastig)* for in does pot seem to mean Thread, but  
rather a kind of Tow. . ... Ἀ . .

1 ALUTA JEGYPTIA. Αιγύκταε σκύτκ. It is named by Hip-  
pocrates *sole Practise}* and seems to he a soft Leather, like what  
we use to spread Planters upon. ;; '

'ΑΠΎΠΤΡΗ ΣΤΥΠΤΗΡζΗ, .Egyptian Alnm. See **ALUMEN.**AiGYPTIUM ANDROMACHI EMPLASTRUM. Ae-  
tins, *Teirab.* IV. *Berm,* iii. *cap.* 13. introduces this Piaster  
with great Encomiums.'- He says it is famous for uniting the  
largest Sinuffes, for healing Cuts that lay the Bone bare, for  
Distortions and Luxations of the Limbs and Joints,, for Bites in- '  
fiicted by Men, Quadrupeds, or Reptiles; laid-on the Fore-  
head, it stops pollutions:on the Eyes; it heals the largest and  
"deepest Cuts with a Sworss in .three Days. It: has in excel-  
lent Virtue for discussing, so as to disperse a Collection of Pus,  
sinless there be a. very large Quantity, without Perforation of ί  
the Skin. Tt mollifies and supples the Limbs, though never so  
stiff arid hard, and brings malignant Ulcers to cicafrife. It is ’  
♦bus prepared : : t . ' ’ . . . t -

Take of Wax, Litharge,-of each one hundredland twenty  
. four Drams; of Gum Ammoniac sixty-two Drams; 'of  
Turpentine thirty-two Drams ; of greasy Wool, burns,  
eighteen Drams; of Birthwort, Franktncedse,-Squama  
Teris, each -eight..Drains 5 of-the Scoria of Steel eight  
Drams; osMyrrh three Drams; of OpoponaxtwoDrams;  
.of the Oil helled Cicinum, or the Sicyonium, - or. old  
' Oil, three Pounds. Boil the Litharge with theOil to **a**... - Consistence; then adding the Squama, let it boil till it  
-r *i.* will Ho longer raise a Spot in your Cloaths. Then add first  
**the** Wax, after that the Gum Ammoniac bruised.. When  
these are melted put in the Turpentine, and taking it off  
- . - the Fire,; mix in with it the Frankincense bruised, and

the Ashes of the burnt Wool, and work it up with your  
Hands, and. use it sometimes pure, sometimes diluted, i

„ AiGYPTIUM-CROCEUM UNGUENTUM.: This is  
m Ointment described by .Aetius, *Trtrab.sC.Serm.* iV. Cap. 45.  
it takes the Name from *Crocus,* Sassion, that gives it the Co-  
lour. . ... . Ἀ . ‘ : "sc ’ so /. ss

‘ XEGYPTIUS PESSUS.' ThisPessiiry isdeserihed by Paulus  
.ZEgineta, fromAnrylus, *libi ascis cap.* 24. It consistsof Honey,  
Turpentine, Butter, Oil of Roses, or of Lillies, and Saffron;  
Of each equal Parts, *Is the* Vagina is sordid, and not inflamed,  
the Author says that Verdigrease inay he added in a Quantity  
equal to half .that of- each of the other Ingredients. From this  
Addition it probably took the Name. .

\* ’ sEGYPTIUM PHARMACUM AD AURES. Aedus,  
*Totrab.u. Serna ui cap.* 83. speaks of this as excellent-for de-  
terging foetid Ulcers of the ears, which he says it cures,  
though the Patient was hern with them. - ‘

. Take of bitter Almonds two Drams; of white Pepper two  
Drams ; the Inside of ./Egyptian. Beans two 'DramS; of  
Sassion, Myrrh, Opium, Frankincense, Castor, each two  
Drams; Omphaelum four Drams; Vitriol four Drams;  
Apbronitrum two Drams, . . Pound them in Vinegar, in  
which the Bark of Pomegranates has heen boiled, till they  
*. c* come to a Consistence somewhat Viscid. . Dilute this with

. Ointment of Nard, and fo drop it into the Ears,

7 AEGYPTIA ULCERA. AretenS describes a Species of  
malignant Ulcer- of the Tonsiis-and Fauces, which he calls *IE-*gyptian or Syrian Ulcers, because Very frequent in these .Coun-  
tries. The Pastage jo in *lib.i. de Causis lAe Signis Acatorum Mor-  
borum, cap.g..* I so-

Of all Countries, *lens* he, ^lgypt is most subject to this  
Distemper, because of the Dryness of.the Ain, and the Variety  
of Food; for the Inhabitants live upon Roots, Herbs, acrid  
Seeds, and all\* Sorts of Garden-stuff, and then Drink is **the**thick Water of the Nile, or a sharp Liquor made of Barley.  
Syria also is infested with this Disease, especially that Part of  
it called Coelosyria; whence they are called ./Egyptian or Syrian  
Ulcers.

They whe die of it make a miserable End. The miserable Pa-  
tients labour under sharp Pains, with a burning Heat, -as **in a**Carbuncle. Respiration is quite depraved, for they breathe  
forth nothing but the filthy Vapour of the Ulcer, and imine-  
diately draw in the same again; and are so troublesome to  
themselves, as not to endure then own Smell. Their Fjeces are  
pale or livid, they have an acute Fever, a Thirst *so* violent as  
if they were on Fire, and yet dare not drink f0r tejj. of paut.  
for they are tormerrted beyond Measure, if the Dnnk runs  
against their Tonsiis, or back into their Nostrils. If they he ‘  
down they are forced to rise; nor can they hear to por

them Pain obliges them to he down again. But for che mOft  
i - Pirt. they choofe ω Wk about; for being incapable of Relief  
or Eafe. they avoid all Reft, and reek to lot the Senfeofone  
- Pain 7 introducing another. They gafp and drew their Bread,  
! much invrarts, as greedy to be seftdhed with the cool Airs

but breathe forth very little, because the Ulcers, which are as  
hot as Fine, are stilf more inflamed by the servent Breath; a\*  
Hoarseness and Loss of- the Voice comes on, and these Symp-  
toms increase more and more, till the Patient on a sudden  
salis to the Ground, and there expires. .See TONsiLLAE.

.EGYPT1A ANTIDOTUS. The .Egyptian Antidote.  
Many of these are described by Nicolaus Myrepsus, in his fust  
Section, which treats' of Antidotes. Their Descriptions are  
pretty long, and not of sufficient importance to he inserted  
here.

AeICHRYSON. ’Αιιχμσέν. From *dio,* always, and χμαάστ.  
Gold. A Name *Ostiae Sedum majus. Gorreeus.* See SEDUM.

AeIGLUCES. ’Αχιγλυκἡς. From ah, always, and γλαφύς,  
- sweet. ASort of sweetWine, that went by that Name, aS though  
it were always Mush -It is thus prepared; as soon as the  
Must is tunned immediately from the Wine-press, they set the  
Vessels underwater, to stand during Winter, that it may keep  
always cool; for it is only the Heat of the Must that turns it  
into Wine. .

AelPATHEIA. ’Αειπάβεια. From *eta,* always, and πάθος,  
an Affection or Passion. A never-ceasing Affection orPassion.

AEITHALES. Ἀεεθαλέν. Fromah, always, and θάλλω, to  
he green. Another Name for the *Sedum majus.*

AeIZOON. 'Αίίζωον. Promesh, always, and ζπό, Lise. *Sem-  
pervivum, Sedum,* Houseleek. An Herb, of which there  
are three Species in DioscorideS, the great, the small, and  
a third, called by the Greeks ἀνδῥαχνη αγρία, by the Latins *Il-  
lecebra.* The great Sort is described as having a Stalk above a  
Cubit high, as big as a Man’s Thumb, fat, green with In-  
cisions *after the Manner QsffitLactariavallarii,* called χαραιείας  
. τιθυμαλοςγ Wood Spurge, .with sat cantons Leaves, of the  
Size of a Man’s Thumb, like a Tongue at the Top, some  
.:turning their convex Sides toward the Ground; others standing  
-at the Head,.and so compacted .togetherall around, as tore-  
present the Figure of an Eye, whence it is called ζωοφδαλμὸς,  
and βουφθαλμής. The small *Sempervivum* has many Stalks  
sprouting from one Root, with (lender, round, sat, sharp-pointed  
.Leaves. The. middle Stalk rises a . Span high, bearing an Uin-  
thella, with.a small herbaceous Flowese t The two first Kinds  
‘.of Houseleek are cooling, and are also-moderately drying and  
.astringent. The third Kind has a small, thick, hairy Leaf,  
rrnost like Purilane.- It is of a heating, acrimonious, exulcerat-  
.ing Nature. *Gorreeus.*

- .thLIANUS MeCCIUS. A Physician that lived in the  
time of the Emperor Adrian. We learn from Galen that he  
.wrote well on the Dissection of the Muscles. It is also said  
.he was one of Galenis Masters, by whomhe is recorded to have  
.been a Physician of-Abilities, and a Very worthy Man. - .»  
. AELIUS PROMOTUS. There seems to have been ‘two  
of this Name,, one a Disciple Of Ostanes the Persian. ; This  
..AE&imaccompanied'Xerxes into Greece.

ς The second was a Physician of Alexandria, who lived in the  
.time of Pompey. He .wrote a Treatise περὶ άστβὀλκόνκαὶ οδηλητηρίων  
φαρμἀκων, -os Poisons, and. deleterious Medicines, *r* Gesha- and  
.Tiraquellus say this Work as preserved in sorne of the Italian  
Libraries in Manuscript; Mercurialis and.Fahricins'say in the  
Vatican. '. " \* 4..

si jEMIIJUS MACER. A- Poet Of Verona, who lived in  
-the Reign of Angustiis. He was Contemporary with, and soine-  
'what older than Ovid, who speaks of hint thus :

*':r* \ ’ῖ i ....... no

*Scape suas aiolucres legit mihi grandior ratio - - - s ' in*

*Quaeque nocet serpens, qua j lev at herbal, Macer.* ι

From hence we learn he wrote on Binds, Serpents and Plants;  
but Mr. LeClerc is of .Opinion he only gave an; Account of  
.such.Vegetables aS were Antidotes to those Poisons as he speaks  
of? ..Servius, says the same Author wrote a Poem on Bees, fi  
. It is on Account of his Poem on Birds, Serpents and Herbs  
that he is. .numbered amongst -the medicinal Authors, His  
-Works are lost; those which go under his Name being, in  
.the Opinion of all the learned, supposititious, and'are said to he  
wrote by oneJO.dobonns, ...J *. .J* εἴ ...J τι ... .. .cl

KEOLIPYLrE.’ JEoLIFILES. I do not know that this  
Word has-anY Right'to Ἀ Plate in a Medicinal-Dictionary,  
it properly belonging to; experimental Philosophy. However,  
as .Castellus has taken notice os 'rt, I would not omit it.. *Ana-  
lipiles* areVeffeis made either, of .Iron or Brass, with a small  
-Orifice;-into these Water is put, and when they are placed  
-in a het Fire, the Water,, rarefied into Vapour, bursts out with a  
’great Noise and Force, imitating Wind. \_

*ffi-Olsc.* 'Atio. The whole Age of a Man, from his Birth  
.to his Death properly, but used frequently by Hippocrates to  
signify the Remainder of a Man's Life.

It also signifies the spinal Marrow,, and it is said should he  
wrote at the latter End of the seventh Book of the *Epidemics*instead of ηηννὰνα. The Passage will then runthus, S τἐν ἀεῆςα  
φδοήσαί ἱβοἳμάιος ἀπκτανεν, *A certain Person being ill of a Tabes  
Dorsalis, died the seventh Day.* Erotian. FoefiUs, HesychinS.  
VarinuS.

**AEONION. 'AJnce. The** *Sedan masus,* **or greater House-  
leek is by some caned tints.** *Gorreeus.*

fEONESIS. Αιἐνησις. From *dsoodet, persuade, irrigo, to*pour upon, or so wet by pouring a Fluid upon. . It signifies a  
moistening the external Parts by .Perfusion, or Fomentation.  
*Erotian.' Foes.*

. ssORA. 'Αιάρα. From daestes, to lift up, suspend, or hang  
On high. Gestation, a Species of Exercise used by the An-  
cients, of which Aetius gives the sollowiniT Account. *Totrab. i.  
Serna, tide cap. 6. . . .. .*

Other Kinds of Exercise, says he, consist in Motion of the  
-Body; but Gestation is compounded of Motion, and such a  
Disposition as much resembles Rest, in which mast Parts of  
the Body seem to he still, white the whole is carried along  
the Wayin which the Gestation is directed. Hence it impears  
that Gestation is at once the’ most beneficial and most gentie  
Kind of Exercise, since it procures no Lassitude, and yet moves  
the Body aster the manner of great Exercises.

.... AU Gestation has the Virtue of exciting and Ventilating the  
innate Heat, of dispersing the redundant Humours, of strengthen-  
ing the Habit, and raising the dull and languid Powers.

There are many, different Species of Gestation, some of  
which, in particular,- are those which follow: A Gestation  
may he performed in a .Bed, either made pensile *(perhaps lice  
the modern Hamrnoclap* or moveable on .the Fulcra, or Feet which  
support it.- Δ .. second Way os Gestation is in a Litter, which  
is also -two-sold, that is, .when the Person carried either fits or  
lies, along. A. third Way is in a Chariot, and a fourth in a  
Ship or Boat.. .Riding also may he accounted a Species of  
Gestation.

. Gestation in :a-Bed is convenient for feverish.Persons, and  
such as have lain sick a long time, who cannot well raise their  
weak aud wasted Bodies. It is also proper for those who he-  
gin to- recover Strength after a .Fever, and for such as have  
taken Hellebore; it' is good likewise in a Phrensy, for it gentiy  
composes the Perturbation of the Spirits, and inclines to Sleep.  
Lethargies also, and Loss of Appetite, are relieved by it.

- -Gestation in a Litter is proper for such as labour under a  
lethargic, or semitertian, or quotidian FeVer; and hydropical  
Persons; such as are seized within Stupor, the Remains os an  
Apoplexy, or Palsy ;. and for .thole who are afflicted with the  
.Gout Or Stone. .Persons under a- perfect intermission os a  
Fever are carried this Way in a fitting Posture.

ι As for Gestation in a Chariot, there is something shaking in  
it, which works upon, chronic Distempers; but of this Kind  
Tome are more gentie and easy,, others rougher and more ve-  
hement. The first, or softer, is .to be used in Distempers of  
-she Head, and-Fluxes of the intestines; the latter, or more  
Violent,, is proper for infirmities of the’ Breast or Stomach, for  
dax Tumors, hydropical Persons, i.and such as are seized .with  
a Stupor. . But vertiginous Persons,.and such as have half their  
.Head affected-should fit backwards, and move gentiy. We  
:haVe known many cured this Way, who needed no other Help;  
hut then their *Sori* must he so contrived, as that they may fit  
:in a pretty supine Posture.

-- Lastly, Gestation in a Boat or. Ship, if near Land, and on  
a Calin Sea, is proper for suchas have .a Dropsy, or Elephan-  
tiasis, such as are swelled, nd-struck with a suddenPalsy.  
.This .Gestation at first turns thej Stomach, but soon grows her  
miliar and agreeable - "But:Gestation upon the Sea is most Vio-  
.sent, and causes many and great Changes, as It must happen  
-where the Mind is distracted betwixt Hope and Sorrow, Fear  
and Danger,' and the Ship's Crew sometimes exulting with Joy  
.and Alacrity, at other -..times frinkdinto. Despair. All these  
.things put.togetheri areinf Force sufficient to drive any old Dis.  
.temper ourof.the .Bedy, and exclude dt for eVer, not to men-  
tion that a Mixture of Rest and Motion, if any thing can do  
ds,: nourishes theBodfe ’ : J i j ..

*s?.* YEPOR inherc. : Itfignifiefcin Hippocrates a steep Place,  
Or rising Ground, offomewhat difficult .Ascent.

.AEQUAUSi. EQUAL. -This,min. a medicinal Sense, is  
applied to any thing that is consistent with itself, and always  
-the fame, or thatfethesameinall its Paris, in this.last Sense,  
Bus or Matter is said to he equal, or of an equal Consistence,  
when it has no Admixture of Ichor or Sanies, . but is all alike.

,A Temperament or Constitution is said to he equal, which is...  
not subject to Alteration or Excesses, but is always the same.  
*A* A Pulse is Called equal that keeps .the. same Tenor, without  
-any Variation with respect to the time and manner of.the Con-  
.tractinn and Dilatation of the Artery.. . ' εἴ . . - .

; Urine is called equal, when it always preserves the same Ap-  
. pearance in regard to its Colour, Consistence, and Contents,  
so that what is made at one time shall he exactly the same  
.-as that made at any other time ; and the Hypostasis or Sediment  
in Urine is said to he equal, when it is. the same in every Part,  
and seems homogeneous.

A Disease is called equal, when it perseveres without auty  
Variation in the Symptoms and Circumstances that attend it.  
The Greeks express tins by ὸμαλὸν. Hence Medicines that re- .

three to the Equality above mentioned are called *AEquaatia* by  
some Authors, amongst which Castellus quotes Jul *Caes:* Clan-  
**dintts.** I. .

./EQUILIBRIUM. The general Signification of this Word  
is too well understood to want Explanation. In a medicinal  
Sense it is used to express a just Proportion betwixt **the** Solids  
and Fluids of the Bedy, which is necessary to the Performance  
of the animal Functions, and a perfect State of Health.-  
.. ..dEQUINOCTIUM. ..TheEquinox, of which there are  
two, the Vernal and\* Autumnal. Physicians have taken notice  
of. these Equinoxes, as productive of certain Disorders. Thus  
YEgineta,. from Diodes, *lib.* i. *cap.* loo. says the Vernal Equi-  
sox increases Phlegm and sweet Serosities in the Blood, till **the**rising of the Pleiades, which is fix and forty Days. Therefore  
we are so seed on aromatic and acrid Aliments, and to use much  
Exercise. The Autumnal Equinox increases Phlegm, and thin  
Defluxions,' till the Fall of the Pleiades, which is fix and forty  
Days. During this Season we are to stop Defiuxions by the  
**Use** of highly aromatic and acrid Food, to avoid Emetics, to use  
much Exerase, and abstain from Venery.

The Autumnal equinox is placed about the twenty-fourth  
Day ofSeptember by Paulus sEginets, *sib.* vii. *cap.* II.

The VernalAEquinox is placed by .Aetius on the twenty-third  
**of** March, and the Autumnal on the twenty-fifth of September.  
*AellusT.etrab.* L *Serm.* iii. edp.T67. See AER. --

-. .dEQUIPOLLENS. Equal with respect to Strength. It  
has been;used.to exprefe-an Equality of Force in the antagonist  
Muscles, which move the same Part in different Directions.

i AER.. Ἀήρ. The AIR, What is meant by this Word is so  
commonly known, that it would he superfluous to attempt to  
define it. . Physicians in all Ages have esteemed the Air as **the**grand . Instrument in producing all Changes that happen in na-  
tural Bodies,. and of great Importance both in producing and  
curing Distempers, and in destroying and preserving Health.  
In Medicine It is numbered amongst the Non-natuIalai and is  
more immediately necessary to animal and Vegetable Lise, than  
even Nutrition. . . . . . . . υ

Hippocrates, in his Treatise *destlatibus,* gives his Sentiments  
with respect to the Air. He says the Bodies of Men and all o-  
ther Animaissare nourished:by three things, which are called  
Meat, Drink, and Spirits (ειυνεύμαία); these, when within **the**Bedy, are called Wind or Flatuffes (heraherbUtoutostheBOdy,  
Air. As this Air hears a great Part in whatever .happens in **the**Universe, the Force thereof is . a Subject considerable enough to  
deserve Examination. The Wind is nothing but a Flux, or  
Effusion of Ain. When therefore there is a great deal of Ain,  
It makes a Stream or Flux strong enough to tearupTrees by **the**Roots, . and to raise Waves in the Sea capable of elevating  
Ships of .immense Burden to a prodigious Height, such is its  
Force. - -Notwithstanding this, -it is invisible, however manifest  
Io thoUnderstanding by the Eflects.'. What is there, transacted  
in the.Universe without .Ate? What Body -is without it? Or  
where is it not present ? All. the Space betwixt the Heavens and  
Ihe earth is ^filled with-Ain (ισηόριάτβς).ἈΒ7 this Winter and  
Summer are caused; in the Winter itiscondensed and cold, in  
The Summer mild and.calfn. The:Sun, Moon and Starsper-  
-fonn their Courses by.theAssistance of the Ain;, for the Air is  
.the Nounshinent of Tire, insomuch that Fire deprived of Air  
.cannot subsist ; the Ain being itsels perennial and thin, furnishes  
-the Sunwith the means Of continuing its perennial Course.

That the Seaalfo participates of Airis manifest; for how  
Xotild Sea -Animais live without it ?. And how could they parti-  
’cipate of it, unless they drew it through the Water, or out  
of .the.Water itself . The Air in the Support of the Moon,  
-and the Chariot of the Earth, and nothing in Nature is Void of  
-in The Air thereforesus- all things has thegreatest Influence,  
rasthas heed.(aid-above.. ..— -d-2 ...:. ...

The Air is the Support of the Life of Mortals,- **and the**Cause of thofe Diseases so which Mankind is subject. And so  
necessary is the .Air .to. our.Bodies, .that though a Man may  
Iive-two orthree.Days or: more-without. Meat or Drink ; yet if  
-the Pastage of the Air intoithe: Bodyin intercepted Tor a very  
small Part of a :Day, it is certain Destruction,- so absolute is the  
tNecessitysfor it.. Men sometimes Test .from all other Actions,  
sonLise. is full, of Charges, Respiration alone is perpetual in  
talIAninwls, who arepespetuallv employed either in Expiration  
or-issipittition. ιί,-ί . ...

*. Lhave'said* that therein 2. great Communion hetwixt all Ani-  
-Inals and the Ain ; T-now. proceed to shew, that it is not proba-  
ble that Diseases can he caused.by any thing.but the Ain, as it  
is received into the Body either in Quantities too small or-too  
large,ifit in either too much condensed, or infected with Con-  
tagiom ' — ... . . .

I have quoted this Passage with a View, fust to shew that  
Hippocrates had taken notice of the general Influence of the  
Air on Animal Bodies, which will appear more abundantly in his  
\* Treatise *of Air, lFatcr and Climates.* Secondly, aS an Instance of  
thePrecariousoessofTheory in Physic, since this great Man,whose  
Penetration-enabled him to observe the Changes which happen

in Diseases, and descrihe them with the greatest Accuracy, and  
also to accommodate Methods os Cure to Distempers, perhaps  
the very best that Could possibly he contrived, with the Mato,  
rials Mankind had, in his Days, arrived to a Knowledge ut 9Could not however avoid running into Puerilities and Enos,  
when he attempted to reason about things which were not the  
Subjects of his Smses, and consequently out of his Reach.

‘ That great Poet and Philosopher Vimil has been fomewher  
more fortunate in his Account of the Effects of the Air onAnimal Bodies, insomuch that he seems to have been acquainted  
with some of its Properties demonstrated since by means of the  
.Air-Pump, and by other Experiments, which will he related  
Under this Article.

After having given an Account of the Prognostics of **the**Weather, from the Changes produced in the Brute Creations  
he goes on to give the Reason for it thus »

*.. ..... Haud.equidem credo, quia sit divinitus illis .*

*Ingenium, ant rerum fato prudentia maior :  
Verum ubi tempestas, et coeli mobilis humor  
Mutavere vias, et Jupiter humidus Austris  
'. Densut erant quae rara modo, et qua dense relaxat.*

*Feritentur species animorum, et pectora motus  
Nunc alios, alios dum nubila ventus agebat . ..  
Concipiunt: hinc ille avium concentus in agrii,  
. Et laeta pecudes, et ovantes gutture corvi.*

.,. Upon the Whole, it will appear 'by the Quotations I shall  
-give from different Authors, that the ancient Physicians were  
perfectly sensible of the Importance of the Air, both with re-  
-gard to the Preservation of Health, and Cure of Diseases . and  
: that they took more care than is usual amongst us, not only  
to Correct the noxious Qualities which the Ain may contract at  
-particular Times and Seasons, .and prevent the ill Effects there-  
of, but also torender it medicinal, and of Assistance in the Cure  
**of**Diseases, I .. .

. The Very Ain that surrounds ns is continually perverting our  
Temperament, while it changes to hot or dry, or cold or moist,  
-beyond a just Degree.*. AS to* other Causes,, we are not all at  
once obnoxious to them, nor meet with them every Day ; but  
she Air that.preffes on our Bedies is Circumfused around ns all,  
.and is drawn, into uS .by Respiration.. Hence the Bodies of Ani-  
mals must of necessity have their Temperament affected, ac-  
. Cording to the Various. Alterations .It .undergoes. Sometimes the  
ambient Air acquiring an Excess of Heat and Moisture induces a  
i pestilential Constitution, and because the Humours oftheBedy,  
whicharebredof unwholesomeFood,areiutrject toputresyjaFoun-  
dation is laid far a pestilential Fever. *Actius Tetr. B. Serm.* L  
τπο.9'4. . -i .

Orihasius, dn his medicinal Collections, *Iih.* **ix.** *cap.* **i.** tran-  
scribes from Galen the.following Passages relating to the Air.

The best .Air is that which is the purest, not Charged with  
**umoist** and heavy. Vapours from arw standing Pools or Marshes,  
nor infected, with .unwholesome Damps and exhalations from  
some neighbouring Caverns, hke that of Sardes and Hierapolis.  
:Air that has Contracted ill Qualities from the common Shores  
belonging to some great City or Army, or from the Stench of  
putrefied Carcasses or rotten Dung of Vegetables, must needs  
he bad, and stands condemned. So likewise is that which is dense  
and foggy from some neighbouring Lake or. River, or confined  
on everySide with high Mountains, and never stirred or Ventilated  
by the Winds; for this last Sort corrupts and suffocates,, being  
like the Air in Houses thatare.uninhahited and shut Up, which  
contract much Filth and Mouldiness for want of airing. All  
these Kinds of Air are hurtful to all Ages, as, on The. contrary,  
RpureAir is. uniVersally agreeable. Those Differences of the  
Air, which are in regard to Heat.or Cold, Dryness or Moisture,  
do not affect.all- Persons alike, νύ-To Bodies that are in the best  
Temperament the best temper'd Air is most agreeable; but for  
inch aS transgress in some -prevailing Quality, that Air is to he  
chosen which exceeds in the contrary. Thus Heat counter-  
instances Cold, d and Dryness Moisture, when too great **a**Measure of one is compensated by an equal Excess in **the  
'other. "" . .7μό:\*ι;ΰ.’ . ς**

ς' Alexander TrallianuS, *sipealdng of the House in-which an  
hectical Patient is to be ledged.* We are not only, says - he, to  
give the sick Person all the Means of Refrigeration, that can  
outwardly be applied ; but we should study, by some artificial  
Method, Io change the Ain, by producing in it a coolinn Qua-  
llty, that may be serviceable to our Design. If therefore it be  
Summer, let the Sick he in a subterraneous Room, and let **the**Floor he plentifully sprinkled with cold Water, to cool the Air.  
**let** Water alsosall from one Vessel into another, which, be-  
sides the forementioned Benefit, by in moderate and equable  
^Murmur induces Sleep. It would he yer better, and

-sor our Purpose, if we could so change rhe Air, as that It might  
not only refrigerate, but corroborate the Bedy. And thin may  
he, in a great Msusure, effected by shewing che Floor with  
Roses, Housteek, -Brambles, Twigs os the Lentilk-tree, or

Vine-tendrils, or something of like Tendency, which has a  
strengthening as well as cooling Virtue. An Air thus tem-  
pered must certainly he good for all hectical Persons, bur espe-  
cially sor those who feel then Heart and Irrngs principally af-  
fected with a burning Heat, like Fire ; for fuch Patients do  
not find so much Relief from a refrigerating Diet, as from the  
Inspiration of the cool Ain; as, on the Contrary, they who  
have their LiVer, Belly, or any other Part, most sensibly dis-  
ordered, receive more Benefit from Choice os Food than Change  
of Ain. in short then, while the Summer holds, we are to  
alter the Ain by Refrigeration ; but in Winter we are not to  
induce a Warmth therein, because however cold it be, it never  
hurts the Persons we are speaking of. The Bedy, for the same  
Reason, must he moderately cloathed, and not heated with a  
Multitude of Garments, which may cause a Faintness, *lib.* xii.  
ασίν. 4

Paulus .ZEgineta, *for such as have taken too violent Purges, ad-  
visees, among other things,* that they may be kept from Air that  
exceeds a moderate Degree in Cold or Heat. The first, says  
he, drives the Matter from the outer Parts inwards, and aug-  
ments the Flux; the other dissolves the Bedy, and destroys the  
Strength, *lib.* Vii. *cap. J.*

The same Author, *asitcr speaking os. the Alterations made on  
the Bodies of Animals by the Changes of the Are, in the fame Terms  
as Actius, before quoted, thus goes on:* He, who knows these  
things will not only he able to soretel what Distempers will  
naturally happen from every Constitution; but will find out  
-Methods to prevent them, by instituting a Regimen quite op-  
posite to the present prevailing Intemperies of the Air. What-  
ever Bodies then are subject, from their proper Temperament,  
-to fell into any Disease, are easily affected and hurt by a con-  
Curring Disposition os the Ain; but such as are of a Tempera-  
Inent contrary to that of the Air, not only receive no Injury,  
but find themselves hetter; the Measure of their Excess in one  
Quality compensating for that of the Ain in the contrary. A  
wise Man, therefore, whe understands these Things, will pre-  
serve his Health by opposing Contraries to one another, some-  
times using refrigerant, sometimes heating Medicines, as need  
.shall require.

- To serve-the first intention, or Refrigeration, he makes fie-  
quent Use of Water, indulges Rest, eats littie, and drinks plen-  
tifully; but when he has Occasion to acquire a, contrary Qua-  
lity, he knows by warm Cloathing, much exercise, full eat-  
' ing, and sober Drinking, to heat his Constitution as much as  
shall he requisite. A cold and moist Air may, in a good Mea-  
sure, he remedied, and converted into the opposite Qualities of

. het and dry, by making large Fires, winch Acron the Agri-  
: gentine is said to have done, in order to destroy the pestilential  
infection in the Ain. ZIA ii. β. 35.

*.’ This Chapter on Air is taken from Galen, and repents* verbatim  
*robot is bifere quoted from Oribajius, asfar as that Passage which  
' condemns Air that is pent up between high Mountains, and then  
goes on thus t* The Air on high Mountains, and in hilly Conn-  
tries, when no Wind stirs, is more wholesome, and good for  
"asthmatic and consumptive People, and all indispositions of the  
-Head and Breast.' But the Air of low Regions, which is pure,  
..is best for old People, and such as are subject to Paintings.  
The Sea Air is heneficial in hydropical and watery Distempers,

especially such-as have a cold Cause; for Nerves affected by  
.Consent of Parts, and Prostration of Appetite. The Air of  
rocky Places is not good; for in the Winter it is too cold, arid  
in Summer sultry hot. Air filled with the Exhalations of Me-  
tals is bad; the Air of a clayey Soil relaxes the Stomach; but  
-what comes from a light yellow Earth, is more drying than the  
former; the best exhales from a black Loams

The Air also changes according to the Seasons of the Years  
In the Spring it is hot and moist, in the Summer het and dry,  
in Autumn Cold and dry, and in the Winter cold and moist.  
Again, there are three Differences in each jSeason, the first,  
-rniddle, and last; of these the middle bears the-truest Character-  
istic or Temperament proper to that time; for the Extremes  
participate of the adjoining Seasons. Moreover the Moon causes  
'four Changes in the Ain every Revolution. The first Septenary,  
or Quarter, which is reckoned from the new Moon to the seventh  
Day inclusively, is, like the Spring, het and moist. The second  
Septenary, which holds to the full Moon, is like the Summer.  
The third, the Moon now decreasing, resembles the Autumn ;  
and the last, the Winter. Yet farther, every Day has its Dif-  
ferences of Air; for the Morning is her and moist like the  
Spring, in which the Bodies both of sick and found Persons  
are relaxed, so that eVen feverish Patients find it the most  
tolerable Past of the Day. The Middle of the Day may  
he compared to Summer, the Twilight *to* Autumn, and the  
Evening to Winter. And lastly, to conclude, the first Part of  
the Night is likened to the Spring, the Middle to Summer, and  
the rest according to Order.

By Air is understood that Fluid, which is scarcely to he per-  
ceived by our Senses, but which manifests itself by its Resistance  
to Bodies moved in is, and by its strong Motion against other

Bodies, when it is called Wind; and hy this Resistance and  
Monon of the Air, we know it is incumbent every where upon  
the Surface of our Earth. We all live in is, we enjoy is, and  
are perpetually kept alive by in The Laws of our Fosistenre,  
.and inevitable Necessity oblige us to inspire and *expire* this Ain,  
he it what it will; insomuch that all the Assistances of Art are  
Vain, and all that is done for us in the common Course of  
Nature is fruitless, if we are deprived of the Benefit of the  
.Air.

Is we examine into the Manner in which Nature operates alc-  
cording to the Laws which the great Creator has ordained, we  
shall plainly discover, that this Ain is **the** grand, efficacious,  
and necessary Instrument which Nature universally employs in  
almost all the Operations she is perpetually engaged in For  
in this, Bedies of all Kinds aro placed; in this they move, and  
in this they perform all their Actions, aS well those which pro-  
ceed from their private and particular Natures, as those which  
depend on .their Relation to other Bodies. There in scarcely any  
Liquid, as appears by Experiments, which has not Air inter-  
mixed with it; scarcely any Solid, out of which Air may not  
he extracted by Art. So that it is scarce possible to specify any  
Operation of Nature, which happens without the Assistance of  
Air, or utterly exclusive of it. The Operations of Fine, the  
Loadstone, Gravity, and the particular Attraction and Repul-  
fion of Corpuscles, may perhaps he alone excepted; as capable  
of bring perforrned without it ; to all others it is absolutely he-  
ceflary. Whatever is performed in Chymistry is done in the Air,  
without any exception, unless, perhaps, as the Alchymists will  
have it, that the Matter of the Philosophers Stone, rightly pre-  
pared, and carefully locked up in the Philosophical Egg, is in-  
tirely deprived of all crude Air, and is brought to its Maturity  
*in vacuo y* for they all are of Opinion, that nothing is so great  
an Obstacle to the Maturation of this beautiful Fruit aS the  
crude .Ain: But this is to he understood of other Particles that  
are intermixed .with the Ain, rather than of the pure Element  
itself . "'. si-  
lt is Very certain, that Fire which puts all things in Motion,.

Can neither be collected, preserved, directed, increased, or mo-  
derated without Ain. Hence, then, if Ain is necessary so  
Fine, Ain is also necesiary to every Operation of Eire; so that  
without it Fire would cease to operate, nor Conld.it be applied  
to other Bedies. The Fire here meant is that which is excited  
and supported by inflammable Fuel, by the Means of which  
both Art and Nature execute’their principal Purposes.

Whoever has Leisure and inclination to take a View of the  
' more general Classes of natural Bedies, will find; that Air is  
. every where required to their Vitality, Growth, Vigour and  
Action; for if their Lines consist in the Circulation os Humours  
through proper Vessiels, and bya peculiar Power converting the  
- extraneous Juices they receive into their own Nature, or at least  
bya singular Virtue applying them to their Substance, and thus  
increasing in then Magnitude, it seems utterly impossible that  
one of these Functions can he performed without the perpetual  
Assistance of Air.

The Chymists, I am sensible, will he surprised, when they  
hear the Air named as Concerned in the CEconomy of Fossils,  
fince the great Simplieity of the Matter of which they are  
formed seems to require Fire alone, in order to he capable both  
of acting and undergoing whatever is brought about in this  
’Species of Bedies; hut certainly those whe have duly considered  
the Nature of things, have long ago understood that Fossiis are  
brought forth and multiplied in the deepest Recesses of the  
Mines, and are thence protruded upwards, and that all this is  
.accomplished by the great Force of a subterraneous Fire. And  
as this is certam, so likewise it must he allowed, that this sob-  
terraneous. Vestal, and perpetual Fire is there retained, coi-  
lected and applied by the Ain alone. This it will he proper Jo  
set in a true Light, asjt.is a Point which has not been clearly  
treated any where else. Ain then is a heavy, elastic Fluid;  
dense in proportion to the Weights that compress it ; acts more  
powerfully upon the same Fine, in Proportion to its acquired  
Density; expands itself in the same Ratio, as it is freed from  
Compression; rarefies proportionably to the Intenseness os **the.**.Fire that acts upon it; and insinuates Itself into all things,  
and exerts chiefly all its Properties in thofe Parts which are  
deep, and towards the Center of the Earth. Hence, there-  
fore, it always operates the more Violently, the deeper and  
denser it is; and being agitated by the Fire, which by this Very  
Attrition of the Air is collected there in greater Quantity, be-  
comes the physical Cause ofthe most Violent Compression, At-  
tfition. Compaction, Depuration, and Union of homogeneous ’  
Particles; and hence the Fossiis which are generated there, are.  
os a Nature suitable to such a Cause. Without Air none os  
these would he produced; and perhaps this is the sale Reason  
why they are only formed in those Places.

*TVixtt Boerhaave fays hes-e about subierrantous Fires, and the  
Production of Metals by Mams of the Air, seems to want Proof.*

Nor will it he any ways necesiary to explain the Power of Air  
upon Animals and Plants r for some hire Very accurate experi-

menis have fully taught us, that no Eggs of Animals, or Seeds  
of Plants, he they ever so ripe, pregnant, and the best of the  
Kind, and cherished with ever so kindly a Warmth, will ever  
bring forth the embryo's contained in them, hut will remain  
Intirely unactiVe, if they are either deprived of Ain, or are in-  
closed in stagnating Air in Glasses hermetically sealed. All small  
Plants likewise, even the most minute Mosses, or aquatic Ve-  
getables, when they are kept in a Place void of Air, or when it  
is not renewed, presently wither and die. That the same also  
happens to all Animals, even to the smallest Insect, is true,  
beyond all Contradiction.

An accurate Knowledge, therefore, os the Ain, by which  
Its actuating Properties may he understood, is absolutely neces-  
sary for the Chymist, Physician, and Natural Philosopher ; for  
by this means alone we shall be able to comprehend a great many  
Operations which are performed by Art Gr Nature itfels, their  
principal Cause very osten being some innate Power of the Air,  
‘ that exists nowhere else.

Mean time, there is not, perhaps, any natural Bedy, the  
perfect Knowledge of which it is more difficult to arrive at, be-  
cause, of itfels, it scarcely affects the Organs of our Senses.  
. This one may justly attribute to its exceeding Subtilty, to which  
the Duiness of our Nerves renders us insensible; inasmuch, as  
**even** by **the** Assistance of the most perfect Microscopes, we are  
not able to discover any thing in it. But there is yet somewhat  
**else in the Ain,** which is still a greater Obstacle to our rightly  
understanding its Nature; and that is, its containing so many  
various Kinds of Corpuscles, that in the whole Universe there  
is not found a Fluid compounded of a greater Variety.

It is highly necessary therefore, first of all, to consider distinctly  
every single Property of the Air, carefully avoiding all Confusion.  
This done, and each heing separately examined with due Appli-  
cation, it remains, by making an Aggregate of the whole, that  
**we** obtain as true a Knowledge of it as the Nature of the Thing  
will permit.

**The** first Property then of Air, which offers itself to our Con-  
sideration, is its Fluidity. .This is so natural to it, that there is  
no Experiment the Event of which proves that-Ain could he  
deprived of it. It is evident to every one’s Observation, that  
even in the sharpest Frost, when every thing, almost, is con-  
gealed, the Air still remains liquid ; eVen in an artificial Cold,  
forty Degrees greater than ever Nature has been observed to  
produce, **the** Air still retained its Fluidity, notwithstanding it  
. was acted upon by such a prodigious Excess of Cold. If you  
compress the Ain with eVer so great Weight and Force, into  
the utmost Density, yet it does not then become solid by Con-  
cretion, but remains equally fluid as before; and as soon as eVer  
**the** Compression is removed, it resumes its former Degree of  
Liquidity. Among the many Experiments I have made with  
respect to the Coagulations of Various Liquors, I have never yet  
met with one fingle Experiment, by which it appeared that  
Ain was coagulated into a solid Mass. I must own, that once  
about Noon, in a frosty Day, when the Ain was Very serene, I  
Observed some Very small Corpuscles floating ahent in it, glit-  
tering in the Sun, and, by the Reflection from their little Snr-v. frees, sparkling with extraordinary Coruscations; but after a  
careful Examination, I discovered that these were nothing but  
little Glebules of Water, winch hefore were dispersed in the  
Air, but were now united and congealed, and thus appeared in  
Form ora Very subtil Hoar-frost. If therefore Fire can concrete  
with other Bedies, Ain certainly appears to retain its Fluidity  
much more obstinately than Fire itfels. But, indeed, it rather  
. seems probable, that there are in Nature two Fluids, the Ele-  
ments of which will never unite with each other, nor will ever  
harden with any other Bodies into one homogeneous Mass: And  
these two are Air and Fire, in the mean time, however, I  
have not forgot, that the Air concretes together, and unites  
with every land os known Bodies, and serves as a kind of Ele-  
ment in their Composition: For this is sufficiently evident from  
the large Quantity of Ain which spontanedusty makes its Way  
**our** *of* almost every Bedy, whilst it is reducing into its Princi-  
ples ; and this is now usually, though perhaps not altogether  
properly, called fictitious Air. The Fact upon Examination  
appears to he thus. st ij contained in all known Liquors what-  
soever; it penetrates together with them into all the Recesses of  
Compound Bedies; thus at sast, after a Coalition of the whole,  
it remains locked up in the p0res of Bedies, as it were, in Very  
minute Vefleis; and afterwards, the liquor in which it was  
conveyed thither heing dissipated, it is lest there alone. Hence  
then it is evident, that this Air was not concreted there, but  
- only lay concealed, heing retained by the including Bedy. As  
soon as eVer, therefore, it can disengage itself from tins Con-  
finement, it rushes forth not in the least changed, and returns  
with Velocity to its proper Nature. But this still appears in a  
stronger light, if we consider common Water, whilst freezing.  
There is concealed in it a great Quantity of invisible Ain: As  
soon then as eVer the Water begins m form itself into Ice, and  
its Particles are pressed nearer, and united together , as they are  
now deprived of that Degree of Fire which is necestary to keep

them asunder, and prevent their running into their natural U-  
nion, the Particles of Ain, detained hetween the Corpuscles of  
Water, cannot congeal, but are pressed out of these Interstices,  
where being united with other Particles, they- are collected in  
Bubbles, and become again a most fluid Air; thus evident-  
ly evincing, that this Air was in reality intercepted, het not  
concreted, coagulated, or altered. The same Thing being sup-  
posed in the like Manner in all other Bodies, the Fluidity of  
Air is sufficiently demonstrated.

The extreme Smainess of every individual Particle of Air  
Contributes greatiy to its Fluidity; for they are so exceeding  
minute, that no one of them can he represented to the Eye by  
any Microscope whatever. And yet they are far. larger than,  
those of Fire; for they can neither make their Way through  
Metals, Glass, Stone, or thick Word, nor even through strong  
Paper. And hence. Air may be excluded from any Place. Jt  
cannot so much as pass through those invisible Pores of Bedies,  
through which Wine, Oiis, Water, Brine, Lixivia, and acid  
Spirits, are able to infinuate themselves. These Observations  
are all evidently confirmed by the Air-pump: For if a leathem  
Ring is placed on the Brass Plate which supports the Receiver  
out of which the Air is exhausted, and the Receiver is set *gn*the said Ring, then the Weight ofthe Atmosphere, when the  
Air is exhausted from the Cavity of the Receiver, will press the „  
Edge of the Receiver with so much Force upon the Ring of  
Leather, that the external Ain will not.pass into the Cavity  
through the Ducts of the porous Leather, but will he intirely  
kept out; and yet, if you pour any one of the before men-  
tioned Liquors upon the Outside os the Leather, it will be im-  
mediately imbibed, and it will soon insinuate itself under the  
Glass into the Vacuum; a manifest Proof, that other Finias,  
though somewhat thick and tenacious, can easily pass through  
the Pores of Bodies that repel and keep out the Ain. And the  
same Thing is also demonstrated by an infinite Number of other  
Experiments.

In the next Place, these ultimate aerial Particles are easily  
separated from one another, insomuch, that their Disunion may  
he procured by a Force *so* small, that it scarcely comes under  
the Observation of onr Senses. And this Separability of the Air  
is fuch, that it does not alter the. Cose, whatever is the Directi-  
on of the Bedy that divides it, whether upwards, downwards,  
or sideways. This easy Divisibility every one may observe, who  
considers the Motion of a small polished Bedy through the still  
Ain. Thus a Steel Needle mOVes with great. Facility in the  
Circumambient Air, which Way soever you please; and it is  
the same with all other Bodies.. This properly, theresore, may  
he called the Lubricity of the Air. . .. ’

However, upon a critical Examination, we discover some  
Tendency towards a Union hetween the Panicles of the Air ;  
.by means of which they readily run together into, a mutual Also-  
ciation, though a Very slight one, and which may easily be de-  
stroyed : For it appears, that whenever one fingle Particle os  
Air lies concealed in any Liquid, it in not perceived; but as  
soon as eVer a like Particle is united with It, there presently  
arises a Bubble from this Union, which by a certain Tenacity  
resists Dissipation ; and If afterwards another, and another like  
Bubble, meets with the former, there succeeds, in Proportion,  
a still greater Bubble, tenacious,, as the former, of its Magni-  
tude and inherical Figure. It may, perhaps, be thought, that  
this is rather owing to the Compressure of the ambient Liquid ;  
nor do I deny that it may possibly, happen by that means; But  
yet, the Effort at least of the aerial Particles towards an Union  
withone another will he still greater than that‘between the  
Particles of Water and the Very minute Particles os Ain. The  
Attraction, however, hetween these Particles, I acknowledge to  
he Very small. -It may, perhaps, he laid, these Particles repel  
each other, as the great Newton has demonstrated; and this is  
not to he denied. However, it remains certain, that.there is a  
Power in these Particles, by which, when they are united in a  
spherical Figure, they long maintain thenifelves in that Form,  
against the Force of Bodies that surround them. ..... στὴ

Is we examine this inclination to Cohesion more closely,", we  
shall soon perceive, that the aerial Particles, singly and sepa-‘  
rarely considered, very easily suffer themselves to be mixed with  
any other Liquid void of Air; and that they obstinately abide  
in it, quietly Testing in its Interstices, in the same Manner as any  
Salts are dissolved in Waters ‘Besides, it appears, that'a laroe  
aerial Bubble, that is composed’of many united Particles of Air,  
and placed on the Surface of a Liquor intirely deprived of if will  
resolve into its elementary Particles; and that these, whenJthey  
are thus separated, will he carried inm the empty Pores of rhe  
Liquid, and never gather themselves into a Bubble again, u-jein  
by the additional Force of a stronger Cause.

And hence the Imperceptibility of the Am ro our senses may  
he understood ; for nobody would ever have thought of this Ale  
which we now treat of, had not some hege Bodies, and nrinci-  
pally fuch aS contain but a finch Quantity of Matter nnder a  
large Surface, been moved broadwap theOUgh it jn ανίον  
e Air resisting the Motion with a remarkable repulsive Force,

immediately manifests itself to he a hard Body. And as these  
Resistances, which are in reality actual Repulses, increase ac-  
Cording to the augmented Velocities with which the Bodies are  
moved, or, aS the Mathematicians compute, in a duplicate  
Proportion, hence it may happen that this imperceptible Softness  
of the fluid Ain may become as hard as a Stone: For if .one  
should rake a Very thin Brass Plate, an hundred Feet square,  
and attempt to move it directly forwards, erect through the Ain  
when it was calm, with so great a Velocity that it should move  
through a Space os two and twenty Feet in a Second, he would  
then find in this Ain an incredible Resistance or Hardness, easily  
to he computed by Mariotte's Method. And if with this Plate,  
**erect** and quiescent, any one should receive the Shock of a Wind,  
rushing with the greatest Rapidity, he would then likewise ex-  
patience with what Hardness the Air is capable of striking, when  
It is moved with such Velocity,

This is to he understood of the whole Ainas a Compound, in  
which Very large -and heavy Bodies are capable of floating, as  
appears by the Instances of Binds and Things of some Weight  
carried away by the Wind; not to mention those of a light  
Nature, as Dust, *etc.*

The next Property of Ain, considered in the same Manner  
aS before, is the particular Weight of its whole Bulk; *for in*this Respect all the Parts together, which in the Aggregate con-  
stitute this Air, press with such a Force towards the Center of  
the earth, that by their Fluidity they form a Sphere around its  
Surface, which may properly enough he called the Aerofphere,  
and which, on account of the large-Quantity of exhaling Va-  
pours contained in it, has hitherto, by Philosophers, been called  
**the** Atmosphere.

. The great Tuscan Geometrician Tonicellius, in the Year  
1643, attempted to ascertain the Weight of the Ain After  
**him** the famous Otto Guerick proved this Gravity by several  
sensible Experiments. That subtile Philosopher, Monsieur Pas-  
**Chal,** afterwards cleared it farther up; and the great Mr. Boyle  
rendered it more compleat. It was Mariotte, however, who  
*gave* the finishing Stroke to it, by the most curious Experiments  
of all, insomuch, that now no Part of Natural Philosophy stands  
upon surer Principles than this of the Gravity of the Air; for  
by the Assistance of what these Gentiemen have done, the  
Weight of the whole gravitating Atmosphere may he obtained  
to the greatest Nicety, and expressed under the Denomination  
**of** common Weights. . .

It has hitherto, however, remained impossible to determine  
the exact comparative Weight of the Body of Ain; it appearing  
that no two equal Portions of Ain, taken at the same time, hut  
at different Heights, were eVer of equal Weight; but that, on  
, the contrary, the lower Ain always outweighed the higher.- And  
this holds so universally true, that the Very same Thing is ob-  
**ferved** from the Surface of **the** Earth to the Tops inf the highest  
'Mountains ; arid in the Very same Place, at different Times, **the**specific Gravity of the Ain wall be different.

-. The Atmosphere in our Climate, where-ever it has hitherto  
**been** obserVed, is Very considerably, and almost always won-  
derfully changing with respect to its Weight, which never con-  
tinues long the same. This Variation is chiefly apparent when-  
ever there is any Alteration in the Meteors in the Ain, which  
is Very frequents For Rain, sudden great Showers, Fogs, Hail,  
Snow, Lightning, Thunder, Winds from Various Quarters,  
Storms, Whirlwinds, Drought, and the Changes of the planeta-  
ry Aspects, are certain indications of the Atmosphere's be-  
coming very soon of a new or different Weight. In this Affair  
the different Seasons of the Year likewise produce an incredible  
Variation. By means, therefore, of this successive and incessant  
-Mutability, depending on such a.Number of Causes which are  
continually reviving, it comes to pass that the Weight of the  
'Atmosphere never continues long the same. And hence an in-  
finite Numher of Effects about the Earth, which almost all  
’depend upon the Action of- the gravitating Air, are in a perpe-  
tual Vicissitude and Inconstancy '. So that this single Mutability  
**os the** Air, in point of Weighs, is the Source ofa great many  
-Causes which produce different Events. . In the mean time  
however, by the help of Very accurate Observations; continued  
Tor the Space *sis* above eighty-six Years, we are now come to  
**the** Knowledge os the greatest and leastGrayity of Air that hap-  
pens in Europe: For, uponexamination, it has been sound,  
that the greatest Weight of the Atmosphere is *in equilibria* with  
thirty inches and a half of Quicksilver in the Barometer,chut  
' that the least would raise it only to twenty-seven and a 'half; so  
that the Difference appears to be almost a tenth Part lof its great-  
vest Weighs, within which Compass the perpetual Variation of  
**. the** Gravitation of **the** Atmosphere is included, i i

' This daily Alteration depends on many particular, and per-  
: fectly different Causes; but yes, however, such as are intirely  
\* certain, and may he come at by diligent Observations. And  
- whenever this shall he accomplished, then- we -shall he able to  
1 form a regular Judgment of this Fluctuation, winch at present is  
- looked upon as uncertain. Nicholaus Kruquius, whose Genius,  
: Learning, and indefatigable Industry, highly qualisyhim for the

Cultivation of these Studies, and whose Meteorological Tables,

composed with Infinite Diligence and Accuracy, shew us at one  
View all the Causes contributing to every Degree of the increased  
**W** eight of the Atmosphere, has given "Reason to expect farther  
Discoveries. It were to he wished that the Inquiries of this  
great Master in Natural Knowledge might meet with Encou-  
ragement equal to their Author's Merit ; lest,' when he is gone;  
we should look in vain sor another thet is equally qualified for  
shaking Discoveries of this Nature.

Lastly, It has been likewise obserVed, that the Weight of **the**common Ard, ahem our Earth, ar the time of the middle  
Weight of the Atmoinhere, and in the most temperate Season  
of the Year, is to that os Water as I to 85O : But this must  
he understood with the Conditions mentioned above, otherwise  
nothing certain can he affirmed about it.

The Air resting with its whole Weight upon Our Earth,  
presses its Sufface perpetually. And this Pressure upon any par-  
ticular Body is equal to a Force which would sustain a perpendi-  
cular Column of Mercury to the Hfight it then stands at in **the**Barometer; the Base os which Column will he a horizontal  
Plane, cutting a Pyramid, whose Apex is in the Center os **the**earth, whilst its Sides much the horizontal limits os the Body  
thus pressed by the Ain. Thus then may this Power he every  
where exactly computed, by considering the Height of the  
Quicksilver in the Barometer at the time the Computation'is  
made, and the Magnitude of the Sursace of the Body pressed  
upon. And hence it is inferred, in the second Place, that Bo-  
dies placed on the earth are fo much the more pressed by the  
incumbent Ain, the nearer they are to its Center; for it is evi-  
dently demonstrated in Hydrostatics, that the Pressures of Li-  
quids upon their Bases are in Proportion to their perpendicular  
Altitudes. Hence, therefore, if we consider the Air aS a Li-  
quid, every where homogeneous and incompressible, then the  
Proportion in which Bedies are compressed in every Part of the  
Perpendicular, from the Sursace of the earth to its Center,  
might he'easily discovered: But as the elastic Power of the Air  
induces a great many Very different Considerations, it will be  
necessary to treat of its Effects particularly. Mean time, it  
appears, on the other hand, that all Bedies, the farther they are  
raised above the Center of the earth, the less in Proportion‘they  
are affected by the Pressure of the Air. But st’must be farther  
observed, that Bedies in the Very same Situation will he more  
closely compressed together, as the Weight of the Air is aug-  
mented,- according to the aboVe mentioned Observations. Agni,  
again, as soon aS ever the fame Ain decreases in its Weight,  
the Pressure upon these Bedies will he proportionably diminish '  
ed. MoreoVer, all those Bedies that are exposed to the Air are  
never long compressed with the same external Force, but the  
Compression they suffer is Varying continually; with this Limita-  
tion however, - that the Difference of the Pressure is never found  
in the same Place to exceed one tenth of the whole: Therefore,  
the’Air itsels, while , by resting on all Bedies it thus compresses  
them with Various Forces, must likewise in Proportion be re-  
pressed by them, provided they are elastic, or such as have in  
them air innate effort to expand themselves, or to recover  
that7Size- which is natural to them. Hence it appears,  
that in all Bedies, which are situated in the Ain, there in  
a perpetual Oscillation of then Particles, corresponding to the  
reciprocal Augmentation or Diminution os the Weight of the  
Ain This Oscillation is hut small indeed, as being confined  
within the Limits above specified, for the Compass os its Vari-  
.ation; but still it is a proper Oscillation, and is almost continual;  
This Alteration, joined with the perpetual Change brought  
about with respect to the, Bulk of Bedies by the Actions of Heat  
and Cold, must have Very considerable Effects. We acknow-  
ledge, therefore, two perpetual Causes of the constant, internal  
Motiorr of all the Particles of elastic Bodies; winch are Fine,  
herd the Atmosphere. However, it .must be remarked, that  
upon Bodies which are absolutely soft, is any there are intirely  
destitute, of a Power to recover their former Figure, when **the**Force2that presses them is. removed; and upon Bedies, such as  
'Water,:which cannot by any external Weights he reduced into  
‘\*a smaller Space of upon such, I say, the compressive Force os  
the Atmosphere, with regard to its increase or Diminution, has  
no Effect ; and, consequently, upon such Bodies the reciprocal  
Oscillation we have .mentioned will the of no Efficacy; Seeing  
these that\* Fire acts equally,’ and even more upon these very Bo-  
dics than on all others, it plainly appears, that the Power os  
Fire, on this Account,’ is to he regarded as sar more universal  
-than that of Ain, and consequently of any other Body.

’ It will now he of Service to us, if, with a View to Chymishy;  
we take notice of those Effects which the external Air pro-  
educes, considered as a Fluid and gravitating Body together ;  
Tor in this Light it evidently appears, that it must reft with some ;  
Force upon the outward Surfaces of all Bodies, as has heen *ex-  
plained* above. Hence therefore, in the first Place, it will insi-  
' nuate itself between the Surfaces of all Bodies; the Distances of  
which, from one another, lease interstices wide enough to ad-  
mit the external Air, which, by its Subtilty, or the loose Tex-  
ture of its Parts, may he able-to enter into there void Spaces:  
Hence, alfo, it is ewdent. that all the littie invisible Ponce

of Bodies, though, in Appearance, perfectly empty, are, in  
Reality, common Air. And since this Ain must certainly, in  
those Interstices, perform all the Effects which are proper to  
it, hence an infinite Number of the Operations of Nature will  
of consequence depend upon it. Secondly, it is a. curious Ohe  
servation in Hydrostatics, that the heavy and fluid Ain presses  
upon every Side of Bedies with an equal Force, whether the.  
horizontal, Vertical, superior, inferior, or oblique. This is de-  
Inonstrated in that Science.

We now proceed to the Consideration of those peculiar Pro-  
perties which are possessed by the Ain alone.

The first then that here offers itself to our Observation, is  
its Elassicity. This is that singular Quality, by which all known.  
Air, possessing a certain Space, and being confined there, so  
’ that it cannot escape, will, if it is pressed together by a deter-  
mined Weight, reduce itself into a less Space, which will he  
. always in a reciprocal Proportion to the Quantity of the Weight  
that acts upon it; with this Circumstance, however, always  
attending it, that it will constantly, by a spontaneous Expan-  
sion, recover again the Space it had lost, in Proportion as the  
compressive Force is diminished; and when this Force comes to  
he the fame as it was in the Beginning os the Experiment, then-  
the aerial Mass will always in&Uibly expand itself throughout  
. the whole Space that it before took up, provided that no other  
Cause, in the mean time, intervenes .to prevent it. If the  
Pressure is lessened, Ain extends itself to a larger Space ; if it  
is increased, it reduces itself into a less.

Now such a Disposition to yield so readily to. such a  
Compression, and yet recover itself with such a Spring, I  
do not remember to have been observed in any other Liquid,  
hitherto examined. It is certain no such thing is discovered in  
Alcohol, Oil, Water, Spirits, or any Lixivia. For though ail  
these are contracted by Cold, and dilated by Heat, yet they are  
not compressed by. Weight so as to take up less Space; nor br-  
ing freed from Pressure, do they expand themselves. This,  
therefore, is the peculiar Property of Air.

This Elasticity of the Ain cannot he destroyed, inasmuch aS,  
upon examination by every Kind os Experiment, it has always  
remained elastic; nor are its elastic Parts, either by long Rest,  
Or the greatest Pressure, ever so altered aS to lose their Elasti-  
city. For Mr. Boyle and Mariotte having, with a particular  
View to this, kept common Air strongly compressed, and shut  
up in a Wind-gun, found, upon their setting it again at Liberty,  
that it was perfectly aselastic as it was before. And lastly, that  
great Geometrician - Robervallius, examining Air which had  
been shut up for the Space of fifteen Years in the like Manner,  
sound that it had mot lost any thing of its Elassicity. . See *Du  
Hamel, Hist, de lscAc. Roy. des Sc. p.* 368. But it will hereafter  
farther appear, that eVeh those elastic Particles of Air which are  
detained in the interstices of the most internal Parts of fluid Or  
solid Bodies, do, when they are set free from those Confine-  
ments, and are afterwards united to other Particles, exert a-,  
gain that Elasticity, which they seemed to have lost,- to such a  
Degree, aS not to give the least indication of retaining it; for  
as soon aS over they, recover their Liberty,, they produce incre-  
dible Effects, which can be attributed to their elasticity alone ,  
and hence it evidentiy appears, that neither Time nor Rest, nor  
even their supposed Concretion with animal. Vegetable, or  
fossil Substances, are eVer able to destroy this wonderful Property  
of the Air. In the mean time, however, such is the Nature  
os Air, that its elastic Particles, when separate and by them-  
selves, may be so united to other Bedies, by which they are  
intercepted, croft least may rest in them .in such a Manner,  
as not, for Ages together, to produce' any elastic Effect; and  
that upon being freed from those Bodies, and united with others  
of the like Nature, they demonstrate that they have . intirely  
retained their elashcity. Hartshorn, for example, may he  
presented sor Ages; and yet, upon a chymical Examination *os*some which had been kept aheve fifty Years, and: .by this  
Means was grown exceeding hard and dry. it is surprising what  
a prodigious Quantity of elastic .Ain- it yielded in its Resolu-  
tion. Hence, therefore, It is Very probable," that one single,  
Aerial Particle is not elastic, with respect to the increase or  
Decrease of incumhent Weights ; hut that this Elasticity then,  
only exists, when two such Particles of Ain come to touch and  
. repel one another; and that, consequently, if these aerial  
Particles were so far distant from each other, as that this re-  
pelling Force should utterly cease, then this whole Hind would,  
sor that time, neither spontaneoufly expand itself, nor in the  
least resist any Compression; bur would then only exert this  
Power, when by being pressed close m ohe another, they should  
begin so come within the Sphere of each other's Activity. One  
Aerial Particle, therefore, would have nothing of this \_ elastic  
Power; hut it would he only the joint Effort of several.  
Hence then, in all Appearance, the elastic Force of Ain ought  
to be regarded as constant and immutable. i

. But in what Manner, or to what Degree soever Ain has  
been condensed by the utmost Power of Weights, it has al-  
ways remained, even in that Condition, very fluid; for after it  
'has been contracted to a great Density, it has constantly" restored

itself again, so as to' sill exactly the former Space ; all the Par.,  
tides receding from each other aS readily as they before camo-  
together. Since, therefore, by every Experiment that  
been hitherto made, this Property has been always sound to  
take place, we may safely affert, that the Fluidity of the Al-,  
in all the large Compass, from the most rarefied to the most  
condensed, remains without Alteration ; and that therefore ir  
is neither capable of being consolidated by the intensest Cold,  
or the greatest Degree of Compression we are acquainted with.-

But nothing, in this Elasticity of the Ain appears a greater  
Paradox to Persons not acquainted with these Speculations, than  
what Mr. Boyle has evinced with much Certainty, *viz.* that the  
elastic Power which prevails in any particular Portion of the  
Ain, can, without any greater Condensation than what is ow-  
ing to the compressing Air itself, sustain all the Force of a whole  
Column of the incumbent Atmosphere. And secondly, that  
this elastic Power, in such a Very sinall Portion of Ais, can,  
by expanding itself, repel the Bodies which compress it with  
aS much Force, as that winch is exerted by the whole external .  
Body of Air.

. This efficacious Power of the Air the ChymistS ought to  
have a particular Regard to, since in all their Operations per-  
formed by Means of Fine in clofe Vessels, this elastic Force pro.  
duces wonderful and often Very terrible Effects, acting with a  
Violent compressive Force upon the Contents, often bursting the  
Vesseis, and producing many other great Events.

. Ἄ Very- little Portion of Air, therefore, wherever con-  
fined, is capable of producing the Very same Effects as a very  
large Quantity in another Place ; for if any Portion of’com-  
mon Air is contained within a Cavity that is easily compressible,  
it will there sustain the whole Pressure, and wholly keep out  
the intire Body of the Atmosphere. And whenever the Ain  
in that Place is heated by Fine, or freed from its external Pres.  
sure, it immediately, by expanding itself, hecomes so rare, as  
to produce such Effects as are equal to those of the greatest  
Body of Air. . -.

Another Law of the Elashcity of the Air is, that when it is  
condensed in a certain and determinate Degree, it acquires by  
the Application of Heat a greater Power to.expand itself on all  
Sides, than it had hesore. .And this Power of. Rarefaction  
arising from Heat, has the same Effect as if that. Air had been  
made denser in Proportion so the Degree of Heat which it he-  
fore obtained.. - - ,. .... ...... st.-..........

This Expansion by Heat is sooner brought about in Air, than  
any other Body, either fluid or solid, thitherto known in the  
Universe, Jn Drebbeliusis Thermometer, .an Increase of Heat,  
not perceptible without such a Contrivance, shews immediately  
a sensible Rarefaction of the Air. .

It is farther evident from Experiments, that of all known  
Bedies, Ain is the only one winch can be expanded by Fire to  
so great a Degree; for Ain, by the Application *of Fire, becomes*so rare, that neither the Measure or Limits os such itS Dilata-  
tion have been yet discovered. The Neat of boiling Water ex-  
pands the Air to a third Part of its Bullc. *Hist, de pAcad. Pay,  
des Scien.*I699. *p.* I01. In the Heat then which .is capable of  
fusing Iron, certainly this Expansion os the Air mint he im-  
mensely great. :.. . . . . :

*In this Part of the History of Air Boerhaave seems to mistake;  
for Water is capable of a much greater Degree of Expansion  
by Fire than Aor, so as An exert a prodigious Farce, by which  
lenge Msastlen 'atu easily elevated. Nrna Iknrnv no Experi-  
ment which evinces clearly that it is possible t0 rarefy Air by the  
Hint of an artificial Fire, so as to make it take up more than  
three times Abe Space into which it is expanded in its natural  
fitatdur* 2.-L\*7." -\se si - . -

. : stEEse inlands tint unequal Masses of Ain, but os the  
same Density, are always expanded in the same Measure by the  
*.fame* ^Degree *of Fire*; so that those Expansions in the same De-  
gree ut.Daisity, by a constant Law of Nature, always are in  
Proportion to the Augmentations of the Heat applied. Hence,  
. therefore,: is the expansion os Air of a given Density, by a cere.  
tain Degree of Heat, is once discovered, it will Constantly held  
goed in ail similar Cases. Upon this Subject let mo refer you.m  
some Very , curious Observations in the *Memoirs of spar Royal  
Academy of‘Sciences,* 1699. jo. II3. and likewise in the *Memoirs*for I.702. . . .- \ ’ \* ” ."ss ’ ‘"so

But with regard to the Elasticity of the Air, this is likewise  
constantly observed, that the more it in condensed by pressure,  
the greater elastin Force will it acquire by the Decree qf  
Fire, and that nearly in a direct Ratio of the Densities. °whiqh  
Very curious Property, to the great Advantage of Chymistty,  
.was discovered by the ingenious Monsieur dea AmOnt0nlr *Hast  
de ? Acad. Rap. des Scien.* I7O2. *Mun.* I 55. Hence, then, it  
follows, that a Portion of Air that is exceedino dense, mayj by  
Means of a Very little Fire, acquire the greatest resistinn Force.

Is, therefore, it were possible that common Air could in  
Reality be condensed mm a Space eight hundred times lest than  
what Itnaturally. sakes up, then it might, by heing acted upon  
by the Heat of boing water, Rfain 29600 Inches of Mercury;  
since common Air, by the same Degree os Heat, will elevate it

to 37 j which immense Force teaches us, that if the fiercest  
subterraneous Fire should, in the Bowels of the Earth, he ap-  
plied to Air reduced to one eight hundredth Part of its Bulk,  
there would thence arise a most incredible some, vastly su-  
perior to all that we are acquainted with. This, however, is  
certain, that if you increase the Density of the Air, and at  
the fame time augment the Heat that is applied to it, then the  
elastic Power of the Ain will always he increased in a compound  
Ratio of both.

But, on the contrary, the less the Ain is compressed, the less  
is the classic Force that it acquires from the same Degree Of.  
Heat. So that Air which by any Means is rendered twice rarer,  
requires twice as much Heat to make.it require the fame Ela-  
sticity that it had before, and thus in any Degree of Rare-  
section.

Thefe things the same celebrated Author, in the Places last  
mentioned, has demonstrated by the most correci Experiments.  
And hence we understand, that the Air in the highest Regions  
of the Atmofphere will scarcely acquire any Increase of its  
elastic Force from the most intense Heat; but, on the contrary,  
will become almost unactive, on account of its exceeding Ra-  
*rcty* ; and this aofwers perfectiy to Observation.

The last Law which is discovered in the Elasticity of Ain is,  
that it is contracted into a smaller Space by Cold, as it is by  
an increase of .Weighs. Hence its Density is always increased  
in Proportion to the Augmentation of the Cold.

It rnay be of forne Importance to Chymistry to consider these  
Properties of Air, which I have related from the illustrious  
Boerhaave, who has collected every thing material which oc-  
curs in Anthers, who have wrote on this Subjecti It will be of  
equal UIe, with respeft to Physic, to be acquainted with those  
Bodies which float in the Air. And these are incredibly nu-  
merous, of various Natures, and perfectiy different in different  
Parts of the Atmofphere. We shall not therefore deviate much  
from the Truth, if we consider it as a Chaos, in which Corpuscles  
of almost every Kind being confounded together, make a  
Composition, consisting of the most different Things, of which  
it will he incumbent on us to give a particular Account, that  
from hence we may be enabled to make just Conclusions con-  
cerning it,

In the first Place, then, in the common Ain, there is always  
and every where Fire,, or Heat. . ..

In the fecond Place, there is Water contained always in  
the Ain, and in every Part of it, and that in Inch a Mariner,  
that it does not appear possible, by any known Methods, to se-  
parate the Water intirely from it. Water is every Moment  
perspiring from every Person in Health, in an invisible Vapour.  
Sanctijrius computes, that in the Space of one Night and Day,  
there exhales from fitch a Person' nearly the. Weight of five  
Pounce, much the greatest Part of which is Water. A vast  
Quantity of aqueous Stearns must therefore be contioually ex-?  
haling from the Animals of all Rinds that are scattered all over  
the Earth, and that all Plants likewise fend forth a dewy aqueous  
Vapour, is a Thing that has been long confirmed by Obferva-  
tion ; But the very industrious and ingenious DI. Hales has  
latelyi in -his curious Tperstso. of *Vegetable Staticks,* proved by  
Experiments whet prodigious Quantities *of* aqueous Vapours *ex-  
hale from* Plants ; not to mention the Water, that by means of  
subterraneous, culinary and chymical Fires, is contioually rare-  
fied so as to rise up into the Ain Dr. Halley,'from the Observa-  
tions which he made with the greatest Care and Accuracy,  
has made it appear, that from the Surface of the Mediterranean  
alone, in one Summerfs . Day, there exhales, by the Heat of  
the Season-only, without any Assistance from the Wind,  
52,800,000,000 Hogsheads of Water. See the *Phil. Than/*.And the Wind and Sun elevate from the Surface of that Sea,  
still a rniwh larger Quantity, *ibid.* If we compare now the  
.Quantity. of Fog,. Pew, Ram, Hoar-frost, Hall, Snow, and  
nocturnal Moisture, that may he colleoled in the Space of a  
whole Year, with the Water which in the fame Space of Time,  
hy means of the natural Heat, has exhaled into the Ain, we  
shall find, that in one Year there fells upon the Earth enough  
.to cover the Surface os it to about thirty inches high, as the  
industrious :Kruqnins has plainly proved by his Meteorological  
Tables. Hence it is probable, that there every Year exhales  
intotheAir, from the whole Surface of the Earth, a Quantity equi-  
valent to thirty inches Height ofWater. Andofconsequence, since  
*the: Area* of the Earth’s Surface is sufficiently known, it is easy to  
compute the immense Quantity Of Water that is perpetually  
suspended in the Ajr.

And that Water is contained in every Portion of the .Ain, is  
evident to the Eye in the Air-pump; for there, as the Ain, by  
the Action of the Pump, becomes more and more rare, and  
less fit to suspend the Water, the inside of the Glass becomes  
clouded with an aqueous Moisture; the fame Experiment thus  
evidently evincing, that Water does really reside in all Parts of  
the Air ; and that as the elastic Part of the Air is tendered  
more rare, it becomes less capable of retaining it.

But that there is a very large Quantity of Water always and  
*exesy* where dispersed through’ ‘the Air, appears evidently to

the Eye in dry, alcaline, fiery Fiend Salts ; for if these, when  
they are perfectiy pure, are exposed to the Ain, they will spon-  
taneously dissolve, by attracting the Water out of Ἀ. I took  
at nine in the Morning, two Ounces and one Dram of Sait of  
Tartar, dried in such an intense Heat, that is molted in the  
Crucible, so that noWater at all remained in in I then placed it  
in a Glass Bason, made very dean, and in this Manner erpAsed  
it to the Ain, in cold, dry Weather, from the I jo of January  
to the 20th, in a Place which was very dry. The Consequence  
was, that upon examining it by the Balance, it weighed three  
Ounces four Drams and a half; so that it increased in Weight  
an Ounce, three Drams and a half. But if we thus examine this  
Salt by a Pain of Assay Sales, we find it is every Moment  
gaining something in Weight. And as there appears such an  
Increment of Weight within the Compass of three Days, so is  
it is kept a considerable time in the Air, the whole of it gene-  
rallydissolves into a Liquor intirely fluid, pingnious, thick, sorne-  
what tenacious, and unoluous, which is almost three tones  
heavier than the Salt first exposed, and this Liquor the Chy-  
mists call *Oil of Tarear per Deliquium*; besides which, there  
will remain at the Bottom of the Bason a very sinall Quantity  
of a white Earth. If this Liquor thus produced by the Salt and  
Air he put into a Glass Cucurbit, with an Alembic, and distilled  
to a Dryness, very pure elementary Water wlll come over into  
the Receiver, and a dry Salt of Tartar, purer than it was be-  
fore, and less ponderous, will remain at the Bottom *of the*Cucurbit. The Salt, therefore, receives from the .Air this  
large Quantity of Water. And here we may observe, that the  
Water thus communicated to the Salt from the Air, dissolves  
it in a very different Manner from whet it would have been  
dissolved by pure Water pouted upon it; for this Dilution in  
the Air bring flow and-: successive, by the Application but of a  
very sinall Quantity of Water at a time, dissolves only the pure  
alcaline Salts that are easiest of Solution, and therefore separates.  
this Part from the rest which is dissolved with more Difficulty,  
that is, which is somewhat more terrestrial'; and this cannot be:  
effected by any other Art. And hence, by filch repeated Disso-  
Iutions and Coagulations this whole Salt is .at last converted into;  
an Earth, and a volatile Principle, which disappears, and is  
not perceptible afterwards. This Van Helmont knew very,  
well, and other Alctiyrnists had come to the Knowledge of it-  
long before him. .sin. this. Experiment, it appears, particularly;  
surprising, that the very Moment, as it were, that this Salt :  
is taken out of .the strongest Fire, and expofed to the Air, this.  
Hurnectstion and Dissolution commence, and the. increafe of  
Weight perceptible by an exaft Balance is begun, and from  
that instant increases every Moment. And this, which I have  
very often, heheld whthAstonishment,has happened even while the  
Salt has continued exceeding hut, and been kept in a Place, at  
the same time, which was very .much heated by the Fire; so  
that I could not, with the utmost Care, keep .the Water of  
the Air from uniting with the Salt. . But there is yet another  
thing to be obferved, in this wonderful Attraction of Water  
from the Air into a dry alcaline Salt, which, some Years ago,  
a good deal engaged my Attention. I wanted a very acrid,  
dry, fixed alcaline Salt, in order to demonstrate to fome Per-  
fons, who would not believe,, and even denied the Possibility  
of it, that there might he a Tinctirre produced in an Instant  
from that Salt, and pure Alcohol*, R* Truth which some famous  
chymical Authors have, in. their Writings, mentioned as a  
Fiction. This Salt, then, rightly prepared, glowing hot, and  
as yet in Fusion, I pouted into a very hot Brass Mortar, and  
with a very hot Brass Pestle rubbed- it as fast as,I possibly  
could, and as foon' as ever it became a Powder, I put it  
up into a very, hot and dry Glass Bottle, and - immediately  
stopping the Mouth with a Cork, and a Piece of Blander  
softened with Oil, fecured it as close as I possibly could. , The  
Consequence way this, when I came to try the Experiment,  
though I had frequently hefore met with Success, yet. the Event  
at that timewouldnot answer. : Surprised At this, I carefully  
.ovamined every Circumstance that might produce thisVariation,  
and discovered at last, that the Surface of the Salt was a little  
.moistened by the Air in the Bottle ; and that therefore this  
being *already* impregnated with Water, the .Alcohol could not  
immediately actiupon it. . . .. ' .

Now, when I consider this, I am clearly convinced, that in  
so sinall a Portion of Air as Can be contained in a Bottle, which  
will hold but three Pints of Water, there is Water enough to  
moisten an Ounce of Salt of Tartar, and to increase its Weight.  
And having repeated the Experiment with the same Success, I  
learnt at the seme time, that the Water contained in that Por-  
:tion of Air, which Water is about eight hundred and fifty times  
heavier than the common Ain, must of consequence make up  
the greatest Part of the Weight which is statically discovered in  
. the Air itself: For if one eight hundred and fiftieth Part of the  
common Air was Water, then the whole Weight of the Ain  
would certainly he owing to Water alone, which stoats in  
it; and the other Parts, contained in the aerial Mass, would  
make nothing towards the Weight of it, and would not, per-  
haps, gravitate at all. Upon this Subjeci I had some Conver- .

sation formerly with my Friend Mr. Henry Van Deventer,  
famous for his valuable Writings on Midwifry, who told me,  
he had Observed the very same Thing. .

*Is we consider* all these Phaenomena with Attention, we must  
hence infer one, two, Or all three of the following Propositions.  
Either, first, the Ain, in all still, close, and subterraneous  
Places, must he in a perpetual Motion, in order to he able to  
apply thet little Quantity of Water, which is diffused through  
its whole Mass, to the Surface of the Salt of Tartar, so as **to**Jeaverit there ; for if a Cubic Foot Of Air contains at the most  
Afe of a Pound Troy Weight of Water, and cornmutiicates,  
within a Vessel olofe stopt, this Water to the Salt, then it fol-  
lows, that all the Air must so revolve about the Surface of the  
Salt, as that all its Parts may successively come in Contact with  
it, and thus deposite the Water they contain: Or esse, secondly,  
we must conclnde, -that thofe Particles of Water, which at one  
time are dispersed throughout the whole Masis of Air, are at  
another time so moved through that Mass, as that they are per-  
petually and successively, sometimes in one Part of the aerial' ς  
Space, and sometimes in another, till at last they all meet with 1that Salt which is placed within it: Or, in the third Place, we  
must acknowledge, thet there is a true attractive Power betwixt  
a fiery, fixed Alcali, and Water; fo that, like two Magnets,  
‘ they reciprocally attracti each other, **in the same** Manner as **we**read in *Sendivegrus,* of an Alcali of the Earth, that attracts the  
celestial Dew, in order to Fertilization. If a mutual Attracti-  
on is the Cause of thefe Appearances, the attractive Power **be-**twixt the Water of the Air and an alcaline Salt must extend to  
a considerable Distance, since a very little of the Salt will grow  
four times as heavy at it was at first, by means of the attrafled  
Water; for an Ounce of Salt of Tartar, whilst it is converted  
into four Ounces of *Oil of Tartar per Deliquium,* must have  
drawn into it there Ounces of Water: But three Ounces of  
Water require at least two Cubic Feet and a half of Air to he  
diffused through it, in order to be attradled into thet one Ounce  
of Salt, which Space, with refpech to thet one Ounce of Salt,  
is very great; but from all kinds of Experiments, it ap-  
peats very probable, thet all these three Caufes concur, **at the**same time, in the Preduction of this Effects -

But nothing appears more extraordinary in this Astair, than:  
that, whilst the Waler is drawn into the Alcali from the Air,-  
and thus makes *Oil of Tartar per Deliquium,* which in Weight  
is to Water aS seven to five, but to Air as 1190 to I, there  
should be found in it nothing of the aerial Elasticity; *io* thet this  
Alcall thus separates the Water from classic Ain, and unites it  
to itself, but rejects intirely the aerial elastic Quality. Hence,  
therefore, it appears, that Ain, free from Water, is very classic ,  
but on the contrary, when it is replete with watery Vapours,  
It proportionably lofes somewhat of its proper Elasticity ; and  
again, thet by means of a great Quantity of fixed alcaline Salt  
produced on the Earth, a vast deal of Water may he drawn  
out of the Air. ’ :

In continued serene and very dry Weather, the Ain becomes  
always more ponderous, the Atmosphere heavier, and the Wa-  
ter mounts higher in the Air; fo that, in reality, there is never  
more Water in the Atmosphere than at that tone, when, by  
reason of the Dryness here helow, People generally imagine there  
is the least of all: But the Water then is far more widely drstrle  
bitted and dispersed ; for the higher from the Earth the Water  
afcendi in the Atmosphere, the greater are the Spaces into which  
it is diffused, and the further, consequently, its Particles recede  
from each other; and then they exist separately, and do  
not immediately unite, nor afford any Moisture. But if the  
Barometer is very high, and at the fame time thick nin stinking  
Fogs appear, then the watery Particles almost always float **be-**low, along with gross, -nnctirous, and sasine Exhalations; all  
which, at that time, are.not equally mixed together. Again;  
when the Barometer is very low, and-the Weather at the same  
time is very hot and cloudy, then the Water comes down to  
the lower Regions, but in an uniform Vapour, very moist, but  
not yet-producing Rain. ’ From .these Observation it is manifest,  
that the Ain, when loaded with abundance of Water, often ap-  
pears very dry, bright,, and perfectiy olear, and that, onthe  
other band, -when there is less Water in it, itrnay, by the **De-**scent, Collection, and unequal Distribution of the Water, ap-  
pear cloudy, dark, and very moist. And this is demonstrated  
evidently in Cucurbits, .Alembics, and Glass Receivers, whilst  
-Water is distilling in them: For if the Vessels are kept stopt  
very olofe, whilst the Distillation is going forward, all appears  
-bright and olcar, and no cloudy Vapour is seen ; but aS soon as  
the Water in the Cucurbit, upon the Removal of the Alembic,  
beams to evaporate freely into the Ain, the whole appears covered  
with watery and very thick Vapours, the equable Compressure  
heing now removed. - - ’

But in the Summer Season, when the Weather is seisand  
very dry, and the Surface of the Earth has been for **a** consider-  
able time perched with the Heat of the Sun, then not only **the**- Water, but other Particles likewise less volatile, as the oily and  
i sasine, are, by the Power of the folar Rays, carried up into the  
. . Air, and fill thet Part of it which lies nearest the Surface of the

Earth. And as long as these Exhalations are kept in Agitation  
by the Heat of the Sun, so long nothing of them appears to the  
. Eyet But as soon as the solar Heat, which at Three in the Af-  
ternoon is the greatest, begins to remit, the Ain soon after he-  
gins to grow cool, though the Earth, which retains the Heat  
communicated to is by the Sun a thousand tones longer than the  
Ain, being yet het, continues to breathe out Exhalations ; and  
hence there is collectid a white, dense Vapour, which is cool  
above, but still contiones warm helow. This Vapour, there-  
fore, appears first in Ditches, and watery or marshy Places -  
whence dispersing itself by Degrees, is covers the Face of the  
Earth in the Evening and Night-time, with a Cloud, consist-  
ing of Particles of this Sort, which in the Morning is again  
dissipated by the Heat of the rising Sun. And this is what we"usually call Dew ; which appears, from what is here said of he  
Production, to he a very compound Fluid; so thet nothing ma.  
tonal can he asserted concerning its Properties, which would  
under all Circumstances hold true: For since it is a Composition  
of all the Corpuscles of the Earth, which are rendered volatile  
hy the folar Heat in Summer, exhaling and descending again,  
and blended and confounded together, it must doubtless appear,  
upon the least Consideration, to be a perfecti Chaos. More-  
over, in every particular Part of the Earth, it must he of **a**Nature intirely different, according to the various Sorts os the  
Bodies in the Place where it is produced. In Gravel-pits, for  
Instance, and in high, dry, heathy Grounds, of a large Ex-  
tent, there is colleoled but a very small Quantity of this Vapour,  
and that almost intirely watery ; whilst that which is collectid  
about standing Waters, Fens, Morasses, fat bituminous Grounds, .

and Places abounding with the Exhalations of putrefied Fish  
and other Animals, is perfectiy of a different Nature, and often .  
pernicious to Mankind. It is no wonder, therefore, that the  
Chemists, in the artificial Resolution of Dew, have met with  
such contrary. Principles, and written so differently upon the  
Subjeci, thet you can scarcely sind two of than that give the  
same Account of it. And as for thofe who expedt to sind the  
Spirit of Life, the universal Menstruum, the Mercury of the  
Philosophers, and **the** Nitre’and Steel of *Sendivogius* in Dew,  
they scarcely seem to have read the Works of thefe Philosophers  
to any Purpose. - That this, however, is a very sharp, saposia-  
ceous, pinguious Liquid, abounding with a good deal of Nou-  
rishment for Vegetables, I do pot deny. A Dew too, collected  
in a certain Part of the Earth, has ylelded, by Distillation, **a**Liquor that impressed upon Glass the lively Colours of the  
Rainbow, which could neither be removed by Friction, an al-  
caline Lixivium, or Aqua-fortis: And this Liquor was ihflam-  
Inable, like Spirit of Wine, as appears from the chymical Ex-  
periments related in the *Republic of Letters, torn.* i. p. 590.  
And again, dishlled Dew, digested for the Space of eight Days in  
a gentle Heat, and by repeated Distillation rendered six nines  
more subtil, is said to have broke three Glass Vesseis, and to  
have remained perfefty insipid, though it was so very thin, thet  
ittefembled pure Spirit, *ibid.* I708, p. I52. And further, in  
the *Philcsephical Tranfactians,* Dew is described as being like  
Butter, of a yellowish-white Colour, - soft, molting by being  
rubbed upon the Hand, and growing dry and hardening:by a »  
moderate Heat, of a foetid Smell in the Winter, and, in the  
Spring particularly, produced in the Night-time- in pretty large  
Lumps. But the Nature of Dew is likewise surprisingly various,  
according to the different Dispositions of the Weather, and ac-  
cording to the varlous and successive Changes of the Meteors in  
the Air; for hence it comesto pafs, that the very minute Seeds  
of sinall Plants, and the invisible Eggs of the smallest 'Insectis,  
are mixed with *it, together with an-insinim* Number of'other  
Things; which bring all digested,-ferniented, putrefied and  
dishlled together, yield, at different times. Principles of very  
different Natures, and hence lead the Chyrnists into very extra-  
ordinary Opinions. - The principal Part, therefore, of-Dew, is  
Water; the rest, because of then. greatVariety, carinotinosh-  
bly be determined. . 7 ; / ' . . . -n :

. Thet the Clouds are produced in the Ain, from Water only,  
scarce any body doubts , but Water, every where erniasty dis.  
pofed, is transparent. Clouds, therefore, are colledbed from  
what is beginning to be Water, the-Parts ofwhich arechcum-  
volved among one another with an unequalMotioretneirbry  
resting nor moving equally. If the Water that is floating about  
in the Air mounts higher and higher, he Particlencet last  
-Obtain a Situation so fan above the Earth, that they nQt maj  
longer, much united together, but receding froth edcti other,  
they do not then constitute Water, but only the Elements of .  
Jr: But when these Elements of Water COmc to dcsocedSgain  
from the upper Regions, and are contraaed in.O final Jer Spaces,  
they associate together, and become a kind of Water, then  
forming Clouds. The higher therefore the Water ascends in  
the Air, the mere serene and dry the Weather will he and  
the freer from Clouds; and the contrary. But Waier is oanfca  
’ Eu V^^de^9eight in \*eAir; for in Camiols,  
in the -ldurgctiourheod of Vaince, there Mountaua I02-4geometrced Feet high on the Tops of whidl there

irons of Moisture, *Act. Lipse l68g. .* And on the

highest Tops of those Mountains, Nature presents to our View  
perpetual Snows; a certain Proof of the Elevation of Water to  
fuchHeights. And evenoverTeneriff,one of the highestMountains  
in the World, there constantly, about Noon, hang FogS, or  
little white Clouds, which are daily resolved into Water, which  
flows in such Plenty down the Mountains, that it supplies the  
Place of Showers, and waters the whole Bland without Ram,  
*Act. Lips.* I69I,T. 98. We are certain, therefore, that Wa-  
ter ascends m such a Height: But had we sufficient Observations  
to confirm the Account Maignanus of Thoulouse gives, in his  
Treatise of *Perspective,* T. 93, of the wonderful Phaenomenon  
which he says he had observed, the Ascent of the Water in the  
Atmosphere would he found to he abundantiy higher: For he  
rells us, that in a very clear Night, and that at Midnight too,  
there appeared, in the Month of August, an exceeding bright  
littie Cloud, which spread itself aimost as sar as the Zenith, or  
Vertical Part of the Heavens ; and says, that Ricci us observed  
the same Thing in the Neighbourhood of Rome: And, from  
these Observations, he infers, that Clouds may be elevated be-  
yond the Projection of the Earth's Shadow. But this Projection,  
if astronomically computed from the given Time and Place of  
the appearing Cloud, would make it at a prodigious Distance,  
from the Earth ; and hence, perhaps, that Appearance was ra-  
ther to be ascribed to some other unknown Cause, residing in  
the upper Regions of the Ain, such a one as forms the *Anrora  
Boreales,* or Northern Lights; fince, on the Tops of the highest  
Mountains there are rarely observed any Clouds; but, on the  
contrary, to a Spectator placed there, they appear below him,  
towards the Valleys.

The lower Air heing full of Water, the Elements thereof  
begin to unite, and, by this Association, to form small Drops,  
winch falling down, produce a light Rain, generally thick, but  
descending with no great Force: For the less these Drops are,  
the greater are their Surfaces with respect to the Quantity of  
Water they contain, and consequently are the less inclinable to  
descend with Velocity through the resisting Air.

But when the Water in the upper Regions os the Atmosphere  
is collected together, and becomes heavier, and begins to descend,  
then, by gradually falling down, it continually unites to it the  
other Particles of Water which it meets with in its Fall. By  
this means are produced those very large Drops winch in Europe  
have been observed of three Lines in Diameter, but among the-  
Negroes, a whole Inch, *Act. Lips.. Suppl.* i- 425 ; winch Drops,  
Containing a greatWeight of Water underaSursace small in Pro-  
portion, rush more Violently through the Ain, and fall to the Earth  
with a considerable Force. The higher the Place is from winch  
they fall, the larger the Drops are, and so *vice versa* ; for it has  
been always observed, that the Rain, in the upper Part of a  
high Mountain, is the smallest; but that, as it gradually  
descends, larger Drops are formed, till at the Foot of theMoun-.  
tain it produces the largest of all. Hence, the hardest Snowers  
happen in Summer, when the Water, being driven rapidly  
downwards on a sudden. Thunder, Lightning, and Tempests  
are caused. And hence also, the Drops of Showers, in  
Summer-time, are usually larger than they are in Winter.  
Lastly, Observation has made it Very certain, that Rain, in  
every Part of the Atmosphere, is there the smallest where it is  
first produced.

- But when the Air, abounding with Water, and growing cold  
during the Night-time, is carried against the upper Parts of high  
Mountains, especially is.they are disposed in a long Range, then  
this cold and dense Mass of Bedies, particularly towards the  
North and East, during the first Part of the Night, and towards  
the South and West after Midnight, stops, cools, and unites this  
Water of the Air, and converts it into a real Fluid, winch  
gives Rife to a great many littie Rills, which in the highest Part  
of the Mountain are small, but, as they descend, and arejoined  
together; hecome larger, and by this Means produce a perpe-  
tual Trickling down the-Mountain, .and. afford'an incredible  
Quantity of Water, which, runs down, and produces Various  
Rivulets, according to the various Channeis of the Mountain'  
.or the Lands about it; and when these, by subterraneous Pasta-,  
ges, descend from a high Part of the Mountain to any Part of  
the Declivities, ’ and there burst through Outlets, and so dis-  
charge their Stream, they then yield a.pure Water, either fall-  
ing down, or bubbling up from a Spring. And here it is Very  
easy to conceive, that, according to the different Height of the  
Springs, in respect to the Outiets, the playing of the Fountains  
must be Various. And hence, likewise, it is easy to account  
for the Variety of Springs, both in the Quantiry of Water and  
every other Circumstance. And hence again it appears farther,  
how it comes to pass that there are no Springs but where there ‘  
are pretty high Mountains; and' that wheresoever these are.  
Springs are also observed: The Truth of which appears no  
where more evidentiy, than in the fortunate Valley of Caffintire,  
mentioned by Bernier in his *Deseription of the Empire of the  
Great Mogul.*

*' This Account of Springs' may possibly be right with respect to  
some; but I 'Can by no meant agree rtith the illustrious Anther,  
that this is the Origin of all Springs. An ease Computation will*

*mace the contrary evidently appear. Bocrhacrve has soalued that  
the Waters exhaled from the Earth in one Year, would cover the  
Surface thereof to about thirty Inches high- And if this is all,  
the Surface of the uhole World would not be sufficient to supply the  
Thames, Trent, and Severn, with the quantities of Water they  
yearly carry into the Ocean.*

Again, wheresoever there are such Mountains and Springs,  
there the Water, after running down from the Mountains, or  
perpetually bubbling from the Springs, is discharged into Rilis  
or little Currents, continually flowing ; but, sor the most Part,  
with a gentle Course at their Origins. But, when different  
Currents Join their Courses together, the Stream becomes  
stronger; and being confinually augmented by Rivulets, which  
discharge themselves into is, in a short time a River is formed.  
This again, not long after, being still, as it passes, augmented  
in Strength and Quantity by the Accession of other Streams,  
forms a River still stowing with a more rapid Course, always  
tending from the higher to the lower Ground, and at last dii-  
charging itself into the Sea, from which it never returns again;  
whose Contents, however, . in the whole, are by this Means  
never increased, inasmuch, as what it receives by the Discharge  
of the Rivers into it, it gives up again continually by Exhalation.  
Sometimes it happens, also, that the rapid Torrents of Rivers  
sink down into subterraneous Passages, disappear, and rise up  
again in some other Place. Hence, in flat Countries, where  
there are no Mountains or Springs, no Rivers are formed; and  
for this Reason the Supreme Wisdom has thus distributed  
Mountains throughout the whole Earth, that they might be be--  
neficial to Mankind, by producing theseCollections of Water. And  
hence, lastly, all.the World over, the Courses ofRivers correspond  
with the Order of the adjacent Mountains. Upon this Subject,  
let me refer you to the Discoveries of the incomparable Halley,  
in the *Britisu Philosophical Transactions,* which he truly has a  
Right to the Merit of. All these Things it concerns us to be  
particularly acquainted with, who are prosecuting the Study of  
Chymistry, in which there is almost a perpetual Necessity  
of considering the Variety of the Qualities of Air and Water.

But by all that has been hitherto said, it does not ap-  
pear certainly how great the utmost Height is, to which  
Water can ascend in the Atmosphere: But this, at least,  
we are absolutely sure of, that on the Top of the highest  
Mountain on the Earth, there never is any Air without some  
Water in it, smce the Top is always found moistened with  
humid Vapours. And hence it is evident, likewise, that it in  
not possible, by any Manner os Art, to make Use of Air in.  
chyrnical Operations, Void of Water. Perhaps, indeed, from  
a given Quantity of Air, pent up Very close in a dry Glass Vessel,  
all the Water may be drawn out: For if some Salt of Tartar,  
coming as hot as possible from the Fine, is reduced to a fine  
Powder, and thrown Very, dry into this Glass Vessel, and the  
Mouth of it is immediately stopt close, then this exceeding dry  
Alcali will attract into it all the Water that is contained in the  
included Air r But then no-body can apply this Ain to any chy-  
mical Operations, because, as soon as ever the Vessel is opened,  
this dry Portion of Ain mixes again with the common Atmo-  
sphere, and is immediately moistened by the Water with which  
it was filled.

But farther, we are assured, from undeniable Observations,  
that the higher the Water is carried into the Air, the more its  
Parts are disunited, and dispersed through wider Spaces, and at  
the same time grow colder: For, upon Examination, it has  
been constantly sound, that in every Part of the habitable World,  
the Heat is greatest at the Surface of the earth ; and that, at the  
very Summits of the highest Mountains, a freezing Cold pre-  
serves a perpetual Snow. . This is true, even at the Equator,  
and in the Torrid Zones : So that there is not, in the hottest'  
Part of the Earth, a Mountain Very high, whose Top is not  
exceeding cold: And the Cold eVen increases gradually, as yon  
ascend from the Foot to the Summit of the Mountain, in. inch  
a Manner, that the Increment of Cold is always in proportion to  
the IncreaseOf Height. This is an Observation that will always  
held true, if all other Circumstances are alike. When Water,  
therefore, ascends to such a Height in the Ain, that it meets'with,  
a freezing Cold, it must necessarily he congealed into Ice, un—’.  
less, its Elements are so separated, that none of them touch one'  
another; sor so long aS the Particles of Water are there di-  
spersed from one another, so long there will be no Appearance  
of Ice: But, as soon as ever, in this high and cold Region of  
the Ain, these Elements begin to come into mutual Contact,  
then they begin immediately to he congealed into littie icy  
Glebules, which float up and down through the clear Air,  
and selling upon the Surfaces of the Bedies they meet with  
in that Region, produce a Very fine Hoar-frost, but otherwise  
are scarcely perceptible. In the Atmosphere, therefore, there  
is an Orbit concentralm the Earth, in which the Water of the.  
Air, when it is carried up to that Height, is always frozen  
if it is united together. And the higher it is elevated above  
this Orbit, so much the sooner it will be frozen. But it  
is not, however, improbable, that when the Water ar-  
rives to such a Height, its Panicles will he so much the loss

united, and therefore will seldom be congealed; but, on the i  
- contrary, will float about separately, till some other Cause  
shall happen to unite them together, and by mis means form  
them into Ice.

When the Water, therefore, in this Orbit is congealed,  
then by an Union ofa great Weight of Water under a less  
Surface it must . Immediately become heavier; by which  
means it will of coofequence begin to fall downwards, and  
thus descending into Spaces that are smaller, and are more  
replete with Water, will associate to itself other watery Par-  
tioles, and fo gradually form larger icy Concretions, which will  
now put on the Appearance of Snow, or sinall Hall. - But as  
there may be a great Number of Caules, and those too perfectly  
different from each other, by Means of which, the Elements  
of Water that were before scattered in the upper Air, may on a  
sudden, and in a very large Quantity, he brought into Contact  
with one another in the icy Region of the Atmosphere, hence  
we readily apprehend, that considerable Pieces of Ice may in a  
very short time be produced.

But thefe icy Masses may be colleoled together; and when  
this happens, there whl appear little Clouds high in the Air,  
and white, becaufe of the Reflection of the Sun , which fud-  
denly falling downwards with a coofiderable Velocity, seem to  
increase very fast in their Magnitude, and rushing from on high  
upon other Clouds of the fame kind, by their Collision produce  
Thunder, Lightnings, Tempests, Showers of Rain and Hail,  
which are always the more violent, the higher the Place is from  
which they fall. And hence, in Summer-time, when the  
Weather has been long clear, the lower Air very dry, the  
Atmosphere heavy, and the Water therefore in it carried up to  
a very great Height, then the Atmosphere being on a sudden  
rendered lighter, the Phaenomena just mentioned usually suc-  
ceed, especially hetwixt the Tropics, where, if a little white  
Cloud appears very high in the Air, it is a Sign that a terrible  
Stonn is at band. And it is exceedingly probable, that the Hall,  
which is always formed in the upper and colder Regions of the  
Air, as it descends by its Weight into those that are lower  
and warmer, is there dissolved by Heat, and produces those  
great Showers of Rain which accompany, follow, and put an  
End to the Thunder and Lightnings. But if the Hall happens  
to be so fwiftly carried through the Air, as that, by reason of  
its quick Descent, it cannot be melted, it then falls to the Earth  
in form of icy Concretions, which often, by their Size, Weight  
and Motion, do a great deal of Mischiefs In the Abridgment  
of the *Philosophical Transactions, Na* ii. p. I44. we have an  
Account of some of thefe that weighed a full Pound.

This certainly we are assured of, by Observation, that  
Clouds of a very white Colour, to which there presently fuc-  
ceeds a pitchy Blackness, terrible Thunder, Lightning, and  
Tempests, are always accompanied with Hail. Hence it may  
be questioned, whether, for producing even the greatest Thun-  
ders and Lightnings, Nitre and Sulphur are always necessary;  
since the very violent Collssion of herd Ice suffices, perhaps,  
for the striking out a vast Quantity of Fire; doubtless it is suf-  
ficient for producing loud Peals of Thunder; especially if we  
likewise consider, that the Fire of the Sun, by its Heat, Re-  
flection and Refraction, can aft in infinitely different Ways  
upon the aqueous congealed Matter we are here speaking of.  
If this then he taken into Consideration, whet Variety of  
Colours, whet Diversity of Figures, and what Difference of  
Dimensions may we not fuppose to happen in this aerial  
Ice ?

*. This Account of Thunder and Lightning without Nitre and  
Sulphur seems more curious than true.*

But amongst the principal Causes that are concerned in **the**sudden Production of such extraordinary and various Phisno-  
mena in the Atmosphere, which before was calm xed fe.  
rene, we snay reckon the Diminution of its Weight; for  
the Water always begins spontaneoufly to separate irfess from,  
the Air when the Ain becomes lighter - and thus the Water  
discovers itself, though hefore it did not appear, In the next.  
Place, we apprehend,, that the Bodies of Air which are driven  
from opposite Quarters, often stride against one another,  
**by** this Collssion suddenly unite together the Elements, which  
hefore-were separate. Something likewise may perhaps he

ρθρ var\*0US Aspects of the Planets; not to mention  
the Efficacy of the Winds, and the Vicissitudes of Heat ced  
Cold towards thefe Productions. Every one of which, Iced-  
seSlss? Λαη tOSether, may easily enough bring about  
the Effects we heve mentioned, with many others.

On the other Hand, tf We examine thin the Causes whicb in-  
corporate Water wain the Air, aod clevate j Wegreat many which contribute to it. ψἐκ, principai5 hoWeveof these Is the Sun, the Direction of whofe Rays uponWater, the nearer they approach to a **Perpenthcuth the more**they ulways elevate rnto the v whtch Headconsult theiObservatrons of Dr. Hasted, whkh **j .**

cjted in they proper Place. Another (mine gread ike

foregotng, is the subterraneous hire, which is ahervs th A&i0nnever at Rest. For it has been evinced by Obsiccedons nce

in Mines funk lowest, or in the deepest Wells, you. first conr-  
to a Depth in which Water never freezes, hut which continues  
almost always of the same Heat, without any Alteration, as  
the celebrated Acedemy at Paris observed long ago, in the Well  
of their Observatory , but as you descend .lower, the Heat  
begins to grow greater, increasing gradually more and more, in  
Proportion to the Depth, till at iast it becomes *io* fnffocatiog,  
that unless it be tempered by the Cooinefs of running Water,  
and the Air that is' thence produced, it suffocates the Miners.  
And we fee alfo that in Winter, when the Water is cover-  
ed with Ice, and the Earth with a bard frozen Crust, if the Ice  
is broke, or the Earth is opened, both the Water and the Earth  
smoke with Heat. Nor bad the Philosophers, whom I heve  
formerly heard discoursing on this Subjecti any Grounds for as-  
serting that this was all a Fiction, and that it was impossible  
that Fire should thus exist in the Bosom of the Earth, because  
it can neither he supplied with a proper Pabulum, or be agitated  
by Air; for certainly we ought to consider, that by the sole At-  
trition of the condensed Air, in the Bowels of the Earth, this  
Fire may he produced and preserved without any other Air, or  
any Pabulum. For should the Air, at any vast Depths under  
Ground, be condensed six hundred times more than the common  
Air, what Effects would it not be capable of producing ? in-  
credible ones without Dispute, since Authors worthy of Credit  
have declared, that Air forcibly compressed in an Iron Tohe has.  
there grown warm. It is not to be questioned, therefore, het  
that, in the deepest Parts of the Earth, where the Bodies  
are compressed by the prodigious Weight of those which he jf-  
heve them, the smallest Attrition must produce the greatest  
Heat. And hence, aS the Action of this Fire is perpetual, so  
likewise must be the Esseol: of it too, that is, a continual Exhalation  
of Water. *The Existence of this subterraneous Fire seems to want  
farther Evidence, notwithstanding Boerhaave se little dispates it.*

Regard is also to be had to the very great and constantly  
repeated Effects of common Fires, made use of by Man.-  
kind in every Part os the inhabited World, in the Dissipa-  
tion of Water, whether alone, or contained in Animals,  
Vegetables, or Fossils; for, doubtless, is any one computes  
the Measure of this exhaling Water, which socti Fire carries  
up, and distributes through the Air, he will find it to he  
incredibly great.

Again, the Force os a very sharp Frost carries off from.  
Ice every Moment a surprising Quantity of Waters, so that  
in a little time the Mass is coofumed, being dispersed into the  
Air by the Cold alone, as the . excellent Mr. Boyle plainly dis-  
covered by an Experiment made with the Balance. But dally  
Observation certainly evinces, that by the piercing Coin of a.  
very severe Winter, all Kinds of Bodies are strangely worn away,  
diminished, consumed, and dispersed through the Ain.

It seems probable allo, that every physical Cause, which  
is cedable of so disuniting the Particles of Water from one  
another, as to make every one of them exist separately,  
will also, *by* this means, make thofe Particles immediate-  
ly acquire so large a Surface, in Proportion to their very sinall  
Weight, that they will be able to float in the Ain. .And  
indeed, this Solution of Bodies into their smallest Parts appears  
at last so to increase their Surfaces, in respeci to their Quantity  
of Matter, that in every Division of them, this Aptitude to  
swim in a lighter Liquid is very much augmented, as the  
Geometricians heve long ago observed. But it is farther dis-  
covered by physical Observations, that, besides the Gravity of  
Bodies, there is likewise a certain repelling Force, which tends,  
**to** prevent the Contadl of the Surfaces of different Bodies, **and-**which, consequently, is always increased in Proportion to **the**Augmentation of their Surfaces. Hence it follows, that Bodies  
very minutely divided, defeend, on this Account, with more  
Difficulty by the Force of their Gravity, than they would **do,**if theywere aited upon by the Law of Gravitation ooly. And  
the Action of this recond Property of Bedies seems particularly,  
to prevent the immediate Descent of all the Particles of Water  
out of the Air' that surrounds the Earth.

It seems to be the Effect of the very same Property, that  
the Particles of Water may be expanded round the Air con-  
tained in them, and thus form that spherical Body which we call  
a Bubble. Arid besides, any Heat or expanding Spirit what-  
ever, while perhaps it acts in the fame Mariner, may, as well  
as Air, he always, at last capable of rendering Water lighter;'  
but when afterwards, the Water being fo divided into very light  
spherical Bubbles, is carried upwards, then does every Bubble  
expand itself more and more continually, and so is able n,  
ascend for a long time, and to remain aloft in the Atmosphere,  
And hence it is manifest, thet the Particles of Water may  
aseend to a great Height. . See Halley, in the *Philosophical  
Transactions,* I692. Na cxcii.p. 468, *etc.*

But in the last Plane, there is no Cause whatever  
which carries up such a Quantity of Water from the Earth  
into the Air as the Wind, as the same admirable Halley  
has elegantly demonstrated, and as I myfeIf heve learned  
from various Experiments, not without Astonishment. sor  
having exposed a Copper Cyllndcr full of Water to the Wind

in stormy Weather, I was surprised at the incredible Quantity  
of Water carried off in a little time;, .whereas, when the  
Wind was still, -which happened presently after, but a Very  
little Water exhaled, though the Heat of the Weather was  
still the same. For this Reason it seems ordered, that high  
Winds should follow large Quantities of Rain, that, by thus  
agitating the sailing Water, and carrying it up again into the  
Air, they may prevent its stagnating and putrefying, and by thts

. Means proving destructive to the vegetable Kingdom. All these  
Causes, therefore, when they conspire together, are fufficientiy

. capable os dissipating Water into the Air, and there keeping it  
in continual Motion.

If we consider now the Action of this elastic Air, replete  
with Water, on the Body of a Man, Fossil, or Vegetable, we  
shall find it bring about many and Very wonderfid Changes;  
for if we reflect upon its singular Fineness, which renders it  
'exceedingly penetrating, and that it is perpetually insinuating  
itself into every little Void Space ; and if at the same time we  
take into Consideration its constant Mobility’, by which it is  
always kept Vigorous and active, it is manifest that these Qua-  
lities being determined upon Bedies by the Force of Gravity,  
are capable of producing an infinite Number os Effects. But  
the Water that is distributed through the Air will also be  
still more efficacious, heing itself agitated by the Motion os the  
-sees, and by this Means it will more readily dissolve the Salts,  
and the saline and saponaceous Substances of the Bedies it is  
applied to. And as there are many such Parts in most Bodies,  
and those Parts too are the principal Instruments of their Action,  
hence we easily apprehend, that, by means of the Application  
of the Air, the proper Virtues of Bedies may be excited to  
Action, so far as they depend upon their Salts and Soaps. In  
the mean time, the principal Alteration wrought upon Bodies  
by the Water of the Air, is its rendering fixed Salts, and other  
compound Bedies, Volatile. This Phaenomenon was observed  
by all the ChymistS of old, and is constantiy found to hold true,  
that is, all native Salts, if they are rendered exceeding dry by  
an open Fine, and then, pounded and exposed to the Air in a  
Glass Bason, will there, by means os the Water in the Air, be  
converted into a Liquid, and from the perfectly saline Part there  
will be separated an Earth, winch did not appear before. If  
this saline Liquor, thus freed from this Earth, is again thoroughly  
dried by a clear Fine, and if afterwards the Salt is beaten, and  
again dissolved in the Air, it will deposite some more Earth.  
And if, by several Repetitions of this Solution and Inspissation,  
you thus remove all .the Earth that is every time produced, you  
will at last procure an incredible Quantity ; but at the same  
time you will have nothing else remaining; for that other Prin-  
ciple, which before, in Conjunction with the Earth, constituted  
the Salt, is, by this repeated Action of the Water of the Air  
so disengaged from its Earth with which it. was incorporated,  
that now, existing separately, tit becomes perfectly Volatile, is  
dissipated in the Air, nor does ever again come within the Co-  
gnizance of our Senses. Nor has the industry of the Chymists -  
discovered this wonderful Metamorphosis in native Balts alone,  
but likewise in the fixed Salts prepared by Fire from-Vegetables ;  
for hy tins tedious Operation, these Salts are likewise resolved  
into an Earth, which fixes them,'and a Principle perfectly

- volatile, which is intimately united with it. And these Reso-  
lutions, which are Very singular and wonderful, can be per-  
formed by no other Means than this Very fubtile Application of  
the Water distributed in the Ain, which Art, formerly held a  
Secret, being now more practised, has let abundance of Light  
into the Art os Chemistry ’, though at the same .time it has too  
often proved of .Disservice to the Chymistssswho being. quite  
tired out with the Tediousness of the Work, have lost, in the  
End, both their Labour and the Thing they were in search of.  
But again, whenever the Air abounds with Water, and is, at'  
the same time, agitated by Heat or Wind, then inis Water will  
relax the Parts of Bedies so suddenly find so efficacioufly,  
as must surprise every' one who is not acquainted with these  
Subjects. But by this Means, likewise, many Bedies are'  
marecmied, nod others are thrown into Fermentation. Andas  
for the Putrefaction of the Bedies, certainly it iS.scarcely more  
promoted by any other Cause than the Humidity of a hot  
Ain, which, in a Very little time, resolves the Bedies, which  
are that Way disposed, into a putrid sanious Matter. And for  
this Reason, the Physicians long ago asserted, that the Plague  
itself is generated among Animais, from an Air that has been  
both very, moist and warm for a considerable. time. in shots,  
therefore,. fince it so dissolves Salts and saponaceous and saline  
Substances,eleVatesthem all together, disperses them about, drives  
them against, and makes them penetrate into whet Bedies they  
meet with, it is manifest, that, by this Means, it must apply  
the Forces of some Bedies to others, and thus bring about  
such Actions between Bodies, as hardly ever happen from other  
Causes ; for whet other Cause could produce the foetid Butter-'  
like Dew, described in the *Abridgment of the Philosophical  
Transactions, .Torn.* ii. I4T ? Or what else could cause the salt  
Rain, observed at Sea, *Journal des Sfav.* I683. 435 ?

Thusfar we have sufficiently considered the Air, with respect-  
io its Elasticity, and the Fire and Water contained in it. We

are now to examine it in another View. Let us then cane-  
fully enquire whet other Corpuscles, besides those we have  
specified, float perpetually in this Air; but this is a Field of  
Enquiry which is boundless: For as the Earth, considered in  
its whole Extent, receives every thing that salis out of the Ain,  
so, on the other Hand, the Air receives every thing again from  
the Earth; and thus, between these two Elements, a perpetual  
Revolution and Distillation of all things is carried on.

In the first Place, then, all the Parts of Vegetables per-  
petually changing, are dispersed throughout the Atmosphere.  
That the Spirits of Vegetables do always and every where ex-  
hale, and fill the .Air with a continual Fragrance, nobody can  
dispute. And it is very certain, that the Odour of Plants di-  
spersed through vast Tracts of Air, inform Mariners, before they  
discover Land, of their Approach to the Shore. It is farther  
known, that these Spirits spontaneoufly exhale out of the Bedies,  
in which they are generated, and are scarcely to be confined  
and preserved, except in Vessels stopped Very close. Hence,  
then, it follows, that whatever odoriferous Spirits are at any  
time by Nature produced in Plants, all these are, at last, eon-  
tinned in the Air. And for this Reason it is not at all to be  
wondered, that these Spirits should afterwards return with the  
Water os the Air into the Bedies destined to receive them,  
and that the Ain should thus yield up to the Earth what it origi-  
nally received from it. In sect, we find nothing in Nature  
less imitable by Art, than the fragrant Spirits peculiar to each  
Plant. But these, when they are once freed from the Tenacity?  
os the Sulphur or Oil that entangles and retains them, always,  
from their own proper Nature, become Volatile, and are di-  
spersed through the Atmosphere. How Various, then, must he  
the Effects that are hence produced; and how wonderful the  
grand *Metempsychosis* or Transmigration that is, by this Means,  
brought aboutl .

But again, when we consider that Vegetables, duly prepared  
by a proper Fermentation, yield a large Quantity of Vinous.  
Spirits, that are continually exhaling, must we not hence con-  
ceive, that all those Spirits which have ever been produced  
from any fermented Vegetable whatever, over the whole Face  
of the Earth, have at last exhaled into . the Air ? And in this  
View we now look upon this Ain again aS a Cloud, as it were,  
of Spirits of Wine, in Reality, whether Wine be drank by  
Men, or any other Animais, be outwardly applied by Way of  
Fomentation, or made use of either in Cookery or Physic,  
certainly all its Spirits must sooner or later exhale into the Air,  
there remain for some time, and thence, at a convenient Sea-  
son, return to the Earth again. Whet Wonder, therefore,  
if. Fermentation, which is the productive Cause of Wine,  
should never produce Wine, without the free Admission of the  
external Air. May- it not, possibly, return back again to  
.Placesand Bedies the Spirits which it had before received ; and  
must it not, for this Reason, be always called in to our As-  
sistance, when they are to be generated again ? .

And finally, all’ those Parts of Vegetables, which the Fire\*  
divides into exceeding minute Corpuscles, and converts into a  
Volatile Vapour, the Chymists have likewise called Spirits; but  
these are also elevated into the Air, and are continually stoat-  
ing about in it. As . the Water of Vegetables, therefore, so  
ail these Kinds of Spirits are perpetually tending upwards into  
the Atmosphere.

But further, it is certain, that the native Olis of Vegetables  
do, in time, by the natural Heat of the Ain, intirely eva-  
porate; and that whether they remain in the Vegetable, or  
spontaneoufly exsude out of it, or are forced out by Pressure ;  
for there are but few SortoOs Wood, in which theis Oils are  
so united with their proper Earth, that they are able to remain  
for Ages together in the open Ain. And as for she Oils of  
Vegetables, which Chymistry draws from them by Fire, whe-  
ther this be done with Water or without, these are sar more  
Volatile, and sooner fly off Thus then they form pinguious  
Exhalations in the Atmosphere, which are Very well disposed  
both to take fire, and to support it; for as these oleaginous Par-  
ticles are now so minutely divided, that they nearly resemble  
Alcohol while they float in the Air, heing first heated by the  
Attrition of the Clouds, they may be excited into a Flame by  
Fire, which rnay be produced in the Air, all these Oils, there-  
fore, winch ever were contained in Vegetables, a very few per-  
haps excepted, are dispersed into the aerial Chaos ; whence, as  
Water and . Spirits do, they return in their time, impregnate  
the Earth with a pinguious moistening Dew, and by thus circu-  
lating backwards and forwards, bring perpetually fresh prolific Sup-  
plies, and being deposited for a short time, return into the Air  
again. All this now happens principally in Very hot Weather.  
For if a long Drought, with a very great Heat, has carried up-  
wards both the Water and the pinguious. Corpuscles of the  
Earth, then the first Fires that happen aloft with Thunder and  
Lightning, send down a Rain which is Very different from that  
pure Snow that falls in a sharp Frost, and is sar more acrid and  
more disposed to Froth. And hence Summer Rain, or Rainproduced in hot Weather, is always fruitful; whereas that in  
cold is scarcely endued with any such Quality. .

*I mast observe, that Spirit of Nitre rendered extremely strong  
and volatile, when mixed with some aromatic Oils, as that of  
Claves, will explode with great Violence, and form a Kind of  
artificial Lightning. Hew soar, thcrefore, the aromatic Exhala-  
tions from vegetables may, by mixing vviih the Acid os. the Air,  
set it on sire, and be concerned in making Thunder and Lightning,  
I leave to the Determination of Philosophers.*

Is we consider now the native, acid, austere, saponaceous  
Salts of Plants, and those which approach the Nature os an Al-  
Cali, which are procured by Crystallization, Fermentation, Pu-  
trefaction, and Combustion, we shall find, that all these do,  
fooner or later, disappear, not one of them excepted; fince all  
these Bodies, when they are freed from then fixing earth, ascend  
into the Air.

Even that Very Earth too, which furnishes a fixed Element  
to Plants, by being reduced into small Particles, acquires such  
a Disposition, that it flies off, and is carried aloft.. For Soos,  
collected at the Very Top of a Chimney, from the Volatile Smoke  
of a burnt Vegetable, yields, by a chymical Distillation, a re-  
markable Quantity of pure Earth. Hence, therefore, we are  
assured, that Smoke, which floats at Liberty through the Air,  
carries along with it real Earth, mounts with it aloft, and widely  
disperses it through the Air. Not to mention the Winds, which  
sweep away the .^Egyptian and Lybian Sands in Waves, aS it  
were, through the Ain, and carry the Ashes of Mount 2Etna to  
prodigious Distances : Farther instances os this are the Sparks of  
Vesuvius, scattered above a hundred Miles through the Air,  
*Phil. Trans. Abr. torn.* ii. I42. Ivy-berries, dispersed over a vast  
Tract os Land, *ibid.* I44. Small Fish, *ibid,* or the seminal  
Dust of Vegetables, *Phil .Trans.* I68. *p.* oil. Hence, then,  
from Observations it is clear, that all the Elements *of Vegeta-  
bles* may be carried and intermixed with the Air.

But it is likewise certain, that Parts os Plants, and those  
pretty considerable ones, are carried into the Ain to an in-  
credible Height. Consider the Seeds of downy Plants, which  
are carried up to the Tops of the highest Towers, and there, as  
is daily seen, if they meet with a Very littie Earth, propagate  
their Species. The celebrated Tournefort has demonstrated,  
from Observations, that the Funguffes, which are almost all  
seminiferous, by Means of the Ain, disperse their invisible Seeds  
all about, which meeting with a proper Soil, thrive and spring  
abundantly. Moises, likewise, and the mucilaginous and *ca-  
pillary* Plants, as also the *Epiphyllofpermephora,* or those which  
bear their Seeds upon their Leaves, scatter and disperse their  
Seeds to Very distant Places. Even the small seminal Dust of  
the Male-Willow, heing shaken from the Apices of the Flowers,  
and carried by the Winds into Places remote from those Trees,  
and afterwards, when the Wind was down, falling out of the  
Ain, has been taken, by Persons unacquainted with these Things,  
for Flower of Sulphur, and afterwards believed, by the credu-  
lous Vulgar, to be a Shower of Brimstone, *Vide Phil. Transect.  
Abr. tom.* 3. And if such a small Dust should happen to be of  
a remarkable red Colour, why should not the same Vulgar, for  
the same Reason, have asserted, that it had rained Blood ?  
There were Ashes thrown out of a Vulcano, and carried by the  
Wind, in the Year I 633, the Space of one hundred Miles,  
*Phil. Trans. N.* xxi. *p. pspsa* But these are Things not to be  
wondered at, fince that excellent Philosopher, Mariotte, in his  
Treatise of *the Motion of Waters, p.* 334, *observed in* a Cloud  
that poured forth a Shower of Hail, that the Air had carried  
this Cloud for fifty French Miles. Is we reflect, therefore,  
upon these Things, we must believe, that there are a Vast Num-  
her of surprizing Phaenomena in theAir, and produced by it ; all'  
which are intirely owing to a Mixture of Vegetable Substances  
that are distributed through it.

Is, in the next Place, we enquire whether the Parts of Ani-  
mass are contained also in the Air, we shall find there is a great  
Quantity of exhaling Spirits, and those wholly peculiar to every  
Animal, and distinguished among Physicians by the Name of  
the *perspirable Matter of Sanctorius,* that are continually dissi-  
pated arid carried into the Air from living Animals, and adhere  
to other Bedies ; and by these Spirits it is that Dogs, which  
pursue by Scent, distinguish so accurately the Animals from  
which they exhale, and follow them over large Tracts of Land.  
And how full the Air is frequently of Effluvia, exhaling from  
Animals, appears evident from the infection too'often observa-  
ble in contagious Distempers. .

The Excrements continually discharged' by every Kind of  
Animals, are also, in so short a time, dissipated and disappear,  
that we are hence convinced, that the whole Quantity of excre-  
mentitiouS Matter will be always dispersed into the Air, hardly  
leaving so much aS the lightest Dust behind it. In the hotter  
Countries, the Dung of Animals, being exposed to the open  
Air, becomes perfectly Volatile by the Heat of one single Day:  
And even in our own Country, which is not so het, the Very  
Dunghills are quickly consumed. And as for Urine, hew  
quickly does that spontaneously become Volatile, and exhale ?

But there is something in this Affair still more remarkable r  
For does not an intire Whale, the largest os Animals, when in  
hot Weather it is by the Sea thrown dead upon the Shore, quick-

ly infect the Places, to a great Distance about it, with a pesti-  
ferous Stench? And is not the whole of it resolved into Volatile  
Infectious Particles, so that at last some whitish Bones only re-  
mam, all the rest of the entire Mass heing rendered Volatile,  
and dispersed in the Ain? Whet Vast Numbers of Carcasses of  
Elephants, Cameis, Horses, and of almost all other Animals,  
as well at human Bedies, that are the Carriage of War, remain  
from time to time uninterrfd, and are resolved into Putrefaction,  
become Volatile, and dissipate almost all their Elements into the  
Air r Hence, therefore, it follows, that Bedies os Animals are,  
from their own natural Disposition, as much intombed in the  
Ain as in the Earth ; and those very Bedies, likewise, winch  
are buried in the Earth, are not then preyed upon by theWorms,  
but are soon converted into a Very light Volatile Matter, which  
afterwards easily exhales into the Air out os the Earth itself-  
All the corporeal Matter, therefore, that has ever entered into  
the Composition of the Bedies os living Creatures, has been  
carried up into the Ain, with this Difference only, that if the  
Bodies were burnt, this was brought about immediately; if left  
to rot in the Fields, more flowly ; and still in a longer time, if.  
they were interred . But yet, even in every Cose, they have in  
time exhaled away. What wonder, therefore, if, from the  
Air, there should he returned a Matter of the same Nature or  
Kind with the Food of the former Animals, winch is capable of  
affording a proper Nourishment to the Bedies, that are by this  
Means to spring up afterwards ?

But there is yet another Thing upon this Subject, which will  
be worth while to take under Consideration, as the right under-  
standing of it will keep us clear of many Mistakes. I assert  
then, that the Very Eggs, impregnated with the fruitful Offspring -  
of their respective Animals, are carried into the Air. For the  
excellent Redi has demonstrated, that all Insects, without Ex-  
ception, are generated by the Copulation of Male and Female.  
Leeuwenhoeck has proved, that the Seed of the Male lodges the  
first Embryo in the Egg of the Female. And Boyle has  
made it appear, that pregnant Eggs will not exclude theirYoung,  
except they are in the open and fresh Ain Being furnished,  
then, with these Observations, I purposely took a Piece of Flesh,  
which had been kept a pretty while in boiling Alcohol, and was  
afterwards rubbed over with some bright Oil of Turpentine, and  
fastening it to a long small Tbread, hung it up in a moist warm  
Air, in a Place where it was imagined there were no Animal-  
cula, and the Consequence was, that in a littie time after the  
suspended Flesh was full of living Maggots, which were devour-  
ing whatever of the succinent Parts remained therein. In this  
Case, then, the Eggs, from which these Animalcula were pro-  
duced, could not possibly come at the Flesh, unless they were  
conveyed to it by the Ain, in which it was suspended. How  
much do the Hushandmen experience the Truth of this to their  
Detriment, when, in a warm Spring, certain Winds Very sud-  
denly insect the Trees with numberless Vermin, which in an  
Instant, aS it were, are produced from then invisible Eggs ? But  
give me Leave to mention one Thing sarther,which is still more  
remarkable; and that is, the Rams that frequently happen  
among the Negroes, which strike a Man with such a sudden  
Chiiness, that it makes him shudder. These Rains sail in  
Drops, of an inch Diameter, which, if they come upon the  
Skin, eat into it; but, if they ledge on any Garments, pro-  
duce living Worms and Moths, *Act. Lips. Suppl. torn.* i. *p.*425. Many other Things of this Rind might he here taken no-  
tice of; but these may suffice, to let the Chymists understand  
that the new and wonderful Animalcula, which are oftentimes  
produced in Bodies, and even, perhaps, while they are at work  
upon them, owe their *Being* intirely to little Eggs, which are  
thus sustained in the liquid Ain, and not to the Efficacy of any  
chymical Substance or Operations. Let them, therefore, be  
always mindful of the Nature of the Ain, and its wonderful Fe-  
cundity, before they deduce the Origin, of such Appearances  
from any other Cause.} But the Knowledge of these Things, at  
the same time, is not less necessary and advantageous to the  
Physician and Natural Philosopher.

Let us now proceed to Fossils; for Fossils are likewise discover-  
able in the Ain. For all Fossil Salts, however fixed, at lash fly  
off into the Air, if they are dissolved in Water (especially in  
that which they attract from the Air) and are afterwards di-  
gested *for* a long time in a putrefying Heat, and are then distill-  
ed with a great Degree of Fine, and have their fixed Resi-  
duum calcined with a strong open Fire, and are then diss  
solved in the Air again. This is a Truth which a- great  
Chy mist communicated to the World more than an .hundred  
Years ago. Not to mention the Distillation of these Salts, with.  
Sand, Bole, Brickdust, Potters and Tobacco-pipe Clay, per-,  
formed with the intensest Heat. Do not the Chymists, every.  
Year, convert, by this Method, many thousand Pounds Weight:  
of such Salts into acid volatile Fumes, which they call Spirits ?.  
And does not every such chymical Operation infect the Very\*  
Ain ? And does not this Air destroy the Bodies that are exposed  
to it ? The fingle and simple Mixture of Oil of Vitriol, Oil of'  
Alum, or of Oil of Sulphur by the Bell, with Nitre, Sea Salt,-  
er Sal Gem, converti in an Instant those Very fixed Salts into

Fumes, so volatile that they can hardly be confined, with which  
-the Air is in a short Time so strongly impregnated, as to car-  
ry those Salts to great Distances all around. But infinite are  
the Methods by which the same Thing is effected. Before  
the industrious Glauber's Time, indeed, this admirable Me-  
thod of thus changing Salta was not- discovered. But who  
will pretend to determine, how many Methods lie hid in Na-  
Iure, eVen at this Day, by which the like Conversion from a  
fixed to a Volatile Matter may he brought about ? The Va-  
pours about Mines, which are Often so‘ fatal, that no living  
Creature can breathe. in them with Safety, sufficiently prove,  
that Nature herself thus disperses Salts through the Air, and  
Consequently has secret .Methods which we are not acquainted  
with, for performing the Very same Operations. In the mean  
Time, however, it is true, that this happens only in certain  
Parts of the Earth, that is, in those Places where there is Plen-  
ty of such a Matter, and where likewise the Means are not  
wanting of acting upon it aster this Manner. And it is like-  
wise as certain a Truth, that even those saline Vapours are ele-  
vated only to a certain Height in the Air, and that not a Very  
considerable one. And upon this Foundation it was, that the  
Adepts asserted long ago, that the Air was divided into cer-  
tain distinct Strata or Beds, each os which contained a distinct  
Kind of Exhalation and Vapour. Hence, then, it is eVident,  
that by the Means of Water, Heat, Digestion, Solution,. Ek-  
siccation. Distillation, Calcination, Combustion, Mixture, U-  
nion, and Separation, fossile fixed Salts are rendered volatile,  
and are thus intermixed with the Air.

The Principles of Fossils, which go by the Name of Sul-  
phurs, whenever Fossils are burnt, are intirely carried up in- ’  
to the Air, and, bring intermixed with it,’ disappear, the sa-  
line acid Part changing into suffocating Fume, and the olea-  
ginous Part being attenuated by the Action of Flame, and fly-  
ing off in an invisible, or a sooty black Vapour. It is certain,  
that thardly any Thing at all of these Parts remains in the  
Earth. Sulphur now itself, when alone, is carried into the  
Air in Form of an impalpable Flour, and is there dispersed  
about. But, when it is mixed with other Bodies, it osten an-  
quires a furprifing Volatility. . The Chymists have taken No-  
alee of a great many Methods, both natural and artificial,  
by which Sulphurs are so changed, that they sty off into the  
Atmosphere, and carry up other Things along with them. In  
Mines, from Time to Time, there appear pinguious, stinking,  
suffocating Fumes, often Very troublesome To the Miners, to  
which, if theTlameof a lighted Candle is applied, they in-  
stantly take Fire, not without extreme Danger to the Work-  
men. But it is certain, that Arsenics, Orpiments, Cobaits,  
Sulphur of Antimony, Bismuth, Zinc, and other Bodies fur-  
nish the Matter of these Vapours. We are also Informed of  
the Falling of a Shower of Brimstone, attended with Light-  
nings, which, when itwas once on Fire, could neither he extin-  
guished by Water nor Motion. *Nov. Lit erar. An.* 1684. *P.* 65.

~ Metals themselves have been sound to he so far changed, that  
eyen these, under the Form of a volatile Ftime, have been  
elevated and scattered in the Air. , This is universally known  
to he tine of Mercury, which, when agitated only by a Fire  
of fix hundred Degrees, flies off, and becomes invisible. Add,  
if the Air, impregnated with it, surrounds\* and in applied to  
a human Body, how wonderfully does it penetrate it, and how  
quickly does it raise a Salivation l But hesides, while it thus  
sties off, it carries up and bears away with it some Part of  
certain Metals ; as appears from the Distillation of Lead and  
Tin with Mercury. Even Lead, Tin, Iron, and Copper, if  
they are disposed in a very strong Heat, at last disappear, t by  
Means of the Volatility they acquire, ’and thus far are dissi-  
pined likewise into the- Air. A great Parr of imperfect Me-  
tals is carried off too by Lead in the Testa BUt when Cobalts,  
Arsenic, and the like rapacious Sulphurs, are intimately unit-  
ed with Gold and Silver Ore, the Particles of the Ore being  
by this Means rendered volatile, when they eothe to the Fire,  
these noble Metals are carried away to such a Degree, that, to  
the great Damage of the Owner, a good Part of them is  
lost ; which, by a gentie Calcination, and the Addition of  
some fixing Powders, might he intirely preserved. Hence,  
therefore, it appears, whet an Abundance of Gold and Sil-  
ver may he raised .tip into the. Ain. Nothing seems a  
greater Paradox than Volatile Gold, and yet, we are certain,  
from undeniable chymical Experiments, that, if you take  
common Sublimate of Mercury, and rub it well with Gold  
reduced to Powder, and then distil it in a Retort with Regu-  
lus of Antimony, the very Body of the Gold will ascend in  
Form of a red Oil, and become perfectly Volatile. By Sul-  
phur, also, calcined Vitriol, and Sal Ammoniac, miked and  
applied properly, almost all Metais may he rendered vola-  
tile in the Fire. No Wonder then, that, in Clear Weather,  
there .Very often appear about Mines sudden Fumes, which ex-  
tinguish the Light of a Torch, (see *Boy Ids Works'}* since even  
the most dense Bodins may, in the Form of a Fume, he so  
earned into the Air, that in can hardly he determined what

Bod ies they were. But there is another Cause, which is frequent-  
ly Concerned in impregnating the Ain with these metallic Parts;  
and, that is, the Air itself as it abounds with Salts and Sulphurs.  
For, aS I have already shewn above, that the whole Air is full of  
Salts and Sulphurs, and, as it appears from what I have now de-  
livered, that those Salts and Sulphurs can carry aloft even Metals\*  
themselves, when they are dissolved, it is easy to apprehend,.  
that the Air itself can by. this Means cause the Parts of Me-'  
tals to he suspended and stoat about in it. Are not Iron,  
Copper, and Lend, by the Contact and Motion of the Air,  
always, and that in a short Time too, turned into a Calx,  
Flour, and Dust ? And are not they hence'converted into  
Rust, Verdigrease, and a Ceruss ? And it may he observed,  
that when, after these Changes, they are reduced to an im-  
palpable Powder, they sty away, and are carried through the'  
Air by the Wind. I confess, that Silver, Gold, and Tin areless subject to these Alterations, because the Volatile Acids of  
Nitre and Sea-salt, which are the proper Dissolvents os these  
Metals, are hardly ever dispersed through the Air, except a-  
bout the Laboratories of the Chymists. [Z *believe thiS is a-  
fmall Mistake, for the Air is certainly furnijhed, and that plenti-  
fully, with an acid Spirit, which, fixing it in a proper Matrix,‘  
gives the very Essence to Nitre.* See N1T RUM. -

The Air in America, indeed, is os so corroding a Nature,  
that it consumes the Tiles of the Houses,, stony Bodies, and  
almost all Metais ; as the English unanimously agree of the  
Air of Bermudas ; for even Metais themselves perish there  
Very soon. And that surprising Phaenomenon, which in all  
Ages has been observed by Miners, seems also to be owing  
to the Residence of these metallic Parts in the Air, I mean that  
the fossile Glebes, when they are dug out *of* the Earth, and are  
exposed to the Air, are affected by it in a Very extraordinary  
Manner.' How frequent is it seen, that Marchasites, the Py-  
rites, Vitriolic Stones,, and metallic Substances that are quite  
exhausted, are so acted upon by the Air, that they. increase,  
come to Maturation, are changed, renewed, and afresh im-  
pregnated, and hecoine again enriched with a true metallic  
Matter. In Fact, the Air seems ttx he .the. grand universal  
Distributer of the Seeds of Bodies, which; bring plentifully  
stocked with every Kind os Matter, commits to the Earth  
the Elements of Bedies it had before received from It, and. -  
thus generates most Kinds of Bodies, rather by Means os  
a Revolution, than a new Production. It is certain, that  
Dew, being changed by' Distillation, has yielded a Liquor;  
which stained Glass with the Colours of the Rainbow, pene-  
trating so deeply in it, that It could neither be removed by  
Aqua fortis. Oils of Tartar, or a strong and long continued  
Friction; and yet, at the same Time, the Liquor Itself was. .  
so subtile, that it burnt in the Fire like Alcohol: *Republic of  
Letters, T.* I. *P.* 59O. Certainly this Effectis Very like that  
of a metallic Tincture upon Glass. *Philofopifloal Transiactiont  
abridged, T.* 2. *P:* 143.

Thus, then, the sew Things *I* have specified are sufficient to  
instruct as in out chymical and medicinal Enquiries, what Ideas  
we ought to form of the Air. In Reality, it is to he consider-  
ed as a true Chaos of all Things intermixed and compounded  
together ; for in it the attenuated Particles of all Bodies  
whatsoever float. And, since these little Corpuscles arealways  
in Motion, they may, by meeting in this aerial Space; produce  
all those surprising Operations of Nature, which are owing th  
the Efficacy os particular Bodies sp But these are almost infinite.  
So that it is not at all to he wondered at, that there are pro-  
duced and appear, in this Scene *os the* Atmosphere, such extra-  
ordinary, and frequently such terrible Events in Nature, as.  
never happen any where esse; I mean, the Meteors. In this  
Air there doubtless must he Bodies that are endued with a.  
magnetic Virtue,'which, by their mutual Attraction, Sepul-  
ston. Cohesion, Rarefaction, and, by infinite other Methods,  
must every where excite stupendous Phaenomena. Of this the  
following Experiment may serve as an Illustration: Take in .  
one Hand a small open glass Vial, in which there is an alcaline  
Spirit of Sal Ammoniac,, and in the Left another, in which  
there is Spirit of Nitre. Whilst these Bottles are kept at a Die  
stance from each other, nothing at all appears extraordinary ;  
but, aS soon as they are brought gradually so near each other,  
that the Vapours, issuing from the two Bottles, begin to meet  
with each other,' there immediately appears a little Cloud, a-  
rising from the Concurrence of the Alcali and Acid in the Air.  
If an Amalgams, prepared with Tin and Mercury, is distilled  
in a Retort, with Spirit of Sea-salt, it yields a Liquor, which,  
If it he hept in a close Vessel, produces no Effect ; and yet,  
if it is exposed to the open Air, though many Years aster its  
Preparation, it immediately goes off in a Very thick Smoke. But  
Nature is every where full os theseTnstances. We know not  
what other hidden Salts there may he besides in the Air, that  
we are not acquainted with, or with what Virtues they may  
be endued; nor are we less ignorant, what Spirits and Oils may  
float in it; though in the mean Time, from the particular Na-  
ture os those unknown Salts, Spirits, and Oils, such stupendous

Effects may he produced, as are never observed to proceed from  
any other Causes. If the distilled Oil of Sassafras happens  
to meet with Glauber's Spirit of Nitre ; what a terrible Effect  
is produced in an Instant, an Effect hardly to he exhibited by any  
other Experiment l This Experiment will he given under the  
Article NIT RUM.

Is at any Time, now, a Nuinher of Particles, endued with  
the like Properties, should happen to get into the Air, and  
these should he there mixed together, very strange and fur-  
prising Appearances must necessarily- follow. Certain Times,  
it is evident, present to us with Phaenomena, that are never  
seen at any other. To the Preduction, now, of these rare and  
very extraordinary Effects, it is possible, that the Comets, Me-  
teors, various Aspects os the Planets, and, perhaps, the Influ-  
ence of the Stars themselves, may contribute ; those Actions  
may he very considerable,, on Account of their Attraction, and  
Repulsion, of their Heat, Light, and Cold, and of the Essiu-  
Via which they generate and emit.

In Consequence os all the Things here mentioned.  
Air is of a quite ’ different Nature in different Places ;  
first, on Account of the Land or Soil, or the Part of the  
Earth which the Air under Consideration hangs over : For,  
according to the various Bodies with which the Earth a-  
hounds in any particular Part, the Exhalations and Vapours,  
that arise from it, will possess as Various Qualities, and for  
this Reason the Air in that Part will be full of Corpuscles,  
that are not to be met with any where else. The Truth  
Os this has always been confirmed by numberless Examples.  
And hence, in such particular Parts of the Air, certain Ex-  
periments may be made, that will never succeed in any o-  
ther. In the second Place, a great Diversity is here observ-  
ed, in Respect to the Soil, in different Places, according as  
Men inhabit it, and keep Animals there, and according as  
they dung and turn up the Ground, and exercise various  
' Occupations there, and by this Means raise up almost all Kinds  
of Bodies into the Ain: On which.Account again, an infinite  
Number of Changes are observed to happen, which are not to  
he effected elsewhere. A certain Chymist, for Instance, in . his  
Laboratory, where he was daily employed in thin Distillation of  
large Quantities os Vinegar, exposed to the Air fume pure,  
dry, alcaline Salts of Tartar on a glass Plate. The Aim os  
Consequence, bring full of acid Vapours, dissolved the Salt into  
an Oil os Tartar *por deliquium,* and at the same Time so close-  
ly united the acid Parts of the Volatile Vinegar with the Alcali  
Of the Tartar, as at last to convert the saturated Maps into a  
Tartarus Regeneratus, or regenerated Tartar, which melted  
In the Fire like Wax, and yielded a Very noble Remedy for.  
resolving of Viscid tenacious Humours, in almost all Diseases.  
He was imghtily pleased therefore with this Production, for he  
thought he had now discovered the Secret of theAlchymists  
for incerating, according to the-Language of those Artists,  
a fixed alcaline Salt: But when afterwards he attempted.to repeat  
the Experiment in another Place, where there was not so great \*  
and constant a Quantity of Vinegar in the.Air, he did not meet  
With the former Success. .The same Thing might he farther  
made appear by a vast Number os Instances. Consider then,.  
how prodigioufly the Air may be changed in any particular  
Country, when a great Earthquake has occasioned Exhalati-  
Ons to arise there, very different from those which hesore usu-  
ally arose in the same Place. And this is again confirmed by  
History, which informs us, that certain Parts of the Earth have  
become uninhabitable, by Reason os the abominably foetid Va-  
pours, with which they have been infected, after Earthquakes.  
But again, Inundatinns by Rain, Overflowings of Rivers, and  
the Breaking in of the Sea, make such Alterations in the At-  
mosphere, by Means os humid Vapours, and Exhalations from  
putrefied Substances, that the whole Nature of the Air, in those  
Places, is intirely changed. The - Winds also must . always  
carry along with them something from the Places from whence  
they began to blow, and consequently' are thus always Varying  
the Contenss of the Air, continually carrying off from parti-  
soular Places the Matter peculiar to them, and supplying them  
again with what they just brought from some others.. From  
which Cause, likewise, there must necessarily happen, in chy-  
mical Operations, a remarkable Diversity. And as for the In-  
fluences os the Heavens, particularly with Respect to the Va-  
rious Aspects of the Sun and Moon, their Accessions, Reces-  
fions, perpendicular or oblique Radiations, Conjunctions, and  
Oppositions, whet Changes must these produce in the Air, by  
their Attraction, Repulsion, and the Heat and Cold that de-  
pend upon them ? Whet Variation must they cause in the  
Vapours and Exhalations that are carried up from the Earth  
into the Air ? But there is one Thing farther on this Subject,  
winch ought to be taken-particular Notice of; and that is, the  
Vicissitude os the Seasons of the Year, which is here of such Effi-  
cacy, as is wholly incredible. Thus, if the San on the tenth of  
March, in a certain Altitude, and with a certain Degree of Heat,  
exerts its Power on the Earth, it then acts on a Bndy, which  
during the preceding Winter, being locked up by the Cold, has

kept in,, and accumulated, under an icy Crust, its own proper Ex-  
halations,and, at the same Time, has received and retained whet- '  
ever it was furnished with by the Air. Hence, as soon aS it  
begins to diflblve, and the Earth is resolved into a loose  
Mould, the first succeeding Heat of the Sun acts upon this fer-  
tile pregnant Body, and immediately filis the whole Ain with  
Vapours; on which Account a Vernal Heat hardly ever suc-  
ceeds a Frost of long Continuance, but there presently follow  
Showers, Thunders and Lightnings, and a Sprightliness apt.  
pears in all Animals and Vegetables, and in the whole Crea-  
tion ; but now, when, on the tenth of September, the Sun,  
at the same Altitude, and with the same Degree os Heat, acts  
upon the Earth, it then finds it parched up, and exhausted by  
the Heat of the preceding Summer, and not yet moistened with  
autumnal Showers; for which Reason, neither the same Heat '  
in the Earth, or Ain, will produce the same Effects,, nor will  
excite this Vigour in Animals and Vegetables, as it does in  
the Spring. These few Things then will be sufficient to let  
us easily see the Variety there is in the Atmosphere, according,  
to the Diversity os the Season of the Year, as sar as it arises  
from this Cause ; a Speculation Very useful both in Chyinistry  
and natural Philosophy. And, it is plain,’ the Chymists had  
some Knowledge of this long ago, when they attributed to the  
Vernal Rain a Virtue so much superior to that os the autum -  
nal, produced in the Very same Degree os Heat ; for they found  
that this Lixivium os the Air brought along with it very diffe-  
rent Vapours and Exhalations, according to the Diversity of  
the Season, in the Manner just now explained.

Before we leave the Examination os the Various Bodies that  
are contained in the Air, and os the different Powers which,  
prevail in it, we must .take' under Consideration that Quality,  
of it, which renders it salutary, and necessary to the Life of  
Animals and Vegetables ; a Quality which has not been yet  
accounted for from any \_ Property of she Air, but by a di-  
ligent Enquiry, however, we may possibly, hereafter, come at  
-the Knowledge of it. Whether this latent Virtue of the Air  
is actually drawn out *of .it by.Animals and* Vegetables, and  
hence is in a short Time exhausted and consumed ; and whe-  
ther, when it does thus fail, the Animal dies, no-body is, I  
think, at present able to determine. - This, however, is-cer-  
tain, that if a small Bird is put into *a.* largeReceiver, full os  
common cold Air, and. the Receiver is then Very closely stopped,  
the Bird will grow sick .and Vomit, within a Quarter os an  
Hour, and die in the Space of half. an.Hour after. Boyle,’-  
*Os. the Air,* I84. A Fish, kept in Water in *a.* Vessel, well,  
closed, without renewing .the Air,' dies in a short Time. Fish  
likewise die in Ponds, that.are every, where frozen, and quick-».  
ly perish in Water out. of which the Air is exhausted, Hist. de  
*PAcdd. Eoy. des Saren.* I.699. sa°.. 46. and *Mem.* 224.‘-

Flame, and a-red-hot Coal, quickly go out in Air that is close-  
pent up. The little Eggs/os any Insect, whatever, being ac-.  
curately stepped up in glass Vessels,, do not produce their Young,,  
though assisted by a kindly Warmth.. The’Seeds os Plants like-\*  
wise duly moistened, and .sowed .in the hest Earth in close  
Glasses, do not grow, or.give, any Signs of Life, though ex...  
cited by a due Degree os Heat. ."On the other Hand,, the upper.  
Surface os Blood, that is exposed to the Ain, is os a bright Scarlet",  
Colour, whilst. In every other Part which the Air does not ;  
come at, it grows as black aS the Blond os the Cuttie-fish ; and.  
yet, as soon aS ever this black Part inlaid open to the Ain, the  
black Colour is immediately changed again into a Scarlet. Alli  
these Experiments then make it appear, that there is in the Air  
a certain hidden Virtue, which cannot he accounted for from all  
the Properties of the Air, which have been hitherto discovered..  
Sendivogius maintained It openly, that there lies hid in the Ain- ’  
thin occult Food of Lise, and other Chymists have asserted ths  
same. But, what that is, or how it sactsfor .what is the pro-.:  
per Effect of it, is a Matter still Iin the Dark. . Happy the Per-  
son that shall discover it l Thus *far Boerhaave..*

This vivifying Principle in the Air, so necessary to the Sup-.-  
port of Flame and Fire, as well as animal and vegetable Lise,  
seems by every Phtenomerion to be the universal Acid distri-  
buted through the intine Atmosphere in a certain Proportion,  
insomuch that Ro Portion of Air seems to he without it. This,  
though not perceivable by the Senses, is however Very manifest  
by its Effects. It is this Acid that corrodes the baser Metals,  
in a Very short Space of’Time, and even Gold .and Silver are  
not intirely. free from its Influence. By this Acid the Calx of  
Vitriol, of Alum, and the Earth from which Nitre has been  
procured, are again replenished in fuch a Manner, as to be  
capable of producing acid Spirits afresh. We may conclude,  
that Flesh, exposed to the Air for some Time, contracts a Red-  
ness from the Influence of this Acid, hecause Nitre has the i  
very same Effect in producing the same Colour. Vegetable  
aromatic Oils also are changed by the Acid of the Ain red, for,  
if a Vial is filled with certain aromatic Oiis, and close stopped,  
it will preserve its original Transparency ; but, if a Part of the  
very same Oil is inclosed in a Bottle mot quite full, .the  
small Portion of Acid, iff the Ain Contained in the Vacancy,

will change the Oil red, as Hostman informs us. Hence there  
is Reafon to sofpecl, that Flowers, which are all, more or lest,  
furnished with an aromatic Oil, are obliged to the Acid of the  
Ain for these beautiful Colours, which it strikes upon them  
variousty, as the Oll, or Sulphur, which it meets with on the  
Petais determines it to one Colour or another; and the Chy-  
mists have long since discovered, that Sulphur, as they call  
Oil, is the Parent of Colours. It is remarkable that Scarlet-  
dyers cannot strike their Colours without the Assistance of an  
Acid. Hence the Phenomenon of the Surface of Blood, when  
exposed to Air contracting a Redness, may he in some Measure  
accounted son And indeed, all those concerned in the Busi-  
ness of Dying observe, that a cloudy moist Air very much in-  
terferes with the Beauty and Vividness of their Colours; and  
that, on the Contrary, a serene Sky exalts them, and makes  
them more elegant. Now it is known, that in this State  
of the Air an Acid abounds much more then when the Wea-  
ther is cloudy, and full of Vapours. Flowers are ’also liable  
. to the fame influence of the Air in different States, for their  
Colours are never so much exalted as when the Air is serene  
and olear, that is, when it abounds with an Acid.

Every body, concerned in Medicine, knows, that all anthtio-  
Dial Preparations will contract an emetic Quality from Acids,  
and it is alfo certain, that the fame Medicines will prove erne-  
tic, if they are exposed to the naked Air’s hence it is very pro.  
bable that an Acid is communicated to them from the Air.

. Nitre also borrows its Acid intirely from the Ain See  
**NITRUM.**

: Upon the Whole, I am convinced, that the Acid Of the  
Air finds some Way of miking with the Blond of Animals,  
though I cannot determine the specific Manner in which this  
Union is accomplished. But I am inclined to believe, that  
this grand Operation is performed in the Lungs, because Air  
, is insufficient for the Purposes of Respiration after repeated In-  
spirations, unless a free' intercourse is maintained with the ex.  
ternal Air. Hence it should appear, that something contained  
. in the Air is wasted, of which it stands in Need of a fresh  
Supply, in order to render it capable of maintaining Lise:  
Now if we consider, that the Blood most certainly acquires  
a red Colour in the Lungs, and at the fame Time, if we re-  
flect on whet was observed before, with Respect to the Power  
of Acids, in producing this Colour, when mixed with Sulphurs,  
it will be a Step; at leash to the Confirmation of this Sentio  
rnent. Add to this, that Asthmas, which prevent the Ain from  
heing taken regularly into the Lungs, are productive of Drop:.  
sies, the Blood loses its Colour as well aS Texture, mid be-  
comes pale and watery. Girls also, in a Chiorofis, have a  
temporary Asthma; and hence, perhaps, their Blood is always  
pale and thin, sometimes wen as white as Milk or Chyle.

I know that I am singular in this Sentiment, as the Medes  
of Philosophy now stand, and that Boerhaave, for whose Judg-  
. rnent I have the greatest Deference, is of the contrary Opi-  
nion. But I see no Reason, why so excceding subtile and pci  
- netrating a Body as this Acid of the Ain may not as well enter  
. the Pores of the Vessels of the Lungs, during Inspiration, as  
a more gross arid even visible Halitus, or Vapour, exhale thro\*  
- the fame Pores in Exfpiration. We know the Particles which  
’ constitute the Blood are large enough to he visible in Micro-  
scopes, but those which compofe the aerial Acid are so extremely  
' minute, as not to be discoverable to the Sight, by any A rt what-  
ever. Hence then it appears very plain, that Vessels may  
admit the Acid above-mentioned, from without, and yet easily  
retain the Blood circulating within.]

From this Account of the Air; its Properties, and Contents,  
many curious Appearances, relating to the animal (Economy;  
may be understood.- , ' , '

' First then, Air, ami fluid Body, is the Vehicle of the Effiu.  
via of all odorous Bedies to the Organs of Smelling, and, as a  
τ ponderous Fluid, it -presses them on the Nerves of these Or-  
gans with a Force sufficient to make them sensible. It also  
impresses sapid Substances upon the Organs of Taste, and  
renders them observable by the Senses. It is also the in-  
strument of Sound, for the Undulations caused in.it, by Bo-  
dies moved in various Manners, strike upon the external  
Ear, which, by a singular Mechanism, communicates this .No-  
tice to the Nerves expanded upon the internal Ear. - This  
Weight of the Air too, by pressing upon the Surface  
ofAnimals and Vegetables, prevents a Ruptore of their  
Vessels, from. the Force necessary to circulate their Jui-  
ces, to which it is, as it were, a Counterballance. All  
these Things are evident, because on' the Tops of high  
Mountains, where the' Air is very rare, the Senses os Smell-  
ing, Tasting, and Hearing, are very languid ; it is raid, that  
on the Pico of Tcneriffe, Pepper, Ginger, Salt, and Spirits  
have no sensible Taste, and that nothing affects the Organs of  
Taste, except Canary Wine, which, it is supposed to do in  
these Circumstances, by Reason of its Oiliness, which makes  
it adhere to the Nerves of the Palate. On the Tops of Moun-  
tains alfo the Blood-vessels are very subject to burst, - whence  
frequent Hemorrhages happen to those who travel to their Sum-  
mits.

The Air also, in Virtue of its Elasticity, contributes 'great-  
ly to the Solution of the Aliment in the Stomachs *of* Animals.  
For, when that which is contained in every Part of the Food  
is rarefied and expanded by the Heat it meets with in the Sto-  
mach, it destroys the Cohesion of the component Particles, and  
assists in reducing it to a State os Fluidity, Ar the fame  
Time, aS it is confined . in the Stomach, all its Action must  
he determined to the Aliment, which it roust therefore acb up-  
on with great Force, in this rarefied Stare. -

Respiration, *so necessary* to the Continuance of Snimal Life,  
is performed by Means os the Air. For, when the Air is ex-  
pelled out of the Lungs, the pulmonary Vessels through which  
the Biood circulates, from the right Ventricle of the Heart, and  
by which it is returned to the left Auricle, collapse; and are  
no longer pervious, tlll the Air, rushing into the Branches of  
the Aspera Arteria upon the Elevation of the Breast, distends  
the Lungs, and thereby opens not only the Air.vessels, but hi-  
so the Branches of the pulmonary Vein and Artery, which ac-  
company, every where, those of the Aspera Arteria. Here the  
Air, as a heavy Fluid, acts upon, compresses, and comminutes  
the Blood, and, as it is elastic and dilatable by Heat, the Action  
of it upon the Blood, in the Lungs is by this Property ren-  
dered greater. If also, as I have supposed; the aerial Acid, or  
vital Spirit, is communicated to the Blood in the Lungs, from  
the Air, some Effects of great Importance to the animal CEco-  
nomy must necesiarily arise from hence. . ’

And, indeed, if we conside- the Air in all Lights; we shall  
find, that every Alteration it undergoes, must induce some great  
Change on the animal Machine, if I may so call an animal  
Body. Thus, when it is very heavy", it must press upon the  
Surface ofour Bodies, and the internal Parts of the Lungs, with  
a greater Force than when it is light. It has been proved by  
curious Observers, that the Difference of Weight, with which  
our Bedies are pressad, by the Atmosphere, in the greatest De-  
gree *of* its natural Gravity, from that which we sustain when  
it is the lightest, amounts to 3982s Troy Weight. Now, in  
this Difference is very great, the Effects of it must alfo be con.  
siderable. ' :

The different Degrees also of Heat and Elasticity in the Air  
must have Effects proportioned to the Causes upon the Bodied  
of Animals. The various Contents also of the Ait must of  
Course induce great Changes, as it some Way or other finds  
Means to communicate the Qualities it borrows from them to  
the Blood and Juices of Animals. Hence it hecornes the Vehi-  
ole of Contagion, and the Propagator0 of Diseases, heth epide.  
mical, and endemial, ''which admit os infinite Variety, be-  
cause the Alterations of the Air, whh Respeil: to its Proper-  
ties, and to the innumerable Combinations of Bodies contained  
in it, are infinite. , - , \

However, we may venture rd conclude, that the most health-  
ful is that which is serene and dry, and consequently pond er-  
ous, and replete with the acid vital Spirit. A gravelly Soil is  
most likely to be furnished with such an Air, hecaufe from such  
a one few or no oily Particles can exhale to insedt it. Coun-  
tries also, where there is a Variety of Hills and Vallies, with  
swift Riyulets of Water running through them, are productive  
of a good Air, hecaufe such Situations caufe a Circulation of  
the Air, and such Currents: of Water always produce one in  
the Atmosphere. ’ , ’

I must not dismiss the Subjeci of the Ait, without taking  
Notice of a great Error, which many inconsiderately run in-  
to with Respeol: to Exercise; it is, that they esteem Motion  
only conducive to Health, and this Sydenham feemstogive  
into, when he attributes rhe Advantages of Riding to re-  
peated Snccnssion. '-However, we find by Experience that  
the same Degrees of Motion or Succussion by Exercise in  
a House,-or under Coven, come far short in Point of Ef-  
ficacy in curing Diseases, and preserving Health, of that per-i  
formed in the fresh Air; especially when rt is pure, and not  
abounding with- Vapours and Exhalations. The Reason of this  
is very plain, for, when an Animal is moving forwards, be is  
perpetually respiring Air, which has not, by repeated Inspira-  
tions, been robbed of the vital Principle, he that what it will,  
so necessary to the Support of Lise, and Preservation of Health.  
Hence, Sailing even upon calm Rivers, an Exercise much re-  
commended by the Antients in the most obstinate Distempers,  
though attended with a very small Degree of Sucoussiorj, is  
nevertheless efficacious, by Reason of a perpetual Chanae of  
Air. 1 '

Vitruvius, sensible of the Efficacy of the Air in preserving  
or destroying Health, lays down the following Ruhe for chut,  
ing a proper Situation for a new City, which ought to be re-  
gained in every new Settlement, and should not he neglectsd  
even in building a Farm-house. His Philosophy, however, is  
not always the best ; but the Reasons for bis Rules will appear  
by the preceding Pages, insomuch that the Reader will not he  
at a Loss to account for what be asserts.

In erecting Walls we are to proceed on these Principles :  
First, a healthy Situation is to he chosen ; fuch a one must he  
rained above the Annoyance of Fogs' or cold Dews, and must

*regard, or* sace, not the cold or hot, but the temperate Quarters  
of the Heavens. Our next Care must he to avoid the Neigh-  
bourhood of a Marsh ; for in such a Situation the gross Vapours  
exhaling with the rising Sun, and condensed into a Fog, together  
with the poisonous Spirits of the Animals inhabiting the Fens,  
ore wafted with the Morning Breese to your new City, and  
disperse their unwholesome Blasts on the Inhabitants, so as  
to cause a Pestilence. Is your Walls run along by the Sea,  
feeing the South or West, the Place will not he healthy. For,,  
in the first Case, the Southern Air is heated by the rising, and  
' turns with the meridian Sun ; and in the latter Situation, it is-  
warmed by the rising, heated by the meridian, and burns with  
the declining Sun ; το that the Inhabitants' suffer very much  
in these Bedies by these great Vicissitudes of Heat and Cold.  
We are taught this Reflection even from inanimate Things.  
In your close Wine-cellars, none opens a Light to the South or ’  
West, but always to the North, because that Quarter is sub-  
ject to no Changes from any Season, but remains for ever firm  
and immutable. From the same Cause the Granaries, which  
any Ways face the Course of the Sun, are soon corrupted ;  
and Provisions, Or Apples, laid in a Place that is not turn-  
ed from the Sun, will not keep long. For Heat, by per-  
petually rarefying,destroys the Firmness of the Air, and, by oon-’  
tinned Attacks of fervid Vapours, draws forth its natural Powers,,  
fend dilsolyes, or softens and enfeebles them by its quick and  
Penetrating Quality. We perceive the Effects of Heat on Iron,'  
- winch, though hard by Nature,, yet, when thoroughly heated;

at the Forge, becomes so soft and ductile, as to he capable of all,  
Manner os Forms. Let the same Iron, whan soft and spark-  
ling red, he refrigerated, by dipping it in cold Water, it shall  
revert to its former Nature, and resume its original Hardness.  
This.will he further illustrated, if we consider, that in" the Sum-  
mer all Bedies, as well in healthy as unhealthy Regions, grow  
weak with Heat ; but, in Winter, the most pestilential Coun-  
tries become healthy, because Bodies are at that Season consoli-  
dated and strengthened by Refrigerations. For the same Rea-  
son, Bedies, removed our os cold into hot Regions, cannot en-  
dure the Heat, but are diflolved ; whereas, on the contrary,  
transported from a hot Climate to the cold Northern Coun-  
tries, they are so far from bring injured by the Change of  
- Place, that they are strengthened and hardened by is.

It appears from these Considerations, that, when we would  
raise our Walls, we are to appoint them a Situation proper  
to guard against those Regions, whence hot and unwholsome.  
Blasts may proceed, and scatter their baleful Influence over the  
Bedies of Mem For, all Bedies are constituted os Elements,  
which the Greeks call Σταχβα, namely. Heat, Moisture,.Earth,  
and Air; of a due Mixture of these Elements, according to  
the Order os Nature, are all the Animais of the.World, with  
their specific Properties, -composed and tempered. Hence,  
where Heat is the predominant Principle, it destroys the rest,,  
and dissolves that Body by its Fervor. And this is the ill Effect  
of an hot Blast from certain Quarters, which, bring received  
into the open Pores, overpowers the other Principles, and  
proves too herd for the Constitution. In like Manner, if  
Moisture filis the Veins, and overflows the Body,, and by  
that Means destroys the Equilibrium, the other Principles are  
corrupted by the redundant Liquid, and all the Virtues arid  
Powers of that Composition are diflolved and washed away.  
...Bodies are also sometimes injured by Refrigerations of Moisture  
from fresh and cooling Gales. No less do the other two Ele-  
ments that enter the Composition of the natural Body, which  
are Earth and (Ass, by their Excess or Defect, weaken and  
subvert the rest; the Earth, *for* Instance, by oppressing Nature  
with Plenitude of Food, and the Air by an overcast and gloo-  
my Shy.

But, for the inore evident Demonstration of these Things to.  
the Senses, we need only watch the Steps, and observe the Ope-  
rations os Nature, in Birds, Fishes, and terrestrial Animals, by.  
which Means their different Temperature will come- under  
Consideration. For the Kind of Binds are of one Composition,;  
the Fishes of another, and terrestrial Animais os a third,,  
widely different from them both. .Birds have less of Earth  
and Moisture, but much of a temperate Heat and Air ; so  
that, bring constituted oft lighter Elements, they may the  
more easily make their Way in the Air. Fishes, whose Na-  
ture requires Water for Existence and Motion, are temperate as  
. to Heat, and chiefly composed os Earth and Ain, but have Very  
little Moisture, the less of which Principle they have in their  
Composition, the better qualified they are to subsist in it.  
Hence, when they are cast on Land, they lose their Lives  
with their Water. In terrestrial Animals, the Elements of  
Ain and Heat are clogged with Earth and Moisture, so that,  
hecause the humid Parts abound in them, they cannot live long  
in Water. 7

Now if the Case he thus as we have represented it, and that  
we are convinced by our Senses, that, the Bodies of Animals  
ate constituted of these Elements, or Principles, and labour  
under Excesses and Defects of these Constituents, and are sub-  
ject to Dissolution, we Cannot doubt of the Importance of

cur -chasing and making the best Advantage of the most tem-  
perate Quarters of the Heavens, when we propose to ourselves  
an healthy Situation of the Walls we are about to erect. And  
here *I cannot* help wishing again and again, for the Custom  
of the Antients. Our Forefathers used to examine the Livers  
of the Cattie they offered in Sacrifice in thofe Places where  
they built a Town, or pitched their Camp ; and if the first  
were livid, or corrupt, they offered others, becauso they doubt-  
ed whether the Defect were owing to some Distemper, or to  
the Badness of their Food. After they had proved, by many  
Experiments, the Goodness os the Water and Forage, from  
the Soundness and Solidity of the Livers, there they erected  
Fortifications, and projected Settlements. - But, if the Livers  
were found defective, they concluded, that the same Food and  
Water would work a like Effect on human Bodies, and fo oc-  
casion a Pestilence. Therefore they speedily decamped, and  
went in Search of hetter Air and Diet preferring Health above  
an Things,.. E

That we are hehoklen *to* the Soil for the Goodness and  
Wholfomeness of Provisions, both for Man and Beast, is de-,  
fnonssrable from the Lands of the Cretans, which he along  
the River Pothereus, hetween the two Cities Gnoses and Cor-'  
tyna. Sheep and black Cattle graze to the Right and Lest  
of the said River; but those winch seed next to Gnosos are  
not without a Spleen ; on the other Side, those next to Cor..;  
tyna have no Appearance of any. Whence Physicians, inquir-  
ing into the Cause of this Phaenomenon, discovered an Herb,  
which the Cattle had eaten, and by its Virtue wasted away theic.  
Spleen. -They.gathered this Herb, and -from that Time made  
Use of it to Very good Purpose, in Disorders of the Spleen,,  
for which Reason the Cretans gave it the Name os Ἄσητανος.  
This Example shews us, that the natural Wholesomeness or  
Unwholesomeness of a Place may he known from the Food and .  
Water it affords.

If the Walls he erected in a Marsh, which lies along by the I  
Sea, and feeing the North, or between the North and the East,  
and those Marshes he higher than the Sea-shore, there seems to he  
Reason for chufing sucha Situation ; for by digging Canals an  
Outlet may he made for the Waters to . the Shore, and, at every  
tempestuous Swelling of\*the Sea, the salt Waters, overflowingi  
and mixing with those of the Marsh, will hinder the Generation.  
of those noxious Animais that breed in standing Lakes and.  
Marshes, and such as swim from higher Grounds towards the  
Shore are killed by. theSaltnesh of the Waters, to which they  
are not accustomed. We have Instances to this Purpose in the  
Cities os Altinum, Ravenna, and Aquileia, and other .Towns  
situated by the Marshes of Gallis,' winch, by.the Means afore-  
said, are very, healthy Places.' But a Town seated by a Marsh'  
or\* Ivalee of standing /Waters,' that have no Outlet either, by'  
Canals or by.. Means of a River running through them, must'  
of Necessity suffer in Point of Health, for such Waters putre»,  
fy by Standing, and send forth noisome and pestilential. Exha-,  
lations. For Example, the old Town of Salapia which waa  
built by Diomedes, in his Return from Troy, or, as others  
write, by ElphiaS the Rhodian,- had the ’Misfortune of fuch ἐν  
Situation. The Inhabitants, being yearly Visited with an epi-.  
demical Sickness,, addressed. themselves by public Petition to  
M. Hostilius, and intreated him to survey and chuse for them,  
a commodious Place, whither they might transfer their Hain-  
rations. He immediately undertook the Affair, and, having  
first well examined the Nature and Reason of his Undertak-  
ing, purchased a Tract os Land near the Sea, in a healthy  
Place, and then preferred a Petition to the"Senate and People,  
os Rome, that the Salapians might have Leave granted them'  
to remove their Habitations, and build a new City. This,  
obtained, he erected Walls,' plotted out the Ground, and al-  
lotted to every Freeman his Possession in Fee-simple, paying on-  
ly a fingle Sesterce [a Piece ds Silver worth about Two-pence]..  
Matters thus settled, he opened a Way for the Lake to dis-  
charge itself into the Sea, and, in so doing, made of the Lake  
a Port to -the new City. And thus are the Salapians, by *a*Remove of four Miles from their' old Town, now establish-  
ed in a healthySituatiori. *Vitruvius, D* i. *C. An*

. I shall add to this Account of Air the Sentiments of the  
famous de Villa Nova, which are in the general extremely  
just, and from winch many excellent Hints have been taker»  
by Boerhaave, .in the foregoing Treatise on this Subject.-  
Some small Allowances must he made on Account of the  
Time in which the Author wrote. " ’ '

A clear, subtile, and pure Air clarifies, subtilises, and refines  
the Blood and Spirits. Of Consequence, therefore, it make»  
the Heart glad, the Mind serene, the Body lightsome, and accele-  
rates Digestion throughout all the Members. On the con-  
trary, a cloudy, gross, and turbulent Ain darkens the Heart,  
disturbs the Mind,' makes the Body heavy, and retards and  
hinders Digestion, so that the Superfluities, at least fuch as  
are fuliginous and Vaporous, cannot soon he resolved by the  
Body. The Air is influenced from external Causes, aS from \*  
the Stars, from Minerals, Plants, and Animals, or other insen-  
sible Powers, which most effectually alter the Body ; so that at

some Seasons and Places it becomes poisonous and pestilential ;  
at others so pure and salutary, and, as it were, rheriaeai,  
that no Venom can there find Place to hurt the Body, or bur  
very littie, as in Ireland, and the adjacent IflandS, in some of  
which, even dead Bodies, exposed to the Air, will not corrupt.  
And so remarkable are the Effects of rhe Air upon human  
Bedies, at some Seasons, aS to attemper and illuminate the  
Brain and Spirits to such a Degree, that they are elevated,  
in an extraordinary Manner, to the Contemplation of occult  
Intelligences, and the Speculation of Futurities, and to an ex-  
pedite Performance of all the Acts of Reason. At other  
Times, on the Contrary, such Disturbances in the human Frame  
are wrought by the Air, that Reason receives infinite Da-  
mage thereby, and is either totally lost or suspended. The ac-  
cidental Effects *of Air are* innumerable, according to the Vari-  
ous Dispositions of the Body in the disserent Stages of Lise:  
As, for Instance, a cold Air comforts the digestive Faculty;  
and corroborates the Body, where the Viscera abound with  
Spirits, by «Impressing and repelling the natural Heat inwards;  
a warm Air, by its contrary Operation in drawing it out-  
wards, has a contrary Effect. A Physician, therefore, ought  
. to know the Causes of the Changes that are wrought in the  
Ain. It is altered by the Influence of celestial and elementary

' Bodies. By the first it undergoes a Multiplicity of Changes, the  
most obvious of which are those made by the Sun in the four  
Seasons of the Year, and the Moon in her four Quarters. The  
common and natural Disposition of the Air in these four sea-  
sons is best observed in the Middle of each ; sor in their Ex-  
- tremities they coincide with one another. In the Spring, *for*.Instance, according to the common Course of the Sun, the  
Air is temperate as to the four Qualities [Heat, Cold, Dry-  
ness. Moisture] and therefore it is called a temperate Season.  
Such a one it must he, which maintains the Body in a middle  
Disposition, not altering it by any manifest Quality, neither  
causing it to sweat or burn with Heat, nor shake, shiver, or  
shrink with Cold ; neither hardening, withering, furrowing,  
or wrinkling it with Dryness, nor softening, benumbing, or  
loading it with Rheumatisms by excessive Moisture. The  
Predominancy of Heat - and Dryness is most evident about the  
Middle of Summer, especially while the Sun pastes through  
Leo, and is in Conjunction with the Dog-star. In the Middle  
Of Autumn, the Air is moderately cold, and manifestly in-  
clined to Dryness; in the Middle of Winter cold and moist.  
But in these Very Seasons the Air is liable to Alterations from  
its usual Disposition from accidental Causes. In the four Quar-  
ters of the Moon, the Changes of the Air are most evident in  
the Intention and Remission os Coldness and Moisture.

The Changes, caused in the Air by elementary Bodies,, are  
either made by Fire actually working on inferior Subjects,  
-from Water, Earth, or their Contents, or from Vapours re-  
solved and exhaling [which are Effluvia or Exhalations] from  
them. . : r . - .

- Fire heats and dries, and sometimes overcasta it with Smoke;  
now, if the Air of an Habitation, where are several Ovens,  
or Furnaces, and great Fires often made, should he natu-  
rally warm and dry, it will he excessive in those Qualities,  
when the Fires are kindled. But, if the Air naturally incline  
to the opposite Qualities, it will he purified, and the Excess  
of Cold and‘Moisture corrected.

Waters of themselves cool and moisten the neighbouring  
Air; and fresh Waters more than those which are salt. But  
' from the Refulgency [Reflection] of the Sun’s Rays that strike  
Upon them, they double both the Heat and Luminousness of  
the Ait; for, whenever the Sea, or a great Body of Waters,  
lies between the Sun, especially when it is in the Meridian,  
and an Habitation, the House is the hotter, and the Air so  
-luminous, that, in a Summer's Noon, the Inhabitants, espe-  
cially those who have tender Eyes, have no Use of these  
Sight. Ἀ 5 ‘ "I ' '. ’

The Earth influences the Air by its Qualities and Situation ;  
first, by its Qualities, for; if it he a?-fat Clayey Soil, it ren-  
ders the Air moist and thick; if dry and landy, it makes a  
.dry and dusty Air ; but dry and stony a dry and pure Air.  
The Situation of a Portion of Earth is fourfold; on a Hill, on  
' its Declivity, in a. Valley, or in ah open Champagne. The  
Air-on the Top of Hilis, compared with that of theoircum-  
jacent lower Reginns, is Very thin, free from Vapours, and  
“cold. In Vallies, surrounded by Hills, the Air must be gross  
ῖ and impure, and hot; compared with that On the Hilis, he-  
oause os the Reflection of the Rays, especially in Summer.  
But in the Winter, if the Mountains he extraordinary high,  
Ihe Air is coldest in the Valley, because it is overshadowed.

The Air on the Declivity of Kilis is of a middle Substance,  
and moderately pure, unless it be accidentally influenced, as  
by Vapours ascending thither from some neighbouring Marsh;  
and reflected *by* the Tops of the Hilis, by which Means-the Air  
-is considerably thickened, so as to he sometimes wanner, some-  
ς times colder than on the Top, sometimes it i? of a middle  
Quality , for, is the Declivity lies Io the North, it .is coldest  
-when shadowed by the Top; if to the South, it is the warmer

sor reflecting the Noon-tide Rays, and being' sheltered sroha  
Northern Blasts. If the Declivity faces the East or West, it  
will he hot or cold in a moderate Degree. An .open Cham-  
pagne, or Field, lies out of the Reach of any Shadow from  
Hills, but receives the whole Benefit of the Sun’s Course. The  
Air in such a Situation is moderate in all its Dispositions. -

The Contents of the Earth and Waters cause Alterations in  
the Air, but those of the Waters more seldom. For the Con-  
tents of Waters in constant Agitation, .aS is the Sea, make no  
sensible Change of the’Air; but standing Waters, like the Car-  
casses of Animals, or rotten Plants, insect it with their hurt-  
ful Qualities. But the Things, contained in the Earth, very  
often influence the Air; some of these are natural, others arti-\*  
finial. Of the Natural, some are Minerals,, some Plants, and  
some are Superfluities generated from Animals.

Minerals operate according to their natural Properties. Thus  
Mines os Sulphur and Arsenic heat and dry the Air; Marcbasites  
and Antimony cool and dry it. and in os the rest. Mines of  
thenacal Stone, such as those which the Arabians call Bezabar,  
make a thenacal Air, opposite to all Poisons.

' Plants alter the Air, by their Quantity and Quality. In  
Quantity; for high Trees, especially if they stand thick, aS in  
Woods, obumbrate the Air, and hinder its Ventilation, whence  
it grows thick and heavy, therefore a House situated within a  
Thicket of Trees is no healthy Habitation. If a Wood he  
on the North-side of your Mansion, it defends it from the cold  
Winds that blow froth that Part; if to the South, it mode-  
rates the sultry Heat of Summer. Plants influence the Air also  
by their Qualities. The Aromaties temper it with their aroma-  
tic Sweetness and Purity, and the foetid ones, with their noi-  
some and disagreeable Essiuvia, and so *os* other Qualities,  
Hence the Brain and Spirits are much damped and clouded  
by sitting under a Tree of a sharp and bitter Taste, as the Fig-  
tree, the Walnut, and Pomegranate-trees, but especially a  
Tree of a rank or foetid Smell, as the elder .. The same is to  
he said with Respect to the Cuttings of Plants that are strewed in  
Houses.

The Superfluities, generated of Animals, are either such as  
proceed from them while alive, or their Remains after Death;  
Among the first only the Excrement evidently causes an Alte-  
-ration. All Excrements heat the Ain, and some dry it, as  
does that of a Dove ; others, as that of a Cow or Hog,  
thicken and moisten it; only Man’s communicate to it a foe-  
tid Quality. Dead Carcasses manifestly change the Air by their  
Putrefaction.

The Things resolved [that sty off] from the Earth, and the  
Water, and their Contents, are Vapours; That the Parti-  
cles resolved [EssiuViaJ from the Contents of the Earth and Sea,  
cause an Alteration, is evident from whet has heen said; and  
indeed they have so great an Influence as to corrupt its Sub-  
stance, and render it pestilential, and inclined, by its poisonous  
Qualities, to vitiate and putrefy the Blond and Spirits in the  
Heart and Arteries, especially in such as are infirm or predispos-  
ed to Putrefaction. Such are Vapours from dead Carcasses and  
Intestines of Animals, and Multitudes of Sick in great Armies,  
especially in a hot, close, still Air. The Vapours which exhale  
from Water infrigidate and moisten the Air, and if very dense,  
as in a Miff, render it gross and inactive. '

Vapours that fly off from the Earth cause a manifest Change  
in the Air, aS well as the Winds. Of these there are four prin-  
cipal ones, according to the four Cardinal Points, and all Of  
them by Nature dry. But passing over Seas, or Very watery Re-  
gions, drive the humid Vapours hefore them into remote Coun-  
tries: Whence the South-wind brings Rains,.and a moist Air,  
*to* those who live North of the Mediterranean Sea, but Heat  
and dry Weather to those who live to the South of that Sea;  
The North-wind is the Reverse of the other ; and the fame  
Judgment is to he formed of the East and West-winds, which  
are inorst in one Country and dry in another, for the above-  
mentioned Reason. But the South-wind is hot in itself, and the  
North-wind cold; the rest are temperate. Yet all of them, in  
Tasting over the Intervening Regions, may acquire accidental  
Qualities; for Instance, Cold in their Passage over black and  
snowy Countries, or Heat in blowing oyer burning Sands and  
' Deserts. But their Impression is most felt, when they blow  
through the Straits of Mountains into narrow Vallies.

Air may also he changed artificially by human Industry ;  
as, in Mansions, according to Matter, Form, Situation, Quan-  
tity, and Residence. As to the first of these Particulars : Α  
House built all of Stone, or Earth, or Bricks and Mortar, makes  
the circumjacent Air cold, but one erected with Wood, and  
thatch'd with Straw, heats the Air, or if the Floor of the House.  
he paved with Stone, or Brick, the Air will he the purer but  
much the colder ; but an earthen Floor renders the Air dusty  
and offensive to the Lungs.

Secondly, the Form, as well as the Matter, or Materials of  
'.a House, influences the Air, as in the Abundance or Defects of  
Spiracula, that is, Windows and Chi mines; for the Multitude  
os these Ventilates and purifies the Air, though it renders it less  
stillarid quiet. Windows towards the North cool the House,

ws those towards the South warm it; these towards the East  
and West axe indifferent. If a Houfe want Spiracles, like κ  
shell, or have them stopped the Air becomes gross and-impure,  
and difficult to breathe. If it he very much frequented, it is  
soon heated, and grows sultry, as in Stoves, and where sick  
Perfons are lodged, in which Places, from Nastiness and Putre.  
.faction of Humours, it is soon corrupted. Whence it follows,  
that under Tents ami Pavilions, erectsd in the open Field, the  
Ain is purer and freer, for it vents itself every Way through  
the thin Cloth But it is not safe, for all that, to lodge in the  
Open Air, because of its sudden Alterations, and the perpen-  
dicular Incidence of the celestial Rays, which have the greatest  
Force. Therefore the Pavilions, which are covered with good  
thick Leather from the Top to the Middle, are most commo  
dious to steep in.

In the third Place, a House may he situated on the Super,  
ficies of the Earth, or below it. On the Superficies the Earth  
is certainly purer and finer,; a subterraneous Room has a thick  
and impute Air, very cold in Summer, and hot and fmoaky in  
the Winter, and disposing to Rheumatisms, at all Seasons.

In the fourth Place, the Quantity of an House may he  
considered with Respect to the Whole, or the Parts: A large  
and lofty Mansion has the purest and always the coldest Air,  
the Opposite to this, the warmer Air, but less pure. That  
which has the thickest Walls, and is covered most towards the  
South, is the colder, but if its thickest Walk and closest Covert  
stand towards the North, it is *so* much the warmer. If the  
Fences he min on both Sides the Impressions from either of thefe  
Qualities, Heat or Cold are the more easily felt.

Fifthly, if the House he constantly inhabited, the Ale in the  
same will he warmer, and purer, and alfo drier, for it is  
wanned and purified by the Heat of the Body, and by Fine ,  
but, if it remains long without any Inhabitants, the Air grows  
cold and moist, and is corrupted, especially if it he close pent  
in, subterraneous, want Vent-heles, or the Space under Cover  
contain many Ditches and Caverns. *Arnaldus de Vilia Neva.*

I cannot omit inserting in this Place the celebrated Treatife of  
Hippocrates, *east dlpin, iAciorn,* -νόσον, because the preceding Pages  
will assist us in accounting for, and explaining many important  
Assertions of its admirable Author, besides that if I have made  
it intelligible in out own Language, it will afford many agree-  
able Speculations.

**HIPPOCRATES of AIR, WATERS, and StTUATroNs.**

Whoever has an Inolination to pursue a right Method in his  
medicinal Enquiries, should observe this Order : First, he should  
study the Seasons of the Year, and learn, what Effects each of  
them is capable of producingfor they are in no RespeS alike,  
but differ exceedingly, both in Regard to each other, and to the  
various Changes, which happen in each respective Season. Next  
the Winds should he regarded, the hot as well as the cold ;  
principally those which are common to all the World, and  
afterwards thofe by which particular Regions are chiefly af-  
fected. The Qualities of Water should also he considered, be-  
cause each of these differ not less in their Effects than in Taste  
and Gravity.

Upon these Accounts, when a Physician arrives at a City,  
with which he is not acquainted, he should inform himself well  
of the Situation, learn whet Winds principally affest it, and  
remark how it lies with Respeol to the rising Sun; for the  
Influences of a North or South-wind, the Morning or Even-  
ing-fun, upon the Place, cannot he alike. These Circumstances  
therefore must he diligently considered; nor must the Water  
pass unregarded, for it is of Importance to know whether the  
Place is supplied with soft Water from Lakes, or by Cur-  
rents from Hills or Rocks, with that which is haul ; as also  
whether the Water is fait, heavy, and difficult to heil, or the  
Contrary.

It should also he considered, whether the Country he naked  
and dry, or covered with Woods and damp ; and whether it  
he a Valley, and for that Reason fubjeol th suffocating Heats,  
or elevated, and consequently cool. Observe, moreover, ike  
Diet to which the Inhabitants are in general addicted; whether  
they indulge themselves in Excesses of Eating, Drinking, and  
Inactivity; whether, on the Contrary, they are inured to much  
Exercise and Labour; or, lastly, whether their Intemperance  
consists more in Exting than in Drinking. For from these  
Circumstances we are to form a Judgment of their Diseases,  
and of the Things best adapted to relieve them ; insomuch that  
a Physician, perfectly well acquainted with all these Particu-  
lars. or, at least, the greatest Part of them, when he arrives  
at a City to which he was an utter Stranger, cannot he igno-  
rant of the endemial Distempers of the Country, or the Na.  
tore of the Inhabitants ; and hence the Investigation of sure  
and infallible Methods or Cure will not he difficult, which  
without this previous Knowledge would be lest eafy. Be-  
sides, he will he able to foresee, whether particular Seasons,

or the Year in general, will he sickly, or healthful and to  
foretel whet epidemical Distempers will prevail, either. in the  
Summer, or in the Winter ; and also what Kinds of Diseases  
particular Persons will he in Danger of incurring, from ah  
Alteration in their Dies. *[*[*/safp.se*](file:///\\safp.se) *ths Author means that 'Al-  
teration of Diet, which the Seasens ntcejscarily induces]* Thus  
heing acquainted with the Seasons, and the Risings and Set- .  
tings of the Stars, as they happen in Order, he may know  
what Sort of Year is likely to ensue ; and these Enquiries  
into the Nature of the Seasons will enable him to form a  
right Judgment of particular Cases which occur, will con-  
tribute to make him successful in Practice, and to preserve  
him, as much as is possible, from Error.

If any one should disregard these Things, as barren meteoro-  
logical Speculationsctie may readily learn, if his Obstinacy does  
’not interfere, that Astronomy is of no sinall Importance to  
Medicine, because the Changes of the Seasons constantly induce  
an Alteration in the digestive Organs of Meo, But in what  
Manner the above-mentioned Particulars should he considered  
and explored, I shall proceed to specify.

Whatever City is exposed to and frequently affectsd by the  
het Winds, which are thofe that blow from betwixt the Rising  
and Setting of the Win ter fun, but is sheltered from the North,  
winds, is plentifully furnished with Water of a saltish Taste,  
and which is not very subjedt to evaporate, heing also het m  
Summer, and cold in the Winter: \*

Cities which enjoy a hetter Exposure in Regard to the Snn  
and Winds, and which nfe good Waters, aro lefs sensible of  
the following Changes ; hut Cities which are obliged to make  
Use of stagnating and . marshy Waters, and which have a  
worse Situation with Refpedi to the Sun, and Winds, , are yet  
more subject to the Influences of the Alterations . in the  
Seasons. . ’

If the Summer is dry. Diseases are of shorter Duration, but  
if rainy, they continue longer ; on this Occasion also, -Ulcers  
are very inchnable to grow phagedenic from flight Causes.

If the Winter is cold. Men are fubjced to Rheums in their  
Heads, and to Diarrhoeas, caused by Phlegm falling from the  
Head upon the Intestines. They also seem relaxed, and nei-  
ther eat with Appetite, nor drink plentifully, which fast is not  
to he wondered at, becaufe weak Heads are not likely to heat  
.much Drinking, and besides are considerably affectsd by a De-  
bauch.

The reigning Diseases are as follows ; First, the Women are  
unhealthy and fubjedt to Rheums, and many *pts.* unfertile, not  
on Account of any natural Infirmity, but for Want of Health ; .  
and are fubjost to frequent Miscarriages. The Children are  
-often afflicted with Convulsions, and Asthmas, which are  
esteemed productive of the Epilepsy, a Disorder frequent a.  
mong Children. The Men are affectsd with Dysenteries,  
Diarrhoeas, Fevers, attended with perpetual Shiverings, ubsti-  
nate, wintery Fevers, frequent Eruptions, and the Piles. But  
Pleurisies. Peripneumonies, burning Fevers, and those Distem-  
pers, which generally go by the Name of Acute, are seldom  
heard of ς and indeed it is not llkely they should, when the.  
Habit is so incllned to he laxative. Besides these, moist In-  
flammations of the Eyes, which are flight, and of no long  
Duration, are common, unless some general Distemper rages  
epidemically, on Account of Alterations in the Season. Wen  
above sixty, heing fubjeS to Deflexions from the Brain are  
infested with Palsies, especially if they expose their Heads fiid-  
denly to the Sun, or to the Cold. These are the Diseases to  
which filch a Southern. Situation is principally fubjeol, unless  
some epidemical Distemper from the Change of Seasons prevails,  
of which the ordinary Diseases participate.

Cities which have an AfpeA directiy contrary to the above-  
mentioned, that is, which are exposed and much accustomed  
to Winds, which blow from the Points betwixt the vernal  
Rising, and Setting of the Sun, and which are sheltered from  
the South-winds, and vernal Gales, are thus affectsd : First, it -  
is remarkable, that their hard and cold Waters are generally  
sweet. The Inhabitants are necessarily strong, dry, and gene-  
rally difficult to purge, and costive ; but vomit,, however,  
more readily, and are more affectsd by Bile,' than Phlegm ;  
.their Heads are healthy and bard ; and they are subject to  
frequent Ruptores of the Vessels. Their usual Distempers are  
Pleurisies, which are very common, as well as all thofe Dis-  
eases which are esteemed Acute. And indeed it cannot hep-  
pen otherwise, by Reason of these habitual Costivenefs; theytare asso liable to Suppurations on very flight Occasions, on  
Account of the Tension of their Fibres, and extraordinary  
Costlveness; but their Dryness, and the Coldness of the Wa.  
tees, incline the Vessels to Rupture. These People must of  
Course he great Eaters, and but moderato Drinkers ., for it is  
scarcely possible for the same Person to indulge hrmfelf in  
Excesses both of Eating and Drinking at the {cede Time.  
They are fubjoa to violent and acore Inflammations of the

**.. T Tfesioam wi ssave embarrassed the Interpreters a great deal. and it has generally been thmflateA in such a Manner as to  
tonbrain rhe whele Pabage not a hide 1 behave the Author means here by μό μιτἐκμα the fainc „ b . . that ἐκ not taty M«oil, or to be elevated. Rut I will not he positive 1 am nght in this Cafe. ' ημαμα , ι**

Eyes, which endanger the Rupture of the Part; and those  
under thirty, to copious Haemorrhages from the Nose, in  
Summer. Epilepsies are not Very common, but Vchement,  
when they happen ; and these People are more likely to arrive  
at a greater Age than most others. t Moreover, they are but  
little afflicted with cold corrosive Ulcers; and aS to their  
Manners, they have a greater Tendency to the Savage, than  
x to the Polite. Such are the Diseases of the Country, which  
principally infest the Men, when no unusual Alteration in  
the Seasons introduces an epidemical Disease. \_ ..

AS to the Women, they are contracted, and of teafe Fi-  
bres, in the general, because the Waters are hard, difficult to  
hell, .and cold. The Catamenia are not regular, but sanlty,  
both in Quantity and Quality ; add to these, that their La.  
hours are difficult; that they are not Very subject to Miscar-  
riages ; and that they cannot always give Suck to their Chil-  
dren, when hern, because the Hardness and Intractability, of  
the Waters dry up their Milk. Many fall into Consumpti-  
ons after Lying in, the Violence of their Labour causing Rup-  
' tures of the Vessels, and Convulsions. The Children, whilst  
little, are subject to contract Dropsies in the Scrotum, which;  
as they grow up, disappear j and they arrive at Puherty Very  
late in a City thus situated. Thus it is with Respect to the  
hot and cold Winds, and to the Cities subject to their Influ-  
encet.

As for Cities which are exposed to those Winds which blow  
from betwixt the Risings of the Sun in Summer, and in  
Winter, or to those which blow from the opposite Quarters,  
they are thus affected by their Situation. Those which face the  
rifing Sun are likely to he more healthful than others, which  
are either subject to the Northern Blasts, or exposed to the  
sultry Southern Winds, though at no greater Distance than  
a Furlong from each other ; both, because here the Heat and  
Cold are more moderate, and because Waters which spring  
toward the rising Sun, are necessarily clear, sweet, soft, and  
agreeable to the Inhabitants of the Pisce ; for the Rays of  
.the rifing Sun purisy the Waters, and prevent Intemperatures  
in the Air, by clearing it of Vapours. The Inhabitants are,  
as to Complexion, well coloured and florid, unless any ac-  
cidental Disease interferes with their natural Habit ; their Voi-  
ces are clear; their Passions are more regular, and their natural  
Tarts and Understandings better, than those of the People who  
live exposed to the North; and indeed all the natural Producti-  
ons are generally brought to greater Perfection.

A City, thus situated, enjoys, aS it were, a perpetual Spring,  
in Regard to the Temperature, bring neither immoderately hot,  
nor excessively cold; and the Diseases, affecting the Inhabitants,  
are neither so frequent, nor so Violent as in other Places;  
and they are of the same Kinds with those by which Cities  
exposed to the warm. South-winds are affected. The Wo-  
men here are extremely fruitful, and have very easy Labours,  
Such are the Advantages of this Situation.

Cities winch have an Exposure towards the Setting of the  
Sun, and are sheltered from the Winds which blow from the Sun  
Rising, but are open to the hot Winds from the South, and  
the cold ones from the North, have urtdonbtedly the most tin-  
healthful Situation of all others. For, First, the Morning  
Fogs are a long Time retained, which, mixing with the War  
ters, render them turbid, for the Sun does not shine upon  
them, till it has acquired a considerable Altitude. Besides,  
In the Summer, the cold Breezes blow, and the Dews sall up-  
on them. As to the rest, the Inhabitants are parched by the  
declining Sun, and hence they must probably become pale, and  
- sickly ; hence, also they partake of all the above-mentioned  
^Diseases, having nothing to protect them against them ; their  
Voices are moreover likely to he deep, and hoarse, because the  
. Air they respire, is generally impure, and unwholesome, being  
Very little Ventilated by the North-winds, which do not fre-  
quently blow upon them ; and those Winds, which principal-  
ly affect them, being of all others the most moist. Add to  
this, that the Western Winds, to which such a Situation is  
exposed, make the Temperature resemble that of Autumn,  
with Respect to the Alterations of the. Weather, winch  
happen on the same Day, for there is a great deal of Dif-  
ference betwixt the Morning, and Evening Air. Thus it  
is in Regard to the Healthsulness and Unhealthfulness of the  
Winds, . .

I shall, next consider the Waters, distinguish those which are  
unwholesome, *scorn* those which are wholesome, and specify  
the Advantages and Disadvantages which.attend the Use of each  
Sort. For this is os great Importance to Health.

Stagnating Waters os Marshes, and Fens, , must of Necessity  
he warin, muddy, and stinking in Summer; and, moreover:  
for Want os Motion, and because they are perpetually sup-  
plied by the Rains, and warmed by the Sun, they .must ol  
Course be white, bilious, and imwholesome. In the Winter,  
' as they are frozen, and cold, and turbid with Snow and Ice,  
they are productive of Phlegm and Hoarsenesses. Those whe  
drink them have their Spleens large, and much obstructed;  
their Bellies hard, thin, and het ;, and their Shoulders, Necks.

and Faces wasted ; for, as the Spleen enlarges, the Flesh dis- -  
solves ; and hence they are emaciated. These have great Ap-  
petites herb as to Eating and Drinking. Their Stomachs and  
lower Bellies are extremely dry, and hence they require stron-  
ger Vomits and Purges ; and this is habitual to them both in  
the Summer and Winter. They are subject to frequent and  
final Dropsies ; and, during the Summer, to Dysenteries, Diar-  
rhoeas, and Very chronical Quartans, which, aS they continue  
long, in such Constitutions bring on Dropsies, by which they  
perish. Thus it happens to them in the Summer. . .

In Winter the Younger are subject to Peripneumonies, and  
phrenetic Disorders ; the Elder, to burning Fevers, by Rea-  
son of their Costiveness. The Women contract Tumors and  
oedematous Disorders, incline to Sterility, have difficult. La.,  
hours, bring forth large and bloated Children, and which, in  
their tender Years, have a Tendency to waste and become un-  
healthful; .their Purgations after Delivery also are not well per-  
formed. The Children are much afflicted with Ruptures, and  
the Men, .with Varices, and Ulcers in. their Legs. .Hence it  
is plain, that People with such Constitutions are not calculated  
for a great Age, but that they must early in Lise contract the.

.. Infirmities of.old Age. It is farther remarkable, that the Wo-  
men frequently imagine themselves with Child, and, when the  
Period of Delivery approaches, the Fulness os the Belly dis-  
appears. This is caused by the hydropical Humours which are  
determined to the Womb. Such Waters, as the above-men-  
tioned, I esteem improper for all Manner of Uses.

The next, in Degree of Unwholesomeness, are those which  
spring from Rocks, for these are necessarily herd, those whose  
Sources are warm, or which are impregnated with Iron, Brass,  
-Silver, Gold, Sulphur, Alum, AsphaltuS, or Nitre *lent what  
use call now by this Name),,* for all these are produced by the  
Force of Heat; therefore Waters from such Strata cannot he  
good, but, on the Contrary, hard, and heating, difficult to pass  
.the urinary Glands, and inclining to Costiveness. The Very  
best are those which spring on elevated Places, and loamy  
Hills; for thefe are sweet and clear, and a Very small Quan-  
tity of Wine communicates to them both Colour and Taste, .  
*[The Author mentions this as an Instance of their Lightnes.s ana  
Simplicity.]* In Winter they are warm, in Summer cool, .and  
this, because their Reservoirs are.at a great Distance from the  
Surface of the Earth. Those, however, whose Fountains face  
the Sun-rismg, especially its Rising in Summer, are much the  
theft; for these are necessarily the most limpid, sweet, and  
. light. But those which are salt, not easy to boil, and hard,  
are not sit to drink. There are, however, some Diseases, and  
Constitutions, which I shall hereafter specify, where these are  
properly given as a Medicine. Thus it is with Regard to  
these Waters.

Fountains, as I observed, afford the heft Water, which sace  
the East ; next to these,., such as have an Aspect towards any  
Point hetwixt the Rising and Setting .of the Sun in Summer  
*[reclaming towards the North)* those especially, winch incline  
most to the East;. and the third Degree of Salubrity may he  
allotted to those Waters, whose Sources regard the Quarters  
lying hetwixt the Settings of the Sun in Summer and in Win-  
ter.. The Very worst :are those which spring towards the South,  
or which sace. some Point betwixt the Rifing and Setting of  
the Sun in. Winter *(that is, betwixt the South-East and South-,  
lpiefl).* These, however bad, are not so pernicious to Inhabi-  
tants of a Northern, as those of a Southern Climate. -

As to the Use of these Waters, the following Rules are *i*he observed: - : . . ..

He that is in a perfect State of Health, need. he under no  
Restrictions, but may use any that presents indiscriminately ;  
but if a Person that is ill\* will confine himself, on that Ac-  
count, to that Sort which is best adapted to the Circumstances  
of his Disease, he will thereby much forward his Recovery. :

Those whose Bellies are hard, and inclinable to he heated, find  
Advantage from those Waters which are sweetest, lightest, and  
most limpid. On the Contrary, Waters which are very hard, .  
not easy boiled, and somewhat salt, are better suited to others, ’  
whose Bellies are soft and moist, and abound with Phlegm ;  
for these Waters will help to dry up the redundant Humours.  
-Whatever Waters boil heft, and soonest, are most likely to diss  
solve, and liquefy the Belly. But those which are heavy, and  
: hard, and the least easy to boil, are drying and astringent. For  
.it is a popular Error, founded on Want os Experience, to  
imagine, that salt Waters promote Stools, whereas, in Fact, they  
powerfully restrain them; and this, hecause, for the same Rea-  
Tons that they are difficult toheil, they are also noteasily sub-  
.dued by the digestive Powers, and hence they produce Costive-  
ness instead of liquefying the Belly. And this is the true Sure  
of the Case, with Respect to Fountain Waters. I will now  
proceed to explain the Natures of Rain and snow Waters.

Rainwater is of all others the most light, sweet, thin, and  
. limpid. For the Sun exhales only the lightest and thinnest Par-  
ticles of Water. That Ibis is true, is evident from the Na-  
ture of Salt, which, consisting of the . most dense and heavy  
.Particles, remain and become salt, whilst those which are most

light and thin are attracted by the Sun, and pinvated into  
-the Atmosphere, because of their Lightness. Nor does the  
Sun raise Vapours from Lakes only, but it exhales them also  
from the Sea, and from whatever contains Moisture, with  
which every Thing more or less abounds. Amongst other  
Things, thus influenced by the Sun, is the human Body,  
- from whence the thinnest and lightest of the Fluids are attract-  
ed, as appears by the following Instance. Let a Man walk or  
-fit in the Sun with his Cloaths upon him ; that Part of his  
Skin exposed to the Sun will not appear to sweat, because,  
before the Moisture is Visible in the Shape of Sweat, the Sun  
causes it to .evaporate; mean Time, the Parts covered by Gar-  
.Incurs, or by any other Thing, will sweat.’ Thus the Sun  
forces out the Moisture from the Body, which being defend-  
ed from the Sun by something that covers it, becomes vi-  
sible. But, upon retiring into the Shade, it perspires equally at  
the Parts covered and uncovered, because it is not then subject  
to the Influence of the Sun.

These Properties of .Rain-water render it more subject to  
Putrefaction than others, and incline it to contract a disa-  
greeable Smell, to which also the different Exhalations of  
which it is composed, and the various Substances with which  
it is impregnated, contribute greatly; add, that when these  
-heterogeneous Particles are drawn up, and elevated, and are  
carried about in, and mixed with the Air, what is the most  
turbid, and dark, separates from the rest, and forms Mista,  
and Clouds, whilst the thinnest and lightest Particles remain,  
are digested, and, as it were, boiled by the Heat of the Sun,  
and are thus rendered sweet ; for all Things grow sweet by  
Bossing. So long, therefore, as they remain dispersed, and ra-  
refied, they are carried to the superior. Part of the Atmosphere;  
hut when they are collected together, and condensed suddenly  
by Winds blowing in opposite Directions, the Cloud, thus form-  
ed, breaks in that Part where it is most dense. And indeed,  
it is most likely to happen thus, when the Clouds, not per-  
mitted by the Winds to preserve any fixed Station, but agi-  
rated and hurried along in the Air, are suddenly dashed a-  
gainst another Cloud, brought .by an opposite Wind ; it is on  
this Occasion the Condensation begins in the first Vapours  
that meet, winch is continued amongst those that succeed, till  
growing dense, black, and too heavy to he longer suspended,  
-they break, and fall down in Showers. Hence it appears, that  
such Waters must he the best; but they require to he boiled,  
and filtered, otherwise they are subject to contract a disagree-  
able Smell, and to affect inch aS drink them with a Hoarseness,  
'and Roughness of Voice,

Waters from dissolved Snow and Ice are all bad, for, after  
-being once frozen, they never recover their original Nature.;  
for the limpid, light, and sweet Particles are separated, and  
evaporate, whilst the most turbid and heavy remain. The  
Truth of this is evinced by the following Experiment: Take  
a Vestel in Winter, and fill it with a certain Measure of Wa-  
ter, then expose it to the Air, so that it may he frozen, the  
next Day place it in a Heat sufficient to thaw it, and, when  
it is diflblved, measure it again, and you. will find it has waft-  
ed considerably ; now this Waste must he of the lightest and  
thinnest Particles, for it is impossible the most ponderous, and  
dense should evaporate first. It is for these Reasons that I  
esteem the Waters os' dissolved Show and Ice, and all that  
hear any Resemblance to them, the very worst of all others,  
for any Uses whatever. .

Men who drink habitually a Mixture of all Sorts of Wa-  
yers, as those of large Rivers, which receive a : great many  
smaller in their Courses 5 or Waters of Lakes, into which  
many Currents, consisting of different Sorts of Waters, stow;  
or who are obliged to use Waters carried to them from a eon-  
fiderahle Distance, are much subject to the Stone, to nephri-  
tic Disorders, to Stranguries, to ischiadic Complaints, and  
Tumors; for it is not probable, that one Water should ex-  
actly agree with another in Qualities ; thus some will be  
fweet, others salt, or aluminous, whilst others are impreg-  
Dated with hot Ingredients; now, when several of these are mix-  
ed together, an intestine Motion is produced, till the strongest  
Quality prevaiis ; the same Quality is not, however, always  
most prevalent, but sometimes one, and sometimes another ;  
and it is Very possible, that the Winds may in this cause  
an Alteration, the North-wind increasing one Quality; and  
the South another, and the same may be said in Regard to  
the other Winds. Hence Mud and Sand must of Necessity  
subside to the Bottom of Vessels containing such Waters ; and  
Men, who constantly drink them, must he subject to the Dis-  
tempers above-mentioned ; that these Effects are not, however,  
universal, I shall proceed to shew.

The Bladder of those whofe Belly is naturally inclined to  
he soluble, and healthy, is not subject to .he heated, nor is  
the Orifice thereof contracted; hence they malte Water free-  
ly, and Consequently no condensed Sediment remains in the  
Bladder. On the Contrary, those whose Bellies are inclined  
to he het, have their Bladders necessarily affected in the same  
Manner, and the Orifice thereof subject to he inflamed.

Hence the Urine pastes with Difficulty, and, being retained,  
is digested, and heated in the Bladder, where the lightest Par-  
ticks are separated from the more gross, and the most pure  
are discharged, whilst the most thick and turbid are retained,  
and form a Concretion, small at first, but which afterwards  
increases ; this, being perpetually surrounded by the Urine,  
adapts to itself the most dense Particles, increases, and in Time  
forms a Stone, which is forced upon the Orifice of the Blad-  
der, by the Efforts to make Water, where it obstructs the Pas-  
sage os the Urine, and causes Violent Pain ; this makes Chil-  
dren afflicted with the Stone handle and extend the Penis,  
where it seems to them that the Cause of the Obstruction is si-  
mated. That the Case is thus, is manifest from the Urine  
discharged by People who labour finder the Stone, which is al-  
ways extremely limpid, the thickest and most bilious Part re-  
maining, and concreting. This is the most general Way of  
contracting the Stone. But Milk gives Children sometimes the  
Stone, when it is unwholesome, hot, and very bilioas, for  
then it heats the Belly, and the Bladder, and consequently  
the Urine, whence a Stone is formed. I am therefore of  
Opinion, that Wine, Very much diluted, should he preferred  
hefore such Milk for Children, because it heats and dries the  
Vessels less. With Respect to Females the Cafe is somewhat  
different, for their urinary Passages are shorter, and larger,  
so aS to permit an easy Discharge os the Urine; nor are they  
tempted to rub the Pudends, like Males, nor to handle the uri-  
nary Passage, which in them opens within the Pudenda. And,  
because the Urethra is larger, they can drink more then Males.  
This I take to he a just Account of Waters, or very nearly ap-  
proaching it.

As to the Constitution of the Year, it may he foretold by  
the following Observations, whether it will he healthy, or  
sickly. If the Rifing and Setting of the Constellations are fol-  
lowed by their natural and usual Effects; if the Autumn he  
rainy, and the Winter moderate, that is, neither too mild nor  
too herd ; if the Spring and Summer he tempered with season-  
able Showers, we may conclude that a healthy Year will she-  
ceed. But if the Winter be dry, and attended with frequent  
Northerly Winds, and the Spring rainy and warm with the  
South-wind, the Summer must necessarily produce Fevers and  
Inflammations of the Eyes. For on the sudden Approach of  
sultry Weather, at the same Time that the Earth is moistened  
by Vernal Showers, and relaxed by the South-winds, a double  
Degree of Heat is excited, by the Moisture and Warmth os  
the Earth; and the Influence of the Sun concurring to pro-  
duce it, whilst the Belly continues relaxed, and the redundant  
Moisture of the Brain is not yet dried up ; in such a Spring  
the Body and whole Habit must, of Necessity, abound with  
Humours, so as to make Very acute FeVers epidemical, efpe- '  
cially in phlegmatic Constitutions ; and to produce frequent  
Dysenteries, particularly in Women, and Men os moist Con-  
stitutions.

If the Rising of the Dog-star he attended with Rain and .  
wintery Weather, and the cool Etesian Breezes *(from the North-  
East)* blow as usual, we ihay hope that the prevailing Dis-  
tempers will cease, and that the Autumn will he healthy4  
but, if the Contrary happens; there is great Danger of Mor-  
tality amongst Women and Children, whilst old People are  
less in Danger, and those who recover of FeVers contract;  
Quartans, which at last terminate in Dropsies.

Is the Winter he much affected with South-winds, rainy,  
and mild, and the succeeding Spring rendered cold by the Nor-  
them Blasts, dry, and wintery, first; Women that happen to be  
pregnant, and expect to be delivered in the Spring, will he in ‘  
Danger of Miscarriages-; or, if these do not happen, the Chil-  
dren which are born will he weak and sickly, so aS to din  
immediately, or, if they survive, to he thin, weakly, and un-  
healthy:. Thus will such a Season affect Women. The reft  
will he troubled with Dysenteries, and dry Ophthalmies, and  
some will he subject to Definitions from the Head upon the  
Lungs- Men of phlegmatic Constitutions, and Women will  
he afflicted with Dysenteries, the Phlegm stowing from their  
Brains, because of their natural Humidity. ' Bilious Consti-  
tutions will he subject to dry Ophthalmies, hecause of the Heat  
and Dryness of their Habits. People advanced in Years will  
he affected by Catarrhs, on Account of the Rarity and Rela-  
xation of their Vessels, insomuch that some will din suddenly,  
whilst others will he seined with a Paraplegia either on the  
right, or left Side. For, when the Winter has been moist, and  
warm, and in Consequence of this, neither the whole Habit,  
nor the Vessels competently firm, if the succeeding Spring  
happens to -he dry, cold, and much influenced by the  
North-winds, the Brain, when it should he relaxed by the  
natural Mildness of the Spring, and purged of those Humours,  
which cause Distillations from the Nose, and a Hoarseness,  
is, instead of that, braced, and contracted, so that. Summer  
coming on suddenly, the great Heat, and the Change from one  
Extreme to another, are the Causes of the above-mentioned  
Diseases, which, aS they disappear, are succeeded by Lienteries  
and Dropsies,the Humidity of the Viscera not being easily dried.

if.the Summer he rainy, and hot South-winds blow, which  
continue till the latter End of Autumn (μετοπιμὲν) the Winter  
must, of Consequence, he sickly. Phlegmatic People, and those  
above forty, will he seined with burning Fevers, and the Bili-  
ous, with Pleurisies and Peripneumonies. ...

v But if the Summer he dry, and much ventilated by the North-  
winds, and the whole Autumn rainy and much affected with  
.. Southern Blasts, the Winter will probably introduce Head-aches,  
and SphacelatiOns. of-the Brain, and, moreover. Hoarsenesses,  
Colds, Coughs, and, in some Constitutions, Consumptions.  
Bur if the Autumn he dry, and rendered cold by Northerly  
Winds, and there be no Rain, neither about the Rising of  
' the Dog-star, nor of Arcturus, the Season will be favourable  
to phlegmatis, and moist Constitutions, and to Women, but  
very bad for the bilious, hecause it dries them excessively, and  
; brings on dry Ophthalmies, and acute Fevers of long Conti-  
nuance, and inclines some to Melancholy. For, the most humid  
and diluted Part.of The Bile heing-consumed, there remains only  
thethIckest and most acrid Part ; as‘ it happens also in the Blood ;  
.hence theDiseases above-mentioned are immediately produced,  
whilst this Constitution of the Season is favourable to the Phleg-:  
inatic, hecause they are dried by. ' two succeeding Seasons, and  
arrive at. the Winter without any superfluous Humidity. .

—-IT the Winter he infested with North-winds,: and dry, and  
the. succeeding Spring affected aS much by South-winds, and  
rainy in thefiummer, Violent-Inflammations of-the Eyes will  
, he epidemical; as will Fevers amongst Women and Children.

Whoever examines and considers these Things, -will not he.  
at in Loss to prognosticate most of those Events' which these  
Changes naturally produce. -..-; isse.A-ι . *l -A\s - o*

. It imports :us. most of all to take efpecial Notice of'the great  
and .remarkable.Changes of the Seasons, that we may not at  
such a Juncture prescribe Purging without urgent Necessity,  
jnor .inake Incisions .in, or cauterise the Parts about, the Ab-  
domen, till ten Days or more .are past, but ten Days' are of  
the greatest Moment. The two Solstices are Very dangerous  
Seasons, especially the Summer Solstice; and so are theEqui-  
noxes, principally the Autumnal. Besides, we are to regard the  
Risings of the Constellatinns, especially Those os the Dog-star and  
Arcturus, and to observe the Setting of the .Pleiades-,. for these  
Days are particularly critical to Distempers, and either carry off  
the Patient, or give a favourable Turn to the Disease;, and, in-  
deed, all other Things alter their Formsand Constitutions, upon  
these great Changes. And thus it iswith Respectio the Seasons  
of. the Year. ς . et/.-.fe.. ’ ὑ '

’. My Design also is to shew how different Europe is from Asia  
in all Respects, and hew various Nations disser from each other,  
in Regard to Form, and every other Circumstance. This Sub-  
ject would engage me in too long a Discourse, were I to enter  
into Particulars : I shall therefore content myself with giving  
my Sentiments, as to the most essential and important Points  
wherein this Difference consists. ' . .

- Asia remarkably differs from Europe in the Nature of Plants  
and Men; for all Things are produced more beautiful and large  
in Asia than in Europe. The Climate is more temperate than  
ours, and the Manners of thePeople, inore, polished and civi-  
lised. The Cause of these Things .is the good Temperature  
*os* the Seasons; for Asia is situated . towards the East, in the  
Middle of the Puffs Risings, and remote from an Excess os  
Cold. Now, what most contributes to the Growth of Things,  
and Mildness of Manners, is a well-tempeted Climate, in which  
no Violent Quality predominates, but every Thing is equable  
and temperate. But all Parts in Asia are not in all Respects  
alike.' But that Part which lies, between the Extremes *os*Heat and Cold,, is the happy Region which abounds with all  
Sorts *of Fruit,* which is covered with Trees, which enjoys an  
excellent Ain, and, besides sufficient Refreshments of season-  
able Rains from Heaven, it is. plentifully supplied with such  
Waters as the Earth affords ; winch is neither scorched by  
Heat, dried, for Want of Moisture, nor hardened and stiffened  
with Frosts, but opened, and cherished thy the warm Breezes of  
the South-wind, and moistened and refreshed by Showers, and  
kindly Snows. Hence it must of Necessity produce all Kinds  
Of Fruit, seasonably and in Perfection, not only those which the  
Earth brings forth fpontaneoufly, but such as are planted and  
sown by Man, who eats of them, and makes Use of them after  
having by Culture rendered them mild, and subdued their  
Wildness by Grafting and Transplanting. All Flocks of  
Sheep, and Herds of Cattle, prosper better in these Climates,  
than in any other Region ; they bring forth Young more  
frequently, and seed better. The Men also are of a better  
Habit os Body, more graceful, of a larger Size, and better  
shaped, and hardly differ from one another in Form and Sta-  
ture. It is probable therefore that this Climate approaches  
nearer than any other to rhe most temperate and natural Con.,  
stitution. But it is impossible that Strength, Hardiness, Vi-  
gour, and personal Courage should belong to such. Constitu-  
tions; nor can they be supposed to he regular in their Affections  
for their own, or a different Species. They are given up to  
sensual Enjoyments; and hence it is, that we see so many

Monsters among- the Very Brutes. The same may he said of  
Egypt and Lybia..

τι As for those People who inhabit the Countries to the Right of  
the Sun’s Rising in Summer, as far as the PaiuS Maeotis, which  
separates Europe from Asia, they are more different from, each  
other than those I have described,, because of the different  
Changes of Seasons, and the Nature of their Country, which,  
as well as that os the Inhabitants, Varies according to these  
Changes; for, where these Changes are most frequent and  
sensible, the Country is most savage and irregular. There  
you find many Mountains and Forests, and sometimes Plains  
and Meadows.' But, wherever these Changes are least felt,  
the Country is more uniform, and even ; and the Case is the  
same with Men, if they are strictly observed.. The Natures  
of some Men bear a Resemblance to Mountains, Forests, and  
unwatered DesartS ; others to light and well watered Soils;  
some to Meadows and-Marshes ; and others to Plains, which  
are dry, and naked. Seasons, which change the natural Forms  
of Things, are Various, and as they differ from one another,  
their Esthers are no less different. : .

Of **Ihe'MACROCEPHALL.**

ῖ I shall say . nothing of those Nations' where the Difference  
is inconsiderable, but confine myself to those among whom the  
Varieties, -whether they proceed from Custom, or Nature, are  
most sensible, and begin with those People whom they call Ma-  
dtocephali, because they have Very long Heads, there being no  
Nation in the.World equal to them in that.Respect. Here Cu-  
stout .alone was first os ail the Cause os that excessive Length ;  
hut mow Nature acts in Conformity To Custom. These People  
esteem a long Head as a Mark of Distinction, and hence a  
Custom arose, as soon aS a Child was horn, while rtS Head  
was yet tender, to fashion it with their Hands to aS great a  
Length aS possible, and by Application of proper Bandage and  
other Arts, .to destroy as much as possible the spherical Figure os  
the Head, and force it to increase in Length. Thus, what  
at first was nothing but Custom, hecame by Degrees Nature,  
which in Time no longer wanted the Assistance of Custom.  
The Seed comes from all Parts of the Body, and partakes of  
the Affections of the particular Part from whence it proceeds,  
whether they are sound, or distempered ; is therefore the Chil-  
dren of bald Fathers are also generally bald, and those who  
have grey Eyes beget grey-eyed Children, and Parents with  
distorted Eyes procreate a squinting Off-spring, and if this  
holds true with Respect to all other Imperfections of the Body,  
whet -should hinder a Macrocephalus from begetting a Macro-  
Cephalus ? At this Time .indeed they are not hern with so  
long Heads, which is owing to their Negligence, in letting  
their antient Custom grow into Difufe. Such are my Senti-  
ments concerning theseAffairs.

2 **Of the PHASIANI.**

In Regard to the Inhabitants about Phasis, the Country is  
marshy, hot, moist, and abounding with Woods, and frequent  
and heavy Rains fall there at all Seasons. They live in Mari  
shes, where they build their Houses with Wood and Reeds,  
in the midst of the Waters. They seldom exercise them-  
selves by going to the City, or the Market, but ply here and  
there about, their Canals; of winch there is a great Numher, in.  
small Boats, which they make out of a single Trunk of a  
Tree. . Thein habitual Drink is warm, stagnating Water,  
which is corrupted by the Sun, and. supplied by the Rains.  
The Phasis itself is the stillest os all Rivers, and . flows the  
flowest. . The Fruits which grow in the adjacent. Parts are  
all effete, afford littie Nourishment, never arrive at Perfec-  
tion, and are insipid. The Country, moreover, is much sub-  
ject to Fogs, by Reason of the neighbouring Waters. On these  
Accounts, the Phasians are in Person different from all Man-  
kind. For they are of an excessive Bulk, and prodigioufly  
bloated. Neither Joint nor Vein are to be discovered upon  
their Body. They are pale like those who are affected with  
a Jaundice. Their Voice is more deep and hoarse than that  
of any other People, hecause os the Grossness and Humidity  
of the Air they respire; they are excessively lazy and in-  
dolent ; the Change of Seasons is insensible with them, either  
as to Cold or Heat; all their Winds blow from the South;  
except a Wind which js peculiar to them, and which is  
sometimes Very violent, troublesome, and hot, and thin they  
call *Cenchron.* The North-wind never reaches them, or, if it  
coines so far, is so weak and languid, as to be hardly sen-  
sible. And thus it is with Respect to the Natures, Differences,  
-and Forms of the Inhabitants of Asia and Europe.

With Regard to the Effeminacy and Cowardice of the Asi-  
atics, who are far inferior in Courage to the Europeans, but  
exceed them in Delicacy of Manners, the Cause hereof is to  
he attributed, principally, to the Seasons, which, with the Peo-  
pie of Asia, never change from one Excess to another, either as  
to Heat or Cold, but are always in a State of Equality. Up-  
on these Accounts the Inhabitants never suffer any great Trans-

ports of Mind, nor undergo. Very violent Changes in their Bo-  
dies, which are the two moving Causes that excite the Passions,  
and are more likely to render the Imagination lively and warm,  
than is such Excesses and Alterations were never to happen.  
Changes, however, there are, either greater or lest, in all Things,  
and these stimulate the Passions, and disturb the Sedateness of  
the Mind. Besides these Reasons for the Cowardice of the Asia,  
tic Nations, which appear to me very probable, another may  
he deduced from Custom. Most of the Asiatics are subject to  
the Tyranny of absolute Kings. And wherever Men of Senfe  
z are deprived of Liberty, and the Power of acting conformable

to their own Inclinations, but are Slaves to others, it is Policy  
in them to avoid all Appearances of Courage, and to dissem-  
ble Cowardice. For, under these Circumstances, the Danger  
is disproportioned to the Motives of Valour. Thus they are  
obliged to fight, undergo Fatigues, and to die for the Sake  
of their Lords, and this at a Distance from their Children,  
Wives, and every Thing they hold dear ; whilst all their Fort,  
titude and Bravery serves only to increase the Power of their.  
Tyrants, and rivet their own Fetters the faster, all their Re-  
com pence being Dangers and Death. Besides, such a Country  
must in Time become desolate, fince rhe wisest and bravest  
Men equally detesting such Motives sor War, and Inactivity,  
will abandon an arbitrary Government, so little suited to their  
Genius. - -

A sure Confirmation of this Truth is, that an the Greeks  
as well aS Barbarians in Asia, who are their own Masters, and-  
independent *of* Kings, are incomparably more warlike than the  
others ; for they labour for themselves, they run no Hazards’  
but on their own Account, and they reap all the Fruits of  
their Bravery, aS they suffer all the Inconveninncies of their  
Cowardice. You will, however, find eVen amongst the Ashed  
tics considerable Differences, some bring hetter, and others  
worse, and this Variety is to he attributed to the Mutability of  
the Seasons, hefore taken Notice of. And thus is the State of  
Asia. ...

*. ' r .. .*

**Of the SAUROMATAE. :**

There is in Europe, about the Palus Maeotis, a Scythian  
People, called Sauromatae, which differ from all others. Thein  
Women mount on Horseback, draw the Bow, throw the  
Dart, and fight Battles, while they are Virgins. . They are  
obliged to preserve their Virginity, till they have killed three  
Enemies, and are not allowed to approach their Husbands,  
before they have offered a certain Sacrifice by Law appointed.  
The married Women are discharged-from mounting on Horse-  
back, and going to War, except the whole Country is ob-  
liged to take up Arms on some Very urgent Occasion. They  
have but one Breast, winch is the left, sor their Mothers take  
Care to bum off the Right, while they are Very young, with  
an Instrument of Brass, made on Purpose ; so that, this Breast  
ceasing to grow, all the Strength and Nourishment go to the  
right Arm and Shoulder. \* \_

Os the other SfcYTHIANs.

. AS sor the rest of the Scythians, they are like one another:  
in Form, but have no Resemblance to any other People. The  
Case is the same with the Egyptians, with this Exception,  
that they are as much oppressed by the excessive Heat, as  
the Scythians are by the extreme Cold.

. What they call the Defart os Scythis, is a Vast Plain, quite  
bare of Wood, but interspersed with Meadows, and 'pretty  
well watered. It has also large Rivers, into which the Wa-  
ters os the Plains difcharge themselves. It is here that those  
Scythians live, whom they call Nomades, because they have  
no Houses, but live in Waggons, the smallest of which have  
four Wheels, and the others six, but all covered, and closed  
with large woollen Carpets, and made like Houses, with three  
Floors one above another, which secure them under Covert  
from Snow and Rain, and defend them against the Violence of  
the Winds. These Waggons are drawn by two or three Yokes

of Oxen, which have no Horns, because of the extreme Ri-  
gour os the Cold. The Women live in these Waggons, but  
the Men are generally on Horseback, followed by their Sheep,  
Cattle, and Horses. They .remain in one Place so long as  
it will afford them Subsistance sor their Cattle, but, when that  
saiis, they remove to another Place. . They seed upon Flesh  
boiled, and drink the Milk of their Maries, and eat Hippace,  
as they call Cheese made os Mate’s Milin, finch is their Way  
of living, and such are their Customs, in winch, aS well as in  
their Climate and Persons, they differ'from all other People; but  
they all resemble each other, as do also the Egyptians. They  
are of all People the least fruitful, and the Country produces the  
fewest Animals, and those the smallest os all others. They live  
under the Bear and the Riphean Mountains, whence the pierc-  
ing Northern Winds blow. The Sun never approaches them  
but towards the end os its Summer Periods, and then warms  
them but for a Very short Time. Few Winds from the warm  
Quarters reach them, and those weak and os'short Conti-  
nuance. But they are perpetually exposed to: the Northern  
Winds, .which the Snow, Ice, and Water render extremely,  
piercing, and which, blowing perpetually from those Moun-  
tains, render them uninhabitable. These Plains are subject  
to frequent Fogs, during the Day, so that, they are obliged,  
generally to respire a moist Air. Their Winter is perpe-  
tual, but their Summer continues but a .sew Days, and has  
even .then but Very little Influence; for these Plains are ele-  
vated, bare, and sheltered by no Mountains, but altogether ex-  
posed to the Norths

The Animals *os* this Country are ’very-small, because the  
Seventy of the Seasons would destroy such as are too large  
to retire for Warmth into Holes made tinder the Earth ; for  
there are neither Woods nor Coverts to preserve them .from,  
the Cold, nor Sun to warm them. There are no very great or  
sensible Changes of the Seasons, which are always equal, or  
have but little Variation. Hence the Inhabitants are all like  
each other.. They eat the same Food, and wear the same  
Clothes, in Summer and Winter ; they breathe in a thick  
and moist Air, and drink nothing but dissolved Water. of  
Snow and. Ice. For these Reasons they are neither remark-'  
able for bodily Strength, nor the Faculties of the Soul; for.  
it is impossible there should he either in Perfection, in a Cli-  
mate not subject to Violent Changes. . Hence, the People are  
sat and 'carnous, and their Limbs moist and relaxed; their  
Bellies abound with Moisture, and are in general snore laxa-  
tive than those os other People; and it is impossible it should  
he otherwise in such Constitutions, inhabiting such a Country,  
and subject to the Influences of such a Climate. The Ten-'  
deucy these People have to grow fat, and the universal Smooth-  
ness of their Skins, produce an extraordinary Similitude in their  
Persons, insomuch that Men can scarcely either he distinguish-  
ed from each other, or one Female from another, of the same.  
Sex ; and this because the Seasons bring always equal and'  
uniform, there can happen no Consumption, or Irregularity  
in the original Formation of. the Foetus, unless by Disease,:  
Violence, or Accident.

That I may give abundant of Proof of their excessive Hu-  
midity, I must remark, that most of the Scythians, and all.  
the Nomades in general, are burnt in their Shoulders, Arms,  
Wrists, Breasts, Hips, and Loins, on no other Account but  
that of their excessive Moisture, and Softness os Contexture,  
which enervates them to such a Degree, that they have nei-  
ther Strength to draw a Bow, or throw a Dant ; but after they  
are burnt, and the Humidity of their Joints is dried up, them  
Bedies grow robust, more firm and nervous, and of a better  
Habit. The first Thing which inclines them to be lax, and  
spread in Bulk, is their Neglect of swathing their Children,  
as they do in Egypt , and this Negligence Custom has esta-  
blished as a Law, with a View of enabling them to keep  
a firmer Seat on their Horses.. Ἄ second Cause of their Rela-  
xation, and enormous Increase in Flesh, is, their sedentary  
Way of Living, for the Males, so long as they are .incap-  
able of mounting on Horseback, scarce ever stir out of their

Carriages,

\* The Women amongst, many of the Tartarian Nations are at this Day extremely warlike: Bernier, in relating a Conversation  
which passed betwixt hem and some Ambassadors from the Kan of the Usbec Tartars, tells the following Story, which, notwithstanding  
some Exaggerations, proves the Valour of their Women.

Then, fays he, they proceeded to commend the Strength and Valour of "their Women, which they described to me quite otherwise  
than the Amazons; telling me very wonderful Stories os them, especially one, which would he admirable indeed, if I could relate it  
with a Tartarian Eloquence, as they did ; They told Ine, that, at the Time when AureugrZehe made War in their Conntry; a Party-  
os twenty-five or thirty Indian Horsemen came to fall upon a small Village , whilst they plundered, and tied all these whom they  
met with to make them Slaves, an old Woman said to them. Children, he not so nrisehievons, my Daughter is not sar off, she will he  
here shortly, retreat if yon be wise, you are undone If she light upon you. They laughed at the old Woman and her Advice, and con-  
tinned to load, to tie, and to carry away herself; but they were not gone half a Mile, but this old Woman, looking often backward,  
made a great Outcry of Joy, perceiving her Daughter coming after her on Horseback, and presently this generous She-Tartar, mount-  
ed on a fitnOus Horse, her Bow and Arrows hanging at her Side, called to them at a Distance, that she was yet willing to give them  
their Lives, if they would cany back to the Village all they had taken, and then withdraw without any Noise. The Advice of this  
young Woman affected them aS little as char Of her old Mother; bat they were astonished, when they found her jet fry at ctiero, In  
a Moment, three or four great Arrows, which struck as many of their ’Men to the Ground, which forced them to fell to thcrf Qin-  
Ters also. Bat she kept herself at that Distance from them, that none os them could reach her. She laughed at all them Efforts and  
at all their Arrows, knowing how to attack them at the Length of her Bow, and to take her Measure from the Strength of her Arm,  
which was of another Temper than theirs. So that after she had killed half os them with her Arrows, and nut them into Disorder’  
she came and fall upon the rest with her Sabtre in her Hand, and cut them all in Pieces.

Carriages, and walk bur very little, and this on .Recount of  
their frequent Transmigrations, and rambling Way os Life.  
The Corpulency of their Females is surprifing. The Com-  
plexion os these Scythians is usually dark, and sallow, he-  
cause of the Cold, for the Sun has Very little Influence up-  
on them ; the Whiteness therefore is affected by an Excess,  
of Cold, as it is in hot Countries by ah Excess of Heat, and the  
Sallowness of their Skins is produced in its Stead.

- It is not likely that, under these Circumstances, the People  
should he Very prolific. For the Men have no strong Inclina-  
tions to Women, because os the Moisture of their Chnstitu-  
tions, and the Relaxation and Coldness of their Bellies, all  
which tend to disable them from propagating their Species;  
besides, their habitual exercise on Horseback is no inconsi-  
derable Cause of Imbecillity. These are the Reasons for the In-  
fecundity of the People, so far as the Men are concerned ; but  
'with Respect to the Women, their Ohesity, and the Moistness.  
os their Habit, prevent Conception; *for* these Reasons the Ute-  
rus cannot attract, and retain the Male Principle of Genera-  
tion ; the Catamenia are moreover neither sufficient as to Quan-  
tity, nor regular aS to the Periods; and the Orifice of the Ute-  
rus, being obstructed by Fat, does not readily receive Impregna-  
tion from the Male. Add to these, that the Fibres of the  
Women are not braced by Exercise, and that their Bellies are  
cold and relaxed. On these. Accounts the Scythians" are neces-  
sarily the most unfertile of all People. That these are the  
Causes of their general Insecundity, is evident from their  
Maid-servants, who no sooner admit of a Man's Embraces,,  
than they conceive, because their continual Exercises keep  
down their Flesh, and render them lean.

It is farther remarkable of these People,, that many amongst  
them become Eunuchs, and this to such a Degree aS to act,  
and even talk like Women, they perform all the Functions  
of Women, and speak like them; they are called the Impo-  
tent τἀνςηδριεῖς). \* The Inhabitants of the Country helieve,  
that this Disease is inflicted by the Anger .of the Gods ; for  
which Reason they pay a particular Respect to, and. even wor-  
ship those who are. thus affected, with a View of averting  
the same Misfortune from themselves. For my Part, I he-  
lieve that this, as well as all other Distempers, proceeds from  
the Gods, and that there is nothing more Divine, or more  
human in one than in another, all Diseases doming alike from  
. the Gods ; not but every, one has its proper Cause, for there  
is nothing in Nature that is not an Effect of some Cause.  
AS to the Distemper which is the Subject of our present In-  
quiry, I shall give my Opinion how it is produced; ’.

As the Scythians are always on Horseback, and have their  
lower Extremities perpetually in a depending Situation ; these  
are much subject to receive a Flux of Hinhonrs, which renders  
them same, and, aS the Disorder grows inveterate, the Joint  
of the Thigh becomes immoveable. For a Cure they have  
Recourse to the following Method: When they hegin to he disor-  
dered, they open the Veins behind their Ears, and, when the Bleed  
has flowed sufficiently, they fall afleep through Faintness.  
When they awake, some find themselves relieved, and others  
not in the least better. Now it seems to me, that this Very  
Remedy destroys their Virility; for behind the Ears are Veins,  
which, if a Man suffers to be cut, he loses his generative Fa-  
culty, and these appear to he the Very same which they open.  
When therefore they approach their Wives, and find their Vi-  
rility fail, they are not muoh concerned at it the first Time,  
but betake themselves to Rest; but, when after several Essays  
they find the same Inability continues, they no longer doubt  
but they have offended the God, who they imagine inflicts this  
, Punishment upon them. They then put on Women's Clothes,  
and make no Secret of their Infirmity ; they live like Wo.  
men, and do all Fernale Offices. But this Misfortune seldom be-  
salis the poorer Sort, but only the Rich, and those of Distinc-  
tion amongst the Scythians, because these never stir but on  
Horseback, whereas the Poor are less subject to is, because they  
walk on Foot. Now if this Disorder in particular was sent  
by the Gods, it would Visit one Sort as well as another, or  
the Poor rather than the Rich, hecause the Poor pay much  
less Honour to the Gods, if it be true that the Gods take  
Pleasure in bring honoured by Men, and that they reserve  
their Blessings to reward their Worshippers. Indeed, they are  
the Rich who offer frequent Sacrifices to them, and load their  
Altars with Gists, which the Poor are unable to do, but in-  
stead *of* honouring the Gods are more frequently guilty ol  
accusing their Justice, because of the unequal Distributior  
which they make of Riches.' The Punishment for all thesi  
Crimes ought then rather to fall upon the Poor than the Rich  
But, as I observed thesore, this Disease is os Divine Origi

nal equally with all other Distempers, *for they* are all produced'  
by natural Causes; amongst which this Distemper *os* the Scy-  
thians is brought upon them in the Manner I have speci-  
find s and indeed the" same Cause produces the same effects  
in all other Countries ; for much Riding on Horseback ren-  
ders a Person subject to Tumors os the lower Extremities,  
to Sciaticas, and Gouts, and is a great Enemy to venereal  
Commerce, and this it is that renders the Scythians of all  
Mankind the most impotent. Besides, their Custom of  
wearing perpetually a particular Sort of Breeches, together  
with their Posture on Horseback, which is almost continual,  
prevents them from touching and warming tbe genera-  
five Organs with their Hands, when they require it; hence  
overcome by Cold and Fatigue, they think of nothing lest  
than' venereal Enjoyments, insomuch that a Deprivation of  
Virility is, in their Circumstances, rso great Misfortune. And  
this is the Case with Respect to the People os Scythia.

All the other Europeans are very different from one anl.  
other, both in Person and Stature, and this is owing to the  
Variations of Seasons, which are great and frequent among  
them ; for they have severe Winters, and -insupportable Sum- .  
filers, great Rains, great Droughts, and high Winds, which  
produce many Very considerable Changes, and these Changed  
must affect the tender Principles of Generation, in the origi-  
nal Formation of the Foetus, which are not always alike in the  
fame Persons, bring quite different in Summer from what they  
are in Winter, and in a dry Season from what they are in ‘  
one that is rainy. ‘ And this I imagine to be the Reason why ’  
the Europeans resemble one another less than the Asiatics, and  
why we find such a Difference in the Stature of People eVeri  
in the Very same City amongst uS; because there happen many-  
more Alterations, with Respect to. the Principles of Generation, '  
in Countries subject to those frequent Changes os Seasons,  
than where they are almost constantly equal. The same Rea-  
son will also account for the Difference in Manners ; Rusti-  
city, Unsociableness, Intrepidity, are produced by Climates  
much subject to Changes ; for frequent- and sudden Turns,  
and Alterations, in the Spirits beget Roughness of Manners,  
but extinguish Meekness and Delicacy. On the same Accounts  
I esteem the Inhabitants os Europe to be more courageous than ‘  
those of Asia; for a perpetual Equality of Seasons produces  
Indolence ; whereas frequent Changes stimulate both the Body  
and Mind to Action. Whence Cowardice is the Off-spring  
of Sloth and Indolence, but Courage is maintained by Exer-  
cise and Labour ; for these Reasons the European Nations are  
more warlike than those of Asia, because of their Govern-  
ment, for they are not subject to Tyrants like the Asiatics;  
and it may be laid down as a Maxim, to which there is no Ex-  
ception, that Slaves are necessarily Cowards, aS I observed a-  
have; because, by their Subjection, they contract a Meanness '  
of Spirit; hesides, it is not probable, that they should volun-  
tarily expose themselves to Dangers, in Support of another's  
Tyranny. But - the Europeans, who enjoy their Freedom,  
rush with Alacrity upon the most difficult, and dangerous En-  
terprizes, hecause the Hazards they run are purely for their  
own Sakes, and they themselves reap the Advantages of their  
Victories. In this Manner does the Constitution of a Go-  
vernment affect the Courage of those who live under it. And  
such is. the general State of Asia and Europe. There are;  
however, in Europe Nations which differ in Stature, Per-  
son, and Strength from each other; but the Cause of this  
Difference proceeds from what ψ have explained already, and  
shall endeavour farther to illustrate.

All such aS inhabit a Country which is mountainous, rough,  
elevated, and dry, and are subject to Very considerable Chan-  
ges of the Seasons, are consequently of a large Sire, and  
well suited to Fatigue, and manly Exercises, and their Const!-  
. turions incline them to be rustic and savage. Oh the Con-  
trary, those who inhabit a low Country, abounding with  
Meadows, and suffocating, hecause exposed more to the In-  
fluence os the hot than of the cold Winds, and where they  
drink warm Waters, can neither he large as to Size, nor  
muscular, but spread into infirm Flesh, and are inclined to  
he sat; their Hair is black, and they are rather os a black  
than fair Complexion; they are moreover less subject to be  
phlegmatic than bilious; such Constitutions therefore are not  
likely to be remarkable for Courage and Strength, though the  
. Nature of their Laws and Government may effect even this.

If their Country is furnished with Rivers, to convey away  
the stagnating and Rain-waters, they may he healthful, and  
of florid Countenances ; but if they have no Rivers, but are  
obliged to drink the stagnating and stinking Waters os Ponds,  
' they, unavoidably contract Diseases of the Stomach and Spleen.

\* This Disorder of the Scythians is mentioned by Herodotus, who idforins as, it was inflicted on them by the Goddess'Venus, as  
a Punishment, hecause, in some of their Wars, they pillaged her Temple. Herodotus calls it, as I remember, the φύλκια» νοὐσον, and  
Longinus quotes the Expression as an Instance of a beautiful Periphrasis. The Commentators on Longinus have taken a great deal of  
superfluous Pains, to explain away rhe obvious Meaning of this, and to extract either Filthiness or Obscenity from a Passage where  
no such Thing could possibly be intended. . .. -

**.a\* ‘ ‘ ss \* s. ' ~ s Z**

The Inhabitants of an elevated open Country, exposed to  
the Winds, and well watered, are large of Size, upright, are  
much alike, and or mild Tempers. Those who five in a  
Country which is barren, not well watered, open, and not  
subject to great Changes, are likely to here dr). Habits, and tense  
Fibres; and their Complexions more inclinable to be yellow than  
black; as to their Manners and Passions, they aresubject *to* be  
arrogant, and opinionated. For, wherever the Changes of Sea-  
sons are very frequent, and considerable, there we shall find  
the Inhabitants very different from each other, with Respedi to  
their Persons, Manners, and Constitutions.

These are the principal Causes which operate fo as to in-  
duce a Change in the Natures of Menand to thefe may be  
added the Soil, and Waters *of each* particular Country where  
a Person is bred ; for you will find, that Meo generally, both  
in Person and Manners, are affectsd by the Codntry they in-  
habit. Thus, wherever the Soil is sat, soft, and furnished  
abundantly with Waters, which are ponderous, and conse-  
quently hot in Summer, but cold in Winter, and the Sea-  
sons are. subject to no remarkable Alterations, there the Inhabi-  
tants are full of Flesh, enervated, moist, incapable of under-  
going Fatigue, and *of* corrupted Morals ; they are indolent  
and steepy, have no Genius for Arts and Sciences, and are  
wanting in Point of Vivacity, and Quickeefs of Apprctien-  
sion.

But whatever Country is naked, and destitute of Woods,  
and Coverts, barren, exposed to the Inclemencies of Winter,  
and the scotching Heats of the Summer, there the People here  
elastic Fibres, are lean, nervous, strong, and hairy ; they are  
allo ready and dexterofis at any Sort of Work, and vigi-  
lant. As to their Manners and Passions, they are daring  
and opinionated, and participate more of Rusticity than  
Delicacy ; they are ingenious, and quick at learning or im-  
proving Arts, and their Genius is warlike. And in thesame Manner, whatever is produced by' the Earth is mncb  
affected by the Parent Soil. And. thus it is with Regard  
to the great Differences we observe in the Natures, and Per-  
sons of Men. And these Considerations will lead na into a  
Knowledge of many other Things, of great Importance in the  
Art of Healing. *Hippecrates.*

\_ AERA. Άίμα. The Greek Name for Cockle, or Darnel.  
SeeLoLiUM.

AERDADL A Name, given to certain Spirits by Para-  
celsus, which he has imagined to he Inhabitants of the Air, and  
says, they enjoy a very long Life. He mentions these *Aerdadi*in his Treatise *de Vita langa, L.* 4. *C.* 3. amongst a grea t many  
other imaginary Beings.

AEREOLUM. A Weight of about two Grains. It is also  
called *Chalcus.* The Name seems derived from the Metal of  
which the Weight was made.

AERIFICATIO. It is the producing of Air from other  
Bodies, or rather converting them into Air.

AERITIS. ’As ami. The same as *Anagullis,* which see.  
*Garraeus.*

AEROLOGICE. That Part of Medicine which treats of  
Air, and explains its Properties and Uses in the animal (Eco-  
nomy, and its Efficacy in preserving or restoring Health. It  
is derived from ’Ary, Air, and Ahis, a Word, Dissertation, or  
Treatise.

AEROMELI. Ἀνὰμιλι, Honey. It seems to hew, gain-  
ed this Name from Virgil, who calls Honey *Aerial;*

*cr Protinus* aerii *Mellis, caelestia dona  
Exequar.*

Manna is also called by this Name. *Garraeus.*

r AEROPH OBI. From Ἀέν, Air, and Fear. Caeli.  
us Aurelianus, *Acut. More. Li* 3. *C.* I 2. says, some Phrenitics  
are afraid of a lucid Air, others of that which is obscure.  
These he calls *Acrophobi.* So that this *Aerophobia* is a Symptom  
os a Phrenitis.

AEROSIS. An imaginary Resolution of the Blood into Va.  
pout, fupposed necessary to the Support of the vital Spirits,  
and said to be brought about by the Ventilation of the Air dur-  
ing inspiration, in the Manner that the Flame of Fewel is kindled  
by blowing it.

As it does not appear there is the least Foundation for this  
Conceit, it would he superfluous to fay more about it. Those  
who desire to be farther informed, may coofult Charlton’s *Exer-*1 *citationes Phystco-Anatomicae.*

AERUGINOSUS. Of the Colour of Verdigreaso, Green.  
It is frequently applied to what is discharged by Vomit of that  
Colour. See VoMITUs. And to the Bile. See BrLIs.

AERUGO. Rust of any Metal, particularly of Copper,  
called Verdigrease. SeeAEs.

AES. Copper. This is ceded CupRUM in Latin, χαλνες  
in Greek, and *Versus* by the Chymists ; is one of the ignoble  
Metals, softer than Iron, sonorous, of a red Colour, shining  
when polished, fusible and ductile to a very great Degree.  
It is sometimes sound pure in the Mines, in Form of small  
Rods, Branches, Globules, or Masses of other Figures ; but

most Commonly it is contained in a Rind or Pyrites, or par.  
ticular Ore. This Pyrites is in some Mines of a shining  
Gold-colour, but is hot on that Account to he esteemed more  
rich, becaofe that Colour is owing to a combustible Sulphur.  
Other Copper-ores are yellow, violet, or purple, and some  
are blackish, and mixed with Gold-coloured Sparks, or Veins,  
intermingled with green. Copper is seldom sound alone, -  
but is generally accompanied with some other Metais, such  
as Silver, Iron, or Lead, and with a large Quantity os com-  
bustible Sulphur, very difficult to be separated from it. Copper-  
ore is differently managed, according to the Substances mixed  
with it. If it abounds with Sulphur, it undergoes repeated  
Calcinations, till all the Sulphur is confirmed. The Copper-  
ore of Gosicar in Germany is fust broke into Pieces of the Size  
of a Man’s Fist, then burnt in an open Fire, made *os* Wood  
and Charcoal mixed together, and, heing afterwards broken  
into smaller Pisces, it undergoes two Torrefactions more. Af-  
terwards it is melted into a stony red Substance, called *Lapis  
Cupri* ; which having.suffered another Torrefaction,. and being  
aster that melted again, hecomes biack Copper; which, after a  
a fifth Torrefaction, becomes quite free from its Sulphur, het  
still contains Silver. This Silver is extracted in this Manner .  
They mix with the Copper about four Parts of Lead, more  
or less, according as the Lead they use is more or less free  
from Silver.

These Metais thus mixed are melted together by a vehement  
Heat, and then poured out into Moulds, where they harden in-,  
to a Kind of flat Cakes. These Cakes, covered with Charcoal  
in a proper Furnace, are heated with a gentle Fire, till the  
Lead and Silver, melt, and, leaving the Copper, fall down  
into a Vessel fet to receive them. The Copper remains un.  
melted like a Spunge or Honey-comb ; and in this State it st  
termed *Asts pauperum,* and is by repeated Fusions brought to be  
malleable Jn this last Operation, some Scoria: appear, which  
are specifically heavier than the Mass consisting of Copper,  
Silver, and Lead. These Scoriae are afterwards melted with  
a Mixture of Litharge, and by that Means the several Me-  
tals it contains are separated.

There are some Springs of Copper-waters, of which Vitriol  
is made by Boiling, and Copper may he precipitated from them,  
by Means of Iron, which has made some Persons imagine, that  
these Waters turned Iron into Copper. There is a famous  
Spring of this Kind near the Carpathian Mountains on the  
Confines of Hungary, the Waters of which corrode Iron thrown  
into it, and in Place thereof substitute Copper; fo that a Horse-  
shoe that has fain several Days in this Water shall, when  
taken out, appear not to be Iton, but Copper.

The richest Copper-Mines are in Sweden and Germany.  
Copper is-foster than Iron, but harder than Lead or Tin.  
It ignites or becomes red-hot in the Fire before it melts. Its  
specific Gravity is to that of Gold nearly as Foor to Nine.  
When exposed to Moisture, it contracts a Rust of a green Co.  
lour, which, when handled, has a very disagreeable Smell,  
and an austere, sharp, nauseous Taste. A Solution of'  
Copper by acid or fixed alcaline Salts is green, but, when  
made by urinous Salts, it is of a beautiful blue Colour. Fil-  
ings of Copper, thrown into the Flame of a Candle, burn  
and emit a greenish Flame, but do not sparkle ; when melted  
with Nitre, they flash a little. If we mix one Part of Fil.  
ings of Copper with something above two Parts of corrosive  
Sublimate, and distil them in a glass Retort, the Quicksilver  
disengaged from the Salts comes over in running Mercury ;  
but the Copper remains at the Bottom intimately united to the  
Salts, in Form of a yellowish or reddish Rosin; sometimes  
transparent, sometimes opake, which by the Flame of a  
Candle may he melted, and set on Fire; the Flame it gives is  
os a green Colour. Copper,-calcined long by a very strong Fire,  
till it loses all its Sulphur, turns to reddish Assies, which.being  
exposed on a Tile to the Focus os a great Burning-glass, turns  
to an intensely red Glass almost opake. If this Glass he melted  
on a Piece of Charcoal, in the Focus of the same Glass, it re-  
covers its Form of Copper. From these Things we may con.  
chide, that Copper contains a large Quantity of combustible  
Sulphur, though not so much as Iron, and that the metal-  
lic Substance is a red vitrifiable Earth. Copper, exposed to the  
Fumes of Quicksilver, or of Arsenic, acquires a Silver-colour,  
which is not permanent; melted with Lapis Calaminaris, or  
Zinc, it turns of a yellow, or Gold-colour j the different  
Ways of doing which are related in the Articles *Cadmia* and  
*Zinc.* See CADMIA. See ZINc.

Copper, because of its great Ductility and shining Colour,  
is much employed in domestic Uses ; but is never used inward-  
ly as a Medicine, unless in Tincture, because mis Metal, and  
especially its Rust, arc reckoned Poisons ; and any Kind of  
Food, or even Water, that has stood Jong in Copper Vessels, is  
pernicious. The Symptoms, produced by this Poison, are Pains  
in the Stomach and Intestines, excessive Vomitings, Irritati-  
ons to Stool, Ulcers in the Intestines, sometimes Difficulty  
of Breathing, and spasmodic Contractions of the Limbs, and  
lastly Death itself, if the Quantity of the Polson he great.

**The** remedies proper in such Cases are, first, to take a great  
Quantity of Mills, Oil, or melted fresh Butter; then to drink  
warm Water till the Patient Vo mi is plentifully. Cly stars made  
with Oil, Butter, or sat Broths, are likewise proper, and lastly  
strengthening Cordials, and a Milk-diet.

Various Recrements of Copper were prepared by the AntientS,  
and employed in Medicines such as *AErugo, Flos AEris, AEs  
Ustum, Squama AEris*; of which the *Flos, Squama,* and *AErugo*are mentioned by Hippocrates; but the *AErugo,* or Verdigrease,  
is the only Recrement now much in Use. It is a green Rust,  
raised on Copper-plates ; the Method of making it is thus:  
The Husks, Stones, &c. of Grapes, heing first dried, and af-  
ter dipped in some strong Wine, are laid for nine or test  
Days in wooden or earthen Vessels, till they begin to ferment.  
Then heing squeezed together with both Hands, they are  
formed into Balls, which are put into proper earthen Pots,  
and Wine is poured upon them, till about half is co-  
Vered ; the Vesseis have a straw Lid thrown over them,  
and are set in a Wine-cellar, where the Balis are left in Ma-  
ceration for twelve or fifteen Hours, heing turned every foist  
Hours, that the Wine may penetrate every Part of them.  
After this the Balis are raised about a Finger's Breadth above  
the Surface os the Wine, and set upon wooden Bars; the  
Vesseis are then shut again, and left in that State for ten  
or twelve Days more. After which Time, the Balis emit  
a strong and penetrating Scent, and are then fit for dissolv-  
ing Copper. For this Purpose they are broken and bruised  
with the Hand, that the outer Part of them, which is driest,.  
may he exactly mixed with the inner, which is still moist  
with Wine ; then they are stratified with Copper-plates in  
the same Vessels upon wooden Bars, the Plates making always  
the lowest Stratum, and the, Balis the uppermost. The Plates  
are four Inches long, and three broad ; and, if the Copper he  
mew, they must he previoufly buried for twenty-four Hours  
in Verdigrease, and then heated a little in the Fire, The  
Vesseis being- filled in this Manner, and shut close, are lest  
without any farther Management, till the Verdigrease is made.  
Which happens sooner or later, according to the Nature of  
the Copper. Some Copper yields its Rust in six or seven  
Days 5 some requires twelve Or fifteen Days. The Verdin  
.grease thus compleatly extracted, the Plates covered therewith  
are taken out ' of the Vesteis, and their Edges moistened with  
the strongest Wine; they are then wrapped up in linnen  
-Cloths, dipped in the same, and laid in a Wine-cellar for  
three Weeks.' By this, the Makers tell us, the Verdigrease  
is nourished, and then it is separated off from the Plates with  
Einiyes, and kept for Use. \_ . \_

Verdigrease is used by Painters find other Artists, but is sel-  
dom prescrihed inwardly by physicians. It is often used out-  
wardly to deterge and dry Ulcers, and to eat away fungous  
and callous Flesh. It is the principal Ingredient iff the Un-  
^uentnm TEgyptiachm. *Gecs.froy. si .*

The Directions of Oribasius from Antillus, with Respect  
to the Use os Verdigrease in Plaisters, is, that it must not  
he added to the other Ingredients, whilst boshing, but the Ver-  
digrease must he pot into a Mortar and rubbed wish Vine-  
gar, and the Other Ingredients are to he poured upon it, and  
mixed with it. - . - so ..... fr

'' Verdigrease is reckoned among Emetics, by Oribasius, *L.*7. *C.* 26. And amongst Cicatrisers, A. i4. *C. ofj.*

Actuarius recommends it for ficous and callous Disorders os  
the Eye-lids. - 'si .

. Verdigrease shews its acrid Quality by the 'Taste. *Tt* diseuso  
fes, takes ofl, and consumes hard as well as tender Flesh. A  
- little of it, mixed with a good Quantity of Cerate, makes an  
extersory Medicine without Mordacity. *Paulus AEgineea,* X. 7.

oribasius says the feme Thing in nearly the same Words.

**Z. 2. Co i. ' .**

The natural Verdigrease is a greenish Marchasite, like  
the Drops of Iron, and is found in Copper Mines, and is  
of no Use. . 'Ἀ

.. The greatest Part of the Authors who have treated of Ver-  
digrease tell us, that it is made with Vinegar, which is not  
true, for the best Wine is not too good for it; and this is  
fo true, that there is scarce any but Languedoc Wine that  
will make good Verdigrease. It is in and about.Montpellier  
spat the greatest Part of the Verdigrease, used in France and  
other Countries,- is made, and it is a Commodity very dif-  
ficult to make, and to hit right, although it seems as if no-  
thing were more easy; for, if ever so little happens to be  
wrong, it grows greasy and black, and good for nothing, and  
Will never come to a true Consistence.

There are some Authors, who say, that one may make  
Verdigrease, by putting Plates os Copper in a Crucible, with  
Salt, Sulphur, and Tartar, which heing calcined and cooled;  
the Plates are converted into a very good Verdigrease; but  
thefe Operations, supposing them to be true, are at present  
of no Use, because all the Verdigrease we sill, is made in  
the fore-mentioned Manner, t -

We have two .Sorts, of Verdigrease from Montpellier, th\*  
one in Powder, the other in Coke: If it is good, it must .  
be dry,, of a beautiful deep Green, and with sew white Spots.  
Verdigrease is a Merchandize that loses a great deal by dry-  
ing, and this makes those who deal in it. mix several Things  
with it, and render it so moist, that the Merchant loses much  
by the Waste, hesides the Skin which covers It, for winch  
they pay as much as if it were Verdigrease. Therefore they  
who use it should consider .its Goodness, and not stand up-  
on the Price ; for J can affirm, .that there is no Coke of Ver..  
digrease, such as they send from Montpellier, that weighs twen-  
ty-five Pounds, but; aster it is dry, has -lust, a third Part ; so  
that the Verdigrease that cost twenty Pence, when soft, will  
be near twenty-eight. Pence, when hardened. ...

Verdigrease is a Drug much demanded, and the Quantity  
of it that is used is almost incredible, not only in Physic,  
but by Dyers, Skinners, Hatters, Farriers; and Painters ; but  
it is remarkable, that Verdigrease. aione, ground with Oil,  
Cannot he used; so that it is absolutely necessary for Paint.-  
ing, to add white Lead to it, for otherwise, instead of heing  
green, it would be black. As for the Properties of Verdi-,  
grease, one of them is Eating off dead Flesh. They who co-  
lour Paper green, make Use of Verdigrease and white Tartar to  
give it that Colour. . . . . .

The Apothecaries who have. Occasion for Verdigrease in  
the afore-mentioned Compositioris, and others, instead of .the  
Powder, may difiblve it in Vinegar,, and strain it through.a fine  
Sieve, and so avoid, in reducing .it. to Powder, the Effects  
of the ill Quality of the Dust flying from. it... *Pomet. .... .*

It deterges powerfully, consumes proud Flesh, attenuates and  
resolves, and is used only in external Medicines; it is sharp .  
and digesting, and Cicatrises Ulcers, heing mixed with Oil and  
Wax. . .. ...

It is of good Use in the Gout, heing disiblVed in fain Water,  
and used warm to the Part.

It cures Diseases of the Eyes, and effectually takes off Pearls ✓  
and Films. But before you use it for the Eyes, or for Wounds .  
or Ulcers, you must purify it after this Manner : Powder it,  
and put upon, it .Spirit of Vinegar; six .or seven Times its  
-Weight, digest till'the Vinegar, is tinged Very green, which  
decant, and cast away .the Faeces;.then evaporate the Vine-  
gar in a brass Vessel, and so you will have an excellent Ver—  
digrease at the Bottom, of which One Ounce is worth ten Oun-  
ces of the other.

*'Take* of this fine Verdigrease, a Dram I Spirit Os Sal Antis  
moninc, half an Ounce; Alcohol of Wine camphorated,  
two Ounces; mix them for a Collyrium to wash the  
Eyes. Take the White of an Egg, beaten well with  
Spring-water, four Ounces, and add to it Saccharum Sa-‘  
turns, ten Grains; white Vitriol, six Grains; and so  
/many Drops of this Collyrium as may make it of an  
azure Colour, with this wash the Eyes two, three, or four  
Times a Day. . ! . .

This fine prepared Verdigrease heing made into an Oint-  
rnent with Honey, Juices of Vuinerary Herbs, Vinegar,-and  
abstersive Sulphur of Vitriol, is applicable to weeping Wounds,  
Ulcers in the Joints, &c. *Lemery.*

Of VERDIGREASE CRYSTALLIZED.’ ' '

The crystallized Verdigrease, or Crystals of Verdigrease, *of .*as it is called by Merchants and Painters, calcined or distilled  
Verdigrease; is Verdigrease dissolved in distilled Vinegar,’ and  
afterwards filtered, evaporated, and crystallized in a. Collar.  
These Crystals are of some small Use in Physic; Io Consume  
dead Flesh. They are likewise used by Painters to make a  
green Colour, especially in Miniature Pictures.

All ’the Crystals of Verdigrease that are sold in Paris, Come  
from Holland or Lyons, and are not unlike Sugar-cantry,. ex-  
cept in Colour, especially to that which is on Stinks: Thefe  
Crystals, if good, are beautiful, clean, and transparent, very  
dry, and free from Sticks. It must he observed, that the Verdi-.  
grease which the Apothecaries make is reduced to Crystals  
by the Means of a Collar, whereas that which comes to Pa-  
ris is made after the Manner os Sugar-candy, as I have heen  
informed. '

*I* cannot tell whet has. induced the Merchants to call these  
Crystals distilled or calcined Verdigrease, seeing it is neither di-,  
stilled nor calcined, but made after the Manner above-men-  
tioned. ....

They likewise make Crystals of Verdigrease by dissolving  
Copper granulated in Spirit of Nitre, find afterwards evapo-  
rating to a Pellicle, and setting it in a Cellar to crystal-  
line. . . . -

If you would reduce these Crystals to a Liquor, after hav-  
ing dried them, you must carry them back to the Cellar,  
to resolve thein into a Fluid; and this Liquor is called by  
the Apothecaries and Chymists, the Liquor of Copper, or Ve-  
nus, and the Crystals, the Vitriol of Venus, or Copper. *Pomet.*

Of **AERUGO** ScoxEciAJ

There are two Sorts of *AErugo Salecia*; one is a Fossiher  
dthe other factitious, and made aster rhe soflowing Manner:

Put a Quarter of a Pint of strong White-wine Vinegar ini-  
to a Mortar of Cyprian Copper, which has a Pestle of the  
same Metal, and mb it about till in grows Viscid and ropy;  
than put to it a Dram of round Alum, and the like "Weight  
of transparent fossile Salt, or the whitest solid Sea-salt, or at  
least Nitre; beat them well in the sun, during the Heat of  
Ihe Dog-days, till they take the Colour of Verdigrease, and  
become of a ropy Substance; than draw it our, and make  
it up in the Form of Worms, such as breed on Rose Bushes,  
and keep it *for Use, It* acquires the more-Virtue, with a *very*fine Colour, if two Thirds of stale Urine he mixed with one of  
Vinegar, and the rest managed aS before. Some rake their  
*AErugo Rasilis* that was spoiled or damaged in working, and  
make it up with Gum, and fell it ; but have a Care of the  
Cheat. The Goldsmiths also make a Sort Of Verdigreafe,  
to solder Gold, of a Boy's Urine, with a Conner Mortar and  
pestle. ; *rrcr*

All these Sorts Of Verdigrease answer the Purposes of the  
*Acs Ujsum,* but more effectually. Among them the *Fascsile SCo-.  
lecia* is the most esteemed, the *Rasilis* takes the second Place,  
and the *Factitious* the last, which is the most biting and astrin-  
gent ; but the Goldsmiths Verdigrease answers to the *Rasilis. !*

They are in general Of an astringent and heating Nature -  
they eat away and attenuate Cicatrices in the Eyes, excite Tears,  
cheek phagedenic Ulcers, preserve Wounds from Inflammation -  
mixed with Oil and Wax, they bring Ulcers to cicatrise ; boiled  
with Honey, they deterge foul and callous Ulcers; applied as a  
Collyrium *(See* **COLLYRIUMJ** with Gum Ammoniac, they  
-consume the Callosities of Fistulas ; they help Swellings and Ex.  
crefcences of the Gums ; mixed with Honey, they mightily  
reduce the Swellings of the Eye-lids that are anointed there,  
with ; but then, aster Anointing, they are to .he fomented with  
a Sponge dipped in warm Water; compounded with.Refine of-  
Turpentine and Copper, or Nitre, they cure the Leprosy.

’ Wherever Sort of Verdigrease you use, must first he burnt -  
In the following Manner: Haying broken it into very small  
Bits, set it over burning Coals in an earthen Pot, and stir it  
about till it turn to a Sort of an Ash-colour; then take It off,  
-and when it is cool set it aside for Use. Some burn it in  
an earthen Pot never burnt hefore, but then it does not al-  
ways take the same Colour. *Diofcorides. fa* 5. *C.* 92,

Of 7ERUCO RASILIS.

*AErugo Rastlis* is prepared the following *VMys* : Put some of  
the strongest Vinegar into a Firkin, or fuch like Vessel, and  
*set* over it a Copper Pot, inverted, well scoured, and without  
a Vent-hole; it is heft if the Pot he hellied, but a cylindri-  
cal one will serve the Turn. After ten Days, remove the  
Cover, and you may scrape off the Verdigrease that sticks  
about it. Or, hang a Copper Plate in the Vessel over the  
Vinegar, so as not to touch it, and after the same Space of  
Time scrape off the Verdigrease, or put one or more Lumps  
or-Plates of Copper into stale Hulks of Grapes that are grow-  
ing four, and turn them in like Manner. Verdigrease may  
also he made of Filings of Copper, or Plates on which Gold  
is hammered into Leaves, by sprinkling them with Vinegar,  
and turning them three or four Times, till they contract a  
Rust on all Sides. It is said, that two Sorts of Verdigrease  
-are produced in the Mines of Cyprus; one that sticks upon  
the Stones which have a Mixture of Copper in them, and  
another Sort that in the Dog-days distils from a Cave in a  
Rock : The first Sort, it seems, is excellent, though but little  
in Quantity ; the other, though plentiful and of a fine Co- -  
lour, is vitious, bring mined with much stony Matter..

Verdigrease is adulterated many Ways, especially the fol-  
Iowing: Some min with it Pumice-stone, others Marble, or Vi-  
triol. But you may find out the Pumice-stone and Marble, by  
wetting your left Thumb, and with the other rubbing on it a  
little os the Verdigrease ; for this will dissolve and run, but the  
Marble and Pumice-stone remain undistoluble, and with con-  
tinued Rubbing and Wetting grow white. Or you may dis-  
cover this Defect by biting it, for the pure Verdigrease feels  
smooth, without the least Roughness under the Teeth. But  
the Vitriol is discovered by the Fire; for if you rub a Plate of  
Metal, or Tile, with this vitiated Sort, and set them on hot  
Embers, or Coals, what is mined with Vitriol will turn red,  
because Vitriol burnt naturally takes that Colour. *Diofcorides,*X.5. C.9I.

‘ Oribasius transcribes this literally from Diofcorides,  
Of BURNT'COPPER.

The *AEs Ustum,* or burnt .Copper, is made of red Copper  
cut into Plates, and put into a- Crucible with Sulphur, and  
a little common Salt, Stratum super Stratum, and put into a  
Eerce Charcoal Fire a and-when the Sulphur is burnt away.

and the Copper talren out, it is of an iron Colour without,-arid  
of a reddish one within, 'shining, and very brittle.

The *AEs Ustum,* if it he good, should he inoderately thick,  
and of the Colour before-mentioned; and, being rubbed, should  
make a Red like that of Cinnabar, which it cannot do, unless  
some Salt he put to it. This is the Secret *os* the Dutch, where-  
'by.they make it better than they do in other Places.

. The *AEs Usium* is of some small Ufe in Physic, because It is  
detersive; but they who make Use of It, make it red-hot in  
the Fire nine Times, and quench it as often in Linseed Oil;  
and, reducing it to Powder, ufe it for eating off dead Flesh ;  
and they call this Powder of the *AEs Ustum* so prepared. *Crocus,*or Saffron of Copper. *Pomes.*

Good Burnt Copper is red, and, when rubbed, takes the  
Colour of Cinnabar ; the Black is burnt too much. It is  
prepared of the Nails taken out of Ships that are broken tip\*  
These Nails are laid In an earthen Pot never baked, with  
Sulphur and Salt in equal Quantities strewed under them, and  
said Stratum super Stratum. The Pot bring covered, and the  
Lid well closed around with Potters Clay, is set in the Fur-  
nace, till it he thoroughly baked. Some, instead of Sulphur  
and Salt, use Alum ; others burn theNaiis laid in the Pot,  
without Salt or Sulphur, for several Days together; others,  
again, burn them with Sulphur only, but then the Nails' are  
stained with a sooty Colour. Some anoint the Nails with scis-  
sile Alum, and, with an Addition of Sulphur and Vinegar,  
burn them in an earthen Pot never baked. Lastly, others  
sprinkle the Nails with Vinegar, and burn them in a Cop-  
per Pot three Times over, and then lay them by.

The best Burnt Copper is made at Memphis, the next in  
Cyprus. It is of an astringent, drying, attenuating, repres-  
sing, drawing, cleansing Quality, and brings Ulcers to cica-  
trise, wastes Excrescences on the Eyes, consumes, luxuriant  
Flesh, and restrains spreading Ulcers. Drank in Hydromese  
or taken in a Linctus, or mixed with Honey, it gives a Vo-  
mit. It is washed like the Cadmia, changing the Water four  
Times a Day, till no Froth arise. The Scoria, washed after  
the same Manher, acquires the same Virtue, but in a less Degree.  
*Diofcorides,* X. 5. Co 87.

**Of the MOUNTAIN, or SEA VERDIGREASE. -**

The Mountain or Hungarian Verdigrease, is a Sort of  
greenish Powder in Grains, like Sand, which is found in the  
Mountains of Kernausen .in Hungary, and comes from Pres-  
hourg to Poland. It is found likewise In the Mountains os  
Moravia ; and some will have it, that what the Antients call  
Flowers of Brass, was made by throwing Water, or rather  
Wine, upon Rose Copper, whilst red, that is to say, as in  
comes out of the Furnace ; and that this Flower, or Mountain  
Verdigrease, IS gathered and found sticking to other Plates of  
cold Copper, which they place Over them, in small Grains  
like Sand ; and that this is made by Vapours which .arife, when  
they throw. Water or .Wine upon the hot Copper, and that in  
is this which makes, what we Call Rose Copper, to he so fin-t  
smooth, and to he full of little Figures. Others affirm, that'  
this green Powder was Plates of Copper dissolved in Wine,  
which was made almost after the same Manner as Verdigrease ;  
but as I know no more of it, I shall only say, that such is to *be  
made* Choice of as IS dry, -os a high Colour, well granulated^  
that is to say, like Sand, which is the Mark of natural Moun-  
tain Verdigrease, and makes the Difference betwixt that and.  
the artificial, which some make by pulverizing Verdigrease, and,  
putting a little white Lead amongst it. .

The Verdigrease of the Mountain is of no other Use but in  
Painting, principally for making a Grass-Green ; and there  
fore it is that most of the green Painting we see in Gardens iS  
done therewith. ‘ " sp

As it is a dear Commodity, 2nd comes from several Parts, so  
there are different Sorts of it, and different Prices ; therefore  
they who use it should regard the Qualities of it,, rather than  
the Cheapness. *Pomet.*

**Of the FLos AERIS» . su'**

*Flos AEris Osifidinar.* is nothing bnt Copper reduced to smast  
Grains like Millet-seed ; winch is done by pouring cold Water  
upon melting Copper, which thereupon immediately flies every  
Way into Grains, which are" collected and kept for Use.  
*Geoffrey.*

The *Flos AEris,* which some of the Antients called the *Offal*[τηγμα] *of the Nails,* is best when it Jin friable, of a deep Yel-  
low when rubbed, like a Grain of Millet, small, ponderous,  
and moderately shining ; which is not intermixed with Filings  
of Copper, with which it is Often adulterated. The Fraud is  
discovered by the Filings giving Way, and dilating under the  
Teeth. The *Flos* is obtained, when the Copper, aster Fusion,  
runs from the Furnace to the Receiver, through the Strainers of  
the Pipes that belong to it: For, at that Time, the Overseers  
of the Works for refining of Metals pour sair Water upon is,  
to refrigerate it. \_ The Metal by this sudden Check condenses,  
concretes, spurts, and, as it were, spues out the *Flos,*

- it lias an astringent Quality, and restrains Excrescences. It  
clears the Pupil of the Eye of Things which darken the Sight,  
but is of a Very Corrosive Nature. Given to the Weight *of*twelve Grains, it expels gross Humours. It consumes fleshy  
Excrescences in the Nostrils, and in the Anus. Taken in Wine,  
it restrains Eruptions. The Powder of the white Sort, blown  
into the Ear through a Pipe, helps an inveterate Deafness 7 and  
applied with Honey, represses Tumors of the Uvula and Ton-  
fils. *Dioscorides, L. ζ. C.* 88. ... **4; ;.**

Pliny takes his Account of the *Flos Airis* from Dioscorides.

Of the SQJrAMA 7ERIS. ...

*Squama AEris Qffidn.* is little different from *AEs Ustum, br-*ing only the Particles of burnt Copper that fly off while it is  
hammered. These *Squamae,* or instead thereof, the Filings  
of Brass, mixed with Sulphur, and the Powder of Florentine  
Orrice, and wore in the Shoes, cure stinking Beet; but this  
Practice may he attended with great Inconvenience, for, by  
checking suddenly that stinking .Sweat, Diseases Of a worse  
Kind may ensue. *Geoffrey.*

The *Squama* produced in the Cyprian Copper-Works,  
which is thick, and goes by the Name of *Helitis,* is of a good  
Kind. Bur whet comes off in the Working Of white Copper,  
bring thin, and of little Substance, is accounted of no Value.  
Therefore, rejecting this, we are to chuse what is thick, of a deep  
Yellow, and will rust with the Sprinkling os Vinegar.

‘ It represses, attenuates, stops the Progress Of eating Ulcers,  
suppurates, and cicatrises. Drank in Hydromel, it purges Wa-  
ter.1 Some give it made up in Meal in the Form of Pillai It  
has a Place also among the Collyria Or Medicines for the Eyes,  
for it takes away the Roughness of the Eye-lid, and dries up  
Rheums. x

The Washing ofit is thus performed: Put half a Pound of dry  
*Squama AEris* cleansed into a Mortar with Water ; stir it well  
about with the Hand till the *Squama* subside. Fling away what  
fwims at the Top, and, pouring off the first Water, put in a  
small Glass-full [Iry of a Pint] of Rain-water, and with your stat.  
Hand rub the *Squama* in the Mortar, as if you would reduce it  
to Powder. When it hegins to grow Viscid, pour in now and  
then a little Glass of Water, till it amount to six Glasses, or half  
a Pint, rubbing strongly all the while. Then take the *Squama*in your Hand, and rub it well against the Side of the Mortar,  
and, there strongly pressing it, receive all the Moisture that  
comes from thence in a Box of red Coppers This is, as it  
were, the *Flos Squama,* heing full of Virtue, and most effectual  
in Distempers of the Eyes ; whet is left is of littie Values  
However, you may continue to wash it, till it will grow no  
Ionger Viscid, and then cover it with a clean Cloth, and lay it  
"aside for two Days, after which, letting the Water that stands  
upon it run off, when it is sufficiently dry, keep it in a Box for  
Use. *Dioscorides, L.* 5. Co 89.

The most usual Medicines, prepared with Copper, are the  
*Green Precipitate,* described among the Preparations os Mercti-  
by, and the *Ens sicneris* of Ms, *Boyle,* which is made in this  
Manner:

Take of Colcothar, made of blue Hungarian, or Copper Vi-  
triol, well calcined and washed, two Drams ; os Sal Am-  
moniac, sour Drams; mix them well, and sublime the  
Flowers three, Times, by cohohating them on the *Caput  
Mortuum,* The Dose is from one to six Grains. These  
Flowers are much Commended by Boyle is. the Rickets,  
and are said to be a powerful Remedy in a Virulent Go-  
horrhoea. ... ..

**. The** *Tinctura Cornlea,* or *Collyrium Cooruleum,* is made from  
Copper, Sal Ammoniac, and Lime-water. . It is used for Dis-  
eases of the Eyes, to stop Gonorrhoeas, and to deterge and dry  
Ulcers. *Geoffrey..* , . ' '... ... i

Thin Plates of Copper infused all Night in Lime-water only,  
or in Lime-water mixed with Volatile Salt, or/Spirit Of Sal  
Ammoniac, make an admirable *Collyrium* for the Eyes, to wash  
with against Mista, Clouds, Films, Pearls, Suffusions,*etc.Lemery.*

The Chymists dream, that a-red Sulphur Is. contained in  
Copper, called by Helmont, *Lgnis Veneris,* and *Sulphur Philoso-  
phorum,* which, he says, prolongs Lise.. They try to extract  
this Sulphur for two Reasons ; first, to obtain thereby a sove-  
reign Remedy in all Diseases, and a present Anodyne in all  
Pains: Secondly, 'To deprive Copper of its red Colour, and  
make it a white Metal, resembling Silver. Put I can' find no  
Other Sulphur in Copper, except that bituminous inflammable  
Substance common to all Metals, and, indeed, to all combustible  
Inixt Bodies. In giving such large Encomiums to this Sui-  
phur, the Chymists therefore only shew their own Ignorante,  
sor the red Colour of Copper is owing to the Earth, not to the  
Sulphur contained in it ; and it is perfectly Vain to pretend to  
extract a fixed Sulphur from that Metal ; for these red Tinctures  
are only the Copper Itself divided into very small Parts, and  
suspended in different Menstrua, aS appears by precipitating  
these Particles.. ;.They have likewiin.Vainly endeavoured IO rob  
-Copper of its red Coat, as they term it ; what they .call white

Copper, does not Owe that Colour to the Loss of its *red Sai..*phur, but to the Addition of a white Earth, found in the fixed  
alcaline Salts, which they make Use of. This Becher has  
very well observed. *Geoffroy.*

The Solution of Copy ER in distilled ViHE CAR, from  
*Boerhaave.*

\ Take a large glass Body, cut foe as to have a very wide  
Mouth, with an alembic Head answering to it; in this Head  
put thin Plates of Copper, so aS to stand somewhat erect, , with-  
out falling, all around the hollow Part of the Ledge. Put Vi-  
negar into the Body ; set it in a Sand-heat, put on the Head  
with the Copper-plates, apply a Receiver, and distil with,A  
gentle Fire for twelve Hours, the Vinegar then comes. over  
green, and, if the Operation is continued for a sufficient Length  
of Time, the whole Substance of the Copper will be dissolved.  
The Liquor thus procured filtered, and inspissated with'.a mo-  
derate Heat, acquires a green Colour, like that of an Emerald R  
but \_ of a disagreeable nauseous Smell, and the Very smallest  
Drop ofit proves instantly emetic. The Plates; being dried,  
yield an *AErugo,* or Flower os Copper, but not the true Ver-  
digreaseof Copper, which is made only at Montpellier, in the  
Manner above described. .. . . .

*Is* the common Verdigrm.se os the Shops be boiled in a tali'  
Bolthead with pure distilled Vinegar, fill a Tincture is extract.,  
ed, and if that is poured off, and fresh Vinegar added, and  
boiled again, and these Operations repeated, till the last Vine-  
gar by boiling will he tinged no longer, there will then remain '  
a good deal of indissoluble Matter, at the Bottom j and this de-  
monstrates something is miked with the common Verdigreaher  
and that it is adulterated. If all these tinged Liquors are de-  
purated by Filtration, and are then distilled till there remains  
only one fourth Part, they make a strong Liquor os Copper. .

From this Process, we learn the great Solubility of Copper,  
end the Origine Of Verdigrease; and, because Copper so readily  
grows green with Acids, this furnishes ns with a Method of dis-  
covering this Metal (which has a surprifing emetic and purgative  
Quality) when it lies concealed In Silver. If watery, lax,  
sanious. Virulent Ulcers are touched with this Liquor, it helps  
to quicken, contract, dry, and cleanse them,

etThe Solution of COPPER by SAL AMMONIAC.

With one Part of Filings of the purest Copper, mix three os  
Sal Ammoniac, pour upon it four Pasts os clean Water, in a  
Cucurbit cut for the Purpose, and, with a moderate Fire, dry  
the Paste, and then suffer it to diflolye again in the Air. Re-  
peat -this Resolution and Exsiccation many Tithes,- and you  
will at last obtain almost an intire Solution of the Copper.  
Poll this Mixture in Water, filter it, and inspissate it a little,  
and a blue Tincture will he procured; and if, according to Art,  
you bring this to crystallize, you will have soine beautiful Crys-  
tals Of Copper. ; .: . .

., This Process shews how Copper and Salts act upon each Other,  
This Liquor is the famous Anti-epileptic for Children. If *Λ*sew Drops of it are given to them sasting in Mead, it Operates.  
by Stool, excites a Nausea, and has a considerable Effect upon  
their languid, tender Stomachs, which it stimulates, and brings,  
away any Water, or Mucus lodged therein, and in the Irites-  
tines,- and destroys Worms. By this, therefore, seine bad IIai  
bits of Body, and some Kinds of Epilepsies, are cured.

...- The Solution of COPPER in ΑςατΑ FoRTIs.

To common *Aqua Portis,* or Spirit of Nitre, in in cleaii  
glass Vessel, add a small Quantity of very fine Filings of pure .  
Copper. Upon this there will arise a prodigious Effervescence  
with red Fumes, and in an Instant the whole Liquor will ac-  
quire a beautiful green Colour. Proceed in this Manner till the  
last Portion thrown in will no longer inoreafe the Greenness.  
When the Liquor is depurated by standing quies, and filtered\*'  
evaporate it to one half. - . -

... Here we see the effect os the Acid of Nitre upon Copper.  
This Tincture proves-an Emetic in the Very smallest Quantity,  
It kills all Insects, and hence, if *it* is diluted with a good Deal  
of Water, it expeditioinly destroys Fleas, and Lice, both thecommon Sort, and the flat ones that breed upon the Pubes. It -  
has the same Effect upon Ulcers as the Vinegar of Copper ; but.  
must be used with Caution.

.. . The Solution of COPPER in AQUA REGIA;

Into *Aqua Raegus,* or Spirit of Salt, throw Filings of Copper,  
find proceed as in the former Process, 'and the Effect will ha  
just the same.

Hence it appears, that Aqua Portis and *Aqua Rapifo* dis-  
solve Copper alike. There is no Ground, therefore, sor the  
Opinion of those Chymists, who, from an imaginary Diversity  
in them, have pretended to give the Reasons why one dissolves  
Gold only, and the other Silver. This certainly arises- purely  
froth the singular reciprocal Disposition os Bodies to one another,  
nor can we come to the Knowledge of it, but by experiments.  
And for the same- Reason, they argue as unreasonably concern-

this the Resemblance of Metals, from their being diflolved by  
'the same Menstruum. Sound Chemistry proceeds very cauti-  
crusty in Things of this Nature, and is afraid of Universals, mi-  
less when collected from certain Observations.

The Solution of COPPER in a volatile ALcALI.

Upon one Dram of Filings of Copper in a clean glass Ves-  
fel, pour twelve Times aS much of a good alcaline Spirit of Sal  
Ammoniac. Stop the Vessel, shake it about frequently, and  
you will have a Tincture at first of an Azure, and afterwards of  
a violet Colour, which will he very beautiful. Pour off the  
Tinctirre ; upon the Residuum put fresh Spirit, and by this  
Means almost all the Copper will he gradually dissolved, and  
converted into a Tinctirre.

If Fllings of Copper are moistened with three Times the  
Quantity of Oil of Tartar po *Deliquium,* and then digested, dried  
and dissolved and this is often repeated, and then the Matter is  
helled filtered and inspissated, by this Means such another Li-  
quor, but of a fixed Nature, will he obtained.

This volatile alcaline Tincture contains the Substance of the  
dissolved Copper. If a Person takes it fasting in a llttle Mead,  
and walks gently aster it, beginning at first with three Drops,  
and afterwards doubling the Dole every Morning, till the  
fourth Time, and then repeating the last Dofe *for some Days,*It opens, attenuates, warms, and proves an exceeding power-  
fill and fpcedy Diuretic. By the Help of this alone, Boerhaave  
fays, he cured a perfeci *Ascites,* fuch a prodigious Discharge of  
Urine being excited, that it was discharged as if it ran out of  
an opened Cock, upon which the Integuments of the Abdomen  
became so loose, that they might he wrapped over one another.  
He then only ordered a dry restorative Regimen, and the Pa-  
tient recovered perfectiy, and enjoyed a good State of Health  
many Yeats after. This, as it happened in his younger Days,  
he says, gave him great Encouragement; but, upon trying the  
same Medicine afterwards in the like Cases, its inefficacy gave  
a Check to his Vanity, and taught him, that Nature has a  
great Hand in these happy Events. He adds, I am convinced,  
that among the various Kinds of Dropsies, some may he cured  
iy different Methods, and feme not at all. In acid, watery,  
weak, cold, mucous, pitoitous Disorders, the fame Timiiure,  
however, is often used with Success. The Solution of Copper,  
in all acid, alcaline, and compound Salts, either iatent or open,  
appears by every Kind of Trial to he *very easy* ; for even the  
expressed Oil of Olives, and the distilled Oil of Turpentine,  
and others, which always contain a iatent Acid, will, by being  
digested with Copper, acquire a green Colour, and at the fame  
Time he rendered fit for some chirurgica! Uses. . *Bocrhaemds  
Chymestry.* \_ . I

I have been thus partioular with Respoft to Copper, that no  
Body, whose Duty it is to he acquainted with every Part of the  
*Materia Modica,* may he stjbjetst to the Imputation of being igno-  
rant of these Preparations, which Pliny casts upon the Physicians  
Of his Age. This Author, speaking of the Recrements of Cop-  
per, says, that Physicians are not acquainted with them, sew  
knowing them, even by Name, fo far are they from under-  
standing how Medicines ought to he prepared, which is proper-  
ily the Province of Physicians. But now, infixed of this, when  
they meet with any Thing in Books, which they here an In-  
cllnation to try, at ike Hazard of the miserable Patient, they  
trust to the (Seplarise) Preparers of Medicines, who corrupt  
them by all Manner of Adulterations, and\_ content them-  
selves with stale Plaisters, and. Collyria, and the very Refufe of  
Drugs: ........ . . ’ . . . ' . - *. 'p*

Every Body, who is in any Degree acquainted with the Edu-  
cation and Learning of out own Country Physicians, will know  
this Cbaradler is not in the least applicable to them. And I know  
many Apothecaries that heve had proper Opportunities of Iofor-  
mation, who, I am convinced, deserve no Part of this Invective.

In the Days,of Pliny, the Physicians at Rome must have been  
infested with the general Corruption of the Times, or else the  
Author must have been very malicious to those of the Profession  
that were his Contemporaries, per heps on Account of seme perfo-  
Dal Enmity against one Man. . *-l*

AESALO. Ἀισάλων. The Name of a small Hawk, called  
rdfo *Merillus,* or *Smerillas,* mentioned by Aldrovandus, and by  
Aristotle. I don’t find that any medicinal Virtues are attribu-  
ted to it, nor can I tell wby Castellus has ioferted is. It is one  
Gf the Birds which the Jews were forbid to eat.

-AESCHOS. Ἀισχος. Deformity of the Body in general, or  
any particular Member. *Constandae. Castellus.*

AESCHRION. The Name of a Physician of the Empiric  
Sects All that is farther known *of* him is, that he was very  
well versed in the *Materia Modica,* and was one of Galen’s  
Masters, who describes a Remedy he learned from bain, against  
the Bite of a mad Dog, which he esteems Of considerable Effica.  
cy. The Medicine is this t

Take of the Ashes of Cray-sish burnt alive, in a red Copper  
Pot, ten Parts, of Gentian five Parts, Of Frankincense one  
Part. Let the Patient take a large Spoonful of this in Water  
sorry Days together. But if Application he not made, for *a*

Cure, till some Days after the Bite, the Dose must he doubled.  
At the same Time apply to the Wound a Plainer made of Phi  
Brutia, Opopanax, and Vinegar, compounded according to  
the Rate of Pix Brutia one Pound, an Italian Pint of the strong-  
est Vinegar, and three Ounces *os* Opopanax. Galen says, that  
he very much confided in this Medicine, because not one of  
those who used it died. AEsohrion burnt his Cray-fish after the  
Rising of the Dog-star, when the Sun was passed into Leo, and  
on the eighteenth Day of the Moon [the third Day aster the  
Full Moon]: . ’ . . ί- .. .

.AESCHYNOMENOUS Plants, [of Ἀισχισἰἀινος, of άισκὑΜ.  
μαι, Gr. I am ashamed.} Those Plants are commonly called *Sen.  
Jitive,* or sensible Plants, as giving some Tokens of Sense: They  
are fuch whose Frame and Constitution is so nice and tender,  
that on the Touch, or least Pressure of one’s Hand, they will  
contras their Leaves and Flowers, as if sensible of the Touehi  
*Millers Dictionary.*

AESCULAPIUS. The History of this great Physician, for  
such he appears to heve been, is so involved in Fable and Ro-  
mance, that it is impossible to extricate the Truth with any  
Certainty. Tully says, there were three of the Name. The  
first was the Son of Apollo, and the same that was bold in great  
Veneration by the Arcadians.. He was the Inventor of the Probe  
and Bandage.

The second *Aesculapius* was Brother to the second Mercury.  
This is be that is reported to heve been structi with Thunder by  
Jupiter, and is said to lie buried at Cynosura in Peloponnesiis.

The third was the Son of Arsippus and Arsione. He invent.:  
ed Purging, and Drawing of Teeth.

Monsieur Le Clerc is of Opinion, however, that there never  
was more than one *Aasculapius,* and that he was a Phenician,  
or rather a Nephew of Chanaan, which last he apprehends to he  
the same as Hermes. Or at least, if there was an *Acseuiapius*amongst the Greeks, that he borrowed not only the Name, but  
the Charactsr of the Phenician.

- The Egyptians relate, that *Aesculapius* was taught Medinine  
by Hermes, whom they represent as the Inventor of the Arc.  
.And if the Account given by Sanchoniathost is true (See *Euseit-  
us) Aesculapius* and Hermes were nearly related, for Miser, the  
Father of Hermes, had a Brother, whose Name was Siduc, or  
Sadoc. This last had seven Sons, called *Diofcures, Cdbires,* or  
*Corybantes,* and an eighth, which xvas *'Aesculapius,* by one of the  
Daughters of Saturn and Astarte. By this Genealogy, it ap-  
pears, that Hermes and *Aesculapius* were first Cousins, and it  
renders the Egyptian Account, that *Aesculapius* learned Medi-  
ane of Hermes, the more probable. Upon the Whole, the intire  
Family seems to have been concerned in making Improvements  
in, or inventing Medicine, for the Sons of the Cabyres or Co-  
rybantes are by the same Sanchoniathon represented to here  
employed themselves in discovering the Virtues of Plants, and  
Remedies against venomous Bites: . ‘ - \*

- The Oriental Authors relate, that *Aesculapius* was a Drscsple  
of Edris, who is the same as Enoch ; and the Oriental Christiane  
have a Tradition, that Enoch, or Edris, is the same as the;  
Hermes ofthe Egyptians, called TRIsMEoIsTUsi : - -

This *Aesculapius,* according to-the Accounts given of him by  
the Eastern Writers, gave the first Rhe to Idolatry, in this  
Manner: After the Death of Edris, or Enoch, *Aesculapius,*by the Instigation of the Devil made a Statue in Honour of  
his Master and Patron, whom he represented, holding a Branch  
of Althaea, or Marsh-Mallows in his Hand, and, bring constantly  
before it, feemed to pay it extraordinary Honours. This was  
afterwards imitated by his superstitious Countrymen, till at lash  
it rose to Idolatry.

This is the Sum of what rs related, with respeol to the Egyp-  
tian, or Phenician *Aesculapius.* The Accounts we have of the  
Grecian *Aiseulapiuri* are much more ample, but equally uncer.:.1min, and perhaps more fabulous, it having been the Customi  
amongst the Greeks, to rob the Egyptians of their Mythology,  
and to disguise the allegorical Meaning with Fictions of their own.’

The Mother of this *Aesculapius* was Coronis, a Daughter  
ofPhlegias, King of the Lapithae in Thessaly; or, according to  
some, Arsinoe. Daughter to Leucippus of Messania. This La.  
dy, being clandestinely with Child by Apollo, was deli.,  
vered of her Son on a Mountain in the Territory of Epidaurus,  
during a Journey with her Father into Peloponnesus, where the  
Child was left. A Peasant of those Parts, missing a she Goat  
and his Dog, went in Search of them, and sound the Goat  
giving Suck to the young *Aesculapius,* and, the Dog mean’  
While guarding them. .

Others give a different Account of his miraculous Birth.  
They agree, that Coronis was with Child by Apollo but say,  
that Apollo having discovered that the Nymph granted the fame;  
Kind of Favours to a young Arcadian, which the Had bestowed  
on him, in a Fit of Jealousy, sent his Sister Latona, to spread-  
a Plague in the City where his Mistress lived, of which she died.,  
But, as she was on the Funeral Pile, rhe God came, and took  
his Son away, out of the Midst of the Flames, and conveyed  
him to Chiron the centaur, who undertook, the Charge of his  
Education.. *Pindar. . s*

Other sabulous Accounts are given of the Birth of *AEsiulapius,*and many Countries dispute for the Honour of producing him,  
as was usual amongst the Greeks, with respect to their eminent  
Men. But it is agreed on all Hands, that he was bred under-  
the Tuition of Chiron the Centaur, and that, by his Instructi-  
ons, and the Assistance of his Father Apollo, he arrived at a very  
extraordinary Knowledge in Physic, which gained him a Place  
\*amongst the heathen Divinities, after he had rendered himself  
agreeable to Mankind, by curing those who stood in Need of  
his Assistance, of Ulcers, Wounds, Fevers, and painful Dis-  
orders, by Means of Incantations, lenient Potions, Incisions,  
and external Applications. It was on Account of his extraor-  
dinary Skill in all Branches of Physic, that he was chosen by  
the Heroes concerned in the Argonautic Expedition, to ac-  
company them in that hazardous Enterprize.

The Greeks, much used to Exaggeration, when the Honour  
of any of their Countrymen is in Question, relate, that *Alsou-  
lapius* could not only recover Pedple from dangerous Distempers,  
hut also knew a Way os restoring Lise to those that-were dead;  
and of this they give many Instances, among which, the last  
was Hippolytus. Upon this, they say; Pluto made a Remon-.  
strance to Jupiter, that, if *AEsculapius* was suffered to proceed in  
this Manner, the’ Regions under his Jurisdiction would in  
Time become desolate. Upon this Complaint Jupiter struck  
*AEsculapius* with a Thunderbolt, and with him Hippolytus,  
whom he had raised from the Dead; but at the Request of  
Apollo he was afterwards placed among the Stars by the Name  
Of *Ophiucus. . ..*

He lest two Sons Machaon and Podalirius, of whom Ho-  
mer makes honourable Mention. The Wise of *Alseulapius*was called *Epione,* or according to others *Hiygeia,* or *Lampetia.*His Daughters were *AEgle, Panaceea, Jasi, Feme,* and *Acefo.*He is also said to have had a Sister called *Eriepis.* All these are said  
to have been concerned in improving the medicinal Art. -

After the Death of *Alsculapius,* a great Number of Tem-  
ples were built in Honour of him in Greece, and the Grecian  
Colonies. Schulzius reckons up from Pausanias, and other Au-  
thors, sixty-three, to which People from all Parts resorted, in  
order to he cured of their Distempers, which were probably  
performed by common Means, but were attributed to the mi-  
raculous Influence os the God by the Address of his Priests,

The Romans did not sail to imitate the Greeks in every’  
Species of Superstition and Idolatry. Accordingly they built a  
.Temple to *Ansoulapius* in the Island os Tiber, upon the fol-  
lowing extraordinary Occasion, according to the Account Au-  
relius Victor giveS of its' V

- Rome, at that Time, and the adjacent Territories, were ra-  
vaged by a Plague.. Upon this Occasion an Ambaffy, consist-  
ing of ten, with Q^Ogulnius at their Head, was dispatched to  
Epidaurus, in order to inVite the \* God *Ansoulapius* to Rome.  
When these Ambassadors arrived at Epidaurus, as they were  
admiring the extraordinary Statue of *AEfculapius,* a *large Ser-  
pent came from* under the Altar, and passing from the Temple  
' to the Roman Ship, went into the Apartment of Oguinius.  
. The Ambassadors rejoiced at this Prodigy, immediately set

Sail, and arrived safe at Antium with their Charge, but bring  
detained there some Days by the Tempestuousness of the Seas,  
the Serpent got out os the Vessel, and lodged himself in a neigh-  
homing Temple dedicated to *Asiseulapius,* but as soon as it was  
calm,returned, and then the Ambassadors pursued their Voyage;  
but when they arrived at the Ifland of Tiher, the God in the  
Shape of a Serpent quitted the Ship, and went on Shore,-  
where they bush him a Temple, and the Plague immediately  
Ceased. . ’ ‘ - .— - - : .' ..I - . -

. Pliny says, this Temple was built there Out of some Disre-  
spect which the Romans had sor- the Art over which *giEs.cu-  
lapius* presided. Avery childish Reason ; as if that wise People  
would have been at the Trouble to have sent a solemn Am-  
bassy to Epidaurus for the God, in order to affront him.

Plutarch, in the Opinion. of Le Clerc, has given a better  
Reason. This Author seems to think, that both the Temple at  
Pome, and the other Temples in Greece, dedicated *tD AEfcu-  
lapius,* were built in. open and high situations, that the sick  
which resorted -to them might enjoy the Advantage of a good  
Air. *’ A ) . su l . - .' .. .. : :*

' There oan be rio Doubt, but that the Romans built this  
- Temple to *AEseulapius,* at a Distance from the Chy, : in Imi-  
. ration of the Greeks.' And there is a better and Very oh-

Vious Reason, why the latter chose; such Situations for these  
Temples, T mean, hecause they intended to prevent contagi-  
Ous Distempers .from .bring brought into’ their Cities, by the  
Sick which resorted to the Priests of *Alsculapius* for their Cure,  
and from bring bred in the close Ain of a populous Place by  
n Concourse of diseased People. -- .. ’ . -- ' .

The Statue of *AEfculapius* at Epidaurus, made by Thrasy-  
Inedes,. the Statuary, was remarkable for the "Size, the Work-  
.rnanship, and the Materials, winch were Gold and Ivory.

\* \*  
In this he was represented sitting on a Tbrone, with a Staff  
in one Hand, and leaning with the other on the Head *os* a  
large Serpent, with a Dog at ins Feet. Pausanias says, the  
Dog was placed there, hecause he guarded *AEfculapius* in his  
Infancy. Le Clerc rather thinks this Animal an Emblem of  
that Sagacity which is necessary to a Professor of the Art over  
which this God presides.

From the same Pausanias we learn, that he was sometimes figur-  
ed holding a Pine-cone in his Hand. And that a large browri  
Serpent, peculiar to the Country of Epidaurus, was sacred to  
inin. This Sort of Serpent was esteemed harmless, and some  
of them were always kept in his Temple at Epidaurus. In  
most of his Figures this Serpent is drawn twisted round the  
Staff he holds in his Hand.

Sometimes a Cock is placed at his Feet to represent Vigi-.  
lance ; sometimes an Eagle, an Emblem of Discernment or  
Longevity, on his right Side, and a Ram’s Head on the less,  
which is said to he expressive os Dreams and Divinations,  
ι Dpon some Medals *AnsoUlapius* is accompanied by a little Fi-  
gure of a Youth, cloathed in a Habit which covers his Head ;  
this, Mt. Spon says, was the Emblem os Sickness,The Object  
of Medicine, because amongst the Antients the Sick covered  
their Heads, whereas those that were in Health went - bare-  
headed. This little Figure was called by the Names of *Te~  
les.phorus, Acesius, Evamerim,* or, as Mr. Le Clerc remarks, OB.  
What the last-mentioned Author adds upon this Occasion, is  
too curious to he omitted. \_ With that, therefore, I shall con-  
clude the fabulous Accounts of *Aosculapius.*

.. Monsieur Patin gives an Account os a Medal struck in Ho-  
nour of the Emperor Adrian (perhaps on Account oshis Know-  
ledge in Physic) where on one Side *AEfculapius* is represented -  
accompanied with Hygeia ; on the Other Telesphorns with this  
Inscription round it:

**ΠΕΡΓΑ. Erii ΚΕΦΑΑΑΙΏΝΟΣ. .**

And Just- hesore Telesphorns the Letters O B. Mr. Patin ex-  
plains the first Words *Pergamenorum - sub Cephalione,* adding in  
Italics, *Toles.phorus.* He afterwards adds, from Pausanias, that  
Telesphorus was a Divinity os the Pergamenians, who was  
so called he the Directions of an Oracle, and that some trans-  
late the Word by *Familiar Spirit* (Devin) or *Ventriloquus. .*This, says Mr. Le Clerc. made me imagine that TELEsPHO-l  
RUs and OB were the fame, having found On in other Places  
also tranflated *Familiar Spirit,* or *Vinrtilcquus.*

Selden tells us, that the Word Os was usually tranflated  
*Python,* or *Magician-.* This On was a Spirit, or Demon, that  
gave Answers which seemed to come from the Pudenda, the  
Head, or the Armpits, but in a Voice so low, that it appeared  
to proceed from some deep Cavity, as if a dead Person spoke in  
a Tomb, insomuch that those who consulted it, sometimes did  
not hear it at all, but formed in their Imaginations what An-  
swers they thought proper. Selden adds; See the History of *Sa-  
muel,* whose Figure was represented to Saul by a Woman,  
from the Pudenda of whom OB either spoke, or was imagin-  
ed to speak. The Scripture, in the first Book of *Samuel,*Chapter 38. \* calls this Woman *Pythonefs,* or *Vintriloqua,* as it -  
is tranflated, - a Woman who had OB ; hence Saul ad-  
dresses her thus, *Prophes.y to me, I pray you,* ry OB, which  
the. Septuagint tranflate, *Prophes.y to me by* VENTRILO-  
ouus. 0b therefore was a Spirit which was supposed to speak  
from the Belly.

- Thus far Mr. Le Clere, and as the Hebrew Word is -nlK;  
OB, 6 which in the Septuagint is tranflated, εγγαστρίμυθος, and  
our Transistors render *Familiar Spirit,* I think there can be  
no Dispute of his being right.

- - Buxtorf renders the Hebrew Word OB by *Pfthe,* one who, in  
giving Answers by diabolical Arts, seduces Men from God,  
*Levit.* XIX. 3I.' XX. 27. \* The Word also, as he observes,  
signifies *Bottses,* Job XXXII. I9.e Hence *Pytho,* according to  
Abenefra, means one who uttered Oracles from a swollen Belt.  
Iy, as from a Pottle, whence the Person was called ἐγγαστρίμὲνος.  
- I must remark farther, that There have heen People in our  
Days, who were Masters of the Art of managing their Voice  
in such a Manner, as to- make it in Appearance proceed from  
any Part about them, or even near them, and that in much such .  
a Tone aS that of OB described by Selden. There was a Fela,  
low about Town about twenty-five Years ago, called the speak-  
ing Smith, who was a great Master in this Way, and who, in-  
stead of being ambitious of the Character of a Conjurer, em..  
ployed this Talent in frighting Porters, Drawers, and other  
People, who were not acquainted with the Trick, and whom  
their Friends contrived to bring into the Smith’s Company, on  
Purpose to he teazed and terrified. About ten Years ago there  
was another who possessed this Art; though in a less Degree  
of Perfection. I have been several Times inthis Company in  
the Country, where he used to travel as a Rider, so sar as I  
rememher, to a Tobacconist. And a Woman who begged

1 \* See the Passage.. - b See the Septuagint. 4. Regard not them that have *Familiar Spirits,* ID nN, *Obosh,* neither seek after  
Wizards. a A Man also or Woman that hath a *Familiar Spirit* 2.1 K, or that is a Wheard, shall surely be put to Death\*

\* Behold my Belly is as Wine that hath no Vent, it is ready to hurst like new Botdes Π13ΚΧ

about the Country, was said to excel them both in this Way;  
being able to carry on a seeming Conversation betwixt several  
People, whom, she told the Ignorant, were her Husband and  
Children that bad been long dead. It is not to he disputed, but  
thofe would heve bed rt in their Power, with a little Arti-  
fice, in the Days of Ignorance, to heve been esteemed con-  
versant with familiar Spirits ; and they might even have sur-  
prised a more enlightened Age, if they had been artful and  
designing enough to have guarded the Secret.

As to the History of *Aesculapius,* without having any Re-  
gard to the fabulous Accounts of him in the Grecian Theology,  
I am inclined to think he was a Phrenirian, who having made  
very successful Searches into Nature, especially that Part of it  
that related to Pharmacy and Medicine, bad gained great Re-  
putation and Honour among his Countrymen.

His true original Name, I imagine, is lost to us in that,  
which the People that bad experienced his Shill and Abilities  
in Physic, had given him by Way of Eminence and Di-  
stinction; for it was a Custom in the Eastern Nations,  
when any Person appeared among them of singular Talents,  
to honour him with an Appellation declarative of his Merit,  
after the Manner of the Agnomen among the Romans, Hence  
is was, that Hermes, the Restorer of the Egyptian Learning,  
was called *Trifmegijlus,* or rather by the Egyptian Name that  
aofwered that Meaning, for Trismegistus was the Greek Trans-  
lation of the Egyptian Original; this Man’s true Name was  
*Siphoas,* as Sincellus informs us out of Manetho. ό .καὶ  
*'s.uris.*

As the Egyptians distinguished Hermes by the Name of Tris.  
inegistus for his great Learning, so the Phoenicians, according  
to the Taste of thofe Times (for *Aesculapius* is supposed to he  
cotemporary with Trismegistus) gave him likewise a Name  
’of Distinction, on Account of his Skill in Physic and Medi-  
.. cine. They called him nN baton. *Hased-ab,* the *Father of  
Knowledge or Skill,* which last Word, by-the-by, seems to take  
in Original from the Hebrew-Phoenician Word boar, *Sekel,  
.Knowledge er Understanding.*

It was an usual Pbrafe amongst the antrent Orientals, where  
they would delcrihe a Person that had been beneficial to Man-  
kind, by some useful Invention or Discovery, to call bin, the  
*Father* of it. . For Instance, this Hebrew Idiom is used in Holy  
Writ, with Regard to Jubal, *Gen.* IV. 21. where he is called  
*The Father of all such as handle the Organ and Harp,* from  
his first inventing Music. Tubalcain also, from his first Inven-  
tion of fabricating Iron by Fire, was called Nnttot 2X. *Ab Pasta,*Or *The Father of Fire*; from whence the Greet formed their  
νΗφόννστνς; as the Latins did their *Vulcan* from *Tubalcdin ., in*like Manner the Phoenicians from the Skill in Medicine, that  
they found in the Person the Subject of this Enquiry, ceded  
him *Astel.ab,* the *Father of Skill* (in Medicine) which the Greeks  
afterwards corrupted into *Aesculapius.*

What Mr. Le Clerc in his *History of Physa* observes, that  
*Aesculapius* was a Phienician, and that the Original of bis  
Name was to be fought for there, is undoubtedly true. jhit J  
am afraid that cannot he said of the Etymology he gives of it;  
he derives it from Is CALApHOTqui *Man ofihe Enise.,* suppos-  
ing him to he so called from the Use of the *Knise* in chirurgis  
cal Operations, in which Case it is much to he suspectsd, if  
the Use of the Knife was then so much known, as would he  
necessary to support the Etymology of this learned Man

By all the fabulous Accounts of the Grecian *Aesculapius* it  
appears that he was a considerable Benefactor to Mankind. It  
remains that we endeavour to come at the Reality of his Per-  
son and Cbaractsr, and to extricate Truth out of a Multitude  
of Fables. And in order to do this, it is reasonable to make  
Use of the Testimony of medicinal Writers, who, it is to be  
supposed, are best acquainted with whet relates to the Patton  
of their Art. Amongst these Celsus is the first, who in his  
Preface fays thus; As the End of Agricultore is to supply the  
\* Body with Aliment, that of Medicine is to procure it Health.  
No Part of the World has been without some Shane of Know-  
ledge in this Art,' for the most barbarous Nations were ac-  
quainted with the Virtues of Herbs, and other obvious Reme-  
dies, for their Wounds and Diseases. However, it was cult,  
tivated in Greece more than in other Nations, not however  
originally, but a few Ages hefore it flourished among us, sot  
*Aesculapius* is celebrated for heing the first Inventor of it, who  
was deified, because he reduced the Science, hefore his Time  
rude and empirical, to a more regular Art.

. We find something more particular with Respecti to *Aiscuia-  
- plas* in .Galen, who has in a great Measure avoided the Ex-  
aggerations ufisai amongst bis Countrymen, though he speaks  
of the national Divinity of the Place where he was hem.

*Aesculapius,* the Deity of our Country, prescribed entertain..  
ing Songs, Buffoonery, and some SortS of Music, for soch as fay  
the too vehement Monon of the Mind bad rendered the Tem-  
perament of their Body hotter than was coofistent with Mo-  
deration ; To others, and those not a few, he enjoined Hunt-  
ing, Riding, and Exercises at Arms, xed disethed the Kind of  
Motion they were to he employed in, and the Arms in which

they were to exercise. He did nor think it enough to teach  
in general, hew the Mind, when funk, 'might he raised, with-  
out ascertaining the Measure of it from the Idea of the Exer-  
cise. *Galen, de Sanet, tuenda,* l Li 2. *C.* 8.

. True Medicine forms Conjectures concerning the Nature or  
Constitution of the Patient, which the Generality of Physi.:  
clans call *Idiapricrasp.* But this is by all confessed .to he inn  
comprehensible ; therefore all afcrihe the true Art of Medicine  
to Apollo and *Acfculapius. Galen, Meth. Mede Li* 3. *C. y.*

The Greeks afcrihe the Invention of Arts to the Sons, or neat  
Kindred of the Gods, by whom they were communicated.  
On this Account it appears, that *Aesculapius* was the Inventor  
Of Medicine, in the Knowledge of which he was first in-  
strutted by his Father Apollo, and afterwards delivered the same  
to Mankind. Before his Time the Art of Healing was un-  
known, though the Antients had some Insight into the Vir-  
tues of Medicines and Herbs ; such as Chiron, the Centaur,  
among the Greeks, and the Heroes under his Tuision. They  
had alfo, it seems, by whet is ascribed to Aristaeus, Melampus,  
and Polyidus, made some Experiment that Way. That the  
Egyptians had some Notion of other Remedies besides Herbs,  
seems evident enough from Homer.

Besides, the first Physicians must have learnt many Things  
in Surgery and manual Operation from the Opening of  
Carcafles, which it was the Custom to do, jo order to Cm-  
balm them. Some Inventions are imputed to Chance, as  
Couching for a Cataract to the caseal Observation of a cer-  
tain Goat, who, labouring under that Defect, recovered its  
Sight by impressing its Eye on a sharp-pointed Rush. The  
Ufe of a Clyster also, they say, is derived from the Bird Ibis,  
who, making the Skin of her long Neck ferve instead of a  
Bladder, filis it with the Water of the Nile, or Sea-water,  
and by the Help of her Beak introduces it into her Body  
through the Anus. And Herodotus, the Historian, writes,  
that it was an antient Custom to bring out their Sick into  
the Street, and most frequented Places, to receive the Advice  
and Prescriptions of such Persons, as bad laboured under the  
same Distempers, and had been cured., and so, hy this Means,  
was Medicine at length established, heing raised into an Art  
from the Multitude of Facts and Experiments. But all this  
while Reason was wanting to assist and permit Experience,  
and *Aesculapius* alone was the first Inventor of true and rational  
Medicine, and such as, ’on all Accounts, deserved that Name.  
His Successors, the Afclepiadae, delivered it down to Poste.  
rity, as it were, by hereditary Succession. Among them Hip-  
pocrates was the most eminent by many Degrees, and was the  
first among the Greeks who perfected the Art of Medicine.  
*Galerfs Introducturi.*

If we rested: upon the fabulous Accounts related of the  
Grecian *Aesculapius* above, and join with these what is fsid  
by Cessus and Galen, we may perhaps have Reason to believe  
the following Conjastures, in Regard to the true History of  
*this Aesculapius,* to he not very distant from the Truth.

He appears therefore to have been the illegitimate Son of  
some Lady of Distinction, who exposed him on a Mountain in  
the Territory of Epidaurus, to avoid the Reproaches usual on  
such Occasions. In this Situation he was probably found by  
the Means of the Dog of some Shepherd, or Goatherd, sec  
it is usual with these sagacious Animais to apprize their Milters  
of any Tning uncommon that occurs, by staying near it and  
barking ; and, if this was the Cafe, a very smell Degree of  
Superstition, joined with a strong Imagination, would furnish  
him with a Goat for his Nurse, whilst under such a Distress.

When he was once found, it is not unlikely that his Mo.  
ther might privately rake Care to heve him delivered to Chiron,  
a Man in those Days eminent for the Education of Youth.  
; We may very reasonably suppose thet the young *Aesculapius*bad very extraordinary Parts, for which a great many na-  
rural Children, both amongst the Antients and Moderns, have  
been remarkable, and thet upon this Account bis Tutor Chiron  
took more than ordinary Pains in the Instruction of bis Pupil.  
Add to this that the Youth, finding he had nothing to depend  
on but his own Genius and Diligence, might he prompted by his  
Ambition to an extraordinary Application, that he might some-  
time make a Figure in the World, equal to that of his Eel-  
low Students, who were Sons To People of Condition, thus  
supplying the Disadvantages of Birth by Industry, This Sup-  
position will appear less chimerical, if we reflects thet those  
who have in all Ages made very extraordinary Progresses in  
Sciences, have generally been such whose Circumstances have  
obllged them early to take uncommon Pains.

*Acseulapius,* thus furnished .with a Capacity, would not sail  
to ley hold of the Opportunities of Improvement which pre-  
sented, and to pursue the Way to Eminence by the Road to  
which he was directed by his Genius. His favourite Study  
therefore heing thet of Physic, when be arrived at fucti a Degree  
of Knowledge in the Art, as to excel his Contemporaries in  
the Cure of Diseases, bis Countrymen, or perhaps Chiron himi.  
fess, might give him the honorary Appellation of *Aesculapius,* a  
Name borrowed from the Pheenician Inventor of Physic, with

the History arid Character of whom the Greeks had at 'that  
Time been made acquainted. .

The Circumstances of his Birth, added to bis Eminence in  
Medicine, would give his superstitious Countrymen an obvi-  
ous Hint to call him the Son of Apollo, and a national Vanity  
might at last make him a God.

- D ». ***; . ,r-. . ..\* ...***

This appears to me the most real and genuine Account of  
she Greek *AEfculapius,* for I can by no Means agree with those  
Authors who are of Opinion that there never was shch a Per-  
son amongst the Greeks. Hippocrates is said to be a Descen-  
dant from him, and a regular Pedigree is produced; by which  
it appears that he was the eighteenth from *AEsculapius,* inclu-  
sive. Now if this was not real, the Asclepiada could never  
have been guilty of so impudent a Fiction, attended with d  
great many Circumstances that might have heen disproved,  
which, however, it does not appear to have been ever attempted,  
even by the Physicians of the Cnidian School, who, aS it  
seems, were no great Friends to Hippocrates, and who main-  
tained a Spirit of Emulation against the Physicians of Cos.  
This Pedigree will he given with the Life of Hippocrates ;  
mean Time it may suffice to remark that the Posterity os  
*AEfculapius,* by Podalirius, reigned Kings of Caris, till the Time  
Of Theodorus the Second of that Name, who was obliged by  
the Heraclidae to retire from their Country, and settie in Cos,  
an island not sar from Coria.

- I shall end this Account of *AEfculapius* with remarking, that  
if the Art of Healing had not heen very much advanced he-’  
fore the Time of Hippocrates, it would have heen impossible  
for any one Man to have made Observations sufficient to  
. establish those universal Rules, laid down by that extraordi-  
nary Man ; Rules which, at the Distance of more than two  
thousand Years, are confirmed by every Cafe that occurs in  
the Practice of Physic, insomuch that it may he truly said,  
that if the Writings of Hippocrates had been lost in fas, that  
later Writers in Physic could not have borrowed his Sentiments,  
Medicine which, though sar from heing perfect, is nevertheless  
heneficial to the World in an eminent Degree, would have  
: heen scarce worth regarding, and of littie Importance to Man-  
. kind. This I venture to affirm, because I am certain that  
every Physician in Europe, who is acquainted with this Au-  
thor, and knows his Profession, will agree to it. -

AESTAS. The Summer. This is too well known to want  
Explanation. . .

Some Remarks have been made on this Season by Authors,  
which deserve Notice.’

Whence comes it that Lippitude, Or Soreness of Eyes, more  
frequently happens in this hot and dry Season, than another ?  
For it seems reasonable to imagine, that the natural Dry-  
ness *of* this Timo of the Year should put a Stop to all De\_  
fluxions, and yet we are not sensible of the Benefit we might  
expect with Respect to Eyes, from that Constriction and  
Densation which are the natural Effects of Heat. I answer,  
that, granting these to be Consequences of the Season, yer  
the . extraordinary Splendor os the lucid Air, winch dazzles  
the Sight, is very offensive and hurtful to the Eyes, which-  
cannot be doubted, since every uncommon Degree of White-  
ness is wont to disturb and dissipate the Senses. For this Rea.  
son, when we are prescribed Rest, we seek ont a dark Re-  
treat, where we may avoid/all Causes of. Motion. It in  
plain then, that the Frequency of Lippi, or People troubled  
with sore Eyes in the Summer, is owing to .the Radiancy of the.  
Sun-Beams. *Cassii Problem.* I 6.

.: Diseases, which the Summer produces, are continual, burn.,  
ihg, or tertian Fevers, Vomitings, Looseness, Pains in the Fars,  
Ulcers of the Mouth, cancerous Sores, especially in the Puden-  
da, and whatever/Distempers waste a Man by Sweating. *Cel-  
sius, DL. Co 1. ffioui Hippocrates.* ***.a. \* .***

t To these Distempers Aetius adds Inflammations os the Eyes,  
*Tetr. 1. Serm.* 3. *Cap. 12.*

*’In* the Summer the Pulse beats quicker, because of the  
Heat os the circumambient Air. *Philaretus de Pulsibus,  
Cap. 6. . .* ν

*p* Tn this Season; Rest is convenient, and a Diminution of  
Exercise and Aliment. . \_ ...th 0. \

\* The Food ought to he of a colder Nature, and Drinking  
Koto be indulged, and all Things done in order to resrige-  
rate and moisten. Ρ. *AEginetd, L.* i. Co 53. *Ordbas. Eupo-  
rast. L. l.D. lb. si sese*

a In Summer eat and drink often, but little at a Tithe,  
for the Body wants frequent Refreshment. . For this Reason’  
it will he convenient to make a Dinner ; Flesh and Greens are  
proper Food. . Drink ought to be Very much diluted, that it  
may quench the Thirst, without Inflaming , chid Bathing,  
Meat roasted. Aliment of a cold or refrigerating Nature are to  
he.-used. *Celsus, Ls i. C.* 3. . sse \... - so

*s* With Respect to the Summer, it is worthy of Observation,  
that the Digestion is not so .'strong, and that the Appetites  
of most People are not so great as in Winter, for the Very  
same Reasons that the Inhabitants os warm Climates eat less,  
and. digest solid-Food with more Difficulty than those os colds

The Case seems thus: In warm Weather, and hot Climates,  
Heat relaxes the animal Fibres in general, and consequently im-  
pairs the Elasticity of those which form the Organs of Dige-  
stion, the unavoidable Consequence of which is, that the Ap-  
petite, and Power of changing the Aliment, that is, of Dic  
gestion, must be diminished. Hence the Inhabitants of. hoe  
Climates. are weak, and People who five in the sanse Climate  
are not so strong in Summer aS in Winter. In warm Coun-i  
tries therefore, and in Summer, Providence has provided Food  
suitable to the Climate and Season, I mean Fruits ; and it is  
remarkable, that Rice, produced in such Plenty in Southern  
Countries, as to be the usual Food of the inhabitants, is an  
Astringent, which their Situation in Regard to Laxity from  
Heat seems to require. These warm Climates also are west  
stored with Aromatics, which are known by Physicians to pro- .  
mote Appetite, and Digestion, by increasing the Elasticity os  
the Fibres which compose the Organs subservient .to both,  
and of these the Inhabitants make considerable Use.

On the Contrary, Cold contracts ine animal Fibres, and  
increases their Elasticity; thence People during Winter are  
stronger, eat inore, and digest better than .in Summer ; and  
hence the Northern Nations produce a Race , of Men more  
robust, and suited to bear Fatigue, than those who live nearer  
the Line. Their Food, for these Reasons, consists principals  
ly of Animal Flesh, which they are enabled to digest, and  
Providence has not thought it necessary to furnish the cold  
Climates with many aromatic Vegetables, because they are of  
little or no Use to . the Inhabitants. . ,.  
. It is remarkable that our own Countrymen who change this  
Climate for one that is Very hot generally sail into some Very  
dangerous Distemper; but we do not find the same Complaints t  
arise from removing from a hot Country into one that is cold.  
The Reason appears plain from what has heen said of the Esc  
sects of Heat and Cold. In the first Case, our People are ob-  
liged, by Necessity, whilst on Ship-board, to eat Flush har-  
dened by Salt, and rendered still harder by the Vinegar, it is  
usual to eat with it ; or else farinaceous Vegetables unserment-  
ed, both which are Very difficult to digest, especially when the  
Organs of Digestion are perpetually growing weaker, by Rea-  
son of the Heat, and a proper Degree os strong Exercise, which  
in all Climates and Seasons ought to accompany strong Ali-  
ments, cannot be used. Others by Inclination pursue, the same  
Method of Living in Jamaica or Barhadoes which they have  
been used to in England, without considering that the rowers  
of Digestion are altered. .

. The Case is just the Reverse, when a Man removes from  
a warm Country into one that is cold; for, though he is  
obliged by Necessity, or makes it his Choice, to live on Ali-  
ment not so easily changeable by the animal Actions, yet as  
the Fibres grow daily stronger as he approaches, the Tropin,  
by Reason of the Increase of Cold, the bad Effects specified in  
the other Instance are prevented, at least in a considerable  
Degree.

1 Hence appears the Reasonableness of those Rules laid down  
by the Antients with Respect to Summer;

1 AESTATES. Freckles on the Face. Pliny, *L.* 28. Co 12.  
says, these are to he taken away by Calves-dung mixed with  
Oil, and Gum Arabic.

.\* YES THESIS../ArTsejobr. Sensation, ortho Faculty or Power  
of Sensation. *Constantine. . -*

: rESTHPHARA. Incineration, or Burning of the Flesh,  
or. any other. Part .Of the Body. *Castellus* from *Dorncus.*

jESTUARIUM. The Name of many Instruments, Con-  
trived to convey Heat to the whole, or particular Parts of  
the Body, in English properly called Stoves. Blancard *CAnt*plains if a Vapour-bath, which is but one Species of *Asstw-  
riuest. e...*

faESTUATIO- It signifies in some Authors the Boiling up  
os Liquors, which effervesce, or ferment, when, mixed toge-  
ther. But it is not classical in this Sense.

.ffiiSTUS. Heat of any Sort, whether raised by Fire, Dif-  
tempers. Medicines, Effervescence, or Fomentation. .

ὑ. άΕΤAS. Aget. Different Ages are subject to Distempers,  
which do not so frequently happen in others. Thus, accord-  
ing to Hippocrates, *Aph.* 24. A. 3. new-born Infants are  
subject to Aphthas, or Thrushes, Pokings, Coughs, Want of  
Sleep, Startings in their Sleep (δύβοι) Inflammations of the Na-  
vel, and Running of the Ears. .

. It. is remarkable that Celsus has.trahflated this Passage, *L:*2. *C.* it. literally, except that he has omitted oestes, which I  
have tranflated as above. Starting in the Sleep. Φὀβος signified  
Fear, or the Causes os Fear, and no Distemper that I know  
of.

. When Children arrive at the Age of breeding Teeth, they  
are affected with Pains .and Exulcerations of their Gums, Fe-  
vers, ConVulsions, Diarrhoeas,. especially when they breed their  
Fore-teeth, which are called *Canine.* These are Very danger-  
ous, especially to chose who are of a costive Habit, *Hipp. Aphe  
L.* 3. 25. *Celsus, L.* 2, *Co i.*

Tn a there advanced Age, they are subject to Inflammations  
of the Tonsils, Distorsions of the Spine (as Celsus translates the  
Passage) Difficulty in Breathing, round Worms, and Ascarides,  
Warts, Tumors of the parotid Glands, Stranguries, King's  
Evil, and many other Tumors, but especially those above-men-  
tinned. *Hipp. Aph. L.* 3. 26. *Celsus, L.* 2s *C.* i.

I have translated Σατηριαομὲν, Tumors of the parotid Glands,  
in Deference to theJudgment ofHeurnius, the’ I suspect it signi-  
fies an Achor, or scald Head; it cannot signify a Satyriasis, he-  
Cause Children are not subject to it ; the other Signification of  
she Word is a Leprosy, which Children are not often affect-  
ed with. Now, as Children are very often troubled with  
scald Heads, which is something like a Leprosy, it seems nor  
unlikely that Hippocrates may mean an Achor, especially as  
that is not otherwise taken Notice of in this Catalogue of  
Distempers to which Children are subject. Celsus omits it.

As Children approach to Puberty, they are afflicted with  
many of the Disorders above-mentioned, with long Fevers, and  
Haemorrhages from the Nose. *Hipp. Aph.* X. 3. I7. *Celsius,  
L. I.C.s.*

The Lives of Children are most endangered from Distem-  
pers about the fortieth Day, others at the seventh Month,  
others at the seventh Year, and .others again at the Time of  
Puherty. And whatever Disorders Children are affected with,  
which do not cease in Men at the Time of Puberty (Cel-  
firs adds, or at the first Coition) and in Women at the Erup-  
tion os the Menses, are usually very obstinate, and continue a  
Iong Time. *Hippocrates, Aph. L.* 3. *C.* 28.

This Passage I have tranflated according to the Explication  
os *Celsius, L.* 2. *C.* I.

Youth is particularly subject to Spitting of Blood, Consump-  
tions, acute Fevers, Epilepsies, and the like Disorders. *Hipp.  
Aph. L.* 3. 29. *Celsius, L.* 2. *C.* I.

They who are advanced beyond Youth are most liable to be  
affected with Asthmas, Pleurisies, Peripneumonies, I.erhargies,  
Phrensies,' burning Fevers, chronical Diarrhoeas, Cholera Mor-  
bus, Dysenteries, Lienteries, and Piles. *Hipp. Aph. L.* 3. 30.  
*Celsius, L. 2. Co i. '*

- Old People are afflicted with Shortness of Breath, Coughs  
from Catarrhs, Stranguries, Dysuries, Pains in the Joints and  
Kidnies, Vertigos, Apoplexies, Cachexies, Itchings all over,  
the Body, Want of Sleep, too much Moisture in the Intestines,  
Eyes, and Nose, Dimness of Sight, Glaucomas, and Thick-  
. ness ofHearing. *Hippocrates, Aph. L.* 3. 3I.. To these CelsuS  
adds, that such aS are lean, and thin, are principally affected,  
.. with Loosenesses, Distillations (Catarrhs) Pains in the Viscera,  
and of the Sides ; but they who are fat, are more subject to:  
acute Distempers, and Difficulties of Breathing, of which they,  
frequently die suddenly, and winch seldom happens to those  
- that are thin. *L. 1. C.* I.

CelsuS makes also the Observations following on the different  
.Ages;... δ

The Differences of Age, as to Health, are thus considered  
with Respect to the sour Seasons of the Year. Children and  
.Youth bordering upon Childhood are in their best Health ini  
the Spring, and are safest in the Beginning os Summer. Old  
Men are most vigorous in Summer and the first Part of-Aim  
tumn. Winter agrees best with young Men and the Middle-  
aged. Winter is most prejudicial to old Age, as Summer is to  
Youth. *Celsus, L.* 2. *C.* I. .

Middle Age is the safest, because it is in no Danger from  
the Heat of Youth, nor the Coldness of old Age. *Celsus, L:*2. Co I. ' . - - - . . so

Aetius lays down the following Rules for the Management-  
os People in different Ages: . ' . - ...;

An-Infant ought to be nourished by Milk, till it has ac-  
quired a Firmness; aster which it may be fed with Crums  
of Bread in Wine mixed with Honey, sweet Wine or Milk,  
and, after a little while, with a poached Egg; for Fond which  
requires Chewing is .filled with Saliva in their Mouths. The  
Drink must he diluted Wine. When you can safely Venture  
to give Fond made *os* Corn (which in commonly about the"  
twentieth Month) by Degrees, and in an artful Way disuse  
it to the Breast. Is it salis into a Distemper after Wean-  
ings put it to the Breast again. When the Disease is gone,  
ufe your best Care to nourish and restore it, and then set about  
Weaning it as before.... *Aetius, Toirafnb. liSerm. 4. Co* 28....

Weaned Infants must he diverted and recreated all Manner  
of Ways, and their Aliment must he light, and os good Juice.  
But the Child who has a good Temperament of Body must  
not he suffered to drink much Wine, for, in hot and moist Bo-  
dies, Wine filis the Head with Vapours. . Nor is it my Opi-  
nion that they should he forbid cold Water ; for, in het.  
Weather especially, and the Intervals of Earing, I allow them  
the Drinking of it, provided -it he good.

At seven Years old let them he taught.the Elements of Lite-  
rature, and put into the Hands of Masters of known Mild-  
Mess and Humanity.- From fourteen to twenty-one is their  
' proper Time to exercise themselves in the Study of Philosophy.

They are to he forbidden the Use Of.Venus. Wine is to he

drank sparingly, and their Exercises are to he increased. When  
they have attained to Manhood, and are in full Vigour ut  
Age, a more remiss Way *of* Living, and Relaxation of Re.,  
gimen, with Respect to Body and Mind, agree hest with  
them. But when natural Heat begins to lessen, and the Prin-  
ciple of Cold to operate on the Habit, their Exercises of Body,  
of whet Kind soever, are to he slackened by Degrees, and their  
Proportion of Food by littie and little is to he diminished/  
*Actius, Totrabib. i.Scrm.An Cap.* 29.

. The REGIMEN for OLD Aon.

Natural old Age is a cold and dry Temperament of Body,  
the Effect of Longevity. For when the essential Parts of the-  
Body, with the native Heat, waste away by Degrees, and the  
Organs grow drier than is convenient for Service, both the Ac-  
tions are performed in a more languid Manner, and the Ani..-  
mal himself finks in Bulk, grows little, lean, and extenuated.'  
As Dryness comes on more and mors. Rugosity succeeds Lean-  
ness, with Weakness os Limbs, and a tottering Motion.' Who-  
ever then understands the Theory os Coldness and Dryness,'  
will make a proper Physician for an old Mam He knows,  
that thefe Qualities are to be corrected by such Things as hear.  
and moisten ; such are warm Baths of sweet Waters, drink--  
ing good Wine, and Aliments which warm and moisten at-  
the same Time, and moderate Frictions with Oil in the Morn..*c*ing, then Walking, or Gestation, within the Bounds *of* Lassi-  
tude. An old Man must eat often, but little, for an Excess in i  
Quantity hurts him much. He is allowed to eat three Times  
in a Day; about the third Hour let him break his Fast, on  
good Bread, and the finest clarified Honey. At the seventh Hour, -  
aster Friction, and such Exercises as are proper for old Men, set :  
him wash, and sit down to Dinner.

And here let his first Dish consist of such Things as mollify  
the Belly, such as. Garden Sallads of Beets and Mallows, as-  
ter that.he may eat Sea-fish, and such as live about the Rooks;.  
after this Meal let him repose a While, and then use some  
moderate Motion. At Supper let him abstain from Fish, let  
his Meat he of good Juice, that will not easily corrupt, such  
as a Pullet, or other Fowl, boiled in pure Water only, and with-  
out Sauce. Wine is Very beneficial to old. Men, not only aS  
it diffuses a Warmth throughout the whole Body, but also aS it:  
purges the Serum of the Blood by Urine, winch is needful for  
most os them, because they abound with aqueous Superfluities^  
*Aetius, Totrabiblos* I. *Serm. An C.* 30.

.IETHALE. ἈιΘάλη. Soot. It is sometimes wrote.  
Ἀεθαλος. See FUI I GO.

*l* ss-THALES. From ’Ad, always, and δάλλω, to be green,  
a Name for the Sempervivum, Houseleeit.

. AETHER. A Word much used by natural Philosophers, to  
signify an extremely fine Fluid, that pervades all Bodies, of  
which nothing is known, not even so much aS its Existence.

( But the Name of *Anther* has heen given to an extremely light i  
and penetrating Fluid, made of Spirit of Wine, deprived of its:  
Phlegm by Distillation with Oil of Vitriol, os winch we have  
the following Account in the *Philosophical Transactions: :*

. The *AEther* of Plants appears to he aimost destitute of all gross  
Air, from placing it under the Receiver of the Air-pump; fos,..  
exhaust the Air ever so accurately, this *eethcrial* Liquor remains:  
unmoved, nor does it emit any Air-bubbles winch immediately  
arise in other Liquors, and according as their Quantity of in- -  
trinsic Air is greater, so much the sooner are such Liquors put.-  
into Agitation, and emit also more Froth, and more Vehe-:  
ment Ebullitions in Proportion to their Viscidity. Hence in  
follows, that this *Anther* may be preserved best (because with-'  
out any Diminution) under the Receiver in Vacuo, whereas,  
on .the. Contrary, exposed, to the open Air, its Parts soon evarf  
porate, and its whole Bulk vanishes.

. This Experiment sailed remarkably, as we learn from a Note  
in the *Abridgement of the Transactions.* . But I am well in-;  
formed it would have succeeded, if the: Spirit , made Use of  
in the Preparation of the */EtherspaA* been concennated upon the  
Flowers os Zinc. '

'.. A littie of it, poured on the Surface of the Hand, affects in .  
with a Sense of Cold, equal to that from the Contact of Snow,;  
and blow upon it but once or twice with your Mouth, imme-  
diately your Hand becomes dry. Beware, however, of ap-i  
proaching a lighted Candle:with your Hand thus wet, lest it.  
take Fire and burn you. This Experiment succeeded.

,sst causes such a Stridor, and Hissing, heing poured upon hoe  
Water, aS is-frequently occasioned by a Piece of hot Iron'  
thrown into it. Take a Lump of Sugar, let it imbihe some of  
*this eethcrial* Liquor, and put it into a Vestel full of hot Water,  
the Sugar will indeed fink to the Bottom, but the *eethcrial* Li-  
quor rushing Violently forth, excites a great Ebullition in the  
Water. If one Spoonful of this *Anther* he poured into a Cop-;  
per Pot full of boiling Water; without any Sugar in it, and you  
approach immediately with a Candle, or lighted Paper, instanra.  
Iy there issues .from the Water. Very great Lightning. The  
Handle of the Spoon, as well as, the Tongs for holding and  
applying the lighted Papes, must, be of a proper Length, that

the Effusion of the *aetherial* Liquor undo the hot 'or' boiling  
Water, and the Application of the lighted Candle, or Paper,  
may he performed at the same Time; otherwise the *Acstocr is*immediately dissipated, without any fuch Effe.fr. There is  
therefore Need of an Assistant, or of both Hands, and also of  
a Room where Entrance may readily he given to fresh Air,  
proportionable to the Magnitude of the Flash of Lightning  
which fo rarefies the Air, as to endanger the Stoppage of Respi-  
ration. This Experiment succeeded.

Hence it appears, that this *Acther* is both Fire and a very  
fluid Water, but fo volatile that it foon evaporates, and that it  
is the purest Fire, insomuch that, if kindled in a thousand  
Times the Quantity of cold Water, it burns unextinguish-  
able. Therefore, if you take an earthen Vessel of any Magni-  
tude, whose Mouth or Orifice may he one or two Yards wide,  
but the inferior Latitude of the Vessel may contain six him-  
tired or six thoufand Gallons of Water, the Experiment will  
he the same, pour on the Top het one Ounce, or a small Vial  
full of this *Acther,* and apply to it a lighted Wax Candle, it  
takes Fire immediately, burns placidly, is so far from being  
extinguished by the most profuse Superassusion of common  
Water, thet it much increases the Vehemence of the Flame,  
and lasts till the subtile Parts of the *Atther* are confirmed and  
ventilated by the Flame. This Experiment should he made in a  
large and lofty Room, not in Danger of taking Fire.

The Seme of Touch does not manifest the least Oiliness or  
Fatness in this *aetherial* Liquor, notwithstanding that it is the  
true, natural, and only Dissolvent, or Menstruum of all Fat,  
Oil, Rosin, and Gum whatsoever: Ey Means whereof all  
Sorts of Fat, and every Kind of Fire or Flame is extricated  
by a speedy, *fuse,* and pleasant Operation. On there Ac-  
counts it is, thet this *aetherial* Liquor will not unite with any  
Kinds of Salts whatsoever, but all Sorts of Oiis, Pitch, Tur-  
pentine, Opobalfams, Camphire, Wax, Amhergris, Sperma  
Ceti, Mastic, Musk, Copal, and the like, it dissolves most  
readily, and with the greatest Eafe extracts their hest Es-  
sences.

. And indeed a wonderful Harmony. is observable betwixt  
Gold and this *slither,* even greater than between Gold and  
Aqua Regia ; insomuch as from hence Gold appears to ap-  
proach nearer to the Nature of Oils than of Earths. If a Piece  
Of Gold be dissolved in the hest Aqua Regia, and upon the  
Solution,- cold, be poured half an Ounce, or what Quanti-  
ty you please os the *aetherial* Liquor, shako the slas care.,  
frilly, and all the Gold will pais into the *aetherial* Liquor, and

. the Aqua Regia, robbed of ail its Gold, will presently deposit  
the Copper at the Bottom of the Vessel as a white Powder,  
. which, turning of a green Colour, contains the Portion of  
Copper wherewith the Gold was adulterated. The *Acther*.will swim like Oil on the Surface of the corrosive Waters.  
.This Experiment deserves the utmost Attention ; for here the  
-heaviest of all Bodies, Gold, is attracted by this very light *Asther,*Gr (whereas the Air, which with a common Force presses alike  
all Bodies, is here excluded, and the *Atther* itself encompasses  
and touches the Surface of the Water) the Gold, by the Force  
of its Gravity, as by an Impulse, would defcend from thence j  
or, lastly, this Phaenomenon is owing to a certain Harmony and  
Similitude of both of them. This Experiment was shewn and  
succeeded. — ' - - .

*i. Aether* then is. certainly the most noble, efficacious, and use-  
ful Instrument in all Chymistry and Pharmacy, *ubi ertim ignis  
-peiientiaUs, ibi actuali non specs est,* inasmuch as Essences and  
.essential Oils are extracted by it immediately, without fo much  
as the Mediation of Fire, from Woods, Barks, Roots, Herbs,  
.Flowers, Bernes, Seeds, &c. from. Animals, and their Parts  
too. Thus from Castor, by a certain Manufaction, may  
he prepared an Oil; sweeter than that of Cinnamon, and  
also the true Oil -of Saffron, and all by this particular En-  
cheiresis, without the Help of Fite or Distillation, For an  
Example of our Method, take Mint, Sage, or Orange-peels,  
Cinnamon, &c. or all these together ; out and bottle them .;  
pour upon them a Spoonful or two of the *aetherial* Liquor,  
.and, aster it has stood an Hour in a mid Place, sill up the  
.Bottle with cold . Water, and you shall fee the essential Oil,  
.swimming upon the Water pouced upon them, easily separable  
.by the Funnel.: Of this essential Oil, one Drop only upon a  
.Lump of Sugar manifests to the Taste, &c, the medical Virtues  
,of the Plant, exquisitely drawn out, comprehended in this  
Essence, deservedly named COS, as containing the Colour,  
-Odor, and Sapor, or Taste, of the Piant, or Plants. In like

Manner the essential Oils of Exotics are easily prepared. This  
succeeded. It is not however a true essential Oil, but an ex-  
- cessive strong Tinctirre, which you-rnay call the Essence.

,Of the like Use it is in the animal Kingdom, where it  
produces an essential Oil of Phosphorus; as likewise in the  
mineral Kingdom, though not fo immediately, because the  
^Resolution of Earths must proceed. Moreover, it is easily  
-proved, that the same Liquor extracts the purest Gold, or  
.every Part of the -golden System from any, or all the baser  
.Minerals, and that this Gold, thus extricated, is by this one

Operation Letter and sooner purified than by Fusion of Minerals  
with Antimony.

This our Water is neither corrosive nor joined with ap-  
parent Corrosives ; wherefore sill as many Bottles with *aethe-  
rial* Water as there are Sorts of Salts, and into the first  
Drop by Drop distil Oil of Vitriol; pot into the second  
Spirit of Sea-salt, into the third. Spirit of Nitre, or of Alum,  
or of Sal Ammoniac prepared with Water, or the Lixivium of  
Tartar, or rectified Vinegar, all the Salts immediately sink to  
the Bottom: Besides, it is the lightest of all Liquors ; for,  
fill any Vessel with twenty Ounces of Oil of Vitriol, the fame,  
emptied, will contain het feven Ounces of *slither.* It is rhe  
very Ens, or Being, most pure of Flame ; wherefore neither  
Soot nor Ashes are ever sound upon its Deflagration. This  
succeeded.

Thus far Dr. Frobenius ; but to make this Paper more than a  
mere Harangue, it is absolutely necessary to subjoin two Para-  
graphs out of a Paper of that excellent Chemist MI. Godfrey;  
Dr. Frobenius’s Fellow-labourer, in these Experiments which  
he delivered in when this *Acther* was made public before us.

Feb, I9, I7,2-i Thet this Liquor *JEtherius* was formerly  
very much esteemed and enquired into, doth clearly appear  
by an Experiment I made formerly for my worthy Master;  
Esquire Boyle, by the Means of a metallic Solution, namely,  
by the Solution of crude Mercury united with the Phlogiston  
Vini, or other Vegetables, and this *Acther* swam on the Top  
of the Solution, which I separated per Fritorium. Note, This  
is what I have done formerly in Esquire Boyle’s Laboratory,  
and Sir Isaac Newton was very well acquainted with it too;  
which by Reason of Shortness of Life was not brought to a  
full End, to do it so readily in Quantity. But when Dr. Fro-  
benius, by Experiments on this in my Laboratory, did pro-  
duce it in greater Quantity, he wanted to fee how Sir Isaac  
Newton had gone on with it in bis Book. There we *faw*that great Man’s Application in *Fol.* 330. that he had done it  
*cum Ob. Vitr. et Sp. Viai.*

This oss Sir Isaac Newton is the *Sp. Vini Attheriussrodur*there is a Difference in the Process. The Liquor *Astherius*is made with equal Parts in Measure, not Weight. The up\*  
per yellow Liquor is separated from the inardent sulphureous  
per Tritorium. The inferior Liquor is thrown away,- and the-superior yellow is put into a Retort to he distilled with the  
most gentle Hear ; and the Extraction of the *aetherial* Liquid  
continued so far until the superior Hemisphere feels cold, and the  
Retort being clapped in the Hand, there is found in the Receiver  
a Vino-fulphureous Gas very *aetherial.* Let the Sulphur he pre-  
cipitated by adding an Alcali, and gently throwing it in till all  
Ebullition ceases, and the Liquor will not farther strike itself  
against the Hand, but will strangely attrast is. Then the Al-  
call will go to the Bottom of itself, or precipitate itself in the  
common Water. *Abridgement of the Philosophical Tronfactinns,  
Vol.* 8. P. 744. *ad P.* 747. \_ J-'.

AETHERIA HERBA. Eryngo. *Callus Aurelianus.*

AETHES. Άηθη'ς. From α Negative, and |βος. Custom,  
unusual, not according to Custom. The Word brher is ap-  
plied to the Spittle, Hippocrates, *Praedict.* Z.‘/jt.-iiaa. hut /  
Foesius alters the Reading to Ἀμόθιμ, with the greatest Ap.  
pearance of Reason.

AETHIOPICUM CUMINUM. AEthiopic Cummin. See  
**'CUMINUM.**

AETHIOPICUS LAPIS. The AEtbiopian Stone, affirmed  
by Oribastus to he of more Virtue than the Hamadtes, the Me-  
litries, the Galactites, or the Schiftos. It is brought from Ethio-  
pia, and is of the Colour of greenish Jasper. It is resolved in-  
to a Juice of a milky Colour, het of a biting Taste. *Oribastus,*Zi. I5. C. I. —

*Acthiepis,* Ossie. Ger. 634. Emac. 779. Chain 435. Rcit  
Hist.1.545. *Acthiepis Multis,* J. B. 3. 3I5.. *Althiopis foliis  
stnuesisc* C. B. Pin. 24I. *Sclarea vulgaris lanuginosa, amplijsc-.  
rno folio,* Tourn. Inst. I79. Elem. Bot. I4sh *Sclarea Acthio.  
-pica, five Antfnepis, laciniatisret non laciniatis saliis.* Park. Theat.  
57. *Hiorrninun Astplapecurn incanum foliis stnuosts, Actlnepis die.,  
turn,* Herm. Hort. Lugd. Bat. 3I8. Volck. Flor. Non 2I4.  
*Hirminurn Atthiopicum foliis Jinuesis,* Hist. Oxon. 3. 392.  
**AETHIOPIAN** Clary. *Dale’s Pharmatslegia.*

*Atihiopis* has Leaves like those of Mullen, very hairy and  
thick, and standing in a Circle about the Head of the Root.  
The Stalk is quadrangular, thick, and rugced, like that of  
Baum, or the Woolly-beaded Burdock, beset with many  
Branches. The Seeds are of the Size of bitter Vetches, and  
two in a Cell. It shoots forth many long, thick, and clam-  
my tasted Roots from one Head, which blacken as they grow  
dry, and harden fo as to look like Horns. It grows plenti-  
fully in Messenia and about Mount Ida; *Diofcorides, Lib.* 4.

*C.* 105.

This Description is repeated Word for Word by *Oribastus,  
Lin..*

It first comes up with Leaves of the Breadth of a Hand, and  
not much longer, and covered on both Sides with Plenty of  
soft Down as it were Lint otherwise not much unlike rhe

Common Garden-clary, channelled in some Plants, some jagg-  
ed, others not. From the Midst of these shoots up a square  
Stalk, harry in like Manner, and surrounded with Leaves like  
the former, het often lesser, and thick besot with Branches, on  
.which at the Joints stand the Flowers in WhorleS.

They consist of two Leaves, forming a close Empalement  
like those of common Clary, of a snowy White, one of them  
which is raised and gathered like a Woman's Hood, produc-  
ing from its Bosom, which is concave, like the Lip os May-  
weed, yellow Clusters, and a Silver-coloured Pointal. The  
.Flower-cup is oblong, out into five Divisions, and almost hid  
by the Thickness of the Down. It has the stinking Smell  
of Archangel, or the Hedge-Nettle. The Root is fibrous ;  
the Seeds are four in a Cell, not two only, as C. Bauhi-  
nus, and Parkinson from him, have related, like the Seeds  
-of Clary, of a dark Brown, and triangular. It grows plen-  
tifully in Greece and Illyria. There are two Species of this  
Herb ; one with jagged Leaves, and another whose Leaves  
are whole and even round the Edge. *Raii Hist. Vol.* i.

It is cultivated in Gardens, and flowers in Summer; its Root  
is the Part in Use. *Dale.*

The Decoction of the Root, drank, relieves the Sciatica,  
Pleurisy, Spitting of Blood, and Hoarseness. It is taken with  
Honey in the Form of a Linctus. *Dios.corides, Lib.* 4. *Cap.*i°5. . .

The same is repeated, after Dioseorides, by Paulus Asgineta,  
*L y. C.* 3. and *Dale* in his *Pharmacologia.*

*olthiopis* is an Ingredient in a Drosaton, against Coughs and  
Pleurisies, deserihed by *Myrepsus, Sect.* 8. *Cap.* 54.

Pliny relates, that the Magicians boasted, that the *AEtJnopis*would dry up Rivers and Ponds, if only cast into them, and open  
eVery Thing that is shut at a Touch. But he laughs at these  
monstrous Accounts, *L.* 26. *C.* 4.-

jETHIOPS MINERALIS. *AEthieps Mineral.* This Me-  
alicine takes the Name from the Colour, which is Very black. It  
is made either with or without Fire. The Process for that  
made with Fire is thus:

Take an unglazed earthen Vestel that will bear the Fire,  
put into it what Quantity of Sulphur you please, let it melt  
over the Fire, and, during the Fusion, mix with it, by Means  
- of an iron Spatula, an equal Weight of Mercury revived from  
-Cinnabar. Set the Mixture on Fire, and when the Sulphur  
is burnt away, the remaining Mass, which is black, friable, and  
heavy, is *AEthieps Mineral. .*

The Dose of this Medicine is, according to Lemery, betwixt  
eight Grains and two Scruples, but it may be given in much  
larger Quantities. It is recommended in an Asthma, Epilep-  
sy, Rheumatism, Venereal Disorders, and King's Evil. *Lemery.*

The *AEthieps Mineral* without Fire is made by rubbing equal  
Parts of crude Mercury and Flowers of Sulphur together, till  
they are intirely incorporated, so .as the Mercury intirely dis-  
appears, in a glass Mortar, according to the Directions of the  
*London* and *Edinburgh Dispensatory,* but according to Wilson, in  
one of Iron. It requires much Labour to mix the Mercury and  
Sulphur intimately together, but a great deal of this may he  
.saved by warming the Mortar over a gentie Fire, during the  
Trituration, for then they unite readily, and the Medicine can-  
not he worse for it.

The *AEthieps Mineral* does not mix with any other Sub-  
stance without Difficulty. The Dose is from ten Grains to  
th Dram, but. a much larger Quantity may be taken.

. Various are the Accounts given of this Medicine by Au-  
thors. Some recommend it in all Foulnesses of the Skin, old  
Ulcers, and every Species of the Venereal Disease, and I  
.think every one agrees that it is effectual in destroying Worms.  
Some have affirmed, that it will give a white Colour to Gold  
carried in the Pocket, and that a great deal of it. has been  
found upon the Plaisters which have laid on the Ulcers of  
. those that have been under a Course of it. Ono great Ad-  
vantage which attends in‘is, that there is no Danger of a  
.Salivation from its Use, if well prepared, but I do not think  
this any Evidence of its Efficacy.

But Boerhaave is of a very different Opinion with Respect  
to the medicinal Virtues of *AEthieps Mineral.* He affirms, it  
cannot enter the Lacteal Vessels, but is discharged out os the  
Intestines as it goes in ; however, *if it* is attended with great  
good Fortune, he says, it may possibly kill Worms, and that  
this is all the Effect it can possibly have. He farther also  
throws out a Suspicion, that so ponderous and unactive a  
Mass may do a great deal of Mischief in the tender Inte-  
stines of Children. This great Man appeals to Reason, and  
his own Experience, for the Truth of what he astbrts. *As*to Reason, it is difficult to conceive, that the intimate Union  
.Of two such penetrating Substances as Sulphur and Mercury,  
should make a third Body utterly unactive. And1 if his Ex-  
perience did not furnish him with any Evidence of the Ef-  
ficacy of this Medicine, he must have been Very unlucky in  
this Instance, for it has certainly done great Services in other  
Hands; but to Confess the Truth, it requires a long PerseVe-

rance, in order to have any great Effects, except in the'Casc  
of Worms.

On the other Hand I helinve, those who have been very lavish  
in the Praise of this Medicine, have done it without any very  
good Foundation, for it has the least Efficacy of all the Clafs of  
Mercurials.

Upon the Whole *AEthieps Mincral* has had the Fate of most  
Other Medicines. When one considerable Man spoke well  
of it, this was sufficient to make all those concerned in the  
Practice of Physic, who have neither Character nor Ideas of  
their own, to extol it heyond all Bounds of Credibility. And  
the Disapprobation of another great Man, however ill sound-  
ed, has been sufficient to sink it into its present Disrepute.

The Proportion of the Mercury to the Sulphur, in this Prepa-  
ration, is different in different Authors. Boerhaave directs three  
Parts of Sulphur to two of Mercury.

Somewhat in Imitation of this is a Medicine of much greater  
Efficacy, described first, I helieve, by Dr. Cockburn, in his  
Treatise on a Gonorrbaea, and now generally called

.ETHIOPS ANTIMONIALIS. It is thus made: First  
flux equal Parts of Antimony and Sea-salt in a Crucible for  
an Hour, then let the Matter cool, break the Crucible, and  
knock off the Scoria, then rub equal Parts of the Regulns  
made in this Manner, and Mercury together, till they areincorporated. This requires more Labour than the *AEthieps  
Mineral,* but largely repays the Trouble by its great Efficacy,  
for, I helieve, there are few Medicines in Use of equal Vjed  
tue. It will cure most chronical Disorders of the Skin, and is  
admirable in all Sorts of Obstructions. Hence it becomes ser-  
viceable in the King's Evil, and the most obstinate glandular  
Diseases, and many chronical Distempers that are out of theReach of other Medicines. I do not give a great deal of Cre-.  
dit to Accounts that may he found dispersed in medicinal Au-  
thors of Cures performed on cancerous Patients, but I have  
the greatest Reason to attribute the Cure of two Tumors, that  
were esteemed cancerous by every Body that examined them,  
to a long Use of this Medicine, and Holt Waters, which in  
these Cases were drank at a great Distance from rhe Spring.  
In Venereal Disorders os 2 long Standing, I have often been  
a Witness of such Effects as I have not peen from any other  
mercurial Medicine whatever. This, lihe all Antimonials,  
will contract an emetic Quality by heing exposed to the Ain,  
which is probably owing to the Acid ir imbibes. It may he  
given in the Quantity os a Scruple, or more in some Consti-  
tutions, but I have learnt to begin its Use in a smaller Quan-  
tity from an Instance I once saw os itS proving a strong Eme-  
tic, when there was no Reason to expect such an Effect, and  
when the Dose was only eight Grains. The Case was that of  
a young Lady, who had complained some Time of shooting  
Pains in a Tumor of her Breast. The very same Morning  
another Lady took fifteen Grains of the same Medicine,  
and from the fame Apothecary, and, as I was well inform-  
ed, out of the same Vial, and, notwithstanding this, in the last  
Instance it had no Visible Operation, though it acted with so  
much Violence in the first. ...

ιΈΤΗΝΑ. Rulandus and Johnson explain this, that sub-  
terraneous, invisible, and sulphureous Fire, which calcines  
Rocks in the Bowels of the Earth. Hence they call igneous  
Meteors that appear about burning Mountains in different  
Shapes, .ZETHNICI, which they seem to think the Spirits  
of Mem 1 \_ . Ἄ

AETHOLICES. Ἀιβὀλεκμ. From Ἄιόστ, to inflame. Su-  
perficial Pustules of the Skin, raffed by Heat. They seem to.  
mean Boiis. . .... *"i*

AETHYA. Ἄιδυα. A Sea-fowl, called by the Latins *Meri  
gus* or *Fulica.* A Coot. \*

ALTHYIA, Ἄκταια, signifies a Mortar. . r

AETIA. Ἀιτία. The Cause of a Distemper. Hence ' ..  
./ETIOLOGIA. 'Αετιολογία. *AEtiology,* that Part of the  
Theory of Physic, which explains the Causes of Diseases and  
their concomitant Symptoms. :: ...

sETITES. The *Eaglestone,* thus distinguished by Authors

*AEiites,Aquila lapis,* Ossie *Altites,s.eu Aquilinus lapis.* Worm.  
77. Charlt. Fossi 3I. *Agites,* Schred. 34I. Schw. 36I.  
Kentm. 34. AldroV. Musi MetalL 580. *Lapis AEtites,* Boer.  
375. De Laet. II4. Matth. I389. *AEtitee,* Gesit. de Lap.  
IO. p. 9. Geoff. Prselect. 68. *Aitiles, Ochreo ferreus,* Wodw.  
Att. Tom. 2. P. i. pag. q. EAGLE-STONE. A Stone, big,  
as it were, with another Stone rattling in its Womb, of a  
dark, ruffet, or Ash-Colour, and commonly of an oval Figure.  
The Oriental is accounted the best. *Dale.*

The Stone *Artites,* heing shook, sounds as is it were pregnant  
with another Stone. Tied to the lest Arm, it retains the  
Foetus in those Women who are subject to miscarry: But,  
in Time of Labour, it must he taken from the Arm, and  
tied to the Thigh, and the Woman will be delivered with-  
out. Pain. Mixed with Bread, it sinas out Thieves, for a  
Thief will never he able to swallow it, after he has chew-  
ed it. Boiled with Victuals, it is said to work the same

Feat, and than a Thief cannot eat of any Thing boiled with  
is.

Bmised, and apolied with Cyprian or Gleucine Cerate, or  
any other heating Composition, it is Eery effectual in Gouts  
and Palsies. *Aecius, Tetrabib.* **I.** *Serm. 2. Cap.* 32. *P.* 69.  
**A**

Dale having cited Shroder for the same Virtue which Ae-  
tins above ascribes to this Stone in retaining the Foetus, and  
facilitating Labour, with this Addition, that after Delivery  
the Stone must immediately he removed from the Thigh,  
for Fear it should draw the Womb to it, subjoins the following  
Remarks from Amman :

The natural Effects of *Eagle-stme* are commonly magni-

fied on Account of the Traces of some Signature, while  
It in believed to he of Service, in Time of hard Labour, and  
to facilitate Delivery. This I do not deny ; but this na-  
rural Effeci of the Stone was by Galen, Pliny, and others,  
immediately blended and overlaid with Superstitions. For  
who will prove, (I) that an *Actites* tied to the Arm prevents  
Mifcarrying ? Which too is an Effedt contrary to the for-  
mer. (2) That the *Attlees* has such an attractive Power, as  
to make the Womb fall out.? Wormius, *P.* 72. and Vale-  
riola produce their Observations as to this fast. But, th my  
Opinion, these Observations are not well grounded. For we  
know by Anatomy, that the Uterus is held fast in its Sr-  
iuation by Ligaments formed by Nature for that very Pur-  
pile. How then can this Stone work fuch an Essedi ? In-  
dced, unless a Power of relaxing, or breaking these Liga-  
ments, he afcribed to it by the forementioned Authors, we  
cannot admit the Observation of Valeriola, which he makes  
on a Woman of Valentis, unless we suppose the Uterus to  
he drawn out of its Place, by the violent and unskilful Hands  
os the Midwife, which has sometimes been the Case. And  
- yet too many such Absurdities are inserted among anatomical  
Observations, (3) There is no Proof that ever this Stone  
discovered if Poison were mixed with any Thing, as is re-  
ported. (4) That it finds out Thieves, being pulverised and  
mixed in their Bread, by their Incapacity of swallowing it,  
is a precarious Assertion, depending on a fallible Mark, for  
Deglutition may be hindered by other Causes. (5) It nei-  
ther procures Love, nor increases Riches, which it is said to  
do. (6) Therefore if we ought to speak the Truth, let us  
content ourfelves with allowing the *Actites* the fame Virtue  
as the sealed Earth, in malignant Distempers, against Poisons,  
&c. *Dale.*

. AETIUS. There appears to have been three Physicians of  
this Name, who all made themfelves enough known to he re-  
corded by the Learned.

- The first was *Actius Sicanius,* out of whose Writings, toge-  
ther with others, - the Book, *de Atra Bile,* afcribed to Galen,  
is said to he colledced. *Fabricii Bibliorh. Grac.*

The Second was *Aeiius* of Antioch, a Man remarkable for  
changing his Profession several Times, and for heing a great  
Patron of the Arian Heresy. He was originally bred to the  
Cultivation of Vines, which he quitted, and took up the Trade  
of a Gold and Silversmith. After this be got into the Service  
of one Sopolis a Physician, and then heing supplied with Money  
by a certain Armenian, be applied himself to Letters, and, upon  
the Credit of heving been a Servant to a Physician, set up for  
one himself; but changed once again his Way of Lise, and en-  
tered into holy Orders, where he seems to heve succceded  
somewhat better than in Physic, for in or about the Year  
.361. we find he was made a Bishop.

This *Aecius* appears to have been extremely zealous in pro-  
pagating the Arian Heresy, which he carried to a greater  
.Length than even the Author of it himself; it is for this  
Reason that he has incurred the Scandal of being an Atheist,  
which however must he malicious, for it is not probable that a  
Man who was an Atheist, would he very follicitous in establish-  
ing any Modes of Belief with Respect to the Christian Reli-  
Sginn. ς , .

,. Different from this, in the Opinion of the Learned, was *Aetius*of Amida, whose, Works are preserved. He is said to have  
.lived in the letter End of the fourth, or Beginning of the  
fifth Century. . All that we know of him sot certain is, that  
.he travelled into Egypt, where he probably studied, and into  
Coeio-Syria:

;, He was undoubtedly a Christian, as appears from two Pas-  
sages in his Works. One in *Tetrabiblos* 2. *Serm.* 4. *Cap.* 50.  
where he gives the Method of extracting any Thing that hap-  
pens to stick in the Throat. When other Ways fail, he ad-  
vises the following as the fast Refuge, and on which he feems  
to lay forne Stress: Turn, fays he, to the Patient and bid him  
attend, then fay. Bone come out (if it happens to he a Bone)  
as Jesus Christ brought Lazarus out of the Sepulchre, and aS  
Jonas was brought oat of the Belly of the Whale. Then,  
laying hold of the Throat, say, Blasius the Martyr and Servant  
of Christ says. Either come up or go down.

The next Passage I would bring for a Proof of hrs heing  
a Christian is in *Tetrabib. Serm.* **i.** *Chap, si.* where speak-

ing of the Stings of Wasps and Bees, he says, that the -eherd-  
ble and vivifying Image of the Cross, engraved upon an iron  
Seal and pressed upon the Part stung, is of great .Service, pre-  
venting all Manner of Inflammation. To this Preioription of  
*Aetius,* I must add, and I bop. without Danger of any Im-  
putation of Superstition, that the Remedy he advises has great  
Effects in the Cafes he mentions, generally taking off the  
Pain and preventing Inflammation. But for Fear I should  
miflead my Readers, I must remark, that an iron Seal -with-  
out the Figure of the Cross, or even the Blade of a Knife, will  
do as well. . .

Thefe Passages prove *Aetius* a Christian, but at the fame  
Time such a one as brings very little Credit to the Faith he  
professed, since a small Degree of Evidence bras sufficient to  
influence his Belief; for, though the Truth of the Christian  
Religion admits of all the Proof that a reasonable Mansioulil  
require, yet there Fooleries, the Essects of a mistaken-Zeal;  
which he seems to give Credit to, are not in the least coun-  
tenanced either by Reason or Revelation. ,

Upon the Whole *Aecius* appears to heve heen a. very cre-  
dulous Man in many Instances, and was far from giving  
the Composition of Medicines which had acquired a Character,  
with a Design to expose them, as Dr. Friend thinks, for in the  
very Instances that are brought to prove this, I mean the Col-  
lyrium of Danaus, and the Antidotum Ifotheos, the Author  
does not seem to dispute the Reality of the Virtues attrt-  
' buted to them, hut mentions their great Pried in all Ap- ..  
ndarance with a View to increase his Readers Opinion of their  
Value.

Notwithstanding the Credulity of *Aetius,* he. is a very va-  
luable Author, and has preserved many Things considerable  
with Respedl to the Practice of Physic in his Collections from  
Authors whose Works are now lost. Of this frequent Instanced  
wily occut in the practical Part of this Work, for which  
Reason I shall omit taking Notice of them in this Place.

Fabricius and Friend relate, that in some Manuscripts be is  
stiles κόμι; ίψίκιου, *Comes Obsequii,* which the last-mentioned  
Author explains. *The chief Officer of these who used to go before the  
Emperor as his Attendance qnd Harbingers.*

His Works are at present divided into four Tetrabibli, and  
each of them into four Sermones, which are again subdivided  
into Chapters. This Division appears not to have been made  
by *Aetius* himself, but was probably the . Work of some Co-  
pyist, that transcribed his Writings finde the Time of Pho.  
tins, for in bis Days they were divided into sixteen Books,  
the Numher of Sermones which the four Tetrabibli con.,  
tain. '

Photius says, that *Aetius* did not only make his Collecti-  
ons from the fame Authors that Oribasius extracted his from,1which he dedicates to Julian, Eustathius, and Eunapius, but  
also from the Therapeutic Tracts of Galen, and from Ar-  
chigenes, and Rufus, and hesides these from Dioseorides, So-  
ranus, Phiiagrius, Philornenus, Posidonius, and some others  
who had made thein Names famous for their Skill in Phy-  
sic.

He begins his Works (says onr Author) with the Virtues  
of simple Medicines and Aliments, which be abbreviates from  
Galen, and closes with the Sixteenth Book, which treats of  
the Diseases of Women ; to which he adds some Chapters  
containing Medicines to cleat the Face, and oleaofe the Skin,  
with the Preparation of Oinantharia *[Sweet Ointments made  
with VVme and Idlies* ] and other Things of rhe llke Kind.  
.So the Work begins and 'ends; het, to he more particu-  
lar,

The First Book treats, in a summary Way, of the Nature  
of simple Medicines and Aliments. This is the first Sermoi  
of the first Tetrabiblos, according to the present Division of  
his Works. , .

The Second speaks of the Virtues and Use of metallic Sued  
stances, and of Animals, both whole, and their Tarts, in **a'**compendious Manner. And this may he reckoned to contain  
no inconsiderable Part of the Materia Medica. This is the st\*-,  
cond Sermo of the first Tetrabiblos.

The Third Book treats of Gymnastics and its Preparato..  
ties. Then, after speaking of insensible Evacuations, he dis-  
courses largely on Phlebotomy, distinguishing the different Ways  
of Section, and directing the Form and . Bigness of the Incr-’  
sion, with the Time and Meafure of Evacuation. He goes  
on to the Section of an Artery, prescribes a Medicine to  
stop the Bleeding of an Artery,1 speaks of Cupping, Scari-  
fication, and the Choice of Leeches, . From thence he pro-  
ceeds to treat of Cathartics, and the different Preparations of  
purging Wines, of purging Meads, and medicated purging  
Wines, of Absinthaton, Rofaton, Honey of Roses, and Oxy-  
mel, purging Garum, Honey, Metheglin, and Oxygarum, of  
emollient Broths, Milk, and purging Olives. Concerning all  
these he gives Directions . and proceeds to compound Oxy.  
poria, and different Sorts of Cathartics, to purging Loaves,  
and Troches. He describes the purging Medicines prepared of  
Aloes, and also of Salts pAYdurasc» .καὶ άγ,ατα] with the five Hleras.

He prescribes Help for these who have taken Purgatives which-will not work, or, on the Contrary, evacuate too much ;  
gives his AdVice concerning Emetics, shews the Virtues of  
Hellebore, and the Persons for whom it is proper, and who  
are qualified to taKe it; hew to make Experiments of the  
Strength of Hellebore, and how the Patient is to prepare  
himself for the taking of it; of tine Various Uses of Helle-  
bore, and the different Ways of administring it, and the Care  
that ought to he taken of those who heve drank it. He pro.:  
needs to purging Epithems, and rake- Notice of those Parts  
of our Bedies which may he purged, as the Eyes, Ears, and  
the rest in Order. Of Suffumigations producing the same  
Effect, and of Medicines evacuating the small Intestines, and  
the concave Past of the Liver and its Appurtenances ; of  
the Air, Winds, and Significations of the Stars ; of Waters,  
of Baths natural and artificial; of cold Bathing [ψυχρολατίας] of  
Baths of Oil [τῆς *iff* ἔλαιον ιμβάσ-ωςτ of pouring Water oh the  
Face lthe προσείπ3 κλυσμάτων] of Perfusions, InseffionS, Irrigations,  
and dry Fomentations [πυριἀσιως]. Moreover the Book treats  
of the Various Kinds of Cataplasms; of the Dropax, Pication, Si-  
napism, Rubification [φοιιιτμου] and metasyncriticas Remedies  
Ιμετασυγκρεσικομ βοη&ήμασιν]. This is the third Sermo 0f che fint  
Tetrabiblos.

In his Fourth Book he discourses on Regimen, or the Me\_  
thod of preserving Health. Here he begins with the Naturo  
Of Infants, describes their Diseases, and gives Remedies, Then  
he prescribes a proper Regimen for all Ages and Conditions  
of Lise; telis when we are to exchange Flesh for a thinner  
Diet; treats of Lassitude from Exercife, and its different Kinds,  
of Lassitude from Venery ; of that Species whiCh  
from no manifest Cause, and which they call *spontaneous*of the Care we ought to take of Concoction; of Perspiration  
stopped, and. its Cure ; of burning Heats [ryxaikeojj and fan.  
fonable Friction ; of Indigestion, Crapula [κραιπἀλ,,ςτ and equal  
Dyfcrasies [ομαλους δυσκςασίας}. How to know the best Tempe-  
rament; gives us the Characteristics of a hot Temperament, and  
Of others, both simple and mixed, and that not only of the whole  
Body, but of the Head, Brain, Belly, Lungs, Heart, Liver, and  
Testicles; and prescribes Remedies for all their Disorders. This  
is the fourth Sermo of the first Tetrabiblos.

. The Fifth is a Treatise of Diseases. Here first he recom-  
mends the Study of Hippocrates; and discourses on Fevers,  
their Signs [σημίεώσπς] Prognostics and Diagnostics, with their  
’Cures, and whatever else belongs to this Branch of Medi-  
cine, in a very exact Manner. Whet is Io he .accounted  
the Beginning of Distempers, and- that the feme β threefold;  
what we are to understand by Paroxysm [παμξυσμῦ] and Re-  
mission, the Height and Declension [ἀ,μὲν ikequiestes] os theParoxysm, either affecting the whole Body, or some Part of  
it. What are the Signs of Death or Recovery to the Patient,  
and which of them portend quick' or flow; or in- a middle  
Way, Destruction or Delivery. Os rhe Signs of Pulses, and  
Diagnostics by Urines, and what is to he learnt by them ;  
of the Marks of Excrements, with the Signs and Prognostics  
of Vomiting ; of an Haemorrhage from the Nose, and of the  
Catamenia ; os the critical Signs of Sweats and Abscesses, and  
whet may he gathered from the Spittie. That a skilful Physi-  
lcian will know when a Disease is past a Solution, and when  
it only seems to be so, and can foretel the Day and Hour when  
the Sick will die. He goes on to treat of general, epidemic,  
and pestilential Distempers, of such as, on some Occasions,  
’are seized with Paintings, and of Lipothymies and their Causes;  
of Pain in the’ Head, Ears, and Eyes; Want os Sleep, and  
Dulness .of Sight attending, a Fever ; os such as.under .a  
Fever are seized with in Haemorrhage, and their Cure, and  
what Care ought to he taken os feverish Patients. Moreover,  
Ft treats os the Bladder, 'of -Difficulty- of Urine, Pains in the  
Loins, Exulceration of the Parts about the Os Sacrum, of  
the Testicles and Anus,'Breakings out of Pustules [εξανθήρμαα]  
over the whole Body, or some Part thereof; of Tremors and  
Convulsions, and gives a Detail 0s Medicines which are both  
agreeable and effectual; -This is the first Sermo of the second  
Tetrabiblos. .

*Aetius,* in hia Sixth Book, treats of the Disorders incident  
to the Head and Brash universally, and not only describes them,  
but shews a Way to cure them. He proceeds to speak of those  
who are bit by a mad Dog, of rhe Apoplexy and Palsy; of  
the Resolution of the Eye-brow, Eyelid, Tongue, Vocal Instru-

- ments, and Oesophagus; and prescribes Cures for them all.  
Thence he goes on to the Spasmus Cynicus, and shews how to  
cure a Resolution of the -Bladder, Penis, and Intestinum Rec-  
tum, \* the Leg, or any other Member; treats of a Tetanus  
[τττἀκου] and os the different Sorts of Headaches, from what-  
ever Cause they arise, of a Cephalaia [an intense Pain in the  
Head] and a Hemicrania [a Pain confined to one Side of the  
Head]; prescribes a Cure for the Alopecia, and Defl nvions of the

\* Hals, and for bald Eyebrows ; gives Receipts for dying, curl-  
: ing, eradicating Hair; to make it fine, and prevent its  
- shedding ; and teaches the Making of Psilothra [Ointments to  
fetch off Hain J; speaks moreover, of the PituriasiS [a Sort

of stem's] Phthiriasis [lousy Disease] Achores, and those Pu-  
stules ζεξαοδήμὲντα] which rise about the Head without any ma-  
nifest Cause; for all these and the like Distempers he gives  
us a Cure; also for those Various Indispositions from different  
Causes, to which the Ear is incident ; for an Haemorrhage  
from that Part, and for the Parotides. Thence the passes ter  
the Nose, and its Distempers, when he treats of Sternutato-  
ties, and how to suppress immoderate Sneezing. This is the *slum*cond Sermo of the second Tetrabiblos.

- In the Seventh he proceeds to consider the Nature of the  
Eye, and those manifold Disorders to which it is subject, whe-  
ther they proceed from an internal or external Cause. He in-\*  
structS us in the Section of an Artery, in scarifying the Sin- ’  
ciput [πτοισκοφισμά, the Edition os Photius’S *Bibliotheca at Raaen,*I653, has it *estici cnuriururi,* which Error has passed into the Latin  
Translation] and the Forehead, in the Method of Bleeding j  
among the rest he gives us Prescriptions for Ointments, Ca-  
taplasms, and various Sorts of Collyriums ; and all this with  
no small Accuracy and Judgment. This is the third Sermo of  
the second Tetrabiblos.

In the Beginning of the Eighth he has something to' say  
about adorning and setting off the Eyebrows ; then speaks  
of a black Eye, how it comes, and how to cure it ; teaches  
as to defend the Face from Burning, either by Sun or Wind,  
to preserve the same from Wrinkles, to alter a black Colour,  
with. other additional Beautisyings, and to diffuse a good Scent  
over the Skin. Hence he passes to consider at large the Diss-  
tempers incident to the Face, Mouth, and Tonsiis, whether  
from an internal or external Cause. He treats of the various  
Maladies to which the Teeth are liable, and prescribes a Cure ;  
also those of the Tongue, Uvula, and all that are comprised  
within the Compass of the Mouth. - Among this Numher are  
the Cynanche and the Synanche, which have their Seat in the  
Jaws ; the Tonsiis also haVe their Place among the rest. He  
shews a Way to revive those who are strangled, but not dead ;  
discourses on the Diseases of the Arteries, and their Remei  
dies; of Coughs also, and Catarrhs, where he prescribes Ano-  
dynes for the Cough, with SuffumigationS and Epithems. *As-  
ter* these he considers those who am afflicted with Asthmas,  
Difficulty of Breathing, and Palpitations as the Heart ; and  
having first treated Of the Diseases of the Breast and Lungs;  
he closes the Book with a Discourse ch thd Pleurisy, the real  
and the reputed one, describes them both, and shews a Meil  
thod of Cure." This is the fourth Sermo'of the fecond Teif  
Irabiblos. . . ' ν’

The Ninth Pooh begins with the cardiac Passion, and pro-  
ceedsto' speak "os those who have their Stomach affected with  
Atra Bilis, or the Mouth os the Ventricle any Way disordered,  
describing the Cataplasms, and other Remedies for the Various  
Distempers of the - Stomach. t Here he considers the Cafe of  
those who suffer Convulsions of the Stomach, aster the Manner  
of epileptic Patients; treats also of Want of Appetite, of the  
canine Appetite, of Indigestion, and their Cures. Then ho  
shews how to cure a Surfeit, and prescribes a Remedy for CO-  
stiveness ; treats moreover of Flatulencies, the iliac Passion,  
and the Colic, of Flukes os the Belly, and what is called a  
Disposition to the Colic, of Collrquations, os Worms, round  
and broad, of those called Ascarides, and of the Affections of  
the Intestines. He prescribes a Remedy for those who have  
swallowed Gold, Brass, or any such Thing ; as also for such  
as labour under a Dysentery, to be taken at the Mouth, or ini  
jected beneath, such-aS Pastils, Suppositories, Ointments, Epi-  
thems; and at last ends hiS Book with treating of a Lien..  
tery. This is the first Sermo of the third Tetrabiblos.

He begins his Tenth Book with the Liyer, he Weakness, and  
other Disorders; and prescribes Medicines for them. Then pro-  
ceeds to consider the Affections of the Spleen, and its various Dis-  
orders, fitch as Inflations, Inflammations, Scirrhofities, preter-  
natural Tumors, and Hardness, and shews how to cure them 5  
after these, of the Jaundice, Cachexy, and Dropsy ; shews  
you whence every one. of these Distampers proceeds, and puts  
you in a Way and Method how to cure them. This is the se..  
cond Sermo of the third Tetrabibim. . - Ἀ

The Eleventh Book treats of a Diabetes, and the lax Tone  
of the Reins, of bloody Urine, of Stone in the Kidnies and  
Bladder, of Inflammation, Hardness, and. Suppuration of the  
Kidnies; of.Dysury, Strangury, .and Ischury; of Resolution of  
the Bladder, of such as cannot hold their Water in Sleep, of  
the Inflammation, Haemorrhage, Clots of Blood, Tuhercles,  
and Ulcers in the Bladder ; alfo of the Flux and Itch of rhe  
same Part ; of a Satyriasis, Priapismus, Gonorrhoea, and ve-  
nereal Dreams. To all these Distempers, as sar aS possible,  
he assigns proper Causes, and subjoins the necessary Cautions,  
and Cures. Ar the End of this Book he prescribes Exercises  
and Medicines for Impotency, This is the third Sermo Of rho  
third Tetrabiblos. -

- In his Twelfth Book he considers the Sciatica, and the  
Gout, and examines into the Causta, both general and parti-  
culas, of these Distempers, and prescribes Variety of Remedies  
for them, and for other Disorders consequent unon them.".' He

iocmints the several Ways of Evacuation, the Chrisms, Emolh  
Iienits, Anointings, the Acopa, and the Ointments, as also the  
proper Cathartics, and Antidotes, and .Abundance.’of-other  
Things proper to give Relief under these Diseases. This is the  
fourth Sermo of the third Tetrabiblos. . - -

His Thirteenth treats of the Bites of Animals, what Alterati-  
ons and Symptoms they produce in the Subject bitten, arid how  
to remove and cure them. He makes the like Observations on -  
Animals that ejaculate their Poison, and points Out those Plants  
and Herbs which are Venomous and destructive, with fingular .  
Care and Diligence. He discourses on Fungi, Bull’s Blood,  
and Milk clotted in the Stomach; informs us what metalline  
Substances are hurtful to an Animal, when taken Inwardly ;  
explains how drinking of cold Water or Wine may he hurt-  
ful.;r makes Observations on those who are strangled, drowned, .  
or precipitated from some high Place; of Precaution and Fore-  
sight in Brute Animals, especially domestic ones. He then.  
discourses of the Theriaca Androinachi, of Vipers, gives its  
Preparation, Uses, Seasons of fifing it. Ways to: try it, the  
Dose, and the Distempers in which it is properly administered ;  
also the other Theriacae, particularly the Antidotus Mithrida-  
tica,. or Mithridate, its Preparation, Use, and in what Cases it  
. is to he administered. To this he subjoins Other Antidotes,  
and; to them the two Cyphi [precious Ointments].. From;  
thence he proceeds to write of the Elephantiasis, of pruriginous  
Eruptions [κνησμωδἐν εξςαθημἀτων] Psydraces, and Pustules arising.  
from Sweat [ψυδράκων καὶ ίδρωτίδων] ulcerous Eruptions [ίλκωδἀν  
ένβρασμάτων] in the Legs, Scars from Ulcers which blacken  
. and. deform the Body.. He proceeds to treat of the two Species

Of Alphus ΓΑλφος, a Kind of Leprosy] and of the Leuce [λεύκη, ..  
a white Sort of Leprosy] and lastly os the Leprosy ; shews their  
Original and Causes, and prescribes their Cures. This, is the  
first Sermo of the fourth Tetrabiblos. . ' .

In the Fourteenth Book *Artius* treats with .great Accuracy  
of the Various Diseases incident to the . Anus, os Warts [θύμοε]  
and Fissures in the. Pedends, of a Phlegmon, Carbuncle, pha-  
gedenic Ulcers, and such as have their Seat in the urinary Pas-  
sages of a scabbed Scrotum, of an Inflammation in that Part  
and the Testicles; and.the Species of Herniae; of the Compo-  
fition os PlaisterS, and the Way of preparing the Ingredients.  
He treats moreover of wounded .and bruised Nerves, of Buboes,  
, ~ and Phlegmons in general; also of Abscesses, and hollow Ul-  
cers, declaring their Nature, and prescribing Remedies for all,  
and also for Worms bred in Ulcers,' and against the Spreading,  
Putrefying, and Bleeding of the same. He carries on his Dis-  
course to a Sinus, Fistula, Gangrene, Sphacelus, caricerated  
Tumors, Carbuncles, Erysipelas, Herpes, Terminthus, and Pu-  
stules, .specifying their Causes and Cures. He prescribes heal-  
ing Medicines for such aS are burnt with Fire,.scalded with Wa-  
ter, or scourged with Whips; for Abrasions, Galls, Contusions,.  
- where the Flesh is whose or broken [σαμὲνς θλασῆέιτος ψ ῥαγείσίνςί  
for Convulsions, Contorsions, Luxations, and .Chilblains, not.  
omitting Excrescences over the Nails, Whitlows [πτεμγίων,  
παρωνυχίας] Naiis crushed, bloody, loose, or rotten; also to make  
fresh Nails grow out in the Room of those which are fallen off,  
to get off Rings that are grown into the Flesh, to cnre.Corns  
and Chaps in the Feet, and also Varices. The Book con-  
. eludes with the Management and Cure of the Dracunculi in  
the Arms and Legs. Thus is the second Sermo of the fourth  
Tetrabiblos. ,

The Fifteenth Book contains the Theory and Cure of oedei.  
Inatous, emphysematous, indurated, and incysted Tumors, of  
Strumas, Bronchocele, Melicerides, Steatomata,. Ganglia; Aneu-  
rifins, FaVi, and Hydrocephalus. Of all these you have the  
, Origin, and Causes, with the chirurgical and other Methods of  
Cure, and the Preparation of many and Various Sorts of  
PlaisterS. This is the third Sermo of the fourth Tetrabi-  
. bins. »

. In the Sixteenth,, and lash the Author treats of the situa-  
tion. Structure, and Magnitude, of the Womb, with the Sea-  
sons of its Purgation and Semination. Of Conception, of the  
Marks of Foecundity, and having actually conceived, and of  
the Symptoms pecuher to pregnant Women. Of the great  
Care that is to he taken of them; who are qualified for ea-  
fy Labour, and who are unhappy in that Respect. Of hard  
Labours, and preternatural Births, of the Caesarean Section,.  
and Extraction of the Secundines ; what are the Causes of In\_  
shecundity in Man or Woman. s For all thefe sore-mentioned  
Evils; Remedies are provided in this Book ; aS, for Instance,  
Potions, Pessaries, and Suffttmigations are prescribed to pro-  
mote Conception. Hence he goes on to the Diseases of Wo-  
mens Breasts, which he treats of in a skilful Mannes, ex-  
plaining their Origin, Essence, chirurgical and other Methods  
of Cure. After this, he enquires into the Causes of the Ob-  
struction os the Menses, os their too plentiful Efflux, both the  
red, and the white ; of Hysterics, and a Fluor albus, with excel-  
lent Prescriptions in these Cases. He proceeds to treat of other  
Distempers of the Uterus; as Abscesses, oedematons Tumors,  
Moles, Dropsy, Diners, &c. and other Things of the like Kind,  
not forgetting to speak of the PhimosiS, and Imperforation,  
and other like Incidents, with these proper Remedies; also

of the Section- of the .Nyinphse, Cercosis, the Hernia varied-  
sa. Thymi, and suchlike; and how to cure them. To all

. these he subjoins some Smegmata [a' Sort of Wash-balis] for  
the Face, and other Parts os . the Body, with Prescriptions

' for the Composition of some precious Ointments, with which  
. he closes his Treatise Of the,Art of Medicine. This is the fourth .

Sermo of :the fourthTetrabiblos. ,, . ...

-This Work .of. *Artius,* in my Opinion; excels the Synop-  
ses of Oribasius, I mean those dedicated .to Eustathius and  
Eunapius, on all ’Accounts; for he does not only give us the  
Definitions, the Causes, the Diagnostics,. and Prognostics, in  
a more perspicuous. Manner, but is more full and copious in  
the therapeutic Part.. .And he is not only his Superior in  
these Respects, but even in what he. has epitomised .from  
Galen,, both in Perspicuity, and. Extensiveness, as compre-  
hending more Diseases. But, perhaps, .there is no Compari-  
son hetween this Work, and that of OribasiuS, which takes  
up seventy Books, because our Author has not only omitted  
Anatomy, which OribasiuS has , explained, but has said nothing  
about the Use of the Parts, which indeed more properly comes  
under the Consideration of A Philosopher than a Physician.  
On thefe Accounts, perhaps, it will be. thought inferior to the  
fore-mentioned Epitome of Galenis Works. But, to speak  
my Mind.freely,,in this, negligent Age, which minds nothing  
less than the Sick, I would recommend this Collection above  
all other Works of that Kind, especially to those who do not  
care to search into the Depth of .the Theory Of Medicines,  
but have the Health of Mankind more at Heart. ; They -will  
here find Remedies in Abundance, and an ample Recompence  
for all their Pains and Study on this Valuable Piece of Medicines  
*Photii Biblioth. ... . . .. :..*

..This is the Character Photius bestows on *Aetius,* and Cor-  
narius agrees with him so exactly, that he seems to tranfcrihe  
him.: ’

Of the Works .of *Aetius,* only the two first Tetrabibli, or  
eight first Books; have yet been printed in Greek, and these only  
once in Folio, at Venice, I534. The rest are said to remain  
in Manuscript in many Libraries. ’ .

Johannes Baptista Montanus, a Physician of Verona, was  
the first who published a Latin Tranflation of all his Works, at  
Bassi, I535, in Folio. z . . .

. in I542, Janus Cornarius published his Tranflation of all  
the Worksof *Actius* at Basil in Folio. This has been several  
Times reprinted, and is published amongst the *Mediae Artis  
Principes,* by Η. Stevens.

AETOI PHLEBES. 'ΑίΓὰ φλίβες. .. *Eagle-veins.* Accord--  
ing.to the Report of Ruffus Ephesius, Philistio, an Italian Phy-  
sician, who wrote in the Doric Dialect, which was spoken  
in that Part .of Italy where he was hem, called certain Veins .  
which ascend through the Temples to the Head by this Name.  
*Russeis Ephes. L.* i. Co 33; . .

- AETOLION. Ἀιτἀλιον. The same aS *Granum Cnidium.  
Gorraus.* .See CNIDIA GRANA.. . - s. . . ..

AETOMA. Ἀιτειμαι *The Roof of a House.* This Word  
is. used by Hippocrates, in his Treatise *de Articulis,* and for that  
Reason.claims a Place here. ‘

. AETONYCHUM. From 'Αετὸς, an *Eagle,ζηά^θηξ,* a *Clara,*or *Nail.* The same aS *Lithos.perrnon,* so helled from the Hard-,  
nessof the Seeds. See LITHOSPERMON. . ...

. AFFAX, APEARx, or AFFARIS. *Ink. Eulandus. John-  
sen.. -. . - - .*

AFFECTIO, or AFFECTUS. An *Affection.* This is ex-  
prefled in Greek by πάθος. It signifies a Disorder that all,  
or any Part of the Body is affected with, or suffers. Thus  
*Affectio Colica* is the Colic; *Affectio Melancholica* is Melan-  
choly. And in this Manner by adding an Adjective *to Affectio,*or *Affectus,* most Distempers, to which the Body is subject, are  
expressed.

.AFFeNICUM. TheSouZ. *Rndandus. - \ '*

AFFEO6. The same as Ἀφμς, *Spuma, Froth,* or *Foam. Ruae  
landusi .\* . , :*

; AFFIDR.A. *Ceruse. , Rulandus. . . ....*

AFFION. A Name for *Opium.* A particular Sort of Elec-  
tuary also prepared in Bantam; in which Opium is an Ingre-  
dient, is thus called. It is famous for exciting Courage and  
venereal Vigour. *Castellus.*

AFFLATUS, or, as it is sometimes wrote, AD ELAT Us.  
A *Vapour,* or, as the Country People call it, a *Blast,* preserv-  
ing the Analogy of the Latin Word, which affects rhe Body  
with some sudden and dangerous Distemper. It is used to ex-  
press such Violent Effects of something contained in the Air,  
or of the Bites os Serpents, and is often applied to Inchant-  
ments, with a View to which Horace says r

*‘ ‘ uelut illis \_*

*Canidia* affiaffet *peior serpentibus Afris.*

AFFLICTIO. AFFLICTION. I do not know that this  
has been admitted into the Catalogue of Distempers, but it is  
certainly productive of a great many, and those often fatal.  
For, according to the Vulgar Way os expressing it, many Peo-

.pie din'of a broken Hdart; and sor Reasons that appear Very  
-obVious.

It is known, that those Passions of the Mind, which in-  
crease the Velocity of the Blood, augment the Stricture, Ten-  
sity, or Elasticity of the animal Fibres.: This effect these  
Passions have in common with every other Cause which makes.  
the Heart contract with greater Force, and-expel the Blond  
from it with more Strength. Because, - under these Cirrnm-  
stances, the Blond acts with a greater Force, or, as the Ma..'  
thematicians call it, *Momentum,* upon the solid Parts, and the  
reciprocal Action of the Vefleis on the Blood is also increased ;  
hence, with Respect to the Solids, the Application of Part to  
Part is brought about with more Force, or, in others Words,  
what is supplied by Nutrition is more firm. With Respect to  
the Fluids, these, bring pressed upon by the Solids with an in-  
creased Strength, are more compacted together, and consequently  
contain an equal or perhaps st. greater Quantity of Matter under a \*  
less Surface. The Secretions also are performed with more  
Vigour, and a great Part of the watery Partiales is separate  
ed from the Blood, and carried off by the proper Emirncto-  
ties. Hence the Fibres are rendered hard, elastic, and rigid,:  
and the animal Strength - is in general increased. . But 'if this  
State is carried beyond a certain Point, Various1 Diseases:are  
thence produced, as Madness, Inflammations, Gout, Stone,’  
and malignant Ulcers. : ...... i - pri:

The Passions, usually said to produce these Effects, are An-  
ger. Envy, and Hatred.- .Thus Achilles, the strongest - Man-  
os the Grecian or Trojan Army, is represented as extremely  
passionate; and thus the envious Man is said.to grow-lean-inr'  
a literal Sense at. the Prosperity of his Neighbour;

But, on the Contrary, those Passions which diminish\* the  
Velocity, of - the Blood have’ an Effect- directly the Reverse;  
for the reciprocal Action betwixt the .Solids: and Flaids,2heingr  
lessened, neither can he so compacted as in the other Case..  
The Secretioris alfo must he carried ..on with, less Vigour, and  
*i* many Particles which ought to he discharged aS os no Use  
to the CEconorny of the Whois, are retained,. hence the Muf-  
cles hecome relaxed and flabby, the Glands obstructed,, and  
the whole Habit bloated, and weak,

The Passions which induce this; Alteration, are Fear, *Grief,*and those also which cause a great Complacency, aS Joy and .  
Delight. Hence Fear find'Grief are observed to bloat those  
affected much with either 7 and Prosperity to make People her,,  
winch are both Degrees of Relaxation. . . . .'

It will he difficult to specify the Manner how the Passions,  
either increase or' diminish the Force of the Heart, till such  
Time as the Action of the Soul upon the Body is. better’  
. known. Instead .therefore: of attempting this, I\* shall give a  
remarkable Instance of the Effect of *Afflictioris'* from the *History  
of the Royal Academy of Sciences.* ' σ

A Lady os Dauphiny, aged Forty - seven, bring seized  
with a Violent Sorrow on Account of the Death os her- only  
Son, in Septemher, I729, began, from that Time; to-  
sall into a Very languishing Condition, and a Leanness that  
still grew upon her. At the End of nineteen Months, M.  
Patras, Doctor of Physic at Grenoble, who obliged the Aca-  
demy with this Relation, found her under a flow Fever, and  
felt a hard Tumor in the Hypogastrium, of the usual Big.  
ness of the Uterus, three Months and a half after Concep-.  
tion ; and, indeed, he thought it was the Uterus itself. . This  
Lady, fince her Misfortune, had lost her Menses for some  
Time pash ...

, The Disease grew more and more considerable, the whole  
Abdomen swelled, the Water was felt in its Cavity, and Tap-  
ping was resolved upon, which was performed twice *it* her  
Seat in the Country, the Autumn of I73r. At the first Ope-  
ration there came some Drops of .Water; at the Second nothing  
at all.

As this Swelling of the Abdomen, which continually in-  
creased,.caused a.violent Oppression on the Breast,-M. Patras  
\* was for another Tapping, but in a different Place. The Physi-  
cian, who had directed the .first, had no Concern or Thought  
of any Thing but the Ascites, which was visible hefore him,  
not dreaming of the Tumor in the Hypogastrium, which M.  
Patras was privy to, and which was then hid by the Dropsy.  
M. Patras then chose another Place for the Tapping ; but,,  
to his great Astonishment, there came out nothing but some  
Drops os Blond. Notwithstanding this, the Fluctuation of.  
the Waters in the Abdomen was very sensible, insomuch that.  
M. Patras thought himself obliged not to he discouraged by  
those hitherto fruitless Attempts of Tapping, fince all other  
Remedies had no Effect. In short, the Operation was renew-  
ed, and there came forth just nothing.

After this the Legs of the Patient broke without any Assis-  
stance, whence in the Spade of fifteen- Days-istued ont Abun-  
dance os Serosities, winch, at. least In Parr, belonged to the  
Abdomen, for the Oppression on the Breast was considerably  
diminished; but this Relief was the only gcod Consequence.  
The flow Fever still continued, and M. Patras, who could’  
then easily perceive the Tumor in the Hypogastrium, sound  
it very much augmented. Besides this, it was accompanied

“with a raised Bosser, in Form-ofa Girdle; which wenta-ercss:  
it from one Side to the other. .. This Girdle -was of .a .softI  
Consistence, and here out about half an Inch.. .... *..i.sci z :--cr.*

At last, the Patiens,' quite-exhausted of Strength, andfrigfit- .  
fully lean and extenuated, could uro longer-yafep any  
nance, but died.the first of May, 1732. - .... . .I

The Body bring opened, to pass over the; Difficulty: of disco  
entangling the Parts, which had hardly, preserved any Thing Oft  
their natural Disposition, M. Patras Very, plainly:perceived, rhatfe  
the Tumor of the Hypogastrium which he had first .touched;^  
and which'hethought had been the Uterus,.was indeed the leftil  
Kidney, .so prodigioufly increased in Bulk;., that re weighed c  
thirty-five Pounds. Its.natUral: Structure was altered, in Prined  
portion to that Augmentation of Bulk and Weight.. Whafeo  
looked like a Girdle, whose Bearing out might be selt,.wasi  
the Colon, which passed above the Tumor, and had stuck ,  
thereto. .. . . τ: ... A *t.- prise-*

It is' now no'longer I to he wondered, that the Waters *.werdd*salt' floating in' the Abdomen, and yet that the Tapping.tgotrf  
none of thenr jou't. Fori these Waters only floating in, thei  
Spaces left'void by that enormous Mass osthe Kidney ; there r  
was nof affufficient Qtjantity- found in the very plaCes wherein  
the-Trocar had penetrated. Perhaps a little too went offfe  
and took, another Situation, so that when the Instrument .was.  
takenont, and the Cannula came to he applied,. it met withr  
nothing hntin'Mass too solid for its Purpose; What is moist .  
Worthy of ObserVatiorrin this strange Accident, is the Power:  
of great.' *Assertions* in changing, to such an :exeessive Degree,^  
the very Structure of the Human Body. *Hisu de scAcade Rose. r.  
des Sciences, Annie lypst. so. - .'* T . s . . *\'y*

' AFFODIUss. A Sort of Serpent, according IO CastelluS, .  
the seine as the Haemorrhous, or Very like it. : ... 3

AFFORMAS. *Glass. .Rulandus. ss ..' mi*

AFFRENGL *Red Lead; Rulandus. - ...*

. AFPRODINA. The same as *Fenus. Palandus.*

- AFPRONITUM. See APHRONIT frM.. ' ......

AFFROTON. *Frothy: Rulandus.*

AFFUSIO. *Affusion.* The Pouring a .Liquor upon any:  
other Substances' Sometimes it signifies - the same as *Suffusio,* a  
Cataract. .... .. ;. .;

AFRA. *AslOstriehe.* See STRUTHrOCAMELUs.. .

A’FRAGAR. *vcrdigreafe: Rulandus... . .. .*

. AFRICANUS FLOS. *African Flower.* There are many-  
Species of thin Plant the fourth mentioned by Gerard is thus  
distinguished: - .. - i

*Oihrnna,* Offic. *Othonnay Tagetes IndicusFlos Africanus,.*Chain 358. *Tagetes Indicus minor simplici store, five Caryophisi.  
lus Indicus, sine Flos Africanus,* J. B. 3. 96. Raii Hist. I. 343.  
Boerh. Ind. A. II4. Tonm. Inst. 488. Elem. Bot. 390. *Flos  
Aphricanus minor simplici stored Gex.fAAe.* Emac.75O. *Flen-  
Africanus minor simplex.* Park. Pared. 3o4. *.Tanacetum Afrsu  
canum sive Flas Africanus minor,* C. Β. 133. ' *Chysirnthemum A.. .  
friccrnum Tanaceti folio procundens, five minus store simplici, Hise.*Oxon. 3‘. I 6. - *Tlapalcosutli Coaxochitl, Caryofhyllus Mexicanus,  
N.* Hern. 156. *Tagetes ndnor. store luteo-rubesiente,* Ach Regc  
Par. An. iyao. 3I5. AFRICAN MARYGoLD.

Gerard - mentions four Sorts of this Plant, .the first fin  
calis *t .'*

FLos AFRICANUS MAJOR POL-YANTHos. *The great ,  
African double Marygold.*

- This, he says, hath a great, Tong, brown, reddish Stalk,  
crested, furrowed, and somewhat knobby, dividing *itself to-  
wards* the Top into other Branches; whereon grow Leaves-  
composed'' of many small Leaves, *set* upon a middle Rib by: ;  
Couples, much like unto the Leaves of white Valerian, bear-  
ing at the Top very sair and beautiful double yellow Flowers,-  
greater and more double than, the greatest Damask-Rose, of A  
strong Smell, but not unpleasant. The Flowers bring past,,  
there succeeded) Jong, black, stat Seed; the whole Plant pe-  
rishes at the first Approach os Winter.

The Second differs not much from the First, only that this  
Plane is less, and brings forth more Flowers, we may there-  
fore call it, FLOS AFRICANUS MINOR MULTIFLORUS..  
*The sutall double African Marygold.*

The Third he calis, FLOS AFRICANUS MAJOR S1MPLI-  
CI FLORE. *The great single French Marygold.*

It hath a thick Root, with some Fibres annexed thereto γ  
from which riseth up a thick Stalk chamfered and furrowed,.  
Of the Height of two Cubits, divided into other small Branches;,  
whereupon are set long Leaves, compact or composed of many  
little Leaves, like those of the Ash-tree, of a strong Smell,  
yet not very unpleasant. On the Top of the Branches grow  
yellow fingle Flowers, composed in the Middle of a Bundle  
of yellow Thrums herd thrust together, paled about the Ed-  
ges with a Border of yellow Leaves 5 after which cometh  
long black Seed. The whole Plant perisheth with the first  
Frost, and must he sown yearly as the other Sorts must he.

The Fourth is called : .

FLos AFRICANUS MINoR SIMPLICI . FLORE. *. The.  
final! French Marygold.*

' The *common African,* or aS they Vulgarly call it, *French Mary..*

gnildurhath small, weak, and tender- Branches, traifing upon  
the Ground, leaning every.Way, beset with Leaves consisting  
of many particular Leaves, indented about .'-the Edges, which  
being held up against the Sun,, or to. the Light, are seen to  
be., full of Holes like a Sieve, eVen as. those of St. John’s  
Wort; the Flowers stand at the Top os the spriggy Branches,  
proceeding from long. Cups, or Hulks,: consisting os night or  
ten small Leaves, yellow underneath, on: the upper Side of a  
deepen Yellow,, tending to the Colour of a. dark. Crimson-  
Velvet, as:also soft'. in -handling; but to descrihe the Colour  
in Words, it- is. not possible, but this Way ; Jay upon Paper  
with: a Pensil a- yellow Colour, called Masticot,which, heing.  
dry,.lay.the same Over with a little Saffron steeped, in Water,  
or Wine, which ssetteth. forth mostr lively the. Colour. The  
whole. Plant, is. of. a most- rank, and unwholesome: Smell, and  
perisheth at *the* firstFrost. . V . su rf . : :

. The unpleasant.Smell, especially of. that common Sort-with .  
singleiFlowers {thatstuffeth: the Heed dike to that of Hemlock) -  
doth, shew; that it. is of a . poisonous, and cooling Quality ;  
and also the same is manifest by divers Experiments ; for Is  
remember; saith Dodonaeus, that-T saw a Boy,. .whose Lips  
and Mouth, when the. began to.: chew- the Flowers, swelled  
extremely..; as it:hath, often .happened, to them that : playing  
or: piping- with.Quilis or Kexes of.Hemlock, hold, them a  
Wltile between., their Dipsj.likewise, he faith,;:we gave to a  
Cat the Flowers with their Cups, tempered with fresh Cheese,,  
she forthwith mightily swelled; and i a.Iittie While aster died;  
also-Mice that have.eaten, of the Seed, thereof have been , found-  
dead. All which Things declare,. that this Herssis osa venomous  
and poison ous-Faculty,;. and thattheyamnot to. he hearken-  
edits, that suppose this Herb to.be a harmless.Plant.. Soto  
conclude,-these Plante are mostsvenorhous. and full of Poison,  
and therefore not to he touched or smelled unto,, much less  
used in Meat dr Medicine. *- Gerardae HirliaL . ,i. si r \_*

τὸ Miller reckons up, thirteen Species rof these Plants... . .

. The fourth Species,Inentioned. by Gerard, is calledOT NON-  
NA, as is taken Notice of above. But It does not appear;cer-,  
tain,ithat.it is the *Othonna cA* Dioscorides and Pliny, of which  
they *give* the following Account.:, 1 ft.

.- Some assert the OT HONNA. to be the Juice of;the *greater  
Celandine,,* others of the*Glaucitem-,* some wall , have it to he the  
expressed Juice ofthe *Papaucr corniculatum,* while othersi pretend  
to affare us that it in ^Mixture of the Juices *cAsimflle. Pimper-  
riel. Henbane,,* and *Poppy:,,* and to name no. more,, some affirm  
**it is** the Juice of. *n* troglodytical Herb,, called?OTHONNA,  
which grows in that Part of Arabia,; which herders uponE-'  
gypt. Its Leaves.are most likethoseOf Rocket, full of Holes,,  
as if they were Moth-eaten, dirty, .and few in Number ; **so:**that some have taken: it for a?Species of Anemone.. ; .

The Juice expressed. is proper for the Eyes, in Cases that;  
require Cleansing; sor it has a biting Quality, and absterges,  
whatever may dim or cast a Mist before the Pupil of the  
Eye. It is said, that a moist Substance distils from the Herb,  
which, after it is washed and cleansed from Gravel; is made up  
into Troches, for the Purposes aforesaid. But some wish have:  
this to be *an* Egyptian- Stone, that is found in. the Province  
of Thebais, of the Colour *os* Copper, and of a hot biting. Taste,  
mixed with an Astringency. *Dios. L. so.* C. 2I 3...’ ’.

**OTHONNA** grows in Syria ; it is like the Rocket, haying  
its Leaves perforated in many Pisces, and az Flower like that.  
of Saffron, for which Reason some have called it. *Anemone.*Its Juice is goed in Collyris, for it gently stimulates and dries,;  
and has an astringent with its drying Quality. It clears, the'  
Eye os Cicatrices and Nubecuhe, and whatever else incommodes'  
**its -** *Plin. Nat. Hist. L. ati. Co* **I2.**

. AFROB. Rulandus explains this by *Plumbum nostrum, Corr  
pies immundum.* I suppose he means Alchymistical Lead, which  
**is ANTIMONY.**

) AGA CRETENSIUM. This, according to Ray, is the  
*Silyburn minus Baeticum of* Parkinson.. *.Carduus lactetor fore.'  
grimes Camerarii,* Jo Bauh. *Albis Maculis notatus, Q.* Bach.  
The small Spanish Milk Thistle. SeeSILYBUM.

' AGALACTIA. Ἀγαλακτία. From α Negative,, and γάλα.  
*Milk. Α Defect of Milk in Childbed.* Hence ἀγἀλακτος.; *agar,  
lactos,* an Epithet given to a Woman that has no Milk when  
she lies in by *Hippocrates. .*

.' AGALLOCHUM, is a Sort *of* Wood, which is exported  
from India and Arabia, like the *Thya,* marked with Spots,  
odoriferous, of a bitterish astringent Taste, with a: thin shinny  
Bark, and somewhat mottled. .

r Chewed, ortho Mouth rinsed with the Decoction, it makes  
the Breath sweet ; dried and powdered, it serves as a Diapasm  
[Perfume] forthe whole Body, and is used in Suffhmigations,  
instead of Frankincense. The Weight of a Dram of the Root,  
drank, cures the excessive Humidity, Laxness, and burning Heat  
of the Stomach *[usually called the Heart burn],* Drank in Wa-  
ter, it relieves those who are afflicted with Pains in the Side or  
Liver, or labour under a Dysentery, or the Gripes. *Dioscorides.  
Lib.* I. *Cap.* 21. ......

*’lurin,* an Indian Tree, whose sweet-scented Wood is called  
ξυνλαλόη, and is the same with *Agallochum.* Ἀλοη is an Herb,

asmnch Indian as the other.; but growing also in other. Conh-  
tries, whose Juice is recommended among the principal Ca-  
thartics, chiefly on. Account of its Bitterness. Hence we. stile  
that most Authors, both antient and modern, have confounded.  
the aromatic with the purging Aloe *AgaUoclaum* is from the-  
Hebrew Γ0 nN, *Ahaloth.* The Masculine briN, *Ahel,* whose  
Plural is izDstnN, yfsu/he, is s0und, they say, to hear the feme  
Signification. Thence come: the Greek *dear,,* which was-very.  
much in Use among-the inter Greeks, who also say-ξυλαλοη,.  
whereas the Anttents inore frequently used Αγἀλλοχον ; and . yet:  
the Septuagint, were mot-ignorant of the aromatic ἀλδο. The  
cathartic ἀλόη, in Syriae, is “iby- *Clasp* . Hence that’ Word:  
came, to he adopted by the Greeks. The Arabic has*its'Cobar,  
debar.* In.an antient Graeco-Arabic Glossary, we find written,.  
σἀπες, ἡ ἀμα. In the printed Serapion, *Laber* is injudicionfly put  
*for Sapor.* A very antient Latino-Arahic Glossary interprets  
*Aloe* by *Seru* ; and *Seru* is the Cypress-Tree, in the same Boole.  
And*Seru,* by an antient.Interpreter ofAvisena, is taken Tor  
the same Tree. I am os Opinion, that the Author, os that Old  
Glossary put this *Sera* for the aromatic Aloe. A manuscript.  
Copy os Dioscorides, os great Antiquity, with Arabic. Notes,/  
under-theWord άλἐν, subjoins, with an Articlefthe Arabic Ar-  
ticle *Al] Alcebar.* Hence comes the Spanish *Accra.*

AS for the aromatic Aloe,' or *Agallochum,* the later Greeks,.  
who are beholden sor it to the Arabians, make two Species of  
it, Αγευλοχον Ινδικὸν *’^Agallochum Indicum]* and Αγἀρλοχον Σονφι. *[A.  
gallochum Sinphi].* So I find it in Charito, the Physician. ' In.  
Serapionis Interpreter, *Seisi* is wrongly put *for Senfl Cr Sinsi,*from an Indian Island, called *Sinsi:* For there te a.Difference  
between the *Sinsic,* and whet they call *rsticisindian Agallocsium,*The latter is sh denominated, rather from its Colour than its  
Country, for they call the Black by this Name, which is the  
most: Valuable Sort. So of the Various Kinds of Myrobalans,  
which are. all- Indian, .only the Black is honoured with that-  
Name. And in other Things I have observed the Appellati-:on. of *Tndian* bestowed ch the blacker Sort. The *Indian Agallo-  
chumso* alsornentioned by AVisena, under the Letter *A,* where  
he enumurates the several Kinds that come from different Parts-  
OsIndia,, as theMundalin, the Cutneric, those which: comed  
from Calay.and China,, and others. In that Chapter, he ren-  
ders .ίἀρπὸ by an Arabic Word, which signifies Wood in gene-  
rail. *Mauds* also with them signifies a Flute; and. we [the  
Trench] too call a; Flute Wood, *Hontbdis,* which, perhaps, is  
compounded of the Arahic Word and. its Interpretation. But  
*Agallochum* was called *Hand xlum* ἐξοχέν, by Way of Eminence ὁ  
and this was its proper Name among the Arabians. Garcias ah.  
Horto relates, that in Decan, and Guzarate, which is thought  
to he the Country Of the antient Gedrosii, the *Agallochum is*called *Udo* which Word he supposes derived from the Arabic.  
Perhaps the Arabic was derived thence. In the Writings *of* the  
Portuguese, it is called iyam ; doubtless the fame *as Elaud in the  
Arabic* Pronunciation. It is better, therefore, to render what  
the Arabians call *Naufl. Plend,* by *Aigalstehum Indum,* than, as  
learned Men do, by *Lignum. Indum,* her the Exposition Os An-  
dreas AlheguS, the Author is wrong in reading *Hieudeen,* Le,  
*Lignum Aloes Iridum..* Read *Hind Hen,* or *Hand Hind,* which  
is from HyndAsmasc; so Greek! read Ἰΐαυδχόστο *\Eastdchento},*aS 'Γαμαρχμὲν *[yamarchcuti\* for *tamarhcndi. So Haud alcumert,*m the Arabian Geographer, is not the *Lignum Comaricum,* but  
the *Agallochum Comaricum* 7 as the άγἀλλοχον Σίἰφι in Charito  
*is Haust Sinsi.* It is otherwise called by the Arabians *Agalugi,*which is a Corruption from the Greek ἀγευλοχον; and in AVi-  
seuastt is. read *Agastugun.* The modern Greeks most common-  
ly call it ξυναλένν, *Xylalocs,* having no Regard to the Meaning  
os the" Arabic Word, but only to distinguish it from the other  
Aloe, which stands recommended on Account os its Juice, and  
not for its Word.. *Salmasius de Homonym. Hyl. lair. Cap. 6.*

The *Agallochum* is thus distinguished by Authors :

I. *sigallochuyn,. Xyloalees, et Lignum Aloes,* Ossie. *Agalle..  
ihum. et XydurAlees,* Ossie. Geoff. Tract. 309; *Agallochumfive  
Lignum Aloes,* Park. Theas, 1564. *Agallochum Ostidnarum, Co*Β. Pin. 393. Raii Hist. 2. 1808. *Agallochum verum,* Ephem.  
Germ. Dec: Li. Ann.- 3-. p. 74. *Agallochum Lignum Aloes, Xyo.  
haloes.* Chain 35. *Agallochum Officinarum, aliis Lignum Aloes,*Johns. lDendr. 46o. Sinkoo *vulgo Japonum Kauorini,* i. e.  
*Lignum feu arbor fragrans, Siarnensibus Eissina, Latinis Arbor  
Aquilae et siloes dicta, cusus fragrans Lignum appellatur Agallo-  
chum,* Kemph. Amoen. Exot. 903. *Lignum Aloes vulgare.*Ger. Emac. I622. *Lignum Aloes, del Xyloaloes,* Ind. Med. 67.  
*Lignum Aloes, Agallochum, XyloAloes, Mont.* Exot. 7. *Lignum  
Aloes Officinarum, et Agallochumplerifqueputatum, j*. B. I. 477.  
WooD OE ALOES. *Dale. .*

it is an Indian Wood, like the *Thyia,* sweet-scented, and  
chewed in the Mouth- makes a sweet Breath. *P. Acig.net.. Lib.  
y. Cap.* 3, from *Dioscorides.*

It has an astringent mixed with a bitterish Taste; its Bark  
is like Leather, and of various Colours. *Oribas. Lib.* **I** I . from  
*Dioscorides.*

**AGALLOCHUM.)** This is a Wood brought tons from the  
East Indies, and is said to grow in China, and there to he called  
Calainbac: But we have no certain Account or Description os

’the Tree, whose Wood it is. It is brought over in small  
Pieces, we seldom seeing those of any great Length or Big-  
ness : It is of a hard, solid Texture, firm and ponderous, of a  
yellowish brown Colour, with several black or purplish resi-  
nous Veins interspersed ; of a bitterish hot aromatic Taste, of  
no very strong Scent till it is burnt. Though several Authors  
set it down as a principal Note of the Goodness of this Wood,  
that it will swim in Water, yet I have never met with any  
but what would fink in it, notwithstanding it had all other Cha-  
racters of true Lignum Aloes.

This Wood is heating and drying, cordial, and strengthen-  
ing the Nerves, revives the animal Spirits, comforts the Heart  
and Brain, prevents swooning Fits, and Disorders of the Womb ;  
it is frequently put among Cordials, Species, and Powders.  
*Miller. Dale.*

Dale seems to esteem the two following Woods near a-kin  
to *Agallochum.*

. 2. *Aspalathum,* Ossie. Geoff. Tract. 3Iot Mont.. Exot. 7.  
*Lignum Aspalathum,* Pharmacop. *As.palathus,* Ind. Med. I5. An  
*gallochum prastantijstrnum,* Johns. Dendr.46O. C. Β. Pin. 393.  
**CALAMBAC WOOD.**

This Wood also is brought from the East Indies in Pieces  
that are thicker and less solid than the Lignum Aloes, of a.  
paler Colour, and fainter Smell, bituminous, sat and resinous,  
and of a bitterish Taste.

Its Virtues are the same with those of the preceding (for  
which it is often sold) but weaker.

**3.** *Lignum Aquilae,* **Ind. Med. 6y. EAGLE WOOD.**

It is used in the Shops at Paris, instead of *Aspalathum* ; but  
seldom met with among us.

Most Botanists take the *Agallochum* os the Antients to he the  
Lignum Aloes of the Shops ; others suppose the *Aspalathum* of  
the Antients to he the same. Again, others, especially the Α-  
rabians, make several Kinds. Garcias knew but one - Indian  
' Species. The Shops, as Clusius observes, can shew us two  
Kinds of Lignum Aloes. Caspar Bauhinus divides it into  
" three Sorts. The first he calls the finest *Agallochum,* which is  
reserved for the Use of the Indian Kings. The second Kind is  
what is fold in Shops, and the third is the wild *Agallochum.*There are only two Sorts to he met with in the Shops, as we  
said hefore. And, it is allured, that we have the true *Agal..  
loclnan,* or Lignum Aloes, brought to us from China, called  
*Calambac.* This is a tall Tree, described by none, that I-  
know of ὁ for whet Garcias ab Horto writes of is not the  
same, but the *Aspalathum,* abovementioned, as some skilful Bo-  
tanists, who have travelled in the East Indies, assure us. - ἱ .

Why *Agallochum* is called *Lignum Aloes,* says Paulus Amman-  
nus, many are at a Loss. *Hiffinannus, Lib.* 2. *Cap.* 25. says,  
iC Perhaps Ἀλαί, in the Indian Tongue, signifies a *Perfume.”  
Pontius ad Cap.* I6. *Garc. abfiorto, p.* 43. derives it from *Savour.*CC This Wood of Aloes, says he, has a peculiar aromatic and  
bitterish Taste, whence, perhaps, it took the Name of Aloes."  
, .1 would have none think the Aloes of the Shops to be the con-  
crete Juice of this Tree, as Wormius makes it, *p.* 272. For  
this is a peculiar tall Tree, but the juice Of Aloes comes from a  
Plant of the same Name.

. The Lignum Aloes, exported from Manilam in Cochin-  
China, is Of three Sorts. I. *Sobhio,* which seems to he the  
outer Part of the Trunk ; it is not ponderous, is of an Ash-  
colour, with Veins of Black, a very little bitterish, moderately  
fragrant, not gummy. 2. *Thirnbio,* is to he had at she Shops.  
This is of a blackish Colour, solid and ponderous, intersected  
with Veins and Channels, gummy, bitter, very fragrant,  
swimming in Water, called by the Spaniards, *Calumba.* 3.  
*Gilarn-lno,* which is of an Ash-colour, inclining to pals, soft,and  
very fragrant. - . . ’ ‘

There is another Sort brought from *Kalapa,* of a darker Co-  
lour than the *Thim-hio,* and more ponderous, sinking in Water.  
The Chinese export a very black Wood, moderately fragrant,  
which they call *Fai-hio*; and another reddish Sort, ’ of an extra-  
ordinary Fragrancy, called *Chi-tua..*

An Account of. **the LIGNUM CALAMBAC, - and LIGNUM**ALOES, sent by Mr. *Cunningham* to Mr. *Petiucr.*

The true *Calambac* is known by its fragrant Smell, its bitter-  
ish and aromatic Taste, and Its Softness, like Wax or Mastich,  
receiving Impressions from the Teeth or Nails. There are  
several Degrees of Goodness in It ; for in the Kingdom *of*Cochin-China, or Annam, the chief, if not the only. Pisce  
osits Growth, it is sold from Io to above 5O Tael an English  
Pound. In Respect of Colour, there are three Kinds, *viz.  
I. The* mixt-coloured, or black-purple, like a Duck's Head,  
as the Natives make the Comparison. 2. The spotted, like a  
Tiger.. 3. The yellow, like the Yolk of an Egg. What  
falis ofiiseif, without selfing, is for the most Part of a Variety  
of Colours,- and most valued. The *Calambac,* in the Annamio  
Tongue, is called *Krnarn.* The Chinese Merchants of Fo-  
lien pronounce it *Kelarn,* whence perhaps is derived the Word  
*Calambac. Lignum Aloes,* helled in the Decoction, or Juice of

*Chlumbdc,* is sold, by soine, for the true *Calambac*but left A  
while to dry, itloscs its Fragrancy, Softness, *etc.*

The nearer the *sagnum Aloes,* or *Agallochum,* approaches to  
*Calambac,* the better in is. But the former is, for the most  
Part, herder, and feeis dryer, and, as it were, like Dust in the  
Mouth; and is not so sat, but weaker in all its Qualities. Α  
Pound of it is worth from 5 Mas to. 6 Tael. *Lignum Aloes is*called by the Portuguese *Pao Agula,* by the Natives *Keang,* that  
*s.ragrdett.* The Chinese in the Mandarin Language call it  
*Tchin-hiang,* that is, *the scarfed or sinking Fragrant ;* but the  
*Calambac* they call *Suh-hiang,* that is, *the fat Fragrant.* Some  
tell you that the *Lignum Aloes* is produced by several. Trees:  
But all agree, that the *Calambac* is the Product os a Tree that  
bears Fruit (fome of which I fend you) supported by a *quinquesid  
Calyx,* almost in the Shape of a- Pear, covered with a Down, -  
of the Size of a Citrine Myrobalan, with a thick ligneous, or :  
fungous Coat, cleaving in the Middle, and containing on each  
Side a Kernel, shaped like a Top, and supported by membra-  
nous Appendices. The Fruit pulverised is an excellent Reme-  
dy for the Gripes. *Dale. .*

A Tael is the Value of six Shillings find eight Pence Sterling,  
and a Mas, the tenth Part of a Tael, that *is,* eight Pence. ..

A Dram of the Powder of the Root, drank, cures the too.  
great Humidity and Laxness of the Stomach ; it is good also in  
Distempers of the Liver, Dysenteries, and Pleurisies. *P. Alginet..  
Lib. J. Cap.* 3. . ' ... , -

Os all the Woods sold in the Shops, 'we have none more  
precious, more Valuable and rare, than the true Wood of A-  
loes or Xyloaloes: Upon which Account it is Very little;,  
known, and every one is liable to mistake the Wood; winch  
makes it easy to he counterfeited; so that it is a difficult Mat-  
ter to know it positively, it heing deserihed so differently, by  
different Authors. i - .

There are several Sorts of it, but the best is the *Agallochum  
of* India, which comes from Calecut. The finest is the black  
Kind, of a changeable Colour, full, heavy solid, and thick, .  
which cannot he whitened; and is difficult to set on Fire.

- There are others which pretend to affirm, we cannot have  
the true Wood of Aloes, and that it grows not in this terres-  
trial Paradise, it having been swept away by Deluge : And o-  
there will not allow it ns, because it is not produced among us,  
except in Deserts, and upon inaccessible Mountains ; not only  
from their Height, but because of the wild Beasts that inhabit  
among them, as the Lion, the Tiger, the Panther, and the  
like ; besides a Thousand other idle Stories, that are told a..!,  
bout this Wood: To confute all this, I shall only tell you;  
that the Ambassadors from the Kingdom of Siam, brought of. .  
this true Wood to present to the King ofFrancemow reigning,  
as well wrought as unwrought; among the rest, a Bason with,  
its Salver, proper to wash the Hands in, made at Siam, after  
the Mode of that Country. This Bason, though of Wood, is:  
more esteemed than if it had been of massy Gold, because made  
of the Tree of the true Aloes Word growing at Bantam and in  
China, and winch is of the *Size and* Shape of the Olive-Tree,  
having Leaves something after the same Sort; upon which,  
grows a littie round Fruit like our Cherry. They bring a  
Quantity of it from Surat, but the most refinous of it is most-  
valued, and it is distinguished into larger and lesser Pieces.

It is observable, that the Trunk of this Tree is of three  
Colours ; the first Wood, which lies immediately under the  
Bark, is of a black Colour, solid, heavy, and almost like black  
Ebony ; and by Reason of its Colour, the Portuguese call it  
Eagle-Wood. The Second which is a light Veiny Word, like  
rotten Wood, and of a tanned Colour, is what we call Colum-. Kbac or the true Wood of Aloes. The third Sort, which is  
the Heart, is a precious Wood of Tambac, or Calambac:  
I shall say no more of it, having never seen any of it, but that  
it is Very scarce and dear. *Pomet. ..*

The Arabians say, that on a Mountain of Comorin, grows  
- the most precious of all Woods, which is that of Aloes, called  
by the Greeks *Xylalae,* and by the Arabians *Ud,* and *Al Ud9*that is to fay. *The Wood,* by Way *of* Eminence . It grows  
plentifully in that Place, and excess all that. is imported from  
other Countries. *Herbelot, Bibl. Orient. Ant. Camcron.*

- All the Eastern Geographers agree, that this Wood, whose  
Smell is exquisite, 'grows only in those Countries of India which  
, lie under the first Climate. The most Valuable Sort of this Wood '  
! is in the Island called sens, which lies in the Indian Sea, and  
the Passage to China. They call it *Al (stud Al Senfl,* to dis.

i tinguish it from whet they call *Al (stud Al Comari*; because it  
i grows in another Ifland called Comar, not sar distant from  
Sens, but whose Wood is sar inferior to that of the other.

ε However, several Authors are of Opinion, that the Wood of  
l Aloes of Camnon, OrComron, which is Cape Comorin, is the  
best. And this is whet the King os India presented Nouschirvan  
with, to the Weight of ten Quintals, which ran and blazed in  
the Fine like Wax.

Some Geographers remark also, that the greatest Quantity  
! ofWood of Aloes, comes from the Ifle OfSemender, which we'

chll Sumatra, and the Sheriff Al Edrissi soys, that it is found  
also in the Ifle of Serandib, called by us Zeilan. *Herbelot.*

This Noufchirvan in the fame as Khofroesthe first of that  
Name, King of Persia. - This Prince, when he had finished  
bis great Conquesta, retired to his Capital, to spend- the Re-  
mainder of his Days in Peace. All the bordering Princes sent  
Ambassadors to him, loaded with rich Presents. Amongst these  
were a Female Slave, seven Feet high ; a Carpet made of the ’  
Skin os one Serpent, os an extraordinary Size, and as soft as  
Silk. A third great Rarity was the *Aloes-vfOCor* mention'd a- .  
hove, sent him by the King of Indostan.

AGARICOIDES. A Sort of Fungus thus distinguished.  
*Agaricoides 'parvum, album, lamellis subluteis. Fungus parvus,  
-lamellafus, pectunculi forma, alms adnas.cens.* Rail Syn. Vaill. 70.

Dr. Martyn has found it in Weeds, as in Bishop’s Wood near  
Hampstead, and in Madingley Wood. *Tournesert by Marlin.*

AGAPE. Ἀγἀπη. Love. - It also signifies an Afternoon  
or Evening Meal of Victuals.

AGAR. Calx. Lime. *Rulandus.*

AGARICUS. *Agaric* was -mistaken by some of the Anti-  
ents for a Root, as we learn from Diofcorides, who gives the  
following Account of it : . .

*Agaric* is said to he a Root like Silphium, though not of a  
close Surface and Contexture, like the Silphium, but all porous  
and spongy. There are two Kinds *Css.Agaric,* the Male, and  
the Female; the latter is the best, and is distinguished by the  
strait parallel Veins that run within it. The Male is round,  
and every where uniform: However, they taste alike, that is,  
sweet at first,, while they diffuse a Bitterness that stays on the 1Palate. *Agaric* grows in a Country of Sarmatis, called Agaris,  
Some affirm it to he the Root os a Plant; others say it is bred  
.like Mushrooms, of Putrefaction, in the Trunks os Trees. It  
is produced also in Galatia, a Country of Asia, and in Cilicia,  
On the Cedars ; but Very thin and friable.. .

: It has a warming and astringent Quality, and is effectual  
against the Gripes, Crudities, Fractures, and Bruises from  
Falis. The Dose is six Grains, in Wine mixed with Honey, -  
is the Patient he free from a Fever; but is feverish, it is given.  
In Water mixed with Honey, i But for those who are. affected  
with Distempers os the Liver; an Asthma, yellow Jaundice, a  
Dysentery, the Gravel or Dysury, Hysterics, or an ill Colour  
[αακόχμεοςτ the Weight os a Dram is prescribed. -. To consump-  
tive Persons,- it is administered in sweet Wine [γλεῦκος] to  
the Splenetic in Oxymel. By those who are troubled with  
sour Belchings,. or other Infirmities of the Stomach, it is chewed  
and swallowed raw, without any liquid Vehicle. Halfa Scru-  
ple, taken in Water, stays Vomiting, or Spitting of Blood.  
The like .Quantity in Oxymel is useful in the Sciatica, Gout,  
and Epilepsy, provokes the Menses, and is good for Inflamma-  
tions in the Womb. Given before the Fit of an Ague; it takes  
off the Shaking. A Dram or two taken in Water, mixed with  
Honey, purges the Belly. A Dram of it taken in Wine, di-  
luted with Water, is an Antidote against Poisons ; and half a  
Scruple, in a Draught of Wine,. cures the Bites of Venomous  
Reptiles. In short, it is adapted to all internal Maladies, ad-  
ministered with Regard to Age and Strength, to some in Water,  
to others in Wine, to this Person in Oxymel, to another in  
Water mixed with Honey. . *Diofcorides, Lib. fr Cap.* **I. .**

. . The Root *Agaric* grows from the Trunk of a Tree, of a lax  
Consistence, compounded of an airy and earthy Substance; It  
has the Virtue os discussing and inciding gross Humours, and  
powerfully opening Obstructions of the Viscera. It has the  
Property os Colocynthis, working slowly, and not much dis-  
turbing the Stomach. It is given to the Weight of two  
Drams, in Honey and Water. Chuse what is;whitest,, very.

. friable, and least ligneous and worm-eaten. *P.AEgirut. Lib. J.  
Cap.* 3 et 4. . .

*Agaric* purges Flegm and Bile, and not Violentiy. The Dose.  
is two Drams in Honey and Water, or Oxymel. ’ *Oribas. Med.  
Collect. Lib.* **X.** *Cap.* **ly. .**

- The Root of *Agaric* tastes sweet at first, but soon aster bitter,  
and at last leaves a Sort of Acrimony, and light Astringency on  
the Palate; whence it is evident, that .this Medicine js com-  
pounded of an airy and earthy Substance, which is attenuated  
by Heat. But it participates least of an aqueous Essence. For  
these Reasons; it has the Faculty of .digesting and inciding gross  
Humours, and clearing the Viscera from Obstructions. *Oribas.  
Med. Collect. Lib.* I5. *Cap.* I. from *Galen.*

- By its digestive and incisive Qualities, it cures the yellow  
Jaundice, when it arises from an Obstruction of the Liver; the  
.Epilepsy ; takes off the cold Fits of nd Ague, which arise from  
thick and glutinous Humours. *Oribas. Virt. Simpl. Lib.* 2,  
*Cap.* **I.**

*Agaric* is thus distinguished .by the Moderns:

*- Agaricus,* Ger. IIS3. Emac. I366.Sterb. 245. Tab- 27. C.  
*Agaricus, five Fungus Laricis,* Co B. 375. Elem. Bot. 44I.  
Tourn. Insh 562. *Agaricus ex Lartie,* Park. 249. *Agaricum,*J. B. I. 26S. Rail Hist. I. I07. AGARIc. *Dale. -*

- There are two Species of *Agaric.-* The Female *Agaric,* which  
is white, light, friable, and tender, sweet at first to the Taste,

but leaves a Bitterness behind, and is of a penetrating Smell;  
this is the best Sort. The other, called the Male *Agaric,* is  
yellow, coinpact, heavy, and tenacious; and this is good for  
nothing. . . ' . . ψ ...

It is Of. the Class of the Fungi, and grows on the Trunks  
and largest’ Branches of many Sorts of Trees, especially the  
Larch and the Oak. It consists of 2 fistulous Wood: If it be  
hasten with a Hammer, and a Spark afterwards light.upon is,  
if becomes all in a Blaze; whence it is called *Igniariios.  
Boerhaave. . ' -. ..*

It doesnot shoot Yip m a Night; like the rest of the Fungi,  
but requires a whole Year for its Perfection. *Dale. - .*

If *Agaric wociass* not downwards, it is apt, in some, to cause  
a Tremor and Resolution. . *Aetius Tetr.* 4. *Serm.* I. *Cap.* 8I. .  
- It is ranked among the poisonous Roots, Thapsia, Aconite,  
Isias, white Hellebore, . and Ephemeron. *Abid. Cap.* 45.

The poisonous Sort is called. *Black sigaric,* by *Actuarius,  
Meth. Med. Lip.* 5. *Cap.* 12. and *P. Algineta, Lib.* 5. *Cap.*E - ’ .- .. . . .  
: AGARIC is a woody, fungous Excrescence, that grows  
cm the -Body .of Old Larch - trees ; outwardly, it is covered  
with a hard, tough, brown Crust or Bark ; which being pared  
off, the *Agaric,* is of a white Colour - That which in very  
light .and friable, easy to cut, and without Knots, os a pure  
white Colour, is to be preferred. The Marks of the best *Agcsu  
ric,* according to Dale, are contained in this Distich:

*Res frangi pi asio pretiosus Agaricus esto, .*

*Candidus et splendens, bonus in libra leve pen deas.*

It is of a bitter, nauseous Taste, with an ungrateful Sweetness,  
which makes it - rarely given by its, self, but mixt with o-  
ther purging Medicines.

- It is accounted a strong Purger of watery and .bilious Hu-  
mours; useful in the Gout, Rheumatism, Dropsy, and Jaun-  
dice, and to cleanse the Lungs of tough Flegm, and is os Use  
in .Epilepsies, and obstinate Head-achs. The best *Agaric* comes  
from Barbary.; whet comes from Russia, is nor so good. What  
comes from the Woods near Trent,, and those Parts near the  
Alps, is accounted the best, says *Dale.; .. :*

.. Officinal Preparations, ure *Pilula de . Agarics, et Agaricus  
T.rochifcatus.* Miller,Dot. Ossi. .

- It is corrected with Ginger, Clove Gillyflowers, Sal Gem,  
Crystals of Tartar,*-etc. Dalae.* x . ' r - ,

*Agaric* is an Excrescence, that is found upon the Trunks,  
and large Branches of several Trees; but chiefly upon the  
Larch-tree, called by the Latins *Larix,* and upon several Sorts  
Of Oaks ; but the best of all ought to be such as is white, light,  
tender, brittle, and of a bitter Taste, pungent, and a little  
styptic. And this is the *Agario* the Antients used to call the  
Female. AS for that which is termed the Male, it is usually  
heavy, yellowish, and woody, which - ought intirely to he re-  
jected from Physical Uses.

The best *Agaric* is that from the Levant, it being abundant^  
ly better than what comes from Savoy or Dauphiny. We have  
likewise some brought from Holland, that is rasped, and ..  
blanched, .onthe Outside, with Chalk. In short, none is fit for -  
Use. but the Levant *Agaric.*

*Agaric* was a Medicine so familiar to the Antients, thet they  
InadeUse of.it, not only for purging Flegm, hut likewise in all  
Distempers proceeding from gross Humours and Obstructions ;  
firch as Epilepsy,’ Vertigo, or Giddiness of the Head, Madness,  
Melancholy, Asthma, and Distempers incident to the Stomach,  
and the rest of that Kind; yet they complained, that it wea-  
kened the Bowels, and purged too churlishly; upon which Ac-  
count, Galen steeped the Powder os it with Ginger, and gave,  
it, to a .Dram, in Oxymel, or. Honey of Squills, it is pre-  
scribed, the’ rarely, from a Dram to two; but in decoction,  
or Infusion, from two Drams, to half an Ounce. .

By a chymical Solution, it passeth almost all away into  
Oil. It yields .no Volatile Salt, but abounds with a Sort os  
scaly Earth,, and an acid Flegm, from whence.the Infusion of  
*Agaric* makes blue Paper os a purple Colour. Hence it clearly  
appears, that it ought to he corrected with Cloves, Cinnamon,  
Mace, Mint, Worm-wood, and others os this Kind. Its  
Slowness in Working may he helped or promoted with Scam-  
mony and Calomel; or it may he wetted in some purging De-  
coction, made of Afarabacca, Sena, and other Purgatives,, and  
then dried again, and formed into Lozenges, adding Balsam os  
Peru, or Oil os Cinnamon. , .

n We must not : forget to take Notice that Lusitanus admo-  
nishes us to make Use os the Troches os *Agaric,* or Lozenges,  
while they are fresh, and new made, lest their Virtue he weak-  
ened by long Keeping. *Pomes,*

*Agaric* appears to have been in hjgh Esteem with the An-  
tients, however, disregarded by the Moderns, for good Rea-  
sons. It is very flow in Operation, and, by its long Stay in the  
Stomach, excites Vomiting, or, at least, insupportable Nau-  
seas, followed by Sweats, Paintings, and long Weakness,  
with a lasting Aversion for all Rinds *os* Fond. Very likely

the Antients, who had not so great a Choice of Purgatives as  
we have, were not so delicate.

*Agaric* is a Kind of Fungus, that grows upon the Larch-  
tree. Some take it for an Excrescence, or Tumor, pro-  
duced from a Disease In the Tree: But M.Toumefort makes  
no Scruple to place it with the other Fungi among the Plants.  
\*Tis supposed, that what is brought to us from the Levant,  
which is the best, comes from Tartary. We have it also from  
the Alps, the Mountains of Dauphiny, and from the Trentine.  
There is a had Sort of *Agaric,* which does not grow upon the  
Larch-tree, but upon Oaks, Beeches, *etc.* whose Use would  
he very pernicious. To proceed. *Agaric* is divided into Male  
end Female. The Male is of a rough and uneven Superficies,  
its inner Substance Very fibrous, ligneous, not easily separated,  
ponderous, and of Various Colours, excepting white. The Fe-  
male, on the Contrary, has a fine smooth Superficies, of a brown  
Colour, and under that a white friable Substance, easily redu-  
ced into a Meal, and consequentiy light and porous. Both of  
them taste sweet at first upon the Tongue, but leave a Bitter-  
ness, and Acridness hehind them, especially the Male, which  
is never used in Medicine; and perhaps this is whet never  
grows upon the Larch-tree.

M. Boulduc made Experiments upon the Female *Agaric,*with the two grand Dissolvents, the Sulphureous and the A-  
queous. He extracted, with Spirit of Wine, a refinous  
Tincture, - of an intolerable Smell and Taste. Α Drop of it,  
put upon the Tongue, raised a Vomiting, and caused a Dis-  
gust to every Thing for the whole Day. Two Ounces of  
*Agaric,* yielded fix Drams and a half of Tincture. The Resi-  
duum, which weighed but nine Drams, would afford no more;  
it was-nothing but a Mucilage, or a Sort of Mud.

Upon this, M. Boulduc began to suspect, that this useless  
Mucilage, which was in so great a Quantity, might come,  
from the farinaceous Part of the *Agaric* after it was thus mois-  
tened and macerated, and the refinous Tincture only from the  
superficial or cortical Part. He allured himself of this by Ex-  
periment, for having separated the two Parts, he extracted all  
his Tincture from the Outer, and hardly any from the inner  
Substance; which shews, that the former is the only Cathar.:  
tic, and all os it that is useful, suppofing it he used, for it is  
always Very disagreeable, creating great Nauseas, and must he  
mixed with other Cathartics, to diminish its ill Effects.

The aqueous Dissolvents had no extraordinary Success upon  
the *Agaric,* more than the other. Water, by itself, extract-  
ed nothing: Nothing came off it, but a thick Mucilage, with  
a Dirt, and no Extract, Water with the Help of Salt of Tar-  
tar, the alkaline Salts of Plants, usually dissolving their refinous  
Parts, produced another Mucilage, which, after some Days Settle-;  
ment, shewed its upper Part transparent, inform of a Jelly, and  
very different from the Bottom, which was Very close and dense.  
From this upper Part, separated from the other, M. Boulduc  
drew, by Evaporation, in a gentle Heat, an Extract of a pretty  
good Consistence, which ought to contain all the resinous and sa-  
line Parts of the *Agaric,* One extracted by the Water, the o-  
ther by the Salt of Tartar. Two Ounces of *Agaric,* with  
half an Ounce of Salt of Tartar, yielded an Ounce and half a  
Dram of that Extract. It purges Vesp well, without Nausea,  
' and much more gently than the resinous Tincture, extracted by  
the Spirit of Wine. AS to the under Part of the Mucilage, it  
does not purge at all, heing no more than the Earth of *A.,  
garic.*

M. Boulduc having used distilled Vinegar, instead of Salt of  
Tartar, and after the same Manner, he obtained an Extract  
in all Things like the other, and of the same Virtues, but in  
- a less Quantity.

The Distillation of *Agaric,* yielded M. Boulduc, a good  
Quantity os volatile Salt, and a littie essential Salt. There  
was very littie fixed Salt in the *Caput Mortuum.*

The Male *Agaric,* which M. Boulduc calls False *Agaric,*with which he would not have troubled himself; but that he  
was willing to neglect nothing in this Affair, has very few  
resinous Particles, and still fewer of Volatile or essential Salt.  
Whence it seems to proceed only from old rotten Trees, who  
have undergone a Resolution or Dissipation of their active  
Principles.

The Infusion of this *Agaric,* in Water, turns it aS black as  
Ink, when miked with a Solution of Vitriol. The Use of  
Male *Agaric* is to dye Black, and hence we see a good  
deal of Agreement between it and the Gall, which is an Ex-  
crescende os a Tree. *Hisidire.de l'Academ. Royals,* I7I4.

Lemery says, the Dose of *Agaric* is from half a Dram to a  
Dram and a half in Infusion.

*Agaric* is so varioufly described by the Antients, and with  
Characters so different from those of rhe modern Drug of that  
Name, that I am forced to believe they are not the same. Whet  
it was, or whence it came, was not thoroughly understood by  
the Antients themselves. You may learn its Country by its  
Name ; for Diofcorides would have it called Αγαμὲνν, *Agameon,*because it grows οἱ τῆ Αγαριῳ, in Agaria; and yet he tells us,  
that it is generated » am Αγήῳ σῆς Σαρματίας, in Agria, a Country

os Sarrnatia ; hut then its Name would not he *Agaricum,* but  
*Agricurn,* or *Agriacum.* The foregoing is rendered wrong, by  
some Interpreters, *In incultis et agrestibus Sarmatia, In the  
wild and uncultivated Reglens of Sarmatta.* The Ἀγήαι, *Agriai, in*Stephanas, are a People of Pannonis, between Haemus and  
Rhodope; and Strabo places ώεἌγμι, *Agri,* near the Palus Mae-  
otis, winch would he more to the Purpose, for their Country  
would then he called Ἀγρία, *Agofta.* But still the Nomen κτητν-  
*tear* [Name formed frorn that *of the* Country] would be Ἀγμκἐν,  
*Agricurn,* ΠοίἈγαμκέν, *Agaricum,* which requires that the Coun-  
try from whence it is called be named Ἀγαρία, *Agaria.* But  
where is this Agaria ? Ptolemy mentions the River Agarus, and  
the Agarian Cape in European Sarmatia. The Sheep os the  
same Place are called Ἀγαρικαὶ, *Agaric an,* in an Epigram os Cri-  
nagoras among the Anecdotes. It describes a strange Kind of  
Sheep that came from Agarria, which it seems to make a Coun-  
try os Armenia,, situated upon the River Araxes:

' Τῆς όιος γενίἠ μή» Ἀγαίῥαἡ, εοτὸς Ἀῥαξιιο  
Ὑδωρ πιλοφὀμις πίνεται Ἀμπέοις, &C.

But the Incoherence os the Sense proves, that there is something  
wanting in the Beginning os this Epigram, which we are to  
supply by saying, that the Breed os these Sheep was brought  
from Agarrica, a Country os Sarmatia, into Armenia. The old  
Scholiast on this Epigram remarks, that this Kind os Sheep  
were sound not only in Armenia but Scythia. I make ho  
Doubt but the.W/pc., *Agri,* os Strabo, A. II. ought to be read  
Ἄγαροι, *Agari,* and the Ἀγώα,ν^ται, osDioscorides is put by Mistake  
for Ἀγαρια, *Agaria.* From thence comes *Agaricum,* and οίες Ἀγμὲν’ι-  
καὶ in Crinagoras, who doubled the *Rho* for the Sake of the  
Metre, as we read Ἀρῥαβεαν,. and Ἀἡῥαβεκἡν. Well then Ἀγαρικὸν,  
*Agaricum,* comes from the *Agarians,* a People of Sarmatia, and  
heing so sar fetched, I do not wonder that the Antients knew  
so littie of it, but should much wonder, if the Moderns were  
hetter acquainted with it. Nay, we may conclude, from,  
what has been said, that what is now fold for *Agaric,* is not  
*Agaric,* if it he fetched no farther than the Mountains of Trent,  
or Tyrol, and the Country of the Grisons, where Larch-trees  
abound; for they say it is produced from no other Tree but the  
Larch-tree. But had the Antients found that *Agaric* grew so  
near their Doors, and on so common a Tree, they had not  
been at so great a Loss, about its Nature as well as the Place  
of its Growth. Diofcorides doubts whether it be a Root, but  
takes it on Report. Ἀγαρικὸν ἡίζα φέρεταε ςσιλφίῳ εμφίρἡς. *" Aga-  
ric* is said to he a Root resembling Silphium.'' The Root of  
Silphium, according to Theophrastus, is a Cubit long, and  
has a tuberous Head, which appears above Ground. If the  
modem *Agaric* he compared with this Description, it will  
hardly stand the Trial, for it is a mere Fungus of the  
Larch-tree, of that Sort of Fungi which grows and adheres  
to the Trunks os old Oaks, and served the Antients instead  
of Tinder, to light their Fires. The later Greeks call it Ὑσαας,  
that is to fay, *Es.cas, Baits.* Had the *Agaric of* the Antients  
heen thus qualified, they could hardly have questioned its heing  
a Root not. unlike the *Laserpiiiurn.* But Pliny plainly signi-  
sies *Agaric* to he a Fungus, growing chiefly on glandiferous  
Trees in Gallia. " It is, says he, a white Fungus, odoriser-  
" ous, medicinal, growing on the Tops of Trees, shining in  
" the Night, whence it takes its Characteristic, which is to  
" he gathered in the Dark.” Diofcorides says not a Word of  
this Sort of *Agaric.* As for Pliny, I do not question, but a  
Piece of Wood, putrefied to the Degree of shining by Night,  
was imposed upon him for *Agaric.* I have often seen the like  
in Burgundy, and held it in my Hands. It is a Piece of  
Oak, putrid, white, .and odoriferous. It smells like a Sort .of  
Mushroom, commonly called *Potirones,* and shines by Night  
at such a Rate, that it frightens those who are just awoke  
from Sleep, and know nothing of the Matter, with its won-  
derful Lustre. The Peasants call it *Shining Wood.* It is in»  
deed of a fungous Nature, and a thin Contexture, as Diosco-  
rides describes his *Agaricum ;* and hence Pliny, or he from  
whom he borrowed it, suspected it to he a Fungus. But this  
Rareness of Contexture is not natural but adventitious; for it  
is a Wood which becomes thin and fungous by Putrefactions  
Besides, it has strait Veins within its Substance, as Diofcorides  
relates of the Female *Agaric.* Lastly, he telis us, from the Opi-  
nion of others, that *Agaric* is generated by Putrefaction, and.  
grows on certain Trees ; and this too is true of *Out Sharing  
Wood.* The Words of Diofcorides, in which he recounts the  
Various Opinions concerning the Rise and Generation of  
*Agaric,* are written .in a Very antient Copy, which is widely  
different from the Vulgate, after the following Manner: Arywiav  
δί οἱ μὲν φυτοὐ ῥἱἔαν, τενίς δε εν σηΓΙνοίς οἳνδρίσι κατὰ σηψεο γτνεσβκε.  
καθάπερ καὶ οἱ μάκπ/πς ίπιφώβνται, *i. e. Some fay it is the Root Os. a  
Plant ; others that it is generated from Setine, trees by Putrefac-  
tion, after the Marner of Fungi.* The Passage, as it stands-thus, is much to he preferred before that in our Edition.  
Mark his Words: He does not say it is a Fungus, but is gene-  
rated, like a Fungus, from a Tree, suppose an Oak, or another'

Tree. Now the common *Agaric* is plainly a Fungus of the  
Larch-tree. And indeed, if *Agaria* were a Fungus, it could  
never have entered into the Heads of the Anrients to fancy it  
the Root of a Tree, especially when it is reported to resemble  
the Root of *Laserpithan,* which, they say, is above a Cubit  
long, and of a competent Thickness.

Let us now inquire what are those Setine-trees from which  
Dioscorides writes that *Agaric* is generated by Putrefaction ; for  
so are the Words in that forementioned choice Manusoript, which  
is written in larger Letters than ordinary, cedi ἐν ίν σἀπόνοις. &c.  
as before; whereas our Editions have it: τῆς ὸϊ ά *ras crArrn  
ria* ὸλὸμαν, i. e. *ethers fay ia the Trunks of Trees.* As Decay begets  
*Agaria* on Trees, so Corruption, rather than Correction, he-  
got this Reading. We know that Avifena read *srusixc* ὸεὸμό in  
Dioscorides, by bis Version of the fame; for he transtated that  
whole Chapter of Dioscorides concerning *Agaric,* and rendered  
*el.sm* by *corrofas, corroded,* 25 if it Were σἀπόβρωτα. Nay, in the  
Beginning of the Chapter, he cites Dioseorides by Name, in  
the Arabic Edition, not the Son of Mefue, as it is in the Latin  
Version. Serapion also reads Diofcorides after the fame Manner,  
for, after mentioning him, he quotes all bis Words, and renders  
this Passage thus, according to the Latin Interpreter: *Et qui-  
dam dicunt quad generatur in putrefactione Arborum, quando corro-  
duntur, stcut generantur fungi. Some fay it. is generated in the  
Putrefaction of Trees, when they are corroded, as Fungi are ge.  
nerated* ; where it is plain, that he takes σάήνα, *setina,* for  
σ,η-ίβρωτα, *sctabrota, corroded.*

This Depravation of the Text in Dioscorides is of filch An-  
tiquity, that all the Copies I have seen, except that most an-  
tientone, agree with the Vulgate, in reading έντοιέ πλἰχεσν τῶν ὸ»-  
ὸρων, *ia Truncis Arborum, ia the Trunks of Trees..* But the Origi-  
nal was not altered in the Days of Avisena and Serapio. They  
had however the Misfortune to make a wrong Interpretation of a  
right Reading, 'for, I helieve, none who understands Greek will  
acquiesce in their Exposition of σῆς»»,*setina,* by *corrofa.* For, in  
the first Place, the Greeks do not call those Worms which corrode  
Wood, σῆςκ. them, but Αἐνας,Τῆς^ί, and σ,νύληκας. *Scolecas.*Hence  
they call σκωλνηάβρωτα ὄί,ὄρα. *ScolecObrota dendra,* and θαπ,ίἐνστα,  
*thripedesta. Worm-eaten Trees.* Sut wh, *ses,* properly signifies a  
Worm, or Moth, that lives among Garments ; hence σνπῆςοπα  
' ιμάπα, *seteapa himatia, Mitsoeaien Clothes.* Again, I think,  
that σῆςκν. *salmon,* can by no Means, according to the Greek  
Idiom, he put for σπτίβρωτβ, *Setabroton,* or σητόκοπον, *Setecapm ;*and all that are well versed in the Greek will agree with me.  
For who ever found σκωλάκι,σι, *seolecimtm,* to signify what is cor-  
roded by Worms ? At this Rate of Etymology, a Man bitten  
by a Dragon must he said to he ὸξακίνπν,ς, *Dracontinus*; one  
stung by a Viper, *Viperinus*; and another, devoured by a Ser-  
pent, *Serpentinus.* Lastly, *Agaric,* indeed, fprings from a De.  
cay by Putrefaction in Trees, but not from their Corrosion by  
Worms. For the Fungi, which heve the fame Principles of  
Growth, as owing their Rise to Putrefaction, yet delight to  
grow on whole Trees. A little after, Diofcorides adds, that it  
grows in Galatia and Cilicia on Cedars, but doesnot fay that  
these Cedars were Worm-eaten,

It remains therefore for us to conclude, thateaino», *Setinum,* is  
the Name of a particular Sort of Tree, on which *Agaric* grows,  
according to the Report of those from whom Dioscorides had it,  
for no other Interpretation, het what is false, can he given of  
the Word in this Place. And after all my curious and diligent  
Enquiry, I could find no Tree among the Greeks, that would  
agree with this Name and Place, except that celebrated one, so  
often mentioned in *Hily Writ,* where we read that this and that  
Utensil or Structure was'madeor fabricated of Wood of *Setim,*for the Ark of the Covenant, and the Tabernacle with most of  
its Vestels, were made of this Wood. They call it *Sit.  
tint.* It was otherwise written, Σ,ίσιμ, *Sespn,* as the vulgar Ver-  
sion has it *Ligno Setim, Wood of Setim,* and it was commonly  
understood to signify the finest and choicest Sort of Cedar. From  
this Σάτιμ, I could almost fwear, some Hellenistical Writers form-  
ed their σῆςαα ὸσὄρα, *sestina dendra,* to signify Cedars. So from  
Οιλνστι, ίιμ, comes Παλάίστιςοι, *Philisti cirni Palastini,* and from Χιρου-  
*dur, Cherubini.* The Arabians alfo fay *Cherubia* for tbe Hebrew  
*Cherubim* and Σάστιςα ἐνοῦμα, *Setina dendra,* is said aster the Mari-  
ner of Κἰὸφνα όσίμα. *iiixasi, agio»: Cedrina leucina, dryina, den-  
dra,* in the fameDioscorides, *de Bryn, Lib.s. Cap. 20.* It was  
very natural therefore sor the Hellenist Writers, to put *eherso Sha  
ike, setincn dendron, secine Wood,* for, the Hebrew not?, *Setah,*or *Sittah,* winch is of the singular Number, and makes in the  
Plural *Setim.* It is put for a Kind of Tree, *Isai.* XLL 19.  
where forne erroneousiy join it with otrr, *Hadas, a Myrtle,*in Nature of an Adjective. Others combine it with thepreced-  
ing Name of a Tree, which they interpret the Cedar, ΠΙ3Ψ ΠΚ,  
*erez fsttah,* which they would have to be the heft Sort of Cedar.  
But there are three Kinds of Trees reckoned up in that Place,  
*Em, Sittah,* and *Hadas*; if then *Erez* he a Cedar, *Sittah*will he another Sort of Tree. And, indeed, the Arabi-  
ans call the Cedar by the Names of *Brz and Emus.,* but  
most take *Sittah* for the choicest Kind of Cedar, which Opi-  
nion of theirs seems confirmed by this Place, where the οἠηίον

*fehis, secina dendra,* are kiuper, *Cedrina, Cedar-wood:* The Sry-  
tuagint for *Wood of Setim* constantly render ώσἀπόα ξὄλα, *incor-  
ruptible Wood* ς now Incorruption is a Property of the Cedar;  
which is not sensible of Age or Rottenness. “ The Matter of  
“ it, fays Pliny, lasts to Eternity, therefore the Images of the  
" Gods were made of it.” The incorruptible Nature of the  
Cedar is also celebrated by Theophrastus. What Dioscorides  
writ about *Agaric,* he collected from different Authors; *so thet*when he found tn one thet *Agaric*, grew *a* σίτίιοις ίάὸροις, osi  
*Setine-trees,* and in another, that it flourished «ὑμόὸἐν, i. e. *up-  
on Cedars,* he concluded they were different Trees; whereas they  
who asserted that *Agaric* grew on *Setine-trees,.* and the others;  
who would have it to be generated from the Cedar, staid both  
the same Thing, for the Setine.tree is the Cedar

But if *Agaric* grows on Cedars, I do not see bow it can come  
from Scythia or Sarmatia, where are no Cedars. But it took  
its Name from *Agaria Sarmatica.* Let others examine into the  
Reason of that. Theodotion transtated *Setim, a Thorn,- αχαΑα ;*and indeed, there is a thorny Kind of Cedar, which the Greeks  
call οέν'κίὸρ», *Oxycedrum,* which grows plentifully in Lycia and  
Cilicia ; and there *Agaric* also is very common, as Dioscorides  
writes from bare Report. But Theodotion meant quite another  
Thing than the Oxycedruro, or thorny Cedar. Jerome ex-  
pounds it to he a Tree that grows in the Wilderness, like the  
white Thorn, whofe Wood is incorruptible, and the smoothest  
(λςότατά) of all Woods, and for Strength, Solidity, Brightness;  
and Bcautifuiness, as far exceeding them. This is very applica-  
ble to the Egyptian Thorn, which the Greeks call *deuri&e,* or  
alonfes, *the Them,* by Way of Eminence. It grows in tlie De-  
saris, is incorruptible arid everlasting, and remarkable for its  
Firmness and Brightness. By faying it is like the white Thorn,'  
Jerome means the Oxyscanthus of the Greeks, which we also mil  
white Thorn at this very Day. ltis called whireThorn by Colu-  
mella allo. And the Compari ion is not amiss between the Egyptian  
Thorn and this white The™. For the Egyptian Thorn is nor very  
tall,nor does the white Thorn grow toa Tree of any considerable  
Height. Theophrastus makes two Kinds of Egyptian Thorn;  
the *White* and the *Black.* The White is of no firm Substance,  
but Subjecti to Putrefaction; the Black is solid and incorruptible,  
therefore its inner Substance, or Heart, is used in Ship-building.  
Pliny, speaking of the Trees peculiar to Egypt, fays, “ Nor is the  
"‘ Them of this Country less worthy of Notice, that is, the black  
“ one, for it endures under Water incorrupted, whence it is  
very useful in building the Sides of Ships.” Of this Thern  
must Theodotion he understood, when the renders *Setah* and  
*ligna Setim,'* by Ἀααἀπό, *Acantha,* and *’AndAcsa, Acanstdaa .,* the  
Name wlll suit with nothing else. . For the Arabians call this  
Tree *Seitan, or Saten,* which may also he read *Sitan.* It is that  
Thorn from which they gather the Gum Arabic, and make the  
Acacia. Alpbagus, in his *Index* to Avisena, says, “ Alcharad,  
“ or Alchara, or Alcbratb, is the Fruit of the great thorny Tree;  
"" which grows in rhe Country called Bassera in Egypt, and is  
\*" called by the Egyptians *Selane’* Prosper Alpinus says, it is  
called *Sant.* “ Acacia, which the Egyptians call *Sent,* grows in  
“ thofe Parts of Egypt, which are most remote from the Sea.”

The Fruit of the Egyptian Thorn is called in Arabic *Karath,*from the’Greek Ἀεράταν, which signifies a Hase., with the Ar-  
ticle *al, Alkarath,* for its Fruit is a Husk, according to Theo-  
phrastus. I make no Doubt, but the *Sittah,* or *Setah, of* the Hol  
brew is the seme with the *Setters* of the Arabians,-which is the  
Egyptian Thorn that grows in the Defart, and is rightly transtat-  
ed by Theodotion"Ακανόσ, *Acaniha.* For in the Place of Isaiah  
above quoted, *Setah* is manifestly distinguished from the Cedar,  
which the Arabians, as will as Hebrews, call *Erez.* Besides the  
Name all their Charaolers agree. Yet the Hellenist Authors,  
from whom Dioscorides borrowed bis Information, that *Agaric*grew on *Setine-trees,* feems to have taken them for Cedars, as that  
Word is generally interpreted ; for it was the prevailing Opini-  
on thet *Agaric* was generated on Cedars.

Many other Things did Diofcorides borrow from Hellenist .  
Writers, who transtated foreign Words into their own Greek  
Idiom, as when be says *of Cancamian,* thet it was a Tear, Ἀμα-  
βικοῦ ξόλου, *Arabici Ligul,* for ἈμαβΜιοῦ ὸάὸρου, *Arabicae Arbores* ; which  
is according to the Syriac Idiom, and quite remote from the  
Greek. So in his Account of the Palm-tree, he tells us that the  
unripe Date, while it is yet in its Husk, is called Έλάτης, *Elates,*and by some Βόρασσος, *Borastus*, which is purely Hebrew, only  
transposed for Βόσσαρος, *Bejsarus* j for 102, *Bofer,* is a *four Grate.*The Arabians alio call an unripe Date *Besser,* which the Greeks,  
who adopt the Arabic Terms, name *Btmaj.* An antient Interpre-  
ter of Avisena has it *Bofsarum.*

Pliny, *Lib.* 16. *Cap.* 8. will have *Agaric* peduliar to Gallis,  
and a Fungus of glandiferous Trees ; butjn *Lib.* 25. *Cap.* 9. he  
says it is generated like a Fungus on the Trees about the Bos.  
phorus. These are very different Accounts ; and yet in this  
lest be mentions the Gallion *Agaric,* which, he fays, is thought  
to he of a weaker Kind.' Perhaps he was led into an Error by  
the Homonymy of the Words in the Name Γβλἀπόα, which with  
the Greeks signifies both *Gallia* and *Galatia.* Dioscorides al-  
ways calls this last Γαλατίαν .olv κατ’ Ἀσίον, *Galatia which is in Alia*

to distinguish it from the other Galatia, that is in Gallia, which in  
another Place hecalls Γαλατίαν κατ’ Ἄλπϊνς, *Galatia, in which are the  
Alps, L.* 3. Co 28. But, to come to a Conclusion, the Gallican  
*Agaric* of Pliny seems quite different from the Galatian *Agaric os*Dioscorides. The latter grows on Cedars, like a Fungus. Ph-  
’Dy's *Agaric* is a Fungus peculiar to glandiferous Trees, and shines  
by Night, which are the Very Characters, as I said, of the putre-  
fled Word, most commonly Oak, which so remarkably glitters  
in the Dark. Dioscorides, in his Description, has divided *Aga.,  
-ric* into Male and Female, and takes no Notice of the Distinc-  
lion into White and Blache But in another Place, *Lib.* 5. he  
mentions black *Agaric* among the Poisons, and reckons it in the  
List of Venomous and deadly Roots, which, according to his  
Account, are Hellebore, Ixias, black *Agaric,* and the Ephnme-  
Ton, which some call Colchicum. I wonder, he says nothing  
of it in his Chapter of *Agaric.* I suspect the Male *Agaric* was  
the black and the poisonous Sort, though he says no such Thing  
there. " But the Male Kind is not good, but hard and black,”  
says AVisena. The two Kinds are made to differ Very much in  
Form and Substance, according to Dioscorides ; and yet their  
Tastes, he says, are alike. The Moderns set the highest Value on  
' that *Agaric* which is most friable. Dioscorides depreciates the

Cilician and Galatian *Agaric* on that Very Account, because it is  
of a weak Contexture, and Very friable.

All these Things considered, I am almost persuaded that the  
*Agaric* of the Antients was not the same with that which now  
passes under that Name. I read in Isidore, that *Agaric* was the  
" Root of the White Vine.” HesychiuS telis me, that *Agaric*was " an Herb so called,by Physicians.” He terms it an Herb,  
because others had made it a Root. Galen, *L. J.* Περὶ δυνάμεων, af-  
ter he has named *Agaric,* and declares its Virtues, hegins, as it  
were, again, with mentioning the Root of *Agaric,* in these  
Words, which are corrupted. Ἀγαρεκῦ ριζα τειτένιν ιπεφυβμὲνη πρετμα.  
*i. e.* " The Root is whet grows to the Stock of the Tree.” They  
feem an Interpolation, except you read them thus: Ἀγαμκου ἡίζα  
τῦτο ἐστιν ίπεφυόμενον πρέμοω, *i. e.*" That is he accounted the Root

*os'Agaric,* by which it grows to the Trunk or Body of the  
" Tree.'' The Arabians have nothing about *Agaric,* but what  
they learned from the Greek Books. The Name they have for  
it is purely Greek, Viz. *Garicon,* and in an old manuscript Trans-  
lation of Dioscorides into Arable, you have the Word kept in-  
tire, Viz. *Agaricm. Salmas, de Homonym. Hyl. Iatric.*

There are several of the Fungi winch are also called *Agarics,*aS : ‘ .

*Agaricus digitatus maximus, ex luteo, coccineo, et nigro colare ele-  
ganter variegatus.*

*Agaricus villosius tenuis, inferne laevis,* C. Giffi I93. *Fungus  
arboreus villosius, inferne planus,* Doody Syn. 2. App. 335.

*Agaricus membranaceus sinuosus substantia gelatina,* C. Giffi  
194. *Fungus membranaceus parvus aureus,* Sterb. P. 242. Spec.

II 3. T. 26. *Luteus Sambucinosimilis, colore suo manus inficiens.  
Genista vulgari spinosa adnas.cens.* Meat. Pin. *putridus arborum  
ramis inharens, plurimis simul cohaerentibus,* C. B. Pin. 372. 2.  
*.Fungi dicti spongia lignorum perniciosi, J.* Β. 3. 84I. F. *permaosi,*Gen. 24. Species 3. Clus. st. 288. SyrL 2. I9. 40. On rotten

‘ Wood in England and Ireland. Observed by Dr. *Shcrard* and  
Mr. *Dale.*

*Agaricus rnefentcricus violacei coloris,* C. Giffi 194. *Fungus ar.,  
boreus purpureus corrugatus,* Doody Syn. 2. App. 336.

*Agaricus Lichenis facie variegatus,* Inst. R. H. 562. *Fungus  
falignus Lichenis forma variegatus,* Co B. Pin. 372.7. *quartus  
pemiiiosus,* Clus. H. 277. *Depictus,* Sterb. 240. T. 26. A. *Fungi  
’ Salicum, colore varii, perniciosi* J. B. 3. 842. *Nec lamellatus,*

*nec poroses est. Α.* D. Sherard *observatus.*

*Agaricus pedis equini facie,* Inst. R. H. 562. *Fungus durus jive  
igniarius.* Park. I 323. *(sig. rnal) in caudicibus nascens, unguis essedo  
ntfigura,* C. B. Pin. 372. 3. F. *arborei ad ellychnia,* J. B. 3.840.  
Touchwood or Spunk.

*’ Agaricus iniybaceus,* Inst. R. H. 562. *Fungus iniybaceus,* J.  
-B. 839. Syn. 2. I4. 2I. *Arboreus maximus porosus, diversi-*

*mode se dividens et protrudens,* Doody Syn. 2. App. 336.

*- Agaricus officinali similis,* C. Gissi I92. *Agaricosimilis Ftm~  
"gus diversorum arborum caudicibus adhaerens,* C. B. Pin. 375. 2.  
*Pungus arboreus albidas maximus, seu Agaricusspurius,* Doody SyrL  
. 2. App. 435.

*Agaricusporosusrubenscarnos.us,hepatis facie,*C.Giff.I92. *Ften-  
.gus hepatis flante et calore,* Merr. Pin. *Arboreus rubens carnosus,  
.hepatis fade.* Doody Syn/2. App. 34O.

, Mr. Doody found it near Hally in Kent, and since received  
it Very fair from Mr. Chaplin, gathered in Suffolk, aS you go  
from Sir Rohert Dillington’s House to the new Church in the  
Hle of Wight. *Merr. Pin.*

*Agaricus multiplex porosus,* C. Giffi I q3. *Fungus circulum gra-  
datim perficiens, cuius diameter quandoque triginta vel pluses pedes con.,  
-suit,* Merr. Pin. *Ln montosis pascuis non infrequens, reserente*

MerTet. *Memorabilis est magnitudinis et plures juxta se oriri so.,  
lent, qui fatis latum spatium ambitu sua complectuntur.*

*Agaricus porosus igmarius Fagisis.uperne candicans, insterne suscus,*-C. Giff. I93. *Fungus pedem equinum referens, subtus foraminosus,*Dood.Syn. 2. App. 336. *Ad arbores. Igniarius dicitur, quod ca-  
ea ostes in fomitem igni concipienda idoneum praeparari queat.*

*Agariohporos.us igntarius Carpini,* C. Giff I93. *Fungus arbo-  
reus maximus fufcus,suotus*joimus, Doody Syn. 2. App. 335. *La-  
teraliter Ulmo adherentem prope, Epsim iorvenit* D. Plukenet.

*Agaricus varii colorissiqudmsus,* Inst. R. H. 562. *Fungus de.,  
horum et lignorum putrescentium, coloris varii,* Syn. 2. 18. 3I-.  
*Cerasorum imbricatim alter albori innatus variegatus,C.* B. Pin. 372.  
8. *Fungi Cerafirtem coloris varii perniciosi,* J. B. 3. 842. *Fun-  
gus semicircularis durus, multos durans per annos,* Merr. Pin. *Holo.. s  
sericeus iridoformis quasi, colorum alternatione variegatus.* Cat. Alt.  
*Inferne sioraminulentus est, non lamellatus, colore albicante. Non Ce-  
raso tantum, sed et aliis passim arboribus adnasaiur.*

*Agaricus villosus et porosus, substandae coriaceis,* Co Gissi I93.  
*Fungus arboreus variegato illi Cerasiorum, etc.* C. B. *Similis, sed  
hirsutior, forarninulis etiam majoribus,* Doody Syn. 2. App. 336.  
*Arboribus sudioribus plerumque adnas.citurr*

*Agaricus villosius, lamellis sinuosis et invicem impleris, Q.* GilL  
Ip2.‘ *Fungus arboreus villosus albus, foraminibus oblongis, simi cir-  
cularis,* Doody Syn. 2. App. 336.

*Agaricus qucrnus lamellatus, coriaceus albus,* C. Gist\*. I9T. *Fun-  
gus arboreus inferne foraminibus longis et rotundis insculptus,* Doo-  
dy Syn. 2. I8. 33. *HicaD. Daleporiterobservatus.*

*Agaricus qucrnus lamellatus coriaceus villesus,* C. Giffi Iqr.  
*Fungus arboreus holofericeus, inferne lamellatus,* Syn. 2. 14.26.

*\* Agaricus parvus lamellatus, pectunculi forma elegans,* C. Giffi  
192. *Fungus parvus lamellatus, pectunculi forma Alno adaas.cens3*Syn.-2. 14. 27. \* Common in Woods in Ireland. Dr. *Sherard.*In the Woods near Dulwich, and many other Places. Mr.  
*Doody.*

*Agaricus parvus lamellatus croceus, e Corylorum ramulis dependens.  
Undulatus est et sigura sua lobum nucis juglandis non male refert.  
Croceo colore manus inficit. Corylorum ramis aridis et einortuii  
plerumque adnaseitur.*

*. Agaricus coriaceus longissimus, pectination insterne divisus.* Rail  
Synopsis Methodica. ..

AGARICUS also is a Name for the *Marga Candida,* or white  
Stone Marl. See MARGA.

AGASYLLIS. Ἀγἀσυλλις; According to Dioscorides, the  
Shrub (δαμὰς) that produces the Gum Ammoniacum, Z. 3. *C.*98. See AMMONIACUM. .

AGATHARCIDES. An Author quoted by Plutarch, *Sym..  
pojiac. L.* 8. *Probl.* 9. as giving an Account of the endemial  
Distempers, to which the Inhabitants of the Coasts of the Red  
Sea were, subject. For this Reason Le Clero ranks him amongst  
Physicians. But in Reality he was not os the Professions  
He wrote amongst other historical Pieces an Account of the  
Red Sea, and in this -gives a Description' of the Dracunculi,  
a Sort of Worm of a considerable Length, that breeds in the  
muscular Parts of the Legs and Arms. See DRACUNCULI,  
andUENA MEDINENsrs, - '

*Agatharcides,* who is distinguished from other Authors of the  
same Name, by the Appellation of *Cnidius,* lived in the Time  
of Ptolemy Philometor, who reigned about I 3O Years after  
Alexander the Great. He wrote many Treatises, as we learn  
from Photius, but nothing relating to Physic, except what the  
natural History of the Red Sea led him into.

His Works are lost.

AGATHINUS. A Physician quoted by Galen, Ccelius  
Aurelianus, and Aetius, He wrote upon Hellebore, and the  
Pulse, and other Subjects. He was of the Pneumatic Sect, and  
consequently a Follower os Athenaeus. SuidaS informs us he  
was Master to Archigenes, who practised Physic at Rome, in .  
the Time of Trajan. His Works are lost.

AGATHON. Ἀγαθέ». The common Signification of this  
Word *is good.* But, according to Galen, Hippocrates uses in  
in a Sense somewhat different from other Writers, which is  
no uncommon Thing, both with Respect to this Word and  
many others. In this Author it sometimesfignifieS *certain, firm,  
true,* or *perpetual. -*

AGATHONIS ANTIDOTUS HEPATICA. *Agathons,  
Antidote for the Liver.* This is a Medicine described by My-  
repsus, 0. i. *C.* 268. It is thus prepared:

Take of Gentian six Drams ; os Elicampans, Wormwood,  
Spikenard, each one Dram. It is given to feverish Pa-  
tients in Water, to others in Wine.

AGATY H. M. *Galega affinis Malabarioa arboreseens, si-  
liquis maioribus articulatis,* D. Syen.

It is four or sive Times the ordinary Height of a Man,  
and its Body as..much aS a Man can fathom. The Branches  
that grow out of the Middle and Top of the Tree, extend  
themselves in Height more than in Breadth. - It grows in  
sandy Places. The Root is of a dark Colour, and spreads itS.  
hairy Fibres all around to a considerable Compass, and is of  
an astringent Taste. The Wood is of a soft Substance, and  
its inmost Pith, or Heart, softest of all if an Incision be  
made in the Bark, there distiis from fit a thin an{] watery  
Liquor, which afterwards grows thick and gummy.. The  
Leaves are permated, almost a Span and a half song, two  
Lobes being connected to the main Rim directly op-  
posite to one another, the Pedicles very stj0rtj aftd hisnd\_  
ing forwards, the Lobes small, of ao oblong Figure, and

roundish *at* the Edges, about an Inch and half long, and a  
Finger’s Breadth wide, almost of an equal Breadth from the  
Base to the Top, of a pretty close Contexture, and very soft,  
of an extraordinary Smoothness, of a lively Grech on the up-  
per Part, but fainter beneath, smelling like Beans; if they are  
rubbed. From the main Rib issue fine subtile Veins, which  
disperse themfelves over the Leaf. The Leaves shut in the  
Night, with their opposite Lobes drawn olofe to one another.  
The Flowers which are of the papilionaceous Kind, and have  
no Smell, grow sour, five, or more, on a little Twig, or  
Stalk, that comes out from the Alas of the Leaves. The  
Flowers consist of four Leaves or Petala, which have this  
Peculiarity, thet one of them, which miles itself above the  
rest, and two lateral ones bend in an Angle, are somewhat  
thick, whitish, and striated with Veins lengthwise; and the  
fourth, which is the broadest, is a round Oblong, striated  
with numerous fubtlle Veins, which proceed from the Base  
lengthwise, heing first whitish, then yellowish, and a purplish  
Red. The Stamen forms an Angle, and is divided at the  
Summit into Filaments, or Threads, bearing oblong yellow  
Apices. The Calyx or Cup is deep, surrounding the Bases  
of the Petala with four short roundish Leaves, of a faint green  
Colour. The Flowers are succeeded by Pods, four Spans long,  
and *a* Finger’s Breadth wide, somewhat round, strait, green;  
*of* a thick Rind, and containing Beans of an oblong Figure,  
each in its proper Cell, separated by carnous Partitions, placed  
lengthwise in the Length of the Pod, somewhat protuherafc-  
ing, tasting like a Bean, and exactly resembling our Kidney-beans,  
only they are less, and turn whitish, or a greenish White; when  
they are ripe, they serve for Food.

It beats Flowers and Fruit, in rainy Seasons, two or three  
Times a Year, and sometimes, though but seldom, all the  
Year round. The Root mixed with the Urine of a Cow,  
and applied to the Place, discusses Tumors. The Juice of  
the Bark -mixed with Honey, and used in Gargaristns, is  
good for the Quinsey, and Pustules in the Mouth. The Bark,  
helled in Water and eaten, is henesicial in the Small Pox.

. The Juice of the Leaves, drawn up the Nostrils, relieves the  
Patient under inveterate Quartans,, when the Day of the Fit  
comes. The Decoction of the leaves purges pituitous and  
bilious Humours, and the Leaves themselves so eaten give Relief  
in the Vertigo and Cholera Morbus. The Flowers boiled are  
prescribed for a Catarrh, which Way they are also, said to in-  
cite to Luxury. The Juice of the Flowers, dropped into the  
Eyes, takes away Films and restores the Sight. *Ray, Lib.* 3i.  
*'Cap. eta,.*

AGELAEOS. Ἀγελαῖος. *Gregarious, vulgar.* It is some-  
times joined with άρτος, and used to express the coarsest Sort  
Of Bread. *Athenaeus. \_*

AGEM. A Name of the *Syringa ' Perseca,* or *Lilac Perst-  
- ' cum. Incists Foliis.* See SYRINGA. -

AGER CHYMICUS. Dorneus in his *Genealogia Mine-  
ralium* says. Water is the Field *{Ager}* in which the Om-  
nipotent has ordained that the Root of Minerals should he  
fixed, and from whence theTrunk and Branches shoot into the  
Earth.

The Uterus is asso called the *Ager Naturae.*

*Ager,* or *Agrorum Terra,* is also the common Earth or Soil.  
All sat Earths are good Applications for any Parts which want  
drying. The Egyptian clayey Soil was used by hydropioal  
and splenetic Patients. Many asso daubed with it their Legs,  
Thighs, Elbows, Arms, Sides, Backs, and Breasts, and found  
great Benefit by it. It cured old Inflammations and fax Tu-  
rnors, and such as through an immoderate Evacuation by the '  
hsemorrhoidal Veins, were over-run with hydropical and wa-  
tery Humours, and it also intirely removed inveterate Pains fix-  
ed upon any Part. *Aecios, Tetrabib. I. Sernt.* 2. *C.* 3. from *Ga-  
len.* SeeTBRRA. , -i

AGERASIA. *’Aspplaia.* From ἀ Negative, and *rssaeuo.Old Age.*That State which maintains the Health and Vigour of Youth,  
in an advanced Age. What the Latins call *virulis Senecta.*

AGERATUM.

Maudlin thus distinguished : *Ageratum, .Eupatoriam Mesines,*Offic. *Ageratumfolds serratis,* C. B: 22I. Boeth. Ind. A.I2.5.  
*Ageratum plerifqus, Hirba julia quibufdam,* J. B. 3. I42. *Age-  
ratum, Hirba salia.* Chain 367. *Ageratum vulgare, five Castus  
hortorum minor, Park. fa.* Rail Hist.'1. 364. *Achillea lutea,  
Agerotifolio longiore.* Act. Reg. Par. An. I720. 322. *Ealsa-  
rnitostamina.* Ger. 523. *Bolsemita foemina, five Ageratum,*Ger, Emac. 648.. *Ptarmica lutea fuaveolens,E.\ntss.* Bot, 398.  
Toutn. Inst. 497. MAUDLIN. *Dale.*

*Ageratum* is a spriggy Plant, producing from one Root  
many Stalks, no higher than a Span, not branched, but very  
like Origanum, bearing an Umbella, with yellow Flowers,  
like Gold Drops, less than the Helichryfus. It is called *Age-  
raium,* becaufe the Flower preserves its Beauty for a long  
Time. Diofcorides, L. 4. *C.* 59. His Description is transcribed  
by Onbafius, *Collect. L.* II.

This Plant from a woody branched Root, abiding long  
in the Ground, sends forth many round Stalks, little or  
nothing branched about a Foot high, on which grow a great

Number of small, long, narrow, round-pointed Leaves, deeply  
serrated about the Edges; on the Tops of the Branches  
stand Umbels of numerous small Gold yellow naked Flowers,  
in scaly Cups or Calyces, containing very small Seed. The  
whole Plant has a strong and nor unpleasant Scent ; it  
grows with us only in Gardens, it heing a Native of Italy  
and the warmer Countries, and flowers in July and August:  
*Miller, Bot. Off. \_ - .*

Its Decoction is good in Fomentations. The Vapour'of ths  
Herb burnt provokes Urine, and mollifies the Hardness of the  
Uterus. *Diosc L.* 4. C.\_ 59.

*It* is a Digestive, and gently mitigates an Inflammation. *O..  
rib. Med. Call.* I. *L.* I5. *C.* I. *Acginet.* Z. 7. *C.* 3. *Aet. Tetri*i. *Serm.* I.

*Maudlin* is of a bitter Taste, warming and drying, and use-  
ful in Disorders 'of the Stomach and Liver. It is good in the  
Jaundice, and Obstructions Of rhe Menses, provokes Urine, and  
kills Worms. . *Miller, Bot. Offic.*

It contains the Virtues of Costmary and Tansey, and is an .  
Ingredient in all capital Compositions. The sieed has been gi-  
ven, with. Success, instead of Wormseed, to kill Worms. The.  
distilled Water and Spirit yield a most fragrant Smell. This  
Piant is ofed in Syrup, Oil, Infusion, Decoction, Powder, and  
Pilis., MI. Boyle observes this Plant to he hurtful to the Eyes.  
*Boerhaave., ' '*

Besides the common *Maiudlin* taken Notice of by Dale, Mll-  
ler enumerates the following Species r

*Ageratum quae ptarmica incana, pinnulis cristatis’,* F. Voy. The  
hoary Oriental *MandUn.*

*Ageratum Peruvianum, arboreum, folio lata, serrato,* Boethi  
The Peruvian Tree *Maudlin,* falsty called *The Jesuit's Bark  
Tree,* hecaufe at first supposed to he the Tree from whence the  
Jesuit’s Bark was taken.

*Ageratumserratum Alpinum glabrum, store purpurascente,* Tourn:  
Smooth *Ageratum* of the Alps, with a purplish -Flower.

*Ageratum Americanum erectum spicatum, store purpureo,*Houso American *Ageratum,* with purple Flowers growing  
on a Spike. .

*Ageratum Americarmm procumbens, gnaphalii facie, fisribus ad  
foliorum nodes,* Houin Creeping American *Ageratum,* having  
the Face of Cudweed,andthe Flowers coming out at rhe Setting  
on of the Foot-stalks.

*Ageratum Americanum frutescens, Chamaedryos folio, floribus ex  
soliorum alis,* Houst American *Ageratum,* with a Germander  
Leaf, and the Flowers growing from the Setting on of the  
Leaves.

. AGERATUS LAPIS. A Stone, ufed by Coblers, to polish  
Womens Shoes. It is esteemed discussive, and astringent, and  
is useful in Inflammations of the Uvula. *Galen,* and from him  
him *Paulus Aigineta, Lib.* 7. *Cap.* 3. and *Oribascus, Lib.* I4.  
*Cap.* Io. \_

AGES. Ἀγῆς The *Palm,* or *Hellqui of the Hand. Hiet-  
chius.*

AGE VITA. The Name of an Antidote, described by  
Myrepstis. The Place is much corrupted, but the Commen-  
tator conjectures, that Myrepfus wrote ιομα βΓτα, *Jugis Vita,*long or continual Life, and that this Antidote took the Name  
from its great Virtues, in procuring Longevity. This, My-  
repsus informs us, is called *Meelchagee* by the Saracens. It  
is a medicated Wine, of which the Anther gives the following  
Account :

Take six Measures of good Red Wine, and.put into it, of-  
ter they are well beaten, and passed through a fine Sieve,  
the following Ingredients : Of Galangals, two Ounces j  
of long and white Pepper, each an Ounce; of Sage art  
Ounce' and a half; of Ginger arid good common Cinna-  
mon, an Ounce and a half; of Saffron, three Drams j  
of. Cloves, a Dram and a-half Boll them well in the  
Wine, till of the six Measures there remains but one  
Measure and a half, and then pour it into your, Vessel.  
The Dose is half an Ounce in the Morning fasting in a  
Glass of Wine.

It is henesicial in all cold Distempers, for paralytic, stoma-  
chic. shaking, cachectic, and hydropical Patients. It helps  
Crudities, Inflations, and all Imbecilli ties and Coldness of the  
Stomach and Body. It cures Inflations in rhe Uterus, the Te-  
nefmus, the Maladies proceeding from Deflexions, as the Goin  
in the Feet and the joints, and all nervous Distempers; arising  
from Crudity and Humidity. *Nich. Myrepstis, Sect.* 1. *Cap.  
500. ......*

This seems to he a very good Stomach Medicine, and must he  
of considerable Efficacy in the Disorders for which the Author  
recommends is. On this Account it is called *Anauri urine the  
Nerve of Life.*

’ AGEUSTIA. From a Negative, and γνάμόιι, *te taste. It*signifies a Fasting, or Fast.

AGGLUTINATIO. *Agglutination.* It signifies the Join-  
ing together, or Re-union of any separated Parts of the Body, or  
Healing. Hence Applications, that promote that End, are call-  
*ed Aurluiinants. . ’*

*Agglutination* is also used in a disserent Sense by *Artius,* as ap-  
pears by the following Passage:

AGGLUTINATIO PILORUM. A Healing or Reduc-  
- ing the Hairs of the Eye-lids, that grow inwards, to their na-  
tural Order and Situation. This may he done by Mastirh,  
applied with a Probe, which henas rhe Haics bach intoproper Order. Bitumen, the Slime of a Snail taken off with  
a Needle, the Juice of Hawk-weed, rhe Liquor of *Agglapri  
Hants,* or Ammoniac, work the same Effect. A compound  
Remedy may he thus prepared ;

Take of dry Rosine, dry Pitch, Sulphur vivum. Bitumen Ju\_  
daicum, each one Dram ; Wax half a Dram. . Melt  
them together, and reserve them for Use till Occasion of-  
fers, when touch the Mass with a heated Probe, and *tig...  
platinate* the Hairs as hefore directed. *Aelius, Tetralaby*2. *Serm.* 3. *C.* 68I. '

AGGREGATUM. *An Aggregate. N* Body resulting from  
the Union of a great many others, which are smaller, of which  
the whole Sum or Collection is the *Aggregate.*

AGIAHALID. An Egyptian Plant thus distinguished by  
Pay : *scycio suffinis Asgyptiaca,* C. Β. *AgiahalidAEgyptiaca Ly-  
cio ssfo1\*\** Park. *Agiahalid AEgyptium folio Buxi, aut Lyceum ?*

It is a large Tree like the wild Pear, with but few Branches,  
and prickly, formed like the Lycium or Boxthom. Its Leaves  
are like those os Box, but bigger and at a greater Distance  
one from the other. Its Flowers are but few, of a . white Co-  
lour, resembling those of Hyacinth, but less. They are suc-  
ceeded by little black Fruits, like those of dwarf Elder, of a  
styptic Taste, a little bitterish. This Tree grows in YEthio-  
pia, and Egypt.

Its Leaves are sourish and astringent, and are esteemed good  
Jo kill Worms. *Lesnery de Drogues.*

AGITATIO. *Agitation, Shaking.* In Medicine it is consi-  
dered as an Exercise, and to this Dr. Sydenham attributes the  
great Benefit os Riding , and, no doubt, it is Very efficacious  
In removing Obstructions of the Viscera, when assisted by the  
fresh Ain See AIR.

AGLIA. See AEOLIA and **AEGIDEs.**

AGLITHES. Ἄγλιθες. The Divisions or Segments of a  
Head os Garlick, which we usually call Cloves. It is used by  
Hippocrates, in his Treatise *de Morbis Mediorum, Lib.* 2. See  
**ALLIUM.**

. AGME. Ἀγμἡ, or Ἄγμα. From *duru, to break. N Fracture.*

AGNACAT. *Scaligcri Pyri Specie.*

In a Country of America beyond the Terra de Labrador,  
towards the Isthmus os Darien, there grows a Tree of the  
Figure and Size of the Pear-tree, always covered with Leaves,  
and of an extraordinary Greenness and Lustre.. It bears a  
Fruit also like a Pear, but green, even when it is ripe. The  
Pulp is os the feme Colour, sweet, sat, and tastes like Putter.  
It is a powerful, and next to miraculous. Promoter of venereal  
-Vigour. *Rapis Hist, of Plants. .*

AGNANTHUS. A Genus of Plants mentioned by Vail-  
innt. It bears the Flower at the Extremity os the Stalk and  
Branches aster the Manner of Grapes. Every Flower, which  
resembles much thet of the Agnus Castus, is a small Pipe, the  
anterior edge os which commonly expands and divides it-  
felf into six unequal Parts, three superior which are disposed  
like Trefoil, and three inferior, of which that in the Middle  
is the largest *of* the six, „ and the two lateral, the smallest.  
There arises froth the Bottom of the Cup or Calyx, which is  
indented, an Overy. This Overy in articulated to the Bottom  
of the Pipe or Channel of the Flower, and when the Flower  
salis off it becomes, according to Plumier, a Berry containing  
la fingle Seed.

*Agnanthus* comes from the Greek Word ἀγήος, *chaste,* and ἄνδος,  
*a Flower,* because the Flower of this Plant resembles that Of  
*Agnus Casius,* or *Vitex.*

There is but one Plant of this Genus known which Is the  
*’Agnanthus Viburni folio. Comuiia flore pyramidato, cceruleo, fo-  
liis incanis.* Plum. Nov. Gen. 32. *Calychirichibou Caraibaea-  
rurn,* Surian. Hort. Sice. *Memoires de llAcademic Royals des  
Sciences, Annee prison.*

... AGNATA. See **ADNATA.**

-. AGNINA MEMBRANA, or PELLICULA. Aetius,  
*.T.etrabib.* 4. *Serm.* 4. *C.* 2. calls one of the *Membranes* which  
involves the Foetus by this Name, which he derives from its  
.Tenderness.. From him, probably, Bartholine and Drelincourt  
have borrowed the Expression, jt is what Anatomists usually  
call the *Amnios.*

AGNINA LACTTJCA, is *Lumbs Letties.* See **LACTUcA.**. AGNOIA- . Ἄγνοια. \_ From α Negative, and γ,νἀσκω, *to know.*When a Patient in a Fever, or any other Disorder, forgets, and  
:does not know his familiar Acquaintance. This is called *Agnola,*by Hippocrates, who pronounces it.a very bad Symptom, espe-  
cially when joined with a Rigor. *Preedict, L.* j. 64. The Truth  
Of this is evinced by every Day’s Experience.

. AGNUS. A *Lamb.* This Animal is too well known to  
want a Description. . Many *os* its Parts are recommended for

particular medicinal Purposes. Thus Hippocrates in his Trea-  
*rise, de Saperifertatione,* advises us to apply the warm Skins of  
Lambs (οὐρναχίδας) to the Bellies cf Virgins who are disordered  
for Want of Menstruatinn at a proper Age, no doubt, with  
a View of relaxing the Uterine Vessels, and removing thereby  
that Part of the Difficulty, which depends upon their too great  
Tension. Dr. Friend, in his *Ernmenolagia,* recommends emol-  
lient Fomentations for the same Purposes; but the balsamic  
Warmth of a Lamb-skin, just taken from the Animal,  
seems more likely to relax, than any artificial Heat what-  
even . . . .. .

The Lights are recommended in DisordersOf the Lungs, and  
the Gall in Epilepsies, in the Quantity of two Drops to eight  
for a Dose. *Lernery.*

The Coagulum which is found at the Bottom of the Stomach  
is esteemed a good Antidote against Poisons. *Latnery.*

The Lungs, burnt and powdered, cure the Bruises from uneasy  
Shoes. *Aetius, Tetrabib.* I. *Serm.* 2. Co 153.

Lamb contains a great deal of volatile Salt and Oil. -

The hest and lightest Parts of a Lamb, according to Celsos,  
are the whole Head and Feet. *Celsus, L.* 2. *C.* iB.

It affords a glutinous Juice. *Oribas. Eap. L.* I. *C.* 2i. .  
. It is of a moistening and loosening Nature, very nourishing,  
and lenifies sharp and pungent Humours.

It produces viscous, phlegmatic, and gross Humours, especi-  
ally when it is too young.

- It agrees in warm Weather, with young bilious People, hut  
Persons of a het and phlegmatic Constitution ought to refrain  
from it, or use it moderately. *Lemery on Foods.*

AGNUS SCYTHICUS. The Vegetable called the *Scy-  
thian Lamb,* in the Barbarinn Language *Bararnetx, Borometos,*or *Boronetx,* is much noted among the Writers of Natural Hi-  
story. . .

The first who treated of it were Athanasius Kircher, in  
. .his *Ars Magnetica* (who cites Sigifm. L.B. ah Herberstein, Hay-  
ton the Armenian, Surins, and Jul. Caes Scaliger) Lord Bacon,  
FortuniuS Licetus, Andreas Libavins, Eusebius Nierenhergins,  
AdamuS Olearius, and OlauS WormiuS, to pass over the rest,  
among whom are many Botanists, who do little more than re-  
peat what has been said hefore them.

This Plant is described by *Jul. Case Scaliger,* under the  
Tide of the *Scythian Lamb, Borametx,* as follows : " Whet  
" has heen related may pass for a Jest, if compared with the  
wonderful Tartarian Shrub. The chief Hord among the  
." Tartars is the Zauolhan, distinguished as well for its Anti-  
" quity as Nobility. In that Country they plant a Seed very  
." like that of a Melon, , only less oblong; from this Seed springs

a Plant, which they call *Borametx,* that is, a *Lambs,* for it  
" grows in the Shape of a Lamb, almost three Feet high,  
." resembling that Animal in Feet, Hooss, Ears, and all the  
" Head, except the Horns; instead of which, it has a Tusc  
" of Hair that looks like a Horn. It is covered with a very  
" thin Hide, which is strips off by the Inhabitants, to make  
" a Covering for their Head. They say the inner Pulp re-  
" sembles the Flesh of a Sea Crevise, and that Blond follows  
" from a Wound made in it; that it is wonderfully sweet to  
" the Taste; that the Root raises itself out os Ground as high.  
" aS the Waist; a Circumstance that greatly heightens the  
" Miracle. AS long aS it is surrounded by neigbouring Vege-  
" tables, it lives and enjoys itself like a Lamb, in a sat Pass.  
" ture: When they die, or are extirpated, it pines away, and  
" perishes. This Event does not happen only by Chance, or  
" Length of Time, but has been brought to pass, by making  
" the Experiment, and removing all Plants from its Neigh-  
" bourhood. What increases the Wonder is, that it is greedily  
" coveted by Wolves, and not by other carnivorous Beasts.  
su But this lash I presume, is made only for the Sake of Alin-  
" fion, to the Name *Lamb,* and to grace the Storyt But I  
." want to know, aster what Manner sour distinct Legs, with  
»" their Feet, are produced, and proceed from one Trunk, -

" What is here related, I have, had by Information, partly  
" from Persons of the highest Rank, and partly from the most  
", curious Inquirers into the Secrets of Nature”.

Other Authors give us the fame Account, or rather trap-  
fcrihe Scaliger ; however, some of them Vary in certain Cir-  
cumstances, and Kircher, in particular, to his Description,  
has added, or, to speak more properly, invented,a Figure: Nay,  
further, in some Musseums of the Virtuosi, as those of Wormy-  
us and Swammerdam, the Skin, as it is pretended, of this re...  
.markable Preduction of Nature, was formerly to he seen.

Antonius Deufingius, after nicely weighing the Matter in the  
Balance of Reason, suspected this Account os the *Lamb* aS sa-  
bulous, and endeavours to persuade us, that Scaliger himself,  
who was one of the first that mentions it, treated it as a Fa-  
ble ; and it was called in Question by others, who were not  
willing to be imposed upon.

To speak the Truth, if we examine the whole Story of this.  
*Lamb,* with a Mind Void of Prejudice, we shall stud that it  
favours strongly of the Romance; nay, in reality, is nothing  
else, and that Deufingius was in the right; which will appear  
. from the following Reasons, t

t. No Person Of Credit .ever saw this Vegetable *Dumb.*What Olaus Wormins had by Relation from Mons Eovaldi  
de KIeiss, Ambassador of the Elector of Brandenburg (who  
told him, that while he lived on the Borders of Tartary, he was  
offered by a Tartar, in Exchange for some Leaves of Tobacco,  
a dried Plant, bearing on its Stem a Fruit, which plainly re-  
sembled a *Lamb,* a Foot in Dimension, and covered with a  
curled Fleece) is not convincing, for that noble Person might  
easily be imposed upon by some cunning Tartar.

2. The Very learned and experienced Naturalist, Engelhert  
Ksempser, M. D. took a great deal of Pains in searching for  
this *Lamb* in its own Country, but could find nothing like it.  
" They have no Notion, says he, nor Memory, in Tartary,  
" neither among the Vulgar Sort, nor the Skilful in Botany,  
" of the Existence of a Zoophyte that feeds on Grass, tho’ I  
" have searched all over the Country for it, till I have been a-  
" shamed and laughed at for my Pains ; nor is there any Thing  
" called *Borometx* hefides Sheep, and what belongs to that  
" Kind. Therefore I am well assured, that wherever has been  
" related of that Plant is meet Fiction''. *Amcanit. Exoticce.*

3. The whole Story os this *Lamb,* is so like a Fable, as one  
Egg is like another. . What gave Rise to it, has been very well  
.discovered by that most diligent Searcher after Nature, in those  
Eastern Countries, Kaempser, before mentioned, .in the Place  
cited, where, (having premised somewhat concerning the Ety-  
mology of the Word *Borometz,* which, he says, is corrupted  
from the Muscovite *Boranetz,* in Polish *Baranek,* which, is a  
Diminutive os *Baran,* a Word os Sclavonic Original, and used  
by the Russians and Poles, to signify a Sheep} he telis us that in  
some of the Countries about the Caspian Sea, there is a Species  
ofSheep Very different from the common Sort, and highly va-  
lued for the Fineness of their Skins, which he describes, and  
the Manner how they are dressed, in order to serve as Orna-  
ments, to set off the Garments worn by the Tartars and Per-  
sians t “. Persons of Quality, says he, and the Rich, whose  
" Pride and State require better Clothing than the com-  
" mon Sort of People,, covet the Skins of Lambkins, which are  
" much finer than when they are grown, and the younger  
" they are, the more they are Valued ; for their Hairs may be  
" twisted into finer and thinker Curls, which augments the  
" Beauty and Price of the Skin. Hence a greedy Thirst aster  
" Gain has prevailed with some, in order to obtain Skins of  
" the utmost Fineness, to exercise Cruelty, so far as to anti-  
" cipate the Birth os the Lambkins, by ripping the Bellies of  
" their Dams. Α Skin, thus procured and skilfully dressed, is of  
" so exquisite a Fineness, as to put it out of the Power of the  
" Unacquainted to determine what it is, and when the Extre-  
" mities are cut off retains scarce any Thing of the Figure of a  
" Lamb, but just enough to deceive the Ignorant and Credu-  
" lous with the Show of a woolly Membrane, in form of a  
\*c Gourd.” To this he subjoins, " The Price os a Skin,  
or according to its Goodness, amounts to three Pieces of Gold,  
" or more. It is used to line their Turbans, and often serves,  
" by Way ofOrnament, to border their Gowns and Cloaks”.  
He concludes, at last, in these Words: " Whether this Fable  
." owes its Rise to the Conjectures of some contemplative Pin-  
", losopher, or the Ignorance of the first Relates, who, either  
" through Carelesness, or Unikilsuiness in the Language, might  
" misunderstand a Thing he heard talked of by the by, . or  
." whether we refer it to some other Original, the Mistake he-  
es ing propagated to sar distant Regions, and spreading every  
es where, first occasioned this Pellicle the Loss *os* its true Name  
" and History.. Provision being thus made for its Reception,  
" the Bauble itself was imported. to us, under the specious \  
- ." Name os a *Miracle,* and lighting upon some illustrious Per..

." fon of Curiosity, and an Admirer os this foreign downy  
." Piece, it gained Credit and Admission, as all Prodigies are  
or apt to do, by its Vegetable Face. This Error bring illuse  
" trated by Authority, and soon after confirmed by Writing,  
fa took such firm Rooting in the Judgments of the Learned, as  
." well as the Opinions of the Vulgar, that the Pellicle is shewn  
te to this Day, among the rarest Curiosities in the Musaeums,  
. " as a Species of Zoophyte, when, indeed, it is no other

" than a Foetus of the Caesarean Section". :

. From what has been quoted, it appears; that those Persian  
*Lamb-firns,* which our Skinners call *Persianasche Baranken,.nxC*of this Kind, " that is, strips from Lambs that are cut out of  
the Bellies of their Dams, by the Caesarean Section. But we  
shave none of the choicest, the Price of which, as Kaempfer  
fays, is three Pisces of Gold, or more, in their own Country,  
-whereas we can buy the best that is imported, for one Piece, at  
mosh - .

About three Years ago, a Russian, who was a Man of  
learning and Curiosity, in his Travels, came to our City,  
and was pleased to desire a Sight of my Musainlum, which,  
among other Natural Curiosities, was not unprovided with this  
Scythian *Lamb,* which passed for the true *Eoromels,* the Won-  
der of Wonders. It was about six Inches in Length, and  
furnished with a Head and Ears, and four Legs of the Colour  
of Iron, and covered with a Sort of Down, like the knappy  
Silks called by us *Garnmet,* except its ears and Legs, which

were hare, and of a darker Colour. ; "When it caine to .he exa-  
mined, I sound it was not of an Animal Naturo, nor the Fruit of  
any Plant, but the Root of some Vegetable, thick; . spreading;  
and hairy; or rather the Stem, or Stalk of pome Plant, which,  
in its Climbing, had, by the Ministry os Art, acquired some  
Sort of Resemblance os a Quadruped ; or the four Legs were  
the Reliques of so many Stems, os, if you wist. Pedicles” which  
had born Leaves, and were lopped off, aS were also the Ears,  
the'they were like Horns. Besides this, rhe Fibres shooting  
out here and there, by which the think R00s, and through,  
that the Plant, like all others, received Nourishment, left no  
Room for Doubt. Moreover, one of the forp Legs was nos,  
like the rest, continuous to the Body, but inserted therein by  
: Art ; and the Head itself, with the Neck, was very artificial-  
ly connected to the same, as I found upon making a \_ more  
.accurate Inspection. So that this *Lamb* was fabricated and put  
together, from this and thar Root or Stump, by the same arr.  
tificial Means, as your Homuncios or Pigmies are composed  
and pieced up os the Roots os Mandrake and Briony. But  
there still remained a Doubt with me, out os what Plant this  
Ludibrium os Art and Nature oould he formed, the’ a Thought  
soon came into my Head, that it must he one of thosc com-  
monly called the Capillary Kind, for which I had several  
Evidences, both from the Comparison of some Exotic Plants  
which I myself knew, and of others which are. descrihed and  
delineated by Hans Sloane, M. Ds .and the Rev. M. Plumier,  
in their costly and elaborate Works ; for some os these Plants  
shoot up in several Stalks, which are covered with a ferruginous  
Down, or, aS they call it, reddish , Moss. But what Kind  
precisely to fix upon for this Piece os Handicraft, 1 could not  
determine, tho’I am apt to think, it is a Species peculiar to  
Tartary, and not yet described, till Time shall inform me  
hettet. . . ...6 ’

I am farther confirmed in this Opinion, by what I have  
since read in the English *Philosiph. Trans,* where/Sir. Hans .  
Sloane, describes, and gives ns the Figure of one of thefe pre-  
tended Scythian *Lambs,* which he procured from the East In-  
dies ; but it is far more unlike the Figure of a *Lamb,* than  
mine hefore mentioned.

I sappose, that such Sorts of Lambs are shaped out. of .cer-  
tain Roots or Stumps in Russia and Tartary, so as .to make  
this Story of the Scythian Vegetable *Lamb,* in some Measure,  
a Truth. But every one sees, that such a Lamb is a quite '  
different Thing, from what is descrihed by the forementioned .  
.Authors, and not to he *so* much wondered at; for it is no  
difficult Piece of Work, out of Roots and Stumps os Plants, to  
construct and frame several Sorts of Prodigies, which shall have  
some Resemblance of Natural Things, as was observed before  
Of the Roots of the Mandrake ; and the grotesque Figure os thefe  
Roots, may, with as good Reason, be called an *Homuncio,* or  
*Little Mon,* as the other, which is constructed, and set together,  
from the Roots and Stems of another Kind or Kinds os Plants,  
he taken for a *Lamb, ft Hi Breynius, Me D. Dantifc. Phil,  
Trans.*

The Description of Sin Hans Sloane, above referred to, is as  
follows : . Ἀ.

It was above a Foot inng, as big as one's Wrist, having seve-  
ral Protuberances, and towards the End some Foot-stalks, about  
three or sour Inches long, exactly like the Foot-stalks of Ferns,  
both without and within. ' Most Part os the Outside was co-  
vered with a Down, os a dark, yellowish. Snuff Colour, shi-  
ning like Silk,' some of it a Quarter of an Inch long. This  
Down is what is commonly used sor Spitting of Blood, about  
fix Grains of it going to a Dose, and three Doses pretended to  
cure such an Haemorrhage. In Jamaica are many scandent  
and Tree-serns, which grow to the Bigness of Trees, and  
have such a Kind of Lanugo on them ; and some os our Capil-  
laries have something like it. It seemed to be shaped by Art,  
.to imitate a Lamb, the Roots, or climbing Parts, being made  
to resemble the Body, and the extant Foot-stalks the Legs.  
This Down is taken Notice of by Dt. Merret, at the latter 1End of Dr. Grew’s *Mus. doc. Reg.* by the Name os *POcOSempie,  
a golden Mose,* and is there said to be a Cordial. Dr. Brown,  
who has made Very good Observations in the East Indies, says ho  
has been told there, by those who have lived in China, that this  
Down, or Hair, is used by them for the Stopping of Blood in  
fresh Wounds, as Cobwebs are with us; and that they have in  
in so great Esteem, that sew Houses are without It. I have  
known it, says the Doctor, much used for Spitting of Blood;  
but on Trials I have seen os it, though I may believe it inno-  
cent, I am sure it is not infallible. *Philosiph. Transile.*

AGNUS CASTUS. *Agnus Castus, Vitex,* Offic. *Agnus  
Castas,* Hurt. Monsp. 7. Club. 63. Herm. Hort. Lugd. Bat.  
**II.** Mill. Cat. I24. *Agnus folio nonserrato,* J.B. I.2O5. Rail -  
Hist. 2. 1696. *Vitex, Agnus Castus,* Rand. Ind. 94. *Vitex,*Rivin. Rupp. Flor. Jen. 2oi. *Vitex sive Agnus Castus,* Ger.  
1201. Emac. I38y. *Vilex folio angusto.* Park. Theat. I437.  
*Vitex solus angustioribus, Cannabis mode defposiiis,* C. B. Pins  
475. Tourn. Inst. 6o3. Elem. Bot. 475. Boerh. Ind. A. 2.  
**222. THE CHASTE TREE.** *Dale.*

The *Vitex,* or *Lygus,* is a willowy Shrub, almost deserving  
the Name of a Tree, which grows on the Banks of Rivers,  
and in marshy Fields, and in rough and rugged Places, and  
Channels worn by Torrents. It hears long flexible Rods, hard  
to break; and its Leaves resemble those of the Olive, but are  
longer, and more tender. One Kind of it bears a white purplish  
Flower, the other a Purple.. The Sced is like Pepper.

It is of a warming and astringent Nature. The Fruit drank  
heals the Bites of venomous Beasts, and relieves fuch as labour  
under Disorders of the Spleen, and the Dropfy. The Quan-  
tity of a Dram, taken in Wine, breeds Milk in Abundance,  
and provokes the Menses 5 but it endangers a Mifcarriage, and  
affects the Head, bringing on a Carns, f A Decoction of the  
Herb and Seed makes a good Infession, for Women who are  
troubled with Inflammations, and other Disorders of the Ute-  
rus. The Seed drank with Penyroyal, or in a Suffernigati-  
on, moves the Belly ; a Cataplasm made therewith cures  
the Pain of the Head, and it is used with Oil and Vinegar  
in Embrocations for Lethargies and Phrensies: A Fumigation,  
or bare Substration of the Leaves, chases away venomous Ani-  
mals, and applied in a Cataplasm beak such as are bitten by  
them. With Butter and Vine-Leaves, they mollify the Hard-  
ness of the Testes, A Pleister of the Seed, with Water, heals  
the Fissures about the Anus, and used with the Leaves cures  
Wounds and Luxations. . A Rod, or Branch, of the Tree,  
carried in the Hand, is supposed to prevent Galling in Jour-  
hies.

This Shrub is colled ῆςαος, *[castus, chaste]* because the Ma-  
trons, who lived chaste during the Thesmophoria [Feasts of  
Ceres] nfed to lie upon them at Nights: And it is called λόγος,  
*{Angus,* as it were, *Oster] for* the Toughness, or Tenacity, of  
its Rods. *Diofcorides, Lib. i. Cap.* I35.

Hippocrates *(de Morbis Mulierum, L.* I.) recommends the  
Seed of the *Vitex,* for bringing away the Secundines; and those  
of the white Sort for expelling the Foetus.

This Tree arises not to any great Height or Thickness,  
having many ash - coloured Branches, flexible, tough, and  
not apt to break; on which grow many digitated Leaves,  
or fuch as are composed of five, and frequently seven, long,  
narrow, sharp-pointed Divisions, on one common Foot-  
stalk, pretty much resembling Hemp, but that they are  
not at all serrated about the Edges ; they are of a deep  
Green above, and whitish underneath r On the Tops of the  
Branches grow Spikes of small whitish purple Flowers, con-  
sisting of a single Leaf, cut irregularly into five Parts, which  
makes them appear, as it were, galeated and labiated. They  
-are set on Verticillatirn, llke the Flowers of Lavender, and  
are succeeded by small, round Seeds, like Pepper, but lest, of ablackish, grey Colour, set in hoary Calyces, of a hot astringent  
Taste.

This Tree grows in the warmer Countries, as in Italy, in  
the Kingdom of Naples, and in Sicily, and flowers in August.

The Leaves, Flowers, and Seed of *Agnus Castus,* are ac.  
counted warming- and drying, and useful against the Hardnefs  
of the Liver and Spleen, to expel Win'd, and bring down the  
Catamenia. The Seed has been formerly mightily commended  
to allay venereal Heats, and Desires which arise from the  
Sharpness or Torgefcence os the Seed, and by that Means pre-  
serve Chastity, hut .there is little Use made of it now, and the  
*Syrupus de agno casts* is left out *of* the new Dispensatory. *Mill.  
Bet. Off. \_*

The Leaves, Flowers, and Seed of this Shrub consist of ve-  
ry sine Parts. The Fruit is eaten, and sensibly heats the Body,  
and causes Head-ach. Fried in the Pan, it does not so much  
-affeol the Head, but heats and dries the Body, affording but  
little Nourishment, and that not in the least flatulent, whence  
it restrains the Inclination to Venus. It is supposed to promote  
Chastity not only when rakers in Meat and Drink, but even if  
it he but laid under the Bed-cloths. The Seed of it is more ef-  
fectual than Rue for Hardness of the Liver or Spleen. *Aetius  
Tetr.* I. *Serm. 1. Agnus.*

It contains a. great deal of Salt and Oil and but llttle  
Phlegm. . ;

AGOGE. Ἀγωγὸ. From *“Αγω, to lead,* or *conduct. '* It  
signifies the intire Order or Tenour of a Thing, as the Manner  
of a Manis Life , the Procedure of a Distemper, or the State of  
the Ain *Castellus,* y

Pliny, L. 33. *C..* 4. calk little Cbanneis *Agcga,* through which  
the Water runs from Gold-ore that has been washed with it,  
and in which the Gold is deposited.

AGOMPHIASIS, or GoMPHIAsIs. *A Distemper of the  
Teeth.* It consists in their being loose in their Sockets. *Plan,  
card.*

AGONE. The *Hyoscyamus. Henbane. Hifychius.* . See  
HvoscYAMUs.

AGONIA. Ἀγωία. From Λ Negative, and Γόνος, an *Off-  
spring. Sterility. .*

AGONIA. Ἀγωνία. From Αγών, a *Combat,* or *Struggle.* A-  
iony, when there is supposed to he a Sort of Straggle betwixt  
vile and Death.

AGONISTICON. Άγοσιπ,άν. Paulos AEgineta (Z. 2. Ce  
30.) makes Use of this Word as an Epithet to Water, which he  
explains by (ψυκρυτάτ1') *excessively cold.*

AGONOS. Άγεκς. From « Negative, and Γένος, an *Oof-  
spring,* or Tecti Barren.

Hippocrates, according to Foesius, calls those Women thus,  
who have never bad Children, but are however in a Condition  
to breed. Or such to where Foecundity there is at present some  
Impediment, which may he removed.

The Word is also applied to (ημόραι) *Days,* when it signifies  
*equal Days,* as the Fourth or Sixth, on .which a Crisis is not  
to he expensed, to distinguish them from (γόμαι άμόραι) *unequal,* or  
*genuine Days* (as the third or seventh) on which *i* Crisis, especi.  
ally isit is compleat, generally happens.

AGORAEUS Ἀγοραῖος. From *uriogi, a Market.* An Epi-  
thet for Bread that is very coarse.

AGOSTUS. Άγοτὸς. From Ἀγυ, to *bring,* or *lead.* That  
Part of the Arm from the Elbow to the Fingers. Also the  
Pelm, or Hollow of the Hand. *Castellus. Caastansme.*

AGRESTA: *Verjuice. The Juae of unripe Grapes.* Or,  
*the four Grape itself.*

Lemery says, the *Agresta, Omphaie,* er *unripe Grapi,* contains  
a great deal of essential Salt and Phiegm, and a small Portion of  
Oil and Earth. He adds, that it is detersive, astringent, and cool-  
ing ; that it tempers the Acrimony of the Bile, and raises the  
Spirits. - .

AGRESTEN. *Acid Stone-tartar. Castellus.*

AGRESTIS. *Wild.* It is applied to Vegetables to distin-  
guish those which grow spontaneously in the Fields, from such as  
are cultivated. .

It is used also to express a malignant Disposition in some Dis-  
tempers ; and llkewise a Brutality in the Manners and Disposi-  
tionsofMen.

It is frequently used as an Epithet to Animals, io distinguish  
them from those which are domestic, and tame.

Wild Animals are more heating and drying, than thofe which  
are tame. *Actuarius de Spirit. Animal. C.* 3 I 5.

Wild Animals afford better Nourishment than tame osies.  
*Oribastus, Synspst L. su C.* I.

Domestic or tame Animals are of a more humid Tempe-  
rature than wild ones, whose Flesh is firmer, and has little or  
no Fat, and will therefore keep much longer without Putrefac-  
tions than that of domestic Animals, who are bred up and fatted  
in Idleness. Hence it appears that wild Animals afford an Ali-  
ment much less excrementitious than the others. *Orib. Mad.  
Cel. Lib.* a. *Cap.* 41. '

- Wild Animals in general, by Reason of the strong Exercise .  
they use, have their Salts and Oils more highly exalted then  
those which are tame, and hence proceeds their high Taste. For  
this Reason also they are usually more healthful, and vigorous,  
and consequently afford better Nourishment to Stomachs able to  
digest them, for their Flesh is more firm and herd, for the same  
Reason that their Salts and Oils are exalted.

AGRIA, in the Sense of the Botanists, signifies the fame as  
*Agrifolium, Hilly,* according to Blancard ; but

AGRIA, is also a Sort of malignant Pustule, taken Notice»  
of- by Celsus, where he distinguishes two Kinds of Pustules, or  
Papuhe. The first, he says, is a very sinall Sort, which casts  
A Roughness and Redness over the Skin, but slightly corrodes  
it. It is somewhat smoother about its Center, and spreads but  
flowly. This Malady assumes a round Figure at its first Ap-  
pearance, and preserves its Roundness as it proceeds. The  
other, here taken Nonce of, is called by the Greeks ’Aegia,  
which does -not only cause an Exasperation like the other,  
but an Exulceration, with a vehement Corrosion and Redness  
of the Skin, sometimes making the Hasis fall off. The less  
this Sore approaches to a round Figure, the more difficult  
it is to cure ; if it be not timely extirpated, it toms to the Le-  
profy. But the slighter Sort ofPustules, if they are everyMom-  
ing wetted with fasting Spittle, are healed without much Trou-  
ble. For the greater Kind there is no hetter Remedy than the  
Herb Pellitory of the Wall, bruised and immediately applied.  
As for compound Medicines, the Remedy of Mycon, which fol-  
lows, is effedual:

Take of red Nitre, Frankrncenfe, each P. I. Cantheri-  
des cleansed P. II. Of crude Sulphur a like Quantity.  
Of Refine of liquid Turpentioe, P. xx. Meal of Dar-  
nel, three Pints. Of Fennel Flour, a Quarter of *a*Pint. Of crude Pitch, an Ounce. *Celsas, Lib.* 5. Cap.

AGRIAMPELOS. From 'Αγριος, *Wild,* and *“AfatoSf-,* a,  
*Fine. The wild Vine.* SeeVITIs SYLvEsTRIs.

Gerard fays, it is the black Bryony.

AGRICULTURA. *Agriculture.* This is no other Way  
concerned in Medicine, than as an Exercise. The Exhalations  
from a light gravelly Earth just turned up, ate reckoned ex-  
tremely healthful. For this Reason People have frequently

Been directed to follow the Plough, in order to respire Air im-  
pregnated with these falutiserous Effluvia. j

AGRIELssaA. **ΓΓθΏἌγρεος,** *vvild,* **and Τλαῖα, an** *Olive.  
T.he wild Olive.* See **OLEASTER. -**

AGRIFOLIUM. *Agris.ollum,* Ossie. Ger. I I55. Emac.  
1338. Raii Hist. 2. I622. Synop.’ 3. 466. Merc. Bot. I. 17.  
Phyt. Brit. 3. Mer. Pin. 3. *Agsefsollumsive Aquifolium,* Park.  
Theat. I486. ' *Aquis.oUum five Agrisolium,* Chab. 605. *Aqut-  
sulium five Agriselium vulgo,.so* B. I. II4. Tourn. Inst. 6O0.  
Elem. Bot.. 473. *Aquiferium Tountefortii,* Rupp. Flor. Jen. 35.  
*Aquifolium baccis rubris,* Herm. Hort. Lugd. Bat. 56. Boess.  
Ind. A. 2. 219. *Ilex aculeata baccifiera folio sinuato,* Co-B.  
Pin. 425. Johns.Dendr. 2θό. The HOLLY TREE. *Dale.*

AGR1E0LIUM, seu AQUIFOLIUM [of’Anif, *a Prickle,* and  
*Folium,* Lat. *a Leas.,* because the Leaves are armed with sharp  
Prickles}. The HOLLστ-TRE Ε. *Miller's Dict.*

This Derivation is Very unnatural and far fetched. It seems  
more to the Purpose to derive it from\*Aypi^., *rust ice, rough,sicrce,*and Φήλλον, λ Lafe

*The* **CHARACTERS** *are, -*

The Leaves are set about the Edges with long, sharp, frilf  
Prickles ; the Berries are small, round, and for the most Part of  
a red Colour, containing four triangular striated Seeds in each. .  
*Miller, -.*

This Plant is too well known to want a Description. - -

The Berries of Holly are hot and dry, of thin Parts; and ex-  
pel Wind. They are good against the Colic; ten or twelve  
'being inwardly taken bring away by Stool thick phlegmatic Hu-  
mours. .-

The Birdlime, which is made of the Bark, is no less -hurtful  
than that os Mifletoe, for -it is marvellous clammy, it glueth up  
all the Entrails, it shutteth and draweth together the Guts and  
'Passages of the Excrements, and by this Means it bringeth De-  
struction to Man, not by any Quality, but by its gluing Sub-  
stance. Holly, beaten to Powder and drank, is an experiment-  
ed Medicine against all the Fluxes *of* the Belly, as the Dysentery,  
and the like. *Gerard.* . .. . 1

They make Birdlime aster the following **Manner:**

In June or July they strip the Holly-trees, and boil the Bark  
in Spring-water, seven or eight Hours, till it becomes Very ten-  
ties, S Then they take it out, and first letting the Water run off,  
till it is dry, -they afterwards pile It up with Fern, intermixing  
for every Lay of Bark Ἀ Lay of Fern. There it is suffered to  
ferment and rot, for two or three Weeks, till it becomes a Mu- .  
xilage. This they take and pound in a Mortar till : it is  
Capable os being moulded like a Lump os Dough, and after-  
wards work it well in their Hands in-running Water, which in  
a short Time will cleanse it of all Sordes, and leave nothing but  
the pure and defecated Birdlime.- Then put it in an earthen  
Pot, and let ft stand three or -four Days, till it has thoroughly  
.purged and perfected itself by Defpumation, and after that re-  
move it into a fresh Vessel,: and keep it for Use. *Ruii Hist..*

N. Β. Birdlime is not only made of the Bark of this Tree ;  
hut also of the Fruit, of Mifletoe, the Chefnut, and Sebesten.  
-- The following Species of this Tree are enumerated by *Mull,  
lerp Μ -*

*-sii. Asticiseliind",. Baccis cubris, la.* The common Holly with  
red Berries,.- - - d ις-: - ἱ \* --

2. *Aquifolium; Baccis luteis,* H. L. Yellow-berried Holly.

3. *Aquifolium -, Naccis albis;* White-berried Holly.

4. *Aquifolium ; Foliis ea luteo variegatis,* H. R.- Par. *Aquiseli-  
sim aureum,* Munti H. 153 , ’ Yellow-blotched Holly. /τι ί  
I -5οὐ *Aquifolium; Fdlstsstx alce stlartigalissus D.* White-blotched  
Holly.

*.' 6. AqusseliuatirEchinata Foliisuperside.* Corn. I80. Hedge-  
hog Holly.~ .... . . .. s :-Ἄ

*- .Jo -Aquisoliumy Echinata Folii Superficie Foliis ex luteo variega.,  
iis.* Yellow-blotched Hedge-hog Holly's" : 7 ’ σ ’ -' .' I

S. *.Aquifolium ; EclnnatasseoliiSupcrsicieLintbis:aureis.* Gold-  
edged Hed«e-hogHolly. . **s.** *e ” s ?*

V ρ.- *-Aquiyolium; Εchinatd Folii Supersede Lambseiargenieis.* Sil-  
Ver-edged Hedge-hog Holly, ἐν. ;. ς 4. :;χ. r. I

10. *Aquifolium', Foliis lengioribus. Limbis et Spinis ex untco  
'tantum Latere pcr totumargenteopictis,* Pluk. Alm. 38;s BRo-  
DERTCKss-Holly, *oralgbets'" ' - :* ss. ἰ fel

**II;** *.Aquifolium ; Foliis subrotundis, Limbiset Spinis uirinque  
argentatis'. : Aquifolium elegans,* D. Docti Eales. Pluk.. Alm.  
38. EALEs's Holly, *vulgdurs-A '* **πὸ - .1**

*' 'Vi. A.quifolium ; Foliip.obloripisLticidic, Spienii et Limbis argent  
teis.* -SirTHOM*As* FRANKLIN'S Holly, *evulgo-.. ,* νύ-: . ς  
~ -Ἴ3. *Aquifolium ; - Foliis; oblongis, SpraiV et Limbis argenteis.*Hertfordshire White Holly;. L.ii imin en E . . *'so.:. z:.A*. I4. *Aquifolium ; Fcliiss.ubrmunats,Limbissurgeatiis, Spinulis et-  
'Marginalibus purpurascentibus:* BRIDG-MAN’s Holly, *uulgb. -*\* 15. *Aquifolium; Foliis dblorigis. Spinis etLimbisstabeseentihusi*LONGsTAyEis best Holher ςϋιάρἄ *s pri;* autiT ; -. ε-.δ᾽ι ν

-I6. *Aquifolium Foliis.oblengis lucidis,.Tpinii-et Ldmbls aureissc***BR AD LEY'S** best Holly, *rvulgb...: .A Anzuri: ... . .- s. νύοῦ:.:*

**iI.** *Aquifolium; Foliis.oblcugis,Spintset sasnbis aureis.* **WIs E is**Holly, *VulgL*

*s'* 18. *Aquisuliun\*, faliissuFrefloundii, Spinis minoribus,-Falsisna  
luteo elegantissime variegatis.* The British Holly, *vulgb.*

I9. *Aquifolium ; Foliis oblongis atro-ndremihus. Spinis et Lirtido  
aureis.* BaGSHOT Holly, *vulgos - '*

2O. *Aquifolium; Foliis latissimis, Spinis et Limbisflavescentibus.*Glory of the East Holly, *vulgp. . - c . .*

*2s. AquisolUnn ; Foliis oblongis, Spinis majoribus. Foliis ex (eared  
variegatis.* Glory of the Weft Holly, *rstulgb.. . . s*

*2.2 . Aquifolium so Foliis subrotundis, Spinis et Limbis aureis. Ass..*LET'S Holly, *uulgb. - - .. . . . ; ’*

- 23. *Aquifolium ; Foliis longioribus. Spines et Libnibis argenteis.*The Union Holly, *uulgb. - . - c. sc*

*24.. Aquifolium s, Foltiset Spinis messoribus, Limbissiavoscertibus.*Fine PHYLLIS Holly, *vulgo. - ‘ - ...*

. 25. *Aquifolium ; Foliis rdinorihus, Spinis et Limbis argenteis.*Painted Lady Holly, *vulgb. ... .*

26. *Aquifolium. Foliis angustioribus, Spinis et Limbisstavoscen..  
tibus.* FULLER'S Cream Holly, *vulgb.*

. 27\* - *Aifersolium ; Foliis obbmgis, ex lutco et aureo elegantissime ua...  
riegato.* Milk-maid Holly, *vulgb.*

28» *Aquifolium; Foliis oblengis viridibus; maculis argenteis nata»  
tis.* CAPEL'S motled Holly, *vulgb.*

. 29. *Aquifolium ; Foliis oblengis. Spinis et Limbis luteis.*

**TRrDGEis** Holly, *giulgb. ' . ...* . ῖ

30. *Aqtiifolium, Foliis oblengis. Spinis et Limbis ocrolateis.* MA-  
SON'S Copper-coloured Holly, *vulgo. - .*

31. *Aquifolium; Foliis parvis, interdum vix spinosis.* Box.leaved  
Holly, *vulso. .. . . ..*

32. *Aquifolium ; Foliis parvis, interdum vixspinosis. Limbis Folio.,  
rum argentatis.* WHITMiLLss Holly, *vulgo, τε*

33. *Aquifolium ; Carolinianum, angusiifoliurn. Spinis raris brpri  
uissimis..* Carolina Holly with: smooth Leaves, *uulgb.*

- AGRIMONIA. *Agrimony. -1*

*Agrimony* is a Plant of the spriggy Kind [φρυγανἀδες] shooting  
forth one slender, woody, strait, black, hoary Stalk, a Cubit  
high, or more, with Leaves at Distances cut mostly into five  
Divisions, and sometimes more, best resembling the Leaves of  
Hemp or Cinquefoil, of a dark Colour, and serrated round the  
Edges. The Seed grows about the Middle os the Stalk, being  
somewhat rough, and handing down, so as, when dry, to stick  
On your Clothes. ... . . .......

The Leaves, bruised and applied with old Hogs-lard, heal UI-  
cers that are hard to cicatrise. The Plant, or its Seed, drank  
in Wine, cures such as are afflicted with the Dysentery, a dis-  
tempered Liver, or are bitten by Serpents. Some, by Mistake,  
have given This Plant the Name of Mugwort, which is quite an-  
Other-Thing. ' *Dioscorides, Lib.* 4. *C.* 4I. .

This Herb is called *Hociamsuntcm* by *Marcellus Empiricus,  
Cap. .20. : - \ -*

*" Agrimony* is thus distinguished by the Moderns: ;

*-- Agrimonia, Eupatoriam Graecorum, Offic. Agrimonia, Gera*575. Emac. 712. RaiiHist. I.4O0. Synop. 3.202. *Agrimsa  
nia vulgaris.* Park. Theat. 594. *Agrimonia Officinarum,* Tourn.  
Inst. 301.- Boerh. Ind. A. 79. *Agrimonia flu Eupatorium,* J. B.  
2. 398. Chab. I 72. *Eupatorium Feterum flue Agrimonia, Qu*Bi Pin. 321. ‘ *Eupatoriilm Feterum sive Agrimonia inodora, vel  
minus odora.* Hist. Oxon. 2. 6I4. **AGRIMONY.** *Dak.. ... : ’*

This i§ the Eupatorium of Dioscorides, Galen, and the anti-  
ent Greeks -; it grows about two Feet high, or. higher, having  
several winged hairy Leaves, of a pale green Colour, com-  
posed of unequal Numbers of Parts, sometimes five, oftener  
seven, whereof the three at the End are. largest ; they are ser-  
rated about the Edges, like the Leaves of Strawberries, hav-  
ing several' smaller Leaves intermixed among them, and are set-  
alternately on the Stalk, on the Tops of which grow the Flowers  
in long Spikes A little bending down, they are small.and yellow,  
made of six small Leaves, with, two green Appendices growing  
by them, and are succeeded by little rough Burs, which stick to  
any Thing that comes in their Way; each Bur containing two  
Seeds. The Root is long and slender, and creeps in the Ground;  
shooting out-fresh Leaves and Branches every Year; - it grows in  
Hedges and Borders of Fields, and flowers in June and July. .

Some Authors will have this Plant called *Eapalocium quasi hgul  
patorium,* from its Usefulness to the Liver; others will .have .its  
Name derived from *Mithridates Eupator,* who, as Pliny says, first:  
found out:its Virtue. cd :

Lemery adds, that it ingood for Loosenesses, and often put ais  
mongst astringent Clysters, as also in Gargarisms and Apozems.  
*Lemery de Drogues '. .*

*. Agrimony* is reckoned a Cleanser and Purifier of the Blood, a  
great Strengthener of-the Liver, and serviceable for all Diseases,  
arising from the Weakness thereof, as the Dropsy, Jaundice, and  
the like-; it is commended likewise for the Strangury, and mak-  
ing bloody Water, and Riverius extols the Powder of the dry  
Leaves, for Incontinence of Urine. It is also reckoned among  
the Vulnerary Plants, and put in.Wound-drinks, and outwardlysused in Bathaiand Fomentations. *Miller, Bot. Osse.*

It is-a most noble Hepatic, Vulnerary, and Splenetic, as any  
we have, and therefore most frequently used in Distempers pro-  
ceeding from a whak Lives,.as the Dropsy, Cachexy, and Jaun-

.Sylvestris. The Mains Sylvestris; or Crab-tree, is thus distin-  
guished by Authors:

*= Malus Sylvestris,* Ostic. Ger. 1276. Emac. I46O. Jons  
Dendr. I. Raii Synop. 3. 452. Park. Theat. I502. *Maias Syl-  
vestres stve agrestis,* J.B. I. 26. Raii Hist. 2. I448. *JIAalaSyl-  
vestrea, quae etalba,et rubra, et majora, et mimra,* C. B. Pin.  
433. *Malus Sylvestris acida Fructu,* Toum. Inst. 634. , \_ The  
CRAB-TREE, or **WILDING.** *Dale, Pharrnac.*

: .It is commonly lower than the cultivated, more crooked,  
scraggy, branched, and is supposed to be of a harder and firmer  
Substance. The disorderly and entangled Multiplicity of its'  
Branches and Twigs, and the Luxuriancy and native Rigidness  
*of the* Shoots which it sends forth on all Sides, as well from the  
Stem as the Root, easily discover its wild and uncultivated Na-  
ture. The Leaves are generally lesser, and more shrivelled than  
those of the cultivated Tree 5 but their Flowers are allke, enlf  
the wild ones are, for the most Part, smaller, of a fragrant  
Smell, and sometimes inclining to a Red. But the principal Dif-  
ference is in the Fruit, or Apples ; for those of the Crab-tree are  
small, seldom as big as Walnuts, but near about the Size of  
Medlars, only rounder, and hanging by a somewhat long and  
slender Pedicle, with a green Rind, or Skin, which at last turn,  
to Yellow, and in some to a heautiful Red, But they will hear  
no Comparison with the worst of those which grow on culti-  
vated Trees, neither in Softness of Substance, nor Agreeableness  
of Taste, for they are endued with such a Sournefs and Astrin,  
gency, as renders them utterly unfit to he eaten.-

There are as many Species of Wildings as of cultivated Apple-  
trees, and more than it is possible, or worth While to enurne.\*  
rate. '

They are in Blossom at the fame Time with those which are  
cultivated, or a little inter, and their Fruit is also ripe aster the  
others, that is, inOctsher.

They are common in Woods and Hedges, not only in Eng-  
land but in foreign Countries. .

The Fruit is vehemently austere, acid, and astringent, as well  
as the Juice expressed from it, which is very frequently used in  
England, France, and Germany, instead of Vinegar. Some  
call it *Agresta.* It will keep several Years. The French and  
Germans think it renders Fish, that are boiled in it, firmer, and  
more savoury ; and this has been found true also amongst us,  
fays Bauhine. The English call it *Verjuice,* that is, *green Juice,*borrowing the Name from the French. *Raii Hist. Plant.*

Wild Apples [such as grow on Crab-trees] are like your early  
ones, and have an astringent Quality. In Cases which requiro  
the Use of Astringents, you are to abuse thofe which are most un-  
ripe. *Dioscorides, L.* I. *C.* I63.

: Verjuice mixed with Yeast, and applied to the Place, is good  
for the Erysipelas, Itch, and ail Sorts of Inflammations. Drop-  
ped into the Eyes, it is believed to cute their Redness, Inflamma-  
tions, and Lippitude.

For the Scrophuise [Kings Evil] first wash and cleanse the  
Ulcers well with Verjuice, and afterwards apply thereto black  
Wool, moistened with Oil of Neat’s-foot. *RaHHist. L.* 2.

Its Fruit and Juice are the Agresta of the Shops, called Ver-  
juice. It is vehemently austere, acid, and astringent. *Dole  
Pharrnac.*

AGRION. Blancard fays, this is a Name for *Peucedanum:  
ί* do not know his Authority, having met with the Word in no  
other Author. See **PEUCEDANUM. ' ’**

’ AGRIOPHYLLON. This alfo, according to Blancard, is  
a Name for *Peucedanum.*

AGRIORIGANUM. Frommi/j^, *wild,* and Όρνηανυν, O-  
*1stganum. Wold Origanum,* **or** *wild. Marfa am.* **See ORIGA-  
NUM.**

. AGRIOSELINUM. The same as *Hippefelinum,* which *see.  
Diofcorides. . '*

- AGRIOSTARI. A Species of Wheat, called *Triticum Cre-  
ticum.* See **TRITICUM.** .6-s .

1 AGRIPALMA. A Name of *Cardiaca, Motherwort.*. See  
**CARDIACA.** - dss tat.: r»

- AGRIPPAE. Those Childrert are thus called, who rare  
born with the Feet foremost, because. Agrippa, the Roman,  
was said to he bom in this Manner.- i . . .or

-Of all Births, .where: the Child presents any Part but the  
Head ; the least dangerous, and most, easy, is thet, when the  
Feet come foremost, and even -often, 'by the Hands of a skilful  
Maar mid wife, it is accomplished:sooner and with lest-Pain,  
than a Birth where the Head presents. - .

.'. Since the Head is to open the Passage, it has no Way .to do  
it, but by pressing strongly against the internal Orifice, and  
redoubling its Efforts.at each Pain, which are reiterated for  
that Purpose. But after the Waters i-ane-.pierced, if the Feet  
present at the Passage, the Operator, by gently drawing them,  
causes the Orifice to dilate, in. order to give a Passage  
to.-the Legs, and-astet them to the Thighs, and so on to the  
whole Body. Thus the Parts which come out first,, being less  
in Bulk than thofe-which follow them, they open the Way one  
aster another; so that in this Situation, the Birth is often sooner  
btougni about, and a great deal of Pain saved to the Mother.

-dice. "It is prescribed also in Catarrhs, Coughs; and Retention  
of the Menses; and very often used in Baths and Lotions.  
*Dale. / -si .*

It has a very sine fragrant Smell, and, infused in Wine till it  
has communicated its Fragrancy, is accounted a sovereign Reme-  
dy against Sadness and Melancholy. It is a. principal Vulnera-  
ry, and, though a Corroborative and Astringent, is good in In-  
flammations: It is of peculiar Service in Diseafes caused by the  
.Laxness of the Fibres, in Fluxes incident to Camps, and Obstruc-  
tions of the Vsscera from Weakness of the Fibres. It is of ex-  
cellent Virtue against the Fluxus Hepaticus, the Diarrhoea, Dy-  
fentery, Scurvy, Rottenness of the Gums, Inflammation of the  
Jaws, Consumption, Spitting of Blced, Dropsy, and Languor  
consequent on a Fever. Externally, the Leaves boiled in refined  
.. Wine and Bran, and applied, are useful in Luxations and the

Falling down of the Womb. Hence it appears to he a prime  
Medicine in Cases that require Strengthening or Exhilarat-  
ing. - . .

It maybe ofed as Tea, in which, if lt be thought too astrin-  
gent. Honey may he put. This Herb is said to be appropriated  
to the Liver, because, if iofused in Water or Whey, and drank,  
it opens andfcouts theIntestines,and strengthensthemafterwards,  
which must he of singular Benefit to the Liver. It is of excellent  
Use in cold Countries. *Boerhaave.*

The Species of this Plant, according to Miller, are *i*

*I. Agrimonia Oseicin.* Tours. Common or medicinal Agri-  
inony. ' -

2. *Agrimonia odaraut.* Cam. The Sweet-smelling Agrimony.  
- 3. *Agrimonia minor,store alba.* Hors. Cath.. Lesser Agrimony  
with a white Flower.

*- 4. Agrimoma Orientalis humilis, radice crassesserna repente, fructu  
in spicam brevem et densam congestis, Ύ. Cos.* Dwarf Eastern  
Agrimony, with thick creeping Roots, and the Seeds growing in  
short thick Spikes. ’

The Leaves of *Agrimony,* in the Quantity of five Pounds, being  
chymically treated, yield four Pounds' of an acid and almost au-  
stere Liquor, two Ounces of an urinous alcaline Liquor, two  
Ounces of thick Oil, six Drams of fixed Salt, and an Ounce of  
Insipid Earth. From this Analysis it appears, thet this Plant con-  
tains very little Salt of the ammoniacal Kind, since no concrete  
urinous Salt is got from it, but the acid Salt, wherewith it abounds,  
joined with Earth; forms a Concrete resembling Tartar, or Salt os  
Coral, combined with a large Proportion of Sulphur. Moreover,  
*Agrimony* has a saline Taste, a little astringent and acid, and its  
Juice turns the Timiiure of Heliotropium to a faint Red j so thet  
its astringent and aperitive Virtues seem both owing to the same  
austere Salt; for, though these Effects are contrary to one ano.  
ther, yet they often flow from one and the same Principle, the  
Strengthening of the weak and lax Fibres of the solid Parts.  
Experience shews, *ilumrAgrimony* has the Virtues which are sup-  
posed to arife from its Composition ς for it is astringent, deter-  
gent, resolvent, vulnerary, and aperient. *Geoffrey.*

AGRIMONOiDES.

*Agrimcistaesenilis,* C. B. *Agrimanoides,* Park. Col. *Pirapi-  
nella folio Agrimoniae, rnmnullis.*

... It has a small, fibrous, woody, and reddish-coloured Roots  
The Leaves next the Ground are joined to hairy, reddish Pedi-  
cles, of nine Inches long, these are like Strawberry leaves, but  
blacker, and more in Numher, disposed aster the Manner of A-  
grimony-leaves, with smaller ones interspersed (as is observed al-  
so in Agrimony) hairy, soft, serrated at the Edges with sincr and  
more acute Indentings than Agrimony ; and the Leaves them.  
selves are rounder. It produces several fupine, hairy, red Stalks,  
that send forth three or four Branches, which are furnished with  
smaller, fewer, and rounder Leaves, that have Auricles about the  
Stalk, like others of the same Kind, and at their Top hearing  
three or four hairy Buds, likectiofe of the Pomegranate, Very  
much jagged at the Edges, and containing the fmall yellow Flower  
of the Agrimony, which sometimes hardly opens, though the  
Fruit is duly formed within. Aster: the Flowers, are fallen off  
comes the Seed, .which .is ofa round- oblong Figure, of the Size  
os a Grain of Wheat, and formed with two Protuberances.  
When ripe, it falls off spontaneously, leaving the Husk gaping.  
It is of an abstersive, drying, and bitter Taste; and in Smell  
is a Mean between the fragrant and common Agrimony.. - \

It flowers in April, comes to Perfection, in May, and grows  
among Brycrs and Shrubs in some mountainous Parts of Italy.  
*Bait Hist...* χ . 6/:. .. .. .

It agrees with Agrimony in Virtues. *Boerh.* - ' -.5.

- AGRIO CARDAMUM. FrOmitiord^\*, *vivld,* 2ηβ.Κάρὸαμον,  
*Nasturtium.* The fame as *Iberis,* Sciatica Cresses. See IBE.  
**&IS. . ..........**

AGRIOCASTANUM. The same as *Bulbocastanum, Earth.  
Nat,ot Pig.Nat,* which sea.' '5 .. . i

AGRIOC1NARA. From Ἀπέος, *wild,* and κωάμα. *Anti:  
choke. The wild Artichoke.* See CINARA. is : :

AGRIO COCCIMELE A- . - Ἀγριοκοκκιμιλἐκ.. From 'Αγξνος,  
*wild,* Κώαος, *a Berry,* and Μκλίον, *an Apple-tree.* Thesame as  
*Prunus Sylvestres. Blauserd. . . . .*

AGRIOMELA. Ἀχμόραλα, *Crabs,* the Emit of the Mahis

. There are Signs by which we know that the Child is not  
rightly turned, and that some other Part presents, and not the  
.Head : For Example; if the Pains are remiss, and at long In-  
rervais ; if they hegin in the Region of the Reins, and do not  
press strongly downwards, there is Reason to helieve the Head  
does not present. But the Operator is certain os it, when he  
touches the Woman, and perceives that nothing pushes against  
the internal Orifice ; or if he does perceive something, it is not  
hard and round like a Head. In this Case, he feels the Waters  
prepared, but in pressing his Finger against the Membrane, he  
does not meet with the same Resistance, aS he would from the  
Head of the Child. . . ..

In this Juncture, theMan-midwise is to wait till the Waters  
break of themselves, and, by their Evacuation, make Way sor  
the Infant to descend, and for the Part which presents, to sink  
.down. If the Feet, or a Foot, present, he is not to think of  
returning the Infant, or endeavour to give it another Posture ;  
hut he is to receive and bring it away by the Feet, conducting  
himself by the following Directions.

When, I say, that he is to wait till the Waters break of  
themselves, I do not pretend to make it a general Rule: I  
mean, when the Pains are remiss, and the Delivery seems at a  
Distance ; but when the Pains are frequent and intense, and the  
Waters are distended, so as to fill up the internal Orifice, the  
Operator ought to break them with his Nails, in order to make  
Way, by their Evacuation, for the Infant to descend, and pre-

\* sent itself at the Passage. If it be rightly turned, its Head comes  
Upon the internal Orifice, and hinders the rest of the Waters  
from running off, by this Means facilitating a Passage for the  
Body of the Infant, after the Head has made Way. But is any

. other Part, besides the Head, place itself at the Passage, all the  
Waters run off by little and little, there bring nothing to step  
them; so that, when the Child is coming’ away, there is none  
left, which makes the Birth the more difficult.

It would not be impossible, if the interior Orifice were  
enough dilated, to introduce the Hand, as soon as the Waters  
were pierced, and hefore the Insant was fixed in the Passage, to  
return it, when it presented the Feet, and to make it take its  
natural Posture, which is to come with the Head foremost ; as  
It would neither be impossible, when it presented the Head, to  
return it, and make it come by the Feet : But we are not to  
alm at changing either os these two Postures, which are the most  
natural ; and whether it present the Head or the Feet, we are  
to receive it aster both Manners, and not expose the Mother to  
Pains that can he ofno Service, nor the Insant th the Violences  
which must he offered is, in order to make it change its Situa-  
iron. ’

.As soon as the Waters are pierced, and the first Flow is  
over, the Man-midwife, who must have no Rings on his Fin,  
gers, nor his Nails too long, having anointed his Hand with  
Oil or Butter, must introduce it into the Vagina. If he finds  
here internal Orifice not enough dilated to pass his Hand up to  
the Infant, he must try gently with two or three Fingers, to di-  
Iate it. Is the Feet present, he must grasp them, and, drawing  
them without Violence, oblige the rest Of the Parts to follow:  
And so is the Woman happily delivered, and in a Very little  
Time.

5 If one Foot only presents,we are to bring it down into the  
Vagina, ahdoxamine whether it he the right or the left Foot,  
in order to guide the Hand along the Inside os the Leg which  
is held, the more easily Io find out the other ; which is no  
difficult .Matter to a lkilsul Practitioner; who; when he has got  
hold of one Foot, soon finds the other. Having got hold of  
both, he must join them; together, and, wrapping them in a  
warm Cloth, draw them gently out, withche rest of the Body,  
which is obliged to followtheim-- . --

; Mauriceau- advises ns to take Carey that the two Feet we  
hold, do not belong to two different Children ; but as it is im-  
possible for such a Case to happen, than Caution-is unnecessary.  
When there are two Children;-they are inclosed each in its  
particular Membrane, which never break together, but one  
after another, so that sour Feet cannot presentat. one Times’  
Of the two Children, one is at the Passage, the other ar the  
Bottom of the Uterus, which hinders them frond coming out?  
together.- Besides, if one had a M ind to join the- right Foot Of  
one Infant, with, the left Foot ofanother, he would find it im-  
Possible, for the Distance that there is between them. So that he  
might have spared this Pains in making an Observation, which  
can never exist but in Idea, and not in reality... .

- Deventer, and Heister, however, in this Point, are os a  
different Opinion, and agree with Mauriceau,-that two Feet,  
belonging to different Children, - -may possibly -present Toge-  
ther. *sisu';: s’—"-" -* s" . ; - isi ..

They who have the Precaution to tie the first Toot of the  
Child which comes out with a Ribbon, which they fasten to the  
Mother’s Thigh, for fear it should retire, while they are em-  
ployed in finding the second,-and- so put -them to the Trou-  
ble of searching for it a second Time, doubtless believe thet it is  
in the Power - os the Child to draw back its Foot : But they  
are mistaken^ ' sor the Mother who presses downwards, with-

Ont ceasing, rather constrains the Insant to advance in its Way-  
out, than suffers it to replace itself within. So here is another  
needless Precaution, that can never he of any Service.

In drawing gentiy the Foot that is come out, the other often  
presents itself; but if it delays ever so little, it must be searched \*  
sor, which is done by Aiding the Hand along the Thigh of the  
Insant up to its Buttock, where you are sure to find it. The  
two Feet being brought out, and joined together, are to he  
wrapped in a dry linnen Cloth, to prevent the Moisture with  
which they are covered, from making them flip out of thd  
Hands os the Operator, in the Time of the Operation, ’ '

The Child being thus extracted beyond the Hips, the Opera-  
tor stops a while, in order to disengage the Arms, one after the  
other, and to lay them at Length by the Body. When thin .  
is done, he renews his Efforts, and push with inore Force, be-  
cause of the Shoulders, which, being the most bulky Part of the  
Body, -are brought away- with most Difficulty. When the  
Shoulders are passed, the Head follows easily, except it be of an  
extraordinary Bigness ; and in order to prevent its being stop-  
ped, the Operator must call upon the Mother to redouble her  
Efforts, that while he is drawing on one Hand, and the Mo-  
ther bearing down on the other, the Head may the more easily  
he extricated, and follow the rest of the Body.’ .

Mauriceau would not have one Arm of the Child left for .a  
Conductor and Stay to the Neck *of* the Infant, without bring-  
ing it down, though it is the Practice of many other Men-mid-  
wives, who say it succeeds Very well. He says, that the Arm  
which is lest, causing the Head to hend to one Side, hinders it  
from coming in a strait Line, and so may cause it to stick at the  
Os Pubis. But, ih Answer to this, they say, there needs no  
more than to leave both Arms, for then the Head will be right,  
and its Bulk not the more augmented, hecause they are placed  
at the Sides of the Head, on the Temples, where it is flat.  
But whether the Arms are laid along by the Sides, or left in  
their Situation by the Sides of the Head, it makes'no material  
Difference, and can do no Manner os Prejudices

When the Feet os the Child come foremost, it is a Sign that  
it did pot turn in the Beginning os the ninth Month, like all  
other Children, but that it presents in the same Posture it al-  
ways kept in the Womb. If it lies on its Back, with its Face  
upwards, which is easily known by the Feet; which are brought  
out, the Operator must take a. great deal os Care not to extract  
it in this Situation, hecause, the Face lying upwards, the Chin  
would he sure *to* catch upon the Os Pubis, which would ex-  
tremely perplex the Operation. He must, therefore, in ex-  
tracting the Child, gradually turn it, aS it comes, on its Face,  
with its Back upwards, which is the most convenient Situation  
for the Birth, and where it runs least Hazard of being stopped by  
the Bones which surround the Passage.

The Child thus turned with its Face downwards, is brought  
away without much Difficulty, provided the Bulk of the Head  
he proportioned to that of rhe Body. But when the Head is os  
an extraordinary Size, it has the Misfortune to be stopped by the  
Bones *os* the Pelvis, which being incapable of giving Way,  
will not suffer it to pass. When this happens, you must not  
he too Violent in pulling the Body of the Child, for sear of se-  
parating it from the Head, aS *it* too often happens. In this  
Case the Operator is to give the Feet to be held by an Assistant;  
with a Charge not to draw before he orders its Then, the  
Back of his lest Hand being turned towards the Coccyx, he flips  
one or two Fingers into the Mouth os the Child, to press dowH  
its Chin ; and with his right Hand grasping the Neck near the  
Occiput, he draws gently, withthe Assistance osthe Person who  
holds the Feet, and has Directions to draw in Conjunction with  
him. And thus the Child is hern, without rufining the Risque  
os infing its Head, 'so si

*If we* ought to take Care os drawing the Child away with  
too much Violence, we are, at the same Time, to avoid leav-  
ing it too longtn that Situation, because it would infallibly dje  
is it remained there above half a Quarter of an Hours It wants  
Respiration, in order to maintain the Circulation osthe Blood,  
and Respiration cannot he performed, while the Head is thus  
encumbered. Nor can the Circulation hetween the Mother and  
Child he carried on, hecause the. Cord, by Means os which it  
is preserved, is pressed between the Head of the Child';’ ano the  
Bones that surround it. Since then, neither of these can be  
performed, it; must unavoidably perish. Such a Misfortune  
happened in 1695, to a Male Insant osthe Duke of Savoy, who  
had continued too long in that Situation, by the Fault of the  
Mid-wise. \_ Upon this Account, two Years afterwards, when  
the Duchess of Savoy, now Queen of Sicily, was with Child,  
the Duke, her Husband, now King, sent his chief Surgeon to  
Paris, to learn the Art ofMidwisry, who afterwards returned to  
Turin, and delivered the Queen of all the Children she has  
had, who did Very. well. *Dionis floes Accouche*

.. DeVenter, a Very good Judge of these Affairs, agrees pretty  
much with Dionis as. to the Manner of treating these Cases.  
He is Very particular in directing, that one Foot should not he  
suffered to sink too far into the Passage, but that as soon as ever  
the Waters break, if one Foot presents it should-be. kept bach ;

mean Time the Operator must slide his Hand along the Inside  
of the Leg which presents, to which he is directed by the great  
Toe, and by this means he is infallibly directed to the other  
Leg, if he does not meet with it in the Way ; this he is to  
Join with the Other, and bring both together out of the Pas-  
sage.

But if it happens, that the Leg is already funk too deep into  
the Passage, he advises to place the Woman with her Head  
considerably lower than her Hips, that the Uterus together  
with the Child may recede a little, and then to return the pro-  
truded Leg, or at least the Knee, that there may he more  
. Room to search for the other Leg, and bring both away toge-  
ther in the Manner directed above.

This Author is utterly against bringing down either one or both  
' Arms, but recommends it strongly to bring the Child away  
without that Trouble to the Mother, or Operator, and Dan-  
ger to the Child, who must necessarily remain longer con-  
fined in the Passage. And gives repeated Assurances that leav-  
ing the Arms to come away lying On each Side the Head, can  
he of no ill Consequence. -

At the Tithe the Head is extracting, all Authors agree with  
DeVenter in advifing the Mother to hear down forcibly, whe-  
ther she has Pains, or not.

The grand Point wherein Authors upon this Subject disagree,  
is with Respect to bringing down the Arms, when the Child-is  
advanced as sar as the Shoulders. La Motte, Giffard, and  
Chapman advise it. Dions, as we have seen, leaves the Thing  
indifferent, and DeVenter is utterly against it. Hence we must  
conclude, thet all these Authors have succeeded Very well in  
their different Ways of delivering Women under these Cir-  
cumstances. And if so, that Method which gives a Woman  
rhe least Pain, the Operator least Trouble, and the least en-  
dangers the Child, is to he preferred ; and therefore Deventer's  
Method of leaving the Arms of the Child to come away with  
the Head, must be the hesh

There is hot much Difficulty in Births of this Sort, till the  
Child is extracted as far as the Head, but it is sometimes sub-  
ject to stick a little there, some Management is therefore neces-  
sary to bring the Head away expeditioufly, otherwise, as Dionis  
observes, the Circulation by the Intervention of the Umbilical  
Vessels being hindered, the Child must perish. The following  
Observations will set all Circumstances relating to Labours of  
this Sort, in an intelligible Light, and either confirm. Os illus-  
trate the Doctrine laid down by Dionis as above.

When the Head sticks, and does not come away readily.  
One, or two Fingers are to be introduced into the Child’s  
Month, whilst with the other Hand the Operator lays hold of  
the back Part of the Neck, then by acting with each Hand al-  
ternately, and sometimes with both together, the Head is ge-  
nerally readily extricated.; *La Motte.*

As soon as the Child is advanced as sar as the Buttocks, if  
the Toes ate turned towards the Mother’s Belly, the Body as it  
Is extracted must be turned by Degrees in such a Manner,  
that the Toes may he towards the Anus, and consequently the  
Heeis towards the Belly of the Mother, otherwise the Chin  
will catch upon the Os Pubis, and endanger the Child and  
the Mother too. In this Cafe a greater Force is requisite to  
bring away the Child, and Pulling too hard may separate the  
Head from the Body, and cause a great deal of Trouble in  
bringing‘away the Head afterwards. *La Motte.*

When this Precaution has been neglected, and the Child is  
advanced as far aS the Chin, where it sticks, heing intercepted  
thy the OS Pubis, the Method is to introduce the Fingers of one  
Hand betwixt the back Part os the Heath and OS Coccygis,  
land with these to thrust hack a little the hinder Part of the  
Head, mean Time, one or two Fingers of the other Hand are  
to he introduced betwixt rhe Os Pubis and Chin, till they can"  
he got into the Mouth os the Child; then turning the Head alit-  
tle on. one Side, and acting sometimes with one Hand and  
sometimes with the other, and sometimes with both together,  
as Occasion requires, the Head is to he freed from its Con-  
finement,' without endangering its Separation from the Body,,  
which by pulling hard without these Cautions would probably  
beeffected. *LaMotte.*

The Reasonableness of this Method will appear Very plain to  
whoever considers the Figure, and present Situation of the Head.  
When the Chin is thus fixed on the OS Pubis, the back Part of  
the Head is thrown towards the Os Sacrum, and this the more,  
the greater Force is used tn drawing the Child inorder to bring’  
it away, insomuch that it lies in some Measure a-cross the Pass  
sage, with the Chin at the Os Pubis, and the Crown of the  
Head pointing towards the Os Sacrum; in this Situation then  
It is next to impossible for tit to come away, unless the Pal,  
sage is Very large. But when the back Part of the Head is  
thrust from the Os Sacrum towards the Bottom of the Uterus,'  
the Chin approaches nearer the Neck, and consequently is more  
likely to he brought off the Os Pubis, which obstructs it. On  
the Contrary, when the Chin is made to approach the Neck,  
the Crown of the Head is made to recede from the Os Sacrum.  
So that each Hand in this Way of acting, recommended by La  
Motte, assists the other in the best Manner that can he conceived.

and .gives them a Command of the Head to turn It a little *cn.*one Side, that the Child may he extricated from this dangerous  
Situation.. ,

If both Feet cannot he found without Difficulty, the Child  
may he extracted by one ; however, in this Case, Care must he  
taken, not to draw one Foot with the lame Violence as both  
would'bear, for Fear of stretching the Ligaments, and laming  
the Child for ever. . *La Motte. ,*

La Motte observes in another Place, that hefore we attempt to  
bring away a Child by one Leg only, we should he very sure  
that the Child can come in that Posture, I suppose he means,  
that the Passage is large enough, in Proportion to the Size of  
the Child ; for, he fays, when the Child is engaged in the Pas-  
sage to a certain Point, it is not in the Midwife’s Power to  
bring it any other Way, that is, to get the other Foot.

The Tate Writers on the Subject os Midwisry of our Own  
Country, I mean Chapman, and Giffard, are of Opinion that  
both Feet should be brought out,, provided it can be done conveni-  
entiy ; .but is they can get one Foot, they are In Do farther Pain  
about the other than to assure themselves that it is hent for-  
wards, towards the Belly *s* and then wrapping a soft warm  
Cloth about the Leg, they readily bring the Child away by  
that only; especially when the Passage is tolerably large, the  
Woman has had a Child hefore, and the infant is of a thoderate  
Size. . ... Ἀ

This Sort of Birth is of Importance enough to deserve a par-  
ticular Attention, because all Births whatever, where the Child  
presents any Part but the Head, must he reduced to this, for  
the Method of turning a Child, which presents in a wrong Pos-  
ture, in such a Manner as to bring the' Head to the Orifice, as  
It ought to he naturally, is now exploded by the best Authors,  
and Practitioners, as more’inconvenient and dangerous to the  
Mother and Child, as well as troublesome to the Operator.,  
Deventer is even of Opinion, that in Cases where the Head  
presents, but the Birth is retarded by a bad Position of the  
Womb, it would he the best Way to bring the Child away di-,  
rectly by the Feet, without wasting to reduce the Womb to its  
natural Situation, which is not done without much Difficulty  
and Pain. Heister, in this Cafe, agrees with DeVenter, provid-  
ed the Womb, and with it the Hoad of the Child, cannot im-  
mediately he reduced to the natural Position. By a bad Position  
of the Womb, I mean, when it inclines too much, either for-  
wards, or backwards, or to either Side, for then the Orifice, in-  
stead of answering directly Io the Passage, is thrown either up-.  
on the OS Sacrum, Os Pubis, or the Bones which form the Sides  
Of the Pelvis, which obstruct the Birth, and render the Pains, let  
them he never so strong, of no Effect;

I must not omit taking Notice, that Heister recommends an-  
other Method of extricating the Head, when the Face is turned  
towards the OS Sacrum. This Author is apprehensive, that the  
Tenderness of the lower Jaw would render it liable to be  
broke or dislocated, when the Fingers os the Operator are placed  
in the Mouth. Ise therefore advises to introduce the Hand  
sar enough to place two Fingers one on each Side of the Child's  
Nose, and then with this Hand to press gently towards the In-  
testinum Rectum, in order to make more Room for the Egress  
Of the Child

He also advises, when the Face os the Child is turned towards  
the Mother’s Belly, to place the Fingers on each Side of the  
Nose, instead of introducing them into the Mouth. Whilst- the  
Operator is in this Manner endeavouring to bring the Heath  
away, an Assistant should draw the Child gently, that by theft,  
united Efforts the Birth may he expedited.

„ When the Body of the Child is turned in such a Manner, durol  
ing the Extraction, that the Toes point downwards,. by winch  
it should appear that the Face is.tnrned towards the Os. Sacrum.  
of the Mother, it is possible, however, that the Neck may he  
twisted in such a Manner, that the Face may point towards the  
Mother's Belly, and then the Chin will catch on the Os Pubis..  
This Case is not to he discovered otherwise than by Feeling, and  
when the Operator is certain of it, he must conduct himself by.  
the Directions given above. ' . ’ ......

/ It is a general Rule, that the Force with which a Child is’  
drawn when it comes with the Feet foremost, should not be di-  
rected in a right Line from the Passage, hut inclining somewhat  
downwards towards the OS Coccygis.

.... i A few Cases will he sufficient to illustrate these Rales.

**δ-θΑ5Ε L from LA:MOTTE. ?**

In September, 1693, I was called to the Wife of a Carpentet\*;  
T found the Midwife, pulling with all hey Force she Child,  
i. who had presented the Fees, and was extracted, as far as the

Neck, but the Chin appeared to be fixed upon the OS Pubis.

I immediately introduced one Hand betwixt the OS Pubis and  
.... Face of the Child, who had been dead a considerable Time,.

and got a Finger into the Mouth, and with the other Hand,  
which I introduced betwixt the Rectum and bach Part of the  
χ Head, I pushed the Head a little backwards. By Means  
. of my two Hands placed in this Manner, I had . Command  
-. enough os the Head to turn It a little on one Side ; and this

gave me Room to introduce my Pingers somewhat farther,

.ALARIS, or **ALIFORMIs.** *In th: Shape or FormismjFisig,*ALARTAR- *AEs Usuan. Burnt Brasis. Rulandus.*ALASALET. *Sal Ammoniacum. Rulandus.*

ALASTROB. *Lead,* according to Rulandus ; but accord-  
ing to Johnson, Zhec *Caftellus.*

ALATAN. *Litharge of Lead. Rulandus.*

ALATERNUS. This is the *Alaternus,* Offic. Chain A3.  
Park. Parad. 603. *Alaternus* 2. Clusio. J. Β. I. 542. *Alaternus  
rnajoret* minor, Raii Hist. 2.1 608. Park. Theat. I 445. *Spina Bur-  
gi Monsipeliensiurn,esusi. Alaternus Plinii, et humilior.* Ger. I2I2.  
‘Emac. X39S. *Alaternus-sue Philyca elatior et humilior,* C. Bauhi-  
ni. Pluk. Almag. I2. *Alatcrnus* I. *Clasiiet minori solio,* Tourri.  
Insh 595. Boerh. Ind. A. 2. 213. *Alaternus prior et altera,*Cluf.Hifp. 56. Elem. Bot. 468. *Philyca elatior et humilior,* **Ct**B. Piri. 476. **Jons. Dendr. 26I. EVERGREEN PRIVET.**

It is a small Shrub, about the Bigness of the Privet, coVer-  
ed with a black Bark, almost like that of. the Cherry-tree. Its  
Wood is of a light Yellow, the: Leaves oblong towards the Top,  
moderately large, firm, set all round with small Prickles, dis-  
orderly placed, resembling those of the Philyrea, but disposed in  
alternate Order on the Branches, whence it takes the Name  
*'Alaternus,* whereas the Leaven of the Philyrea grow in Pairs,  
Side by Side. The Flowers are small, and stand many toge-  
ther. They are shaped like a Funnel, or Top of a Tent, and  
out Star-like into five Points, or Rays, of a white Colour, odori-  
serous, succeeded by Berries, about the Bigness of Elder-herrieS,  
clustered like Grapes, soft, juicy, black when they are ripe,  
each inclofing three Seeds joined together; rounded on the Baek,  
and flattened on the Sides where they touch. The Roots run a  
great Way in the Earth. It grows in the Hedges, and is cul-  
tivated in Gardens. .It contains much Oil and Phlegm, and  
hut littie Salt. *Lemcry des Drogues.*

The Plant is os a detersive, astringent, and cooling Nature,  
and is used in GargarismS for Inflammations of the Mouth, and  
Tor the Quinfey. *Boerhaave. Lemery.*

The Fruit moderately binds the Belly. *Dales*

Clusius confesses, that he knew no Use of either os the two  
Kinds os his *Alaternus,* but that he was assured by the Portu-  
...guese, that their Fishermen used to' dye their Nets os a reddish  
Colour, with a Decoction of the Bark in Water ; and that Dy-  
iers used the Decoction of the Chips Os the Wood, which is of a  
pale Colour, to give a dark Blue. *Raii Hist. Plant.*

Another Species of the *Alatcrnus* is the .

**.-. CE L As T R Us,** Ossie, Johns. Dendr. 262. *Celaftrus Theo-  
phrasti,* C.B. Pin. 477. Geri Emac.. 1600. Park. Theas, 1448..  
*Celaftrus Theophrasti Clusio,* Parad. 603. *Alatcrnus latifolia, Ce-  
laftrus dicta,* Herm. Cat. Kort. Lugd. Bat. II. Raii Hist. 2.  
I 608. *Alatcrnus Hispanicus, Celaftrus dicta,* Boerh. Ind. A; 2.  
**213. TheSTAFF-TREE.** *Dale.*

. It grows to above a Manis Stature, with a sum and hard Body,  
which runs out into many Branches, that are covered with a  
green Bark while young, but blackish after a Year. The  
Leaves are numerous, always stand opposite, and are thick set,  
of a deep Green on the upper Face, but sainter on the  
lower, perennial, that is, never falling off, till displaced by  
.new ones, which is the Case .of most Evergreens. The  
Leaves are of a shining Smoothness,, and no larger than those of  
Ihe Alaternus, but most of them smaller, especially those os a  
-Year old, which hover the lower Parr of the Sprays, not jag,,  
ged, especially the young ones, which, though they seem to  
.have somewhat resembling Jaggs,., cannot he called jagged; they  
are of a bitterish Taste. At the utmost Part of the young  
Sprays, among the Leaves, grow Pedicles, which bear five or six  
small Flowers, consisting generally of four or five small Leaves,  
of a greenish Yellow, and a sweet Smell, disposed in Clusters like  
the Flowers of the.Masticlr-tree, not expanded in the Form of  
an Umbrella, like those of the Wild Bay, or Elder. They open  
: very late, and not hesore the latter End os Autumn, or Begin-  
ning of Winter, and sometimes not hesore the mild Air of the  
Spring breathes on it. So far Cinfius ; to which R Paauwius  
adds,- This Tree in the Leyden Garden, 16I0, in the Month of  
June, began to shew the Rudiments of a Fruit, producing a  
.short Pedicle, on which grew 4 Berry, about the Sine of a  
Myrtle-herry. While growing it was green," but red at its  
jhll Growth, which turned by Degrees from a light Red to a coral  
Colour, extremely like the Berry of Sparrow-grass,. I mean the  
lesser Sort. It kept up this lovely Colour to the Beginning of  
August, when its Skin, or Superficies, began to shrivel, and at  
-the same Time to change Colour, and from a round to become  
of an oblong Figure, turning first Of a dufley Colour, which  
grew at last to a Coal Black. After it fell off, we discovered  
.in its Inside one single Oblong, and in some Sort triangular.  
Seed, Very like the Kernels of Grapes, and breaking the Shell,  
which was hard and somewhat finny, we sound but one Ker-  
nel, covered with-a thin Membrane, or Skin, of a Saffron Co-  
lour, under which lay the Pulp; hard, whitish, and like that os  
-fin Haste-nut. *Raii Hist. Plant.*

A third Species of the *Alatcrnus* is the

*Casiina* Offic. C. B. Pin. I7O. *Herba Cassiana famem sitim.,  
que retardans,* J. Bi 3. 63I. Chain 655. *Caffine vcra Florida.,  
norum, Arbuscula baccifera Alaterniferrne sucie, foliis alternarim*

*'sitis, tetrapyrene.* Pluk. Mant. 40. Phytog./Tab. 376. L 21  
*Apalachine sive Cajsine,* Ind. Med. Ii. *Alatemotdes Africana  
Lauri ferratae* fe/ed, Cornm. Rar. Exot. I. 6I. **CASSINI.***Dale.*

It grows in Carolina. The Leaves' are about an Inch long  
and half aS wide, shaped like the Leaves of Sens, blackish when  
dried, shining in the upper Part, but greener underneath, of  
no Smell, but a Taste somewhat aromatic.

It is accounted a Very good Medicine in the Small-Pox,, re-  
straining the immoderate Fermentation of the Blood, without  
putting too great a Check upon the expulsive Faculty. . It pro-  
motes Expectoration, preserves the Lungs, and keeps off the  
Small-Pox from the Head and Throat. . *Dale Pharrnac. .*

The fourth Species of the *Alaternus* taken Notice of. by  
Dale is the . . .

*Pcrygua,* Offic. Marl. Obs. Mont. Exot. 8. *Cajsine vena  
porquam sindlis Arbuscula Phyllirea Foliis antegonistis ex Provin-  
cia Carolinensis,* Pluk. Mant. 40i Phytog. 38I. s. 3. THE  
**CASSIO-BERRY BUSH.**

It is found in Carolina. The Fragments of the dried Leaves;  
and the Powder of the Stalks, are used. . .'

Sometimes it purges, at other Times excites .Vomiting, or  
promotes insensible Perspiration, still acting as Nature inclines!  
It is accounted an excellent Specific in the Diabetes, and seve-  
ral Histories of Cures done by it in that Distemper are related  
by Marled. A Tea made os the Herb is good in the Net  
phtitic .Colin. : ; . .. . .

Of whet Plants the Perigua are Fragments, is a Question not  
easy to be determined, nor can the Opinions, of learned Bota-  
nists he well reconciled. Some take it for a Species of *Alatcr-  
nus,* whose Authority I have followed in placing it here. O-  
thers put a Question, whether it he the *Peragu. Hint. Mal.  
Tom.* 2. To me it feems most likely to he the Plant of which  
Du Biscay gives an Account, in his Voyage on the Rio de la  
Plats, by the Name of *the Plant of Paraguay,* which the Na-  
tives use as a Preservative against noxious and mineral Vapours,  
and also for a Vomit on Occasion. Query whether the Frag-  
Ihents of Plants of late imported, under the Name of PARA-  
GisAY-TRsiE, he the same.with the forementioned Perygua of  
Marine. *Dale Pharmacstlogia.*

Miller enumerates six Species of *Alatcrnus. 1*

ALATERNOIDES [from *Alatcrnus* and Εἵδος Gr. Form  
or Shape] a Sort of *Alaternus.*

This differs from the *Alatcrnus* in having three Seeds joined  
together, in the manner of TithymalluS (or Spurge) whereas the  
*Alatcrnus* has three Seeds inclosed with one common Covering,  
and appears to he a single Berry till it is opened.

Miller enumerates three Species of *Alaternoides. ....*

ALATL Thofe are called so whose Scapulae, or Shoulder-  
blades are Very prominent, and stand like Wings. Those  
who have such a Conformation are esteemed Very subject to a  
Consumption.

ALATI PROCESSUS, or ALARES, are Processes ofthe  
*Os Sphenoidic.* See SPHENOIDES.

ALAUDA, a Gallic Word for *Galenita,* a *Lark.* This.  
Bird is a most effectual Remedy in all Pains of the Colon and  
other Intestines, both for Men and Cattle, whether it he roast..  
ed and eaten, or' burnt to Ashes, and three Spoonfuis thereof  
carefully pulverized given in warm Water for three Days to-  
gethet. ι - ,

It is called by the Greeks κορυδαλός, and is to he burnt Fea-  
thers and all, in an earthen Pot plaistered over,and,set in a Fur-  
nace, till it may he reduced to Powder. *Marcellus Empiricus'.  
Cap. 29.*

The Lark eaten with , the Broth made of it cures the Colic ;  
but it ought to he frequently used. *Paulus AEginela. Lib.q.C.* 3,  
.. The Lark is a littie grey Bird Very, well known, celebrated  
for its agreeable Singing early in the Morning, when it is fine  
Weather; she lays her eggs in May, Jul}’, and in August;  
her young ones are ready to fly in ten or twelve Days.

. There are two Sorts of Larks, one that has a Crest, and ano-  
ther without one; the last fly in Flocks. The Lark is esteem-  
ed the Harbinger of the Spring ; that with a Crest lives mote on  
the Ground thpn the other; they both eat Wheat, Worms, and  
Pismires;. they keep some in Coges; when young they are a  
delicious Meat; their Flesh is firm, brown, and of a good  
Juice easy to he digested; those are most eligible which are Ve-  
ry tender, and well fed.

The Heart and the Blood of Larks are good for the windy  
Colie; and to extricate Gravel and Phlegm from the Kidnies and  
Bladder.

. Schroder says the fresh Blood; taken in sharp Vinegar, or  
warm Wine, effectually relieves the Stone and GraVel.

. They fay that the Name *Alauda* is taken from the antient  
Gains, and that Julius Caesar having raised Soldiers in France  
they were called by the Name of Larks, because the Figure of  
their Head-piece resembled a Lark with a Crest. *Lemcry de.  
Drogues.*

When the Lark is old, her Flesh is hard, dry, and difficult  
of Digestion, and the Juice bad.

It contains much Oil and Volatile S. II.

: It agrees with any Age and Constitution, especially in Au-  
samn when this Bird is fatter and more dellcious, than at any  
'Other Time of the Year.

The Lark is a dellcious Bird, and much esteemed for the Good-  
mess of its Taste, and the heppy Effects it produces. As it is  
much upon the Wing its Perspiration is abundant, and confe-  
xprently it must contain but a few gross Humours, and many  
volatile and exalted Principles. *Lemery m Foods.*

As the Lark life much Exercise, its volatile Salts must be  
much exalted, and its Juices alcalefcent, especially as it seeds  
sometimes on insects.

The crested *Lark* is thus distinguished, *Galerita,* Ossic. Bel-  
lon. des Oyfe. 268. *Alauda cristata,* Sctirod. 5. 3I4. Aldrov.  
Ornith. 2. 841. Men Pin. I76. Jonf. de Avib. 70. *Alauda  
'cristata, albicans,* Gen. de Avib. 72. *Alaudas cristata maser.*Ran Synop. A. 69. *Alauda cristata. Galerita,* Ejufd. Omith.  
208. *Alauda cristata, Vienna Austria visa et descripta.* Will. Or-  
mithi I5I. *Aianda, Galerita capita, cristata,* Charlt. Exer. 88.

The *Sky Lark* is thus named by Authors, *Aianda,* Ossic.  
Mer. Pin. I 76. *Alauda nm cristata,* Sctirod. 5. 3I4. Johns, de  
Avib. 70. Aldrov. Ornith. *i.* 844. Bellon, des Oyfe, 269.  
*Aianda vulgaris,* Raii Omith. 2o3. Ejusd. Synop. A. 69. Will.  
Grnith. I49. *Aianda altera,* Geso.de Avibus.

ALAURAT. *Nitre. Rulandus.*

: ALBA ANIMALIA. White Animals are almost univer-  
sally weaker than black ones, which is evident from comparing  
their Flesh together, that of the letter heing more savoury. *Aet.  
Tetr.* I. *Serin.* 2. *Cap.* 88. ‘ ’ ........

In every Species of Seeds, Roots, or Juices, also some Indi-  
cation of the Temperament may he taken from the Colour.  
For Instance, an Onion, a Squill, and Wine, the whiter they  
are, the less Heat they have in them ; but the deep, or pale  
Yellow, carry the most Heat. The fame is observable in  
Wheat, Kidney-Beans, and Chiches , as also in the Roots of  
Iris, Daffodil, and many others; and universally the pale or  
bright Yellow, and the Russet, are hotter than the White.  
*Act. Tetr.* I. *Senn.* I. . . ' - -

ALBA TERRA. David Lagneus, in the *Theatrum Chymi-  
xum. Vol. su Page Ths.* telis us. that the Matter of the Phlloso-  
phers Stone is Quicksilver and Sulphur, and that this Compo-  
sition is called TERRA ALBA.

; ALBA VITILIGO. See **VITILIGO.**

ALBADARA. It signifies in Arabic the Sefamoide Bone  
of the first Joint’of the great Toe, which is about the Size *of a*sinall Pea; Its Use is to that Joint much the same as the Pa-  
tella is to that of the Knee.

The Magicians are said to attribute extraordinary Virtues to  
this Bone. Some of the Jewish Rabbles relate strange Stories  
of a little Bone, which is called *Lins,* and which they say is  
sound betwixt the last Vertebra of the Loins, and the Os Sacrum.  
As there is no fuch Sone to be found in that Place, perhaps  
- they may mean this Sefamoide Bone, .and may have herrowed  
some fabulous Accounts of it from the Magicians. They relate,  
that this Bone is not to be destroyed by either Fire or Water;  
and that God will make Use of this Bone at the fast Day,, to  
raise the Dead, making the Body to grow again from it, as a  
Plant does from the Seed..

- But as there is something very remarkable in this Bone, with  
Respeci to Physic, without recurring to Jewish Fables, and Ma-  
gic Tales, I shall relate whet I have heard and observed on this  
Subjects . ' -' '

About twenty Ύears ago, there was a Cute performed by a  
Physician, who then lived at Oxford, which was much miked  
of, and, I believe, most Gentlemen of the Profession who studi-  
ed there, about that Time, may rememher it. A young Lady  
had been subject to frequent Fits of an ndd Kind, against .which  
all Remedies which were tried had proved ineffectual. At last,  
a Physician was consulted, who was of Opinion, that these ex-  
traordinary Fits were caused by a Distocation of the Bone,  
which is the Subject of this Article, and that an Amputation  
of the great Toe would cure them. The Lady pursued hrs Ad-  
vice, the Toe was cut off, and she recovered perfectly. I nei-  
ther knew the Lady nor Physician ; hut the Fait was well  
known at that Time, and I never heard it disputed. The follow-  
ing Cafe in which I was concerned is a farther Evidence, that  
such Cafes may, and actirally do sometimes happen, though  
they have been generally overlooked by Medicinal Writers.

In the Summer of I 7 37, I was called to one MI. Fitter,  
a substantial Farmer of Henwood-Hall, near Solihull in War-  
wicldbire. I found him sitting on the Side of bis Bed, where  
he told me he had been all that Day, and the preceding Night,  
without daring to move, because he was fure of heving a Fit,  
the Moment he moved his Foot, the Apprehensions of which  
gave him great Terror. He said, that a sew Days before, in  
crossing a Waggon Road in Haste, where the Ruts were deep,  
and the Sides of them very hard, he stumbled at a Clod, and  
hurt the great Toe of his lest Foot very much. that in a few  
Minutes he fell into a Fit, and that whenever he moved that  
Toe, which he never did without a great deal of Pain, be was  
sure to fall into another of the fame Sort. Thefe Fits much re-

sembled thosooftbe Epileptic Kind, except that no Froth, was  
discharged at the Mouth, and that the injured Foot sirst began  
to he convulfed, then the Leg, and from thence a very uneasy  
Senfatioo ascended to his Head, and then the Convulsions he.  
gan to he universal.

Upon Examination, I sound he hed never been subjecti to  
any Disorder like Convulsions before. He was at this Time  
upwards of fifty. Before this Accident, he was in all Appear- .  
ancea very hearty Marr, and had now no Complaints of any  
Kind, except the above-mentioned. ' .

. I do not recolloft exactiy what I directed for him; but I re-  
member nothing did him the least Service, insomuch that in a  
Week, or thereabouts, he died, perhaps as much by the Neg-  
lech of these sheet him, as by his Distemper, for, as the Acci-  
dent happened in the very busiest Time of Harvest, he hed not  
the Attendance which a Cafe of this Importance merited.

I could never, with all my Intreaties, get Leave to examine  
the Toe, with the Attention and Exactness it deserved, for **he.**was so excessively afraid of heving it touched, or moved, that he  
was almost in Agonies, whenever I attempted to move my  
Hand towards it. I should have sollicited sor Liberty to dissect  
the Toe, if an Opportuniry had presented, but he hed been  
buried forne Days, before I heard of his Death.

' Hippocrates *[de Morbis Mulierum, Li* a.) has a most exadl  
Description of the Sort of Fits this Patient was asseoled with,  
which he attributes to Hysterics, or, in his Phrase, to the Ute-  
rus ; this I shall transcribe from him, in order to give a hetter  
Idea of this Patient s Case : jj, *is nd* σνελ.α τῶ ποὸἰ τραπωνται. γ,ωσεις  
ωίι. ot μαγαλοι ὸώίτυλει τοτν τοοἐν?, σπῶ,ται ὑπὸ τῆς ἱνυχας. νκαὶ όὸνίνη ἱχιι  
τα σκίλεα κ, τω ρωρω. κ) ἰγκειται .tj δλίβει τά *quips* τὸ μημό νὑνμα.

Ην οε ο,αυὸος γραται ἐνπρα. τι. σκίον» ψυχμό ἱνροις ἄν, κ} τοῦ γοώατα καὶ)  
ταστ *grgrs. καὶ* η αοιρὸίη πάλλἄκαι καὶ βρὄχει.. .καὶ ἰὸρὑς πουλυς, νκαὶ ἄλλα οσοο.  
υπὀ ιεῆς ρὀσου. ίπίλππτοι πασχδσι. ' ι

ALBAGIAZL The Arabic Name sor the Os Sacrum.  
*Castellus from Fallopius.*

ALBANI. Rufandus explains this *Lapis Salis Lacti,* which  
is not. very intelligible. . Johnson, and Castellus, as is usual  
with them, in Cafe of Difficulty, take no Notice of it. There  
is a Kind of Salt to he procured from Milk, which crystall izes -  
in the Form of a Cake, the Discovery of this is attributed to Lu-  
dovicos Testi. It is possible that this Salt may he meant by  
Albani, and that Ludovicos Testi might take the Manner of

- preparing it-from some chymical Author that preceded him.

ALBANUM. *Salt of Urine. Rulandus.*

ALBARA. A Species of Leprosy. *Castellus.* See VIT I\*

**LIGO. . . . ’ - . . -**

It signifies also the *TVhite Poplar. Bruofelfius.*

-riLBARAS. *Arsenic. Rulandus. r*

' Blancard explains *Albaras alba,* by *Leuce,* the white Leprosy;  
*and Albaras nigra,* by *Capra Graecorum.*

ALBATIO, **ALEIFIcATlo, and DEALBATIO, areal-**chemistical Terms, not easily understood. They seem to  
mean Reducing the baser Metals to a Whiteness, in order for  
their Transinutatinn into some of the more noble Sorts.

They alfo'signify the Calcination of Mends, or Minerals, to  
a Whiteness, without any View to Alchemy.

ALBEDO. Is the Whiteness procured by Albification.  
Or Whiteness of any Kind.

In Proportion as the Flesh of Animals alters from its White-  
ness, so much it loses of the Goodness of its Juices. *Actuarius  
de Spin. Anim. Cap.* 7.

Of Whiteness, with respect to Urine, there are sour Kinds,  
*viz.* the Crystalline, the Snowy, that of Lime, and the Lim-  
pid, like that of fair Water. For Ice, Crystal, Snow, Lime,  
and Water, have a Whiteness, but not in the highest Degree.  
The Colour of Milk comes short of the highest Degree of  
Whitenefs, but exceeds the aqueous and crystalline. Then the  
Whiteness of the glaucous Colour falis ns much short of that  
of Milk, as it exceeds the χαρῆςἐν, *Charopes* : For the Glaucous is  
perfpicuous like a clear Horn, or rhe Cornea Tunica of the  
Eye.; but the *Charopes* [Latin Ravus] is like the whitish Hairs  
of Camels; or the Colour of the Onyx Stone. *Theoph, da  
Urinis Cap.* 5. *Actuarias de Urinis Gap.* 8.

ALBERAS. The Arabic Name for the *Staphisogria.  
Schroder.*

ALBERICK. Rulandus explains this *Album Acres. -* The  
German Word signifies *White Ore.*

ALBESTON. *Quick. Lime. Rulandus.*

ALBETAD. *Galbanum. Rulandus.*

ALBI. Both Rulandus and Johofon explain this by *Subli-  
mati. \**

ALBIFICATIO. See **ALBATIO.**

ALBINUM. A Name of the *Gnaphalsum marinum.* SEA  
1 CuDwEED or CoTToN-WEED. See **GNAPHALIUM.**

ALBIR. Pitch got from the Bark of the Taxus. Yew.

*Johnsen. .*

ALBOR. *Urine. Rulandus. .*

ALBORA. A compound Species of ltche or rather Le-  
profy, of which Paracelsus gives the following Account:

*by ^lbora* is a Complication of three Things, **the**Morphew, the Serpigo, and the Leprosy.

*Chains. Ebn-Abbas AlDararand* and, at the End os the Ma-

nuscript, were these Words transiated out os Arabic thus, Ἐκ-  
*plicit hic Tractatus de Chirurgia, estque conclusio totius libri Prac-  
tices medicina casus Author ost Ab’usccas.em, etc. Dia primo mensis  
Safar,* A. H. 807. and, in the Latin Manuscript already men-  
tioned of Gerardus, it is called *Particula* 30 *libri* Albucasim.  
The joint Authority of these two Manuscripts, concurring with  
what I have observed hefore, about the References to a Treatise  
of Surgery, puts it, I think, beyond all Dispute, that what rye  
have now under the Name of *Als.aharauius,* and *Albucasis,* were  
writ by the same Person. Add to this, that *Albucasis* often re-  
fers to a Book, which he had writ concerning the Practice of  
Physic. . z .

I do not herd any Certainty os .this Author's Age ; but he is  
generally (though for what Reason I do not apprehend). sup-  
posed to have lived about the Year 1085 But there is some  
Ground to think he was not so antient. For, in treating of  
Wounds, he describes the Arrows os the Turks: A Nation  
which scarce made any Figure, till the Middle, at least, os the  
twelfth Century. And from what he says, that Surgery, in  
his Time, was in a Manner extinct, so that scarce any Foot-  
step os the Art remained : One may, I think, infer, that he  
dived long after Avicenna ; for, in .that Physician'S Time, we \*  
know. Surgery was in good Repute. *Albususis* revived it ; and  
thinks it is the highest Impudence to attempt any Thing in it, '  
without being well versed in Anatomy, and in the Virtues os  
Medicines, especially the former, and adjures all os this Professi-  
on never to undertake, for the Sake os Gain, a Case which  
they do not understand. Though he takes a great deal froth  
the Greeks, andespecially from Aetiut and Paulus, yet of the  
practical Writers he mentions only Hippocrates and.Galen:  
And this, by the Way, may be another Reason to make us he-  
lieve, that he is the same Person with *Alsoharaurius,* who, in like  
Manner in his practical Work, does not quote above four or  
five Authors, *viz.* Rhazes, Honain, *etc.* hesidcs these two. He  
throws by, he says, all that is superfluous in Surgery, and re-  
tains only what is useful, and necessary : And acquaints us, that  
he had joined long Reading and Experience together, and pro-  
tests he will relate nothing but what he has seen. He he to be  
commended particularly for this, that he is the only one.among  
the Antients, who has described the Instruments in each Ope-  
ration, and explained the Use of them; and the Figures of these  
Instruments are in both the Arabic Manuscripts which I have  
named, though not so finely and elegantly drawn, as in the  
Latin Copy. Another Thing Very remarkable and indeed, pe-  
culiar, to himself, is, that he gives his Reader Warning, whom-  
ever there is any Danger in the Operation : A Caution many  
Times. aS useful, as the long and minute Directions os others,  
how Io perform it. -

A Tranflation *CA Albucasis,* intitled. *Methodus medendi certa,  
clara, et brevis, pleraque, qua ad Medicina partes omnes, prseci..  
pue quar ad Chirurgiam requiruntur, Lib.* 3. *exponens, cum Instru..  
anentis ad amnes fare Morbos utiliter et -cpeclpinuc depictis,* was pub-  
lished, together, with some Other Authors, at Basil, I54I, iff  
.Folio. . . - . so so, .'

*Albucasis* was also published in Latin at Venice, I5oo,  
in Folio. And at Strashurgh, 1532. in Folin. *Pander Linden.*

ALBUGINEA TUNICA OCULORUM. The Coat of  
the Eye called *Adnata, for Conjunctiva.* See AD NAT A.

/ A-Coatof the Testicles is also called ALBUGINEA. - It is  
so called from its Colour, which is white. It is a strong, thick  
Membrane, Very smooth on the outward Surface; the inward;  
which adheres to the Substance os the'Testicle, is rough and  
uneven. Into the upper Part of this Membrane are inserted  
the Blood-vessels, Nerves, and Lymphatics, which send from  
thence divers Branches Into the Substance' of the Testicle;  
*Drake. ' .*

ALBUGINEUS HUMOR OCULI. The aqueous Hu-  
mour of the Eye. See **AGUE Us HUMOR.**

ALBUGO OCULORUM. A Pearl or white Speck in  
the Eye.

Nitre finely powdered, and mixed with Oil, soon takes away  
Pearls from the Eye anointed with it. The Juice of Anemone  
has the same Effect, by its attenuating Virtue. *Oribastus de Loe.  
affect. Lib. An Cap.* 24.

The Collyrium of Archigenes, which at the first Anointing  
takes off most Part of the Pearl or Speck in the Eye, and is also  
an excellent Remedy for a bleared or blood-shot Eye, though  
long and dangerousty affected.

Take of Snails calcined, three Drams ; *sEA* ustum; font  
Drams; Squama teris, six Drams; Squama ferri Stomo-  
matiS, twelve Drams ; .ssrugo, six Drams; Lapis Scis-  
silis, one Dram ; Aloes, one Dram ; Omphacium dried,  
two Drams; Indian Thorn,- sour Drams ; Chalcitis,  
Myrrh, Frankincense, each three Drams; Cortex thuris.  
Saffron, Crocomagma, each two Drams ; Spikenard, three  
Drams; the Flowers of Pomegranate, two Drams ; Gum  
Arabica eight Drams. Bruise them in Water, and

When several Diseases of different Origins meet together in  
one Center, there is generated a new Disease under A new  
Name.

**THE SIGNS.**

When Cicatrices appear in the Face, like the Serpigo, and  
then turn to small Blisters of the Nature of Morphew, for  
.which there is rio Name, I say, the Patient has the *Albor ay*

**THE TERM. ' .**

It terminates, without any Ulceration, in extremely foetid  
Evacuations from the Mouth and Nostrils. The Distemper, is  
known only by its outward Signs ; it takes its Seat too in the  
Root of the Tongue,

A CAUTION.

Avoid all internal Medicines, and strong Corrosive Waters.

**THE CURE.**

Take of Tin, Lead, Silver, each a Drain ; distilled Wafer  
of the Whites of Eggs, half a Pint; mix them together.  
The boiled Whites os Eggs are to he distilled, and the  
- Water put to the Filings os the said Metais, and the *Albora*is to be washed with the same. *Paracelsus de Apostematibus,  
Cap.* 42, T

ALBORCA. *Mercury. Johnson. fa ' ' .*ALBOT. *A Crucible. Rulandus. Johns.on. -*ALBOTAT. *Ceruse. Rulandus.* Johnson calls it. ALSO-  
TAR. It is also called ALEIDAs.

ALBOTIM. *Turpentine. Rulandus.* According to the.  
same Author it is also called ALBOTAI..

ALBOTIS. The same as **TERMIN th Us,** which See.

ALBUCASIS. An Arabian Author, known also by the  
Names of *Albucasiusgi Albuchasius, Buchasts,\* Bulcasis Galas., Asu  
subarandus,* and *Axarartius,* according to Fabricius, who places  
him in the eleventh Century. Hence it appears, that Dr.  
Friend is not the only Author, nor the first who acknowledged  
*Als.aharauius* for the same as *Albucasis.*. He .is esteemed an ex-  
cellent Surgeon. *Worse fastus* places him about the Year  
1085. Dt. Friend fays a great deal about his Practice, which  
. does not belong to this Article. Whet he fays, however, con-  
cerning his Person, Character, and Writings, I shall insert.  
*. Als.aharauius* in an Author neVer mentioned by any other .Ara-  
hian Physician, and scarce known in Europe, to any but Mat-  
thaeusde Gradibus (who died in *ratio.)* till P. Riciutss Tran-  
station of him (a very bad one) appeared in I5ipi and this itself  
never seen by Gesiner.. The Tranilator gives him a Very great  
Encomium, and says, he tis a Very clear Writer, succinct, and  
at the same Time Very comprehensive; and, in his Opinion, in-  
.. ferior to none, except Hippocrates, and his Interpreter, Galen.  
He compiled a Work, called *AlTriferf,* or a *Method of Practice,*divided into thirty-two Treatises, in which he is supposed by  
some to he excellent for the diagnostic Part, and describing the  
Symptoms of Diseases. The Booh, indeed, is Very methodi-  
cally writ, and, without doubt, deserves a good Character: But  
then, I must observe, that the greatest Part of this Work is  
almost exactly the same with what we may read in Rhazes : For  
Instance, the 2’6th Tract, about the Distempers incident to  
Children; the 28th, concerning arthritic Disorders; the  
30th, which treats of mortiferous Medicines, are all, in a Man-  
' ner, transcribed .from that Author. More particularly in his

Account of the Small-Pox, in the 3Ist Treatise, he copies al-  
most every Word of what Rhazes had written upon the Pe-  
stilence ; and so little Varies from him, that he retains the Very  
same Divisions,, and even Tities of the Chapters : Nay, he  
mentions the same extraordinary Virtue of a Medicine, which,  
though nine Pustules are come our; will prevent a tenth; though  
he describes the Medicine itselfa littie differently.

In pending this Author, I observed, that, he refers to a Book,  
which contained the Precepts and Practice of Surgery :' This he  
does Very often, particularly jo So, 8I, 88, 97, 99, 107, II7,  
I18, I29, 123,124, 125, I27γ &c. I compared these Pas-  
sages with *Albucasis,* as he is commonly called the only Ara-  
bian, who has left us any separate Treatise of chirurgical Ope-  
rations; and I had the Satisfaction to see, that every Coin in  
Surgery, as mentioned by *Als.aharauius,* was treated of by him.  
I desired the Favour os Mr. Gagnier, who has very great Skill  
in the Oriental Languages, to enquire whether the Arabic Ori-  
ginal of *Albucasis* could be found in the Bodleian Library. Up-  
on searching, he met . with one Manuscript, in Archbishop  
Marsh’s Collection, No. 54. with this Title ftranflated into  
Latin thus) *Tractatus x libri* Zaharayi *dictus opcratio manus  
(id est) Chirurgia et ars medica, circa cauter izationem, et dif-  
fectionern et commissionem fracturarum, in tres partes distributus—i*but not finding the Name of *Abulcasim* (which is the Name gi-  
ven him in a Latin Manuscript there, by Gerardus Carmonen-  
sis, who transiated him) he went further, and found another  
. Manuscript amongst Dr. Huntington’s, No. I56,..with this  
Tide at large--.—*Pars xi libri AlTriferf, Authcre Abul-cafern*

make them into a Collyrium, which use with Water;  
'or you Inky hruife the Collyrium, and use it dry. *Actius,  
Totrab.* 2. *Serm. ^.Cop.29‘*

All Cicatrices appear white in the Black of the Eye, for, the  
Cornea Tunica heing thickened, the cerulean Colour cannot ap-  
pear through it; the most eminent Parts of the said Tunica  
'turn white, the even Parts are less white, and those which  
- rubside, are, in a manner, os the same Colour with the Black.  
-Those Parts which have been treated with astringent Medicines,  
'till the forming of a Cicatrix, are darker than the rest, because  
the Pellicles are much thickened by Adstriction. Now though  
"Old, callous, and thick Cicatrices, or Albugines, ought not to  
he meddled with, because, in such Cases, it is necessary to use  
"Collyria that are of a very aerid Quality, which may endanger  
-an Ulceration of other Parts of the Eye, we shall however de-  
-scrihe some of those Medicines that have the Virtue of dying  
Those *Albugines,* or white Cicatrices, Of another Colour. For  
this End keep the Powder of Galls by you, and, upon Occa-  
sion, heat the blunt End of a Prohe, and, taking up some of the  
Medicine upon it, apply it to the *Albugo,* and after that some  
Vitriol diluted in Water: Or apply the Powder of Malicorium,  
and then the Vitriol as before. Another Medicine from  
*Oribasius de Loc. Lib.* 4. *Cap.* 24. quoted byTEtiuS.

Take the Pulp of a sweet Pomegranate, and beat it well,  
adding now and then a littie Water, and, after you have used  
this about the Eye sor some Time, anoint the Place with the  
- Juice of Henbane for fifteen Days together; this will take off  
-the Colour of the *Albugines,* and with often using, in a Year's  
Time, leave no Sign of them. *Actius, Totrab. 2. Scrm.* 3.  
*Dap.* 37. & 40-

- Cicatrices in the Superficies of the Eye, are only so called by  
Tome, others call them *Nubeculae* [little Clouds,] and those that  
'are deeper seated. *Albugines.* The Juice of Anemone, or the  
lesser Centaury, takes off the Nubeculae ; the more inveterate,  
-are attenuated and discuffed by Oil of Cedar, and Copper beaten  
in Water, and used as a Collyrium; and by all detersive Col-  
lyria. For *Albugines,* Nitre finely powdered, and mixed with  
old Oil, Ἄ a fine Detergent, and so is the calcined Shell of the  
Cuttle-Fish, beaten up with Honey. Among the Collyria, the  
-following is a good mild Detersive :

Take of Mamera *{the Root of an Herb, supposed by the Com.,  
rnentator on Myrepsus, to be Doronicum)* Gum Ammoniac,  
Myrrh, Crocodiles Dung, equal Quantities, and make  
them into a Collyrium: Or, take the Dung os the Land  
Crocodile, and heat it in Water for a Collyrium. *AEginet.  
Lib.* 3. *Cap.* 22. *Acctuarius, Lab..* 2. *Cap. J.*

For the *Albugines,* Take Saffron and Pepper, of each equal  
Quantities, and, with a Cat's Gall, make them into a  
Collyrium. *Actuarius de Meth. Med. Lib. hi. Cap.* 5.

Take a Fox, and cut out his Tongue, and then let him go;  
dry the Tongue, and hang it by a scarset Ribhen about the  
Neck of the Patient. *Marcel. Ernpir. Cap.* 8. .

For the *Albugines* of Infants, caused by their Crying, anoint  
them with the Juice of the Solanum Nigrum, *Black Nightshade.  
Aetius Tetr.* i. *Serm. 4. Cap.* II.

.ALBUHAR. *Ceruse. Rulandus.*

ALBULA. The same as ALBUGO. .

**ALBULA** is also the Name of a Fish in the Lake of Zurich,  
mentioned by Aldrovandus, and said to he very good Fond»

ALBULA. *A little Pearl. Rulandus.*

ALBULfiE AQUJE, or ALBAE, according to Caelius Aure-  
Iianus. These were much celebrated amongst the Antients for  
their medicinal Virtues.

The Waters called *Allen,* or *Albulae,* in Italy, were approved  
by the antient Physicians in Palsies and Fluxes, and other like  
-Disorders affecting the natural Functions, because of their cooling  
Quality. *Calius Aurelianus, Chron. Lib. 2. Cap.* i.

Aluminous Waters, such as those they call *Albulae* in Italy,  
are good for all Kinds of Ulcers, but especially such as are subject  
to a Flux of Humours, by speedily drying them up, and by  
' that Means effecting 2 Cure. *Galen, de Simp. Med. Lib.* I.

Cap. 7- 50.

Galen, in his *Method. Mede Lib.* 8. *Cap.* 2. gives the History  
of a Cute he performed on a Man who contracted a Fever by  
bathing in the aluminous Waters called *Albulae* ; which stopping  
all the Pores occasioned that Disorder.

The *Albula Aqua* are recommended by Archigenes, in Aetius,  
for Ulcers of the Bladder, to he drank after Walking in the  
Morning, three half Pints the first Day, and then to go on to  
five or fix ; for, besides their washing the Intestines, their fuli-  
ginous Vapour blunts the Sense of Pain in the Part, and, making  
a Separatinn of the Humours, renders the Blood more pure and  
florid; and they also cleanse the Ulcer effectually, and give an  
. agreeable Sensation at their Entrance into the Bladder. So that,  
. in short, nothing can more contribute to the Cure of the Pa-  
tient. They are fittest to he drank after the Cool of the Morn-  
ing. *Aetius, Totr.* 3. *Senn.* 3. *Cap.* 30.

Aetius says, these Waters are sulphureous, aluminous, and  
warm as new Milk. *Ib. - - -*

ALBUM GRssiCUM. The white Dung os Dogs gather-  
ed in March, called also *Spodium Graecorum, Nihil Album,* and  
*Album Cants.* It is esteemed drying, abstergent, discutient, and  
aperient. It is said to promote the Breaking os Abscesses, and  
to deterge Exulcerations ; hence it becomes useful in Dyseri-  
teries, and Colical Pains. It is applied externally to the Throat  
in Quinsies, generally mixed with Honey, and to malignant  
Ulcers. It mollifies hard Tumors, draws away the Water, in.-  
a Dropsy, and cures Warts. *Dale.*

ALBUM HISPANICUM. *Spanish White,* called also *Bi-  
anca Alexandrina, sou Album Hispania.* This is made from Tin  
in the same Manner that Ceruss is prepared from Lead. It is  
only used as a Paint, heing thought to make the Skin look white.  
*Dale. δ᾽. .*

ALBUM OLUS. A Name of the *Lactuca Agnrna,* Lambs  
Lettuce, or Corn Sallet. *Dale.*

ALBUM NIGRUM. *Mouse-dung.* -SeeMUs/-  
ALBUM OCULI. *The White of the Eye..*

Things preternatural, among which are oftentimes Hairs,  
growing in the White os the Eye, which cause no Pain, and  
differ not much in Colour from the natural, are cured by taking  
hold of, and raising them with the Hook, and then cutting them  
off with the Knife appointed sor the Pterygia; after which a little  
fine Salt is applied, and a Lock ofWool bound on the Place,' and  
the Management is the same as in the Cutting of the Pterygia.  
But Things that put on a reddish Aspect, and appear humid, and  
with fnrgid Veins, that ate painful, and affect the Temple by  
Consent of Parts, are better let alone by the Surgeon, as heing  
of a malignant Nature, full of Hazard, and endangering the  
Loss of the Eye itself *Aet. Tetr. 2. Serm.* q. *Cap. csy.*

ALBUM JUS. *lorhite Broth,* good sor sick People, is thus  
prepared: Boil Whiting, Haddock, Cod, or any such white-  
grained Fish, in Plenty css Water, with a sufficient Quantity of .-  
Oil, and add some Anis, and LeekS ; when they are parboiled,'  
put in a litttle Salt, just enough to give a Taste. *Oribasius,  
Mede Col. Lib. 2. Cap.* 5 I.

**ALBUM is** also a Name of many compound Medicines, as,  
ALBUM SEVERI COLLYRIUM. *The White Collyrium  
of Severus,* much recommended by Aetius, is prepared of the  
Juice of Fenugreek, Cadmis, Ceruss, and Gum Tragacanth,  
*Aetius, Totr.* 2. *Serm.* 3. *Cap..lQ2. '*

ALBUM UNGUENTUM. This is commonly called  
*Unguentum Album Phasis,* and is thus ordered in the College..  
Dispensatory:

Take of Oil of Roses nine Ouncesof Ceruss carefully  
washed in Rose-water, and powdered, three Ounces ; of  
. white Wax two Ounces. After the Wax is melted in the

Oil, sift in the Ceruss after it hath been well dried from im  
Washing, first in common, and then in Rose-water, so  
'that, together, they may he made into an Ointment, S. A.  
To which add two Drams of Camphire, rubbed with a  
sew Drops of Oil of Almonds, and then it is called the  
*Camphorated white Ointment: ' ... -*

There is a Very different Ointment in *rNiorPharmacopcria Pa.,  
gia,* under the same Tide, and which too is ordered at Pleasure  
to he camphorated i But that hath not been thought worth any  
one's Prescription, fince Avicen likewise directs one under the  
same Name, which the Augustane Dispensatory hath got, where-  
in Litharge is made an Ingredient, and the White of EggS  
beat into it ; but that also now is quite laid aside. That which  
is here retained is attributed to Phases, whose Compositions are  
generally more uniform, and simple, than any of the Arabians.  
But our wholesale Dealers in Medicine, have learned grieVoufly  
to corrupt is, by using Hog's Lard, for the Oil of Roses, and  
Wax, which greatly frustrates the Intention of the Medicine as  
a Cooler ; insomuch, that it may not he unworthy the par-  
ticularCare of a Prescriber, to enquire into this Matter, when  
any Stress is laid upon this Medicine, which is the most com-  
monly used of any *os* this Intention, *quints.s Notes.*

The *Unguentum Album,* of the*' Edinburgh Disipensotory, is*something different from the preceding.

Take of unripe Oil Olive three Pints ; Of Ceruss, a Pound ;  
of white Wax, nine Ounces ; and mix them together an-  
cording to Art, so as to make an Unguent.

ALBUMOR is also sometimes used to signify the same aS  
ALBUMEN, *The White of cm Egg.*

ALBUMEN. *The White of an Egg.*

*As* the White of the Egg supplies the Foetus of Birds with its  
first Nourishment, and bears a great Analogy to the Serum of  
the Blood, it becomes a Matter of some Importance to.be well  
acquainted with its Nature,

The *Albumen,* says Fabricius, called the *Ovi Albus Liquer* by  
Pliny ; *Ovi Candidum,* by Celsos ; *Ovi Aldur-,* ha \* Pallad im.  
*Oui Album,* and *Albamentum,* by Apicius . by. Aristotle, ’An  
λφύκωμα ; by Anaxagoras, ῥαςδφ. γἀλω, *the Melk of Birds.* It is

'a cold,' viscous, white Liquor of the Egg. differing in Const-  
i stance, for towards the acute and obtuse Parts of the Egg, iris  
more liquid, in other Parts os a more dense Consistence, and  
likewise in Distribution, heing more copious towards the obtuse,  
than towards the acute Part of the Egg, and more copious in

I this last, than in the other Pans of the Egg, surrounding and  
..covering the Vitellus, or Yolk, on all Sides;

I heve not only observed this Difference in the *Albumen*of an Egg; but also that there are two *Albumens* different  
from each other, and involved in their proper Membranes:  
Of these, one is Very thin and liquid, the other more dense and  
Viscous; and of a somewhat whiter Colour; but in old and  
stale Eggs, after some Days Incubation, inclining to a Yellow.  
As this second *Albumen* covers the Vitellus or Yolk on all Sides,  
so it is itself surrounded by the other external Liquid. That  
these two *Albumina* are distinct, will thus appear: If you take  
off the Shell, and penetrate both the adjacent Membranes, you  
will fife the Liquid and. exterior *Albumen* immediately all run  
out ; but though these Membranes are opened, and reclined on  
each Sides upon the Dish, yet the interior and denser *Albumen*will keep its Place. and globous Figure, as heing circumscribed  
within its proper Membrane, which is so fine, aS not th be  
discerned by the naked Eye. If *you cut* this Membrane, the se-  
cond *Albumen* will instantly sty out on all Sides, and lose its round -  
Figure, just as when you cut a Bladder the contained Liquor  
hursts outon a sudden ; and when you break the Membrane that  
holds the Vitellus, the yellow Liquor runs out, and its former  
Globosity subsides. *Hiarvarus de Generat. Animal. Excrcit.* Ii.  
.. As the Eggs of Hens consist of two Liquors, each of a dif-  
ferent Colour, separated from one another by Membranes, and  
distinguished hy two Branches *of* umbilical Veins, one of which  
goes to the Vitellus, and the other to the *Albumen,* so it is Very  
probable they are os different Natures, and consequently, ap-  
pointed for different Purposes : " The Vitellus of the Egg,  
" says Aristotie, differs from the *Albumen,* not only in Colour,  
" but in other Properties. The Vitellus is condensed by Cold,

-." the *Albumen* is rather liquefied. On the contrary, the *Allcu-  
" men* is condensed by Fire, the Vitellus retains its Softness, if it  
" he not burnt; and concretes, and dries, more in boiling,  
" than in roasting.0 - When the Vitellus grows warm with  
Incubation, it becomes more humid; and like melting Wax,  
er Fat, whence it takes up more Space ; for, as the Foetus in-  
creases; the *Albumen* insensibly wastes away, and condenses;  
ihe Vitellus, omthe contrary, seems to have lost little or nothing  
os its Bulk, when the Foetus is perfected, and - only appears

. more liquid and humid, when the Abdomen Of the Foetus he-  
. gins to he formed. .........

' The Chick in the Egg is first nourished by the *Albumen,*- and, when this is consumed, by the Vitellus, aS with Milk.

Therefore the umbilical. Process of Veins that goes to the *Albu-  
men,* when shut is spent, withers, and breaks off before the  
Birth, leaving ho Sign hehind it, but Vanishing even hefore the  
si lower Belly comes to he hounded with an Abdomen.

- 'Both the *Albumina,* are designed for Nutrition, and the  
Outer one is first, consumed, as heing the first thet receives the  
Umbilical Branch of Veins, that Visit the *Albumina* hefore they  
enter the Vitellus, which is the last NourishmeritOs the Clunk»  
*Harvceus de General. Animal. Exerc it.*

The *Albumen* is contained in concentrical Membranes, but  
is not all of the same Consistence; for the exterior Part os it id  
thin, and diffuses itself almost like Water, when the Mem-  
branes are broke, whereas its interior Part is more Viscous,

It can make its Way through the Shell, as it appears from  
Its Wasting by keeping, especially if it is exposed to a gentle  
Heat. ’

It Is specifically lighter than the Vitellus, . ss

By Incubation, the *Albumen* becomes thinner, and more  
turbid, especially on its upper Part, near the obtuse End, where  
it is also first consumed ; and it is afterwards diminished towards  
ν the sharp End of the Egg, till at last nothing of it is less, except  
a white cretaceous Substance at the lower Part of the Shell..

' The *Albumen os* a fecundated Egg is as sweet and free from  
Corruption,; during all the Time of Incubation, as it is' .in a  
new-laid egg. *Edinburgh Medical sisseys. ' .*

Boerhaave has given some Experiments on the White of ati  
Egg, and immediately afterwards, nearly the same Experiments  
on the Serum of Blood, with a View of shewing the Similitude  
there is betwixt the two Substances just mentioned. These I  
shall insert in this Place, as they wist contribute much to our  
Information, with respect to many Things relative, not only  
to the Whites of Eggs, but also to the Effects of Heat upon nuil  
tritious Juices. - ' -

**EXPERIMENTS upon the WHITES of EGGS, in order** to  
**prove them neither ALCALINE, ACID, nor in any Degree  
AcRIMONIOUs.**

Put some Whites os new-laid Eggs,, well cleared from their  
Shells, Membranes, and Yolks, into clean glass Vessels. Into  
each of these pour different Acids, then shake and mix -them

well together, and there will not in any of them appear the least  
Sign of an Effervescence Put into another Glass, wherein is a  
Portion of the same Whites os Eggs, a fixed, and into another  
a Volatile Alcali, and you will find them continue perfectly at  
Rest, without discovering the least Tendency to ebullition. ;

If the fresh Whites os Eggs are put into a Cucurbit, and di-  
stilled with a Heat of a hundred Degrees, an Insipid Water  
comes over, which contains nothing in the least spirituous. If  
these Whites of Eggs are applied to the Eye, or the bare Nerves;  
they do not excite the least Degree of Pain; they scarcely affect  
the Organs of Smell ; applied to the Tongue, they taste perfect-  
ly insipid, and inert, and to the Touch they feel Viscid, and mu-  
cons, without the least Indication of Activity.

***s* REMARKS.**

Hence it is evident, that in the fresh White of art Egg, nei-  
ther an Alcali, nor an Acid exists, nor any Thing formed by a  
Combination of these two together. But it js a thick, viscid Li-  
quid, utterly inert, and perfectly insipid. It appears, however,  
that by this truly animal Fluid, within the Space of twenty-one  
Days, and in a Heat of ninety-three Degrees, a Chicken is  
formed by Incubation under, the Hen, which weighs more than  
an Ounce/ and this from a Body so small, that it scarcely weighs  
the hundredth Part of a Grain. Here then we find a Fluid  
different from all others, out of which, by the Application of re-  
quisite Causes, Fibres, Membranes, Vessels, Viscera, .Muscles,  
Bones, Cartilages, all the Parts both tendinous, and ligamentous,  
the Beak, Claws, and Feathers, and all the Humours contained  
in all .these are produced. And yet in this Liquid we find a  
Softness and Inactivity, without the least Appearance of any  
Thing either acid, alcaline, or spirituous, or any Disposition toad  
Effervescence. And indeed, is there should happen any Effer-  
vescence, the Egg must unavoidably burst.- The whole Suh-  
stance therefore consists of such a Matter as has been described,:  
and demonstrates to us from how tenacious and inactive a Mash .  
all the Parts of the Chicken, both solid and fluid, may he formed.  
And yet this Very Substance, hy a somewhat greater Degree of  
Heat, is rendered absolutely unfit for the Production os a Chicken,"  
it scarcely bearing a hnndred Degrees to any good Purpose, whilst  
a little less proves equally prejudicial, sewer than eighty Degrees  
not heing sufficient. .....

The ingenious Malpighi has demonstrated, that this White of .  
the Egg is not a Liquid every where equally fluid, like the Sei  
rum of the Blood, which circulates through the Vefleis of the  
Body, hut that it is a Substance composed of many mem-  
branous Bags which are distinct, and filled with their proper  
Fluids almost in the same Manner as we observe the vitreous Hu-  
mour of the Eye to he formed. And hence those Waves, as it  
were, concentric to the Sacculus Colliquamenti, by which the  
nutritious Juice heing gradually attenuated, is at last strained in-  
to the Amnios of the Chicken.

**EXPERIMENT tending to shew the ANALOGY betwixt the  
SERUM of the BLOOD, and the WHITE of an EGG.**

If Blood, drawn with a free Stream from a young Person in  
Health, whilstTasting, is immediately set to rest in a clean Ves-  
sel, it soon spontaheoufly separates into two Parts, a concreted  
solid Cake, and a fluid, yellowish, thin Serum, which perpetual-  
ly increases for a considerable Tithe, whilst the Mass remains  
without Motion; Let this Serum be separated froth the red con-  
creted Part as accurately as is possible, and divide it into separate  
clean Vessels. Tnto one. Portion .of st pour some of the strong  
gest Vinegar; into another Spirit of Salt; into a third Spirit of  
Nitre.;, and into 4fourth Oil.of Vitriol; and you will observe  
that neither os the Mixtures discover the least Effervescence. .

To a Portion of. Serum in another Vessel add a fired Alcali;  
and to another a Volatile Alcali; and the Consequence will he,  
that in both Cases they will remain perfectly at Rest, without  
the least Conflict, or Appearance of Ebullition.

This Servin basin Taste, which is mild, and but Very little inj  
dinable to Saltness. It diffuses a Smell which is disagreeable,  
but by no Means acrid or Very active. If a Drop of it is. in-  
stilled warm intoyhe Eye, it excites,no painful Sensation, but in  
one of the most speedy LenientS ip Inflammations and Wounds  
of that Part. And if it is applied to the Nerves laid bare irf  
- Ulcers, or Wounds, itis scarcely perheiVed.’

**REMARKS?**

This plastic Serum is soft and inert, perfectly lilre the White  
os an Egg ; and as out of that ate formed all the Paris os 3 -  
Chicken, so this furnishes all the Parts of the human Body with  
Nutriment. - . . .

**EXPERIMENTS on the WHITES of EGGS with HOT  
- WATER. ‘ ...**

If an Egg Is exposed to a continual Heat of eighty Degrees,  
the White soon loses its Tenacity and Thickness, and hecomess  
so subtile as to perspire through the great End, where the Mem-  
branes heing separated from the Shell, areoepreffed towards the

Yolk, and form a large Cavity. The other Part of the White  
at the same Time will he dissolved, grow thin, and ichorous,  
nor will it afterwards harden with the Heat of helling Water,  
but becomes foetid, putrid, and Very acrid, and destroys the Vital  
Stamina of the Chicken.

The fresh White of an Egg thrown into Water heated to a  
hundred and sixty Degrees, loses its Pellucidity, grows white  
and opake, and becomes concreted into one thick, scissile Mass-  
Or if into Water helling in a glass Urinal you drop a little  
White, it will he coagulated furprifingly, eVen during the Mo-  
lion of the boiling Fluid, though it is agitated about by it to.  
every Side. Or, lastly, if you put a whole Egg .into Water  
as hot, it will he hardened in the fame Manner. Hence there-  
fore it appears, that this Coagulation does not arise from any  
Loss of the Liquid of the White, dissipated by this Heat, but  
from the true Action of the Fire applied in such a Degree ; for  
it happens in the Middle os the Water. And if you put the  
White into a large Quantity of cold Water, it will harden and  
separate itself from the Water as soon as it begins to he near boil-  
Ing.' . ἐν

If an Egg is boiled till it is very hard, and you then accurate-  
ly separate the White from the Membranes, Tread, Yolk, and  
Sacculus Colliquamenti, and lay it in a glazed Bason, it hegins  
gradually to sweat, as it were, and to be resolved into a subtile  
Liquid, which appears of a watery Nature, but is a most pene-  
trating Solvent, insinuating itself into the Body of Myrrh and  
Other Substances, that are otherwise dissolved with Difficulty.

**REM ARKS.**

By this Experiment then we learn, how that Matter is dis-  
posed with Regard to Heat, out of which all the animal Parts  
without Exception may he formed in a short Space of Time.  
IVe see here that a certain Degree os Heat dissolves it, that  
**a** greater coagulates it, and that a less again resolves it, when  
It is coagulated. All these Things therefore are owing to de-  
termined Degrees of Heat, without a proper Regard to which  
nothing can be asserted that will always here hold true. And it  
will appear still farther, that a Heat exceeding two hundred  
twenty-four Degrees will attenuate and dissolve this Coagula-  
tion brought about by a less Heat. Hence, therefore, let us be  
warned to conclude more cautioufly concerning the dissolving or  
coagulating Power of Fire with Regard to plastic, nutritious  
Humours, or the Degrees of Heat necessary to attenuate, putre-  
fy, inipiflate, or again resolve them.

**v EXPERIMENTS on the SERUM of the BLOOD with HOT  
WAT Ek.**

Pour Serum of the Blood into clean Water, boiling on the  
Fire, it immediately grows white, and a Kind os Coagulation is  
formed tn the Middle of the Water. In this Property, there-  
fore, Serum agrees with the White of an Egg, though it must he  
observed, that the White of an Egg forms a more solid Coagula-  
tion than the Serum of the Blood. .. '

**. . REMARKS; . \_ \_**

Hence then the Effects of Heat upon Seniin of the Blood are  
manifest; hence also we may learn how helling Water acts upon  
. - the Humours when it is applied to, and consequently burns the  
Parts of a living Body. It is plain, that by that Means nei-  
ther the saline Parts, nor the Oiis of the Blood are rendered Vola-  
tile. .

**EXAMINATION ofine SERUM Qf the BLOoD with a DRY**

' . HEAT'.

- Take forne Serum Of Blood, put it into a clean Vestel, and  
gradually expose it to the Fire, and when it begins to smoke, that  
Part which is in Contact with the Vessel, will grow opake and  
white, and coagulate; and thus proceeding successively, 'the  
whole Serum will at last be hardened into a white, tenacious,  
opake, scissile Mass, lying in Waves, as it were, in the Middle  
**of** the Surface, perfectly solid, os a mild Taste, like that os  
the White of R boiled Egg, and almost without Smell. Tf this  
Mass is kept in the open Air, a thin watery Liquid gradually  
exsudes, perfectly in the same Manner again, as it happens in the  
boiled White of an Lgg And here, if the Coagulation is made  
with a proper Degree os Fire, that is,, with such a one as will  
just effect it, and no’more, it will then harden without any  
Empyreuma, without expelling any Salt, and without the least  
Appearance os an Alcali. When it.is once consolidated in this  
Manner, it can scarcely he by any other Means resolved. \* .

**REMARKS.**

Hence it appears, that in a certain Degree of Heat, not much  
exceeding a hundred, all. our Humours, will he reduced.into  
Masses, that will not he able to. pass through their Vesseis. A  
Heat, therefore, os a littie above a hundred Degrees, arifing  
either from an internal or external Cause, cannot he supported in  
the human Body, because it would utterly stop the Circulation  
Os the Humours, and consequently cause immediate Death. And

the Effects Of such a Heat would he first sensible in the Head and  
Lunas, because their proper Actions would he first disturbed.

**EXAMINATION of the WHITE of en Egg with AL-**

**COH01.1**

Put the White of an Egg into a transparent Vest'd, upon  
which pour some of the purest Alcohol os Wine, in fuch a  
Manner that it runs very gentiy down the Sides upon the White ;  
and this do Very carefully, that you may evidently perceive that  
every Part of the Surface hecomes coagulated, as the Alcohol  
touches it, whilst the lower Part still continues liquid and pel-  
lucid. Then shake them gently together, the Coagulation still  
spreads with the Alcohol; and .by shaking them thoroughly, and  
mixing them well together, the White is intirely coagulated.  
If the Alcohol is heated hesore the Experiment is made, the  
Coagulation is effected in a greater Degree, and the same Effect  
is produced, by shaking rhe *Albumen,* and Alcohol together with  
Rapidity, the Heat and Motion here promoting the Coagula-  
tion.

**RE MARKS.**

Hence it appears, that the purest vegetable Spirits coagulate  
that plastic Matter which is the Basis of Nutrition; and certain-  
ly in that Instant of Time it hecomes absolutely unfit to per-  
form its Office. This Admixture, however, os Alcohol pre-  
serves the White from Putrefaction. How much then does the  
plastic Matter of Animals tend towards Coagulation r Whet,  
unexpected Powers does the too great Depuration os some Bo-  
dies produce in them ? Wine will suffer itself to be mixed with  
this White ; the Alcohol produced from it becomes coagulated  
with the coagulated White; and yet Alcohol diluted with a  
pretty deal of Water will not coagulate it.

**EXAMINATION of the SERUM of the BLOOD with AL--  
COHOL.**

To Serum, contained in a transparent Glass, pour some Very  
pure cold Alcohol, and immediately, in those Parts which it  
touches, the Serum begins to grow turbid, white, and opake.  
Shake them together, the same Thing happens throughout, and -  
- the Whole becomes coagulated,, though not so strongly as **the**White of an Egg, but in Pieces, cohering less firmly together.  
If Alcohol is mixed with it Very hot, the Coagulation becomes  
much more solid. When the Serum is coagulated in this Man-  
ner by Alcohol, it will never grow putrid, but may he kept for  
Years without Alteration.

**RE MARK sa-**

Here then we observe a farther Analogy betwixt the Serurft  
of our Blond, and the White os an Egg; that is, in their Coa-  
gulation by Alcohol. That the Serum is not consolidated by  
the Alcohol into so dense a Mass'aS theWfiite of an Egg, seems  
to be owing to the original greater Solidity of the White. For  
the White which contains all the Matter of Nourishment which  
is conveyed to the Chicken, so long as it continues inclosed in  
the Shell, has nothing putrid in it, nor is it much diluted j  
whereas the Serum of the Blood contains both urinous Particles,  
and a large Portion of Water; but Alcohol, diluted with Wa-  
ter, will not condense the Serum in such a Manner, nor even  
the White of an Egg. Hence we may learn the Efficacy of  
pure Alcohol upon our Blood, for it condenses it like Fire, and  
preserves it from a spontaneous Corruption, on both which Ac..  
Counts it is the most ready Styptic we are acquainted with, at  
the same Time that it prevents Putrefaction, producing a Very  
thin, indeed, but solid Eschar. For if a Tent dipped in the  
purest Alcohol made scalding hot, is' applied to a bleeding  
Wound, pressed on pretty strongly, covered with a Piece of  
Hogs.Bladder softened with Oil, and then secured with a pro-  
per Bandage, the Haemorrhage will be immediately stopped,  
‘ and the whole Dressing may he kept on for the Space of three  
Days, ‘in which Time the Vesieis generally coalesce, heing very  
much contracted and consolidated by the Alcohol. Thus then  
does Alcohol coagulate all our thicker Fluids, contract the fibrous  
Parts into a hard dry Coalition, and defend both *of* them from  
the Putrefaction they are naturally disposed to. A famous In-  
stance of this is communicated by that, excellent Physician,  
Samuel Cahelliau, in a Leg that was perfectly sphacelated, which  
by the Help of Spirit of Turpentine, and alcoholisated Spirits of  
Juniper, was preserved from Extirpation for the Space of six  
Months,. without any farther Putrefaction. *Eph. Germ. Dee.* 3.  
*An.* 5 and 6. T. 495. But those Parts of the Body that are com-  
posed of exceeding fine Vessels, soon grow hard in Alcohol, to-  
gether with their contained Humours. No Wonder therefore,  
that those poor Wretches who use this Alcohol, though some-  
what diluted, too freely, should he obnoxious. to such terrible  
Disorders of the Nerves, and Polypuses in the Blood.

**The fresh WHITES os EGGS resolved by DISTILLATION.**

Boil some new-laid Eggs in clean Water, till they are hard,  
and then accurately separate the Whites, and chop them to  
Pieces. Put these into a clean glass Cucurbit, and fitting on an

Alembic apply a Receiver. Place the whole Cucurbit in **a**Bath of Water, and urge it he successive Degrees, till the Wa-  
ter in the Bath keeps constantly helling. By this Means there  
do not appear any Sneaks like those of Spirits, but there  
comes off a simple Water discovering itfels in dewy Drops,  
and that in fuch an incredible Quantity, as to rife to nine  
Tenths of the whole Weight of the original Mass. Continue  
patiently this Distillation with the Heat of coiling Water, till  
.not a Drop more of this Liquor will rise. This Water then,  
upon Examination, discovers no Sign of any Oil, Salt, or Spi-  
rits in it. It is very pellucid and insipid, except that towards  
the letter End it tastes a little bitterish, and, is almost inodor-  
ous, except that at fast it smells a little empyreumatical. Nor  
does there appear the least Sign of any Alcali, though exa-  
.mined by proper Experiments; nor by any Trial does it dis-  
cover an Acid. A very small Quantity, in Proportion to what  
was put in, remains at the Bottom of the Cucurbit, each Frag.  
ment being contracted into a small Bulk from their former Magni-  
tude; and they are of a golden Colour, especially in those Parts  
which were in Contact with the Grass, but yet they are transpa-  
rent, like stained Glass. When taken out of the Cucurbit,they  
-appear to he light, hard, and perfectiy brittle, so that they break  
with a Noise like Glass, and have a flight empyreumatical Smell,  
and a bitterish Taste, occasioned by the Fine, but are by no Means  
hither alcaline or acid.

Fill a glass Retort one Third full with the Fragments above-  
mentioned, apply a large Receiver, place the Retort in a Sand-  
heat, carefully lute the Joint, and then distil with successive  
Degrees of Fire to the very greatest, called a fuppresting Heat.  
.By this Means a pinguious, oily Spirit arises, which runs down  
in Streaks, and at the fame Time a volatile Salt sixes itself  
to the Sides of the Receiver, considerable in Quantity, with  
Regard to the dried Fragments, but little in Comparison of the  
whole Whites hesore the Water was drawn off. Last of all,  
.hesides a light gold-coloured Oil, mixed with the former Parts,  
there comes over a biack, thick, pitchy Oil ; and when this  
last Oil is forced out by the extreme Torture of the Fire, then  
the Earth at the Bottom of the Retort, still intimately united  
.with its ultimate, exceeding tenacious Oil, rarefies, puffs up,  
and rises to the Neck of the Retort, and, if it happens to he  
silled too full, enters into the Neck, and choaks it up, and  
hence has sometimes caused the Vessels to burst, not without  
Danger to the Operator. Continue the Operation till nothing  
more comes over. The first olly, pinguious Spirit appears  
. strongly alcaline, by every Mark; thus, upon being mixed with  
an Acid, it causes a very violent Effervescence. By Rectification  
it is resolved into a volatile alcaline Salt, an Orl/and an inert  
foetid Water. The Salt that adheres to the Sides, is, perfectiy  
alcaline, very acrid, fiery, oily, and voiatile, and the last Oil  
'is amid, caustic, and remarkably foetid. The Earth that re-  
mains at the Bottom of the Retort, is exceeding black, shining,  
light, rare, and brittle, and has a foetid Smell from the empy-

ieumatical Oil that is united with it, and a bitter Taste from .  
the same. If this is burnt in an open Fire, it leaves a llttle  
fixed, white, insipid, inodorous Earth, from which no Salt can  
he procured, exhibiting only an exceeding subtile Powders

**REMARKS.** /7.;

Hence it is evident, that the White of an Egg contains a  
very large Proportion of Water, but that it has in it not the least  
Portion of an AIcali, which wlll rise even with a Heat of two  
hundred and twelve Degrees. That Matter therefore, which by a  
greater Degree of Heat is converted into a voiatile Aleali, is  
not by one of two hundred and twelve Degrees, though very  
considerable; dispofed either to he alcaline or voiatile. Hence  
therefore it may be inferred, that there is no volatlle Salt na-  
turally contained in it ; *for,* inChymistry, that is called a vo-  
latile Sait which is more so than Water, and rises with a much  
less Degree of Fire. Nor do we discover any Spirit, that rises  
with the Heat of helling Water; nor any Oil that suffers itself  
to he separated by the same; nor indeed is the Residuum, after  
the watery Part is drawn off, so altered by this Action of the  
Tire, as to give the least Indication of its containing.any Salt;  
but, the more liquidParts heing expelled,itfpontaneousty acquires  
. the Appearance of a brittle Glass. By this Experiment there.

fore, we learn, that a voiatile Salt may he produced from the  
White of an Egg, het does not naturally exist there in that  
Form ;. for when this Sdlt is, by a proper Degree of Fire, so.  
parated from the rest of the Mass, and become voiatile; it will  
then rife with a Heat of sixty Degrees, though, it was .not to  
be raised hesore by one of ttuee hundred. That Volatllity  
therefore is not natural to the Salt of the *Albumen,* but. is  
communicated to it by Fire; and this is true allo with Re-  
speck to its alcaline Quality. And hence we discover, the tens.  
clous Adhesion os the Oil to the more fixed Parts of the White,  
whilst the Water is separated from them very easily.; and we  
also see, that an animal Coal will never part with all its Oil in  
a olose Vessel, but that it adheres so obstinately to the terrestrial  
Elements, that no Fine, except in the open Air, can destroy  
the Union. From whet has been said then, we may he en-

abled to form just Notions concerning this Matter of the While  
of an Egg, from which all the Parts of the Animal are afen-  
wards produced.

**. PUTREFACTICN of the WHITES** *of* **EGOS. i**

Sound Eggs, or their Whites, when kept in a Heat of seventr  
Degrees, or upwards, begin in a few Days t0 5.. amem-ated;  
grow foetid, dissolve, and putrefy,'and at the same Time, jf  
the ESS5 are whole, they begin to grow empty abont the large  
End, and, if they are then helled, will net harden, but retain  
their Fluidity. And this Change happens rnueb former in thole  
Eggs which are impregnated, than in those which ami not.  
for in these the greatest Part of the putrid Moisture exhales,  
fo that at last the whole Shell almost is filled only With Wind  
or Air. If you continue to keep the Eggs or Whites in the  
same Degree of Heat, at last all the Parts grow surprisingly  
putrid, and alealine, cause an Efferveseence with Acids, and, \*  
. inr Distillation the first Part that rises from them is an alca-  
line Spirit, and an alcaline Salt, exactiy in the seme Manner as  
in putrefied Urine. If the White is suffered to putrefy in the  
open Air, it becomes almost totally volatile, exhaling in Pro-  
portion as the Putrefaction advances, and at last leaving nothing  
behind abut a sew Skins, all the rest being dissipated into, rhe  
.Air. In all these Experiments there is never generated the least  
Portion *of Acid.* . ι

**: REMARKS. .... . - .**

If a little Quantity of Egg,.putrefied to such a Degree as to  
become of an alcaline Nature, is taken into the human Body;  
it produces there very extraordinary Effects, exciting a Nausea;  
Horror, Vomiting, great Uneasiness, a Diarrhoea, and  
Gripingsj inflaming the Bile, and exciting Heat, Thirst, and  
a Fever, and by its putrid Exhalation only it induces a Hor-  
ror, Nausea, and Vertigo, and wonderfully dissolves the Hua.  
incurs of .the Body like 'a pestilential Poison. This, therefore,  
we know to he the. Nature of that Matter, which‘is nearly inci  
State sit to heing changed into all the Parts of an animal Body.  
Rest only, and fuch a Degree of Heat as has .been specified, pro-  
duce all these Qualities-in that Substance. Hence therefore we  
learn its spontaneous Alteration and -Corruption. But it is far-  
ther very surprising, that if an impregnated Egg is digested in  
a proper Stove, with a Heat of ninety-two Degrees, the Parts  
that are attenuated and altered by this Heat, are spent for the  
Space.of twenty-one Days in nourishing, increasing, and per-  
fecting a Chicken, in which there does not appear anyTIaing  
alcaline, foetid, or putrid. - Here then the Physician may-oh-  
; serve some very wonderful Phenomena ; for by Rest, anil  
,a certain Degree of Heat, a Substance from thick becomes  
thin , from tenacious, liquid ; from inodorous, foetid ; from  
insipid, of a fracid, very acrid, abominable Taste; from ei.  
ccedingly mild, caustic ; from non-alcaline, extremely alca-  
-lihe v whilst the latent Oil which was sweet, grows extremely  
putrid. Thefe Experiments are made in Particular upon the  
Whites of Eggs, the other Parts, where it could he done,  
being accurately separated from them, hecause the White alone  
is that Matter which supplies the Embryo with Nourishment;  
allsbe other Parts assisting only to the Alteration of the White,  
that, when it is changed in- a proper Manner, it may be applied  
to the Carina of the Chicken that is to he brought to Perfec-  
tion by it. - -I-

**. TUTREFACTIoa of the SERUM .pi BLoop.**

-Serum put into-a tall open Glass, and exposed to a Heat of  
-seventy Degrees; will grow every Hour more and more thin,  
so as in the Spaceof threeor sour Days to-be quite resolved and  
famous. At the fame Time also, from heing almost inodoroui,-  
-it incomes foetid, and exhalesa cadaverous Stench ; from heing.  
insipid; .it acquires a fraold, rancid, acrid, abominable Taste ;  
and, if it is kept in this Degree of Heat a few Days, it grows  
alcaline, putrid, arid intolerable to our Senses, evidently dis-  
covering its alealine Nature, by raising an Effervescence with  
.Acids.- - If it is committed under these Circumstances to Di-  
stillation, it yields the first. Time a volatile alcaline\* Salt,-  
exactiy like the White of Eggs, treated in the same .Man.  
mer. ''

REMAERs. .

Hence then we observe,, that Serum- when exposed to the  
'Observation of our Senses, by Rest, and the Degrees of-Heat  
mentioned, becomes spontaneously thinner. When it stag,  
nates therefore in the obstructs! Vessels of a sick Person, by  
a gentle Heat, and'Time, it dissolves os itself, and often  
opens the Vessels it hed obstructsd. i Hence in acute inflam,  
rnatory Disorders, when the Body is reduced to a moderate  
Heat, ina certain Number of Days, the obstructing Matter he.  
comes capable of circulating in its Vessels, as in Practice !,  
every Day observed.. Duringthe Alterations the Seruru under-  
goes in this Experiment, rt never becomes add, whatever the  
greatest Artists write to the contrary, but .always grows putrid.  
Not .do we ever observe the least Slain of Fermentation, whet-

evur Arts are made Use of in order to raise one, but a defer-  
mined Putrefaction only. It must indeed he confessed, that  
by thus putrefying it rarefies and produces an elastin Air that  
sties off from it, but not one that is fermentative, and spirituous.  
Nor are there any fermented inflammable-Spirits generated by  
this Putrefaction, hut putrid Spirits, of another Kind, which  
are, however, volatile, and capable of taking Fire. For Ex-  
xreinents, close stopped up in a Jakes, and compressed together,  
have fometimes conceived a strong intestine Motion, and at the  
same Time have exhaled an extremely foetid Vapour, which,  
upon the Application of a Candle, haS burst out into a violent  
Flame. From the same Cause sometimes a Heat and Rarefac-  
tion have been excited in a dead human Body, about the Abdo-  
men only, and that not very considerable. From what has been  
said then, the Physician may learn the spontaneous Degene-  
ration of the Humours, when they stagnate, either in their  
Veffeis, or in the Cavities of the Body when extravasated.  
Py acid, compound, saline, and spirituous Bodies, however, this  
Putrefaction may he prevented.

,. By the foregoing Experiments, which seem made with great  
Judgment and Accuracy, we are taught that a great Similitude  
exists betwixt the *Albumen* of an Egg, and the Serum of the  
Plood. Now, as the White of an Egg has all the Requisites  
to the Formation of an animal Body, that is, to Nutrition,  
when properly applied by the vital Actions to the Parts which  
require it, and this without any previous Digestion by the  
Stomach, it must necessarily he one of the most proper Ali-  
inents in the World, In morbid Cafes, where the digestive Or-  
gans are relaxed and weak, where the Fibres of the whole  
Body want a due Tension, and Elasticity, and where con-  
sequently Restoratives are indicated. But in order to answer

\* any good' Purpose in this View, it must he given fresh, raw,  
and without the Application of the least Heat, for Heat, as  
appears by the foregoing Experiments, renders it unfit for  
Nutrition ; the genial and plastic Warmth of the Body bring  
all that is required to apply it Io the Parts which require  
Nourishment.

It is to he given in a little Milk and Water, or Broth, or  
may he taken alone, well separated from the Yolk.

It is recommended for many medicinal Purposes, aS. will ap-  
Pear by the following Quotations. . ' . τ .:

The raw *Albumen,* or White of an Egg, refrigerates, stops  
tip the Pores; instilled into the Eyes, mitigates an Inflam-

.. Ination there; prevents Pustules from rising after Scalds or  
Burns, if the Place he immediately anointed with it. It keeps

. the Face from Sun-burning; applied with Frankincense, as an  
Anacollema, to the Forehead, it. restrains Defiuxions ; mixed

. with Wine, Honey, and Oil of Roses, and applied in Wool,  
it mitigates an Inflammation of the Eyes. Supped raw, it. is

. good against the Bite of the Serpent Haemorrhois. Used with  
.the least Degree of Warmth, it is effectual in Corrosions of  
. the Bladder, Ulcerations of the KidnieS, Roughness osethe As-  
pera Arteris, Vomiting of Blood, and Distillations, or Destu-  
xions, on the Breast. *Diofcorides, L. 2.C.* I55.

The White os an Egg has a refrigerating, astringent,: and  
agglutinating Quality. . "

It is frequently used for Redness os the Eyes, to conglutinate  
Wounds, mixed with common Bole, and in Fractures. It is .of  
Service also invAnacollemas. See **ANACOLLEMA.** i

Hippocrates prescribes three or four Whites of Eggs in Fevers  
for Refrigeration, and the Expulsion of the morbific Matter.

The Yolk of an Egg is endued with an anodyne, maturating  
digesting, and relaxing Virtue. Hence it is very often an In-  
gredient in Clysters, and, mixed with a little Salt, is commonly  
applied, in a Walnut-shell, to the Navels *.of* Infants in order  
to loosen the Belly.

They make a Drink of it, which the German Women com-  
inonly use in Child-bed ; they call it *Seifs.* It is thus prepared

Take two or four Yolks of Eggs, and one Measure of Wa-  
ter, with half a Measure of Wine (more or less); boil  
them very well together, in order for drinking. *Schroder.  
Pharmacop. Med. Chy.*

" Sydenham advises the Whites of Eggs aS a good Gargarifm in  
a Quinsey, in the following Manner :

Take of distilled Waters of Plantain, red Roses, and Frog-  
'. spawn, of each .three Ounces ; the Whites of three EggS,  
beat to a Liquor; white Sugar, three Drams; mix them  
together for a Gargarism.

. ALBURNUM. The white, soft Part of Wood next the  
Park. Artificers call It the Sap, rd distinguish it from the  
Heart, which is harder, and of a deeper Colour.

ALBURNUS AUSONII, is a little River Fish which re-  
sembles an Anchovy ; with a little Head, its Eyes in Proportion  
large and red, its Baek somewhat green, arid its Belly white,  
with two Lines on the Sides.

It is esteem’d aperitive. *Lemery de Drogues.*

. Ft is esteemed a very ordinary Fish. The Flcssi *stabys  
It.is taken* Notice of by Aldrovandns,

ALBUS. A Sort of very ordinary Fish taken Notice of by  
Aldrovandus, and Gefner. The Flesh is herd, and difficult to  
digest. Gefner casts it *Capito Lacastris.*

ALBUS FLUOR, or FLUxUs. See FLUOR AL EUS.  
ALCADR *IFhile Ink. Rulandas.* Johnson calls it ALCAD Y.  
ALCAFIEL. *Antimony. - Rufandus. '*

ALCAHEST. This is an arbitrary Word derived from no  
Language, and coined by Paracelsus, to express an universal  
Menstruum, or Solvent, aS Heimont explains it. As the Dis-  
covery of such a Menstruum would be *of* infinite Importance to  
Medicine, the Sentiments of the principal Authors who here  
wrote about it, seem to deserve Consideration. But I am sor-  
ry to say, that we are lest at last much in the dark, with Respect  
to this grand Arcanum.

’ Aster the elder Van Helmont had published his Writings, the  
. Chymists began to he acquainted with the History of a secret,  
universal Menstruum, which Paracelsus was said to have pos-  
seised, and which he, according to his extravagant Way, called  
the *Alcahest.* ‘ If any such Thing was ever known to Man, as  
Helmont solemnly avers it was, it certainly ought to he\* esteem-  
ed the most excellent Gist, that the Divine Being eVer bestow-  
ed on Mankind, either with respect to Chymistry, or any  
other Art; for without Dispute it would he infinitely a greater  
Treasure than the Philosophers Stone, and much inore desira-  
ble, as, by the Help of it, might easily he obtained, the most  
certain Instruments, both of Health and Riches. This, with  
a great deal of Reason, was the Opinion os Mr. Boyle, who,  
aster infinite Diligence, and much Skill thereby acquired,  
could scarcely helieve the Existence of such a Menstruum, so  
far was he from arriving at a Knowledge of it. The greatest.  
Chymists, however, have fo far depended upon the Authority  
of Heimont, that they speak of it aS a Thing he was certain-  
sty acquainted with. And here Impostors have taken the Op-  
portunity of cheating People curious of such Kind of Arcana :  
Prudent Men have always remained in Suspence, not daring ab-  
solutely to pronounce any Thing either one Way or other,  
concerning it. For these Reasons, I shall give an historical  
Account of this Affair, just as it is, that is, aS it may be col-  
lected from the Writings of those Authors, who alone have  
wrote of this Menstruum; that at least we may know the Opi-  
nions of those, who tell us, they have possessed, arid made Ufe  
of this Arcanum. Every Thing, however, that Authors have  
said on this Subject, has. been borrowed from Helmont alone ;  
for, from what Paracelsus himself wrote of the *Alcahest,* no Mor-  
tal would eVer have thought of any such Thing, had not  
Heimont. given the Hint, that such great Mysteries were-  
couched under this uncommon Word. AS I am'not Master  
of this Chymical Secret, all, therefore, that I can do, is, by  
carefully examining, and faithfully comparing one Passage with  
another, to lay before you whet is to he found in thefe Au-  
thors upon the Subject of the *Alcahest.-* And if these were real-.  
ly acquainted with it, and design that one who studied their  
Writings attentively, should find it out, I know no hetter  
Way of searching sor it, than that which I have proposed. By  
; this: Means, at least, any one who is inclined to set about this  
grand Work, may know whet Matter he must make Use of,  
by what Instruments he must operate, and in what Method he  
must proceed, that he may not lose both his Labour and.his  
Money. 'And it'will have this further Advantage, that it wist  
secure us from bring cheated by the Artifices of itinerant Impos,  
tors, whose confident Boasts of Things they are not in the  
least acquainted with, render this Caution to the unwary and  
credulous, in some Degree necessary ; for these Pretenders may  
he easily detected by any one 'who is acquainted with the  
Doctrine of Paracelsus, and Van Helmont.

- First, let us consider the Name ALCAHE.ST. This Word,  
hefore Paracelsus, no Body ever made Use of, not eVen among  
the Chymists. And even he himfels, as far aS I have been able  
to discover, never ufed it, but in one Passage, and that in his  
Treatise, *Dr Viribus Membrorum, Lib.* 2. *Cap.* 6. where there  
are these Words: ‘ The Liquor *Alcahest* is of wonderful Effica-  
\* cacy in comforting, strengthening, and preserving the Liver,  
‘ and consequently preserves against Dropsies, and all Sorts of  
‘ Distempers; which arise from Disorders of the Liver. The  
\* Process for its Preparation is by Resolution aster Coagulation,  
e and by Coagulating again into a transmuted Form; as the  
\* Process os coagulating, and resolving, teaches. And if it *sem*‘ parates its like, it becomes a Medicine for the Liver, superior  
c to all Medicines ; .so thet, if the Liver itself were to burst and  
‘ dissolve, this Medicine would supply its Place, as well as if it  
‘ had never been burst or distblved. Whoever therefore apply  
\* themselves to Physic, ought to use their utmost Endeavours to  
‘ he Masters of the Preparation of the *Alcahest,* that they may he  
\* able to avert many Diseases thet arise from the Liver.' go  
that Paracelsus never made Use of this Word but twice, and  
that only in this Place ; nor is there the least Mention of any  
such Thing, either hefore or after, that I could find, by a care-'  
ful Examination ofall his Works. No Mortal, therefore, from  
what he said upon this Head, would ever have thought of this  
grand Arcanum, had not Helmont afterwards added his Inter-  
pretation.

The Derivation, therefore, of this new Word, thus coined  
by Paracelsus, was examined into. And upon considering,  
that it was usual with him to conceal common Words by the  
Transposition of their Letters, it was imagined that was the  
Case here; though sometimes he formed strange Words, by  
joining the Beginnings of different Words together. Thus,  
when he would have you make Use of (Tartarus) Tartar, to  
' resolve the Saburra in the Spleen, he says, *take Suiratar, L.* II.

*De Fir. Memb. C. I.* And again, when for Diseases peculiar to  
the Kidnies, he prescribes Saffron, which, from its golden Co-  
lour, the Chymists called *Aroma Philosophorum,* he says, *these  
Distempers are cured by Areph. Lib.* II. *de Vir. Memb. Cap.* 10.

\* Hence,, therefore, some have thought, that *Alcahost,* signified  
*- Alcali est. Ressinc. Eph. Germ. D. 12. Ann.* 6, 7. Rulandus in  
his Lexicon, Glauber ; and hence supposed, that it has always

’ an Alcali for its Basts, which is then saturated with a proper  
Acid. Others have been of Opinion, that it was called *Alca-*

*. host,* that is, *Staltxgiist,* hecause if the *Alcahost* is the same with  
the *Circulation,* they imagined it was made from SeaSalt, coa-

- gulated, resolved, and coagulated into a transmuted Form.  
But again, others suspected, that it was called *Alcahost, quasi  
Algiist,* or a perfectly pure simple Spirit: This they thought its  
- Process os Coagulation, Resolution, and Coagulating, seemed  
to teach us. And lastly, there is Faheris Opinion, who says,

\* it is a pure, mercurial, metalline Spirit, which is so united with  
its own proper Body, that hence two become one Body, that is  
- inseparable, and indestructible. *Epi. Germ. D. it. Ann.* 8.

’ -deep. 3- This,-then, heing all we can learn from the.Etymolo- .

gy, let us pass on to the Terms, and see, if by comparing them  
. together, we'can get any farther Light into it. Paracelsus him-  
self has lest us no synonymous Name, hut Helmont has a great  
many ; and therefore these, we will, now examine. And in  
short, we have no other Assistance, hesides the Authority of Van  
Heimont alone, who declares, « that the Very same Bottle was  
\* delivered to him.' „ -

That I may explain Helmontis Doctrine, of the *Alcahost, so  
sar aS it* is possible to render it intelligible, I will give the princi-  
pal Passages in this Author, where it. is . mentioned, or any  
Thing said relating to it, and then shall give the Sentiments  
of Boerhaave, by way of Commentary. -

‘ I know a Water, which T do not care to discover, by  
c Means of which, all Vegetables are changed into a distillable  
\* Liquor, without the least Faeces at the Bottom of the Glass;  
\* which Liquor heing distilled, with the Addition of Alcalis,  
\* is reduced into insipid elementary Water. *Helmont, Complex-*

*- \* ionum atque Most ionum elementalium Figmentum, Sect.* 27.

.. \* I put of oaken Coals, and a certain Water, an equal Quan..  
\* y tity, in a Glass hermetically stopped. In three Days; all the  
- \* Chais were turned, by . the Heat of a Bath, into twodiapha-  
. 5 nous Liquors, differing in Gravity and Colour, which heing  
- \* distilled by Sand, with two Degrees of Heat, the Bottom of  
. \* the Glass appeared as clean, as when it came new from the

5 Glass-house; and soon after, the two Liquors ascended in-a  
\* ‘ Bath-heat both together, equiponderating the Mass of Coais;

-4 but thediffolving Liquor remained at the Bottom, keeping its  
- \* own Weight and Virtues. Moreover, the two Liquors,  
' \* mixed with a Very small Quantity os Chalk, by a third Distil-  
1 \* lation, ascended almost with their first Weight, and with all

\* the Qualities os Rain-water. Therefore the Gas of the Coais,  
\* which does not exhale, except the Vessel he open, and Vehe-  
-\*mently heated, together with its Ashes, are no other, ma-

\* terially, than meer Water. For the seminal Property of the  
. \* Concrete which remains in the Gas, by Length of Time, and

\* the Cold, perishes, and the Gas returns to its original Water.  
*i-Hohnont. ib. Sect.* 29.. ....

‘I thought on a Method how .to transfer all my Tribulatinns  
\* on the Heads of Nero and Tiberius; and heing greatly fa-  
. ‘ tigued, I was on a sudden wonderfully refreshed and comforted,  
. \* and sailing into a Kind of Slumher, I found myself in a Pa-  
: \* lace superior to human Architecture,. where, waS an exalted  
\* Throne, environed with an inaccessible Light of Spirits. He  
\* that sat on the Throne was called *Est,* and his Footstool *Na..  
\* ture.* The Keeper of the Gate was named *Understanding,*\* who, without speaking a Word, reached me out a Book,  
*\* Elections.rom Darkness,* the Title of which was, *T.he Bud of  
c the Rose not yet opened.* And though the Door-keeper spoke  
\* not a Word, I knew I must eat it ; I held forth my Hand  
\* therefore, took it, and eat it, and it was of an austere and  
»\*. earthy Savour, so as almost, to stop my Larynx, and it was  
‘ with much Time and Difficulty that I got it down. When  
-\* I had so done, 1 fancied my Head to he diaphanous; after  
. ς which came another Spirit of a higher Order, and gave me a  
t \* Cup, in which was comprehended in a Word, *Ignis Aqua,*

*R* Name purely simple, singular, indeclinable, inseparable,  
\* immutable, and immortal. *Potestas Medicaminum. Sect.* 3.

so It is the *Arbor Vita,* the Tree of Lise alone, that can re\_  
Λ store lost Strength, and make Lise stow on for a certain Space  
\* of Time. But the Difficulty of preparing lies in this, that  
\* the Wood [the Cetim] must he resolved, without a Peso-  
\* lution Of its Virtues, by such a Warmth aS that *os* Sol  
\* Martins, .as far aS ini Ens Primum. For it is on account of

\* these Qualities that it is endued with a fermentative Faculty  
\* of preserving and seasoning, with free Ingress into our .first  
‘ constituent Principles ; and insinuating itself, through the Or-  
\* gans, into the Familiarity os our natural Spirits. Now the  
\* Liquor obtained by such a Resolution has all the Virtues os the  
\* Vital Cedar, together with its seminal Property, and that  
\* which is formative os long Lise. For the whole Mass of  
\* Wood is resolved into a Liquor, which Mass, if it were other-  
‘ wise distilled, would undergo Transmutation, and become ..a  
‘ new Creature; which is sufficiently proved by distilling  
\* Aqua Vitae from Grains os Corn or Lees of Beer ; and also  
‘ by Oil distilled from Wood, and even from the Oil of Olives  
‘ itself. The Manner of Preparation is aS follows : . .

‘ Resolve Fragments os the Wood Cetim with an equal  
« Weight of the Liquor *Alcahost,* in a sealed Glass, oyer a gen..  
\* tie Heat; and within a Week you will see all the Wood dif-  
‘ solved into a milky Liquor. , About the fifteenth Day there  
c .will swim at the Top distinctly two Sorts of Oil, which will  
/ increase in Quantity for a Month, and their Separation ap-  
‘ pear more obvious. Then separate the Oil from the Water  
\* by manual Operation, and distil the Water in a Bath, and the  
\* Liquor *Alcahesi* shall remain, with its first Weight at the Boe-  
‘ tom. But digest the Water and OilJor three Mouths in al  
‘ gentle Heat, and all the .Oil shall, take the Nature of Salt, and  
‘ mix itself with the Water. This is the Ens primum Cedri.  
*Helmont. Arbor Vi ice. . ?i. ... \ -*

‘ The highest and most dignified , os all Salts, is what has  
‘attained the utmost Degree os Purity, and Subtilty,.which  
‘ pervades all Things, is the only Thing that whilst it.acts, re-  
‘ mains itfelf immutable, and which resolves all at Pleasure by R  
( ready Obedience, triumphing over rebellious Matter, with as  
‘ much Ease, as warm Water melts and Volatilises Snow. Hose  
*meat. Potestas Medicaminum. Sect.* 24.

r \* I am taught by spagyric Theorems that a sinall Liquor  
\* may he prepared, which shall keep the Constitutions ofsiim-  
spies uncorrupted without any other Seasoning. *Delmont.  
Pharmacopolium. Sect.* 34. si . i

*. \* Alcahost* reduces all the tangiblePediesosaherUniyerfe to their  
\* first Lise, without any Change in. itself, or Di munition of its  
‘ Virtues, and . can he changed or subjugated by none but its  
\* Equal. *Helmont. Ignota Actio Regiminis. Sect.* II. .

‘ None ever, cured the .Leprosy, who.had not first obtained  
/ the Liquor *Alcahost,* which heing so tedious in Preparation, nd  
‘Man, though he understands the Art, will ever arrive nt  
\* the Possession of it, except whom the Most High, by special  
« Grace, shall, conduct thithej : For he must he elected by *λ*\* peculiar Privilege, and be otherwise qualified, in order to  
.‘ obtain so extraordinary a Medium, by which all sensitive  
\* and insensitive sublunary Things are equally penetrated, eVeri  
‘to the seminal and intrinsic Root os the Primum Ens.;  
st whence it puts all Things under Subjection to it, and changes  
esi them without Reaction of the Patient, or . Depauperation of  
. € the. Agent, and is therefore the same in Number, Weight,  
/..and Activity aster the thousandth. Action, as after the first.  
*Helmont de Lithiasi. Sect. Q.J. de Febribus.* I I.

‘ Take of the Ludus or Cevilla Paracelsi, and the Liquor *Asa  
c cahest,* each one Pint. Distil off the *Alcahost,* and the first  
\* Time all the Ludus will be changed into a Salt which will  
\* run down in a glass Plate set in a moist Place, without any  
. \*. earthy Residuum, and the defluent Liquor will he of a yei-  
.‘ low Colour, and, heing hermetically stopped, will rise ha  
st small Bubbles, like Froth, and swim at the Top in the  
.‘ Form of green melted Pat. And this is the Altholizoini  
\* correctum of Paracelsus, and the Gall of the Eartin Put the  
.‘ Man who thinks he can attain it by an Addition osSalt-petre,  
*A* or the like, must know that such Salts, how osten, or how  
‘carefully soever they are mixed with the LudUS, the Salts  
ss will only .all run down, and leave the Earth io Dregs, in the  
:\* Plate. Put the Ludus ought to he all transmuted into the  
-\* tinctured Sal Volatile, reserving nothing of its Adjunct, the  
*: \* Alcahost,* which, aS well as the Ludus, preserves its former  
‘Weight, and the LuduS keeps its .mineral Virtues, which  
\* were bestowed on it by the great Creator. This is an ex-  
.\* tremely difficult Operation, not as to the Preparation of the  
sc Indus but of the *Alcahost. Helmont. de Lithiasi. Sect:* 23. .

‘ The Liquor *Alcahost,* ens primum Salium, Lili, the first  
st Metal, the Mercurius Diaphoreticus, or the Aurum Horizon-  
.\* tale, one of these, which so ever it he (for they all conspire  
y as Unisons in Consanguinity of one Dissolvept) is sufficient to  
‘ cure all Diseases. *Helmont. Respondet Author. Sect.* i.

‘ The Arcana of Paracelsus are,

I. c The Tincture Lili, reduced from an immature Elec-  
6 trum to .a Vinum Vitae, one Part of which is the first Me-  
A tal, the other the Essence of the Members,

2. sc The Mercury os Lise, the intire Offsping os Stibium,  
which,absolutely cures all nervous Distempers.

,3./ The Tincture Lili, an Antimonial Preparation, of the  
\* same Virtues with she preceding, but weaker.

4. /The Mercurius Diaphoreticus, which is sweeter than  
‘ Honey, and fixed by the Fire, has all the Properties of' the  
\_\* horizontal Sun. It will perform all that the Physician, ΟΓ

\* Surgeon can wish, aS to the healing Part; hut is hot so  
♦ powerful in Renovation, aS the preceding Preparations.

5. \* His *Alcahest* is more eminent, that immortal Liquor,  
♦ that immutable resolving Water.

6. C His Sal circulatus, which reduces all tangible Bedies to  
♦ the Liquor of their Concretes.

7. C Then follow the Element os Fire out of Copper, the  
€ Element, or Milk os Pearls ; but the Essences of Gems, and  
\* Herbs, are far inferior to the foregoing.

8. ‘ Lastly Volatile Salts carry in them the precise Particu-  
\* Iarity of Herbs and Stones, but attain not to the Efficacy of U-  
\* niverfals. But the Salt of Coral, which is the only Cathartic  
\* among them, cures Ulcers of the Lungs, Bladder, Larynx and  
\* Reins by Purging; and even extirpates the Gout.

‘ It is common Mercury from which the Liquor *Alcahest*' \* is once distilled, and resides at the Bottom coagulated and pul..

‘ Verisable, neither increased or diminished in Weight. The  
\* Water of the Whites os Eggs is to be cohobated with this  
\* Powder, till it has acquired the Warmth of Coral.' *Helmont.  
Arcana Paracelsi. «*

In the first Place Van Helmont calls it simply. *Water,* tel-  
ling us that he ‘ Knew a *Water* which he must not discover,  
\* by the Mediation of which all Vegetables might he trans-  
\* muted into a distillable Liquor, without the least Faeces re-  
\* massing at the Bottom os the Vessel.' And he farther telis  
ns, that ‘ He mixed together a certain *Waiter* and Coals  
\* made from Oak, in an equal Quantity, and digested them  
\* with a Bath-heat, in a Glass hermetically closed.' He calls  
sthe same *a thick Water,* for he says, \* that in the second .  
\* Book of the Maccabees,' Chapter the First, there is Mention  
made of a ς Thick Water, which was a perpetual Fire, and  
\* perhaps not unlike his Water.' And he in another Place calls  
it *a solvent Waler,* when he says, .\* The Liquor *Alcahest is an*\* immutable, solvent Waterf. But he came still nearer the  
Thing, when, in one Word, he called it *{Ignis Aqua)* Fire  
Water; for whilst he is giving an allegorical Account how  
he came by his Knowledge, he pretends ‘ He received a Bottle  
\* in which there was Ignis Aqua, of one Word only, a Name  
\* perfectly simple, singular, indeclinable/ inseparable, and im-  
\* mortal.' And again he calis it, 6 A *Latex* reduced to its  
4 least Atoms possible in Nature.' But he very frequently calis  
It a *Liquor.* ‘ By the Addition of the Liquor *Alcahest* os Pa-  
\* racelsus, may be known how much any Vegetable contains  
4 of either Luminary? And he calis it also the *solvent Li-  
quor.* All these Things, therefore, seem to intimate, that this  
**ARCANUM** was of a moist, liquid Form, like a Sort of Wa-  
ter. In another Place, as a Synonymon,. he makes use of  
the *Fire of Hill*, for he says exprefly; by the ‘ Fire of Hell,  
\* which is the Liquor *Alcahest* os Paracelsus; Original Sand  
C resists both Art and Nature, nor can by any Means he made  
\* to recede from its Constancy, except by an artificial in-  
C sernal Fire, in; which artificial Fire, Sand hecomes Salt.\*  
. Is Helmont, therefore, in this Appellation has followed Para-  
’ Celsus, by this we may know whet the *Alcahest VJ3S,* hecause

Paracelsus himself has wrote os this infernal Fire.

Afterwards, Helmont says, \* This is .a most excellent and  
\* happy Salt, which has arrived to the utmost Degree of Pu-  
\* rity and Subtilty that Nature will admit os.' And, for this  
Reason, he seems to call it,, the ‘ *Ens primum Salium,* the  
*‘ Sal Circulatussc* and the 4 *Sal Circulatus Paracelsi* of which  
he made Mention in his Book, *de Renovatione et Restaura-  
tione.* Is, therefore. Van Helmont has acted candidly and ho-  
. nestlyin this Affair, we may from these synonymous Terms,  
and the Writings of Paracelsus, make an Attempt towards a  
Discovery os this wonderful Menstruum. But before we -pro-  
ceed to this, we must consider its Origin. First, then, 6 It is  
‘ never found spontaneously in Nature, for here Nature is de-  
\* ficientV in the same Place he asserts, 6 That a Part of Earth  
X may be homogeneously reduced into Water by . Art ;' but  
strenuously denies at the same Time, that ‘'This can ever he  
\* effected by Nature alone, hecause by Nature alone no Agent  
\* is produced, by which true Earth may he reduced into Salt  
\* and Water. Nor is this Agent’ produced without the Assis-  
X tance of Chymistry, which alone discovers a Liquor that can-  
\* not he altered, being reduced to the smallest Atoms that are  
4 possible in Nature. Not that this is to he effected hyvul-  
X gar Chymistry, but hy the Labour of Wisdom/ And this  
Agent, aS he exprefly afferts,- 4 IS the ultimate, and most per-  
\* sect Production of this sublime Chymistry. And lastly, he.  
says, ‘ Chymistry, aS its most excellent Effect, prepares an  
\* universal Solvent. Moreover, in the whole Art there is  
.X not any Operation more difficult than the Preparation of  
\* the *Alcahest ;* nor is there in the whole Art any Thing  
e more laborious. Nor can the Kinowledge of this Operation  
\* be acquired either by Reading, or Speculation, but by a Ful-  
\* ness of Science, and that too doubly confirmed ; and hence  
\* very sew are qualified to arrive at a Knowledge of it. Hence  
e this Liquor, whose Preparation is so excessively tedious, and  
\* difficult, cannot be obtained by human Understanding ; for  
\* though a Person should have so much Skill in the Art, aS to  
\* he properly qualified to come to the Knowledge of it ; yet

‘ unless the Most High, by a special Favour, conducts him te  
c is, he will never arrive at.it; for whoever enjoys it, must he  
\* chosen by a particular Privilege : For God alone is the  
6 Dispenser of.it, for Reasons that are known to the Adepts.'

From this Origin of the *Alcahest,* thus delivered hy Hel-  
mont, we may see how much they are mistaken,.who idly  
imagine, they shall be able to prepare it with very little  
Trouble. These vain Boasters certainly thus discover herb their  
Ignorance and their Dishonesty. Nor let them impose upon  
you, by pretending to more Things of the same Nature ; for  
Helmont absolutely refutes every Thing os this Kind, by plain-  
ly asserting, that ".Asin the whole Compass os Nature there  
‘is but one Fire *(Fulcanus Ardens) a burning Fire,* so there  
\* can he but. one Liquor, which will dissolve all Bodies into  
" their first Matter, without any Alteration in itself, or Dimi-  
« nution of its Strength ; as the Adepts know and testify.' Being  
secured, therefore, by this Doctrine, I have been able to si-  
lence many ignorant People, rich in Promises and Expectation,  
and sometimes exceedingly artful, for upon asking them a sew  
Questions, by their Answers their profound Ignorance, with  
Respect to the Knowledge they boasted of, soon appeared.

Let us now proceed to examine into the stupendous Virtues,  
which are ascribed to this wonderful and almost tremendous Ar-  
canum. This ‘ Menstruum then can efficaciously exert its dis-  
\* solving Power upon all sensible Bodies whatever, whether  
« Simple or Compound, Volatile or Fixed, Solid or Liquid, Ani.  
. ‘ mal. Vegetable, or Fossil; even upon Gold and Mercury them-  
‘ selves, .upon which nothing else can act, so as to affect rheir  
\* intimate Parts.' Thus in his own Way of Speaking, *‘ Our ,  
\* Mechanics have discovered to me, that all Bodies, whether roedur,  
Cstony Substances, or Gems, Flints, Sand, Marcasites, Clay,  
‘ Earth, Bricks, Lime, Sulphur,* &c. *may be transmuted into an  
\* actual Salt, equiponderant to the Body from whence it is pro-  
cured l And vegetables, Flesch, Bones, Fijh, and every Thing  
sc like them, I have known to be reduced by it into their three  
- ‘ mere Principles : Metals, howeucr, 'on Account os. Anatic Com- '  
\* mixture of their Seed and Sand, are reduced to a Salt with  
\* Difficulty. For Sand, or original Earth, resists bath Art and .  
A Nature, nor will by any Hi Ip of Art or Nature be made to  
‘ recede from its primitive Constancy t But under the Pouter of  
\* the artificial infernal Fire alone. Sand becomes Salt, and at last ..  
6 Water. Again, the* Alcahest *of Paracelsus, by subtilising them,  
. \* transmutes all natural Bodies.'* And in another Place, ‘ *All  
‘ Bodies are easily reduced to Wales by the Application of the  
\* Liquor* Alcahest *of Paracelsus', even those that otherwise resuse  
€ to be resolved into their thru Elements. ‘ By the Hisp os. this  
\* likewise all Vegetables are eommutable into a Liquor, which  
C may be distilled without any Faces remaining at the Bottom of  
C the Glas.s, even oaken Coal itself. For one and the flame Li-  
c quor,* Alcahest, *perfectly reduces all tangible Bodies in the Uni-.*

*-ς verse to their first Lise, even all Parsons themselves, and dis...  
6 selves every Thing besides itself, as warm Water difsihies Snow.*

*6 Oil itself, and Spirit of Wine, Cedar-wood;. all Linds of Eli-  
‘ xir Proprietatis; the Ludus also of Paracelsus, Mercury, Gold  
\* itself, which cannot by any other Solvent whatever be radically  
‘ destroyed as far as its constituent Principles, as it is much ea-  
\* sicr to make Gold out of what was not Gold before, than to  
\* produce any Thing from Gold which stall not be Gold.\** And  
- indeed in this the whole Fraternity os Adepts unanimoufly. a-  
grees - . .

Now let us consider the Manner in which the *Alcahest* exerts  
its Power upon these its Objects, and here we find its Efficacy  
is always excited by Fire, and this applied only in a gentie De-  
gree, whether it acts in Digestion, Distillation, or CohobatiorL  
For he mixed the *Alcahest* with \* Coal, made from Oak, in equal  
\* Parts, and ingested them for three Days in a Bath-heat, in  
\* a Glass - hermetically closed, and the Solution was then com-  
.\* pleated.' The ‘ Sal Circulatum, by Digestion only, reduces  
\* every Sort of Oil, and Spirit of Wine, into a prodigious diffe-  
\* rent Form, from what they were in hefore.' Is the « *Alcahest*-\* is mixed with an equal Weight of Codas, reduced to small  
-6 Pieces, and is exposed to a kindly Warmth in a sealed Glass,  
. .\* the whole- Wood will, in .a Week’s Time, he reduced to  
‘a milky Liquor.' Sometimes too, the Work is done by one  
simple Distillation : e Foris the Liquor *Alcahest* is distilled once  
‘ only *from* common Mercurjv, it leaves it at the Bottom  
- ‘ coagulated, and pulVeriaable, and neither increased nor dimi-  
\* nished in its Weight, which is effected in a Quarter of an  
‘ Hour.' : But sometimes a Cohobation is necessary, in order ro  
accomplish your Design;: ‘ for frequently, when Pndins are‘ converted into a Salt of the same Weight they were of hg-  
c sore, they must be cohobated some Number of Times with  
c the Sal Circulatus of Paracelsus, hesore they will intirely lose  
\* their Fixity, which happens, principally in Metals, Gold jte  
c particular, on Account of the perfectly equable Commixture  
‘ of its Seed. On the other Hand, if by one Distillation on.  
\* ly it is drawn off from the Ludus, or Covilla of Paracelsus,  
\* this Distillation in so small a Space os Time as ther ορ tU..o‘ Hours, it converts the whole Stone into a salt os the s2me  
. ‘ Weight. AS for any other Manner os applying this Un4.

\* Versa! Solvent, I can discover none, nor does it appear by

any Argument, that a greater Degree of Fire in necessary l  
J for the Operation. By a gentle Agitatinn of its Parts there-  
\* fore, excited by the Fire, it is capable of dissolving all Bod  
€ dies. For the *Alcahost* itself rises in Distillation with the se-  
A cond Degree of a .Sand-heat. But it does not ascend with

\* a Bath-heat.'

« But farther, there was Nothing ever observed in all Na-  
ture, or even related, that is inore ‘surprifing than the phy-  
fical Effects which these Authors ascrihe to the Action of this  
. Menstruum : For it intirely converts the whole Body of its  
Solvend, into a Matter which has neither gained nor lost  
the least Weight during the Operation, and this transmuted  
Matter seems always to be liquid, or saline. In this, however,.  
there is some Diversity ; « sor. Mercury, by the Action of the  
*‘ Alcahost,* is reduced to a fixed Powder, winch is pulverizable,  
. C resista a Wind-fire, and remains fixed is mixed with Lead.

- , C. Almost all other Bodies are converted into a Salt aequipon-  
\* derant to their former Mass. An oaken Coal is soon changed  
\* into two diaphanous Liquors, which differ in Situation and  
\*\* Colour. Cedar-wood is converted into a milky Liquor of  
equal Weight with it, and then farther into a two-sold Oil;

‘ which afterwards, by simple Digestinn, are changed into a  
ya pure Salt, so that it may he mixed with Water. . But  
‘ the Ludus, or Cevilla of Paracelsus, which is a Stone found  
\* at the Bottom os the Schelde, near Antwerp, is within the  
‘ Space of two Hours only, converted by a gentle Distillation  
\* into a Salt equiponderant to the Concrete, which heing  
\* exposed to the Air, dissolves, and runs into a Liquid without  
‘ leaving any Faeces at all.’ From this whole Account then, it  
is evident, that this Solution at the Beginning is perform-  
ed aster different Manners, but that at last, however, \* it re..  
C duces all Bodies into a Kind os Salt that may he disiblved  
\*.in Water, Mercury alone excepted, which on Account of  
cJts perfect Simplicity, which renders it more pure than Gold;  
c arid, exceedingly like pure Water, refuses to he converted in-  
\* to a Salt; and hence it radically resists all Division possible  
\* to he effected, either bv Art or Nature, and for this Rea-  
‘ son is perfectly indestructible. These Bodies, however,.after  
C they are by the Help of the *Alcahost* reduced to an aequiponde-  
‘ rating Salt, still retain their proper Virtues, which depend  
\* upon the seminal Property os them, and winch therefore are  
\* peculiar to them, and not common Io others.' This very  
remarkable Circumstance is described, when he says:.‘The  
*\* Alcahost* of Paracelsus, by fubtilifing them, transmutes all Bo-  
C dies in Nature ; for Bedies, when they are reduced to their  
\* utmost possible Subtilty, at last pass into another Substance,  
\* with a Retention of their seminal Properties. By the uni-  
\* versa! Solvend, all Things return back to them *Ens primum,*\*- and exhibit their native Qualities, whence they have.an Op-  
ς portunity of acquiring great and unlimited Powers.' But  
more plainly still, while he asserts, ‘ that this Liquor alone  
\* dilsolves all Solids into their first Matter, without any Di-  
\* minution, or Alteration of itself-' And therefore, he cries  
out, C Get but acquainted with this homogeneous, immutable  
5 Solvent, which resolves all its Objects into their first liquid  
\* Matter, and then you will he able to look into the inti..  
\* mate Essences of Things, and examine their Qualities. By  
‘this Means, therefore, all these Bodies are converted into a  
\* saline Volatile Matter, which still retains, their particular spi-  
5 rituous Rector. Hence it may he intimately mixed with any  
8 Humour os the human Body, and with it circulate through  
\* all its Vessels, and in its whole Passage, every where, exert-  
. those Powers winch are proper to it,, with Regard to out  
4 Bodies. These, therefore, they called *Potablesst* Hence, then,  
we learn, whet the Adepts meant by potable Gold, and how  
vain and deceitful the Boast of those is, who pretend-to -he  
Masters os it. Gold, when it is corroded by Acids, will-still  
give you again its actual Partiales of Oold, though they then  
lie concealed in the Acid: But the philosophical potable Gold  
is a saline Liquor, equiponderant to the Gold, without any  
Menstruum whatever united with It, heing only the pure,  
simple, first Matter os the Gold, or its *Ems primam.* Here  
therefore, above all, it is particularly remarkable, that the  
*Alcahost,* whilst it -thus dissolves, never mixes itself at all with  
Jits Solvend, but remains perfectly separate from it. Hence  
Therefore, it neither increases nor diminishes the Substance of  
rfhe Body dissolved, but leaves it exactly the same As it found it.  
This evidently appears, when he says, Λ that the two Liquors of  
X the dissolved oaken Coal, winch were different in Situation  
\* and Colour, rose with the Warmth Of -the Bath, whilst .the  
-C solvent Liquor remained at the Bottom, Of the same Weight  
\* as before. For it finds no Body with which it can he join-  
C ed, itself being too pure and subtile, and reduced to its least  
C Atoms, and hence disdaining all Ferments, and always re-  
‘ matning single. Hence it acts only by an external Action,  
‘ not concreting with its transmuted Object, as the purest Fire  
\* uses.ro act upon its Object, as warm -Water melts Snow.

For this Liquor leaves nothing of itself mixed with its Sol-  
\* Vend.' Hence, therefore, besides others, this Menstruum  
.-seems to have two .great Advantages above all others: In the  
.first Place, that it does not act by Attraction, Or Repulsion,

but .only by a mechanical dissolving Power, contrary to an  
others.that we are acquainted with. Fire, perhaps, alone ex-  
cepted. And then. Secondly, thet it always preserves intire  
the native Powers of its Solvends, and yet, whilst it resolves  
Poisons, it deprives them of their violent and deadly Quali:,  
ty, and gives them the most excellent medicinal Virtues, by re-  
ducing them to their *Ens primum,* which, however, it must be  
allowed, is Very difficult to comprehend. When Bodies, now,  
are by the Help of the *Alcahost* ‘reduced into their saline vo-  
latile *Ens primum,* retaining at the same TIme all these feminal'  
Qualities, if they aro then urged any farther by the Action os  
this Solvend, they are perfectly deprived of their proper semi!  
nal Virtue, and from every one, how different soever, there is  
produced the fame unactive, inodorous, insipid, simple, ele-  
mentary Water, so that by too great an Application of the  
Very same Menstruum, whatever Excellence was produced be.  
fore, is now destroyed. It appears, therefore, that the ulti-  
mate Matter of all tangible Substances is Water, upon which  
the *Alcahost* itself can act no farther, but which being again,  
impregnated with the seminal Foecundity of any Seed, may he  
converted again into any new Bodies'whatever. Hear whar  
he says himself: ‘ Every Body is transmuted into an actuaLSalt  
\* equiponderant to the Body from whence it is made ; and thia  
\* Salt heing cohobated some Number of Times, with the Sa|  
f Circulatum os Paracelfus, loses intirely all its Fixity, and is  
\* transmuted into a Liquor which itself likewise at last he-  
\* comes an insipid Water, of the fame Weight with the salt  
\* from which it proceeded. Original Sand, by the artificial  
f infernal Fire alone, is changed into a Salt, and then a Wa-  
\* ter.' And, \* I know a Water, by the Mediation of which,  
‘ all Vegetables are converted into a distillable Juice, which  
‘ rises without leaving any Faeces at the Bottom of the Glass,  
\* and which Juice heing distilled with Alcalis, is totally re-  
\* duced into an insipid elementary Water. An oaken Coal,  
‘ turned into two Liquors by the *Alcahost,* and then mixed with  
\* a. little Chalk and distilled, rises with almost its former  
‘ Weighs, and has all the Qualities os Rain-water. And then  
‘ they all become *so* Volatile, that they rise with a Bath-heat,  
‘ and sly off from the *Aleahest,* which remains at the Bot-  
‘ tom.' ‘.

\* But what is much more furprising than all the rest, is,  
that this Menstruum, whilst it operates so surprisingly upon  
all other Bodies, is notin the least lessened, altered, or weaken-  
‘ ed in its Efficacy by any of them : So that in this Respect  
again It resembles Fire, and is with a great deal of Reason  
compared to it. By a Very expressive Phrase, therefore, it is  
said A To act by its Power of acting upon all sublunary Bodies.\*  
‘ without Reaction. And aster it had dissolved the oaken  
‘Coal in so extraordinary a Manner, the solvent Liquor re-  
\* maided at the Bottom of its former Weight and Strength.  
♦ For its Transmutation is despaired of, as it cannot find any  
\* Body worthy to he wedded to, and is single with Regard to  
♦ every commifcible Ferment, to which it might be in Sub-  
\* jectinn, and hence it cannot die. In its most perfect Action,  
\* therefore, it reduces every tangible Substance to its middle Life,  
‘ without any Change in itself, or Diminution os its Strength;  
‘ It is immutable therefore, and immortal. This alone, by  
\* operating, js not altered.' It acts,. therefore, without any  
\* Reaction, of the Patient; or Depauperation of the Agent;  
‘for this Diflolvent is homogeneous and immutable, and heing  
\* the same, both in Number, Weight, and Activity, it is aS  
‘ efficacious, the thousandth Operation, as It was at first.'

lint among other Things remarkable in this Menstruum,  
is, its Degree of Fixity or Volatility in the Fire; and this  
again is exceedingly surprising. \* For aster it has rendered all  
\*-Bodies, the most fixed -not ercepted/so Volatile, that they  
f will rise with the gentle Heat os a Bath, yet itself remains  
\* fixed at the Bottom, nor ascends with them. In the mean  
\* Time, however, the *Alcahost* itself is *so* volatile, that it rises  
\* in Distillation, together with the Bodies it has dissolved id  
( the fecond Degree of a Sand-heat. And hence it may, by  
\* Distillation he drawn off from common Mercury, which it  
\* fixes and coagulates? Hence, therefore, the small Compass  
of Heat is exactly determined within which the whole Power  
of this *Alcahost* exerts' itself upon all Bedies in Nature.

Lastly, hesore we quit this Subject, we must observe, that  
this Solvend, which thus remains intire in all its Operations.,  
nor is ever overcome, or fatigued by the Resistance it meets  
with from any Thing; does yet acknowledge one Body in Na-  
ture with which it may he so united, aS to be brought into'  
Wedlock with it. This appears evident, by considering the  
Text .of the Author, \* Chymistry was solicitous about finding  
μ out a Body, which should have so great a sympathy of Pu-  
.Eity that it should not he dissipated by any Corrumpent.  
♦And at last. Religion was astonished to fee a Liquor disco-  
‘ vered, which heing reduced to the least possible'Atoms in '  
.€ Nature, remained single, and disdained to be wedded to any

Ferment. Its Transmutation therefore was despaired of, as  
it could not find any worthier Body with which it might  
c be united. But the Labour of Wisdom sound out an ano-  
\* malous Body in Nature, which rose without any commis-

\* cshle Ferment different from itself This Serpent bis itself,  
.\* revived from its Poison, and asterwards knew no Death.' So  
that we see here the Conjunction of two Things which were in  
some Measure different. But he intimates thin still more plainly  
and distinctly. He says, ‘That one and the same Liquor, *Alcahest,*\* reduces all the tangible Bedies in the Universe to their first  
\* Life, without any Alteration in itself, or Diminution of its  
A Strength, but is brought under the Yoke, and altered by its  
equal alone.’ But he comes still nearer the Affair when he  
telis us, 4 That when Mercury is perfectly freed from the ori-  
\* ginal Sulphur, which intimately adheres to it, it is not after-  
\* wards mutable by any Fire, but immediately destroys all other  
« Seeds, except its Equal.'

This is the Sum os whet Helmont has said on the Subject os  
the *Alcahefl,* and the Whole must rest upon his Authority, he-  
cause no other Author, I have met with, speaks of it in such  
Terms. The antient Philosophers and Chymists seem to have  
been utterly unacquainted with it, at least they no where men-  
tion it, though, of all the Desiderata in Physic, this is of the  
greatest Importance. .

What has been said on this Subject, will undoubtedly raise a  
Curiosity of knowing, in whet Kind of Matter the *Alcahest*ought to be looked for. It is for this Reason I will expatiate a  
little upon this Subject, having made an incredible Variety of  
Experiments, many os which I have had Reason to regret,, and  
heartily, repent os.

Paracelsus had a Liquor, which he prepared, by an infinitely  
tedious Circulation, from Sea Salt, in which Nature has placed  
the greatest Degree of Perfection. This, by an indefatigable  
Industry, he reduced to a perpetual Oil, and then he called it  
the *Easts primum Salium, Oleum Salis, Liquor Salis, Aqua Salis,  
Circulatus Sal minor, Circulatum minus.* And the troublesome  
Preparation of this *Sal Circulatus* is described without any Thing  
Obscure in it, unless that he does not explain what the Spirit of  
Wine is; which is required to separate the impure from the  
Pure. This agrees exactly with the Opinion of Van Helmont ;  
for he says, that \* The Salt of Bodies, bring some Number of  
\* Times cohohated with the Sal Circulatus os Paracelsus, is con-  
\* Verted into Water.' And hence he ascribes the Virtues of the  
*Alcahest* to the *Ens primum Salium* ; and says, that ‘ By the Sal'  
\* Circulatus all Poisons die. Hence he calls it ‘ The most su-  
\* preme and happy Salt, which is reduced to the ultimate De-  
\* gree both os Purity and Subtilty, and hence pervades every  
‘ Thing, that alone remaining immutable during its Operation,  
\* whilst it readily dissolves every Thing else. This Sal Circula-  
c tum acts wonderfully upon Oil and Spirit os Wine.. This Sal  
^Circulatus reduces Bodies into the Liquor of their Concrete;  
♦.and with that may be prepared the Ludus.'

But Paracelsus had another SOLVENT much more powerful  
than the former Circulatum minus, and much more difficult to  
arrive at the Knowledge os, which therefore he called his  
*Circulatum majus, Archidox.* Io. *C.* 4. And hence, in the same  
Place, he calls it *Materies Mercurii Sales;* and afterwards.  
*Living Fire, Ar chid. io. C. An* In common Mercury he ac-  
knowledges a most perfect Fire, and a latent, celestial Lise, and  
that the Quintessence os Mercury is celestial Fire, is it is dissolved  
with its Mother, Viz. an *Arcanum* os Salt, *Archidox.* io. *C. 6.*When these two, therefore, are intimately united by a true  
Union; and together rendered pure, subtile, and Volatile, then  
feenis to arise that wonderful mercurial Water, which he de-  
scribes in the Chapter *de Corrodente specifico,* where he says,  
\* That Gold so dies there, that it continues to he Gold no  
‘ longer; whereas, in all other Corrosions os Gold, the Gold  
\* is only divided into Very small Particles, but still remains the  
\* same-true Gold, and, by an artificial Reduction, may he al-  
\* ways recovered again. . By this Art, therefore, there is a per-  
‘ sect Marriage of Water with Water: For Water is twofold,  
\* Viz. a common Water, which resides in Salt; and a metallic  
\* Water, which is found in Mercury, both which however  
5 have the same Root.' All this seems to heve been understood by  
Van Helmont exactly in the same Manner, and therefore I shall  
just add what he has said upon is, as follows: ‘ The internal Mer-  
\* cury of Metals, perfectly/freed from every Taint of a metal-'  
.\* line Sulphur, coheres together with an indissoluble Union, so  
\* that it radically resista all possible Division, either by Nature or  
f Art. Nor could I learn the Nature of Water, except under  
\* the Rod prepared from Mercury's Wand. And I found the  
\* Nature os Mercury adequate to Water; for it does not con-  
\* sain the least Earth in It, but is always the Son of Water  
\* alone.' And he says, with all che antient Alchemists, \* If I  
« had not seen, that Mercury eludes all the Labour of the Artists  
A so, that it either flies all off from the Fire still intire, or else  
« all remains in it, and in both Cases retains its immutable and  
\* primitive Identity, and the anatic Homogeneity of its Identity,  
\* I should say that that Art was not true, which is true without  
.\* any Falsity, and by far the most true of all others. So that  
\* whet is above is like that which is beneath, and the contrary.  
\* And hence it is absolutely impossible either for Art or Nature  
\* to find any different Parts in the Homogeneity of Mercury,  
si not even by the *Alcahest* itself, as Mercury is more simple.than  
/ even Gold, and formed with a greater anatic Identity: and

e hence therefore Mercury’ is as indestructible aS the Elements  
‘ themselves. Hence all sublunary Things are too weak to sub-  
« due pure Mercury, or to penetrate, alter, or defile it. It re-  
\* mains secure in Air, Fire, and the acrid Liquor. It is not  
\* affected by any Solvent, much less penetrated by Air ; and  
\* therefore there is nothing in Nature like this pure Mercury,  
\* no notat a Distance. It resembles the *Ens primum of* Metals,  
\* and comes Very near it, and at last, existing actually simple,  
:\* is not as a constitutive Part os Things. From these Principles  
\* we know that it is brought under the Yoke, and changed by  
‘ its Equal alone: For this anomalous Body in Nature rose  
\* without any commiscible Ferment different from itself ; but it  
\* bit itself, revived from the Poison, and afterwards knows no  
\* Death.'

Thus we have the History os the *Alcahest* of Paracelsus, and  
Van Helmont, extracted from their own Writings with the  
utmost Accuracy. Hence it evidently appears that it is in  
Vain to seek for this universal Menstruum in human Urine,  
or any of its Productions. Nor can it ever he sound in Tartar,  
or any os its Preparations, though this may he substituted as  
*Vice-Roy to the Prince.* ‘ Nor can Phosphorus ever be reduced  
to it ; because its Properties that have been specified, will  
not allow of it. Hence also it appears that Glauber is mis-  
taken, when he searches for it in the fixed Alcali of Nitre;  
as is Zwelser in expecting to find it in the extremely acid  
Spirit of Vinegar, distilled from Verdigrease. Nor does the  
celebrated Guernerus Rolfincius seem to have had a hetter Idea  
of it, when he supposed it to he procurable from a fixed Alcali  
aS its Basis, and a mineral. Vegetable, or animal Acid ; for  
from Salt of Tartar, and Vinegar of Antimony, a meer Vi-  
triolated Tartar is produced; from Salt of Tartar, and Vinei  
gas, a Tartarus TartarisatuS; and from Salt of Tartar saturat-  
ed with acid Whey, only a more precious Tartarus Tartari-  
satus. Nor does the Addition of Sal Ammoniac much alter the  
Cose. See *Eph. Germ.* D. I. An. 6,7. jo I93—I96: *App.* And ini.  
deed. Nobody in the Description of the *Alcahest* has dome nearer  
to the Sentiments of Paracelsus and Van Helmont, than Petnss  
Johannes Taher, in his Manuscript upon the Subject os Al-  
chemy, wrote to the most serene Duke of Holstein, winch is  
printed in *Eph. Germ. D.* 2. *An.* 8. *App.* p. III. 117. in which  
are these remarkable Words, which confirm my Opinion.  
\* The Liquor *Alcahest* is a mercurial, pure, metallic Spirit, so  
\* united to its own proper natural Body, that these two become  
‘ One inseparable indestructible Being, destroying every Thing  
‘ else, and converting them into their first Matter. It is the  
\* true *Mercurius Ph 'tlofephorum,* prepared from the mineral King-  
e dom, joined to its own Body, inseparable from it, heing a  
\* milky, buttery Liquor, penetrating, and dissolving every  
‘ Thing.. This is of two Sorts,' simple and compound. The  
\* Simple is made from a pure metallic Acid, and a pure metallic  
‘ Salt, rendered Volatilewith its Spirit; and the Preparation of  
‘ this is extremely difficult. But that of the Compound, is still  
\* far more so ; for this is prepared from a mineral Acid, and ai  
‘ pure animal and Vegetable Salt. The Liquor *Alcahest,* or the  
\* perfect pure *Mercurius Philosophorum,* is like Fire, of an in-  
\* corruptible, unalterable Nature, reducing every Thing to its  
'\* first Matter.' And the ingenious Joachim EecheruS, in his  
*Physica Subterranea,* is almost of the same Opinion 5 for he as-  
serts, that he has discovered in Sea.felt, a certain arsenical .and  
mercurifioating Power, which was it but separated, and pure,  
would he the *Alcahest* itself, which nevertheless would he Very  
different from the *Mercurius Philosophorum.* Hence Mercury  
itself, he looks upon aS a sulphureo.metalline Substance, which  
of itself would he solid, and which receives all its Fluidity from  
an arsenical Sulphur of common Salt. This Very subtile Con-  
jecture, I wish he had more clearly demonstrated. The Sum  
of his Argument amounts'to this : ‘ The purest Silver, corrod-  
‘ ed by Spirit of Nitre, and precipitated by Spirit of Sea-salt,  
« becomes Volatile, and then easily disposed to part with its  
\* Mercury; and therefore Sea-salt can change the purest Metals  
\* from their fixed Nature, into true Mercury.' If I should he  
asked, if I believe that any of the Chymists were ever pos-  
sessed of this grand Arcanum ? I should answer thus: Van  
Heimont complains, that the Bottle was once given him, but  
that it was taken away again, and therefore he could not make  
many Experiments with that Liquor: And Paracelsus does not  
say so many and so great Things of his Solvent, and therefore it  
is difficult to determine any Thing about it with any Degree  
of Cortainty. This, however, I will Venture to asters, that  
if you examine Sea-salt and Mercury, by every chymical Mo-  
. thod possible, you will never repent of your Trouble. *Boer-  
haavele Chemistry.*

Boerhaave has laid so much on the Subject of the *Alcahest,*that I heve only to add, that Van HelmonPS *Circulatum Ml.,  
nus* is. said to he prepared by a Circulation os nine Weeks, from  
equal Parts of Spirit *os* Urine rectified three Times, Alcohol,  
or highly rectified Spirit of Wine, and Vinegar twice rectified.

Those who are acquainted with the great Effects which may  
he produced by these separately, will readily believe that these  
by an intimate Union may he converted into a Menstruum  
capable of doing furprifing Things; especially as we know.

that neutral Menstrua, as this must he, will act upon  
Very hard Bedies, which are not otherwise dissoluble by acid,  
alcaline, watery, or spirituous Menstrua.

This I insert on the Authority of a Gentleman who had it  
from a Son os Helmont’s, who lived for some Years at rhe  
Court os Hanover, under the Favour and Protection of the  
Princess Sophia, Grandmother to the present King of Great  
Britain.

ALCALI, or ALKALI, a Word much used by the Chy-  
shifts to express a Body which is esteemed the Reverse of an  
Acid. Many whimsical Theories have been spun out by Chy-  
mists of warm Imaginations, upon a Supposition of a certain  
Enmity subsisting hetwixt these two. This is therefore an Ar-  
ticle of Importance enough to deserve a strict Examination,  
which I shall therefore bellow upon it, in Hopes of giving a just  
Idea of some Things not commonly known, unless to ChymistS  
of a philosophical Turn, and those perhaps of the first Rank.

KALI, a Word well known upon the Eastern Coasts, and  
in Egypt, signifies a certain Herb, replete with Salt, which  
grows about the Sea-shore, and the Banks of the Nile, and al-  
so those of the celebrated River BeluS in Syria, as Pliny assures  
us from the Testimony of antient Authors. This Plant, if  
burnt, when It arrives to its full Growth, produces Ashes re-  
markable for their salt, acrid Taste, an Evidence of its abound-  
ing with Salt. When these Ashes are boiled in Water, they  
yield a strong, acrid,'salt Lixivium, or Lye, consisting of the  
Salt communicated by them to the Water, which bring proper-  
ly separated, there remains a greyish Part, which will neither  
dissolve in Water, nor burn in the Fire, het is perfectly in-  
fipid, and of the Nature of Earth. If this Lixivium, or Lye,  
is evaporated to a Dryness in an iron Vessel, a white solid Mass,  
Of a most acrid caustic Taste, and perfectly soluble in Water,  
is left hehind. Since, therefore, *Lix* in the Latin Tongue fig-  
Iiifles *A/hes,* and *Lixa,* a *Maher os. Asches,* hence Pliny Very pro.,  
perly says. *Cinerum Lixivium. D* 39. *C.* 99. and *Lixivium Co-  
nis, D* I4. Co L. 25.. *L.* I5. *C. IS.* And Columella calls Wa-  
fer when it is impregnated with this Salt, and filtered. *Lixivium,  
L.* I2. *C.* 4I. - All these Salts, therefore, are properly enough  
called *Lixivious Salts.* By Terms, however, already received,  
they are called *Alcalies,* or *Alcaline Salts.* They are also called  
by some *Rochetta, Soda,* or *Zoda.* From this Salt, and the.  
Calx of all Stones that strike Fire with Steel, may be prepar-  
ed *Frit* for the making of Glass. These also quickened with  
Lime, and mixed with any oily Substances whatever, are con-  
vertible into Soap. The best of this Sort of Salt is brought  
from Alexandria in Egypt and Tripoli. -

'♦ As all our . physical Knowledge of Things depends upon the  
Discoveries which our Senses make in natural Bedies; hence  
all their Characteristics must be taken only from such sensible  
Signs thus discovered. Nor are we able .to distinguish Bodies in  
any other Manner. The following Characters therefore of  
*an Alcali,* may be laid down as genuine, and sufficient for the  
Purposes both of the Chymist, the Philosopher, and Phy-  
sician. - ' ...

I. A fixed *Alcaline Salt* is produced from a Vegetable Sub-  
stance.

' 2. .It is only prepared from a Vegetable by the Action of Fire,  
which converts it into Ashes.

3. When it is thus prepared, it will remain a considerable  
Time in the Fire, thus demonstrating its Fixity.

'7 4. In a moist Air, it perfectly diflolves and deposites some  
Faeces, heing impatient of a continued Dryness, if any Part of  
the Air has Access to it.

d 5. It impresses an acrimonious Taste upon the Tongue,  
somewhat caustic, and it excites a Taste os Urine, on which  
Account these Salts have, though not Very properly, been call-  
ed *Urinous Salts.* For the Taste *of* this Salt does not resemble  
that of Urine, at the first Application. But when this has been  
„ in the Mouth some Time, and by its Stimulation caused a Dis-  
charge os the Saliva, then the neutral animal Salts which are  
in the Saliva, deposite all their Acid on the fixed *Alcali,* and  
thus become Volatile and *alcaline,* and then impress upon the  
Tongue a disagreeable urinous Taste, of which this is the true  
Origin.

‘. 6. This Salt, when it is perfectly pure and without Mix-  
sure, has not the least Smell, heing extremely fixed, even in  
the Fire. But aS it attracts every Acid, if it meets with any  
Body, which contains a volatile *alealine Salt,* fixed by an A-  
icid, and therefore without any Smell, it then immediately ab-  
sorbs the Acid, and the *Alcali* bring by this Means disengaged,  
and rendered Volatile, affects the Organs with an *alcaline* Smell,  
which is salfly ascribed to the fixed Salt. This appears evident-  
ly upon mixing a fixed *alcaline Salt* with warm fresh Urine, up-  
on which the Liquor that was inodorous hefore, instantly emite  
a disagreeable*alcaline* Smell.

*J.* Another Property of this Salt is, that when mixed with  
any Acid whatever, it immediately produces an Ebullition and  
Effervescence ; and afterwards is so intimately united with it in-  
to one Mass, thet if the Saturation is compleat, the Compound  
discovers no Sign; either of an *Alcali* or an Acid, but there

is always hy this Means produced a Salt of another Nature,'  
which is usoally called *Neutral.*

8. Is a pure fixed *Alcali* is mixed with the Juice of the Turn-  
sole, Roses, or Violets, it presently changes their natural Co-  
lour, which is a Kind of Purple, into a Green. .

9. When this *Alcaline Salt* is applied for some Time Io a he-  
man Body that is warm, and consequently exhales some Moi-  
. sture, it excites an acute Inflammation, attended with all its  
Symptoms, which Toon hecomes a grey, hard, dead, and often  
black escas, it is therefore capable of producing a true Sohace-  
lus, or Mortification. \*. . .

Io. All these Salts have the Faculty of deterging.and cleans-  
ing, which is not the Case with Respect to those called *Neutras*These then are the Marks by which fixed *Alcaline Salts* may he  
known and distinguished from all others ; and by these weshall he enabled to aVoid Confusion; . . .

Such *alcaline* fixed Salts may he also procured from any crude;  
fresh Vegetable, burnt to Ashes, and treated in the Manner  
above mentioned. But some Plants, by. this Management, yield  
a Very small Quantity. Such are those, which, when crude,  
haVea pungent Smell, which strikes the Nose, and makes the  
Eyes water; for almost all the Salt of the Plants is volatile,  
and is dissipated by the Heat of the Fire. Garlic, the bulbous  
Vomiting Roots, Onions, Scurvygrass, Ladies-smock, Rockets,  
Hedge-mustard, Cresses, Radishes; Rapes, Squills, Leeks, Mu-  
stard, and the like, are of this Class, in which Nature has so  
far perfected their *Alcaline Salts,* as to render them Volatile, as  
in Animals. .

These lixivious acrid Salts, have been known to the Antients,  
in almost all Ages of which we have any Account. Aristotle  
telis us, that the Ashes of burnt Reeds and Bulrushes, boiled  
in Water, yield a plentiful Salt. And Varro, *de Re Rustica,*informs us, that some People about the Rhine, having neither  
Fossil, nor Sea-salt, instead of those, made Use of a salt Coal,  
which they prepared from some Sorts of Wood, burnt .. Front  
which is is plain; that they knew a Method os preparing these  
Salts, not unlike that of .Trachenius, so aS to make them less  
acrid, and to come nearer to the Nature os the native neu-.  
tral Salts. Hence Pliny asserts, that Ashes have the Quality of  
Salt, but are milder. And that the burnt PaeceS of Wine have  
the Virtues of Nitre (the antient Nitre). And in another  
Place he speaks of the Nitre produced from burnt Oak, which,  
he says, yields hut a small Quantity, *L.* 3I. *C.* io. We far-  
ther learn from Pliny, thet Ashes were in his Time used medi-  
cinally, and the Lixivium made of them drank aS a Remedy.  
All these Authorities, to which more might be added, suffi-  
ciently eVince, that the Discovery of *Alcalies* is not so modern  
as some imagine.

- No Native Salts heve yet been discovered, with which the  
preceding Characteristics agree; *Alcaline Salts* heing procured  
from Vegetable Substances only, by the Action of Fire. But  
fince the first Calcination of Vegetables that ever happened irr  
the World; these Salts heve been produced. Hence therefore,  
in all Ages and Places where this has happened, there must  
have been a prodigious Quantity of this Salt generated, which  
always is at last together with the Ashes returned to the Earth.  
In the Revolution, therefore, of fuch a Number of Years,  
the whole Earth must have heen converted into this Salt,  
provided it was immutable. But this is not the Case, for these  
Salts, when committed to the Earth, render it indeed fruitful,  
but then they lose their *alcaline'* Nature, and, imbibing the Acid  
of the Air, become neutral Salts, and act as such.

It is farther remarkable, that no Plant which ever grows up-  
on the Surface *os* the Earth, if it was suffered to grow dry,  
carious, and rotten, would eVer yield a single Grain of a fixed  
*Alcali*; but on the Contrary, they are always either dissipat-  
ed into such minute Volatile Particles, aS escape the Notice  
of our Senses, or leave hehind them a Substance, which upon  
Examination appears to be simple Earth. This Experiment,  
therefore, ’ confirmed universally in all Ages, evidently demon-  
strates, that Nature never produces a fixed *Alcaline Salt,* either  
in the Solids or Fluids ofVegetableS.

Hence it is certain, that fixed *Alcaline Salts* have their speci-  
fic Nature imparted to them by Fire, and not by any natural  
Vegetable Operation. But this is still farther evinced by the  
following Experiment, which never sails to succeed in the same  
Manner: Take any Vegetables, which, is burnt, would yield a  
large Quantity of a fixed *Alcaline Salt,* let them he reduhed to  
Putrefaction by Art, so that their whole Substance shall be .  
perfectly putrefied, they will then helrendered exceedingly foetid,  
and a great Part of them volatile, and, if they are burnt in an  
open Fire, will not yield the least Portion os a fixed Salt, but  
what remains will he a perfectly insipid Earth. If therefore  
we View this Experiment in a just Light, we must be of Opi-  
nion, that fixed *Alcaline Salts* are as much the Creature of  
Fire as Glass,, which Nobody ever suspected to be a Vegetable  
Production, though Vegetable *Alcaline Salls* enter its Compositi-  
on, and are necessary to its Existence.

It must also be remembered, that these *Alcaline Salts* are  
capable of being resolved into a considerable Part that is saline.

-hard, bitter, and almost vitrescent; into a simple Earth j and  
into an *Alcaline Salt,* that is stronger and more pure: And  
thus we may observe that thefe *Alcaline Salts* are no simple  
Bodies; but that they are compounded of different Parts united  
together, and that the Conjunction of their Principles into one  
Mass, which has the Appearance of being homogeneous is ef-  
fected by the Strength of the Fine. Hence it will follow, that  
Nature never acts by fixed *Alcaline Salts,* as by her proper In-  
struments, unless when they are received first prepared, by the  
Fire. And that even then, when she makes Usees them, thus  
prepared, in bringing about her Purposes, she only operates by  
them, as they are compounded of the three above-mentioned  
principles; to which, however, as a fourth Part, there still  
seems to remain a Portion of Oil, aS many Arguments evince.

Hence it appears, that as these fixed *Alcaline Salts* are ren-  
dered more and more simple by a Separation of their consti-.  
tuent Parts,the Salt that thus arises will be continually different;  
.for that which remains after a Separation of some os its Prin-  
ciples, will always he of another, and more simple Nature,,  
and consequently will have a different Power of acting. Thus,  
in Pot-ash, which yields the best *Alcali,* a considerable Part  
of it is a bitter, hard, pellucid Salt, which does not.  
very readily dissolve in Water. If this is carefully separated  
from the rest, a purer *Alcali* is obtained, fitter than the formes,  
hesore this Separation, for many Operations that are perform-  
ed by *Alcalies.*

It is farther to he observed, that thefe *Alcaline Salts* may he  
greatiy altered by the casual Admixture of some other Body,.,  
whilst the Vegetables are burning, which heing also of a fixed  
Nature, may he united with them, and remain in the Ashes..  
Suppose, for Instance, that Nitre should happen to come among  
them ; then this heing fixed with the other Vegetable Salt,  
would produce an *Alcali,* to which, if Oil of Vitriol was added,  
it would emit a fetid Fume, that would in Smell resemble Spi-  
rit os Nitre, which never is the Cale, if the *Alcali* is pure.  
The same is true with Respect to Sea-salt, and many others.;  
And lastly, we must take Notice, that the Very Burning of  
Vegetables, as it is performed in a different Manner, will pro-  
duce different Salts ; for it is a known Truth, that if the  
same Vegetable is burnt suddenly in a brisk strong Fire, it will  
yield a Salt different from what is produced by burning it in  
- a flow smothering Fire. .

Amongst *Alcaline Salts,* the most common is that which is  
usually called *Pot-ajh.* This is imported in great Quantities from  
Coariand, Russia, Poland, and other Parts os the North, where  
it is prepared from the Wood of green Firs, Pines, Oaks, and  
Others os a like Nature, of which they make large Piles in pro-  
per Trenches, and burn them till they are reduced to Ashes.  
These are immediately fisted, and were by the Antients call-  
*ed Lix,* by the Moderns *Cineres Clavellati,* a Name taken from  
*.tiaeClava,* or *Clavi,* Billets, into which the Weed is cleft, to  
make it burn more readily. These Ashes are then dissolved  
. in helling Water, and when the Liquor, which contains the  
Salt, is depurated by Subsiding, it is poured off clear, and makes  
a Lixivium. This is immediately put into large Copper Ves-  
seis, and is there boiled for the Space of three Days and Nights,  
till at last a Salt is left, which takes the Name of *Pot-ajh,* from  
the Pots the Lixivium is helled tin. This Salt, whilst it is hot  
and dry, must he put up in Calks, made of dry Wood, and  
' which is not impregnated with Oil of any Kind, and by . this  
Means it may he preserved dry ; otherwise, if it is exposed to  
the Air, especially one that is moist, it will run into a pin-  
guiouS *alcaline* Fluid, exactly like Oil of Tartar *por Deliquium.*

By the Manner in which these fixed *alcaline Salts* are pro-  
duced, one would not suspect them to contain any considera-  
ble Quantity of Earth, and yet upon Examination, we find they  
yield a great deal, even aster they have heen rendered as pure  
as it is possible to make them. The Truth of this will he evin-  
ced by the following Process:

Take a strong Lixivium of vegetable Ashes, and by suffer-  
ing it to stand quiet for a long Time, let all the terrestrial  
Faeces subside to the Bottom ; and by this Means, it will he  
so depurated, as to become as limpid as Water-:- Let it then he  
depurated by repeated Filtrations till it become aS clear as Cry-  
stal. This Liquor then, if examined with a Microscope ever-  
so nicely, will not discover the least Sign os any terrestrial Sub-,  
stance. Then take this pure Lixivium, and put it into a.  
clean Vessel, and in a quiet Place, as free as possible from Dust,  
reduce it to the Consistence os a thick Oil; and then in a clean  
iron Pot evaporate this thick Liquor to a Dryness, keeping it  
continually stirring with an iron Spatula; and by this Means,  
you will procure an exceeding *Alcaline Salt.* When this is  
done, put this Salt into a clean Crucible, and with a Tile co-  
ver it over as close as possible, and in this Condition commit  
it to a Very strong Fire till it is melted.. Then pour it out into  
a warm brass Mortar, and with a hot Pestil rub it immediately  
into a Powder. Let this Powder then he put into a large glass  
Bason, and be thus exposed to the Air in a Place free from Dust,  
and the Salt in a Very short Time will he intirely dissolved into  
a Liquor perfectly Suid, whilst to the Bottom there will fall a

white terrestrial Powder, which heing thoroughly washed from  
the Salt that adheres to it, will appear to he nothing but mere  
Earth, such exactly aS that, which remained, of the vegetable  
Ashes after the Salt was all extracted. Is you take this Oil os  
Tartar*por Deliquium* and dry it, calcine it, and expose it to the  
Ain as before, it will diflolve again, and you will have a new Oil  
*por Deliquium,* and always some Earth remaining; and if this  
Operation is repeated a sufficient Number of Times, at last the  
greatest Part of the fixed *Alcaline Salt* will be reduced to a mere  
simple Earth, which in burning was united with that other  
Principle, both which, joined together, formed the *Alcaline* Salt ;  
which saline Principle heing now by many Calcinations and  
Solutions separated from its Earth, and set at Liberty, flies off,  
and is dissipated into the Air, and leaves the Earth alone. If  
all this. Earth, however, is collected together, and weighed, it  
will he sound a good deal lighter than the Salt at first made Use  
of; this Decrease in its Weight evidently evincing, that a great  
Part of the Salt was rendered Volatile; and thus carried away. As  
this Experiment, therefore, constantly socceeds in this Manner,  
we cannot but conclude, that this Earth, thus discovered, did  
really exist hesore in the fixed *Alcaline Salt,* from which it is  
by this Means procured, and that in so latent a Form, that it  
suffered itself, during that Time, to .he perfectly dissolved in  
Water, which otherwise is so repugnant to the Nature of Earth.  
And hence, therefore, it sarther appears, that the purest Earth,  
when it is united with some other Principle, is totally dissolu-  
ble in Water, though it is in no Degree soluble in Water  
when alone.

But it often happens during the Repetition of this Operation,  
that the *Alcali* changes its first Nature, and is converted into A .  
neutral Salt, which easily melts in the Fire like Wax: And  
hence some Chymists have Vainly thought, that they were  
Masters of that great Secret, *an inccrated, fixed, Alcaline Sals, -*which the antient Chymists so highly extolled. But this only  
happens from the Volatile Acid in the Air, applying itself to this  
Salt, and heing united with it, by which Means a new Kind  
of Salt is produced, compounded of the *Alcali,* and this Acid,  
and hence easily melting in the Fine, but deprived of all its  
*Alcaline* Virtue.

A fixed *Alcali,* procured in the Manner above described,  
has, above all others, every Mark of an *Alcali.* This Sals,  
therefore, we may fix as a Standard for all os this Kind, by the  
Character of which we may examine any Salts that we are in  
Doubt about, whether they belong to this Class, or not. And  
thus we learn, that *Alcaline Salts,* procured by burning, are by  
no Means homogeneous, but composed of different Principles.  
Amongst these, the true saline Part is greatiy less, than  
might he imagined, and when it is alone it is Volatile, and.  
escapes the Notice of our Senses, insomuch that as yet we are  
not come to a Knowledge of its proper Nature.

The Juice prefled from ripe Grapes, spontaneoufly ferments ;  
and during this Operation, it is called Must. Aster this Fer-  
mentation is over, and the thicker Faeces subside, and it has  
stood a sufficient Time quiet in the Cash, it becomes lim-  
pid, fine, and, in Appearance, homogeneous.- This is called  
new Wine, after having deposited these Faeces, which are named  
the *Lees,* or *Mother,* of Wine, and which were first dispersed  
in the Must, then elevated into Flowers, or Yeast, and after-  
wards subsiding, are collected at the Bottom of the Vessel. The  
Wine, when it is thus hecome fine, if it is drawn off from the  
Lees into a clean Vessel, leaves all these thick Faeces hehind it ;  
from which, -by pressing them strongly through thick Canvas  
Bags, a turbid Wine is procured, which is used for making the  
strongest Vinegars If the dry Faeces that still remain in the  
Bags, and are-formed into Cakes, are burnt to Ashes, these, if  
they are sifted, dissolved in Water, and depurated from the sub-  
siding earth, yield a clear Lixivium. And this, by Evapora-  
tion, in large Vesseis produces a Salt, Very like the former,  
but more pure, and inore acrid. This, then, is a second Spe-  
cies of fixed *Alcaline Salts,* which by the preceding Fermenta-  
tion seem to he rendered more subtile than the former.

. If Wine, thus fermented, defecated, and rendered sine, is  
drawn off into a clean Calk, and stands for some Time, there  
will then hegin to appear small shining Bodies in it, like Parti-  
cles of Glass, which gradually uniting together, form larger  
Globules, which fix upon every Part of the Vessel that the  
Wine reaches, and thus, by Degrees, incrustrate over its  
whole Surface with a Kind of stony Matter, called, for this  
Reason, Very properly, by the Germans, *lVine-Stone*; by the  
Chymists, *Tartar.* This is always of an acid Taste, and pro-  
duced from Wine only which has heen fermented, and depura-  
ted in the Manner above-mentioned.

When Tartar is distilled, a Very black Mass remains at the  
Bottom of the Retort, which is perfectly *Alcaline,* and exceed-  
ingly acrid ; and this is the only Method known of producing a  
fixed, alcaline, acrid. Vegetable *Alcali* in a close Vessel; for all  
other Vegetable Substances wherever, ' when exposed to\* the  
strongest Fire in a Retort, produce a black Coal, but never af-  
ford any *Alcaline Salt,* till this Coal is afterwards burnt in an  
Coen Fire. But if this black *Alcaline* Coal of 'Tartar taken

lent os the Retort, and burnt in an open Fife, it yields a white  
*Alcaline Salt,* of all fixed *Alcaldes,* the most acrid and pure.  
By this furprifing Experiment, we learn, hew much Fermen-  
tation promotes the Production of an *Alcali,* though at rhe  
same Time it always heightens, and even generates an Acid.  
Both *Alcalies* and Acids, therefore, are more readily produced,  
by the Assistance of Fermentation, than without it ; which Ob-  
servation, certainly, is of great Importance, though Very little  
taken Notice of.

But all *Alcalies,* from whatever Vegetable produced, when by  
the strongest Fire they are at last brought to their greatest *alcaline*Perfection, hecome fo perfectly alike, that they can scarcely  
he distinguished from each other. There is, however, one tri-  
fling Circumstance, wherein they differ, which is, that Glass  
made with the Very same Flints, but different fixed Salts, will  
differ a little with Respect to Colour, *so that what is* prepared  
with the *Alculine Salt* os Fern, shall he different from that made  
with any other Salt. But Chymists are Very sensible, that a  
very small Matter will make a considerable Alteration in the  
Colour of Glass ; thus. Pounding the Salt in a metal or mar-  
ble Mortar, will produce a Difference. Hence it seems possi..

' hle, that something metalline may infinuate itself into Vegeta-  
.. bleS, which bring naturally fixed in the Fire, may impart Pro-  
perties to the Salts which escape the Notice os our Senses, till  
they discover themselves in the Colour of the Glass produced  
from them. It is certain, that Particles of Iron lie concealed  
in many Bedies;. and perhaps Copper may do the sanie.

Another Sort of fixed *Alcaline Salt,* which has been discovered  
by the Chymista; and accurately descrihed by Glauber, is pre-  
pared in the following Manner :

. Put some pure Nitre in a clean Vestel, let it melt over the  
Fire, and it will then scarcely have any Visible Motion. Whilst  
it is in this State, throw a Piece of burning Coal into it, and c  
in an Instant it will produce a great Noise, the Coal will he  
agitated upon the Surface of the Nitre, till it is consumed, and  
then the Nitre will flow quietiy again, as hefore ; then throw  
In another Piece of Coal as hefore, and the same Appearances  
. will he renewed. Repeat this till the Nitre is no longer moved  
by the Application os the Coal, and then what remains, will in  
every Respect answer the Character of an *Alcaline.*fixed Salt:  
Thus, for Example, it hetrays a caustic Acrimony, and an uri-  
frons Taste in the Mouth ; it raises an Ebullition with all  
known Acids ; if saturated with an Acid, it is converted into a  
compound Salt, whose Nature is determined by that of the  
Acid ; and it has the. Very same Effect as the *Alcallne Salt* de-  
scribed above, with Respect to the Production of Colours, Pre-  
xipitations, and Solutions of Bodies, This Salt, however; dif-  
fers in some Respects from the former, as it always retains  
something of Nitre, which is not utterly destroyed by the Pro-  
cess. This does not discover itself, till some of the hest Oil of

‘ Vitriol is poured upon it; but then a Vapour instantly arises,  
winch by its Smell, like that ofSpirit of Nitre, or Aqua Fortis,  
. discovers its nitrous Nature. In this Experiment, the Oil of

Vitriol generally grows black, when it is mixed with the *Aka-,  
li,* whence it appears, that something of the Charcoal is united  
with the *Alcaline Salt.* Glauher, therefore, was certainly in the  
.right, in helieVing this *Alcali* of Nitre, to he in some Measure  
different from Vegetable *Alcalies;* but when he extois its Vir-  
iues above all others, it is possible his Own Discovery might he-  
tray him into a little Exaggeration. For he boasts of the Oil  
*r per Deliquium* of this fixed *Alcaline Salt,* as if it was the .Al-

Cahest, or universal Solvent.

. But a third, and the most expeditions Way of producing a  
fixed *Alcaline Salt,* and that in great Quantity, is as follows:  
. Take of the hest and driest Tartar, and Nitre reduced to a fine  
Powder, an equal Quantity ;\* mix them together,, and throw  
them by a little at a Time, into a clean iron Vessel, made al-  
most red hot, and an instantaneous Deflagration will ensue,  
dud a white, *alcaline,* fixed Salt will he produced. This, too,  
is like a vegetable *Alcali* in every Characteristic, except that  
upon being mixed with Oil of Vitriol, it betrays by the Small its  
Original Nitre.

There is another singular Method ofpreparing a fixed, fiery,  
*Alcaline Salt* from Nitre, and that in a Very little Time, as fol-  
lows : After Antimony is as much as is possible deprived of its  
Sulphur, the pure metalline Part, which remains, is called its Re-  
*gulas.* Take this Regulus, put it into a clean- Crucible, melt it  
in the Fire, and when it is in Fusion, add an eighth Part of the  
purest, and driest Nitre. It is something furprifing to find that  
.this Nitre, which generally flows easily in a strong Fire, cannot  
now be melted, without the Application of a Heat, intense  
enough to fuse Copper. And when it is urged with a Degree  
of Fire sufficient to melt it, it immediately acquires a golden  
Colour ; and when the Whole is poured out into a Cone, the  
Nitre rises to the Top, in the Form of a goldenCake. This,  
when separated by striking the Cone, is impatient os Dryness,  
and is of so acrid, *alcaline* a Nature, that it is perfectly fiery  
.. in almost all its Effects: Nor have the greatest Masters in Chy-  
mistry ever found .any Method of communicating, to Salt an  
equal Degree of Acrimony. And here it is observable that Ni-  
tre, which is the coldest of all Salts, and has not the least Mark

of any *Alatii* in it, when it is thus fused with the metalline Part  
of Antimony, acquires this Acrimony, as in were, by Contact.  
It is probable,' in this Case, that the Sulphur of Antimony is  
Very intimately united with the Nitre ; for the Salt thus pro-  
duced, whilst it is exceeding dry, and hot; makes a red Tine-  
ture with pure Spirit of Wine, and that immediately, of an ex-  
ceeding caustic Nature, This Experiment succeeds, whether  
the Regulus is made with Iron, according to Suchteffs Method,  
or with Tartar and Nitre, in the common Way. But this  
Effect will not he produced; so long as the external Sulphur ad-  
heres to the Antimony, the Experiment then only answering,  
when this Part heing separated, the remaining reguline Part is  
fused with the Nitre. The sudden Change that is in this Cafe  
effected, is so much the more surprising, as Nitre with Sulphur k  
never becomes *alcalious,* but is converted into a bitterish Sal  
Polychrefinn. And whet still makes it more extraordinary is, ’  
that Nitre, if it is kept for a considerable Time iri Fusion by  
itself, will undergo no Alteration, but remain the same.  
Hence, then, we learn, what sudden and unsuspected Effects  
are produced by the Combination of Bodies, which it was not'  
possible to foresee ; and that general Conclusions in Physics, are  
liable to a great deal of Error. From this Experiment, also,  
we may observe, how easily the whole Substance of Nitre grows  
*alcaline,* as it were, by mere Contact ; for in this Instance, it  
is not mixed with the melted Antimony, hut only flows at the  
Top of it. - »

The Properties of fixed *Alcallne Salts* are as follows"

They attract Water Very powerfully and at a great Distance,  
and from every known Body in which it resides. This is plaid  
to the Eye, for when such *uss Alcali* is .taken out of a strong  
Fire; if it is suffered to remain in a Very hot Air, close by the  
Fire, where Water can by no other Art he discovered, it will  
eVen there grow moist, and disiblVe: And if it is then put into  
a clean, dry, glass Vessel; and dried over the Fire, and the  
Vapour that exhales, is received, and condensed in an Alembic,  
it will yield again the pure Water which the *Alcali* had attract-  
ed. . Other Salts, if moist hefore, would have heen deprived os  
their Water in the Very same Degree of Heas, and the same  
Place where the dry *Alcali* attracted Moisture. These *Alca-  
line Salts* therefore, are true Magnets to Water; by this they  
are dissolved, and are strongly united with it ; and hence, when  
rd ey are once dissolved in Water, a Heat equal to that Os boiling  
Water will not perfectly dry. them again.

Thus, for Instance, Oil of Tartar *per Deliquium,* will not  
he dried in a Heat of two hundred and fourteen Degrees of the  
common mercurial Thermometer, which is sufficient to make  
Water boil; but it must he put into a metal Vessel, and kept  
Continually stirring in a Heat of more than six hundred Degrees,  
inorder to separate all the Water from it : Hence, we scarcely  
know any Body that parts with its Water with more Difficulty;  
. The following Experiments were made with a View of dis-  
covering the Force with which fixed *Alcaline Salts* attract Wa-  
ter, the Quantity they imbibe, and the Spaces through which  
their attractive Virtue is diffused.

- An Ounce of a fixed *Alcaline Salt,* exceedingly pure arid dry,  
was pur into a clean glass Bason, and exposed to a dry Air, in  
a subterraneous Place,, that was every way inclosed, and not in  
the least disturbed by any Wind; and in a little Time, the Wa.  
ter was attracted out os this still Air to the Surface of the Salt,

. and the Water was thus attracted by the Salt, till the Salt was  
impregnated with near three Ounces of Water, but bring then  
thoroughly saturated, it did not imbihe any more. Hence it -  
appears, that fix Cubic Feet of Air at least, was required to supil  
ply this Salt with such a Quantity of Waters For if we suppose  
the Weight *os* Air to that of Water, as one to a thousand, and  
a cubic Foot of Water to weigh fixty-four Pounds, then all  
the heavy Bodies in a cubic Foot of Air, will weigh Ther of a  
Pound. Let us imagine only half of these heavy Corpuscles  
Io be pure Water, the other half, all the rest of the ponderous  
Bedies contained in the Air, and then, it appears that in a  
cubic Foot of Air, there will he about half an Ounce of Water,  
AS this Salt, therefore, is capable of attracting Water out of so  
large a Spade, we hence discover a very surprising Power in  
Nature. SendiVogius, therefore, well observed, that the inord  
*Alcalies* are burnt, the more Water these calcined Bodies at-  
tract out of the Air. It is possible, however, that the Water  
in the Air, at a Distance from that which surrounds the *Alca-  
line Salt,* may be drawn into this Air, and supply the Place os  
that Water which is attracted by the Salt;

- But to come at amore accurate Knowledge of this Attraction  
of Water by *Alcaline Salts,* Boerhaave'took a large gloss Bottle,  
very clean; and dry, and hot, as if it had just heen taken out  
of the Glass-House Oven. Into this ha put some pure Salt of  
Tartar, Very hot and dry also, and reduced Io Powder, in the  
Manner above descrihed. He then iminediately stopped the  
Mouth of the Bottle with a dry Cork, and tied over it a Hog’s  
Bladder softened with Oil, and made very supple: The Effect  
os this Experiment was, that rhe Salt which adhered to the  
Side of the Glass, was grown moist with the Water contained  
in that small Quantity of Air included in the glass Bottle, though  
rhe Air was extremely .het and dry, at the Time that the Pot-  
tle .was closed. 2. he

*'2.* Tt has not yet been determined with any Degree of Cer-  
tainty, whether fixed *Alcaline Salts* repel Air, or attract it so  
strongly, as not to part with it again readily. Experiments  
that have been made with this View leave the Thing dubinns.  
It is Very certain that Oil of *ALaline Sales per Deliquium,* exa-  
mined by the Ain-Pump, gives not the least Indications of con-  
taining Ain, fince none is to he separated from it, when the  
Pressure of the Atmosphere is taken away, eVen though the Oil  
is made Very hot in order to expel the Ain On the contrary it  
is equally certain, that when *Alcaline* Oils *por Deliquium* are  
mixed with Oil of Vitriol, from which the Air has been ex-  
tracted by the Air-Pump, a surprising Quantity of elastic Ain  
is produced. Or, as it is called, generated. Upon considering  
‘these Circumstances, it appears most probable that fixed *Alca-  
line Salts* actually attract Air, and unite it with themselves so  
strongly, that it is not to he diflodged, till the Texture of the  
Salt is destroyed by the EfferVescence upon mixing it with an  
Acid.

. These pure, acrid, fixed, *Alcaline Salts,* if they are mixed with,  
the purest Alcohol, when they come Very het out of the Fire, at-  
tract it, and unite with it; but if there is the least Mixture of  
Water, either in the Salts or the Alcohol, then the Salts repel  
the Alcohol, nor can they he united by any Art wheteven In  
this Manner, therefore, pure, fixed *Alcaline Salts* divide strong  
Spirit of Wine into two Parts, that are not afterwards miscible  
with each other, that is, into a Water saturated with the *Alca-  
line Salt,* and into a pure Alcohol, which swims at the Top.  
And thus, again, plainly appears the reciprocal Attraction he-  
twixt Water and fixed *Alcaline Salts:* Take a Pint of the  
purest Alcohol, mix with it a small Quantity of Water, and  
then add a dry *Akaline Salt,* and the *Alcali* will in an Instant  
draw into it that littie Portion of Water, and will appear in the  
Form of a thick Oil about the Sides of the Glass ; and, at the  
same Time, the Combination of the Alcohol and Water will  
he utterly prevented.

These *Alcaline Salts* act also upon Vinous Spirits in another  
Manner : For, as every Spirit drawn by Fire, from Wine os  
any Sort, has always a Volatile Acid intermixed withit, the  
Acid heing greedily attracted by the *Alcaline Salt,* the Spirit by  
this Means becomes much more pure, when freed from the Acid  
which adhered to it, and consequently will he Very different,  
both in its Nature and Virtues, from what it was before this  
Operation. And the *Alcali* itself will also, at the same Time,  
he intirely altered, and become a Salt compounded of an Acid  
and *Alcali,* infomuch that, *if it* is perfectly saturated in this  
Manner, a Salt perfectly neutral will he produced.

These Observations direct us to a Method of preparing a pure  
Alcohol, without Distillation, or any Assistance from Fire ; for  
add a sufficient Quantity of Pot-ash to common Spirit os Wine,  
and stir them about till they are thoroughly mixed together,  
the Water will he attracted by the *Akaline Salt,* and the Alco-  
hol will swim at the Top, .which, by a gentie Decantation, will  
come off good the first Time. If any Doubt remains, whether it  
is quite pure, or not, put some more Pot-ash into the Alcohol thus  
prepared, and by starring them about, and then pouring the  
Liquor off, aS before, it may be rendered so. In this Opera-  
tion, however, the Spirit of Wine always discovers an Oil,  
which before appeared neither in the Spirit of Wine, nor the  
*Alcaline Salt,* but is generated when they are thus mixed toge-  
ther. '

Another Property of *Akaline Salts* is to unite intimately with  
' distilled Vegetable Oils: For if the most acrid, pure, dry *Alca-  
line Salt* is thrown Very hot into a distilled Oil, it attracts  
the Oil greedily, with a considerable hissing Noise, and unites  
It so with its own Substance, that there is immediately formed  
a Kind os Soap, and the Oil is more firmly united to the *Alca~  
line Salt,* and the Soap is rendered more perfect, is the Mixture  
is set in a subterraneous Place; sor by tins Means both os them  
become semi-Volatile, and form a Mass dissolvable in Water,  
which is endued with excellent medicinal Virtues. This is the  
*Ens parvum Sapientum,* the *Sapo Helrnontianus,* the *Sal-Vilatde  
Tortari* of Starkey, and the *Corrector* os Matthews. It was  
formerly in great Reputation, first in England, and afterwards  
all over Europe ; sor it powerfully refolVes almost every Kind  
of viscid Concretion that is generated from the Humours of the  
human Body: Hence it incides and attenuates the tenacious  
Concretions that obstruct the Vesieis, and at the same Time it  
gently stimulates the Vestals themselves ; and thus, by acting  
both upon the Solids and Fluids, it promotes the Secretions by  
Sweat and Urine, and by. these Evacuations carries off the Cause  
*os many* chronical Distempers. This Soap also intirely alters  
the Nature os many Simples, when digested with them, and  
hence, depriving some os their Virulence, imparts to them Vir-  
tues Very different from whet they naturally poflefled. The  
Chymists, however, as is usual with them, have been too lavish  
in the Praise of thts'Medicine, which they have extolled as an  
universal Remedy. But it must he observed, that this Combi-  
nation of a fixed *Alcaline Salt* and distilled Oil can never he  
brought about, if the least Portion of Water adheres either to  
the Salt or Oil; and for this Reason it is necessary the Salts  
should he hot when mixed with the OIL It will ^en hinder

the Success os the Operation, if a small Portion of the *Alenlihe  
Salt* stands above the Oli in the Vessel, and thus, by heing ex-  
posed to the Air, grows ever so little moist.

Fixed *Akaline Salts* are easily united also with the expressed  
Oils of Vegetables, or Animals, as is daily seen in their Combi-  
nation into artificial Soap by the Assistance of quick Lime.  
Water and Fire.

But *Alcaline Salts* remarkably attract all Kind of Acitis whet-  
ever, whether animal. Vegetable, or mineral, and that whether  
dry or moist, pure or diluted. And this Force, with which  
*Alcalies* thus attract Acids, is incomparably greater than that  
with which they attract Water: For in this Action, by which  
they unite these Acids with themselves, they Violently expel the  
Air that resides both in the Salt and Acid, whence arise fuch  
Numbers of Air-bubbles, which suddenly appear, and burst.  
This Union also makes them repel even Water, and when they  
are thus saturated, they will easily suffer themselves to he dried,  
or deprived of their Water, which hefore, when they were  
separated, they retained most tenacioufly. Pure Oil *Of Vitriol,  
for* Instance, when it is alone, can scarcely by any Art he utterly  
deprived of its Water ; Oil of Tartar not without a great deal  
of Difficulty: And yet, when you mix them together,' the Wa-  
ter is expelled in such a Mannes, that a Salt almost dry appears  
in the Vessel under *is, aS* is evident in rhe Preparation os Tar.,  
tarns VitriolatuS. The same is true also of other Acitio, when  
they are combined with an *Alcali.* This Power however; by  
winch *Alcalies* attract Acids, is limited to certain Bounds ;  
hence there appears a great Diversity among them, though thiS,  
indeed, seems more owing to a Difference in the Acids, than in  
the *Alcalies.-* Upon this Subject the illustrious Homherg has  
communicated to the World many useful Observations, some os  
which are of Importance enough to deserve inserting;

One Ounce of Salt of Tartar absorbed all the Acid from sourA  
teen Ounces os the best distilled Vinegar; and hence, after it  
was dried, it was increased in Weight three Drams thirTy-six  
Grains ; the remaining Part of the Vinegar was mere insipid  
Water. By this Means, then, we discover the Proportion  
there is between the Acid, and the Water of the Vinegar.

The same Quantity of Salt of Tartar absorbed all the Acid  
from two Ounces five Drams of Spirit of Salt; the Increase of  
Weight, when dried, was three Drams fourteen Grains.

An Ounce of Salt of Tartar absorbed all the Acid from one  
Ounce, two Drams, thirty-six Grains os Spirit of Nitre ; the  
Increase of Weight was three Drams ten Grains.

The same Quantity of Salt absorhed all the Acid from one  
Ounce, two Drams, thirty Grains of Aqua Fortis; the increased  
Weight was three Drams six Grains.

From five Drams os Oil osVitriol an Ounce of Salt of Tartar  
absorbed all the Acid ; the Increase of Weight in the dried Salt  
was three Drams five Grains.

AS these are the principal Acids, we may infer. First, that in  
acid Liquors, though Various with Respect to their Bulk, whilst  
united with their Water, yet the acid Principle has nearly the  
same Weight in all. Thus Vinegar, which is the lightest of  
all these Acids, increased the Weight of the same Salt os Tartar,  
as much as the Oil osVitriol, which is the heaviest and strongest.  
The same too is true with Respect to the other Acids, the  
Difference hetween the greatest and least Increase of Weight  
being no more than thirty-one Grains, and that only in the  
Vinegar, and this because the Tartarus Regeneratus, that is,  
the compound Salt formed by the Union of the Salt of Tartar  
and Acid of the Vinegar, is not dried without a vast deal of  
Difficulty. "

Secondly, Acids seem to differ principally aS to the Quantity  
Of Water they are diluted with, since the pure Acid, when it  
is extracted, discoVerS always the same Weight. Is fourteen  
Ounces, therefore, of the strongest Vinegar could by any Con-  
triVance he reduced to five Drams, by separating the Water  
from it only, and collecting the Acid into a smaller Compass  
without altering it, it is possible that the Vinegar thus reduced  
in Bulk would he as strong as Oil of Vitriol. It is however  
certain, that it would be then capable of saturating the same  
Quantity of *Alcaline Salt.*

Thirdly, We hence perceive, how great a Part of these acid  
.Liquors is Water.

Fourthly, It is probable, that *is these* acid Salts could he ob..  
sained pure without any Water at all, they would then appear  
in a solid Form. This, however, has never yet heen accom..  
plished : Very intense Cold has come nearest it of any Thing,  
but not quite compleated it. Hence also we may conceive what  
surprifing Effects *Alcaline* Menstruums may produce, when they  
act upon Substances that have any latent Acid in them, or upon  
those that are actually consolidated, and held together by an  
Acid; and hence, when this Acid is absorbed, they sail again  
into their constituent Elements. .

When this Affusion of an Acid to an *yilcali* is performed  
gradually and cautioufly in warm Liquors, and io a large Vessel,  
if at the same Time the Vessel is shaken after every Instillation  
of the Acid, the Mixture at last arrives to fuch a Temperament,  
that there will he no farther Ebullition : And this is called the  
*Point of Saturation,* If Acids are after thin added, no more 4gin

turion will he excited, than there is upon mixing Water with  
Water: And then the Compound thus produced is neither *Alca-  
line* nor *Acid,* but *neutral,* formed by the Union of both. Hence  
*Acids* have been called Males, and *Alcaldes* Females, and the  
Compound of them both Hermaphrodites: The *Akali,* the Va-  
cuum ; the *Acid,* the Implent; The *Akali,* the Chaos, and the  
*Acid* the impregnating Spirit.

The Violent Ebullition and Effervescence, that appear upon  
the Mixture of an *Alcali* and an *Arid,* whilst the Air and Wa-  
ter are forcibly expelled, may possibly arise, because these Bedies  
impetuoufly drive out whatever lyes betwixt them, when they  
rush strongly into mutual Contact: And if so, this Ebullition  
and Effervescence do not arise from any Disagreement, but from  
an Association of Principles. Hence the following Queries will  
naturally arise: I. Whether Acids abound plentifully with Air,  
whilst *Alcalies* contain none at all ? So sar is certain, that the  
strongest *Alcali,* taken very hot out of the Fire, and so proba-  
bly deprived of all its Air, will, if it is thrown into an acid Li-  
quor, produce a prodigious Effervescence, and a great Quantity  
of Air will be generated. Hence may we not arrive at the true  
Reason, why Acids, when they are predominant in animal Bo-  
dies, are productive of so much Flatulency ? Do not neutral  
halts, produced from a Combination of *Alcalies* and Acids, lose  
the greatest Part of their Air; and are they not for this Reason  
found to he Very little flatulent in the human Body ? Are not  
acid, or at least acescent Bedies, the only Substances which are  
disposed to ferment, hecause of the latent Air they contain ?  
And is not this latent Air the Source of that prodigious Quan-  
tity of Air, which is generated by Fermentation? Does Fer-  
mentation therefore naturally tend to the Generation of Acids,  
whilst an intense Fire produces *Alcalies?*

From what has been said it appears, that amongst natural  
Causes, by which Motion is excited in the Universe, we must  
reckon *Alcalies* and *Acids,* at the Time when these are mixed  
together, which Motion ceases, as soon as eVer this Combina-  
tion is compleated.

*The Motion thus excited seems of considerable Importance in Vege-  
tation, dr rather in preparing the Earth flor it. Peeple concerned  
in Husbandry are feasible, that frequent Ploughing or Digging the  
Earth mellows it, as they call it, and renders itfertile., or, to speak  
triore philos.ophically, disunites the Parts of the Earth, which other-  
Vdse cohere togethcr, and form large Glebes, and reduces them into  
small Particles, bettorsuited to the subsequent Solation they are to un-  
dergo, in order to the Production of a Plant. Now when the Earth  
is once surnisuedwith an* Alcaline Salt, *and that es intimately united  
nuith the .earthy.Particles, which soon happens, because these Salts,  
attracting the Water 'floating in the Air, run into an Oil* per Deli-  
quium, *and sink into the Ground; the fame Salte attract also the  
Acid of the Air, till they are s.aturated, and both togethcr rendered  
neutral. Whilst therifere this Neutralization is effecting, an Esser-  
vefcence is made leisurely and by Degrees, as the* Alcaline Salt *im-  
bibes the* Acid. *Hence Metion is excited in the Parts of the Soil  
which wore impregnated with the* Alcali, *ana by this Motion the  
Particles os. the Earth areseparatedfrom each other, more effectually  
than either by Ploughing or Digging. This Separation is an excellent  
Preparative for a suture Solution, and.indeed is one Step towards it,  
since the Solution of a Body is only the Reducing it into Particles sine  
enough tofloat in the Menstruum that disselves it, andsinall enough  
to be transparent, and consequently not visible.*

: There can he no Doubt, but that in the Action of these  
*Alcaline* Menstrua , upon *Acids,* the Water is expelled out of  
them, as well as the Air, when they thus unite together ; for  
though they are perfectly fluid, when they are mixed, yet they  
harden in the very Act of Combination, into little saline Gle-  
hules, and appear in the Water in the Form of pellucid Crystais,  
.the watery Liquid being driven out, and swimming at the Top.  
And when the Saturation is compleat, the Water may be sepa-  
rated pure, and without any saline Taste, and than the Re-  
mainder is easily dried into the Form of a white, farinaceous,  
opake Powder, and that too by a gentie Heat, whereas the Pa-  
rent .Isimsiand *Acid,* by whose Combination they are produced,  
either cannot he dried at all, or not without the greatest Diffi-  
culty. ; . . .

. It is farther remarkable, with respect to these compound  
Salts thus prepared, that it is extremely difficult to separate again  
the *Alcali* from the *Acid,* so as to procure either of them pure,  
by the Assistance of Fire only. Sal Ammoniac, for Instance,  
.made by a Combination of *Alcaline* Spirit os Sal Ammoniac, and  
Spirit of Sea-Salt, may be sublimed, by exposing it to a sufficient  
. -Degree of Fire ; .but it will not he .thus possible to separate it

into the saline Principles of which it was compounded. The  
same is true with Regard to Tartarus VitriolatuS, Sal Marinus  
Regeneratus, Nitrum Resuscitatum, Tartarus Regeneratus, and  
others. There are, however, some Methods discovered, by  
which this Resolution of compound Salts, into their constituent  
*Alcaline,* and *Acid* saline Principles, may be accomplished, and  
the Knowledge of these will make us acquainted with some of  
. the most secret Mysteries of Chymistry. In order, therefore,  
.to arrive at the Knowledge of these, it is necessary to examine  
Tome farther Properties *os Alcalies.*

*Accalies,* therefore, though they attract all known Acids \*  
at the same Time it is remarkable, that they attract some,  
much more powerfully than others. This Assertion is abun-  
dantly confirmed by Experiments. Thus, if upon an *Alcali*perfectly saturated with Vinegar, or upon Tartarus Regenera-  
tus, Spirit of Salt, or Nitre, or Sulphur, or Vitriol is poured,  
then the latent *Akali* will attract into *it* that Acid, and repel  
from it the Acid of the Vinegar with which it was before satu-  
rated; and hence a Liquor, nearly of the Nature of Spirit -os  
Vinegar, may he afterwards drawn from this Compound with  
a moderate Heat, there remaining a considerably fixed, regene.,  
rated, nitrous Salt at the Bottom of the Vessel; Again, is Spi-  
rit of Nitre is poured upon an *Alcali,* saturated with Spirit os  
Salt, an Aqua Regia will arise in Distillation; and a nitrous Salt  
z will he left at the Bottom ; but much changed from its formes  
Nature. On the contrary, if Spirit os Salt is poured upon an  
*Alcali,* saturated with Spirit os Nitre, the Mixture will in Di-  
stillation also yield an Aqua Regia; and the Salt that remains  
will he ofa nitrous Nature, and somewhat inflammable; howe-  
ver of'a Nature Very different, both from Sea-Salt, and Ni-  
tre. . In both these Cases, as there is no considerable Difference  
hetwixt the Acid of Nitre, and that os the Salt, with respect to  
their Strength, each of these Acids, in some Degree; diflodges,  
and expeis the other, by which means they rise mixed together,  
and. both of them also remain united with the *Alcali* in the  
Residuum. . .

. Pour Oil of Vitriol upon an *Alcali,* saturated with Spirit of  
Nitre; a. pure Spirit of Nitre is immediately expelled, and the  
Acid of the Vitriol unites with the *Alcaline* Part of the Nitre,,  
and forms a Salt at the Bottom, somewhat of the Nature of  
Tartarus VitriolatuS, though different from it in some os its  
Properties; it has, however, scarcely any Thing in common with  
Nitre. And, lastly. If Oil of Vitriol is poured upon factitious,  
or natural Sea-Salt, a very Volatile Acid, fuming Spirit of Sed--  
Salt, will instantly arise, endowed with almost all the knowri  
Virtues of Spirit of Salt, except that it fumm more, is more  
‘volatile, .and its Vapour is noxious and suffocating, till it is  
corrected by repeated Depurations. All these Experiments,  
therefore, certainly prove that those Acids, which are natural-,  
ly diluted with a less Quantity of Water, have a greater Power  
of uniting themselves with *Alcalies,.* than those, which are natu..  
rally diluted with a greater. And this Rule, so sar as has yet  
appeared by Experiment, may he laid down as general, that the  
stronger *Acid* always expeis from the *Alcali* that which is weaker  
and which is the least powerfully attracted by the *Alcali.* And  
then the stronger *Acid* always unites with that *Alcali* from  
which the weaker was expelled, and takes Possession of the Place  
in which that resided.

Again, the Salt thus generated, lofing the Disposition it had  
acquired from the first and. weaker Acid, which is now removed,  
puts on Very nearly the Nature of that Salt, from which the  
last and stronger Acid, which is now united with the *Alcaline*Part, was drawn. It must, however, he confessed, that these  
is always some remarkable Difference betwixt the Salts thus  
produced, and the native Salts from which those stranger Acids  
were procured. Thus, for Instance, the Sal Mirabilis Glauhe-  
ri, which.is prepared by a Distillation os Sea Salti with the best  
Oil of Vitriol, is . of a Very different Nature from that Tar-,  
tarns VitriolatuS, which is obtained by a Saturation os Oil of ,  
Tartar with Oil of Vitriol This is also true, with respect tot  
Other, compound Salts. Thus the Salt which is procured by  
distilling Glauber's Spirit of Nitre, is intirely different from the  
Sal Mirabilis os the same Author, though both these are sup-  
posed to he produced from the same *Acid,* and the same *Alcali,*This Rule therefore, which has been laid down by the most emi-  
nent Chymists, *That* Acids *always convert* Alcalies *into their Naa  
ture in such a Marnier, that from these Compounds, may be constant.,  
ly regenerated those Salls, which before yielded those Acids,* is too  
general, and must he understood with some Restrictioni

It is farther remarkable, that when these stronger Acids thud  
poured upon compound Salts, expel thence the weaker Acids  
which were united with them before, and join with the remaining  
*Alcalies,* this new Combination is effected without any conside- I  
table Effervescence or. Conflict : Tor the first and weaker *Acid*quits *the Alcali,* and the last and stronger takes its Place, with-  
out any great Ebullition, notwithstanding there arises such a  
prodigious Emotion, when a Pure *Alcali* is mixed with a pure  
*Acid.* Nor does it appear,.that any Air is generated by this  
- Union, though in \* the other Case it was expelled in th large a

Quantity. It is probable, therefore, .that the Effervescence  
which was excited in the first Saturation os the *Alcali,* had ex-  
pelled all the Air, *so that* now the new *Acid* does nothing more  
than enter into the saturated *Akali* thus deprived os its Air, and  
remains there, without either expelling or attracting any Air ;  
and it seems a farther Confirmation ofthis, that if the *Acid*which is expelled by a stronger *Acid,* is mixed with another  
*Alcali,* it will with that raise a Violent Effervescence, so that \* .  
a great Heat, Noise, and Generation of Air will he produced,  
whilst in the compound Salt, there was yery littie of any such  
Appearances.

What has been said above, with respect to fixed *Alcaline Salts,*will he sufficient to give a general Idea of their Nature and Pro-  
perties. It remains, that I give the different Methods of pre-  
paring fixed *Alcaline Salts* for medicinal Uses, and specify the  
Virtues they are supposed to exert in and upon the human  
Body. This I shall do principally from Boerhaave, because he  
has given the particular Processes with more Exactness, and  
been more just in his Reflections upon them, than any prece-  
ding Writer upon these Subjects.

J must, however, take Notice of two Mistakes which the  
above-mentioned Author seems to have made, in regard to the  
Thedry of these Salts,, and which he is so sollicitous of propaga-  
ting, that he takes all Opportunities of repeating them.

The first is, when he tells us, that fixed *Alcaline Salts* are ne-  
ver produced naturally, but are only generated by Fine from  
Vegetables. This is evidently an Error, because, according to  
the best Accounts we have of the Egyptian Natron, if agrees  
’with fixed *Alcaline Salts-* in most, or perhaps all its Properties.  
Now this is a native Salt, procured either from the Earth by  
helling it in Water, or else by evaporating the Water of cer-  
tain Ponds, or Lakes, to Dryness. And we have an Account  
of an Earth which is got near Smyrna, which, by boiling in  
Water, and a subsequent Evaporation, yields a Salt Very little,  
ifat all, different from Pot-Ash, and which may for all Purpo-  
ses he used in its Stead. And the Heat of boiling Water is in  
no Instance sufficient to generatean *Alcaline Salt.*

The second Mistake is, when he inculcates, that the fixed  
*Alcaline Salts* of Vegetables of all Kinds are exactly alike, and  
nothing different, either in their physical Properties, or medial-  
rial Virtues; though he confesses, that the Salts of different  
Plants, impart a different Colour to the Glass which is made  
from them, which proves, at least, pome Variety. He farther  
says, that a Portion of the vegetable Oil always adheres to the  
Salt, notwithstanding the excessive Fire they have endured ;  
as therefore the Oil of every Vegetable differs from that of  
every other Vegetable, this Circumstance must make some Dif-  
ference in the fixed Salt. And in this I have the illustrious  
Hoffman'S Opinion in my Favour.

’ If this Controversy is brought to the Test of Experience, I  
. am certain it will he determined against the above-mentioned  
illustrious Boerhaave. .For the Salts procured from some Plants  
will, even when mixed with an Acid, and saturated, cause a  
great Heat and Sensation of Burning at the Stomach, whilst  
Salt of Wormwood saturated with the same Acid, and given a  
sew Hours aster, will cause no such Uneasiness, but have a much  
better medicinal Effect. And this is so remarkable, that I have  
frequently discovered by the Effect, that other Salts have been  
substituted in the Room os Salt os Wormwoed. And from the  
various Effects I have seen produced from the fixed Salts of dif-  
ferent? Plants, I am convinced that it is as much impossible to  
procure a Salt endued with exactly the same Virtues as Salt of  
Wormwood from any other Plant, as it is to produce a Plant  
Of Wormwoed from the Seed of any other Vegetable. And I  
believe the same may be said with respect zto the fixed Salts of  
Broom, Bean-stalks, Mint, Fern, and most other Plants.  
Though at the same Time it must be confessed, that the fixed  
*Alcaline Salts* of all Vegetables agree Very much in all their sen-  
sible Qualities ; but as Nature has Ways of acting, to which  
we are Strangers, and draws mechanical Properties from Sources  
tons unknown, it is dangerous, as well as imprudent, to de-  
termine any Thing from Theory, hesore it is consumed by a  
Multitude of Experiments.

AS *Alcaline Salts* made after the Manner of TacheniuS should,  
by the Character Boerhaave gives of them, he of great Impor-  
tance in Physic, I shall begin with those. .. ,

**. The METHOD Of preparing a fixed'ALCALlNR SALT  
from BURNT VEGETABLES, aster the MANNER of  
TACHENIUS. .**

i. Put into a large and deep iron Frying-pan, a Quantity of  
the Leaves and Stalks of clean, dry, fresh, green Rosemary ;  
upon this lay an iron Plats, in inch a Manner, that it may com-  
press the Rosemary, and perfectly coyer it .all over. Then  
place the Pan upon a gentie Fire, which increase gradually,  
till the Vessel grows red hot. - The Plant will then smoke,  
-diffuse a Smell, and he converted into a Coal. Then add  
more fresh Rosemary, cover it, compress it down, and proceed  
as before, till this is also turned into a Coal. Repeat this till 4  
Quantity is procured, sufficient sor the Purpose intended. Du-  
ring this Operation, take all possible Care that the Herb does  
hot flame, which is hest prevented,, by covering it in such a  
Manner, than it has no Communication with the Air, sor if  
-that comes to it, it bursts out into a Flame, which in this Case  
does Harm. This is called the Ustulation of a Plant, and the  
flower and inore gradually it is performed, the Operation will  
he proportionably more perfect. The burnt Herb will he ve-  
ry black, brittle, and bitter , and boiled in Water, the Decoc-  
tion scarcely discovers any Salt in it, but tastes bumt and bitter,  
and issudorific ; so that in the Ustulation of a Plant intoa black

Coal, scarcely any Salt is discoverable.; either by the Lixivium\*  
made from it, or by the Taste os the Coal.

2. When this first Part os the Process is rightly performed,-  
take away the iron Plate which covered the Rosemary, and let  
the Frying-pan, with the ustulated Herb, remain on the same  
Fire ; upon which, as soon as ever the Air comes to it, the  
Herb,which isnowbecome black, will take Fire, and would Very  
easily rise into a Flame ; but this must here he carefully pre-  
Vented, and the Ignition must he sustained by a Fire accommo-  
dated to the Purpose. When the upper Part, which is conti-  
guous to the Air, has for some Time sparkled, its Fire goes  
out, and then it immediately grows white. But the Parts of  
the ustulated Vegetable which are covered with these white  
Ashes, will still remain black, and on Fire, and therefore all  
the Herb must he gently stirred about with an iron Rod, till  
the whole Mass has in every Part been successively on Fine, and,  
by this continual Agitation, been for a sufficient Time exposed  
both to the Air and Fire together, so as to he converted into  
one homogeneous white Mass, which is then but in small.  
Quantity, ponderous, and equally white. And when this is  
done, it is impossible to raise a single Spark in the Mass by the  
strongest Fire: Though if there is hut one black Leaf in it,-  
that, as soon as eVer it comes into Contact with the Air, will  
take Fire in the same Manner as the rest did. When the  
whole Herb is thus reduced to a Whitchess, it has then an acrid,  
and somewhat urinous, saline Taste, which never appears in  
the Herb, as long as that black Part, which is a pure inflam-  
mable Oil, continues to adhere to it ; but as soon aS ever this  
is intirely consumed by the Fire, then the Salt, which is not  
wasted by the Fire, begins to discover itself. Hence it appears,  
that the Consumption Of the Oil is necessary, hesore the Salt  
can be procured.

3. Let the Ashes thus prepared, be left an Hour os two up-  
on the Fire, so as to he hept constantly red het, and let them he  
continually stirred with an iron Rod ; and this compleais the  
Calcination of Herbs sor Tachenius's Salt. In the first Part of this  
Operation, the suffocated Action of the Fire, after it has expelled  
the Water, intimately unites the saline and oily Principles, into  
a sulphureous sahine Concrete, to speak in the Language of the  
ChymistS, which is in some Measure of a saponaceous Nature,  
hut which, at the same Time, has a large Admixture of a Very  
subtile Earth.

4. Put the Ashes thus procured into a clean iron Vessel, with,  
fix Times their Weight os pure Rain-water, and boil them,  
stirring them often with an iron Ladle, then the Liquor that  
swims at the Top will he acrid, lixivious, and saline, and will  
have drawn a great Part of the Salt our of the Ashes, leaving  
the Earthat the Bottom. Let this he poured off, and filtered  
boiling’het, till jt becomes perfectly limpid, and then let it he  
set by, under the Title of a *Lixivium* for Tachenius's Salt.  
If the Earth that remains at the Bottom of the Vessel, or in  
the Filter, is boiled, again, with fresh Water, it will still yield  
a farther Lixivium ; but the Taste of this will more resemble  
the Acrimony of Lime, and will contain less Salt: This may  
he filtered too, and mixed with the former. Let the  
Earth that is left behind he boiled with more Water, and the  
Liquor poured off as before, and this he repeated, till the last.  
Water comes Off as insipid as it was put on. These last Lixi-  
ViurnS may he thrown away aS of little Use. Let the Earth  
that remains he shook about with Rain-water,, let this, when  
It is hecome turbid, - he poured off, and proceed in this Manner,  
till the Sand, winch alone will smk to the Bottom, is perfectly .  
separated from the true Ashes, which last will he mixed with  
the Water. Let these turbid Waters he mixed together, and  
suffered to settie, and there will fall an Earth to the Bottom,  
which bring dried, is .a pure vegetable, elementary, almost  
virgin Earths Very proper sor making Cupeis.

5. Let the pure Lixivium, above-mentioned, he evaporated  
in a clean iron Vessel, till it is become quite dry, keeping it con-  
tinually stirring towards the End of the Process to prevent the  
Salt from adhering too much to the Vestel, and by these Means,  
.is procured a brownish Sals, that will be acrid, and somewhat  
*Alcaline,* and which will gradually dissolve in the Air; het yet  
not so readily, aS a perfect. *Aleali*: The browner this Salt, is, the  
more rightly will it he prepared; for it will have so much the -  
more of the Oil in it.

6. If this Salt is put into a clean Crucible, and set in a Fire  
every Way surrounding it, till the Crucible is red hot, it will  
easily flow like Water, much sooner than a true fixed *Alcaline  
Salt* ; and then it must be poured out upon a clean brass Plate ,  
in Form of little Cakes. And thus you have the pure fix-  
ed Vegetable Salt *of TacheniuS;* which may he rendered still  
purer,, by exposing it to rhe Moisture of the Air, or dissolving  
it in Rain-water, and then filtering the Liquor, and letting  
it stand quiet, for a sufficient Time, let it he inspissated till a  
Pellicle appears on the Surface ; and then, by setting it by .in a  
still Placed it will shoot into saline GlebuleS, which are Crystals,  
os all others, the most pure. In these there is not contained an  
acrid *Alcaly,* but the Oil of the Plans, bring united with the *AL  
cosine Salt,* renders it more mild. It is observable, shat the Che

lour of this Salt will he Very easily altered, if a Coal happens  
to sal! into it whilst it is melting, for then it immediately ac-  
quires a leaden Colour, which will vary, according to the Quan-  
tity of the Coal that gets amongst it.

**.OBSERVATIONS on the preceding PROCESS.**

I. These Salts are neither acrid, nor igneous, het are a sa-  
line Compound of an Oil closely united by the Fire with an  
acrid *Alcali* ; and they differ from an acrid, *alcaline,* caustic Salt,  
in Proportion, as the Herb undergoes a longer Ustulation, and as  
the Air is kept from them during the Operation. And by these  
.Means their medicinal Virtues too, are increased in Proportion.

2. They are not, therefore, in their Nature so contrary to an  
Acid, aS to destroy so great a Quantity of it, as pure *AIcadies.  
If* they are properly prepared, they may in seine Measure sup-  
ply theWant of sea and fossile Salt for the common Uses of Life,  
as has been observed hefore from Varro.

3. *Is these* Salts are put into open Vessels, and are exposed to  
. the external Air for a considerable Time, .they will attract the  
Water from the Air and liquefy; hut flower, and with more  
Difficulty, than a pure *Alcali*; but in Water they diflolve  
immediately.

4. They will readily mix with all the Humours of the hu-  
man Body, even with the oily Parts and the inspissated Bile by  
the Assistance of the Vital Heat, and the Action of the circula-  
ting Fluids. ... -

5. Hence they are capable of penetrating into the sanguife-’  
rons, serous, lactiferous, lymphatic, urinary, sudoriserout, and  
bilious Vefleis; but they cannot penetrate into the Nerves.

.. si. When they are mixed, and diluted with the animal  
. Fluids, they are able, by the Concurrence of the natural Heat,  
and Vital Actions, to resolve the principal Concretions that are  
formed in our Humours; especially, is they are assisted by  
Friction, Riding, or other suitable Exercise. They will not howe-  
\*Ver dissolve Stones in the Body, as a Menstruum, but will wear  
them away, by the mechanical Motion, and Attrition, which  
they increase in the Body, and determine particularly to the uri-

. nary Passages. Disorders in the Juices of the Nerves, howe-  
Ver, they cannot reach, and therefore are not capable of curing  
a genuine Gout; otherwise, when they are diluted with warm  
Water, .and.assisted with Motion, they hecome considerably  
penetrating, even into the most intimate Parts of the Body. .  
- 7. When these Salts are received amongst, and mixed with  
our Humours, they there act with an Acrimony which is not  
destructive, but which however renders the Juices more stimu-  
lating than they are in their natural soft and mild State, and  
hence they irritate the sensible Parts of the Nerves, and stimu--  
Iate them to the Performance of their Vibrations with a greater  
Force .than usual; .and on this Account, they are os great Im-

' portance where a Stimulus is wanting in a languid Habit of Bo-  
dy, in flow, hypochondriacal, and hysterical Disorders, and\*  
others that arise merely from Inactivity.

- .8. .They therefore produce Very considerable Effects, by  
opening the obstructed Vefleis os the Body, both as they agi-  
rate the whole nervous System, and, at the same Time, dis-  
solve the Concreted Fluids, and by their Weight also, which  
is greater than that , of our native Salts; urge all the animal  
Functions with a Force, greater than that which is usual, with-  
orir their Assistances .. -

9. They act therefore by promoting all the Secretions, and  
Excretions, for at the same Time that they render the Hu-  
tnours sufficiently fluid, and free the Vefleis from Obstructions,  
they exercise a Stimulus both upon the Humours and Vesiels at  
the same Time; and thus they equably excite the true Causes  
of. the Motion of our Fluids through their Vefleis, on which  
depend all the Secretions: and Excretions in every particular Part  
of the Body.. . - - . .... . si. .

io. .Hence it appears, why these Salts are a Sudorific; for  
fince it is certain, that the Sweat naturally contains in it the  
native Salts of the Bedy, and deposits them on the external  
Surface of the Skin, by Means of small Arteries which open  
there, these Salts, when mixed with the Circulating Juices, will  
Teadily find a Way to the same excretory Arteries, and bring  
with them their Power- of increasing the Secretions; and .this  
js confirmed by Experiment. These Salts in a particular Man-  
ner augment the Discharge of Urine; for the Author os Na-  
ture has formed the Kidnies principally to carry off the Salts  
abounding in the Humours, that it may he evacuated our of  
rhe Body, to which otherwise it would prove pernicious. This  
the Urine, of all our. Humours much the saltest, sufficiently  
evinces. And hence the Efficacy of these Salts is never more  
-manifest than in their Operation by Urine, and at the same  
Time purging the Humours from any noxious Impurities with  
which they are loaded. They help also to forward the Discharge  
Os the harder Excrements by Stool, whilst they resolve them,  
open the Passages, and stimulate the too tardy Intestines to a  
quicker Performance of their Offices. In . melancholic Coses,  
attended with considerable Costiveness, we find no Medicines  
.more effectual than these Salts, if directed in a proper Manner,  
and Quantity, and continued for a sufficient Time. And in  
this Case, they have this particular Excellence, that when they

are lest Ossi the'Intestines continue regularly Io discharge thein  
Contents without any remaining Costiveness, which is not .the  
Case with Respect to any other Cathartic whatever. The Li-'  
Ves, Spleen, Gall-bladder, biliary Ducts, and Vena Porta,which  
together constitute the Laboratory of the bilious System, cannot .  
be more effectually purged and freed from Obstructions, or noxi-.  
ous Humours, than by these Salts. And by this lixivious Soap, ,  
the Viscid and tenacious Obstructions in the Primae Vige, that is,  
in the Stomach and Intestines, are diflolved, and properly pre-  
pared for Excretion, without Danger or Violence ; so that up-  
on the Whole by this Means we arrive at that Coction or. Pre-  
paration of the Humours, recommended by Hippocrates, aS ne-  
cessary to their successful Evacuation. .

II. From what has been said upon the Subject of these Salts,  
it appears, that they are excellent in all chronical Distempers;  
where there is a mere Torpor, or Inactivity of the Spirits,;  
too .great Laxity of the Fibres, and a iluggish Viscidity of  
the Juices without any Tendency to a putrid Acrimony, an  
Acidity from a Weakness of the vital Powers, or a Coagula-.\*  
tion from a prevailing austere or acid Acrimony. If, therefore,  
we confides, what a great Number of Diseases depend up-.  
on these Causes, we shall be convinced, that many chroni-  
cal Distempers may he cured by Salts prepared in this Man- ’  
ner, which destroy Acids, and convert them into neutral Salts,  
which last stimulate the Solids; and dissolve Concretions in the  
Fluids, by new Properties they acquire the Moment they are  
rendered neutral. We must not, however, conclude froth  
hence, that these Salts are always salutary, and never noxious ;  
for in Cases where the Humours are putrid, bilious, alcales- '  
cent, or are moved with too great Velocity, and .hence ac-  
quire too much Heat, these Salts only add Oil to the Fire;  
Nor are they less hurtful to Persons whose Constitutions are  
so tender, that they are not able to bear the Effect of them ;  
for then, the Motion they excite proves destructive. They are  
also noxious where Salts already abound too much in the  
Body. «

**The METHOD of using these SALTS in MEDICINE,**

S. They ought to he exhibited when the Stomach is empty,  
and has compleated the Digestion of the Aliment last taken, and  
confequentiy about ten Hours from the last Meal. The Dose  
ought to he Varied, according as the Circumstances of rhe Pa-  
tient determine it ; hut in general they may he taken from four  
. Grains to two Drams, or more, which must he left to the

Judgment of the Physician...

2. They should he diluted with a large Quantity of Wa-  
ter, lest, if they should he taken too naked, they should in- .  
jure the Fauces, (Esophagus, and Stomach. Let a Dram  
therefore of this Salt he dissolved in nine Ounces of common  
Water, and then it will in some Measure operate like mineral  
Waters, which act by a small Quantity of fossile Salt dissolved  
ih a great Deal of pure Water.

3. Is the Physician's Intention is to purge, let the Patient take,  
going to Bed, nine Grains of purified succotrine AloeS made  
into three Pilis; or half a Dram of Pil. Ruf. and the next  
Morning let him rise early, and walk a little in a coolish Air;  
taking .particular Care not to raise a Sweat, and whilst he is  
walking, let him take a proper Quantity of these Salts, divid-  
ed into five or six Doses. The Effect *os* this will be excellent;  
for it will Purge and take away all Heaviness, without any  
Diminution of Strength; thus becoming an exceeding proper  
Remedy for the Costiveness ofTedentary learned Men, and extir-  
paring Disorders so deeply rooted, that no other Purges whetil.  
ever will have any Effect upon them. .

4. But if the Intention is to purge the urinary Passages, and-  
sanguiferous Vessels, proceed aS is above directed, but omit the  
AloeS in the Evening; mean Time let the Region of .the Loins;  
and Hypogastrium be kept warmer than .the other Parts of the  
Body, and let the Patient now and then drink a Draught of warns  
Tea or Coffee.

5. If the Design is to raise a Sweat, let the Patient take  
these Salts in Bed in a Morning, in the same Manner as he-  
fore directed, and, aster each Dose, let him drink some mild  
Sudorific, aS a Decoction of Burdock - Roots; of the five»  
opening Roots, of Sanders, or Sassafras-wood, Tea, or Coffee;  
and, heing covered with a sufficient Quantity os Clothes, let  
him promote Sweat according to the Nature of his Dis-  
temper,

. 6. For the Cure of Autumnal Tertians, or Quartans, purge  
two or three Days successively, according to the Redes said  
down above. Then about four Hours before the Fit is expect-  
ed, let a gentle Sweat he raised in the Manner just now di-  
rected, taking Care that the Sweat may he the greatest about  
the Time of the Access of the Fit. In this Manner very oh-  
stinate Intermittents are happily cured. And, in this Respect,  
a Lixivium of these Salts excess even the Acidulae, and Spaw  
Waters. ' . ' ’

These Salts may as easily be procured from’ a dry Vegetable,  
and indeed, with something less Trouble ; if, however, the Plant  
is so old and dry, as to he carious, is will yield little or no  
Salt.

Boerhaave is of Opinion, as I obscrved hesore, that it is of  
no Importance from whet Plant this Salt is prepared, because,  
according to his Sentiments, Plants thus treated lose their pro-  
per Nature, and do not in the least presorve their specific Pro-  
petties. But as so large a Portion of the vegetable Oil adheres  
to Salts prepared in this Manner, these above all the *alcaline*Trihe should seem to he in some Degree impregnated with  
the Virtues of the Parent-Plant. I will not however he posi-  
tive, that they actually do retain the medicinal Qualities of the  
Vegetable they are prepared from ; but I will Venture to affirm  
that the fixed *Alcaline Salts* os different Plants Vary both in Re-  
spect to their Effects as Remedies, and their Action upon other  
Bodies in chymical Operations, that require great Accuracy.

Rosemary is in the preceding Process given for an Example,  
hut a Salt may by the same Management he procured from most  
Vegetables. There are, however, some preferable to others.  
Those which I should make Choice of, for medicinal Purposes,  
are Wormwood, Broom, Bean stalks. Mint, Carduus Bene-  
dictus, and all of the Thistle Kind.

The above-described Method of making fixed Salts from  
Vegetables with a View to Medicine, is much preferable to that  
commonly pursued, on many Accounts, for as the Oil is pre-  
served in some Measure, they must necessarily he more sapona-  
ceous, and consequently more resolvent ; they are also less  
acrid.

The common Way of making fixed Salts is by burning the  
Vegetable freed from the Dirt that adheres to it, in an open  
Fire, to white Ashes; these are then boiled in Water, till all  
their Salts are dissolved; this Water is filtered, and after that  
evaporated to Dryness, taking Care, especially at the latter  
Part of the Process, to keep the Lixivium continually stirring;  
whet remains in the Vessel aster evaporation, is the fixed *Alca-  
Ene Salt Cis* the Plant, which may he again dissolved, filtered,  
and then evaporated to Dryness; and by this Means the Salt  
may he rendered more white and beautiful, but at the same  
Time much worse for medicinal Uses, hecaufe by every So-  
lution, and Filtration, it loses some of its adhering Oil, which  
gives it a brown Colour. Those therefore who boast of the  
Whiteness and Beauty of these Salts, either intend a Fraud, or  
are ignorant of their real Virtues. . s '

The SEPARATION of a BITTER, CRYSTALLINE, HARD,  
‘ FIXED SALT, that is SUBVIT RESCENT, and not ALCA-

**LINE, from aFIXED ALCALINE SALT.**

Take six Pounds of the best Pot-ash, and dissolve it in twenty  
Pints of cold Rain-water in a glass Vessel, stir them well with  
a Stick, and then let them stand quiet. When the Parts not  
dissoluble have fussicientiy subsided, pour off gently the clear  
Lixivium, and there will be found at the Bottom with the  
Faeces a great Number of very small \* Grains, of an Ash-co-  
lour, and bitter Taste, which have almost the Hardness and  
Brittleness of Glass, and in which, nothing os an *Alcali* can  
he discovered. There is another Method of separating these  
crystalline GlebuleS, as follows: Take six Pounds of the hest  
Pot-ash, and dissolve them in a brass Kettle, by boiling them  
with sour Times their Weight of Water. Strain this Lixi-  
vium, whilst boiling hot, through a linneri Bag, that it may  
he perfectly pure whilst it continues Very hot. Put it then into  
a hot, moist, clean, glass Vessel, and so leave it. Immediately a  
Crust somewhat opake, os a brownish-ash Colour, hegins to fin  
to the Bottom and Sides of the Vessel, which increases, and  
grows thicker continually. When the Lixivium has stood  
thus for forne Time, and ceases to deposite any more of this  
Salt, pour off accurately all the pure Lixivium, and at the Bot-  
tom there remains a Sals, like that procured by the former  
Method, but purer, and in a larger Quantity. Take the Lixi-  
vium thus freed from this Salt, and inspissate a little; and set  
it by, it will then yield perhaps a small Quantity of the fame  
Kind of Salt, but it will afterwards produce no more, so that  
the *Alcaline Salt* contains but a certain limited Quantity of this  
Salt.

If the Salt separated in this Manner,’ is agitated with cold  
Rain-water, it will not he dissolved by it, but the *Alcali* that  
adheres to .it, will he thoroughly washed away, so that by this  
Means it will become perfectly pure ; and if then gently dried.  
It will he simple, and may he preserved so.

**REMARKS.**

1. Many ikilful Chymists have formerly assarted, that true  
fixed *Alcascne Saits,* can scarcely he reduced to crystalline Glebes ;  
and this is in a great Measure true. When the more modaniChy-  
mista, therefore, have produced the Salt thus separated from an  
*Alcali,* as an *Alcaline Salt* crystallized, they have not distinguish-  
ed so accurately as they should have done; and in Fact when  
*an Alcali* is well freed from this Salt, it is not easy to reduce  
it into Crystals, though even that is possible. ' .

The NATURE and QUALITIES of this SALT.

This Salt never fpontaneoufly liquefies in the Air. In cold  
Water it does not dissolve readily. But in a large Quantity of  
boiling Water it will at last he dissolved ; but as soon as ever the

Wafer grows cold, it concretes again into GlebuleS. It is hard, ;  
and brittle, and may he reduced to a fine Kind of mealy Pow-  
der, winch will remain dry, and will not in the least attract  
the Moisture of the Air. It has an exceeding bitter Taste,  
which continues long in the Mouth. In the Fire it crackles,  
and flies about with some Violence. It is neither Acid, nor  
*Alcaline,* neither is it like any other Salt that we are hitherto  
acquainted, with, but a perfect new Kind of Salt. It seems,  
however, to approach nearest the Nature os that Salt which is  
thrown up in making of Glass; and, heing collected at the Top,  
goes by the Name of the *Gall of Glasts.* It is possible that the  
Fire, whilst it produces the *Alcali* from Vegetables, generates,  
this Salt at the same Time ; and that the Fire, -when it com-  
bines the *Alcali,* with the Calx of Flints, for the Production Of  
Glass, separates again this Salt, and casts it on the Surface of  
the Metal. It is Very probable, that this may he the Case.  
And hence we may in some Measure understand why no such.  
Salts can he procured from the *Alcaline Salt* of Tartar; for  
Tartar is generated in exceeding fine Particles from a subtile  
fermented Liquor.

3. A fixed *Alcaline Salt,* when it is perfectly freed from this  
brittle, bitter Sals, differs intirely from the same when united  
with it. Whenever, therefore, any Experiment is to he made  
with a pure *Alcaline Salt,* Care must he taken always first to se-  
parate this from it ; otherwise it often impairs, or interferes,'with  
the true *Alcaline* Virtue of Salt. *Bocrhaavds Chemistry.*

Some OBsERvAT IONS on fixed ALCALINE SALTS. .

I. Fixed Vegetable Salts are procured only by Fire, front  
Vegetables that are naturally-fitted for their Production. Some  
Plants, when they are burnt, scarcely yield any os this Salt:  
And eVen those that are naturally disposed to do it, if they are ex-  
posed for a considerable Time to the Air, and undergo alter-  
nately repeated Vicissitudes of Moistness, and Dryness, lose at last,  
all that Matter, which, by burning, would have produced an  
*Alcaline Salt,* and therefore, if they are then burnt, they yield  
none at all: For the Air perpetually changing, with respect  
to Moisture and Heat, acts upon Vegetables, and deprives them  
of that Matter which they otherwise yield by Decoction and  
Infusion, and disperses it in the Atmosphere, and by this teaches  
US, that the Pars, which the Fire sixes into an *Alcaline Salt,*was fpontaneoufly Volatile in its own Nature, .

2. Again, fixed, *alcaline.* Vegetable Salts, are generated on-  
ly by Fire, whilst it actually consumes Plants that are disposed  
for this Operation t For in the Matter which Vegetables yield  
by Infusion, and Decoction, and native Vegetable Salts, no such  
Thing appears: But they are only generated by a burning Fire.  
And here also it’is observable, that according to the different De--,  
grees of Fire, and Duration of its Action, the Salt is rendered '  
proportionably more or less strong, fixed, and *Alcaline.* It must,  
however, he confesied, that in Mustard-Seed, there naturally  
exists somewhat *alcaline,*. as appears by its Effervescence with  
Acids; but this is Volatile, and disappears when the Mustard-  
Seed comes to he burnt. . -

3. A fixed *Alcaline Salt,* therefore, is not a native, vegetae  
ble Salt, that is, a Salt generated by the specific Nature of a Ve-  
getable, from the common nutritious Juices it receives from the  
Earth, and which of consequence will always remain in it, so  
long as it is left to itself, and suffers no Violence sufficient to al- ..  
ter iis natural Disposition. But this is destroyed by the Fire, .  
and is converted into something of a quite different Nature,  
The larger Garden-sorrel abounds with a native, acid Salt a  
and yet, if this is burnt in an open Fire, it yields a fixed siim-  
*liae Salt,* though before it evidently contained an Acid. This  
*Alcali,* therefore, is not native to Plants, but is changed by the  
.Fire, from one that was not an *Alcali,* to an *Alcali.*

4. From what has been said, the Nature of an *alcalesilent* Ve-  
getable may be understood: For by this Name are meant, first,  
fuch as abound with an acrid, and almost *Alcaline* Juice, afford-  
ing a Volatile, odorous Exhalation, for which Garlic, - Oni-  
ons, and others of the like Kind, are remarkable. Secondly,  
those that, by their acrimonious Stimulus, increase the Velocity  
of our Humours, as they circulate through the Vessels, and by  
this Means cause our native Salts to verge towards an *Alcaline*Putrefaction. .Hence the most acrid Aromatics, though not in  
themselves really *Alcaline,* dispose, however, our native Salts t»  
*an Alcalesience.* And, thirdly, those which by Fire yield a  
large Quantity of a fixed, *Alcaline Salt.*

*ζ.* Betwixt a native, vegetable Salt, therefore, and the most  
acrid, *alcaline,* fixed Salt, there are a great many. Degrees of .  
fixed Salts, all which differ in their physical Actions, and con- '  
sequently in their Natures, these ought then to he carefully di-  
stinguished from each other. An Example will make the Mean-  
ing of this more obvious. Take the best Rhenish Tartar:  
This is the native Salt of the Wine, perfectly acid, and in some  
Measure sharp, and hence of infinite Use in *alcales.cent,* bilious,  
putrid Distempers ; if this is distilled in a glass Retort, with  
a gentle Fire, it yields a small Quantity of an aqueous, acidish,  
light Liquor, which allays Thirst. When this is drawn off,  
the Substance that remains in the Retort begins to be *alcaline,*and will make a Man hot and thirsty. Urge the Remainder

with a Fire somewhat stronger, there will then arise a fragrant, ‘  
penetrating, bitter, heating Oil. of a golden Colour. This br-  
ing separated, the remaining Mass will appear black, will he  
more *Alcaline,* will heat the Body more, create a greater Thirst,  
and, heing boiled with Spirit of Wine, will yield a noble, ape-  
rient, detergent, diuretic, anti-hydropical Medicine. If the  
Fire is farther increased, a thicker, tenacious, foetid, bitter Oil  
comes over, and at the Bottom of the Retort, there will be left  
a Very black Coal, which will he much more *Alcaline* than the  
former. If this is then taken out of the Retort, put into a  
Crucible, and exposed to an intense naked Fire, a fixed *Alcaline  
Salt* will at last he produced, which, according to the Strength and  
Duration of the applied Heat, will he continually changed in all  
its Properties, brooming constantly more and more acrid, as  
the Action of the Fire upon it is more intense, and longer con-  
tinued. In this'Case we see a native, acid Salt, rendered at last  
extremely *Alcaline,* by the Action os Fire only.

6. Three Causes are observed to impart these Differentes to  
*Alcaline Salts.* First, the Proportion of combustible Oil that  
adheres to the saline Matter; for the greater this is, the less  
acrid will the *Alcali* he ; and if the Quantity of this Oil is less,  
the Salt will he more acrid. Secondly, the artificial Combi-  
nation os this Oil with the *Alcali* makes a Difference; for if the  
Plant is ustulated with such a flow suffocated Fire, as is used in  
\* the Preparation-of Tachenius’s Salt, it will yield a greater Quan-  
tity of Salt, but less acrid, and *alcaline* ; het if it is burnt  
hastily in a strong, open Fire, it will produce less Salt, but  
Of a more acrimonious Nature. Thirdly, the proper Action of  
the Fire itself, seems to add something igneous to the *Alcaline  
Salt,* whether this arises from the Fixation and Accretion of the  
very Substance of the Fire to the Salt, or only from a Power  
which it is endued with of altering the Salt in this Manner.  
This is heyond Dispute, that the longer Lime, is burnt, and  
the intenser the Fire is thet is made use of in the Operation, the  
more Heat, or the more-true Fire .it will excite in cold Water.  
And fixed *Alcaline Salts* also, will generate more Heat in cold  
Water, aS they have been exposed to a greature Torture of  
.Fire during their Preparation. To these Causes, perhaps, a-  
fourth may properly he added, and that is, the original seminal  
Property of Plants, which is not easily- destroyed. One Plant  
shall yield a great deal of fixed Salt; another, none at all;.  
not that this last naturally contained less Salt than the sore  
mes, but hecause it was of such a Nature, that it would not  
suffer the Matter which constitutes the *Alcali* to he fixed, by the  
Salt, or the Oil, or Earth, or all together.

7. From what has been said above, we arrive at the Know-  
ledge of the Origin of *Alcaline Salts* in Animals,, so far aS they  
- regard the Matter of their Food, Drink, and the Air they  
respire. For Animals that live solely upon pure Water, and  
. Vegetables, take into their Bedies the very Matter, from which  
*Alcaline Salts* are generated. No-body could naturally suspect,  
that such an insipid Body, as soft, moist Grass, should, by  
-heing burnt, yield an acrid, igneous *Alcaline Salt.* Or who  
' can possibly discover any Thing of this Kind in Ale or Wines  
s and yet Experience proves that an *Alcali* may he produced from  
all' these. But the Action of the Animal Body brings this latent  
- Matter to Light; and manifests it. . A Child that is fed with  
nothing, but sweet, mild, fresh Milk, which does not discover  
- ' the least Degree of Saltness, makes constantly a salt,. acrid Wa-  
- - tes, not by actually generating any Salt, but by setting that at  
Liberty, which before lay concealed: The Urine also of a Bul-  
- lock, which lives on Vegetables only, is found to he exceed-  
ing salt, for the Very same Reason. But in Animal Bodies,  
this Salt is rendered Volatile, because it is freed from its fixing  
Earth, by the Digestion it undergoes in the Stomach, which  
resembles a sudden Putrefactions And Putrefaction is known

\* to render the Salts os Plants Volatiles . '

**A compendious VIEW os the EFFECTS os fixed ALCALINE  
SALTS upon the BODY.**

. I. They soon destroy all the Acid in the Body ; for there it  
. meets with but a small Quantity, find that too, Ranild; vegeta-  
ble Acid, only residing in the Primae Vise, that is, in the  
Stomach and Intestines. .. . .

2.. Is they meet with an Acid there, they cause an Efferves-  
cence, generate Wind, and cause Eructations, stimulate by their  
Activity, and are convened together with the Acid into a neu-  
tral Salt, which then becomes harmless, penetrating, aperiens,  
diaphoretic, diuretic, and antiseptic, and productive os new.  
Effects by Virtue os their Neutralization, which are sometimes  
attributed improperly to the *Alcaline Salts,* because subsequent nj  
their Exhibition. . :

3. By Means os this Effervescence they stimulate the Nerves,  
move the Spirits, and incline both to Motions, different from  
what they had before. Hence, they often cure the SpafinS of  
hypochondriacal Men, and hysterical Women, and the Distem-  
pers depending on them ; an Instance of which we see in the  
celebrated Anti-emetic of Riverius, consisting of an *Alcaline*

*Salt* mixed with Juice of Lemons, which, *if drank* in the Act  
of Effervescence, cutes the Cholera Morbus, and stops obstinate  
Vomitings, which resist all other Methods.

4. They attenuate and resolve whatever is coagulated by  
an Acid; and hence, when Milk is curdled in the Stomach;  
they heve Very good Effects, if prudently administered. They  
are also capable of resolving other tenacious Concretions. ’

5. They attenuate glutinous, oily, and fat Concretions,  
and render them more easily miscible with Water, and hence  
become Detergents. Fullers, Laundresses, and Dyers, are feni .  
sible of this Property in a Lye of these Salts, and therefore they  
use them to remove Viscid, greasy Concretions from Cloths.  
If moderately used,, therefore, they free the chylo-poietic Organs  
from all glutinous Impurities.

6. They resolve Coagulations of the Bile, Lymph, Blood,  
and Serum, when admitted into the internal Parts of the Body,  
and there agitated by the vital Powers.

7. By their acrid Stimulus, they put in Motion Bodies that  
were hefore unactive, and hence they. provoke Urine, Sweat,  
and Perspiration, and for this Reason are numhered amongst  
Diuretics, Diaphoretics; and Sudorifios: The Intestines also they  
stimulate to a Discharge of their Contents.

8. In Diseases, therefore, attended with unactive, mucous  
Viscidities; where an Acidity prevails in the Stomach and Intes-  
tines from acescent Aliment; where there is a Load of acescent,  
austere Crudities, manifest by the Coagulations it produces;  
where a watery Serum, or sat, tenacious Concretions abound,  
or where Distempers heve heen generated by these Couses, as  
the Dropsy, Jaundice; Leucophlegmatia, Gout, Rheumatism,  
and Scurvy: In these Cases, this Salt is osgreat Use, if prudently,  
given, that is, well diluted, in small Doses, and those adminii  
stered at a proper Time, and properly repeated. That Species  
of Gout which is caused by an abundant Acid, scarcely admits  
of a more successful Method of Cure,, than that which may he  
performed by a continued Use of these Salts, taken in small Doses.  
But it does not follow from their Effects in this Cafe, that they  
are to he extolled as universal Remedies for the Gout; for they  
will do a great deal of Prejudice to gouty Patients, whose Bile  
is exalted, into an acrid *Alcalefcerice,* and whose Humours tend  
spontaneoufly to an *Alcaline* Putrefaction..

9. These Salts also are of considerable Ufe to the Surgeons ;  
*for* as Caustics they are employed to raise EscarS, in order to  
make Issues; by a temperate Lixivium os these, sordid, putrid  
Ulcers are successfully mundified ; Parts that ate corrupted by **a**Gangrene, if scarified almost to the Quick, and then fomented  
with a Lixivium of these Salts, contract into a Crust, and then  
admit of a Separation from the living Part, and by these Means  
the Mortification is prevented from spreading farther, and a  
Cure IS happily effected ; they extirpate Warts also, and eat  
eway small Cancers with Safety ; and if sufficiently diluted,  
they will effectually take away Discoinrations or Spots of the  
Skin.

**IO.** It is however necessary to remark, that the Use of these  
Salts is highly pernicious in every Disease, where the native  
animal Salts begin to degenerate into an acrid, alcalefcent, pn-  
-trid, Volatile Nature; or where the natural Oiis of our Bodies  
are disposed to turn acrid, foetid, putrid, rancid, and Volatile,  
which is manifested by a disagreeable Smell, peculiar to this  
Kind .of Putrefaction, and a Redness of the Urines But these  
Salts are particularly destructive, when the Bile is thus degene-  
rated into an acrid *alcaline* Nature, and when the Humours of  
the Patient are too much dissolved, fluid; and putrid ; hence  
in the Plague they are almost an immediate Poison, and this  
pernicious Quality is even communicated to the Soap, in which  
they are an Ingredient. Hence, therefore, in inflammations,  
Suppurations, Gangrenes, a Sphacelus, continued putrid Fe-  
vers, and Diseases arising from too great a Velocity of the  
Blood, the internal Use of these Salts must be absolutely for..  
bid.

’ II. And, indeed, in all Cases they should he ufed with Cau..  
shiri. Let a Dram of them he dissolved in twenty Trines its  
Weight os Water, and this is the largest Dose that ought ever  
to he given. Let them he repeated with Circumspection, and  
let it he carefully observed when the Necessity for their Exhi-  
bition ceases. And with these Cautions they may be used suo...  
cessfully, and without Danger. Lastly, let the Effects he de-  
termined to particular Parts of the Body, in the Manner speci-  
fied in the Remarks upon Tachenius’s Salt.

- Besides the *Alcaline Salts* already taken Notice os, there are  
others which are Volatile, that is, which are capable of heing  
screed by a considerable Heat from the Body which contains  
them, and which afterwards rise with a Very small Degree os  
Heat. The most remarkable amongst these are animal Salts,  
which may he procured by Distillation from every animal Sub-  
stance we are acquainted with. Thus Hartshorn, Bones, Blood,  
Silk, and Cobwebs yield it in great Plenty. The Analysis  
of Blond given below under the present Article, may serve for  
an Example of the Method by which they are separated from  
the respective Bedies wherein they reside; and the Process with  
the whole Apparatus is specified under the Article CORNU

CERvi, together with their medicinal Virtues, with Respect  
to which, let it suffice to say in this Place, that they agree  
pretty much with fixed *Alcaline Salts,* with a Reserve to the  
Difference which depends on their Volatility.

But there are besides these two Substances which yield a Vo-  
latile ’ *Alcaline Sall,* Very like those which are prepared from  
animal Bedies. These are almost all those warm pungent Plants,  
which, is bruised, send forth a Vapour so acrid, thet it makes  
the Eyes water, and will cause Sneezing, is it gets into the Nose.  
Many of the., bulbous Roots possess tins Acrimony in a great  
Degree; as Onions, Garlick, Leeks, Squilis, Hyacinthe, and  
the Narcissus; and the Seeds of a great many of the *alcalefcent*Plants, a Catalogue of winch will he given in this Article,  
abound with it..

The other Body which yields a volatile *alcaline Salt, is al-*most any soft, juicy. Vegetable Substance, which has\_urndergone  
Putrefaction. . .

The following Process may ferve for an Example of the Me-  
thod by which Volatile *Alcaline Salts* are procured from acrid  
Vegetables :

. Fill a glass Retort almost to the Neck with ripe Mustard-  
seed, lute on a Targe clean glass Receiver, and distil gradually.  
with a Sand-heat. The first Fluid that comes over, is oily,  
and yellowish, and, when collected by itself, is limpid and  
acrid. Increase the Fire, and there arises another Spirit like-  
the former, but more yellow, and with a light and a very  
pinguious Oil. These also, if saved by themselves, are Very  
acrid. Lute on the Receiver again, aster it has been cleared of  
the last-mentioned Liquor, increase the Fire underneath, and at  
the same Time lay live Coals upon the Sand above, and by this  
Degree os Heat there will ascend from the remaining Mass a  
fight black Oil in a large Quantity, and, at the same Time,  
an oily, *alcaline.* Volatile Salt will stick upon the Sides of the  
Receiver, collected into little Spots, as it happens in the Dis-  
tillation os Hartshorn. If this Degree of Heat is sustained for  
a considerable Time, white Fumes will continue to come over  
perpetually. Avery black Mass will remain at the Bottom  
of the Remit, which is light and bitter, but not in the least  
salt. , ;

Distil again in a clean Vessel, by a gentie Heat, the first and  
second Spirit which came over, and you will have in the Re-  
ceiver a limpid acrid Liquor, not unlike Spirit of Hartshorn,  
and os much the same Virtues. A foetid oily Water will Ye-  
main in the Retort.

Separate the Oil from the Liquor which ascended last, and  
from the Salt, and wash off the Salt which adhered to the  
Sides of the Glass with the last-mentioned rectified Spirit, and  
a Liquor will he obtained abounding with a Volatile *Alcaline.  
Salt,* which makes a considerable Effervescence with *Acids,* and  
which by Distillation with a gentie Heat, out of a tall Vessel,.  
yields a pure Volatile Salt, little .different from Salt of Harts-  
horn, aster Rectification.

Dr. Daniel Cox gives the following Account of the Volatile  
*Alcaline Salts,* procured from putrefied Vegetables:

Take in warm Weather a considerable Quantity of. the Leaves  
os any Vegetable, stripped or pulled from the greater Stalks,  
lay it on a Heap pressing it pretty close together ; they will  
soon become Very hot, especially in the Middle, and in a few.  
Days resolve into a pappy Substance (excepting the outward  
Leaves) which heing made into Pellets, and put into a glass  
Retort, and distilled, will yield, besides a great Quantity of  
Liquor, much thick black Oil, of a balsamic Consistence. The  
Liquor heing separated from the Oil, and distilled in a tall glass  
Body, a volatile Spirit sublimes, which, after one, two, or  
three Rectifications, hecomes perfectly urinous, not to he dis-  
tinguished by Smell, or Taste, from well-rectified Spirit of  
Hartshorn,.Blond, Urine, or Sal Ammoniac.

’ I never made Trial of any Heth, which,..thus ordered, did  
not yield the mentioned Substances; although I have examin-  
ed many, by this Method os Procedure, which seemed Very  
different from each other, aS well in sensible. Qualities,- as those  
Vulgarly called *Occult*; such aS Rue, Sage, both Celandines,  
Carduus Benedictus, Tobacco, stinking Orach, Garden Scurvy-  
grass, the lesser Spurge, Baum, Mint, Tansy, Camomil,.  
Monk's Rhubarb, several Docks and even common Grass, with  
many others, which ir were altogether unnecessary to enume-  
rate ; besides Flowers os Elder, Patony, Cowflips, Clove Gil-  
liflowers, &c. with several Sorts of Mosses, and Rudiments  
of Vegetation; which last is a green Substance on the Surface  
of the earth, in Rivers, Cisterns where Rain often salis, and  
on Ships between Wind and Water, very apt to run into Moss  
and Fibres. . .

I. The Vessels wherein thefe Distillations were performed,  
though exceedingly well washed with Water, scoured with com-  
mon-Salt, Sand, Ashes, Soap, fixed Salt, 5tc. and afterwards  
exposed many Years to the Air, Wind, Rain, Dews, and  
Prosts, yet nevertheless retained a very strong! Smell, not  
much unlike that of Musk.

‘ 2. The Water left at the Bottom of the’Glass, aster the first

Rectification, was somewhat acetous ; especially when the.  
Heths were not sufficiently putrefied

3. If the Herbs are duly putrefied, they leave little Caput -..  
Mortuum, sometimes not a twentieth, and neves, by my Trials,  
above a tenth Part; whereas distilled hefore Putresaction, they  
leave much more; and this remaining Chal, burnt to Ashes,  
yields scarce any *Alcali* or fixed Salt. .

4 The Volatile Salt is much more than the fixed Salt would  
have been, afforded by the Herb incinerated the ordinary Way.

5. All those Herbs which yield Store of fixed Salt, such as  
Wormwood, Carduus, Mugwort, Sage, &c. do likewise, bring  
thus managed, afford plentifully a Volatile Salt.

6. These Volatile Salts heing highly rectified, did nos, that I  
could perceive, differ from each other ; as neither do Vinous Spi-  
ritS of putrefied Vegetables, or their fixed Salts highly purified  
and rectified.

7. During the Putresaction, the Room would be strongly  
perfumed, at the Beginning, with the natural Scent of the  
Herb, if it had any eminently peculiar. Smell, in the Middle of  
the Putresaction with the Scent os a Mixt hetween that and the  
urinous ; but, heing well putrefied, hecame sensibly urinous.

8. The distilled Liquor of some Herbs, at the first Rectifi-  
cation, yieldeth a Spirit Very het ; but the last inclined rather  
to that of pungent Vinous Spirit of Scurvyίgrass. Horse-radish,  
&c. heing, if I may so speak, Piperaceous, and biting, rather  
than like Volatile Salts; but, after repeated Rectifications, one,  
two, or more, according to the Nature of the Plant, or Timo  
it had putrefied, became perfectly urinous. This was usually  
when the Herbs had not duly putrefied, which proceeded, in my  
Apprehension, from some Commixture os essential Oil, which;  
by reiterated Rectifications, is either separated or transmuted.  
The same happens in the Vinous Spirits of putrefied Vegetables,  
and in their fixed Salts.

9- In the Distillation of the putrefied Herbs, the urinous-  
Spirits and Salts came chiefly at the latter End with the Oil,  
in the Form os a thick white Cloud, or Fumes, and, condens-  
ing in the Recipient, formed an innumerable Company *of* Very  
irregular crooked Rivulets, exactly after the Manner of Harts,  
horn. Blood, &e. and at the Beginning came the Phlegm, with  
most of the Acetum, in great Drops with littie Fume, and  
the Rivulets strait, and without Striae and Wanderings.

10. Some Herbs, as Winter-savory, Sage, &c. in the first '  
Distillation, yielded copioufly a Volatile Salt in a dry Form,  
which, coated the Receiver, and sublimed into the Neck of the  
Retort; so doth Tobacco, and onco Saffron did To, in Digestion  
with Spirit osWine.

II. All Plants, thus putrefied, yielded plentifully (especially \*  
towards the latter End of the Distillation) a foetid gross Oil,  
which, if the Herb was well putrefied, did not in the least .  
resemble the Plant which produced it. I could hardly per-  
ceive thet they differed from each other in either Taste or  
Smell, only, is the Plant was not thoroughly putrefied, an Oil  
would come, over at the Beginning of the Distillation, which,  
aS also the Water, would retain exactly the Taste and Smell of  
the Vegetable which afforded it,and it would he fluid and trans-  
parent like other essential Oils. The Oil of Herbs Very well  
putrefied came over chinfly at last, and did require a Very  
strong Fire to extricate it out os the Herb; was mostly (espe-  
cially that which comes last os all) of the Colour and Con-  
sistence of Tar, Very tenacious, and did far .and wide emit a  
Very odd, saint, foetid, offensive Odour. If any Thing be-  
came infected by this Oil, it was not to hefreed from it in a  
long Time.

12. Herbs, which are distilled in an Alembic with Water,  
yield little essential Oil, as Baum, Mint, Camomil, &c. afford  
much of it thus putrefied; and those thet give much essential  
Oil, as Worm wood, with many others, heing putrefied, yield  
abundantly more.

I 3. During Putresaction, the Herbs became exceedingly hot,  
especially those that were closely compressed, and had Store  
of Moisture in them ; so that I could'as well detain my  
Hand in the Flame of an ordinary Fire, as in the Midst of  
them. -

14. Fatty, moist, and insipid Herbs putrefy much sooner, and  
.with greater Heat, as Grass, Docks, Garden Scurvy-grass, Co-  
landine, &c. Drier, and much more fapid Plants, more lei-  
surely, and with less Heat; aS Winter-savory, Rosemary, Sage,  
Rue, Mint. The Stalks of no Herb putrefy so soon as the  
Leaves freed from them. This is most evident in Docks,  
whose tender Parts are pappy and mucilaginous, when the Stalks  
are intire.

15. Herbs seem by this Putresaction io he deprived of all  
their specifical or peculiar Properties. Celandine loses its ting-  
ing Quality ; Spurge, its Milk, Vesicating and poisonous Na-  
ture, &c.

*16.* Herbs, which hefore Putresaction were extremely foetid,  
as Atriplex Olida, &c. hecome afterwards either inodorous, or  
not ill-scented. And, on the Contrary, Monk’s Rhubarb, Gar-  
den Scurvy-grass, with many other inodorous Vegetables,dur-

jog Putrefaction, become abominably, and almost insepportably.  
foetid, like the worst of Excrements, all which yet they lost im-  
mediately upon Distillation.

**I7.** None *of those Flowers,* I have hitherto used, do stink  
in Putrefaction. **0**

I8. Many of the Herbs, thus putrefied, fwarm with Maggots  
(an Argument of the close and stedfast Contexture of the femi-  
nal Principles in Insects) especially at the Bottom, and in the  
Middle, whither Flies and other Insects can have\* no Access,  
to deposite their Eggs, and where the Heat is *lb* violent, that  
they could not pcssihly subsist. .

**I** 9. Yet the volatile Spirit and Salt is not afforded by these  
Insects; for, having distilled separately a great Quantity of  
them, they yielded no volatile Salt or Spirit, but a Liquor of a  
very different Nature.

20. Herbs, putrefied in a great Glafs with a narrow Neck,  
the Mouth left open, in a few Weeks became, for the greater  
Part, a Mucilage ; and, distilled a Year after they bad steed so  
open, yielded a little urinous Spirit, but not a Drop of Oil.

2I: Vegetables, if the external Ain he excluded from them,  
will not putrefy or ferment.

*22.* Some Herbs, Mosses, and Rudiments of Vegetation,  
yield a volatile Salt, distilled without previous Putrefaction ; as  
do also many Seeds, and several of them sufficiently insipid.

23. These volatile Spirits and Silts have not only the fame  
sensible Properties, but also agree in all known Effects, and  
Operations, with common urinous Spirits, and Salts; as, in  
the changing Syrup of Violets, and many other vegetable  
Tinctines, green, in heing diaphoretic, diuretic, and deob-  
struent, contrary to Acids, which they do mortify, precipitate  
all Metals and Minerals dissolved in acid Menstruums; being  
highly rectified, and mixed with perfectiy dephlegmated Spirit  
of Wine, strike the Ossa alba, as Chymists fpeak. They unite .  
with Acids, and thereby become Ammoniac or neutral Salts ;  
and, indeed, perform whatsoever can he expected, or desired,  
from the common urinous Spirits of Salts: *Phil Transc Abr.  
Pel.A. , - - . ' ..*

DIsEtASEs. generated by an ALCALI abounding in the HU-

**. . HOURS. -**

, What has heed specified above with Respeci to *dlealies,* will  
Iced us to a Knowledge of the Nature of alcaleseent Allments,  
and their Effects upon the Body in altering the Juices so as to he  
productive of Distempers. A Knowledge of infinite Impor,  
tance to every Body concerned in the Practice of any Branch  
of Physic, because every Fever, or febrile Disease; is either  
caused by, or accompanied with a Tendency to an *akaline* Pu-  
trefaction. And many chroniam Disorders, which depend up-  
on the Vitiation of particular Parts,, owe many *of* their Symp-  
toms to this *Alcaleseence.* . .5-

Aliments are taken either from the animal or vegetable King-  
dom. Of vegetable Aliments, the juices of fome; js exposed for  
a Time to a Heat sufficient, will turn four, and these have been  
called *acescent Vegetables. ' .*

But there is a considerable Class of Plants, which do nut he-  
come acid by Putrefaction, but are resolved into a foetid oily *Al.  
coll.* And from these,, it is remarkable, that no vinous Spirit  
can be produced by Fermentation; for Termentation is only-  
mi Effort totender vegetable Juices .acid,. Or. rather to -disen-  
tangle the latent Acid, and separate it from the Oil and Earth,  
'that confine and disguise it. . : ί' : . '

To this Ciass belong almost all the very acrid Aromatics;  
which by the Pungency of their Taste hetray their Family.  
' These are feIdom taken in Quantities sufficient to produce  
a DiseaIe by their own Power, but are however capable of  
promoting any preceding Tendency in the Juices to an Ac.  
*' caleseences* and, heightening it into Ἀ Distemper. Physicians  
should therefore he careful how they prescribe the warm An.  
jtiscorbutics, hecause when any Degree of the above-mentioned  
*Alcaleseence* prevails in the Juices, these will not fed to increase  
it by their Use, and if long continued, the Patient will.Iun a  
great Hazard of incurring a Putrefaction of the Lungs, Liver,  
or some of rhe principal Viscera, which according to the Fart  
thus affected will be attended with a foetid Breath, Spitting- of  
.Blood, a putrid Diarrhoea, Dropfy, or hepatic Flux. .

Amongst *alcaleseent* Vegetables, Boerhaave enumerates the  
following: ’ . ' , -

*Abstnthium .* Wormwood . ..

*Alliaria* Sawce all alone, or Jack by the

Hedge. ’ - . \

*Allium* . Garlick. .; .. .

*Alyson* Mad.Wort.

*Armoracia* WildEadish.

*Arum .* Cuckow-Pint.

*Atriplex Olida* Stinking Orache.

*Asparagus* Sparrow Grass.

*Barbarea* so Winter Cresses.

*Brastica* Cabbage.

*serspria Alba* - White Bryony. . .

*Nigra* Black Bryony.

*Bunium* Wild Paisley.. :

*Camelina* Treacle Wormseed .

*Capficum* Guinea Pepper.

*Cardiaca* Motherwort.

*Cardamine* Meadow Cresses.

*Cataputia* Garden Spurge. ' :

*Centaureum minus* Lesser Centaury. \_

*Chamaedeus* Germander. - ’

*Chelidonium majus* Greater Celandine.

*- minus* Lesser Celandine.

*Cochlearia* Scurvy-Grass.

*Cepa* Onions.-

*- Dentillaria* Lead Wort.

*Digitalis* Foxglove.

*-Eruca'* Rocket. . ,

*Eryfirnurn* Hedge-Mustard. .

*Egula. -* S ... .. Spurge. . ..

*Eupatoriam Canabinum* Hemp Agrimony:

*Gratioia* -. Hedge-Hyfiop.

*Iberis* Sciatica-Cresses.

*Laureola* Spurge Laurel. , ,

*Lipidiuri* Dittander. ’

*Napus .* i Navew Gentle.

*Nasturtium Aquaticum* Water Cresses.

*. Hortense* Garden Crestes, *r' ’.*

*Nerim* . Oleander,, or Rofe Bay. ..

*Perstcaria acris ‘* , Water Pepper, orArsinarts  
*Porrum* Leek.

*Raphanus* Radish.-

*Pitta \_* Ruev. ‘

*Sabina* Savin.

*Satureia ,* \ Savory. .

*Se'dum minus acre* Wall Pepper, or Stonecropt

*Sinapi* Mustard. . -

*Squilla.* Squill. , . ,

*Thlafpi .* Treacle Mustard.

*Victorialis* Spotted RamfonS.

Many of these are not proper for Aliment, as abounding so  
much with an *alealescent* Acrimony, that it renders them poison-  
ous. Besides the Vegetables above-mentioned, there are many  
others which properly belong to this .Class.

All animal Fends have a spontaneous Tendency to an *al-  
caline* Putrefaction; the Milk of fome Animals only excepted.  
This is obvious to every one who has observed Flesh, when *ex±  
posed to* a certain Degree of Heat, to putrefy and become foetid.  
But animal Foods differ very much ί - - -

First, With Refpecti ’to the Parse of the same Animal.

Secondly, With Respeci: to the Food of the Animal.

Thirdly; With Respeol: to the habitual Exercise of the Ant-  
mal.' - 7'

'Fourthly, With Respeol to the Manner of its bring killed.

Fifthly, With Refpect to the Season of the Year, of Climate  
in which it is eaten. ' ' - '

I. With Respeft to the different Parts of the same Animal,  
Milk differs very much from all the other Parts, especially that  
os such Animals as live on Vegetables only, and Water ; thus  
the Milk of the, Asti Goat,. Cow, Mare, and Sheep, are *acefl.*cent,, that is, turn sour upon Putrefaction, like acescent vegetable  
Juices, from whence it is prepared, and not yet perfectiy con-  
verted into an animal Substance, by the Powers of Digestion.  
And this Milk will acquire a Difference from the Sort of  
Vegetable,.\_ which the Animal that affords it principally feeds  
on.

The Entralls of Animals asso differ , from the rhuscular Parts,  
and.haveia greaterTendency.to Putrefaction, as bring more full  
of Juices, and of these Juices some incline more to Putrefac-  
tion than others. ThuS we find,, when an Animal dies, the Ab.  
llomen and its Contents putrefy first. . .

The Blond also is more subject to Putrefaction than the  
solid Parts, and promotes Putrefaction in the Solids where  
it abounds.; Hence, .the more animal Aliment is cleared of  
Blood, the lesser subjects will it be to produce an *Alcaline Acri.  
mfny* in the Stomach and Intestines, and an *Alcaleseence* in the  
Juices of another Animal that eats it.... S .

II; With Respeci to the Food of Animals, thole which live  
on Grafs, or other acescent Vegetables, on ripe Fruits, or Corn,  
are furnished with Juices less inclinable to Putrefaction than  
other Animals, abound less with volatile *Alcaline Salts,* and  
these .Salts are less, volatilised, and exalted. Hence upon Pu-  
trefaction they are less feetid, and offensive. Of this Sort - are  
the following Animals;

The Lamb, and Sheep,

The Calf, Cow,- and Ox.

The Kid, and Goat, especially when young.

The Rabbit.

Swine, provided they are fed with Vegetables only. Seethe  
Article PORCUS.

The tame Duck, if fed with Corn only.

The tame Goose, if fed with the same.

Herts of all Sorts.

Turkeys.

Tame Partridges.

Tame Pheasants.

The Quail. .

’ But all Animals which feed principally on other Animals,  
or Insects, have Juices which abound with a highly exalted  
volatile *Alcali,* having undergone.a Sort of double, and some-  
times triple Sublimation, or Rectification, first in the Organs  
of the Animal which ferves for Fond, and secondly in those of  
the Animal which seeds on it.

III. Animal Foods differ with Respect to their habitual Exer-  
else, for strong Exercise, long continued, exalts the Volatile Salts  
os Animals, and makes them approach to a State of Putresac-  
'tion. . ’ . . . .

The following Animals, used commonly for Food, abound  
with a volatile halt, exalted either by theft Food, Exercise, or  
both.

Deer, both red and sallow, by Reason of their habitual Exer-  
seise, though they feed on Vegetables.

The Hare, for the same Reason. ►

The wild Boar, for the same Reason.

Pigeons in some Degree, because of their habitual Exercise.

The Lark, both because Of its Exercise, and Food, which  
is principally of Insects.

The wild Duck, both hecause of its Exercise, and Food,  
which consists much of small Fish, Frogs, and aquatic Insects.  
This is also true of all the Duck Species.

The wild Goose, Solan Goose, and all of the Goose Species,  
for the same Reason. -

The wild Swan, or Elk, for the same Reason.

The Bittern, hecause of its Fond, consisting principally of  
Fish, and Frogs.

The Wdodcoek, hecause of.the great Exercise it is used to.

The Snipe, sor the same Reason ; and in general all Birds of  
Passage, Very few excepted/

The Plover, and Lapwing, both because os their Food,  
which is principally of Insects, and their Exercise.

The wild Pheasant, because of its Fond, which consists prim,  
oipally of Ants.

The Sparrow, and all small Birds which feed partly on In-  
sects, partly on Vegetables, and use much Exercise, have Juices  
proportionably *alcales.cent, .*

IV. Animal Food is more or less *alcales.cent,* with Respect to  
the Manner irr which it is killed. Thus if an Animal is killed  
whilst Very hot with strong Exercise, or soon after, the Ten-  
dency to Putrefaction in the Juices will he Very much increased ;  
insomuch that an Ox, or Sheep, killed in such a Manner, will  
be as subject to Putrefaction as an Animal whose Juices are natu-  
rally more *alcales.cent,* hut killed whilst perfectly cool.. Hence  
Deer, and Hares that are hunted, and Birds killed by hawking  
aster a long Flight, contract an immediate Tenderness, which  
is the first Stage of Putrefaction. .1

Anirnais also which are shot, strangled, or killed in any Man-  
ner which prevents their Bleeding, are more subject to an aim-  
*line* Putrefaction, than those which are suffered to bleed freely.  
Of this the nice Judges of culinary Arts are so sensible, that  
they.frequently kill Fowl by strangling them, in order: to exalt  
their Taste, or, which is the same Thing, increase their- Ten-  
dency to Putrefaction. : . . .

V; The Climate, or Beafon, makes a Difference in animal  
Food, because Putrefaction is always in Proportion to Heat, and  
consequently the Juices *of* the same Animal will he more dis-  
. posed to an *alcaline* Putrefaction in warm Climates and Seasons,  
than in those which are cold. .  
- Hence the Inhabitants. os Very hot Climates are obliged *to*use animal Food sparingly ; and through a Neglect of this Con.  
fideration it is, perhaps, that many of the Northern Europeans,  
who travel far to the South, contract Calentures, and putrid  
Fevers. I ant also persuaded, that the indiscriminate Use of  
animal Food in the hottest Summers, and coldest Winters, is  
Productive of many acute Distempers and Deaths in England. .

Most Sorts of Insects are highly *alcales.cent. .*

' Fish of all Kinds are *alcales.cent,* and that in a very high De-  
gree. Those of fresh Lakes and Rivers, however, are less so,  
than Sea Fish; and again, the softer Sort of Fish without Scales  
are observed to incline sooner, and more, than those furnished  
with Scales, to an *alcaline* Putrefaction;. and Shell-Fish most  
of-all. - .......... .. .

And it may he laid down as a certain Rale, that of all Sorts  
of Animals, whether terrestrial, or aquatic, those which pu-  
trefy soonest, and become most ostensive when putrid, incline

the Juices of our Bodies most to an *alcaline* Putrefaction, when  
used as Fond. And indeed some of them are not to he eaten  
safely for this Reason, without Vinegar, Salt,, or *acescent* Veget-  
able Liquors.

From whet has been said under the preceding Articles in Re-  
lation to the *Alcales.cence* of animal Aliments, and what is speci-  
fied under the Article PORcUs, one Reason at least will ap-  
peas, why it pleased the Supreme Being to forbid the Jews, a  
People that inhabited a very warm Climate, the Use of many  
Sorts os Anirnais as Food; and why they were enjoined to take  
away a great deal of Blond from those they were allowed to  
eat. .

It would he prudent if we, though Inhabitants os a colder  
Climate, would however believe, that he who cannot err has  
consulted our temporal Welfare in every positive Injunction he  
has laid upon us, though the Reasons for it may not always he  
Very obvious ; for this would surely incline us by Acts of im-  
plicit Obedience to secure to ourselves Happiness and Health.

But thet I may set the Advantages, accruing to the Children  
of Israel from these Prohibitions, in a stronger Light, I shall  
make the following Observations on the Foods they were forbid  
to ufe, with this further Remark, that if we, even in our cold  
Climate, would conform to the Rules laid down by the wise  
Legiilator of the Jews, Longevity would he more frequent  
amongst us, as we should he much less subject to he .affected by  
epidemical Distempers, and acute Diseases os all Sorts, which  
carry off at least two Thirds os Mankind. Nor would chroni-  
cal Affections perhaps he so terrible, and difficult to conquer, as  
they are found to he at present. \*

It must he remembered, that the Climate, in which the Chil-  
dren os Israel lived, was Very hot; and thar therefore every  
Species of Aliment which is improper to he eaten in our Cli-  
mate, on Account of its Tendency to an *Alcaline* Putrefaction’,  
was much more pernicious in the warm Country inhabited by ’  
**the** Jews.

The. Aliments forbidden the Jews were:

*Blood.* This is extremely subject to an *alcaline* Putrefaction,  
and the Juices formed from it are highly *alcaleseenl,* and subject .  
to putrefy. - For the same Reason all Animals whatever killed,  
without bring suffered to bleed sufficiently, are improper Fond.  
It is well known to common Observers, that the more succulent,  
and juicy the Flesh of Animals is, the more subject it is to Pu-  
trefaction:

If an Animal has been heated by Hunting, there seems a far-  
ther Reason to let *it* bleed, in order Io lessen the Tendency to  
Putrefaction it acquires by Exercise, and Heat. And thus we  
find it directed, *Leviticus, Chap,* xvii. Fl I3. ’

*. And whatsoever Man there be of the Children of Ts.rael, or of  
the Strangers that susum among you, which hunteth or catcheth any  
Beast, or Fmarl which may be eaten , he stall even pour out the Blood  
thereof, and caver it with Dust.*

Animals which die os themselves are unwholesome, both as  
they do not bleed, and as their Juices are generally in an actual  
Stateof Putrefaction, or nearit, before they die. And we find  
the Flesh of such Animals forbid in the above quoted Chapter,  
Verse the 15 th.. . ' .. .

host *Gamal. .—*--The/Σππό. Though the Fond of this  
Animal is only Vegetables, and Water, yet the Fibres are har-  
dened, and rendered in a great Measure indigestible, and the-  
Salts are highly exalted by its habitual Exercise.

- lDw *Shaphan. —* - The *Coney, tea* we tranflate it, but Bo-  
chart-in his *Hiertrzoicm* says, it is a large Species *os Rat, and*others call it a *Mountain Eat,.* Thus, *Proverbs, Co* xxx. *Vi 26.*CnODSl are said to *make their Houses in the Racks.*

As the general Food os all Creatures of the Rat Species, ss  
Animal, their Juices must he consequently much inclined to ain  
*alcaline* Putrefaction, and therefore their.Flesh must be unwhole-  
some.' - ’ - ς - ..;χ 'εἴ

rnnlTN *Arrubeth* The *Hare.* The Animal we call  
thus is certainly meant in this Pisce; the Septuagint tranflates  
it by δνὰπέΒας, and with this The Syriao and Arabic Versions as.  
gree; and thus the Jews understood is, who abstained from  
eating it, as we learn from Pintarch, : *Symposium. AsNsueast. 5.  
and* Clemens Alexandrinus, *Padag.* 2. To. *dur i*

The Hare is remarkable for being extremely timorons,'and  
this makes it use a great deal of Exercise by way of Precaution,  
when he goes to seek his Food, and at the Approach of any  
Danger, either real, or imaginary ; this habitual Exercise pro-  
bably contributes to the Exaltation of the Salts. We find in  
Effect that the Hare has a very high Taste, eVen in our. cold  
Climate; and this high Taste universally is an Evidence, that  
the animal Flesh which gives it is strongly inclined to an σίν.ιι-  
*line* Putrefaction. It is remarkable that the old Britons ab-  
stained religioufly from eating Hare, as we learn from Cmsar,  
*de Bello Gallico, L.* 5. so '

W *Hbcccir*  The *Swine.* This Anima iis remarkable

for Filthiness, and feeding on all Manner of Ordure, even Car-  
rion *is* it salis in his Way; It is the only Animal in the Brute-

Creation subject to the Leprosy ; and also something very like  
what we call the King's-Evil, called in Latin *Scrofula, from  
Scrofa,* a *Sow;* as this Disease is in Greek called Χοερετς, from  
Χσιροσν a *Swine.* The Meafles is another filthy and contagious  
Disease which this Brute is frequently infected with, insomuch  
that it has pasted into a Proverb, aS we learn from Juvenal, who  
calis it *Porrigo.* In this Distemper, all the fleshy Parts are full  
**os** innumerable small, round, white, and hard Substances some-  
what like Hail Stones.

Hence it must appear to every reasonable Observer, that **the**Flesh of this Beast, as an Aliment, must be highly, improper  
for a People so subject to Leprosies, as the Jews appear to have  
heen, and who were Inhabitants of a warm Climate, which  
renders every Thing more inclinable to Putrefaction.

**All BEASTS which do not both divide the H00F, and chew**

-. ss\_ . . . Ἀ **the CUD.**

Under. this Prohibition are included all .Beasts of Prey, and  
those which eat Flesh, whose Juices are highly *alcdlescgrit* Tor  
Reasons hesore given. All Animals of the Horse, : and : Ass  
Liind;' are likewise here prohibited. And we find that the Flesh  
**of** all these is difficult .to he digested, .and assimilated by the Vi-  
**tal** Powers, and that the Juices ,are rank and *alcalefcent* ; .per-  
haps hecause they are frequently heated by the habitual Exercise  
they are obliged to use fortheService OfMan. I .

-. I cannot explain scientifically ail the Effects which Chewing  
fhe Cud may have upon the Flesh and.Juices of the.Animal.that  
does .it. . But it is worthy of Observation, that all Creatures-  
-which chew the Cud live On .Vegetables and Water only,  
have a Very flow Digestion, spend a great Part of their  
Time- in getting their Food, and the rest, either, in chew-  
ing the.Cud, or steeping; so that it is accidental \_ if they eVer  
**use** Exercise sufficient to heat themselves, harden their Flesh,  
and exalt. their Salts to any considerable Degree of *Alcales.cence.***Of** this the Cow, .and Sheep are obvious Examples. Deer both-  
chew the Cud, anddiVide the Hoof; and their Juicesare not-  
withstanding somewhat,; *alcalefcent,* as they are ..usually, killed  
\* ' amongst, as.. The Flesh is however tender, and easy of Di-

gestion ; and if they are killed, according to the Directions of  
the LeVitical Law; that is, if they are suffered to bleed plenti-  
sully, this Tendency Id an *alcaline* Putrefaction is in a great  
Measure removed. , . 4

'. - s ο. (. , .so .. . -  
**All FISH which have not FINS and SCALES.**

, These are what , medicinal Writers gaij *Pi/ces molles,* it has  
been observed above, that all Sorte of Fish are Very subject to  
Putrefaction ; but those without Scales more than others, and  
Shell-fish most of all. ... 1  
y TwT *Nofher——*The *Eagle. -*

ODD *Peres* The *Ossifrage.* ...... .v

*.. Iznijah..ἐν.* The *Osipray,* so called from nnifT with  
a I *Epenthetic.* It is an *Eagle,* so called from his Strength,  
which we may imagine to he the little *Black Eagle,* which is  
.. therefore palled *Faleria.* The Syriac renders it a Crow. .

ΠΚΤ - ἀπό The *Lite,* so called from his Flight, which

is Very strong, especially when he hangs in the Air, without  
moving his Wings. \_ .

. ΓΡΗ *Agjab*——- The *Merlin,* a Kind of small *Hawk.*

. any *Oreb* The *Raven,* or perhaps the *Nycticorax. -*

. On *Bath Hajjaanah —* The common *Owl.*

. ρηπη *Tohhmas—*—The *Noctua,* a Species of Owl.

. ΒΠ2ἱ *Shahhaph* ί' ' .- The Custom. τε

PI *Nair* A *Hawk.* It is explained a Bird with which.

other Birds are taken, and which Fowlers canyon their Fists.

. . 013 *Cos 'TSa Gos.s Hawk.* Some tranflate it an *Owl* ὁ

others *Onocrotalos,* a Bird which makes st, Noise like an Ash

*.Shalach*——-The *Cormorant.*

DM? *Jansoaph—*—The great *Cud.*

The Juices of all these are highly *Alcales.cent,* hath as they are  
Birds of Prey, and as their habitual Exercise is great.

.ηοιζἱυη *Tinsihemeth* The *Swan,* Or *Chough Daw.* It is

. Os no great Importance which is here means, for the Juices os  
both are much *Alcalefcent,* and their Flesh rank, and scarcely,  
digestible. -

πκρ .Κσσίν—— The *Bittern.* This Fowl seeds on Fish; the  
Flesh is very rank, and subject to Putrefaction. .

Conn *Rahham* The *Gier Eagle.* It feeds on Flesh.

. εΤΓνΟΓΤ *Hihastdah — --*The *Stork, so* Called from Τ0Π, he-  
cause its Piety to its' Parents is herd to he remarkable. Hence  
- Petronius calls it *Pietatis Cultrix.* The *Stork* seeds on Frogs,

Serpents, and other Reptiles, wheel? are in general extremely  
*Alcalefcent,* .and therefore it must afford Jnices in a State very  
near to Putrefaction. . .

HD5K *Anaphah* —The *Hiron.* . It. seeds on Fiths and uses

- a great deal of Exercise, and for both these Reasons has Juices  
highly *Alcales.cent.*

HD’DlT *Duchifihalh* The *Lapwing,* a Bird almost perpe-

tually on the Wing, and which feeds on Insects. The Flesh  
is os a Very high Taste, and near to a State of Putrefaction.

3bDy *Atallaph —* The *Eat.* It feeds on Insects.

*. rihn Howled* τ The *fPeafel,* a Beast of Prey.

' linDy *Achiar* The *Mouse.* It seeds on Flesh. ... -  
3E *Toeab* Properly the *Toad* from its Swelling, derived

from H3E, *intunnat. -*

*Anaiah* This is sometimes tranflated the *Ferres,*

and by some it is called a Species of *Locust.* But, as in the  
Prohibition it immediately follows after the *Toad,* and is de-  
rived from PIN,, which signifies *clamaviV,* there is great Reason  
to believe it should he understood the *Frog,* literally the *Crycr,*or, *the Beast that cries,* alluding to the Croaking of this Rep-  
tile,. si . so : . ..

ΓΠ3 *Coahh The Lizard* . . l

’ ΠΗίγή *Letaoh ——* Bochart calis it the *Salamanders* a Sort Of  
*Latiand..*...i- .

. 0ΟΠ *Hhomet* ——.TheSmti/t ... *‘ c... uri*

nnwIh *Tonsuemeth*. Bochart calisIt *raesCPssuDhdmaliari;*in another Place quoted above,, the saineWord signifies a *Swan,  
CssJuckDaw.*

All these Reptiles are extremely subject to Putrefaction, asare  
^Reptiles of almost every Kind ; the Smell of these, when pu-  
trefied, .is extremely offensive; and hence we must conclude  
their Salts to he highly exalted, and their Juices *Alcales.cent* to a  
great.Degree. ς .Ἀ.ς.ᾶ ,ῖ. . .... 4 . '.-si.

*Before* I proceed sarther in the Account of an *Alcaline* Pdtre-:  
section in ithe; Juices, and.its Consequents, It is necessary;  
that I specify the Parts into which the Blood is; separable by;  
Chymical Analysis, ι : . ἀλ ; ..

ς.; First then, is the Slood *ossa.* Person in Health,. fresh taken  
away, is put into a Retort, with a Receiver accurately lured to  
it,; arid.is .then committed to a.Heat. much Jess then is sufficient  
to make Water boil, a Vapour chines: Oyer, which condenses'  
into A Liquor Very little, if at all, different from Water, and?  
which does not appear to he either *alcaline or acid,* saline, pin-  
guious, or in any Degree acrimonious. / And if the Fire is in-  
creased to the Degree of boiling Water, .the; same Vapour still-  
continues to come over, forming exactly the fame Kind of Wal-  
ter, till the Bleed put into the Retort loses much about seven  
Eighths of the original Weight. si.

If the remaining dry Mass is taken out of the Retort and '  
examined, it affords no Signs of containing any Thing the  
least *alcaline,* acid, or acrid, but is utterly insipid, except that  
it tastes and smells of Burning, and that not much. This in-„  
closed in *si* wooden .Box, will keep for Ages without Putrefac-  
tion. Put by a Sand-heat, gradually increased, it yields, first a.  
sattish, oily, bitter Liquor, somewhat inclining to.he *Alcaline ;*then, a white Volatile Salt ; and, as the Fire increases, a yellow  
Oil, and with it the same Kind os Salt. Take the Receiver;  
away that contains; what is come over,:, and lute on another ;  
urge -the Remainder with the most. extreme Degree of Fire that  
the Glass will bear, without melting, ..and white Fumes will,  
arise without ceasing, if the Operation he continued ever Io  
long, and with these a black, thick Oil ... .... .- S  
. -The Mass remaining m the Retort is Very black, and shining,  
brittle, extremely light and spongy, of a disagreeable Smell,  
empyreuinatie, bitter, and scarcely at all salt; .this; when urg-  
ed with a Heat almost sufficient to melt the Retort, continues  
perpetually to emit Fumes, .and preserves its black Colour so  
long as it.remairss in a .closed Vessel j.but when exposed to a na-  
ked Fire, it flames, and, losing this Blackness, becomes, white,  
and is then found to hean insipid Earth, containing not the least  
Portion of an *Alcaline Salt*; but a small Quantity os an Acid  
may he got from it by an. extreme Degree os Fire, which Boer-  
haave imagines to he the Offspring of rhe : Sea-Salt which had  
heen used in Food, and remains in the Blond unaltered; but in-  
his Observations on this Process, he telis us, that he had Observed  
the same Appearances in the Distillation of the Blood of many  
Brutes, and therefore this Acid cannot he owing to Sea-Salt, he-  
cause no Animal, that I know of, eats Salt, except Man and .  
Pigeons, unless domestic ones, aS Dogs, and Cats, .sometimes  
by Accident, not by Choice; I am sensible it may be answer\*  
ed, that there is Salt, more or less, in all Water that Animals  
drink; and I know a Salt may be procured from the Urine of  
Animals, much resembling Sea-Salt in the Figure os the Cry..  
stais, and some other Properties. But. if the Source of this Salt.  
was the Sea-Salt taken into the Stomach.with the Aliment, hu-  
man Urine would probably yield mote of this Salt, then that of  
graminivorous Animals, hecause the Salt taken in the Water of  
these An imais, bears no Proportion to that which is eaten by a  
Man, however it appears, that the Urine of a Cow, or a  
Horse, yields a much larger Proportion of this halt than that  
of a Man. . .

Here then we find in the Blood a Water, an Oil, a volatile  
*Alcaline Salt,* a fixed Earth, and a Portion of Acid. And now, -  
if we consider attentively the Progress os,animal Putrefaction,  
weshall find it has exactly the same Effects, as the Distillation  
described above, and that it onry differs from it in taking up a  
somewhat lunger Time, For first the watery Particles exhale ;  
next the saline Part is attenuated, and disengaged from the -  
Earth and Acid, and thus- heing rendered acrid, *alcaline,* and  
volatile,. rises together with a Part os the Oil alfo attenuated,  
and separated from the Earth, and affects the Organs of Smell

with a Nidor, or Stink peculiar tn animal Suhstanpers in a State  
of Putrefaction. . .. .. .

The rest of the oily Particles unite with the Earth thus de-  
prived of the finer Part of the Oise Water,.and Salt, and both  
together form a black, tenacious, viscid Substance, which, how-  
ever, at last is resolved, and leaves nothing behind but a pure  
virgin Earth, the Acid also exhaling. Thus the animal Juices,  
by Putrefaction, undergo a thorough Alteration, and Separation,  
after, which it is impossible to unite the separated Particles again,  
fo as to make an uniform homogeneous Fluid- like what it was  
before. \_ . '

i It is impossible this Putrefaction, should prevail universally in  
the Juices whilst the Animal is alive, for Reasons which .will he  
given hereafter ; but particular Parts of the-Body may putrefy,  
without causing immediate Death. — *Alcalefcent* Fond also may  
putrefy in the Stomach and Intestines, and cause great Disorders  
in the animal OEconomy, when taken in Quantities dispropor-.  
tinned to the Powers of Digestion. And the Juices in general  
may have a strong Tendency to Putrefaction, and os this seve-  
ral Birds that seed on Carrion are sensible, much sooner than  
Mankind, for as soon as the Volatile Salts, and rancid Oils, he-  
gin to exhale,- the Organs of Smell, in thefe Birds, are sooner;  
affected than ours, insomuch that they are frequently allured  
from considerable Distances, to the Neighbourhood of Houses  
inhabited by People in Fevers, . .... . ..

The antecedent Causes therefore of an *.Alcalefcence* in the  
Body, and the Diseases depending thereon, may he reduced to  
the following: . ..... :. .. . ...

I. *Alcalefcent* Aliment, that is. Aliment of *alcaleseent* Vege-  
tables, or of Animals, the Milk of graminivorous Animais only  
excepted. And amongst these Fish, particularly their Livers,  
and Skins: Fowis that live on Fish; all Birds which prey On o-  
ther Animais, or Insects, or which are used to a great deal  
of habitual Exercise; also Animais killed whilst heated with  
strong Exercise, incline more to an *Alcaline* Putrefaction than  
Others... -. '

2. A Weakness os the Organs of Digestion.

I When this is the Case, the Aliment, solinwing its. natural  
Tendency, putrefies in the Stomach, and Causes what .is Usually  
called a Surfeit. And the Chyle, enters into the Blond in a  
State near to Putrefaction, or in Part putrefied. .... . .. .  
~ 3. A great Strength of the digestive and assimilating Or\*,  
gans, for this produces

4. A great Quantity of Blood highly exalted, and in a State  
very near to Putrefaction, and a Bile in a State near to Putre-  
faction. . '

ἰ It must he rememhered, that Acescent Aliments are by the  
Actions of the above-mentioned Organs Converted into *Alcaleso  
cent* Juices. When therefore these Organs act strongly on Fond  
already *alcalefcent,* it must he rendered more so, and brought  
nearer to a State of Putrefaction. . . .

. It is upon this Account that Plethoric People are more subject  
to epidemical Disorders than others ; that People in a full State os  
Health, are more in danger of falling into Fevers, and those of  
a bad Kind, than others whose general State of Health is not so  
good; and that fuch who have Very strong Constitutions, are  
more liable to pestilential Disorders,, and putrid Fevers, than  
Valetudinarians. \_ ...

Hence Hippocrates, Z. i. *Aphorism.* 3, advises to beware of:  
an Excess of Health, for the same Strength of Constitution which  
was sufficient to bring the Blood and Juices to such a Degree  
. of Perfection, will at last exalt them into a Disease. And  
Celsus telis us, that a full State of Health is to he suspected: *Er.,  
go si plenior aliquis, et speciosior, et coloratior factus est, suspecta  
Libere sua bma debet, Nuce quia neque in eodem habitu fubsiflere,  
neque ultra progredi possunt, fcre retro, quasi Ruina quadam, re-  
volvuntur.*

-- Hippocrates thinks it prudent to subtract something from a  
State of Health arrived at the utmoft Perfection, because, as it  
is not possible it should remain long without Alteration, and  
cannot mend, it must necessarily grow worse. But with all  
Deference to so great an Authority, I must remark, that Na-  
ture has Resources of more Importance for the Preservation of  
Lise, and Health, than any Assistances which Art can afford  
her, and from which the draws Help upon these Occasions. Thus  
in Cafe of too much Fulness of Blood, an Haemorrhage lowers  
the Habit to such a State, as Hippocrates advises us to reduce it  
to by Art. If the Juices are fo much exalted, as to tend too  
much to an *Alcales.cence,* the Acrimony attending this State, before  
It becomes sensible by any ill Consequences frequently stimulates,  
the Glands of the Skin, and thus cautes its own Evacuation by  
an increased Perspiration; or else, if it happens to affect **the**Glands of the Kidnies, it is carried off by Urine ; but if it salis  
upon the Liver, the most likely Part to receive it first, or the  
pancreas, or the Glands of the Stomach, and Intestines, the  
Danger is prevented by Vomiting, or a Diarrhoea, or both,  
sufficient for the salutary Purposes above-mentioned ; and hence  
the popular Opinion, founded on the Experience of all Ages,  
that a Looseness in the Spring and Summer is salutary. Thus  
we see this Acrimony so much to he dreaded, is frequently un-:  
**dw** the Conduct of **a** well regulated animal OEconomy,, its own

Antidote, and the Means of preserving, instead Of interrupting  
Health. But here we must suppose no Excesses are committed,  
and regular Exercise is Used.

5. Long Fasting. For, if the Blood is not perpetually dilu- -  
ted with fresh Chyle, it will contract an *Alcaline* Acrimony,  
and the Breath will become foetid, till in the end a Fever and  
Death ensue from this Putrefaction.

6. A Stagnation of any Part of the Blood or Juices.

Because all Animal Juices, which stagnate, follow their na-  
tural Tendency, and putrefy. ...

7. Great Heat, whether os the Season, or Climate; external,  
or internal; natural, or artificial.

8. Violent Agitation os the Blood. Because it produces  
Heat.

9. Excessive Exercise, especially is long Continued.

When any of these Causes, or many of them conjointly,  
have produced an *Alcaline* Putrefaction, it is manifested by the  
following Signs, in the Primm Vise\* " ε '

I. Thirst.. . Ise:; o ῖ : ; -..

It is observable that Nature, or rather the Author of Nature,  
has given to all Animals A certain Sagacity, to enable them to  
distinguish .Aliments winch would he noxious to them,.from  
those which are salutary ;: and to direct them to the Means of  
curing- .the. Disorders they, labour, under. . This,, in Brutes,. is  
called *Instinct*; and as we find the same Propensions calculated  
for the same good Purposes in Mankind, . ! think we may pro.,  
perly enough call them by the same Name., r

In the present Instance, Thirst is raised, that is an Inclina\*  
fion to drink large Quantities of small diluting Liquors. ..Now  
these Liquors dilute the- *alcaline,* putrid, acrimonious Salts, re-  
lieve the present uneasy Sensation, and dispose the putrefying or  
putrefied Matter to he discharged out of the Stomach and InA  
testines, either by Vomit, or Stool.. Blit if the Propensity »  
to acid Liquors, which is generally the Case, these Acids, when  
mixed with the putrid Salts, destroy them, and are both toges.  
ther Converted into a neutral. Salt. i. . -r

. It is remarkable,’ that taking internally volatile, *alcaline,*animal Salts,' as Salt or Spirit of Hartshorn, raises .a Thirst, in  
the same Manner, and for the fame Reasons.

- 2. An-utter Loss of Appetite, and an Aversion *set. Alcalefcent*Aliment, particularly Of.that Sort, of Aliment, which originally  
Caused the Disorder. ...

This is another InstanceOf the Instinct above-mentioned; Or’  
rather,’ of the Protection of Providence, which watches over us  
in Sickness as well as Health. An Appetite would he prejudici-  
al, when the Stomach is in such a Condition, as not to he a-  
ble to. digest the Aliment taken into It; and *Alcalefcent* Ali-  
inent would increase the Disorder. . - . - -

3. NidorouS Eructations, or Belches which affect the Month  
with the Taste of-putrefied Eggs. '

'. Beca’ufe“a Portion of the putrid Salts, andnancid Oil, is ex-  
cluded together with the rarefied Air.' : : . ......

- 4. Putrid Sordes upon the Lips, Teeth, Tongue, Palate,  
and Fauces, which affect the Organs of Taste with a Sensa-  
tion of Bitterness, because animal Oils, when they grow ran-,  
cid, become bitter ; or perhaps this Taste may he caused by  
the Bile too much exalted, and tending to Putrefaction.

5. A Sickness at the Stomach, from the Stimulation of the  
acrimonious Salts, especially at the Sight, or even Idea of *Alca-  
lefcent* Aliment near to a State of Putrefaction. This Stimula-  
tion increased, causes a Dischargeof the putrefied Matter by Vo-  
mit, which is salutary, when the Disorderproceeds only from  
a Putrefaction of the Aliment in the first Passages; hut if from  
a Putrefaction of the Liver, Pancreas, Or any other os the Con-  
tents of the Abdomen, it is sometimes a very bad Symptom.  
When this *Alcaline* Acrimony affects the Intestines, it stimulates  
them to a Discharge of their Contents by a~ Diarrhoea, which is  
also the Means of Cure, when the Putrefaction is Confined to  
the Aliment contained in the Stomach and Intestines; but is  
often fatal, when caused by large Putresactions in any of the  
viscera.

' Fish that has been kept too long before it is eaten will cause  
a plentiful Diarrhoea; and a very small Quantity of putrefied  
Egg will heVe the same Effect, by stimulating the Intestines.

6. This *Alcaline* Acrimony produces a spontaneous I aflitude,  
and universal Uneasiness; a troublesome Senfe of Heat, and in-  
flammatory Iliac Pains.- s -

The Effect of an *Alcaline* Putresaction ’ in the Blood is its  
Dissolution into an *Alcaline* acrimonious Fluid ; the watery  
Particles separate from the other Principles and exhale; the  
finest Part of the Oil grows rancid; the rest of the Oil joining  
with the Earth, they .form together tenacious Obstructions in  
the Vessels to which they adhere ; and the Salts no longer uni-  
formly mixed with the- diluting Water, softening Oil, and  
neutral Earth, become acrid and corrosive. Hence the Fluid  
circulating in the Vessels, which in order to be fit for Nutrition,  
and the Exigencies of the animal OEconomy, must he mild,  
and destitute *of* all Acrimony, is, in the present State, very  
sar from heing accommodated to thefe salutary Purposes; bus.  
Instead of that, stimulates, abrades, and carries away a Part of  
the Solids; and corrodes and destroys the extremely minute

. 1. . „ ,

Vessels, to which thofe of the Brain are above ail others sub-  
Ject, whence a Train of Symptoms which are usually called ner-  
Vons, aS Delirinushess, Convulsions, Comas, or Want of Sleep.

This Corrosion and Destruction of the internal Parts is no-  
thing more than whet may at any Time he produced on the ex-  
ternal Skin, by.confining a small Quantity os.animal, *Alcaline  
Salts,* for a short Time, to any Part of it, for it will then act  
as a Caustic, and raise an Escar. This may serve aS a season-  
able Cantion to those who wantonly accustom themselves to  
fmell to Volatile Salts, especially these which have their caustic  
Acrimony exalted by Lime in their Distillation for when a  
Part of these, is drawn into the Lungs, it may, and without  
Dispute has. Very bad Effects on the tender Membrane which  
lines the Lungs.: --- - .so 'st ss .

In .the State of the Blood mentioned above, the Liquors in-  
treted from it are foetid ; and the Urine is high coloured, ap-  
proaching to Redness,. in Proportion to the Degree of Putreiac-  
tinn prevailing, and the Patient necessarily labours under a con-  
Iinual burning Fever, τ . t. : . . - t \_ .

-. From this Account of an *Alcaline* Putrefaction in the Blood;  
**It is** easy to perceive, that the Consequences mush he a Distur-  
feance. Depravation, or utter Destruction Os all the Actions,  
whether, natural, animal, or rational; an intire Alteration in  
the Circulation, and consequently in the Secretions, and Ex-  
cretions which depend thereon, with general,- or local Inflam-  
mations, which, if the Putrefaction is considerable, must terr  
minate in Suppurations, or Gangrenes, SphaedationS,'\* and  
Death- ..-.ss f'- ’ ... .3: in sifosusu

The different Parts of the Body which are affectedthy this *alba-  
line* Putrefaction, make some Difference in the Cure.' Thus,  
If the *Alcaline* Aliments, taken in Quantities too large for the  
digestive Powers, putrefy in the Stomach and Intestines, and  
produce the Effects mentioned above, the most rational Method  
ofCureisto procure their Discharge, either by a Vomitor  
Purge, or both ; and in this the principal Symptoms must he  
Our Guide ; for if from these we learn the Stomach is affected,  
a Vomit is to he given; but if the putrefied, or putrefying Ali-  
ment, is protruded into the Intestines, a Purge will sometimes  
he sufficient- to promote their Exclusion. Proper Vomits, in  
this Case, are warm Water, green Tea, Infusions Os Carduus,  
lor Ipecacuanha, in the Quantity of half a Dram; \*and Purges  
Of the saline Kind seem hest adapted for this Purpose; because as  
they increase the natural Tendency to a Diarrhoea, and there-  
by carry off the offending Matter, they at the same Time re-  
sieve the Symptoms, by destroying a Part of the Acrimony.  
Both Vomits and Purges must he repeated, according as the  
Continuance of the Disorder shall make them appear necessary.  
In general one Vomit, but repeated Purges are required.  
; . I have met with a popular Remedy for an Over-charge of  
**the** Stomach by *alcaleseent Aliment,* os too much Efficacy to he  
omitted ; it is the Runnet with which Milk is curdled, in  
order to make Cheese. Runnet is thus-made the first Stomach  
of a Calf is salted and dried; or else preserved in Brine; this  
Brine, or an Infusion of the dried Stomach in cold Water, is  
the Runnet. One or two Spoonfuis of this Brine in half a Pint  
of cold Water, or an Infusion of a Piece of the dried Stomach  
about two Inches square for a few Hours in the same Quantity of  
**W** ater, if drank, is said.to take away all the uneasy Sensation cause  
-ed by the stimulating Acrimony, and to promote the Expulsion  
of the offending Matter, either by Vomit; or Stool. It would  
perhaps he somewhat difficult to demonstrate the specific Ae-  
tion of the Juices in the Stomach of a Calf,. by which Milk is  
curdled ; but we find in Fact, that this Effect is produced,  
- both in the Stomach of a Calf whilst it is alive, where all the  
the Milk it takes is .sound curdled, and in Milk wherewith  
the Infusion of the same Stomach is mixed, even aster the  
Death os the Calf. I dm.equally ata Loss to account for  
the salutary Effect of Runnet, considered aS such, upon a hu-  
man Stomach under the .ill Impressions of *alcaleseent* Aliments  
putrefying therein. But I am sensible that the Salt, which pre-  
serves the Calf's Stomach from Putrefaction, will also have a  
very good Effect upon the Aliment putrefying in the Stomach,  
destroy totally or in Part the *alcaline Acrimony,* and consequently  
relieve the Symptoms caused thereby; bur whether all the good  
Effects os Runnet as a Medicine depend on the Salt, I will not  
take upon me to determine; I am, however, certain upon my  
own Knowledge, that it is an excellent Medicine in the Case  
above-mentioned.

When a Tendency to this Putrefaction is got into the whole  
Habit, and prevaiis in the Blond and Juices, the Cure is much  
more difficult and tedious, and the Disorder is attended with **a**much greater Degree of Danger. And as almost all acute Dis.  
tempers whatever are either raised originally by, or else ac-  
companied with a greater or less Tendency to an *edcaline* Pu-  
trefaction, the Regimen and Medicines proper to destroy or  
curb this *Alcalescence,* are os the utmost Importance to the Art  
os Healing. The Regimen, however, is most to he regarded,  
for upon this the Cure principally depends.

With Respect then to the Cure, Bleeding seems proper, as it **re-**laxes and diminishes the Action of the Solids upon the remain-  
ing Mass of Fluids, which lessens the Attrition betwixt **-the**

Solids and Fluids, and betwixt the Particles of the Fluids with  
each other 5 now, as Attrition is one great Cause of Heat,  
and Heat a great Promoter of Putrefaction, Bleeding promises  
shir to remove at least one principal Cause thereof.

.In such Cases also Rest must he\* strictly enjoined, and an  
Abstinence from all Sorts .os Motion rigorously persisted in.  
Because every Degree os Motion 'proportionally hardens/ the  
Fibres, and accelerates the Circulation ns .the Blood ; 'this-in-  
creases the Attrition hetwixt the Solids and Fluids, and betwixt  
the Particles of the Fluids with each other, and consequently  
promotes Heat, the Parent of an *alcaline* Putreinctiois,\*herid all  
its Consequences. . z *.. :... soy*

. Warm emollient Bathe, Fomentations, and Clysters, are al-  
so of Service, as they relax the Fibres, and thereby help *tp se..*move one considerable Couse of Heat; and as the . absorbent.  
Vessels take up a Portion of them, they become farther, services,  
able by diluting the Blond. - ss. .i .

With Respect to the Air which the Patient respires, lr should  
he temperate find refreshing ; if too hot, it increases the Ten-  
denoy to Putrefaction ; if too cold, by contracting the animal  
Fibres, it is consequentially productive *of internal* Hear. . . ..  
-. Hence the Reasons are Very plain, why all Heat beyond  
Temperateness, whether natural, and produced by the. Climate,  
or Season; or artificial, and generated either by Fires, too  
many Bed-cloaths, or hut Medicines, must necessarily, he .per-  
nicious in all Distempers, where there is **a** Tendency to ad  
*alcaline* Putrefaction. . . . - .-Ass-c *i A. 6*

(. Our next Care -must he to saturate, the Blood and Juices **with**Aliments, which are acescent; which have a strong Ten-  
dency to become acid when taken into the Stomach, or which  
are actually 'acid. ".Suchore Milk either alone, or diluted **with**«water s Whey, and Buttermilk, μ , Ἀ *‘ στὴr '“sif si*‘ Bread, which has been fermented, isi another Aliment os the  
acescent Kind, shut is ir has heehinuch inrmented;; st is sae-  
.tually acid. Of this great Varieties os Foods may. he prepared;  
by boiling it with .Water, till it Is' os such a Consistehce,  
as answers the End proposed, and afterwards adding to in  
'other acescent Ingredients, as Wine, or the crude, or prepared  
Juices of Fruits. ‘The most common of these is balled.*Panada:.*

Many Sorts of Aliments, exceedingly proper when there Jis  
an *Alcalescence os* the Juices, are also prepared from farinaceous  
Vegetables, particularly Barley and Oats. The - **Prison** *Os the  
Antients,* so famous in ail Ages, was made of Barley hulked, and  
boiled in Water, and seems to have been a Kind os Gruel,  
which obtained different Names, according to some Circum-  
stances to he taken Notice os hereafter. The .Word is derived  
from Πτισσω, which signisiesfo *peel,* or *take off the Hisses, this*heing the first Part os the Process for its Preparation, but **the**French have, through an unpardonable Error, applied the Nanin  
of *Prison* many Sortos medicinal Decoction. τι-

τ Amongst farinaceous Vegetables Boerhaave enumerates the  
following' '

. : wheat; . i " - . .

Barley.

.' Oats. \* . e . Ἀ

**Rye, susi**

‘ Rice.:;.. ' -ES.'-ss ...u - -..δ᾽

ῖ Buck wheat, orsqumentum SaraoenicuIth

Millet. 4. - ’

Mays, or Indian Wheat.

Panick. . 7 - . '

Spelt Wheat. Ἀ '

Pistachio Nuts. :

Of these boiledin Water., find digested for a considerable  
Tithe, till they acquire a Tendency, th Acidity, many Sorts. '  
of Feed may be contrived. Very proper, in fin *alcaline* State of  
the Juices. Decoctions and Emulsions of these, drank in  
large Quantities, are of considerable Service; first, aS they are  
In some Degree saponaceous, and dissolve Obstructions in the  
Veffeis, which Water alone cannot act upon. Secondly, as  
they dilute the Juices inclinable to an *Alcalescence* with ad  
acescent Fluid. Thirdly, as they relax the Solids; And, Fourth-  
ly, as hy their oily Softness they inνelope, and obtuhd the *akar.  
line* Acrimony, and, thereby rendering it mild, prevent ha Ef-  
fects in the Body.

**1** must not omit observing, thet acefcent Aliments in **ge-**neral seem more healthful than thofe which are *alcalefcerti,* **and**are less subject Io form Obstructions, provided they are taken  
in Quantities proportioned to rhe Strength of the digesting **and**assimilating Organs, and by People inured to habitual Labour  
'and Exeroise,

Thus Horner celebrares the Hippimolgi, A Northern Nation;  
whose usual Food was Milk, for Longevity. And the Moun-  
taineers of Great Britain, who generally live on Milk, and CakeS  
made of Oatmeal, fermented till they grow quite sour, are re-  
markable for Health, Strength, Activity, and living to a Very  
great Age, and are seldom or never Visited by epidemical  
Distempers, in any considerable Degree. And whet Virgil  
says of a Northern Nation is something to our present Purpose:.

*- — Pocula lati*

*Fermenta atque* Acidis *imitantur Vitea serins.  
Tales Ffyperboreo septem subjecta Trioni  
Gens Eofrana Virum Riphaea tunditur Eure.*

There is another Class of Vegetables of excellent Service,  
when the Juices tend to an astatine pnrreheaiom I mean the  
Summeror Autumnal Fruits, when perfectly ripe.

Boerhaave mentions the following;

**Oranges.**

Lemons.

. ' Elder-Berries. ' .

Cherries of all Sorts,

Citrons. ..

Garden Cucurnhers. y

- Garden Gourds. '7

- Figs, - - - , ,- . , '

Strawherries.

Pomegranates. .

- Jujuhs. :; '

. Apricocks.

Peaches. . -

i Melons. . -; , ’ ' ' ',,

**Mulberries.** - σε . . . - -

r Apples. ' ; - . I

Sweet Plums of all Sorts.

Currants of all Sorts.' -

Raspherries. .....

I do not know why the illustrious Author has omitted  
Grapes, Tamarinds, and some others of the like Kind.

Of these considerable Uses may he made. For they may  
he helled, or roasted, and eaten occasionally or their Pulp,  
Or crude Juices, may he mixed with Panadas, Grinds, or other  
acefcent Aliments. Or esse the Juices, expressed after baking.  
Or helling them wlth a very sinall Quantity of Water, may  
he mixed with Fond, or given as a Medicine, first adding to  
-them the Quantity of Sugar which shall he judged sufficient.  
And it must he observed, that helling, or baking Fmits, destroys  
a great Quantity of the elastic Air which they contain when  
crude, makes them sit more easy upon the Stomach, and there,  
by renders them more sit for medicinal Purposes.

With Respeft to Fruits, it is a very great Error to cori-  
dernn them in general as unwholesome; for, on the Contra-  
ry, when theroughly ripe, they are the most admirable RO.  
/ medics that perhaps Nature has furnished us with, and never  
pernicious uuless taken in Quantities too excessive, and dispro-  
portioned to the Powers of Digestion. Nothing can he better  
adapted to check thet Tendency to an *alcaline* Putrefaction,  
which the Juices are subjeci: to contradi during the Summer’s  
Heat. We fcarcely meet with a more powerful Remover of  
Obstructions, than the Juices of ripe Fmits, if taken in Quan-  
tities sufficient, frequently repeated, and thefe continued for **a**considerable Time. For the Juices of Fruits, when neutralised  
by the Heat of the Sun, that is, when perfectiy ripe, **ate** sa-  
ponaceous, and capable of dissolving Obstructions in the Vessels  
**which** no Other known Fluid is able to act upon effectually. Eve-  
ry common Observer can judge, that Eruptions on the Surface of  
the Body are salutary, and promise a future State of Health.  
The Reason of this is, thet when the obstructing Matter, which  
forms Concretions in the fmall Vessels, is dissolved, and reduced  
to Particles sinall enough to circulate with the Hood, the vital  
Powers find Means of discharging them by the intestinal, or  
urinary Glands, Or else difpose of them by the Pores of **the**Skin r now when it happens thet the Particles of Matter to he  
discharged are somewhat too large to perspire, they stick' in  
the perspiratory Vesseis of the Skin, and-there suppurate, for  
Suppuration is one Way which Nature takes to difburthen her-  
self of whet is useless or offensive. Hence those salutary Erup.  
tiohs, which frequently appear on the Skin in various Parts of  
the Body, after a plentiful Use of Summer-fruits, heve been erro-  
neousiy deemed, by many, the pernicious Effects of, those Fruits,  
which in Reality ached the Part of a Medicine, and removed  
Obstructions, which otherwise might have produced a Disease.  
It is farther to be remarked, thet a Diarrhoea, or Looseness, af-  
ter the Use of the above-mentioned Fruits, is so far from being  
dreadful, provided.it keeps within due Bounds, that it does good  
Service to the animal CEconomy, by carrying away the Mercer  
of Obstructions previously dissolved by the saponaceous Juices os  
**the** said Fruits. But is is prudent to bake, or boil these  
Fruits, both for the Reasons given hefore, as also, because the  
Fire destroys the Eggs of Insects, which are sometimes depo-  
sited in them, and because jt brings them to a more exaci:  
Neutrallty, the Sun being scarcely sufficient in out Climate to  
render them perfectiy ripe.

Ift an *Alealeseenee* of the Juices, watery Liquids, drank warm  
especially, are allo of Service, though endued with no iapona-  
ceous Quality, as they relax the Solids, dissolve the Salts, and  
carry them out of the Body, and contributo to preserve the  
Blood in a State of Fluidity.

As to Medicines, they may he contrived in various Forms,  
either from native vegetable Acids, as the Juices of Oranges,

Lemons, Crabs, and many other acid Fmits,' or the Essential  
Salts of acid Plants, as of the Sorrels.

Fermentation also furnishes us with many valuable Medicines  
.in this intention. Thus Moselle, or Rhenish Wines, which in-  
osine to Acidity, ate admirable, when diluted with a sufficient  
Quantity of any saponaceous Fluid. Thus also Vinegars os all  
Kinds, are of considerable Use, properly diluted; and of thefe  
Medicines may he made extremely resolvent,. and abstersive,  
by mixing them with Water, or Honey, or both, or infuss  
ing in them Vegetables suited to aofwer particular Intentions,  
as Squills, in making Oxymel of Squills.

Many Medicines also of excellent Virtues are, and mor\*  
might he, prepared by infpissaung the Juices of Fruits per- ,  
fectiy ripe to a Jelly or Rob, and amongst these none ex-  
cells Rob- of Elder, a Medicine which deserves the highest  
Encomiums. s -

By Distillation we procure another Class os Medicines which  
powerfully, destroy a Tendency in the Juices to an *alcaline*Putrefaction. These are the acid Spirits of Sal Gemma», Sea-  
salt, Nitre, Vitriol, and Sulphur, commonly called *Oil of Sul- '  
phur by the Bell.* But these must he taken dilated in a great  
Quantity of Fluid, and they are never proper, unleft in Cases  
where a great Tendency to Putrefaction renders the milder  
vegetable Acids incffedtual, asin the Plague, and some very  
bad Kinds of the Small-pox.

There is another Class of Medicines of very great Impor-  
tance in the Case hefore us , I mean, the natural; or artificial  
neutral Salts. The natural neutral Salts are Nitre, Sea-salt,  
and Sel Gemmae. The two last are seldom used, except in  
Clysters; but Nitre is, or at least ought to he, an Ingre-  
dient in almost every Medicine, given with a View of check-  
ing the Progress of an *alcaline* Putrefaction. It is well known,  
thet these Salts preferve all animal Substances from Putrefac-  
tion; and Nitre has a remarkable Property of preserving the  
Fluidity of the Blond, either in, or out of the Blood-vessels.  
Nitre has also a Power of resolving Concretions already formed,  
and of expelling the obstructing Matter thus resolved by the pro-  
per Emunctsries, as by the Glands of the Intestines, Kidnies, or  
Skin, it is alsi» extremely penetrating, and tbus it appears pos-  
sessed of every good Property, that can render It an eligible  
Remedy in all Disorders where Danger is to be apprehended  
from an *alcaline* Putrefaction, that is, in most acute Distempers.  
It is usually given in a Powder or Bolus, or dissolved in some  
proper Fluid. . -

Artificial neutral Salts may he made from almost every diss  
ferent Sort of Acid, impregnated or saturated with any Sort  
of *Alcaic,* either fixed, or volatile. The *Acid* and the *Alcali*must he joined in firch a Manner thet neither may prevail over  
the other. Whilst they are miking together, a considerable  
Effervescence arises, and the Acid is destroyed by, and destroys  
the *Alcali,* and then both, thus united, form a Body very diffe- -  
rent in every Property, Charactsristic, and medicinal Estedt from  
the Parent Salts. '

Neutral Salts the most generally used in Practice, are the  
*Tartants Vitrislatus,* made as directed by Boerhaave (See TAR-  
**TARus VITRIOLATUs) a** Medicine very different from **that**directsd under the same Name in out Dispensatory, though  
made of the very fame Ingredients. The Tartarus Regenera-  
tus, and Tartarus Tartarifatus of the same Author.

Many extemporaneous Prescriptions of a neutral Fluid may  
easily he contrived to very good Purposes. Thus, a Scruple of  
Salt of Wormwood will saturate about half an Ounce of Juice  
of Lemons ; or about ten or twelve Grains of volatile Sal  
Ammoniac will saturate half an Ounce of distilled Vinegar ;  
either of these mixed with an Ounce of some simple Water,  
and rendered agreeable by a few Drams of a proper Syrup,  
and the same .Quantity of fame compound Water, makes a  
very pretty Draught of considerable Efficacy, which may he  
repeated as Occasion requires, for Example every four Hours.

Thefe neutral Medicines deferve the same Encomiums which  
I have given above to Nitre, and sor the fame Reasons.

From what has heen said above with Respect to the Causes,  
and Cute of Diseases from a Tendency in the Juices, or any of  
them, to an *alcaline* Putrefaction, it appears, that in all Dif.  
eases where Danger is to he apprehended from the aforesaid  
Putrefaction, any acid Excretions are to he esteemed good  
Symptoms, as they are certain Evidences that the *alcaline  
NaciusGtry* is destroyed. Thus in Disorders of the Stomach  
from firch a Cause, acid Eructstions of Wind witness, that the  
Cause of the Distemper is almost, if not intirely removed. And  
thus in acute Distempers, Sweats which have an acid Smell, -  
heve been remarked to he of good Presage.

It has been observed, thet many who heve recovered of the  
Hague, and pestilential Fevers, have been affecied as their  
Health returned, with a saltish Taste in their Mouths, some- .  
what like thet of Sal Ammoniac; the Reason of this appear,  
to he thus : It is well known in Chymistry, thar a putrid *alcae,  
line Salt,* when united with an *Acid,* forms a neutral Salt some.  
what resembling Sal Ammoniac. Now when rhe Juices heve  
heen loaded with such a putrid Salt, aS st herons in tbePiague and pestilential Fevers, when this Sain js faturated with

an Acid, the *alcaline* Acrimony is destroyed,' and the Patient  
by Degrees recovers ; find then all the Excretions are in-'  
fected with the muriatic Salt above-mentioned, like Sal Am-  
moniac, and amongst the rest the Saliva ; hence a perpe-  
tual Taste, like that of Sal Ammonias, in the Patient’s Mouth ;  
and hence he fancies all Sorts of Aliments salted.

' - The Forms of Medicines calculated to destroy an *alcalina*' Acrimony are infinite. I shall therefore only give a sew by

Way of Example: '

Take of Oats, bruised with the Hulks, two Ounces;

- Boil these in three Pints of Water to two, and add to it  
when strained, ..

Of fresh Citron, or Lemon Juice, an punch.

Of Cinnamon-water, two Drams.

Of Syrup of Mulberries, an Ounce.

' Let the Patient Use this for his constant Aliment. *Nocrhaogi.  
Mult. Med.*

Take of Oats peeled, two Ounces. v

Boil them in three Pints of Water to two, strain is, and let  
the Liquor stand in a gentie Heat for twelve Hours, or till it  
grows somewhat acid ; then add, \* \_

Of Syrup of Violets, an Ounce and half.

Rhenish Wine, half a Pint.

Simple distilled Water of Citron-peel, an Ounce and  
r - i. . - . half. - - ’ .

' . To he used like the preceding Decoctions *Ideerhacrv.  
Mat. Met. . ; .*

Take of peeled Oats, three Ounces.

With a sufficient Quantity of Water make an Emulsion ; to  
a Pint and half of which add, - .

Of purified Nitre, half a Dram.

r Syrup of Violets, an .Ounce.

Vinegar of Squills, two Drams.

- An Ounce or two of this may he taken frequently. *Poor-  
\ haau. Mot. Med. „ '.ἐν*

Take of Oxymel of Squills, three Ounces.

Vinegar os Squills, two Drams.

Tincture of Myrrh extracted with Vinegar, a Dram.  
Ess. Simple Succory-water, six Ounces.

... Half an Ounce of this may he taken every Hour. *Boerhaau.  
Mett. Med*

Take os Vinegar boiled to the Consistence of Honey, half  
an Ounce.

Fine Honey, an Ounce. '  
. ... Syrup of Succory, an Ounce and hals-

Si mple Fumitory-water, six Ounces.

' To he used aS the preceding.. *Boerhaav. Mat. Med.*

Take of Rob of Currants and Elder, each two Ounces,  
Simple Oxymel, an Ounce.

Spirit Of Salt, twenty Drops.  
Barley-water, two Quarts. /.

Let the Patient nfe this at Pleasure for his constant Drink;

*.' BocrhaaV. Modi Met. si- ::*

, Take of clear Barley-water, twenty-six Ounces.

. . Rhenish Wine three Ounces. .,

Syrup of the five opening Roots, two Qunces.

. . Rob of Elder, six Drams. Make4 Decoction.

’ Let the Patient take three or four Ounces of this every three  
\ Or four Hours.

' Take of Crystals of Tartar, .

Pure Nitre, - ι.. ι ..

Vit Isolated Tartar perfectly neutralised,' according to  
Boerhaave’s Method, of each, ten Grains mix in-  
ci ' " ttfa Powder.\* ’ ' -

Let one of these he taken every four, or six, or eight Hours,  
with a Dose os the preceding Decoction, or some other acescent  
Liquor. . ... j- i . /. νύ’

*.. As what has* been said in the preceding Pages will explain,  
and abundantly confirm many important Points of Doctrine  
’relative to the Cure of acute Diseases, which are delivered by  
Hippocrates; in his Treatise Πεφ διαίτηί οξυνν, I shall finish this  
Article with that incomparable Piece, which Dr. Friend, a Very  
good Judge of these Subjects, calls *One of the most valuable  
Remains os. Antiquity,* And indeed, he might have. given it  
much greater Encomiums.

- I helieve it 'impossible to do the excellent Author of this  
Piece Justice in Our Language, or any other, at least I am  
willing to think, so, because I am sensible Of the Defects os

my own Tranllation. *is,* however, J have tendered this most  
Valuable Piece intelligible to thoso who cannot understand it in  
the Original, I am certain it will he of no inconsiderable Bene-  
fit to Mankind.

**I** must remark, that the latter Pnd of this Treatise does not  
seem to have arrived To us as Hippocrates left it; for it is pro-  
bably either mutilated, or has had something added to it by  
an Interpolator, much less judicious than the Author of the  
rest, at least it wants the finishing Stroke os that masterly Hand  
which compleated the other Parts of this incomparable Piece?

Hippocrates hegins this important Treatise with blaming **the**Method of the Physicians of the Cnidian School’ who scem to  
have been the Rivals of those of Cos. This Introduction id  
somewhat obscure, and the more so, because we have hot the  
Cnidian Sentences, which he finds Fault with.

It should seem that the Cnidians had described Distempers  
Very accurately, but omitted taking proper Notice of many  
Circumstances which occur in every Disease, which are worthy  
of Remark, because they inform the Judgment of the Physi-  
clan, and point opt the Indications, or the Method to he pur-  
sued in order to here the Disease. Amongst these ate the Age,  
Strength, and Constitution of the Patient ; his Manner of  
living; the natural Evacuations which promote, or retard  
the Cure ; the Concoction of the morbific Matter 5 and, in  
short, every others Circumstance, ‘ which can assist Us inforeseeing the Event of a Disease, and directing a proper  
Regirnem  
τ. 'i her ’ ’

**HIPPOCRATES on REGIMEN tn ACUTE DISTEMPERS/**

The Authors of the *Cnidian Sentences,* as they call their Work,  
have indeed given us an accurate Account of-what Patients suf-.  
fer in every Disease, and of the Events of some Distempers.'  
And so far any Mans, however ignorant of the Art os Medi-  
cine, might write, and not be mistaken, provided he perfectly  
understood each Patient's Representation of his own Case. But  
as to the Prognostics which cannot he learned from the Sick,  
though it is the Business, and Accomplishment *of* a Physician:  
to be well Versed in them, they are in a great Measure neglected,  
as are also many Circumstances highly necessary in order to en-  
able us to form a right Judgment of any Case before us.

Now since .the Management *of each* Patient is to he regain  
lated by a perfect Knowledge of every Circumstance relative to  
every particular Case, I am of a quite different Opinion, in this  
Respect, from what they have declared themselves to he. . And  
I am not only dissatisfied with them on this Account, but also  
hecaufe they made Use of but few Remedies; They have in-  
deed offered us Plenty of Medicines (except in acute Diseases),  
that purge downwards, and talked of the seasonable Use of  
Whey and Milk. If these Remedies were good, and proper

.. for the Distempers in which they prescribe them, the fewer  
they were in Numher, if sufficient for the Purpose, the higher  
would be their Value, But the Cose is otherwise.

But in what they published afterwards, the Character of Phy-  
ficians was better supported, with Respect to what ought to be  
exhibited in each Case. But indeed the Antients never leftany  
Thing worth Notice in Writing concerning a Method of Diet;  
but were wholly silent as to that important Point. Some of  
them, it is true, were not ignorant of the Various Forms and  
Divisions of Distempers, but, while they endeavour to give us  
the Names of Distempers, they shew themselves mistaken. For  
**it** will be no easy Matter to number them, if we reckon, on one  
Hand, every Disease a Person labours under a distinct Species  
from another, hecaufe ft differs from it in some Respect; or, οιτ  
the other Hand, suppose it cannot be the same Disease, unless it  
passes under the same Denomination. . . . .

My Opinion is, that, in all Respects; we ought to have a  
strict Regard to the Rules *of* Art. For, is we desire that any  
Work should prosper and be promoted, we must proceed, iri  
every Thing relating to it with Exactness. In Things that  
require Dispatch, and where Delays are dangerous, our Assisil  
tance ought to her speedy in Proportion. . Where Things ought  
to he performed after a neat and decent Manner, we are to ob-  
serve Neatness and Decency. Jf a Cafe admits of an easy and  
gentie Treatment, we are thy all Means to avoid putting the  
Patierit to any unnecessary Pain or Torment, in short, we  
ought to endeavour at Improvements in every Branch of Medi-  
cine, without confining ourselves to .the Vulgar Modes of Prae-  
. ticehy ... - .- . ' τ ' - *. a*

I praise that Physician. most, who knows how to distinguish  
himself, above others of his Profession, by this Skill in improving  
the ordinary Methods of Practice in acute Diseases, which  
make the greatest Havock amongst Mankind: Such are those  
to which our Ancestors gave the Names *of* Pleurisy, PeripnedA  
rnony. Lethargy, Burning Fever, and other Disorders which  
have an Affinity with them, for these destroy the Patient,' by **a**Fever altogether continual, which accompanies them2. .\*.. .

\* I have given οἱἀσα ταείων εχομαα ἐστιν a Turn somewhat disterent from the Latin Translations, for Reasons which the learned Reader will  
easily apprehend. Bat, as my present Business is rather to explain Things than Words, I shall attach myself very little to Criticisms cf this  
**sort.-**

bFor, when there is no pestilential Distemper that'rsges epi-  
domically, but only sporadical Fevers of Various Kinds, more  
the os these Fevers than all other Diseases. The Generality,  
indeed, are not capable of distinguishing such as .excel their  
Neighbours in medicinal Knowledge, and therefore they only  
-praise, or condemn, capricioufly the Cures which they see  
.performed. And it is strongly to he presumed, that com-  
mon Observers cannot understand these Fevers, because their  
-Nature is not to he comprehended without Study. But  
even those who are no Physicians may easily appear to he  
fuch, particularly in the Distempers above-mentioned. For it  
is not difficult to learn the Names of Things usually employed  
about the Sick: Suppose, for Instance, any one should name  
**the** Cremor [χυλὸς] of Ptisan, or this or that Sort of Wine, or  
Hydromel, the Sounds are the same to vulgar Apprehensions,  
whether they proceed from a better or a worse Physician. But  
these Things are to he considered in a Very different Light, and  
a Man os Skill is more especially distinguished in such Cases.

Now it is my Opinion, that such Things as are advantageous  
Io be known, and yet have escaped the Notice of Physicians, or  
which are the Occasion of much Good, or Hurt, to the Persons  
concerned, highly deserve to be communicated to the Public.  
The Things unknown are as follow: ’

What should determine some Physicians, in acute Distempers,,  
to persevere for eVer in giving their Patients Ptisan not strained,  
. find yet .think their Method right.

Some dispute, with all the Reason they are Masters of, against  
.. . allowing the Patient boiled Barley, because they apprehend it to  
be of Very pernicious Consequence, but however strain. it  
through a linnen Cloth, and exhibit its Juice [χολὴν ]

‘ .. Others, again, will neither suffer the thick Ptisan, nor its  
Juice, to he given, some of these extending the Prohibition to  
the seventh Day os the Patient’s Illness, others of them to the  
full Determination of the Crisis, /

. Our Physicians are not Very fond of propofing such Questions  
as these, or if they were fo ingenuous as to propose their Doubts,  
the Answers, perhaps, are not at. Hand.

.. Mean while, the Art itself salis under Reproach and Difre-  
gard, among the Vulgar, always too subject to conclude from-Difficulties,, and contrary Practices, that there is no such Thing  
*as real Medicine.* For in acute Distempers, for Example, our.  
Artists differ among themselves to such a Degree, that those  
very Remedies which one of them shall prescrihe as the best, ano-  
ther shall think improper to he used. It is upon this Account,  
that the Art of Medicine, seems Very like Divination. For  
Auguts [μἀεῖεες] look upon the same Bird which appearing on'  
the right Hand, they embrace as a good Omen, to be a bad  
one, is it appears on their lest; not to mention many Other Sin-,  
gularities helonging to the Art of Augury ; mean Time there  
are others of the same Profession, who interpret the very same  
‘ Omens in a Manner directly contrary to the former.

- I however affirm, that the Regimen,, in acute Diseases, is a  
Speculation extremely noble and excellent, [πἀγκαλον] and that  
in hears a near Relation to many of the most important Points  
in the Art os Medicine: For Regimen is capable of doing great  
Things for those that are sick; of preserving Health to those,  
who already enjoy it 5 of procuring a good Habit to chose who  
exercise themselves; and os contributing, much to the Attain-  
Inent os that desireable State, to which the Wishes of every  
wise Man tend. .

t Ptisan seems to me; preferable to all Aliment of the frumen-  
taceous Kind, in.these acute Distempers, and I commend their  
Judgment who. have given it this Preference. Tor it has a  
Kind of Viscosity, which is smooth and equal, soft, and flip-  
pery, moistening, causmg no Thirst, but conveniently washing-  
whatever wants Elution. It is no Astringent, raises ho Dis-  
turbance in the Stomach during Digestion, nor Inflations in the  
Belly, having lost that Property in the Boding, where it swel-  
led as much as its Nature would permit τε

. A Physician, ’then, who allows his Patiente the Use of Pti-  
san in these Distempers, need not enjoin Inanition, or Empty-  
ing of the Veffeis, as it is cafled, though but for one Day, un-  
less he finds himself obliged to intermit it for the sake of a Purge  
ora Clyster4. .

Those who are accustomed to two Meals in a Day, may  
have their Ptisan twice in like Manner; but such as usually  
make bur one Meal, are to eat their Ptisan once the first Day,,  
but may, in Time, he brought by Degrees, to take it twice a.  
Day, if it shall he thought convenient.. But here, you are to  
observe, that it is not to be given the Patient at first, in too  
great Quantities, nor too thick, but Only enough to comply  
with Custom, which requires that something should he taken,'  
and to prevent the too great Inanition of the Veffeis. As to  
the Increase of the Ptisan, with respect to Quantity, in the  
Progress of the Disease, if it is attended with any uncommon  
Degree of Dryness, too much must not be given ; hut. Honey  
and Wafer, or Wine, or any Thing else chat shall he judged  
proper, must be drank, hefore the Ptisan is exhibited. What  
is most proper in each .particular Case,. I shall specisy here-  
after C. \* . ....... . .

If the Mouth he moist, and what is discharged from the Lungs  
laudable, and without any bad Quality, the Quantity of for-  
bile Food (Ptisan) to he allowed the Patient is, in one Word,  
to be increased considerably.. For a quick and plentiful Humec-  
tation indicates a speedy . Crisis, but that which is stow, **and**sparing, the contrary f. \*' ” -

And this is so far the true State of the Case. But we **shall**pass over many Things that may happen Very seasonably to fur-  
nish us with Prognostics, and resume the Consideration of them  
hereafter. The more plentiful the Purgation, (of the Lungs)  
the more freely may the Patient take his' Ptisan till the Crisis,  
and- it will he proper to continue it for two Days after the Cri-  
sis, for Fear of Relapses in those Cases, particularly where there  
is an Appearance of a Crisis on the fifth,- seventh or ninth  
Day; always having Regard to the equal or unequal Number  
of Days. Aster this {two Days from the' Crisis) it will be  
prudent so'giVe the Patient Ptisan in the Morning, and in **the**Evening to proceed to more solid Food.

The Advantages which the Patient, reaps by the Immediate  
Use of the whole Ptisan s are principally these: The pleuritic  
Pains immediately cease fpontaneoufly, so soon as.the Patient  
begins to spit any Thing considerable, and to expectorate File-  
καταίρεσῆαη] Besides, the Purgations (of the Lungs) are far  
inore perfect, and .the Patients escape with less Putrefaction  
(of the Lungs) than if they had made Use of any other Regi-  
men. The Crises are -also more genuine, are performed with  
less Difficulty, and are less subject to Relapses.

Ptisan ought to he made os the finest Barley, and to he very  
well helled especially if any Thing, unless the strained Juice, is  
to be used. Besides the other Virtues of Ptisan, the Lubricity  
which this Manner of preparing it gives the Barley, renders it  
innocent, when eaten. For Ptisan never causes Obstructions,  
nor oppresses the Thorax; it is Very lubricous, excites no Thirst,  
is Very easy os Digestion, and is extremely relaxing, b provided  
it he well boiled ; all -which Properties render it heneficial in  
acute Diseases; insomuch that a Patient will frequently he injured '  
by too scanty an Allowance of this sorbile Aliment.

But in Case the Patient is costive, and takes Ptisan without  
previous Evacuation of the Excrement,, if he was hefore in Pain,  
it will he increased; if easy, a Pain will immediately succeed,  
with a Shortness Of Breath, which must have bad Effects, as  
it dries the Lungs, and Creates a deal of Fatigue and Uneasiness  
in the Hypochondria,: lower Belly, and Diaphragm. More-  
over, in a-continual.Painof.the Side, that will not. yield to hot  
Fomentations, and where nothing is expectorated but a Viscous  
unconcocted Matter, if, instead of attempting to remove the  
Pain, either by Bleeding or Purging, as shall seem most conve-  
nient,- we should give them Ptisan, we by "this Conduct hasten

.. th This Passage Sydenham seems to have had in View, when he says nearlyche santeThing;— ο1.

. c. Aretseus speaking of a Pleurisy, says. Ptisan is to be preferred before all Foods. The heft Way, in the Beginning of the Disorder, is to  
Bse the Cremor of It, strained from the solid Part, and seasoned only with Honey,'without these .Drugs which are commonly used to give  
Relish and Variety to the Ptisan, forat thisTime the Creinor alone is sufficient. It serves for'the Purposes of Inoistening and wanning,  
and is effectual in dissolving and deterging Phlegm, and expels upwards, thy Spitting, what ought To be expelled that Way, at the same  
Time gently loosening the Belly. Its Smoothness is both grateful to the Palate, and makes it easily swallowed , and its Viscidity allays Heat,  
purges the Membranes, digests Coughs, and mollifies all the Parts. Such are the Virtues of Barley.*Acetous* πτῤὶ θιραπ. οξ.πὰθ. *Lila* r.  
*Cap.* to. ~ *γ ; : . ... ’ "'.;*

*i* It appears that Hippocrates was convinced by Experience, that the Ptisan was. an admirable Aliment in acute Diseases 5 hut he does not  
seem to have been acquainted with all the Reasons why it was so. As it relaxes, it removes one great Cause of Heat, the grand Promoter  
pf an *Alcaline* Putrefaction. During the Time it boils, and digests, it acquires a Tendency to Acidity, and is, on this Account, a proper  
Aliment in acute Diseases, where the Juices tend to an *Alcaline* Putrefaction; And again, as it is in some Degree saponaceous, it will dis-  
solve Obstructions, which Water alone will not act upon. 4. . . ' ’ -

\* The Inanition here hinted at, is that which is hr ought about by long Abstinence from all Sorts ofAlintent 5 -a Practice which some of  
theAntients gave into, however contrary to Reason, and unsuccessful in Peactsce. .

- e In the Course os this Treatise, Hippocrates explains himself more at large, with respect to Honey, and Wine, which are heth Ace-  
scent. Mean Time it must not he imagined, that he advises Wine onimixed, for the Autients ieldom drank It without-sot, or at least sour  
Timed as much Water,\* even in Health. This will he explained more amply, jin this Sequel. .

/ The Sense of the Author Is, shat if the Tongue and Mouth appear moist, and the Patient begins to expectorate jandably very soon in the  
Disease, the Crisis will he speedy in Proportion : But on the contrary, is these Evidences of Hurnectation appear late, the Crisis will be  
flow.

" Y The whole Ptisan seems to he the Ptisan not stralned. -

**a The great Advantages of Relaxation in inflammatory Disorders, are specified under the Article INFLAMMATro, which see.**

Death. For these, and such like Reasons, those who make  
Use of the whole Ptisan, die on the seventh Day, or perhaps  
sooner, some delirious, and some suffocated with an Orthop-  
meets, and Stertor *(Rattling in the Throats.*

The Antients helieved such Patients blasted [sclumrti] on *Ac..*count of these Symptoms, and were confirmed in their Opinion  
by observing the Sines of the deceased to he livid, as they would  
have been from a Blow received. But the true Cause of this  
Lividness was, the Patient's dying hefore the Inflammation  
Of the Pleura and Lungs was resolved h These immediately  
become asthmatic [πνευματία.] ; for by much and frequent Re-  
spiration, the Matter to he discharged from the Lungs being  
. rendered highly Viscous without Concoction, as was observed be-  
fore, prevents Expectoration, and, sticking To the Aspera Ar-  
terin, causes a Stertor ; and when the Distemper arrives at this  
State, it is generally fatal k. For the viscid Matter obstructs  
.the Passage of the Air into the Lungs, and makes immediate  
. Expiration necessary. And thus both conspire to hasten the  
Fate of the Patient; for the Viscid Matter, by Adhesion, causes  
a short Respiration, and this Shortness of Respiration renders the  
viscid Matter (πτήελον) more and more glutinous, and prevents it  
from growing stippery, and moveable.

. Nor is the unseasonable Use of Ptisan alone, thus pernicious,  
but the Eating or Drinking of any Thing thet is less proper  
than Ptisan, is attended with still greater Inconveniencies.  
: Whether a Person he injured by the Use of the whole Ptisan,  
. .or its strained Juice (χυλῶ), the Remedies are much the same,  
as also if the Injury is received from neither of these, but from  
an improper Use of Liquids; some Circumstances may however  
.occur, which may induce a Necessity of Varying the Means of  
Relief. The Methods to be pursued are as follow:

. If a Man finds himself seized with a Fever soon aster a  
Meal, and hefore he has had a Stool, whether his Indisposition  
: he attended with Pain, or not, let him abstain from Ptisan,  
till he has Reason to think that there is a due Secession made of  
the Aliment into the lower Intestines. If he has any Pain, let  
**.his** Drink be Oxymel, warm if it he Winter, but cold in the  
-Summer ; or if hiS Thirst he considerable, Hydromel (μΕλίκμὲνω)  
Inuch diluted with Water. After this, if the Pain continues,  
.and\* there is any Appearance of Danger, let him not proceed to  
the Use of Ptisan, till after the seventh or ninth Day, provided  
ibis Constitution be strong ; and even then, let him not take it  
too thick, or in too large Quantities. If the Food of his former  
-Meal does not secede, to make Room for what he has just  
.How eaten, if he he robust, and in the Vigour of his Age, give  
.a Clyster ; but if his Constitution he weak, a Suppository is  
. preferable, imless he has Stoois fpontaneoufly. AS to the pro..  
per Times for giving the Ptisan, this Maxim ought to he ob-  
served, both in the Beginning, and throughout the whole Pro-  
gress of the Disease; that whenever the Feet are cold, we ab-  
stain from giving any Ptisan, but especially from the Use of  
Liquids; but when the Heat descends to the Feet, then is the  
Time for the Patient to take them. And it will always he'  
prudent to consider the Observation Of this Point of Time, aS a  
.. Thing Of the greatest Importance, in all Diseases, but princi-  
pally in those which are acute; and more especially in such as  
care attended with athigh Fever, and great Danger of Life.

, To proceed, the strained Juice of the Ptisan (χυρά) is gene-  
-rally to he made Use of first, and after... that the Ptisan itself,  
edways having a strict Regard to the Rules laid down above.  
. .And it will not he amiss to attempt the ResolutionOf the Pain  
.in the Side, whether It happen in the Beginning, or in the  
..Progress of the Disease, by hot Fomentations1: The hest of  
-this Kind, is warm Water in a leather Vestel (δοκῶ) or in a  
«-Bladder, or in a copper or earthen Vessel, first applying some-  
Thing soft tothe Side, in order to protect the Part which is in  
'iPain from being hurt. The Application also of a large, soft

Sponge, squeezed out Ofwarm Water, is Osgood Service ; herl  
whatever is made Use of as a Fomentation, must he covered  
with a Cloth, both to preserve its Efficacy the longer, and to  
keep the Vapour from bring drawn into the Lungs, unless, as  
it may sometimes happen, we have some End to answer by do-  
ing the contrary. It will be useful also to apply Barley and bit-  
ter Vetches macerated in Vinegar, which is so temper-  
ed, as to he a little too sour sor Drinking, sewed up in Bags ;  
Or Bran may be used aster the same Manner.. For a dry Fo:-  
mentation. Salt, and terrified Millet in woollen Bags, are  
very proper ; for Millet is lenient and relaxing ; and such  
emollient Fomentations as these resolve, and relieve Pains that  
Teach even to the Clavicle τε If the Pain is not eased by her  
Fomentations, they are not to be long continued, sor that  
dries.the Lungs, and promotes Suppuration. But if the Pain at  
the Clavicle gives a sufficient Indication, or if there is a Sense of  
Weight at the Arm,\* about the Breasts, or above the Region of  
the Midriff, we are, without Delay, to open a Vein on the Inside  
of the Bending osthe elbow, and, as expeditiousiy as may be;  
to bleed without sparing, till the Blood runs of a much redder  
Colour, or, instead os pure and rod, runs livid; sor either of  
these Alterations is usual °. But if the Fain jS situated helow  
the Midriff, and there he no Indication at the Clavicle, the  
: Belly must he loosened with Black Hellebore [μάνὰνι ιλλἱβόρω]  
Or purple Sea Spurge [πεπλίωτ mixing with the Hellebore wild  
Carrot [δαῦκαί| or Hartwort ζσέσίλι] or Cummin; or Anise, or  
forne other of the fragrant Herbs; but with the Spurge the  
Juice of Silphium [οπὴς σιλφιοὐΐ for though here be a Mixture of  
Simples, they are of a like Quality, and produce one uni..  
form Effect. But black Hellebore works better than Spurge,  
and is .more effectual in promoting a Crisis, but Spurge more  
powerfully dispels Wind ; both are Anodynes, and so are ma-  
ny other Cathartics, but these are the hest that I am acquaint-  
ed with. But whereas we find those Purges which are not  
nauseous on Account of their Bitterness, or any other disagree-  
sole Taste, the Quantity necessary Tor a Dose, the Colour, or  
some particular Aversion os the Patient, are with good Success  
given in Ptisan, it will he proper to give the Patient Ptisan;  
and that not in a much less Quantity than usual immediately  
iafter taking a Dose of the Cathartics above-mentioned, ? but  
-it is inconsistent with Reason to give sorbile Aliment, during  
The Operation os the Purge; when that ceases, it may he taken  
in a less Quantity than usual, which afterwards may he ihe.  
creased by Degrees, if the Pain he removed, and no other Cir.t  
xumstance forbids it.

'. The same Rules will hold good with respect to the Cremor  
.Of Ptisan [χυλῶ.] For L assert, that it is much better to begin  
-with it at first, than, after Inanition of the Vessels by Faffing,  
-On the third, fourth, fifth, sixth, or seventh Days, except the  
Disease come to a Crisis within that Time; and the necessary  
Preparations previous to its Use, are nearly the fame as those al-  
ready mentioned. And these are my Sentiments, in regard to  
the Exhibition of Ptisan. And with respect to the Dnnking  
-any of those Liquids to. he mentioned, chin is my Opinion.  
-But I know some Physicians, who act quim contrary, to what  
.they ought, in this Affair.: For their Method is, after they  
-have first exhausted their Patient, in the Beginning of the Disc  
ease, by an Abstinence of two,' three, or Sven more Days,  
then, to allow them sorbile Aliment, and Liquors upon thisPrin-  
cipher perhaps, that it seems reasonable to compensate for one  
:great Change in the Body, by introducing another as great,  
rand contrary. A Change, indeed, would he Very advantage.-  
ious, could it he brought about in a regular Manner, or. the  
Transition made by just, and easy Stops. But as this Change  
.consists principally in the Allowance os Food, if this be not re-  
gulated, the Sick will he greatly injured, and those, most os all,  
who are indulged, the Use of the whole Ptisan. Those also who

. - 1 A Mortification is the true Cause of this lividness, and this frequently happens, when the Inflammation is not resolved *early* enough to  
- prevent it. \* \_ . .

k This Passage, and the Prognostic dpon it, is extremely just, though the Way os accounting for the Danger ofsueh Cases is none of the best.

, L have more than once known Prognostics made in inflammatory Gases of the Breast, where the Event has not,much promoted the Reputa-  
tion of the Prognosticator.. Thus a Patient has had a violent Pain arising frorn au-Insiammation of the Pleura, and has, on a sudden, become  
-intirely easy, and upon this the Person who had the Conduct of the Case, has rashly given Assurances,,, that the Cafe was no longer dangerous,  
, winch the Event has in a very sew Hours contradicted, the Patient bring seized with a Shortness of Breath, which Hippocrates exprefles by  
πνευματία», and this has, tothe Confusion of the unwary Praaitioner, terminated in Death. In seen Cases, when the Mortification is once  
began, the Patient is no longer in Pain, as it frequently happens in external Inflammations. Hence we may learn to beware of sudden  
.Changes in acute Cafes, particularly Inflammations.

1 I believe every Physician is sensible os the great Importance ofFoinentations applied to the Part in Pain, in all inflammatory Diseases,  
and perhaps nothing has brim invented, since the Time os Hippocrates, equally eapable of assisting Evacuations, and internal Remedies, in  
the Resolution of the Inflammation.

. - m The ἁσκὸς -here mentioned, was the Hide of some Beast, sewed tsp in a Manner to make it hold Water, or any other Liquor.

*° V. Gal. Astrel. Acue. L. 2. C.* **I9. '**

° Whatever has been said by Sydenham, Hoffinan, and-almost every other medern Authes, has been founded upon what Hippocrates  
Pays on this Subject. - f

. Sydenham lays the whole Stress upon Bleeding, and an acescent Diet, much the same as Hippocrates recommends.

As to pint, I forbid all Flesh-Ineats, and the smallest Flesh-broths, and advise the patient ro sap Barley-broth, Water-gruel, and Panada f  
and to drink a Ptisan, made of *Pearl-barley, Sorrele and Liquorice Roots, ice.* boiled in Wares, and sometimes small Been *Sydenham de  
Pleuretide.* . .. -.p

P Hippocrates was not acquainted with some lenient and gentle Cathartics, which we now make Use oswith great Success in acute Cases.  
He therefore recommends giving the brisk and stimulating Purges which he knew, In such a Mannes, as to takeoff a Part of their Stimula-  
tion, which should seem to be in some Degree effected, by the soft and lubricous Particles of the Ptisan, given immediately after a

take the Cremor will he injured, as will those who drink Only  
Fluids; these last, however, will he the least Sufferers. We  
may furnish ourselves with Reasons, in this Case, from the  
Consideration of the Diet of Persons in Health. For if there  
appear great Differences in Foods, as in other Things, parti-  
cularly in their Changes, with respect to Persons in a State of  
Health, may we not Very well suppose them to differ not a lit-  
tle, in regard to\* the diseased, and especially such as labour under  
acute Distempers ? Now it is obvious to he understood, that a  
had, but constant and uniform Course of Diet, both with re-  
spect to Meat and Drink is, upon all Accounts, a safer Way to  
preserve Health, than a great and sudden Change, from a bad  
*to* a more wholesome Regimen. . So they who are used to eat  
twice, or but once, in a Day, find themselves injured, and. dis-  
ordered, by altering their old Custom. Let one who is not  
used to dine make a Dinner, he immediately finds himself not  
well, and seels a Heaviness over all his Body, with a Weakness,  
and Inactivity; and if he takes besides his usual Supper, he is  
molested with sour Eructations, and sometimes loose Stools, when  
the Stomach is burdened beyond its usual Custom, having heen  
usually suffered to dry, and clear itself, and not obliged to the  
Fatigue of two Intumescences, and two Concoctions. In this'  
Case therefore the Change is to be compensated by another, that  
is, by Sleep aster Dinner, as in the Night aster Supper, taking  
Care to avoid the InconVeniencies of Cold in the Winter, and  
Heat in the Summer. If a Person cannot steep, let him walk  
about gently for a considerable Time without standing still;  
and let him make littie or no Supper, drinking sparingly, and  
nothing aqueous. The same Person would he more affected, if  
he was to make three Meals in a Day to Satiety, and the oftener  
he eat, the more Inconvenience would he find from it. And  
yet there are some who eat plentifully three Times a Day,  
and bear it Very well, because they are accustomed to it.  
And others who eat but twice, if they should miss their Din-  
ner, find themselves weak and feeble, and too much dispirited  
for any Bufiness, and are hesides affected with a Pain at the  
lest Orifice of their Stomach [καρδιαλγής] their Viscera seem in  
a Manner suspended, they make hot Urine of a pale Colour,  
and their Excrements are baked within. Some taste a Bitter-  
ness in their Mouth, their Eyes grow shallow, and they seel  
a Pulsation at their Temples, and a Coldness in their Extre-  
inities. Again, there are many, who, unless they have had a  
Dinner, dare not Venture on a Supper, hecause a Supper would  
.oppress their Stomach, and create a greater Degree of Rest-  
leshess, during the succeeding Night, then if they had also made  
a Dinner. Since, therefore, a Change in Diet from the usual  
Custom, though but for half a Day, produces such Effects in  
healthy Persons, it seems the safest Way, neither to add to, nor  
. retrench from, our usual Fare. *If any* one therefore, contrary  
to his usual Way of Lise, eats but once a Day, and, after caus-  
ing an Inanition os the Vessels by fasting all Day, takes his  
usual Quantity of Food sor Supper, he will probably find him-  
fels ill, and disordered, on Account of missing his Dinner; and  
after Supper he will feel a Heaviness, winch, however, will he  
much greater, if he eats more than his usual Quantity for Sup-  
per. But if aster. Inanition of the Veffeis, by a longer Fast,  
the should then suddenly make a hearty Supper, he will find him-  
self yet much more oppressed by it. Whoever, therefore, has  
exhausted himself by Fasting, cannot take a hetter Method to  
compensate sor his Day’s Abstinence, and recruit his Strength,  
than in. the first Place to guard against Cold or Heat, and not  
fatigue himself with Labour, because he is in no Condition to  
.bear any *of* them. Then at Supper, let him eat much less than  
. usual, and no dry Food, but Aliment of the more moist Kinds.  
Again, let his Drink be by no Means aqueous, nor less in Pro-  
portion to his Food. The next Day let him make a flender  
Dinner, and so, by gentle Degrees, return to his. customary  
Way os Living. Some are, more than others, affected by these  
Irregularities, particularly those who abound with Bile in their  
superior Parts ; sor those who are phlegmatic are, on all Ac-  
. counts, hetter qualified to sustain unusual Abstinence; and for  
‘ this Reason, if they make but one Meal a Day, they are het-

ter able to bear it.

We have said enough to prove that great and extraordinary  
Changes in Things which relate to Nature, and Habits, are the  
χ principal Springs of Diseases. It is utterly unsafe, therefore, to  
attempt unseasonable and extravagant Inanition of the Vefleis,  
or to offer Fond in the Height of a Disease, attended with In-  
flammation, or, in short, to make any sudden Alteration, in  
any Respect, during, the whole Course of the Distemper. - .

Relative to whet has been explained, much might here he  
said in regard to the Stomach, and Things of the like Kind.  
AS that we bear with Ease what we are accustomed to, whe-  
ther Meats or Drinks, though bad in their own Nature 5 and,  
. on the contrary, are incommoded with the best *os* Foods to  
- which we have never heen ufed. The Effects also of-eatrng  
much Flesh, contrary to Custom, or of Garlick, or Silphium,  
Or its Juice, or Cabbage, or any others of that Kind, which  
are endued with some remarkable Virtue, might he taken  
Notice of; bur it is no Wonder, .that these should, more

than other Things, disturb, and incommode, the Stomach;  
especially, if we have observed, whet Disturbances, Intumes-  
cences, Infiations, and Gripings, are excited only by Maza,  
in a Stomach never used to it; what a Thirst, and sudden Re-  
pletion, are caused by hot Bread, by Reason os its drying Qua-  
lity; and flow Digestion ; also what various Effects are prodtr-'  
ced by the finest Bread; aS well as the coarser Sort [ξυγκῥαιστοι,Ι  
when eaten contrary to Custom ; and by Maza, when dryer,  
moister, or more Viscous than ordinary ; what are the Effects of  
new Polenta [άλφιτα] on those who are unused to it; and how ie  
operates, when stale, with such as are accustomed to eat new ;  
whet are the Consequences of Wine and Water, heing contrary  
to Custom, on a sudden, exchanged one for another ; or of the  
sudden abandoninga Custom ofdrinkingour Wine pure, or diluted,  
with Water, for theytonttary ; for one will be fure to produce **2**Redundance ofHumidities in the Stomach; and Flatulencies in’  
the lower Intestines ; and the other a Palpitation of the Heart,  
Heaviness of the Head, and Thirst. White and black Wines,  
exchanged one for another, in Violation of Custom, will oaufe  
many Alterations in the Body, though both are equally spiritu-  
.ous ; so that we have littie Reason to wonder, that sweet, and  
generous Wines [γλυκιά καὶ οενώδης οἳνος.] when exchanged on **a**sudden, are not capable of producing the same uniform Es-  
sects. . : ί '

On the contrary it must be confessed, that in acute Diseases  
some Instances occur, where a Change with Respect to Diet  
may he induced, without any Alteration in the Body aS to  
Strength or Weakness, considerable enough to render an Addi-  
tion to, or Subtraction from the Aliment necessary.. Irr thefe  
Cases, however. Regard must he had to the Strength of the  
Patient, the Nature of the Disease, the particular Constitution,  
Way os. living, and usual Diet os the Sick, both as to Meat  
and Drink. The Addition of Food is much less to he regarded,  
but an intire Subtraction of it is frequentiy of Use, provided  
the Patient has Strength sufficient to support him under such an  
Abstinence, till the Distemper arrives at its utmost Height, and  
is ripe for a Crisis: And in what Cases this is to he put in  
Practice I shall specify hereafter. Much might, he added, rela.»  
tiVe to whet has heen already said, in Confirmation of these Sen.,  
timents; hut, as no Illustration is Of equal Force with the  
Thing itself, I have been endeavouring to set in a just Light by  
: similar Instances, I shall proceed to the direct Doctrine, I would  
inculcate, as of more Importance with Respect to Instruction.

In the Very Beginning of acute Diseases, some have been **in-**dulged in eating the first Day of the Distemper, others the **se-**cond Day ; some have taken any sorbile Aliment, Cyceon **not**excepted [κυκειένψ Now this Method ofDiet was sar from heing  
the best that might have been contrived. Errors, however, of  
this Kind are less pernicious, than if, aster two or three Days  
Abstinence injoined, and a consequent Inanition of the Vefleis,  
the Patient had entered on such. a Regimen the fourth or fifth  
Day: Much mure unsafe is it, after all these Days Abstinence,  
and Inanition, to allow such a Regimen on the succeeding Days,  
hefore the Disease is prepared for a Crisis. Such a Method  
would manifestly prove fatal to most, unless the Distemper were  
Very favourable. But Errors in the Beginning are not so **de-**structive, but more easy to he retrieved than those which are  
committed in the farther Progress os the Distemper. This,  
therefore, seems to me a Very good Argument why we should  
not, during the first Days, inJoin an Abstinence from this or  
that Sort of sorbile Aliment to those who will be under a Ne-  
cessity of taking some Sort or other on the succeeding Days,  
Wretchedly ignorant, and ill-advised, then are those Patients,  
who enter upon the Use of Barley-Ptisan after two, three, or  
more Days Abstinence, hecause it is in such Cose prejudicial to  
them. Nor do they who use only the Cremor [χυλω| understand  
.that it does, them a Mischief, when they .begin to make Use of  
it at an improper Time. However, they are wise enough **IO**know that'the Use of Barley-Ptisan, hefore the Disease is pre-  
pared ror a Crisis, is Very hurtful to those who were accustomed  
only to the Cremor ; and they have Caution enough to avoid  
it. All these Things are strong Evidences that Physicians use **a**preposterous Method with their Patients, with Regard to their  
Aliment, and injoin Abstinence, and consequently Inanition,  
where there ought to he none; and from these make a Transi-  
tion to sorbile Liquors, by equally wrong Steps, and, for **the**most Part, exactly counter to the Method required : Sometimes  
they pass from Inanition of the Vessels to Sorbition, when **on**the contrary they ought to have proceeded from Sorbition to In-  
anition, if the Exacerbation of the Disease required such an Al.,  
teration. On Account of such Errors it sometimes happens  
that bilious Crudities are drawn from the Head, and Region of  
the Thorax ; these are succeeded by Want of Sleep, which pre-  
vents the Concoction of the morbid Matter ; the Patients grow  
dejected, morose, and delirious ; their Eyes sparkle, and look  
wild; their Ears ring; their Extremities become cold.; their  
Urine is unconcocted ; what they spit grows thin, sals, and  
fincere (ἀκμὲνω) as to Colour, and little irr Quantity; Sweats  
break out about the Neck, accompanied with Anxieties, and  
Restleshefs; their Inspiration is, as it were, interrupted, quick.

and very larve. Their Eye-brows anc in some Measure onlarg- i  
ed ,, they fall into troublesome, fainting Fits, toss off the Bed. j  
Ctoarhs from their Breasts, and are seized with Tremors of the

. Hands, and sometimes of the under Hip ; and, if thefe Sym-  
ptoms appear early, they portend a high Delirium, and gene-  
rally Death. They, wbo escape, come off with an Abscess,  
an Haemorrhage at the Nose, or a Discharge of thick Pus by  
Expectoration, and no other Way. . . \_

And indeed I do not find Physicians so sagacious, as to distin-  
‘ guish in Dsseafes hetwixt a Weakness caufed by an Inanition of  
the Vessels, or some other Incentive, and one that is owing to  
the Pain, and Violence of the Distemper; nor do they discern  
the various Impressions and Affections of every Kind, which  
have their Spring in the Nature, and Habit of Individuals,  
though on the Knowledge or Ignorance of these Things Health  
dr Death depend. Now thet Physician does the greatest Mis-  
chief, who, mistaking his Patient to he weakened with Inani-  
tion, orders him Drink, or increases his Allowance of sorblle  
Aliment, or other Food, when the unhappy Person is exhausted,  
and debilitated by the Anguish, and Fury, of the Disease. It  
is an unpardonable Error not to distinguish when a Disorder  
procceds from Inanition, - and, in Consequence of that Igno-  
rance, to restmin the Patient from Food. Such a Blunder in-  
deed carries Danger with it, but much less than that before-  
mentioned, but is however much more ridiculous: For, if ano-  
ther Physician, or one utterly ignorant of Medicine, should  
come, and he informed of whet hed heppened, and should ad-  
minister Meat and Drink, which the other hed forbid, he  
would, no Doubt, be thought to have relieved the Patient.  
Such Events bring public Disgrace upon an Artist, in the Opi-  
nion of Men; for, in this Case, the before-mentioned Physicians,  
Or the illiterate Person, seem in a Manner to heve raised a dead  
Person to Life.

For these Reasons we shall describe the proper Signs of these  
Affections by which they may be distinguished ; and indeed they  
have some Affinity with what happens in regard to the Stomach.  
If the whole Body has rested a long Time, contrary to Cus-  
tom, it will not immediately increase in Strength ; and is it he  
suddenly put to Labour, after a long Course of Inactivity, it is  
plain, thet this fudden Change must he attended with some In-  
convenience. The fame Opinion are we to form of each Part  
of the Body. For the Feet will be in like Manner affected,  
-and likewise the other Limbs, if they should suddenly he put  
upon strong Exercise, after a long Series of Rest. After the  
same Manner will the Teeth, the Eyes, or any other Part of  
the Body, suffer in the like .Case ; and even a soft Bed, as well  
as one that is bard, will give Uneasinesses to those who are hot  
used to them ; and a Bed, contrary to Custom, made in the  
open Air, hardens the Body. But it may he useful to illusd  
irate this Doctrine by Instances: Suppose then a Mari con-  
tracts an Ulcer in his Leg, not bad enough to give him much  
Concern, yet too considerable to he flighted; and thet his  
Flesh is not very difficult, nor yet remarkably easy to heal:  
Suppose also, that he is immediately laid up for it the first Day;  
and never moves his Leg, he will by this Method, indeed,  
avoid an Inflammation, and it will he .much sooner, healed,  
then if he gently walked about during the Cure, But if he  
has a Mind to rife, and try to walk on the fifth, sixth, or  
any farther Day, he will find himself worse afflicted, than  
if he hed kept himself upon his Legs, and walked gently about  
from the Beginning. And is be should on a sodden put hirn-  
self upon bard Labour he will suffer vastly more, than if he  
had laboured in that Manner all those Days, while he was  
under Cure. So that all these Things, taken one with an-  
other, wlll still concur to prove abundantly, thet every great,  
and beyond all Measure, sudden Change, either one Way or an-  
other is pernicious.

The Stomach suffers various Ways, froth the sudden Recep-  
tion of too much Food, after a great Inanition of the Vessels by  
- Abstinence; and all the other Parts of the Body will receive  
much more Damage, if set to Labour after a long State of  
Rest, than by a Change from a plentiful Diet to Inanition,  
provided, however, the Body is indulged with Rost upon this  
Change. - .

If therefore a sudden Transition is made from Exercise,  
and Labour, to Indolence and Inactivity, the Stomach must  
he suffered to rest in Proportion from the Fatigue of Di-  
gestion ; otherwise, for Want of this Precaution, the Body will

riot fail io suffer, either by an universal Heaviness, or some other  
Disorder, s .

I have been very copious oh this Subjeci of Alteration in  
Diet, either one Way or another, because of its great Im-  
portance, not only tn general, but with Respeci to the par-,  
ticular Subject , we are upon, that is, a Mutation from an  
Inanition of the Vessels to Sortitions in acute Diseases. Λ  
Change there must he, according to rny Opinion, hut by no  
Means to Sorbitions, before the morbific Matter is concedled,  
or some Sign, either evacuatory or stimulating, appears about  
the Intestines, or about the Hypochondria, which shall present-  
ly he described.

Obstinate and continual Want of Sleep is the Cause of Cru-  
dities, and Indigestion, both as to Meat and Drink ; but a  
Change to the Contrary, dissolves the Body, and induces Debi-  
lity, and Heaviness of the Head. ’

**RULES for the USB of WINE,** Wine **and WATER, WA-  
TER, OXYMEL, and BATHs.**

The several Sorts of Wines, as the Sweet, Generous, White,  
and Black, as also Honey and Water, Water, and Oxymel;  
are distinguished with regard to acute Diseases, in the Man-  
ner following: Sweet Wines are not fo subjeol to make the  
Head heavy and intoxicate, aS the more generous, but are more  
productive of Stools. Yet they augment Tumors *of* the Viseera;  
as of-the Liver, and Spleen, more than the other,, and are  
not proper for bilious Constitutions, because in these they in-  
crease Thirst. They allo generate Flatulencies in the fupe-.  
rior Intestines, which do not affimi the lower, as they might  
be supposed to do, for Flatulencies caused by fweet Wines arc  
not, of a penetrating Quality, hut remain about the Hypochon-  
dria; sweet Wines do not, however, provoke Urine as the  
generous White Wines; but more powerfully promote Expec-  
toration ; but it is to be remarked, that if sweet Wine causes  
Thirst when .drank, it increases ExpeSoraticn less than the  
other, but if it causes no Thirst, more. x .

Generous White Wine Has received the greatest Part of  
its Praise and Censure in the Account of Sweet Wine. It  
better penetrates to the Biadder than the other, is a Diure.,  
tic and powerfully breaks through Obstructions [κατάορηκταὸς]  
and must therefore he *very* good in acute Diseases. For though  
it be less fit for other Purpofes then the former, yet its Fa.  
culty of purging by Urine frees the Body from Diseases, if  
it he managed properly. These Rules will bold good in regard  
to the Advantages and .Prejudices attending the Use of Wine,  
though they were unknown to former Physicians.,

Deep-coloured and black austere Wines may he used in  
these Distempers under the following Limitations, that is, if  
the Head is not affected with a Heaviness, there is no De-  
lirium, if Expedforation is free, if there is no Stoppage of  
Urine, and the Excrements he somewhat moist, and like Abra-  
sions ψξυσριατωὸίονμα]; Under these and the like Circumstances  
especially, we may venture to change White Wine for these.

We *are* also to take Nonce, that Wine, well diluted with  
Water, is lefs hurtfill to the superior Parts, and thofe near the  
"Bladder; but Wine, less diluted, is best for the Parts about the  
Intestines.

Of HYijRoMEL, of HONEY and WATER.

But Hydromel [ραλίκρητοῦ] drank throughout the Course of  
'the Disease, in acute Distempers, is less proper for such as  
abound with Bile, or have an Intumescence of the Viscera  
[πνκροχόλισι *xi* ραγάλοσπήάγχνοισι] than for others. However it  
does mot excite Thirst so much as sweet Wine, but mollifies  
the Lungs, and promotes. Expectoration moderately [.πτοῦλου ώαί  
γμαν) and mitigates a Cough. It has also somewhat of a sa-  
ponaceous Quality, which is subject to render the Spit more  
viscid than it ought to he. Hydromel is also a good Diure-  
tic, provided there he no impediment in the Viscera. It  
promotes also the Discharge of bilious Excrements by Stools,  
1 which are sometimes laudable, at other Times too much sa-  
, turated with pure Bile, and frothy, particularly in bilious Con-  
: stitutions, and those who labour tinder Obstructions in the Vit.

**Cera (μόγαλοσπλάγχγυατ].**

Hydromel then, much diluted, is better adapted to promote  
Expectoration, and to mollify the Lungs, but the least diluted  
is most effectsal in purging downward frothy Excrements,  
I and such aS are too het, and too much saturated with pure

**s In this Manner great Numbers of People of DistinSiorr, whose Α Silence enables them to live without Labour, and Exercise, con-  
trail Distempers, both acute and chronical, which destroy them before the Period which their Constitutions would, with good Manage-  
ment, permit them to arrive at. For having fpent their Youth in a Series of Rural snorts, which require strong Exercise, when  
fatiated with thefe, they on a fadden become indolent, and make an imprudent 'Transition from strong Exercise tof nailivitv ; mean\*  
Time, however, they preserve that Appetite which they had before acquired by Labour and Exercise, and which was an Happiness  
at that Time, but becomes a Misfortune in the present State of Inafsivity, as it overcharges the digestive Organi, and the whole  
animal system, and produces Obstruftions. the Caufes of all Distempers whatever.**

**These Gentlemen would find their Account in continuing a Degree of Exercise sufficient to digest, perfeiuy assimilate, and at last  
.carry off. the Quantity of Aliment which their Appetites enable them to take into their Stotnacas with Satisfaisicn or else io fain  
sticute an Abstinence in Proportion to the Diminution of Exercise.**

**r This sentence seems misplaced, as it has no Relation, to what immediately precedes it. In all Probability it stisuld come in amongst  
the Examples of the Inconvenience of fudden Changes. 6**

Bile. But it must he confessed, that such Sorts of Stools are  
attended with some Inconveniences, for they do not allay the  
burning Heat os the Hypochondria, but rather increaso it, and  
Cause a Restlefness, and continual Tossings of the Limbs, as  
' also an Exulceration of the Intestines and Anus, 'for which Re-  
medies will hereafter be specified.

In these Distempers, therefore, discarding sorhile Aliments,  
*if we make Use* of Hydromel instead *os* ah other Drink, you  
may practise with Success, and seldom have the Mortification  
of miscarrying. In whet Cases it is proper, and where not,  
and for whet Reasons, has, in a great Measure, been ex-  
plained already.

But Hydromel is condemned sor reducing those who drink  
it to an extreme Weakness, the Consequence of which is  
thought to be Death, in a very short Time. Now this Con-  
sure was passed upon it, on Account of those who starved  
themselves to Death; for some there are, who make it their  
only Drink, aS if this was the proper Use of it. This is  
not, however, the true State of the Case, for Hydromel drank  
‘ even alone, is much stronger than Water, unless it happens  
to purge. And 'it is, in some Respects, stronger than white,  
thin, small, and unfragrant [άνίσμου] Wines,and, in someRefpects,  
weaker. For there is a .great Difference betwixt the Meracity  
ζἀκρητσιπὸΙ of Wine, and that of Honey, if you compare them  
with regard to Strength. Let a Person drink double the Quan-  
tity os Wine that he takes os Honey, he will certainly find  
himself much stronger from the Honey than from the Wine,  
unless the former purges him, and incomparably more Excre-  
merits will be produced from the Honey, than from the Wins,  
Yfct if any one should drink Hydromel aster Ptifan, it would  
produce ip him an extraordinary Repletion and Inflation, which  
would have no friendly Influence upon the Viscera about the  
Hypochondria ; whereas, if it were drank hesore the Ptisan, it  
would have no such bad Effects, but would in some Measure  
be os Service.

Hydromel boiled has a much finer Aspect than when crude;  
for it becomes bright, fine, white, and pellucid ; and yet I do not  
know, that it acquires any new Virtue ; sor it is no sweeter  
than the - crude, if the Honey was good ; but it is weaker,  
and produces fewer Excrements, which are Properties no way  
necessary to Hydromel, in order to its Usefulness. Boiled Hy-  
dromel is fittest sor Use, is the Honey is bad, impure, black,  
and ill-scented, for the Boiling, in a great Measure, corrects  
these ill Qualities.

Of OX Υ Μ EL.

The Drink, called *Oxymel,* you will find to he heneficial  
in these Distempers on several Accounts ; for it promotes free  
Expectoration, and renders Respiration easy. We must how-  
ever have Regard to the following Considerations in giving it :  
That which is extremely acid, must have some Very consider-  
able Effect upon the Spit which is not brought up without  
Difficulty; now if it difledges and renders lubricous that,  
which adhering to the Bronchia causes a Wheesing, and Alte-  
' ration of Voice, and if it dilates the Bronchia, it must consi-  
derably ease the Lungs, because it relaxes them. If, I say,  
it is capable of these good Effects, it must necessarily he ex-  
ceedingly heneficial. But sometimes the Contrary happens,  
and what is highly acid, is so far from promoting Expecto-  
ration, that it renders the Spit more glutinous, and so does  
Mischief And those are worst affected by it in this Man-  
net, who, besides other had Symptoms, can neither cough nor  
fpit out what is contained in the Bronchia. In this Case  
then we are to .consider the Strength of the Patient, and, if  
Things are in a promising Situation, to give a little of it  
very warm, beginning with a small Quantity, and proceed-  
ing gently, never exhibiting too much at one Time. What  
is but a little acid moistens the Mouth and Throat, brings up  
Spit, allays Thirst, and is heneficial to the Hypochondria,  
and the subjacent Viscera. For it prevents any Mischief from  
the Honey, by correcting what is bilious in it ; it discusses  
Flatulencies [φυσέων καταἡοἳ5κ4.κὸν] and provokes Urine ; yet it  
filis the lower Part of the intestine with too much Moisture,  
and causes Abrasions. Sometimes, however, it is prejudicial  
in acute Disorders, especially as it prevents a Flatus from mak-  
ing itS Way through the Body, [φὑσαν κωλὑίε περαιουσδαε] and  
forces it to recur upwards [παλενδρομὲνεν ποιίιιτ hesides it weakens  
the Body, and refrigerates the extreme Parts. And these are  
all the ill Effects of Oxymel that are worth Notice. It is  
convenient to be given, a little of it to drink at Night, up-  
on an empty Stomach, before the Sorbition scam μφήματος.]  
though there is no Reason why it may n0t be given, at a consi-  
derable Distance of Time after Supper. AS to those, whose  
Regimen consists of Fluids only, without sorbile Fond, I  
esteem it not proper sor them to he perpetually taking Oxy-  
mel, especially because of the Abrasion and. Exasperation of  
the Intestines, to which they are rhe more subject for their  
heing void of Excrements, and still more on Account of the  
Inanition os the Vessel. Add to this, that it may subtract  
something from the strengthening Properties of Hydromel.

But if any one should fancy, that the frequent Life of Oxy-'  
mel might he os Service in all Distempers, let him make it  
with a very little Vinegar, just enough to give it a Taste, sor  
then whet might be hurtful in it, will be rendered innocent,  
and its heneficial Qualities will be preserved intire.

In short, the acid Quality os Vinegar renders it more pro-  
.per sor bilious than melancholy Constitutions. For the Bile,  
as being hitter, is dissolved, and converted into Phlegm when  
exalted by Vinegar; but Melancholy is fermented, elevated, and  
multiplied by it, [«υολλαπλοοσιῦται] sor Vinegar increases Melan-  
choly. But Vinegar is far more prejudicial to Women than to  
Men, for it is productive os Pains in the Uterus.

**Of W A T E R.**

AS to drinking os Water in acute Diseases, I know not  
to what Purpose it can serve ; sor it neither mitigates the Cough  
in a Peripneumony, nor is it an Expectorant [rflolon κταγωγἐν] but  
is worse, in these Respects, than other Liquors sor constant  
Use. But a little Water drank betwixt the Doses os Oxymel  
and Hydromel may promote Expectoration, as it induces an  
Alteration in these Liquors, and promotes their good Effects,  
for it dilutes them in the Stomach. In other Reflects, Water  
is not good to quench the Thirst, but increases It; and in a  
bilious Constitution, it turns to Bile, it is bad sor the Hypo-  
chondrin, and more than usually mischievous, bilious, and  
weakening, when it arrives at the inferior Intestines ; it in-  
creases the Heat of the Liver and Spleen, when they are in-  
flamed, and fluctuating causes an uneasy Sensation in the Sto-  
mach and Intestines. For, by Reason of its Coldness and Indi-  
gestibility, it passes (lowly, and neither produces Stools, nor  
provokes Urine. It is somewhat hurtful also, hecause it is by  
Nature Void of Excrements. But if it he drank when the Feet .  
are cold, it causes these Inconveniencies in a greater Degree, as ..  
Circumstances incline it to this or that bad Effect.

However in Disorders which threaten a Vehement Oppression  
of the Head, or a Delirium, we are totally to abstain from  
Wine, and in such Cases it will be best to give Water, or, if .  
any Wine is allowed, it must he Very small white Wines,  
that have not the least Flavour, and a small Quantity of Wa-  
ter must be drank aster it, by which Means the Strength of  
the Wine will have the less Effect upon the Brain and Sen-  
ses. But the proper Subjects sor drinking Water, with the  
right Seasons sor indulging them in, or restraining them from ι  
the free Ufe of it, and when it is to he drank cold, and when  
warm, has been in Part declared hesore, and shall he more  
fully specified in its Place.

As to other Kinds of Liquors such as that made of Bar- '  
ley [ἀρίθενος] or those which are made from green Herbs, Raisins,  
or Huths of Grapes, or are prepared from Wheat, Cnicus ’  
[κνίκος, *Holy Thistle]* Myrtle-berries. Pomegranates; and other ..  
Things, the proper Seasons of using thefe shall be assigned them  
under the Disease itself in which they may he serviceable,  
and we shall take the fame Method with regard to other com-  
pound Medicines.

Of BATHING:

Bathing might he useful in many Distempers, in some by  
frequent Use, in some otherwise ; and sometimes it cannot  
he used so frequently as it ought, for Want of Convenien-  
cies; for we shall find in sew Houses the necessary Prepa-  
rations with suitable Attendance; and, unless a Man he well  
and thoroughly washed, he may receive considerable Injury.  
The Pathirig-room should he without Smoak ; there should be  
great Plenty of Water, and the Ablutions should be frequent,  
but not oyer copious unless the Case requires. it. Detersion, I  
think, may very well be omitted; but if it must he used, it  
ought to be done hot, and the Patient must he well rubbed  
with a detersory Medicine [σμάγμα] in a much more copious  
Manner than is generally thought necessary, and must have  
Plenty of Water poured upon him, and that Water expedi-  
tioufly changed for fresh. The Way to the Solium should  
he short, and made easy both for ‘going in, and coming out.  
The Person who bathes, ought to be composed and silent, and  
do nothing himself, but suffer others to wash and rub him. Wa-  
ter also-of different Degrees of Heat must be in Readineis  
τμνηακέρασματ the Perfusions are to be quick, and the Sponge ijF  
to be used instead of the Strigil, and the Body is not to be  
quite dry, hesore it is anointed. But the Head ought to be  
dried, as much as is possible, by rubbing it with a Sponge; and  
neither the Extremities, nor the Head, nor any Part of the  
Body ought to be refrigerated. - The Bath is not to be used just  
after a Sorbition or Drinking, nor are Aliments or Drink to  
be taken just after Bathing. Great Consideration is here to he  
taken of the Patient, aS whether he was a great Lover of Ba-  
thing, or accustomed to it while in Health ; for such are the  
more desirous of the Bath, and find themselves the hetter for -  
Bathing, and are not so well without it.

The Bath, generally speaking, is more proper in a Peripneu-  
mony, than a burning Fever, for it mitigates the Pain of the  
Side, Breast, and Back, maturates and brings up the Spit, saoi-

Imites Refpiration, and relieves Lassitudes, heing a Molli Her of  
the Limbs, and outer Skin, provoking Urine, resolving Heavi.  
Dess of the Head, and moistening the Nostrils.

There are the Advantages to be reaped from Bathing, where  
all necessary Accommodations are in Readiness; but when one  
or more of the Requisites arc waning, it is to be apprehended  
that this Kind of Remedy may do more Hurt than Good.  
for a Negligence of the Attendants in any one Circumstance  
is capable of considerable Mischiefs. . . . ..'

In Distempers where the Belly is unseasonably loose, Bath-  
ing is not at all proper, nor' where it is unseasonably costive,  
without previnufly relaxing is. Persons much enfeebled are not  
to bathe, nor those who are asseSed with a Nausea, Vomiting,  
or bilious Eructstions; or who have an Haemorrhage at the  
Nose, except it was in less Quantity than the Occasion required ;  
and you know the Occasions. Bur if the Hsmorrhage was too  
little, it will he convenient to bathe, whether it he for the Be-  
nefit of the whole Body, in other Respects, or only for the Sake  
Of the Head.

When there is, therefore, a convenient Apparatus, and the  
Patient seems well able to bear it, Bathing may he used every  
Day, and it will not he amils if those who are fond of Bath-  
ing, ufe it twice a Day. Those who seed on whole Ptisan,  
can with more Safety venture upon the Bath, than such as make  
**Use** of the Cremor only, though it may on some Occasions  
he allowed to the fast. t But Bathing is least proper for such  
as take only Fluids, though there are Occasions when even these  
may be permitted to bathe.

From whet has been wrote upon this Subjeci, it, may be rea-  
dily understand under what Kind of Regimen Bathing may  
he beneficial, and with whet it will not agree., Bathing can  
never be proper for such as are in Want of Necessaries, or Con.  
veniences, to render it of Service to them; but Inch as are  
plentifully furnished with wherever may be commodious for this  
Purpofe, may bathe, provided the Symptoms of the present  
Disorder render it proper, and likely to he of Service."

**Of FEvERs, and EEBRILE** Diseases. 1

, The Summer produces a Burning Fever [καυσος] when the  
Veins; heing parched and dried by the Fervor of the Season,  
attracts to themselves an acrid and bilious Ichor 1 [ικῶρεε]. A  
violent Rever attends with great Pain, and a Sense of Lassitude  
in the Bones. It generally happens after a long Journey, and  
long Thirst, when the dried Veins attracti to themselves hot and  
acrimonious Rheums.

Under this Disorder the Tongue becomes rough and dry, and  
very biack; the Parts about the Belly are affected with a biting  
Pain; the Excrements are very liquid, and of a pale Colour.;  
there is a vehement Thirst, and Want of Sleep, and sometimes  
a Delirium. »

Let the Patient have as much Water, and helled Hydrornel,  
much diluted, as he will drink, if there be a Bitterness in the  
Mouth, it will he proper to give an Emetic and CIyster, if  
these do not procure Stools, purge him with Asses Milk boiled.  
Give nothing salt or acrimonious, for the Case will not bear  
it, nor any sorbile Liquor, till the critical Day be past. If  
there happens a considerable Hemorrhage from the Nose, or  
genuine critical Sweats, with white and thick Urine, and a

light Sediment j or if an Abscess be formed; there is.a Solution -  
of the Disease. If there he a Solution without, these Symptoms,  
the Patient will relapse, or he seized with a Pain in the Hips or  
Legs, and will spit a gross Matter, is he recovers. ..

.There is another Kind of Burning Fever, which is attended  
. with a Looseness, an intenfe Thirst, a rough, dry, and saltish  
Tongue, a Suppression *[dezhasus] of Urine,* Want of Sleep, and  
Coldnefs of the Extremities.

This Diseafe is never critically determined without an Hae-  
morrhage from the Nose, or an Abscess about the Neck, or **a**Pain of the Legs, with a Spitting of gross Matter aster the  
Loofenessstops, ora Pain at the Ischium, ora Lividnefs of **the**Pudendum. The,Tension of a Testicle also is a Symptom of  
an approaching Crisis. Give the Patient attractive, sorbile  
Aliment-v . ~

In acute Diseases, if the Distemper be violent, and the . Pa-  
tients strong, and in the Flower of their Age; bleed. In **a**Quinsy (οἄκαγχος) or any pleuritic Disorder, promote Expec-  
toration with soft Linctsses. If the Patient appears weakened  
by too plentiful Bleeding, instead of repeating it, admini-  
ster a Clyster every third Day, till he is out of Danger, and  
wants no farther Remedy .but Abstinence. . .

Tumors of the Hypochondria not . caused by an Interception  
of the Spirits, *(perhaps Hysterics)* Distentions of the Diaphragm,  
a laborious Respiration, with a dry Orthopnoea, and without  
any internal Suppuration, but proceeding from an .Interception  
of the Breath *(a Straitnesc of the Ramisccatiims of the Aspera Are  
teria, preventing the Ingrese of the Air) but* particularly.violent  
Pains of the Liver, Oppressions *os* the Spleen, other Inflamma-  
tions, and Disorders that are caused by painful Tumors -in the  
Parts above the Diaphragm ; all these cannot he resolved by  
Purging at first, but are more tractsble, if the Cure is began by  
Bleeding. After this proceed to Clysters, unless the Distemper  
be very violent; but Regard must , he had to the Safety and  
moderate Operation of Cathartics, which are made Choice of  
after Bleeding \*: . ..

Whoever, in the Beginning of an inflammatory Disease, at.  
tempts the Cure by Cathartics, does not in the least diminish  
the Tension, and Inflammation of the Part asseoled ; for **the**Distemper, in this State of Crudity, will not yield to fuch Me-  
dicines ; on thei contrary, this Method of Treatment liquefies  
and. wastes the sound Parts, which would otherwise resist the  
Distemper; and when the Body is in this Manner weakened,  
the Disease gets Ground, till at last it hecomes incurable.

**Or THE CATALEPsIS.**

When a Person is suddenly taken speechless, without mani-  
fest Cause, or any evident great Disorder, it proceeds from 4  
Stagnation of the Blood in the Veins [φόνβἄκ ehexeded. In  
this Case open the internal Vein of the right Arm, and take  
away more or less Blood, according to the Age and Habit of  
Body. This Disorder is generally accompanied with a Redness  
of the Face, fixed Eyes,distended Hands, Grinding of the Teeth,  
Palpitations, Contraction of the Jaws, Coldness of the Extre-  
mities, and an Interception of the Pulse. When a Pain comes  
on, there is an Astinx- of biack Bile, and acrimonious Hu-  
mours to the Part, The internal Parts are affected with a  
biting Pain, as well as the Blood-vessels, which are alfo extreme-

**T**

**1 There is a remarkable Blunder at this Place in the Edition of *paefius* of rnce. ‘**

**1 This sentence admirably expresses the Consequences of an alcallne Putrefadion ; and the subsequent Account of a *Burning Fever,* as  
he calls it, is inferior to none given by later Authors.**

**° Galen could not understand what is here meant by *Attractive* ; and indeed it is not very easy to find the true Sense os it.**

**\* Sydenham has the following Passages, the Hints of which were, probably, taken from the great Author before as, and, no Doubt, Ex:  
pevience made him afterwards sensible of the Truth and Importance of the Dpstrirje here, delivered.**

**We should not ornis, that if the state of the Patient requires both Reeding and Vomiting, it is fafeft to bleed first, and give the Vomit  
afterwards ; otherwise there would he Danger, that whilst.the Blood-vessels arg greatly distended, the violeat Motion in Vomiting rnighr  
burst rhe Vessels of the Lungs, or hurt the Brain, and occasion a Vomiting of Blood, or a mortal Apoplexy; of which I could give forne  
Inftantat, ifit were proper ; but my Design is only r0 cautiOn. *Sydenham, de Mortis Antis. .***

**But in the first stage cf epidemic Diseases, of whatsoever Kind they be, great Care matt he had not to purge before Bleeding- For the  
Difeafes, which arife from an epidemic Constitution cf the Air, are either aQually Fevers, or apon the least Occasion degenerate into Fe:  
yers ! fo that a Fever may easily be caused by the Disturbance raised in.the Blood and juices by the mildest Purgative; and the Heat succeed.  
ing it. wh.ch Nature had otherwise expelled by the tubal Evacuations of the morbific Matter j as, for instance, by a.Catarrh, or an epu  
demic Cough, or by a Diarrhoea, when the epidemic Fever has a Tendency, to that Discharge. The faine may he said os any other  
Constitution of rhe Air, that dispofes the Body to forne peculiar Fever; which does not always a&ualiy happen, hecaufe Nature expels  
the morbific Matter from the Blood by some suitable Evacuation. This I affirm to be Fail, though the present Prattice is to exhibit Ca-  
thartics before Bleeding, or, which is still mdse dangerous, without Bleeding at all.**

**For, though it may be objected, that, by Bleeding before Purging, the foul Humours contained in the first Pastages are propelled info the  
empty Veins, yer it is most certain, that the Evacuation which precedes Bleeding cannot make Amends for rhe Injury, which the Blood  
receives from the Ttirntrk raised therein by the Cathartic. And it must be owned, that a Parge, taken immediately aster Bleeding, works  
much more gently, and heats and agitates the Blood lefs, than it ufually does when exhibited before Bleeding : And I am apt th think  
that Numbers, and Children especially, have perished for want of knowing this, or through Negleil of st.. r**

**- And this I have learned from a long Course of Experience,, which is the surest Guide in these Cafes, and, unless Praitioe be regulated  
thereby, it were better to difcard the Art: For the Lives of Men are but too much tristed with, on the one Hand, by Empirics, who are  
ignorant of the History of Diseases, and the Method of Cure, and only provided with Receipts ; and,.on the other Hand. by such idle  
Pretenders, as rely wholly upon Theory j whence both together destroy greater Numbers, than the Diseases would without their Assistance.**

**But that Method ofPraitice. and that only, will relieve the Panent, which deduces the Indications of Cure from the Pheno»-"" of Dif.  
eases, and afterwards confirms them by Experience ; and by this Means the great Hr** ffockates **merited the highest Reputation. *Sydenham  
Efifiola Prima Responsoria.***

**These Rules with Respect to Bleeding in acute Disorders, before Cathartics are exhibited are of infinite Importance in the Practice of  
Physic, and it is much to he lamented, that they are not more regarded ; for I ain satisfied that Thousandsafe., destroyed by an Ignorance,  
or Negleft of these salutary Caution,. I should therefore recommend it to Prastitioners of every C]asS t0 have some Regard to the Authority  
of Hippocrates, the first and best medicinal Author, the greatest arid moil folid Genius that, perhaps, any Age has produced, rhe Preserver  
of Thousands yet unborn ; and ler them remember, that his Precepts have in this Instance, as well as many others, received the Sanilica  
of sydeubanr, the best prattical writer since his Time.**

Iy dried, and contracted, and being moreover inflamed, they at-  
tract the Humours to them which are set a stoat. Hence the  
Blood being corrupted, and the Circulation obstructed and pre-  
vented from heing carried on in the natural Conduits, Stag-  
.nations are caused, of which Refrigerations, Vertigoes, Loss of  
Voice, Oppression of the Head [κααηβαοία] and Convulsions, are  
the Consequences, when they affect the Heart, Liver, or Vena  
Cava [τἡνφλίκτα]. Hence proceed Epilepsies, and Palsies, when  
**the** noble Parts above-mentioned are thus disordered by a Flow  
**of** Humours, and dried for Want of a proper Circulation.

For such Patients, certainly the hest Thing we can do is.  
Immediately after Fomentation, to open a Vein, while the af-  
fected Spirits, and Humours are a float, for then are Remedies  
*os* the greatest Efficacy. When the Patient is a littie recruited  
after Bleeding, a Vomit will be proper, unless’ he is hesore  
much relieved, always having Regard to a Crisis. And if Stoois  
are not procured by a Clyster, purge with AffeS Milk boiled.  
In a Quantity not less than six Pints, or, if the Constitution is  
robust, more than eight may he given.

**Osa QUINSY.**

The Quinsy happens frequently in Winter or Spring, by the  
'Defluxion os a Multitude of Viscous Humours upon the Jugular  
Veins, which attract the more, on Account of their extraordi-  
nary Sine. This cold and Viscid Humour obstructi, and ren-  
ders impervious all the Passages os the Blood, and Spirits,  
condenses the Blood near it on every Side, coagulates it, and  
causes it to stagnate, being by Nature cold, and inclined to ge-  
nerate Obstructions.

Hence the Patients are suffocated, their Tongues are livid,  
round, and hent back in their Mouths, hecause of the Tume-  
faction of the Veins underneath ; an Incision heing made in the  
Uvula, which is also called κίων, a large Vein, appears on each  
Side. These Veins, when thus turgid with Humours, press  
upon the Tongue, which, on Account of its Dryness, Rarity,  
and Sponginess, is susceptible of Impressions from the adjacent  
Veins, and readily imbibes the Humours with which they a-  
hound ; and hence it is changed from flat to round, from  
well coloured, to livid, from moist, to dry, and from flexible,  
to stiff, insomuch that the Patient is in Danger of Suffocation,  
without immediate Relies, which is to he given by Bleeding  
in both Arms, and opening the Veins under the Tongue, by  
LambitiveS capable ofinciding the Humours, by hot Gagarisms,  
and evacuating a Part os the Humours by an increased Dis-  
charge os Saliva 7, and by shaving the Head.. A Cerate should  
also be applied to the Head and Neck, and over this Wool,  
and the external Parts must be fomented with soft Sponges,  
wrung out of warm Water. The Drink ought to he Wa-  
ter and Hydromel, hut. hy no Means cold ; or Cremor of Pti-  
san, when the Danger is judged from the Crisis,, to he over.

In Summer, or Autumn, when Humours descend from the  
Head, which are hot and acrimonious, as participating of the Heat  
and Acrimony of the Season; they corrode, exulcerate, and fill with  
Spirits, and an Orthopnoea, with a great Dryness, succeeds. In  
this Case, the Fauces, if inspected, manifest no Tumor, the Muscles  
On the back Part of the Neck are fixed, as in a Tetanus; the  
Voice is broken. Respiration small, frequent, and not performed  
without Difficulty ; there is an Exulceration os the Aspera  
Arteris, with, an Inflammation of the Lungs, insomuch that  
they cannot readily admit the external Air ; and if the Disease  
do not spontaneoufly tend to. the external Parts of the Neck, it  
is the more terrible, and fatal, on Account os the Season of  
the Year, and hecause it owes its Origin to hot and acrid Hu-  
Incurs. z

**MISCELLANEOUS OBSERVATIONS wlTH REGARD TO  
FEVERS.**

\* Ts a Fever seizes a Person whilst the old Excrements are re-  
tained, or immediately aster . new Food is received, whether  
accompanied with a Pain os the Side, or not, the Patient is to  
rest, till the Food is descended into the lower Intestines ; mean  
Time, let his Drink he Oxymel. When a Heaviness is per-  
reived at his Loins,, purge the Belly with a Clyster, or a Ca-  
thartic. After Purging, let him take first sorbile Aliment, and  
drink Hydromel; aster this, he may proceed to vegetable Food,  
and helled Fish, with a littie diluted Wine.ut Night, and dilu-  
ted Hydromel in the Day-time. If the Discharges of Wind  
are Very foetid, a Suppository or Clyster will he of Service.  
If otherwise, he must continue the Use of Oxymel, till the Ex-  
crement descends into the inferior Intestines, and then let a  
Clyster he administered.

If a burning Fever seizes whilst the Belly is laxative, if Pur-  
ging appears proper, defer it the three first Days, and give the  
Cathartic on the fourth. Aster Purging, give sorbile Aliment,  
Observing the Approach of the Fever Fits, so aS never to give  
it when the Fit has actually seized, or is just coming on, het  
when it ceafes, and is intirely gone off, and the Disorder is at  
ths greatest Distance from the Access of the sirereeding Pa-

roxysm. But give no Drink, nor sorbile Aliment, nor any  
Thing of that Kind, whilst the Feet are cold ; but esteem it aS  
a Matter of the greatest Importance, to wait till they are tho-  
roughly hot, and then give what you think most proper; for  
the Coldness of the Feet is universally a Sign of the Approach  
Of the Paroxysm; at which Time, if you load the Stomach  
with any Thing, you will do Wrong upon all Accounts, for  
the Disorder will hereby be considerably increased. But when  
the Fit is over, the Feet, on the contrary, grow hotter than the  
rest of the Body , and aS the Feet are refrigerated, the Fever  
increases, and a Fire is kindled in the Thorax, which imparts  
Flame to the Head. For all the Heat rushing together, and  
exhaling to the Head, it is not at all strange that the Feet,  
which are by Nature of a nervous, and not fleshy Substance,  
should be refrigerated. Besides, their great Distance from the  
het Parts contributes to their Refrigeration, when the Heat is  
collected in the Thorax. Again, it is consonant to Reason,  
that the Feet should grow hot, when the febrile Paroxysm is  
resolved and utterly dispersed. At this Time, the Head and  
Thorax are refrigerated, and for that Reason Fond is to be gi-  
ven. For, when the Feet are cold, the Stomach must necesse-  
rily suffer with too much Heat. Hence Sickness and Nausea,  
distended Hypochondria, and Restlesness, hecause of the inter-  
nal Agitation, as also a Delirium, and Pain; add to this, that  
the Patient is affected with Vellications, and Inclinations to  
vomit, and if whet is discharged by Vomit is bad. Pain suc-  
ceeds. But when the Heat descends to the Feet,- and the  
Urine is discharged freely, though no Sweat arises, all Things.  
.are composed, and then it is proper to give sorbile Aliment,  
which at other Times is pernicious. \*

In such who have their Belly laxative during the whole  
Course os a Fever, take care to keep their Feet not less warm  
than the rest of the Body, by warming them, covering them  
with Cerates, and rolling them with Swaths. But if they are  
spontaneoufly hot, warming Applications are not necessary,  
unless so far aS may preserve them from Refrigeration. In this  
Case, let the Patient drink cold Water, or Hydromel, in small  
Quantities.

As for such as have their Bellies laxative in Fevers, and are  
delirious, many of these pick the Bed-cloths, rub their Noses,  
return quick \* (κατὰ βραχὸ) Answers to what they are asked,  
and talk nothing that is rational, but utterly incoherent. These  
Symptoms I imagine arise from black Bile. ’In this Case, if  
.the Stoois he liquid and colliquative, cooler and thicker Sorbi-  
tions, in my Opinion, are proper to he given, and Drinks fit  
to stop a Looseness, but rather Vinous than astringent.

As for those who, in Fevers, from the Beginning, are affect-  
ed with a Vertigo, and Pulsation in the Head, and make a thin  
Urine, we are to expect a considerable Exacerbation of the Fe-  
ver about the Crisis ; nor is it a Wonder if they hecome deli-  
rious.

Those who in the Beginning make cloudy or -thick Urine,  
are to he purged, provided nothing contradicts. But so oh as  
make thin Urine in the Beginning, are by no Means to be  
purged, but may, if it shall be thought fit, have a Clyster ad-  
ministered ; these latter are to he treated in the following  
Manner:.

Let the Patient he enjoined a strict Rest; let him he anoint-  
ed, and equally covered with Cloths; let his Drink be diluted  
Hydromel, and let him sup the Cremor of Ptisan at Evening.  
Evacuate him with Clysters in the Beginning, but avoid Purg-  
ing ; for if you raise any Commotions about the Stomach, the  
Concoction of the Urine will he hindered, and the Fever con- ’  
stderably prolonged without Sweat or Crisis. Permit no sorbile  
Aliment to he given at the Approach os the Crisis, .when the  
Perturbation is at the Height, but defer it till the Patient grows  
easier, and mends. The Crises of all Fevers are to he observed,  
and sorbile Aliments, at that Time, areto he strictly prohibited.

These Sorts of Fevers, generally continue a lung Time, and,  
if attended with a Coldness os the Feet, usually terminate in  
Abscesses, about the Ears or Neck. If no such Coldness at-  
tends, other Alterations are more likely to happen, as an He-  
morrhage from the Nose, and sometimes a Diarrhoea. Those  
.who labour under Fevers attended with great Anxiety and Dis.  
tention of the Hypochondria, with Restlesness, so aS not to he  
able to lie a Moment in the same Place, and Coldness in all  
their Extremities, require the greatest Care and Watchful-  
ness over them. The Method os treating them is to give them  
nothing but Oxymel diluted ; and toe keep them from all sor-  
bile Aliments, till the Fever is abated, and the Urine appears  
concocted. The Patient is to he in a dark Chamher,. on a ve-  
ry soft Bed, to endure for a long Time the same Posture of De-  
. cubiture, and to avoid as much as is possible all Jactation of the  
Body, for in so doing, he will find himself principally relieved.  
Moreover, mollify the Hypochondria with Linseed, applied  
to them, as hot as it can be endured, and .boiled in Water  
and Oil, taking particular Care that it is not grown cold when  
laid on.

*r* Thai Galen interprets *irelumsurisen.* It Is observable that Sydenham’s Method of Practice is nearly the same aS that here specified.  
\* This Account os a Very dangerous Sort of Quinsy, has heen adapted by most succeeding Authors on this Subject.

- Probable Prognostics may he drawn from the Urine t These  
**which** are turbid, and pale, are better, but the thin and black,  
are much worse : Their frequent Alteration indicates a long  
Duration of the Fever, which consequently must he irregular,  
and undergo many Changes, either for the hetter or the worse.  
There anomalous Fevers are to be let alone, till they come to some  
Consistence, and Regularity, and then they are to he opposed  
by a proper Regimen, and a convenient Method of Cure, al-  
ways having a due Regard to wherever Nature produces. Even  
the Countenances of the Sick are various, and worthy of No-  
the ; it is therefore the Duty of every Physician, to be watch-  
ful that no Circumstance escapes his Observation, whether it  
manifests itself by outward Appearances, of may he drseovered  
by Reasoning; nor must any of those he neglected, which  
may he expectsd to happen at equal, or unequal Numhers of  
' Days. .

First, then, add Days are to he fufpectid, hecause these pro-  
duce Alterations in the Distemper, either for the better or for  
the worse. Observe, therefore, the first Day when the Patient  
was taken ill, and whence and when the Disease began, which  
is esteemed the first and principal Thing to he considered. Ast  
ter this, the Sick must he examined, and all Things duly  
weighed and considered; first, enquire how he finds his Head,  
whether it he free from Pain, and whether he has no Sense of  
Gravity in is. Then as to his Sides, and Hypochondria, ask him  
whether they are free from Pain; the Hypochondria, in parti-  
cular, whether they are assailed with any Uneasiness, or Intir:  
mescence, or Obliquity, *[that is, whether they ate more faelled  
an one Side than the other)* or Fulness ; whether! there he a  
Pain of the Side, and that Pain he attended with a Cough,  
Gripes, or Uneasiness of the Belly.

. If any of these Symptoms affeci the Hypochondria," the most  
proper Remedy is a laxative Clyster, and let the Patient drink  
helled Hydromel pretty hot ; examine also whether the Patient  
.he subject to saint when he rises up, and whether he respires  
without Difficulty. The Stools also are to he regarded; and

‘ Notice taken if they are remarkably tindtured with a black  
Colour, or are sincere, as in a State of Health; observe allo,  
whether there be an Exacerbation of the Fever on the third  
.Day.

After considering whatever happens on the three first Days in  
:thefe Distempers, there are other Things that must come under  
Examination. Thus, if the fourth Day produce any of the  
same Symptoms . as the third, the-Cafe is attended -with  
danger. — ;

As to the Signs, black Stobis prognosticate Death ; but such  
ns are Iike those of Persons in Health, if they appear every Day  
‘the fame, are Signs of Recovery. ; . 1 -

. If a Stool cannot he procured by a Suppository; and never-  
theless Respiration is eafy, but the Patient faints when he sits  
up, or lies in Bed, and this happens at the Beginning ofthe Fe-  
wer, a Delirium is to he expectsd, whether the Patient he.a  
Man, or a Woman, that is thus affectsd. -. - ' - - ~

-. The Hands also are to he observed ; for if they tremble, ah  
Haemorrhage from the Nose may he expectsd. - ‘

Impost likewise the Nostrils, and observe whether the Breath  
passes equally free through both; and if much of it passes  
through the Nose, Convulsions,usually follow; in which Case  
**. Deash is to he** expectsd ; -and it is of Importance to a Physrci-  
an to make sure Prognostics. . - -

Ἀ If a Fever happens in the Winter, attended with Roughness  
ofthe Tongue, and a Delirium, though there is a Remission of  
the Disease, the Patient is however to he kept extremely low,  
and to he just supported with water, and Hydromel, and Cre-  
mor of Ptisan (χυλοῖς); for there it is dangerous to rely on the

. -Remission of siich Fevers, hecause Signs of this Nature shew the  
Patient to he in.a hazardous State..'-When you are well ad-  
quainted with these Things, make Predictions, if you please,  
always, however, with great Circumspection. fe - ----  
. In Fevers, if there appears any formidable Symptom on the  
sifth Day, or there happens a fudden Diarrhoea, or Fainting, or  
Loss of Voice; or Convulsions, or Hiclcups, which render the  
Patient extremely restless , if a Sweat breaks out about the up-  
per. Lip, the Forehead, and the Part of the Neck behind the  
-Head ; the Persons who labour under these Symptoms, die  
in a very short Time, as it were, asthmatic (πν«νμότωβὑὴς.) -  
\* Those who in Fevers are affectsd with Tubercles on.their  
Legs (σ,άλια φόνιάἰωὸεα) which continue along Time without  
«Matoration, the Fever still persevering-, and who are moreover  
iseiced with a Suffocation in the Throat lonYquitv φάρυγγν) no  
Tumor appearing about that Part, and the Tubercles still  
; remaining, crude (,αώ μη σβεβί) are usually seized with an.-Hae-  
morrbage from the Note,- which if it : he copious Prognosti-

cates a Solution of the Disease; if not, that it will be of long  
Duration; and the less the Haemorrhage, the Distemper will he  
worse, and longer in Proportion. If the Patient is tolerably  
eofy, with respecti to other Things, he may expect Pains about

his Feer. Rut rfPain seizes the Foot, and grows excessive, anil  
is attended with Inflammation,- which remains without Reso-  
lution, the Pain, by Degress, will penetrare ro the Neck, the  
Clavicle, the Shoulder, the Breast, ami the Hip, (άρδυον) whence  
this last must necessarily he affectsd with Tuhercles; if thof-  
disappear, and the Hands are contracted, or unsteady, the Pa-  
tient soon grows convulsed and delirious ; Pustules (φλυζάκια)  
asso, and red Spots (ερυθημάἰα) appear upon his Eye-brows, the  
Eye-lids swell, and approach each other, a dry Inflammation,  
succeeds, the Eye swells extremely, and now the Delirium in-  
creases exceedingly ; the Night, however, produces an Exacer-  
bation of the Delirium, more than the Day. An unequal  
Number of Days favours the Production of the Symptoms a-  
bove-mentioned, more than one that is equal; hut whenever  
they appear, they are alike of bad Presage.

If you intend to purge such Patients at the Beginning, st  
must he done before the fifth Day, provided a Murmuring is  
perceived in the Intestines, otherwise omit it.. But if there ft.  
a Murmuring, and the Excrements are bilious, purge gently  
with Scammony ; as to the rest of the-Treatment, abstain, as  
much as the Cafe will permit, from Liquors, and Sorbitione,  
till after the fourteenth Day, and the Fever begins to remit;  
for this Method will promote the Cure. ...

a In a Fever, if there he a Failure of the Voice about the four.,  
teenth Day, it portends no quick Solution nor Deliverance to  
the Patient, hut the long Continuance of the Disorder, if it  
-happens precisely on the fourteenth Day, still the longer will  
the Disease prevail. . . -.

If the Patient in 'a Fever oil the fourth Day, finds fome  
Difficulty in speaking, and has thin bilious Stools, he usually falls  
into a Delirium. ;

It is also of Importance to consider the Consequences of many  
Things which occur.

\* In acute Diseases, which happed in Summer and Autumn,  
a fudden Discharge of a few Drops of Blood (from the Nose)  
indicates a great Resistance (συντωία) and Inflammation of the  
Vessels, and the Appearance of a thin Urine the next Day-  
Arid if the Patient be in the Vigour of his Age, inured to Ek.  
ercise, carnous, or of a Constitution inclined to Melancholy, or  
his Hands shake with Drinking, you may safely prognosticate a  
Delirium Sr Convulsions; which, if they happen on even Days,  
are the more favourable, het, on critical Days, are pernicious,  
unless the Patient is relieved by a copious Haemorrhage from  
the Nose, or the haemorrhoids! Veins ; or by a Suppuration,  
Tranflation of the morbific Matter, critical Tumor, or Pains  
about the Hypcehondria, Testicles or Legs; for a Solution of  
thefe, paves the Way to Expectoration, and the Discharge of a  
thick, smooth, and white Urine.

Ina Fever, attended with Hickups,- let the patient take the  
Juice of Silphium, and wild Carrot, heat up with Oxymel ..  
and givehim Galbanum in Honey, with Cummin, by Way of  
Lambitive aster these,'he may be allowed strained Juice of  
Ptifan.- In this Case,-the Patient cannot escape, unless he is  
relieved by critical Sweats, regular Sleep, and the Discharge of  
a thick- and acrid Urine; except the Disease terminates in an  
Abscess.: An Eolegina may he prepared of Pine.nut Kernels,  
-and Mytth, and let the Sick drink very little Orymel; but,  
ifhe be very thirsty, give him Barley-water..

In a Peripnedmony, or Pleurisy, we are to consider whether  
they are attended with an acute Fever; whether the Pain lies  
in one or both Sides ; whether the Patient- labours for Breath ;  
whether there he a Cough, and of what Kind the Spit, whether  
reddish, livid, thin, frothy, -florid, of in any RespeA different  
from what usually happens in such Cafes. The Patients are to  
he treated after the following Method ; ἐν - , j

: If the-Tain verges towards-the Clavicle, or the Breast, or  
Arm, open the'inner Vein of the Arm, on the Side where'the  
Pain lies, and take away as much Blood as the Habit of Body;  
-the Season of the Year, together with the Age and Complexion  
ofthe Person will permit ; and the more plentifully, and with  
the greater Confidence, if the Pain he acute, even to the Faint-  
ing of thePatient. After this, let a-Clyster be given. . .

But if the Pain is situated under the Thorax, and is very in-  
tense, exhibit a Purge; Whilst it works, give nothing; but  
when the Medicine has finished its Operation, let the Patient  
take some Oxymel. Purge on the fourth Day ; but the three  
first Days-make Ufc of Clysters, and then, if these give no Rea.  
lief; purge gently ; after this, let due Care he taken of the  
Patient, till- the Fever disappears, and the seventh Day is ar-  
rived. ' If then the Danger appears to be over, proceed thus i  
First, exhibit a lltrle Juice of Ptisan, mixed with Honey. As.  
terwards, if the Spit comes up with Ease, Respiration is easp,  
and the Pain of the Side is no longer sensible, give a somewhat  
larger Quantity, made a little thicker, twice in a Day.

If the Disease he more obstinate, the Drink must he less in  
Quantity, with a little sorbile Fond; that is,-the Juice of  
Ptisan prepared thin, and given but once in a Day, and that at

s The following Observations are extremely inf

the Time when it is at the best, which may he known by the  
.Urine. But in these Distempers, sorbile Fond is not Io he al-  
lowed till a Concoction is manifest in the Urine and Spit. And  
if the Patient has been purged much, his Diet must he the thin-  
Iler, and the less in Quantity, for he will not he able to steep,  
because of the Inanition of the Vefleis, nor digest as he would  
otherwise, nor have Strength to sustain the Shock of the Crisis.  
.But when Crudities are brought to a Colliquation, and what  
resists *(Nature)* is expelled, nothing will afterwards interfere  
\_ with a more plentiful Use of these. Now the Spit is distinguish-  
ed to he concocted, when it is like Pus, and the Urine, when  
tit deposites a reddish Sediment like (*the Meal of)* Vetches.

In other Pains of the Sides, it is proper enough to apply  
warm Fomentations and Cerates, and to anoint the Legs and  
Loins with warm Oil or Fat; but on the Hypochondria lay **a**Cataplasm of Linseed, that may extend as far as the Breast.

. A Peripneumony, in its Vigour, admits of no Relief, with-  
out a Discharge by Expectoration, and is dangerous, if accom-  
panied herth a Difficulty of Breathing, a Discharge of thin and  
acrid Urine, with Sweats about the Neck and Head; for **these**. are fatal, aS proceeding from a Suffocation, and the Strength  
and Fury of the prevailing Distemper, unless when there is a  
plentiful Discharge of thick Urine, or a concocted Matter is  
expectorated; for if any Thing of this Kind happens, there is a  
Solution os the Disease.

. An Eclegma for the Peripneumony is prepared **of Pine-nut**Kernels, and Galbanum with Attic Honey; For a Pleurisy, in  
the Beginning, when the Pain is urgent, boil Southernwood,  
Pepper, and black Hellebore in Oxymel, and give the Patient.  
A Decoction of Panax (πώαξ) in Oxymel. strained and drank,  
is good in Affections of the Liver, and Pains about the Dia-  
phragm. Give whet is intended to operate by Stool or Urine  
in Wine and Honey ; but it may sometimes he adviseable to  
give Cathartics, **with a** plentiful Draught of diluted **Hydro**mel.

; When a Dysentery ceases. It h succeeded fey an Abscess, or  
some Sort os Tumor, unless it terminates in a Fever, or in  
Sweats, whilst the Urine is thick, white, and smooth ; or it  
may end in a Tertian, or in a Varix, or fix upon the Testicle,  
or Legs, or the Hip.

In a bilious Fever the Accession of the Jaundice, with a Shi-  
vering before the seventh Day, gives a Solution to the Disease;  
but if it comes out *os* Season, and without a Rigour, it is fetal.

Convulsions about the Loins, and a Stagnation of the Blond  
On Account of a Redundance of melancholy. Humours, when-  
ever they happen, are solved by Phlebotomy. But when the  
Body is drawn vehemently forwards by convulsive Contractions  
of the Muscles, and Sweats are raised about the Neck and Face;  
the Violence ofthe Pain .stimulating, and shrivelling the Psoas  
Muscles,b which bring considerably thick, sustain the Spine of  
the Back, in that Part where the largest Nerves take, their Rise,  
and are extended to the Feet, unless the Patient he seized with  
**a** Fever, and a Sleep, and then makes a well concocted Urine,  
and falls into critical Sweats, let him drink generous Cretin  
Wines, and eat boiled Meal. Anoint him also with emollient  
Cerates, and bathe his Legs in a Tub of warm Water, and  
afterwards wrap them up in Clothe as far as the Feet, and in  
like Manner cover the Arms down to the Fingers. Lay also a  
warmthkin, spread with Fat and Cerate, oyer the Loins, large  
enough to reach from the Neck to the Haunches, and to come  
over before. Fomentations also with Bladders may he used at  
Intervals; with Affusions of warm Water, after which the Pa-  
tient, bring well wrapt up in Linnen, is to be laid to rest.

Beware of too much Purging; but if the Belly has been  
costive for a considerable Time, use a Suppository ; and *if this*answers the Purpose, it relieves the Patient ; is Rot, let him  
drink fragrant Wine medicated with the bruised Root of Bryony  
and wild Carrot in the Morning fasting, hefore Affusions of  
Water; and after these, let him immediately -eat heartily of  
helled Meal warm, drinking afterwards at Pleasure Wine well  
tempered'. If this Method answers the intention, it is well; if  
not. Danger may he prognosticated.

. All Diseases admit of a Solution, either by the Mouth, or  
the Belly, or the urinary Glands, or some other Emunctory;  
but all critical Discharges are accompanied with Sweats.

.. In Case a Rheum descends from the Head, Hellebore is the  
proper Remedy ; but to such 2S labour under an Abscess, a  
Rupture of a Vestel, the ill Effects of Intemperance, or who,  
from some other powerful Cause, are affected with a Suppura-  
tion. Hellebore is by no Meam to he given ; for it can do no  
Good, and is the Patient he worse, is sore to bear the Blame.  
But if the Body he languishing, or there he a Pain in the  
Heed, or a Stuffing of the Ears and Nostriis, or a Spitting,  
er a Heaviness of the Knees, or the Body smell more than

.usual; yon may prescrihe it, provided that none of the afore-  
mentioned Symptoms proceeds from Excess os Drinking, or  
Venery, from Sorrow, Cares, or Want of Sleep; if any os  
these are in Fault, the Method of Cure must he suited- to the  
Cause. sc :

Pains in the Sides, Back, Loins, and Hips, and whatever  
manifestly cause a painful Respiration, are sometimes the Effects  
of Travelling; though sometimes also the Pains in the Loins  
and Hips proceed from a Crapula *(Overloading the Stomach)* or  
flatulent Food: To these may he added a Dyfury ; . now all  
these together with a Stuffing of the Head, and a Hoarseness,  
are often caused by Fatigue in travelling. . . .

Many Signs worthy of Notice arise from the Method of  
Diet, according as a Person deviates from that which has been  
habitual to him. If any one makes a Dinner, who never used  
to dine, his Belly swelis considerably, and a Sleepiness, together  
with a Sense of Fulness, oppress him ; and if besides he sups as  
usual, he finds his Belly disordered. Such Persons would do well  
to steep immediately after Bathing, and when they risc, to  
walk gently for a considerable Time ; if by these MeanS Stoois  
are procured, let him make a Supper, and drink a littie Wine,  
hut not much diluted. But if there are no Stoois, the best  
Way is to anoint the Body with warm Oil ; and in Cafe of  
Thirst, to drink a little white, or sweet Wine diluted, and im-  
mediately afterwards to betake themselves to Rest, where, if  
they cannot steep, let them continue at Rest longer. In other  
Respects, let such a Diet he directed as is proper for a Crapula..

AS to Drinks, those which 'are watery are stow of Passage,  
and gather round, and float about the Hypochondria, not readily  
passing off by Urine. Whoever silis himself with such Liquors  
cannot be quick at the Dispatch of any Work that requires  
great Efforts, Strength, or Agility of Body. In fuch a Cafe,  
the hast Way in general is to he still, and rest, till such Fluida  
are Concocted together with the Fond. On the contrary, the  
stronger, or more austere Sorts of Drink .cause Palpitations in  
the Body, and Pulsations in the Heath Those who are disort,  
dered by such an Excess are relieved by Sleep, and supping some  
such warm Liquor, as is most agreeable to the Palate. .

Fasting is bad sor the Head-ach and Crapula. These, who  
eat but Once in a Day grow weak; their Urine .is hot, from  
an unnatural Exinanition Of the Veffeis; there is a Saltness and  
Bitterness in their Mouth; they tremble when they are about  
any Work, the temporal Arteries are distended ; nor can they  
digest their Supper so well aS if they had dined. e. It will be pro.,  
per for such to drink less than usual, and to eat Maza made  
pretty liquid, instead of Bread, and among their Greens to. use  
Docks, or Mallows, or Ptisan, hulled Barley, or Beet. . At  
Table, let them after Eating drink a moderate Quantity of  
Wine well diluted, and after Supper take a gentie Walk, till  
a Secretion being made, they heve Occasion to evacuate by U-  
line: Let them feed alsoon helled Fish. . .. .

Foods also evidently manifest their Qualities by their Effects\*  
Thus Garlick generates Flatulencies, and Heat in the Tho,.  
rax, causes Heaviness of the Head, and Anxiety, and, if there,  
happens to he any habitual Pain, it will not fail to increase it.  
But it provokes Urine, winch is a good Quality;.it is best  
eaten hefore a premeditated hard Drinking or Debauch. ' .

. Cheese breeds Flatulencies, and is astringent ; it dries the  
Food, is a crude and undigestible Sort of Aliment, and Very bad  
for such to eat who have filled themselves with Drink.

' Pulse of all Sorts is flatulent, whether raw Or helled, or fried,  
whether macerated or green; and they ought.not to he eaten  
without other Food. Every Kind has its peculiar Faults.

Chich-pease, whether raw, or halted, generate Flatulencies,  
and cause Pairs, . , . .

Lentils unhuiked are astringent, and cause Violent and fre-  
quent Contractions of the Heart ζἀραδον]. Lupines are the most  
harmless of this Class. . ... ' . ε

Silphium, both the Plant and Juice, is Very qnick in passing  
through the Body, with some, but very stow in others who are  
'not used to it, and breeds whet they call *Dry Gholen,* especially  
if it he eaten with Cheese or Bees. For Beef exasperates me-  
lancholy Affections, because it is Insuperable by the digestive  
Organs, and riot easy to he dissolved by the.Action of the Sto-  
mach. But these InconVeniencies are best avoided by thorough\*  
ly boiling it, and eating it stale. ..

- Goats-flesh, hesides that it has all the Faults of Beef, is more  
subject to breed Crudities, Flatulencies, Eructations, and Cho-  
ler. . That which is most fragrant, linn, and is grateful to  
the Palate, as the best, and ought to he thoroughly boiled, and  
eaten cold. On the Contrary, what is disagreeable, rank, and  
herd, is the worst, especially if fresh killed. It is best also  
in Summer, and worst in Autumn.

'. - fc The Commentators and Interpreters have conjured up a Difficulty, where there appears ,te he none. They seem to think the Word  
Aneslum should he wrote ορρωδίονν, which Joey derive from ορἡος, *The Extremity as. the Os Sacrum.* In my Opinion, Hippocrates expresses Very  
plainly the Psoas Mufcles, for which οὐρωδμα seems a very proper Name, becaoseof them Vicinity to the Kidnies, Ureters, and Bladder, the  
Organs employed about the Secretioni andExpolfion of ctie *lsseuri* Urine,

c This is a very judicious Observation- It is certain that the J nines after Fasting contract an Alcaleseence, for Want of bring dilated with  
fresh Chyle and hence the Symptoms mentioned by Hippocrates in this Place. v

Swines-fiesh is bad when eaten either too raw, - or over done,  
for then it is subject to breed Choler, and create Uneasiness.  
Sows-stesh is however the most excellent of all others, and  
os this the choicest is whet is neither extremely sat nor lean,  
nor os the Age os an old Victim, and it is best when eaten  
without the Skin, and somewhat cold.

In a dry Cholera [χυλέρη *orori]* the Belly is instated, and a  
Murmuring in the intestines is perceived; the Sides and Loins  
are in Pain, and nothing pastes by Stool, but the Patient is in-  
tirely costive.

In this Disorder heware os giving an Emetic, but set your  
Care he to discharge the Belly os its Contents downwards. For  
this End as speedily as may be, administer a warm Clyster, ren-  
dered as emollient as possible, by an Admixture os Fat, and,  
after well anointing the Patient, conduct him into a plentiful  
Bath of hot Water, and placing him in the Solium *[axctyn]  
pour the Water on* him by Degrees. During this Treatment  
in the Bath, *is* he can have the Benefit of a Stool, there is a  
Solution of the Disease. Sleep also will tin him Good, and  
Drinking of thin old Wine, not mixed with Water, Give  
him also Oil that he may rest, have a Stool, and so got quit of  
his Distemper ; but keep him from all Sorts of Fond. If the  
Pain does not remit, let him drink Affes-Milk till it purge him..  
If the Excrements are liquid and bilious, and the Patient is af-  
fiicted with Gripes, Vomiting, and Fainting, the best Way  
is to enjoin a strict Rest, and to exhibit Hydromel,. so as not  
to return it by Vomit, . . )

. Of Dropsies there are two Kinds; the first, which comes  
- under the Flesh [ύποσαρκίδεουςτ when it once attacks, is incura-  
ble ; the other is attended with Flatulencies, and the Patient  
iS Very fortunate if he gets a Cure, which must he attempted  
principally by hard Labour, Fomentations, and Temperance.  
Let him eat dry and acrid Food, which will not Only cause him to  
make Plenty of Urine, but also strengthen him in a great Mea-  
sure. If he is afflicted with a Difficulty of Breathing, and it  
he the Summer Season, and he in the Vigour Of his Age, and.  
in his full Strength, it will he proper to take some Blond from  
the Arm. Afterwards let him eat hot Bread dipt in Black  
Wine and Oil, and drink As little as possible, but use hard La-  
hour and Exercise, and eat well fed Swines-fiesh, boiled in Vine-  
gar, that he might he the hetter able to support himself under  
his fatiguing Walks, which ought to he against Places Of steep

' Asoenh’'

Such aS have the lower Belly hot, are subject to sharp and irre-  
gular Stools, and to a Colliquation; if their Strength he firm,  
they ought to have a Dose of white Hellebore, in order to make  
a ReVulsion; but if weak, the Juice of Sitanean [σιτανίων]  
Wheat is to he given, made thick and then cooled, or else  
Gruel of Lentils, or Bread baked in the Embers [ὸνκρυφιας] or'  
Fish, which must he boiled for one that is feverish, but roasted  
for others. Black Wine also is to he given to one that has no  
Fever, otherwise Water in which have heen macerated Med- .  
Iars, or Myrtle-Perries; as Quinces, or Services, or Dates, or  
the Fruit of the Wild Vine. If, the Patient he affected with  
Gripes, without a Fever, let him drink Cows-milk warm; a  
small Quantity at first, and increased every Time afterwards  
or take Linseed,- and the Meal of roasted Wheat, and Egyp-  
tian Beans, first stripped, of their, bitter Hulks, grind these, ma-  
cerate them, and give the Mixture to drink; let him also eat  
Eggs half roasted, the finest Wheat-fiour [ςὴςμίδαλιςί Millet, and  
Alica [χοἱδρος] boiled in Milk. These are to be eaten cold, af-  
ter they are boiled ; and other Meats and Drinks of the same  
Nature with the above-mentioned are to he used.

With Respect to Regimen, it .is a Point os the greatest Im-  
portance to watch and observe the proper Seasons for giving Ali-  
ment in acute and chronical Cases .; and for thin Purpose to re-  
mark the Intensions, and Remissions of Fevers, that you may  
find, and improve, the Opportunities when Food is by no  
Means proper, and when it may safely be offered, and to know  
at what Time the Disease is farthest from its greatest Degree os  
Exacerbation. ' . . - si.

. Have Regard also to Persons affected with an Head-ach, whe-  
ther it proceeds from Exercise, as Running, Travelling, Hunt-  
ing, or any other unseasonable Labour, or Venereal Commerce.  
Observe also the State os the Ill-coloured, the Hoarse, those  
who are affected with Disorders of the Spleen, those whose Blood  
is deficient, the Asthmatie, thole who are afflicted with a dry  
Cough, or Thirst, or Flatulencies, or Stagnations of theBlood.  
Such as have their Hypochondria, Sides, or Back distended, or  
are benumbed or dim-sighted, those who are troubled with Noise  
in the Ears, or an Incontinence of Urine, or the Jaundice;  
those whose Stools are crude, who labour under copious Haernor-  
rhages from the Nose, or haemorrhoids! Veins, or are molested  
with Inflations, or suffer vehement and intolerable Pains, from  
winch they can by no Means free themselves. None of these  
above-mentioned Patients are to he purged ; for Purging would  
he dangerous, and can do no Good; hesides, it prevents a Crisis,  
and deprives Nature of the Means of assisting herself. But is it he  
proper to bleed in any of these Cases, first render the Belly firm.

and then proceed to takeaway Blood, to enjoin Abstinende, and  
to forbid .Wine ; the Cure is to he prosecuted afterwards by a.  
convenient Regimen os Diet, and moist Fomentations. .But If  
the Patient appears to he costive, relax the. Belly with a gentle I  
Clyster; or if you think Purging necessary, yon may with  
Safety effect it upwards with Hellebore, .but prescribe Purging  
downwards in none of these Coses.

. But the best Way is to treat such Patients, with. Diuretics,  
and Diaphoretics, and to order them Walking, and Friction,  
though hut gentie, lest the Habit should become more dense ;  
and if they lie in Bed, let others rub them.

. If the Distemper affects the Thorax above the Diaphragm,: the  
most proper Posture for the Patient is to sit upright, and to re-,  
.cline as little as possible, till his Strength is increased ; and while :  
he sits, let him he wellrubbed wish Plenty of warm Oil for a  
considerable Time together. ' . - . .

. But if the Pain lies in the Belly below the Diaphragm, **the**best Situation is Lying along, without moving the Body at all,  
except by Friction. . . ' ' ~ '

Diseases os the lower Belly which have their proper Solution  
by Urine and Sweat, if they are moderately moveable, are  
shontaneoufly solved when flight; het the more considerable  
are os pernicious Consequence ; for the Patients either die, or  
sail, into some other Distemper before they recover their Health.  
But Diseases of this Kind generally fix themselves upon some  
particular Part. \* - -

**A POTION for a DRORST, - ?**

Take three Cantharides, and pulling off their Heads, Fees,  
and Wings, bruise the Bodies in a .Quarter of a Pint os Water,  
and give it the Patient to drink. When the Medicine hegins to'  
operate, let him use an Embrocation of warm Water. He is.  
to drink it fasting, heing first anointed, and let him eat hot  
Bread and Oil. - sc .

To stop an HAEMORRHAGE. ,

Wet some Wool with the Juice of the Fig, and apply it to the  
Artery on the Inside of the Nose, or put some Runnet intoned in-  
to the Nostrils, or thrust up Calcitis with your Finger, compreil-  
Ing the Cartilages of the Nose on the Outside. Loosen the Belly  
also with Asses Milk boiled, and let the Head he shaved, and  
Refrigerants afterwards he applied to.it, if the Season he hot.

Sesamoides purgeth upwards, if the Weight os a Drain  
and haff of it bruised he taken in Oxymel. It is also mixed  
with the Hellebores, so as to he a Third of the Compositions  
which .by that Means is rendered less suffocating.

The SUTURE for a TRIGHosISi

. Take a Needle which hath an Eye, and thrust ‘ the Point  
through the upper acuminated and tense Part of the Eye-lid,  
downwards, and repass it from the inner Part upwards, chert  
fastening the extended Thread upon the Place with a Knot, let  
it rest till it falis off. If this be sufficient, it is well; if, not,  
the same Operation must he repeated.

In like Manner are the Haemorrhoids be treated,, that is, by  
passing through them a Needle with a very thick Thread made  
of greasy Wool, and fastening it with a Knot; the Largeness  
of which will contribute to the Cure ; and when they are thus  
compressed, apply a Suppurative ; but use no Embrocation till  
they fall off; however, let one remain always.. When the Pa-  
tient has recovered Strength, purge him with Hellebore, and  
set him use Exercise and Sweating. The first of these should  
he a great deal of Friction in the Morning; but let him avoid .  
Running, Drunkenness, and all acrimonious Feed, except Ori-  
ganum. Let him vomit once in seven Days, or three Times in .  
a Month, for by these Means he will acquire an excellent Ha- .  
bit of Body. Let his Wine be yellow (deep-coloured) austere,  
diluted, and little in Quantity.

For Persons affected with INTERNAL SURtitiRATIONs.

**Cut** the Bulb of Squills, and boil them in Water, and when  
they are Very well done, throw away the Liquor, and add a *se-  
cond Water,* in which boil them over again, till they appear  
thoroughly boiled, and are .soft to the Touch. This done,  
bruise and mash, them, and mix therewith Cuminin, roasted  
white Sesamums, and new Almonds, reduce these to a proper  
Consistence with Honey, and give them aS a Lambitive, **and**after this a Draught of sweet Wine. For sorbile Fond- let  
them take the Measure of a small Acetabulum [I of a Pint,  
λεκίσκαν] of white Poppy [μάκων] bruised, and macerate and boil  
it in Water wherein setanious Meal has been washed, and then  
sweetening the same with Honey, let him take ir warm, and so.  
pass the Day; aster which, with due Consideration of what  
may ensue, give him his Supper.

**For a DYSENTERY. 9**

Take a Quarter of a Pint of Beans cleansed, and twelve  
Sprigs of Maddar bruised, and boil them together, and with  
something oily, maim it into an Eclegma, and give it the Patient.

For the EYES.

Take Spodium [σπυδᾶ] wash it, and afterwards work it well  
like a dry Mass of Meal ; then levigate and moisten it with the  
austere Juice of bitter unripe Grapes; let in dry. in the Sun, and  
as there is Occasion moisten it, so as to make it of the Con-  
sistence of an Ointment. When it. is grown day, levigate it,  
then apply it to the Eyes, and sprinkle it in their Comers.

**For insist EYES.**

Take of Ebony one Dram, of burnt Brass one Dram and  
half; levigate them on a Stone, and add half a DramofSaf-'  
iron; these being ail reduced to a fine Powder, pour on it half  
a. Pint os Attic sweet Wine, and after it has been exposed to\*  
the Sun, coVer it, and when it is digested, use it.

For PAINs os the Eyes. : .

Take of Calcitis one Dram, Grapes when a Third os the  
Juice is- expressed. Myrrh and Saffron bruised, and mixing  
them with Must, digest them in the Sun, and therewith anoint  
the affected Parts. It ought to be kept in a Copper Vestel.

To know the **STRANGULATION Of** theUTERUS *(Histericss.*

Pinch the Patient with two Fingers, and if there is any Sign  
**of** Sensation, it is a Strangulation; if none, it is a Convulsion.

**For the DROPSY.**

Give the Quantity of a round Attic Acetabulum (λικισκὸν) of  
Meconium *(Petty 'Spurge)* for a Dose. Take of the Scoria of  
Brass as much as will cover the Breadth of three Probes, give  
it a Consistence with fetanian Meal, and having levigated it,.  
exhibit it in the Form of Pilis. They purge Water by Stool,  
and clear the Belly of Excrements. Drop the Juice of Ti-  
thymallus upon dried Figs, seven Drops on a Fig, and set them:  
aside in a new Vessel for the Use of the Patient; to the Pur-  
pose aforesaid, to whom they mustthe given-just hesore his Meals.  
Bruise also petty Spurge (μηκάνιον) and put Water to. it.5 then,  
aster straining it, make it up with Meal, wet with Honey, into  
a Cake, which bake, and give your hydropical Patients to eat,  
who are to drink aster it sweet Wine diluted, for Hydromel  
likewise diluted. But gather the Meconium that comes away\*  
with the Excrements, and lay it aside carefully. -  
.. ALCALISATIO. *Alcalifation.* It imports the Impregnat-  
ing.any Thing with an alcaline Salt, as Spirit of Wine. - ’

ALCANCALI.' *Ext Antidote,* so called in Italian. It Is-of.  
good Use in burning Fevers, simple and doubleTertians, and in  
continued Fevers, the Lipyria, Semitertian, and, .in a . Word,  
every feverish Disorder,, and is thus prepared:

Take of Citrine, Chebule, and Indian Myrahelans, each Sort  
seven Drams; of Purflane-seeds and purple Violets, each  
an Ounce and half; of Beleric and Emblic Myrobalans,  
each one Dram seven Grains ; of Mastich, one Dram one  
. . .Scruple; ofOxyphoenioum (interpreted by the Commen-  
tator *Tomarindi)* three Ounces; of wild Colocynthis, Her-  
; snodactyls, each two Drams four Grains , of Cassia Fistula  
cleansed, four Ounces. Then take Of Violets, an Ounce  
-and half, and two Pints of Water, and set them boil to a  
ῖ Third ; strain it thro\* a Bag, and put the Cassia Fistula  
*l* . 'and the Tamarinds into the Liquor, work them well with..  
- \* your Hands,. and, aster straining all the Juice through a

Bag, let the Liquor stand. After this take another Portion  
of such Liquor, and put in it of Sugar one Pound and half,  
- and let them boil to the Thickness of Honey ; add to them  
- the Liquor os the Cassia Fistula and the Tamarinds, and let

r ' all boil together to the Thickness of Honey. Lastly, add to  
- this all the above-mentioned Ingredients well bruised. The"  
t Dose is three Drams in warm Water; or you may give two

or three Scruples in an Infusion of Rhubarb warm. Or im  
.. Rose-water, fasting. *Myrepsus, Sect.* I. Cap. 24. .. .

. ALCANNA, ςA Plant thus distinguished: . ;

*- Alcanna,* Ossic. *Ligastrum Indicum sou Alcanna Manithondi,'.*Herm. Mus. Zeyl. *6.* 65. *Ligustri s.peciis so.' Alcanna dicta,.*Bout. I 43. *Ligastrum Orientale, five Cyprus Dioscoridis et Pli..  
nit.* Park. Theat. I447..Raii Hist 2. I6O3. *Ligustrum AEgypo  
tiacurn latifolium et angnstifolium,*. C. B. Pin. 476. *Ligastrum  
Algyptium, Cyprus Graecorum, Elhanne Arabum, J.* B. I. .541.  
Chain 4I. *Ligustri species.* Comm. Flor. Mal. I61. *Baccisie-  
ra Indtca baccis oblongis in umbella formam dispositis.* Ran'Hist. *2.*I634 **EASTERN PRIVET.** *Dale.*

This is the *Kerma of* the Turks and Moors. The Leaf,  
when reduced to a yellow Powder, is used for 4 Cosmetic by the  
Natives; namely, by the Men to dye their Beards red, and by  
Women to dye their Nads of . the same Colour ; in order to  
which they make ijiinto a Sort os Paste, with Juice of Lemons.  
Its medicinal Virtues are Emmeoagogue and Hysteric, and ac-  
cordingly it is used in the Eastern Countries, to cause Abortion,  
and to bring away dead Children. *Geoffroy.*

' The Account Diofcorides- gives Of ' this Plans, which he calls  
*Cyprus,* is as follows :

\* The *Cyprus* is a Tree, the Leaves on whose Branches are like  
those of the Olive, but broader, softer, and greener. The

Flowers are white, molly, and scented; the Seed black like  
that of the Elder-tree. The fairest grows about Ascalon and  
Canopus.

The Leaves have an astringent Quality, by which they heal  
Ulcers in the Mouth, being chewed therein, and are good for  
Carbuncles, and other fiery Inflammations, if applied in a Ca-  
taplasm. The Decoction of them is used to wash Burns. - The  
Leaves bruised, and moistened with the Juice of Dyers Weed  
(rquiin) turn the Hair of a yellow Colour. The Flowers, bruised  
in Vinegar, and applied to the Forehead, ease the Pains of the  
Head. . : - si

The *Cyprine Ointment,* which is prepared of the Flowers, has  
the Virtue of warming and mollifying the Nerves, and is sweet-  
scented, being a Composition of Simples of a hot and fiery Quali-  
*ay. Dioseorides, Lib.* I. *C.* .I 24.

The *Cyprus* is a Tree in Egypt, that has Leaves like those of  
the Ziziphus, Seed like Coriander, and a white scented Flower.  
They boil this last in Oil, and express what they. call the  
*Cyprus* (an Oil) which is sold in Quantities of five Pound  
*(Pretium ei in Libras quinque).* The heft, in Point of Fragran-  
cy, comes from Canopica on the Banks of the Nile, the next  
in Goodness from Ascalon in Judea, and the third from the Isie  
of Cyprus. Some say it is the same Tree which they call in  
Italy *Ligastrum. Pliny, L.* I2. *C.* 24. -

Pliny has the same Virtues ofDiofcorides, and adds that"**the**Leaves are applied to the Stomach when disordered, and their  
Juice to th.e.Uterus in Hysterics; that the fresh Leaves chewed,  
heal sunning Ulcers in the Head as well as in the Mouth, A  
Collection Of Humours, and Condylomata. The Flowers burnt  
in a crude earthen Pot, cure-Nomae, and putrid Ulcers, either  
used alone, or with Honey. The Smell of the Flowers provokes  
Sleep. *Pliny, L,* 23. C. 4.

ALCANNA also signifies the same aS *scthyocolla, Isinglas.s.  
Johnsen.* ’ . . ' . . s .

\* ALCAOL. Rulandus, and from him Johnson, interpret  
this *Lac Aceiosum sive Mercurius*By *Lac Acetosum,* I suppose  
they mean the *Lat Philosophorum,* or Solvent for the Preparation  
of the Philosophers Stone. - .

ALCAR. Ἄλκαρ. Galen explains this by Βοήθημα, Hasp,  
*Assistance.* It signifies also a Remedy. *Foesius.*

ALCARA. *A Cucurbit. Rulandus.*

' . ALCE. *The Elk. - - . - . . .*

This is a wild Beast, furnished with Horns, as big as **a-**Horse, it is bearded and covered with long Hairs from the Top  
of the Head to the Shoulders; its Colour is commonly grey.  
Or whitish 5 the Head is Very large, its Eyes sparkling, its Lips  
are large and thick, its Teeth are moderate, its Ears are long  
and large, its Horns are branched like those of a Fallow Deer;  
weighing at least twelve Pounds the two, which Homs they lose  
yearly; the Female has none at all, its Belly is aS large as that of  
a Cow, its Tail is very little, its Legs are long and flender, its  
Peet are black, its Hooss divided like those of an Ox; the Flesh is  
very hard, the Back is covered with Hairs like the fine grey  
Hairs of a Mouse ; this Animal is sound in Poland, in Prussia,  
in Sweden, "in Norway, and Canada; it is timorous and casta  
itself into the Water when they hunt it, but in is very strong,  
his Lust is like that Of the Stag. It is subject to the Epilepsy,  
and they relate that, .when it is in a Fit, it cures itself by rub-,  
bing its Ears with the Hoof of its hind lest Leg r It is for this  
Reason they esteem the hind lest'Leg in Medicine much more  
than the right. . Its Hoof isin Use; called *Ungula Alcis,* it should  
he chosen weighty, compact, smooth; bright, and black ; it con-  
tains a great deal os volatile Salt and Oil. .7 - - ί

They Use the Hoof tis *tar Elk* as a Cure for the Epilepsy, taken  
internally; they hang a .little Piece at the Neck, and they  
make of it Rings to wear on the Finger for the same Distem-  
per,- but these Amulets produce no Effect..

The other Feet of *Elks* are as good as the left hind Foot,  
for the Effect proceeds only from the Volatile Salt of which **there**is as much in one as the other. *Lemcry de Drogues.*

Some People .eat. the Flesh as Venison. The Nerves are used  
against the: Cramp, by binding the affected Part with them.  
*Pomet. -νύ - --*

\*: ALCEA. A Plant of the Mallow Kind, thus called by  
Authors: -- . - t

Ἀλιαιο, Dioscoridis. *Alcea,* Ossic. *Alcea vulgaris,* J. B. 2.  
953« Eaii Hist. I. 604. Synop. *3. 252.* Dill. Cat. Gissi I44.  
*Alcea vulgaris moror,* C. B. Pin.- 3I6. *Alcea vulgaris five Mal:,  
ua verbenacea.* Park; Theat. 3or. *Alcea vulgaris,* Mer. Pitt.  
3. Merc. Bot. I7. Phyt. Brit. 3. . *Alcea vulgaris major store, ex  
rubro roseo,* Tourn. Inst. 97.' Boerh. Ind. A.. 27O. Hist. Oxon.  
2. 527. *Malva ucrbenacea,'* Ger. 785. -Emac. 931. **VER-.  
vAIN-MALLow.** *Dale: -si ' '*

*. Alcea* is a Kind of Wild Mallows, with -Leaves deeply cut  
like those of Vervain (ιἱρἄς βοτώης) and three or four Stalks  
covered with a Rind much like Hemp. It hears a small Flowed  
like a Rose. The Roots are white, broad, five or six in Nuns-  
her, and near a Cubit in Length. *Dioseorides, Lib.* 3. *Cap.*164. . - \_ . - . .. ..... . -

This is a Species of Mallow, and differs from the Common,  
in having its Stalks more hairy, and growing more erect; the

**lower** Leaves are smaller and roundish, cut in about the Edges,  
and growing on long Foot-stalks; the higher they grow, the  
Foot-stalks are the shorter. The upper Leaves are cut into  
five deep Laciniae or Segments, the Flowers are larger, paler,  
and not striated like those of the common Mallow. The Cheese-  
like Seed-vessel is larger and blacker; the Root is hard and  
woody, spreading in the Ground.

It grows in the Hedges, and flowers in May and June, and  
through the greatest Part of summer.

The Roots drank in Wine or Water cure the Dysentery and  
.Ruptures. *Diosc. L.* 3. *C.* I64. .

*.. Alcea* is a Species of Wild Mallows; drank in Wine, espe-  
cially the Root, it cures the Dysentery, and Corrosions of the  
Intestines. *Paulus AEgineta, L.y. C.* 3.

*Alcea* is a good Digestive, is emollient, and stops Bleeding;  
It is used in Clysters, and Fomentations, and is taken ar the  
Mouth also to correct the Acrimony of Urine. *Denary de  
Drogues. .*

It is of the Numher of Emollients, and is an Ingredient in  
. PlaisterS. It is in great Vogue among Empirics for Dimness  
of Sight, and a Decoction of it cures the Gripes. It is a yery  
.proper Remedy sor all Pains attended with Heat. *Dale,*. Miller enumerates the eight following.Species: .

i. *Alcea vulgaris major, store ex rubro-rafeo,* C B. P, 316.  
Greater Vervain-mallow, with a Rose-coloured Flower.

2. *Alcea vulgaris mayor, flora eandidicre,* Co B. P. 316.  
Greater Vervain-mallow, with a white Flower.

3. *Alcea solio rotundo laciniato,* C. Β. Ρ. 3x6. Vervain-  
mallow,. with a roundout Least

4. *Alcea tenuis.olia crispa,* J. B. ii. 1067. Narrow-curled  
leaved vervain-mallow.

5. *Alcea Cannabina,* C. Β. P. 316. Hemp-leaved Mal-  
low. . ’

. 6. *Alcea Afra frutescens, gyeessedaria folio stare ‘parvo rubro,*Poerh. Ind. Alt. African shrubby Vervain-mallow, with  
Gooseberry Leaves, and small red Flowers;

. 7. *Alcea Africana arborefcens malva solio hirsuto, flere parvo  
purpureo.* Till. African Tree-like Vervain-mallow, with  
hairy Mallow-leaves and small purple Flowers.

. 8: *Alcea Afrafrutescens, grojsularlae solio ampliore, unguibus flo.,  
rum atro-rubentibus.* Act. Phil. African shrubby Vervain-  
mallow, with larger Gooseberry Leaves, and dark-red Spots at  
the Bottom os the Flowers.

**ALCEA INDicA.**

. It has a large pentapetalous Flower, and a pretty big feminal  
Vessel, divided into five Celis containing.Kidney-like Seeds.

*fiamia Moschata,* Ossie. *Alcea flue Bamia Moschata AEgypo  
tiaca,* Breyn. Prod. 1.2. *Alcea AEgyptia Moschata,* Park. Theat.  
3oi. *Alcea AEgyptiaca villose,* Co Β. Pin. 3I7. Rail Hist. 2.  
1O66. *Bamia, Belmufcus Hinorio Bello,* Chain 302. *Althea  
AEgypliaca Moschata Abel Mosch dicta.* Hist. Oxon. 2. 533. *Abel  
Mosch vulgor* Herm. Hort. Lugd. Bat. 25. *Mosch, idest, Ba.  
rnia Moschata,* Alp. Exot. I97. *Kelrnia 'AEgyptiaca -femine  
Moschata,* Tourn. Inst. Ι0Ο. Boerlt. Ind. A. 272. MOSCH-  
**SEED.. .. ‘** z '

It grows in Egypt. The Seeds are used, which are of a  
smutty Colour, Kidney like, and of a very fragrant Smell, like  
Mush. The Egyptians dry them flightly, and mix the Powder  
in their Coffee, to make it more effectual sor the strengthening  
of their Head, Stomach, and Heart. **We use it** in Fumiga-  
tions. *Dale. ...*

ALCEBRIS VIVUM, *Sulphur Vivum,* **Ru-**

**landus, who also casts it ALNERXC, ANERIT, and ANE-  
RIC.** V. '.

ALCEDO. The *Rings Fischer,* A Bind thus distinguished by  
Authors: .

*Is.pida,* Ossie. Aldr. Ornith. 3. 518. Gefn. de Ayim 5/3.  
*Jons,* de Aviso 107. *sspida, an veterum Halcyon?* Willi Or.  
frith. IOI. Raii Ornith. I46. Ejusil. Synop. A. 4S. *Is.pida,  
Alcyon fluviatilis, vulgo Piscator Regis,* Charlt. Exer. III. *Al-  
endo,* Seined. 5. 3 I4. *Halcedo muta,* Bellon; des Oyse, 2I9.  
*Dale.*

It is a little Sea-bird, somewhat like a Quail; of different  
Colours, as blue, purple, red, or yellow ; its Beak, is long and  
small, of a yellowish Colour; they build their Nests among  
Reeds, or upon Rocks on the Shore ; it lives upon small Fish;  
it lays its Eggs in Winter when the Weather is serene. They  
pretend that it is a happy Omen of calm and fair Weather.

It contains a great deal of Volatile Salt.

.This Bird dried, and hanged to Childrens Necks, preserves  
them from the Epilepsy, but a more certain Effect is to he pro-  
duced by giving a Scruple every Day in Powder at the Mouths,  
in Betony-water. „

The white dried Nests ofBird, which the People of Siam and  
other Travellers bring into France, are those of the Indian King'S  
Fishers, and principally of those which breed on the Coasts of  
the Kingdom of Cambia. Their Nests are in the Shape of  
round Bowls, their Substance is of a white Froth which they  
discharge from their Bilis when they are going to breed, and  
which hardens by the Heat of the Sun, the Taste of **these Nesta**

is insipid, and glutinous. The Chinese look upon them as  
Dainties, and eat them helled with Ginger.

. They are esteemed Restoratives, and are said to strengthen the  
Stomach. *Lemcry de Drogues. (*

Pomet adds, that the Chinese are such Lovers of these Birds-  
nests, that it is almost incredible whet Quantities are sent to  
Psduin, the Capital of China. They are usually valued at **fifty**Tabers the Hundred, which is about six hundred Livres, or fif-  
ty Pounds os our Money. These Nests .were, formerly little  
known, and it was believed thet they were made os the Froth  
os the Sea ; but since the People of Siam have introduced them  
they are hecome very common. . .’

ALCHACHIL. A Name sor *Rosemary. scale.*

ALCHARITH, hr ALEcHARITH. *Nuickfllver. Johns. »  
sons Castellus. .. j .* χ .

\* ALCHEMIA, or ALCHYMIA.. *Alchemy.* It imports that  
Branch of Chymistry, which relates particularly to the Trans-  
in utation of Metals. The Arabic Particle AL added to it by  
Way of Eminence, distinguishes it from Vulgar Chymistry.

It was common *for* the Orientals to denote the Excellence of  
any Thing by representing it aS more, particularly belonging to  
the *Supreme Being.* Thus the *Mountains os. God,* are only Moun-  
tains eminently high ; and *the Esuers of God,* are Rivers of great  
Depth and Breadth. In like Manner I should suspect *Alchemy to*signify the Chymistry of Ged, as *Alla* is the Arabian Name *for  
she Sapreme Being..* See CHYMIA. She Ai.

ALCHIMELECH. The Egyptian *Melilet. \* ' . ,*

*Melilotus AEgyplia Alchimelech vocata,* J. B. *Melilotus AEgypo  
tiaca,* Park. *Melilotus Corniculis reflexis minor,* C. B. ..

. The Plant spreads itself on the Ground, heing small, and  
gently creeping, seldom or never raising itself . in Height. Its  
Leaves are like those of Trefoil, only lesser. The Flowers  
are small, copious, long,.growing in Clusters, os the Colour of  
Saffron, sweet-scented, from, whence are produced small oblique  
Pods, containing *i.* minute round . Seed, os a blackish Colour,  
inclining to red, not quite void of Smell, and of a bitterish  
astringent Taste. *Raii Hist .Plant so. ...*

ALCHIEN. In the *Theatrum Chymicum,* Vol.. 5. we meet  
with this Word. It would be much more easy to transcribe the  
Explanation of it from the Book quoted above, .as Costellua  
has done, than to understand whet the Author means.,. If in  
has any real Meaning, it should seem to signify that Power ini  
Nature by which all Corruption and Generation are effected.

ALCHIMILLA. A Plant thus called:

*Alchimilla,* Ossie Ger. 8o2. Emac. 949. Raii Hist. I. 2OS.  
Synop. 66. *Alchimilla vulgaris,* C. B. 3I9. Tourn. Inst. 5O8.  
*Boerh.* Ind. A. 2.92. Dill..Cot. 67. *Alchimilla mayor vulga.,  
ris.* Park. 538. *Alchimilla perennis viridis major, foliis Ax lateo  
virentibus.* Hist. Oxon. 2. 195. *Pes leonis sive Alchimilla,* J. B.  
2. 398I. Chain 172. ‘ LADY'S MANTLE. *Dale.*

The Leaves of Ladies Mantle, upon their first Springing **up**from the Root, are plaited or folded together, of a whitish  
green Colour, covered with a short sine Down, having eight  
Corners, and when spread open, in Shape something like Mai-  
lows,. but much neater and more elegantly serrated about **the**Edges ; the Stalks are weak, seldom standing upright, some-  
what hairy, and cloathed with the like Leaves, but smaller, **and**having shorter Foot-stalks, hearing at the Tops Clusters os green-  
ish Flowers, *of* eight Leaves a Piece, with yellow Stamina in\*  
the Middle, each Flower producing two small Seeds. The Root  
is pretty thick, of a black Colour on the Outside, with **many -**Fibres. It grows in Meadow and Pasture Grounds, but rarely  
about London. It flowers in May.

It contains a great deal of Phlegm, and Oil, and a moderate  
Quantity of Salt. *Lemcry de Drogues. .. . .......*

The Leaves are chiefly used. This Plant is reckoned among  
the principal Vulnerary ones, being drying and binding, incras- .  
sating and consolidating, and of great Force to stop inward  
Bleeding, the immoderate Flux of the Menses, and the Fluor  
Albas, and is frequently prescrihed in Woundr.drinks, .and  
Traumatic Apozems, and for Ruptures of all Rinds.. The  
Leaves, outwardly applied, are commended for lank, flagging  
Breasts, to bring them to a greater Firmness, and a smaller.  
Compass. *Miller, Bot. Ossi. Boerhaave.*

Lemery adds, that it is detersive and astringent, it serves in  
a Decoction for Soreness of the Lungs, *Lemery de Drogues.*

The Species of this Herb are:

i. *Alchimilla vulgaris.* C. B. Common Ladies Mantle. .

*2. Alchimilla Alpina, pubescens, minor.* Η. R. Par. The lesser 1woolly Ladies Mantle.

3. *Alchimilla Alpina, quinquefoliasolio subtus argenteoc* Tourn.  
The Alpine five-leaved Ladies Mantle, with the under Part of  
the Leaves white. ss

**4.** *Alchimilla minor.* **Mur. Kort. Reg. Bins. The lefler-La-**dies Mantle.

5. *Alchimilla Alpina pentaphyllea minima, lobis fimbriatis,* Boes,  
Mus. Pat. 2.18. Least five-leaVed Ladies Mantie of the Alps,  
with fringed Leaves.

6. *Alchimilla montana minima,* Coh Par. 1. 146. Least  
Mountain Ladies Mantle, commonly called *Parjley Breakstone.*

*J. Alcbionilla supina, gramineo solia, minore store,.* Tourn. Low  
Grass-leaved Ladies Mantle, with a smaller Flower.

8. *Alchimilla erecta, gramineosolio, minoresure,* Tourn. Up-  
right Grass-leaved Ladies Mantle, with a smaller Flower,

9. *Alchimilla graminea folio, majori store,* Tourn. Grass-  
leaved Ladies Mantle with a larger Flower.

Io. *Alchimilla linar ice folio, calyce florum albo,* Tourn. La-  
dies Mantle with a Toad-flax Leaf, and a white Flower-cup.

II. *Alchimilla linaria foUo, calyce florum sublateo,* Tourn.  
Ladies Mantie with a Toad-staxed Leaf, and a yellowish  
Flower-cup.

i'. 12. *Alchimilla orientalis, linaria folio brevissimo, calyce florum  
. 'albo,* Tourn. Cor. Eastern Ladies Mantie, with a Very short  
Toad-flaxed Leaf, and a white Flower-cup.

13. *AlchimillaGraces, kali solio, 'calycesiorum albide*, Tourn.  
Cot. Greek Ladies Mantle, with a Glass-wort Leaf, and a  
whitish Flower-cup. *Millers Dict.* and *Suppl.*

- ALCHITRAM, or ALCHIERAM.. It signifies Oil of Ju-  
niper; or Tar; or prepared Arsenic. *Rulandus.*

AICHITRAN. This also is Oil of Juniper, according to  
.Rulandus, who gives it another Signification, *\Fex Destilla-  
tionis,* I suppose he means the Faeces lest aster the Distillation  
of some Bodies. In this Sense, it seems to differ from Caput  
Mortuum, as this is thy, whereas *Alchitranis* moist, orstluid,  
. in some Degree. Castellus, from Libavius, gives it another  
Signification, and says it signifies a Sort os Salt ; he derives the  
Word from χὑτρἀ, *a Pot,* by which it should be Pot-ash.

The same Author says, *Alchytran* is the Name of a Medi-  
. cine for the Teeth, taken Notice of by Mesuae.

ν ALCHITTFRA.' *Tar. Johnson.*

ALCHOLLEA. A Sort of Food, common amongst the  
Western Moors: It is made of Beef, Mutton, or Camel's Flesh,  
but chiefly Bees, which they cut all in long Slices, salt it well,  
and let it lie twenty-sour Hours in the Pickle. Then they re-  
move it out of those Tubs, or Jars, into others, with Water,  
and when it has lain a Night, they take it out, and put it on  
Ropes in the Sun and. Air Io dry ; when it is thoroughly dried  
and hard, they cut it into Pieces of two or three Inches long,  
and throw it into a Pan, or Cauldron, which is ready with  
boiling Oil and Suet, sufficient to hold it, where it boils till it  
he Very clear and red, if one cuts it ; which taken out, they,  
set it to drain: When all is thus done, it stands till cool, and  
Jars are prepared to put it up in, pouring the Liquor they fried  
it in upon it ; as soon as it is thoroughly cold, they stop it up  
close. It will keep two Years; it will he hard, and the hardest  
they look upon Lo be best done. This they dish up cold; some-  
times fried with Eggs and Garlick ; sometimes stewed, and Le-  
mons squeezed on it. It is Very good any Way, either hot or  
bold. *Phiscf Transect.*

- ALCHIMIA. See ALCHEMIA.

ALCIBIADIUM. It is a Name for the EC HI UM, which  
see. *Blancarti. -*

ALCIMAD. *Anstmtny. Rulandus.*

: ALCIOT. The same aS AcnIOT L, which **see.**

ALCOB. Sal Ammoniac. *Rulandus.*

: ALCOCALUM. The *Cinara, Artichoke. Blancardo .*ALCOED Rulandus explains this by *Lac Acetosum.*

- ALC0FOL. *Antimony. Castellus isDso. Rulandus, John-  
sen,* and *Dorneus.*

ALCOHOL, or rather *Al-Ka-hol,* as it ought to he wrote,  
is an Arabian Word, which signifies a fine impalpable Powder  
which the Women of the East make use of as a Kind of Fu-  
chs.

**Dr.** Shaw, in his Travels, speaking of **the** Women of Bar-  
hary, says, that none of these Ladies take themselves to he com-  
pleatly dressed, till they have tinged the Hair, and Edges of  
their Eye-Lids, with *[Al-Ka.hol* ] the *Powder of Lead..  
Ore.* Now as this Operation is performed by dipping fust in#  
the Powder a small wooden Bedkin of the Thickness, of a Quill,  
and then drawing it afterwards, through the eye-lids, over  
the Ball os the Eye, we shall have a lively Image of what **the -**Prophet *stsier.* 4. 3O.J may he supposed to mean *by renting the  
. Eyes with* sllID *Lead. Orel painting.* The sooty Colour, which  
is in this Manner communicated to .the Eyes, is thought to add  
a wonderful Gracefulness to Persons of all Complexions. The  
Practice of it, no Doubt, is of great Antiquity : For heside the  
instance already taken Notice of, we find, that when Jezebel  
is said *(2 Kings* 9. 3o.) *t0 have pointed her Face,* the original  
W0rds are nnegi tmtynestes *adjusted* (or set off) *her Eyes*

*itnth the Powder os. Lead-Ore.* The like Ornament was made  
Use of, not only by other Eastern Nations, but by the Greeks  
and Romans also, as appears from antient Authors. Among  
other Things relating to the AlgyptiarI Women, I have like-  
» wise seen taken out of the Catacombs at Sakara a Joint os a  
common Reed, which contained one Of che Bodkins, and an  
Ounce, or more, os the Powder that I have descrihed; both of  
them agreeable to the Fashion and Custom of this Time.

' ’ This ingenious Gentleman informs us, rimr thin Word is  
rendered by GoliuS and others. *Stibium,* Antimonii Species; and  
sometimes *Collyrium.* The Hebrew *Cohhpla* hah the **same**Interpretation ,.and the Verb, Π5Π3. 'joined with tpyjy *Entk.*

t

23. '40. is rendered, *thou pointeast thy Es.es.* TD (from whence  
probably the Latin *Fucus}* is taken in the like Signification, **he.**ing Tendered *Antimonium, Stibium,* quo ad tingenda , nigrore ci-  
lia, seu nd Venustandos oculos, peculiariter utebantur, celor  
subniger *ex pulveribus* sumis confectus. *Schindl.* Lex. St. *forem*likewise, upon these Words, TInK IjlDni *ds.* 54. II. which  
we render *{Ivvllllay) thy Slones with fair Colours,* takes Notice,  
quod omnes pneter LXX. similiter transtulerunt. Viz. *sater-  
nam) in Stibio lapides tuos,* in similitudinem 'compta: minieris,  
quae *ocules pingit stibio,* ut pulchritudinem significet civitatis,  
Tn therefore, and bnn denoting the same mineral Sch..  
stance, or *Collyrium,.*sit may he presumed, that what is called  
to this Day by the latter os these Names (which is a rich Lead-  
Ore, pounded into an impalpable. Powder) was the Mineral  
which they always made Use of. '

I cannot determine whether the learned Author is right or  
pot; with Respect to the Powder called *Alcahal,* which he telis  
us is Black-Lead. Other Authors, however, inform .us, that  
the Powder made Use of by the Women, to set off **the** Eyes,  
was prepared srom.Antimony. ..s ’

But we may he pretty certain, that from this exceeding **sine'**Powder, the Word *Alcohol* has been borrowed, and applied to .  
any other Substance reduced to the utmost Degree of Purity,  
and. from which all impure and heterogeneous Particles have been  
separated. . ... . '

-. Hence Spirit of Wine, brought by Art to the highest De- \*

gree of Strength and Perfection, is also called *Alcaljol.*

.. AS *Alcohol* therefore is the most compleas, and perfect Off-  
spring of Vegetable Fermentation, I shall in this Place give the  
intire Process.by.which.it.is.produced from Boerhaave.

There is scarcely any Thing os greater Antiquity in Natural  
.History, more common in civil Lise, or more frequent in Chy..  
mistry, than Fermentation ;,so that we may fairly say with the  
famous Bellini, all Things are full of Ferments, but especially  
among the Chymists. Nay, if you will helieve Van Helmont,  
the Virtue of Ferments alone is the sole Cause of all real Trans-  
mutations. But such round and general Assertions confound  
the Ideas of Things ;. for if every Mutation he owing to Fer-  
mentation, then *Fermentation* will he aS general a Word as  
*Mutation,* by which Means, the true Names of Things are  
lost. This Confusion has been complained of by Men of **the**best Sense,, who have long desired a particular Dissertation on  
this Subject, which I shall now endeavour to give.

- L By the Word *Fermentation,* I mean that intestine Motion  
excited in Vegetables, by which they are changed in such a  
Manner, that the first Thing which arises from them in Distil-  
lation is an acrid .Liquor, miscible with Water, of a. warm  
aromatic Taste, inflammable like Oil, .thin, and Volatile ; or  
else, acrid, acid, extinguishing Fife and Flams,, thin, and less  
volatile..

By this Definition, the Word *Fermentation* is so limited, as  
to comprehend all that occurs in a true Fermentation, exolu-  
finely of every Thing to which it cannot he properly, though  
it is too often applied.

In every Fermentation, as long aS it continues, there is -art  
intestine Motion in the whole Mass, and every Part os it. X  
call it *intestine,* hecause it is excited chiefly by internal Princi-  
ples, which are inherent in the Vegetable. Some Degree of  
Heat, I confess, is here necessary; but this would not excite A  
true Fermentation in the.Mattes, if it were, not preVioufly of  
itself disposed to ferment. For if you take Water, Spirits,  
Oil, or Salts, and give them the same Degree *os Heat, yet* you  
will never bring them to a Fermentation. I say farther, that  
this intestine Motion can only he excited in Vegetables, for hi-  
therto we have met with, no Instance of a Fermentation in  
Animals, except when they had received into their Bedies ve-  
getable Matter, which they had not yet assimilated and trans.. \*  
formed into their own Nature. As for Fossils, I do not re:-  
member that, ever I observed in them any Morions tending to  
Fermentation, though Authors of very great Repute have  
made no Scruple to assert it. It is the Office of Reason rightly,  
to distinguish between Things, and therefore I was obliged to  
sake my Definition , from the Effect, hecause every true and  
perfect Fermentation terminates in a Spirit, or an Acid. That  
we may put an End at last to this Confusion, I would ash the  
judicious Chymists, whether this Action os Vegetables, which  
I have thus described, , is to be called Fermentation ? Certainty,  
none disputes it.. I insist then to know, whether, for Distinc-  
tion sake, and to obey the Laws of Order, we ought not to  
call all those Actions, which do not produce the effects assigned,  
by some other Names ? I think Reason teaches us so to do. I  
shall then make a wide Distinction between Fermentation and  
Putrefaction, hecause this latter, though it he also an intestine  
Motion in Vegetables, yet for its ultimate effect generates  
putrid Oils, and foetid, alcaline. Volatile Salts. Putrefaction  
of the Humours of Animals is also a proper intestine Motion,  
but then it never produces an Acid, or an inflammable Spirin,  
but phosphorical Matter only, and consequently is quire diffe-  
rent from every Kind os Fermentation ; for I cannot allow any - .  
Thing to come under this Name, which does .not generate ei-  
ther an inflammable Spirit, or an Acid, for Pear ef Confusion.

tn a Word, none of the various Rinds of Effervescences  
ought, under any Pretence, to pass sor Fermentation, though  
They may come under the Title os intestine Motions, and may  
be often observed even in pure, Vegetable Substances, aS **we  
see** in very strong Vinegar, and a fixed alcaline Salt.

II. Every fermented vegetable Liquor, which in Distillation  
. first yields a Spirit thet is inflammable, and may he mixed with  
Water, I shall distinguish by the Name of *TVine,* from what-  
ever Vegetable Matter it is produced. The Word .will bear  
.this Signification; for Tacitus, with great Propriety of Speech  
in the Latin Tongue, fays, that the Germans made Wine of  
corrupted Corn [Malt]. All such fermented Liquors therefore,  
- from whatever Vegetables they are prepared, I shall call *Wine, .*: without any Distinction. And again, every Vegetable Liquor,  
fermented in -such a Manner as in the first Distillation to yield  
. an acid Liquor extinguishing Fire, I shall call *Vinegars*whencesoever derived. Hence the whole Effect of a perfect  
. Fermentation, will he the Production either of Wine or Vi-

. negat. '- '

III. I call a fermentable Body fuch a one, as by the Action  
: described, N° I. may be so changed, as to he capable of pro.

.. \* ductng the Wine or Vinegar, descrihed N° 2. But as this was  
never observed but in the Vegetable Kingdom, I am obliged to  
allow nothing but Vegetables to he fermentable, though it will  
hereafter appear thet they are not all so.

IV. I call by. the Name of *Forment,* that Body, which br-  
ing intimately mixed with the fermentable Vegetable, N°.3.  
excites, increases, and' promotes the Fermentation described;

’ N° I. Hence it appears at first'Sight, that all such Ferments  
belong to the Class os Vegetables. - .

V. The fermentable Vegetables, N° 3. are in great Variety.  
These therefore- are to he distributed into as many Classes, as  
they require different Methods os Fermentation ;' nor can we  
here, with any Propriety, admit *of* more or less.’ . Thus,, as  
we must treat Rye in one Manner to produce Wine from it,  
and the fresh expressed Juice of Grapes in another ; so it is ab-  
folutely necessary to distribute these two Vegetables into diffe-  
rent Classes: On the contrary, aS Wheat, Barley, and Oats,  
require the very fame Management as Rye, for this Purpose;

\* hence, in this Respect, there must be no Distinction made he-  
. twixt these, but they must all he referred to the same Class.

Mean Time, however, it is necessary to observe, that all Ve-  
getables are not disposed to ferment; for such as abound with **a**native, alcaline Salt, or are easily changed into it, are unfit sor  
Fermentation, but incline to Putrefaction. Of this I was coir.'  
vinced, when but a Novice in these Matters, by Experiments on  
Onions and Turneps, having in Vain tried to extract fuch a  
..Spirit "as is'produced by Fermentation as a Medicine sor **the**. Stone, for I obtained an alcaline, foetid. Volatile Salt, with **a**

Spirit of the same Kind, instead of a true fermented Spirit.  
Hence, though all Fermentables will undergo Putrefaction, yet  
all PutrescibleS will not ferment. In Vegetables therefore, in this  
wespect, there is a Very great Differences -

VI. These Things bring duly considered, we reser to the first  
Class of Fermentables all those Seeds of Vegetables, winch when  
xipe and dry, are reducible by Trituration to a fine Powder,  
called Meal, and not to an oily Paste. Hither alfo *I* refer those  
Seeds, which though they abound with a pinguious Oil, yet  
may. he so changed by Art, as to he converted into a Meal of a  
Tess oleous Quality. These farinaceous Fermentables require  
**ar** threefold Subdivision.

**I.** The first comprehends ripe Seeds of culmiserous, grain-  
hifolious, spicated Plants, .called Com, as Oats, Indian Wheat,  
Grass, Barley, Lacrymae Jobs,. Millet, Rice, Canary-Grass,  
. Wheat os all Sorts; and Rye. To these? as being much of **the**fame Nature, may he added Buck-Wheat, and Flax, and on.  
Account os their near Affinity, the Seeds of all the Cucumber  
Kind, as Citruls, Cucumbers, Gourds, the Counter-Poison,  
Mush-Melons, the male Balsam Apple, Pompions, and **the**. like. Under this Head too we may rank the Seeds of Lettuce, \*  
or any other Plant of the same Nature.

2. The Seeds os almost .all the leguminous, podded Plants,  
- with the papilionaceous, or any other Flower, as Judas's  
Tree, Broom, Spanish Broom, Furs, Crotolaria, Dwarf-  
Broom, Crimson Grass Vetch, Shrub Trefoil, Stinking-Bean-  
Trefoil, Kidney-Beans, Melilot, Trefoil, Fenugreek, Rest-  
Harrow, Medich-Fodder, Medicago, theNet tie-Tree, Bastard  
Acacia, Bastard Sens, Coronilla, BarbaJoVis, Pease, Everlast-  
ing Pease, Clymenum, Tares, Lentils, yellow- Vetchlings,.  
Beans, Goats-Rue, Bitter-Vetch, Liquorice, Saint-Foin,  
Chiches, Ladies-Fingers, Lupines, Emereus, (Scorpion  
Sena) Birds-Foot, French Honey-Suckle, Hatchet Vetch,  
Horse-shoe Vetch, Scorpionwort, Astragalus, Acacia, Cassia,  
Senas

3. Nuts not too oily, as all Kinds of Almonds, Filherds,  
Chesnuts, Horse. Chesnuts, Walnuts, Cocoa-Nuts, and Pistach  
Nuts; which when they abound with too great a Quantity of  
Oil, must by some Method or other he drained of it, which is  
best done by letting them begin to shoot, and then scorching  
them. .

VIL The second Class of Fermentables comprehends all the  
pulpous Fruits, as they are called, whose ripe Juice is of an  
acid Sweet: Os this Kind are all Cherries, both Sorts Os Goose-  
berries, Mulberries, Raspberries, Elder-herries, and Grapes of  
all Kinds, all acidish Apples, all Pears, Oranges,. Seville and  
China, Citrons, Lemons, Apricots, Peaches, Plums, Medlars,  
and the like, if they do not incline to a foetid alcaline Putre-  
faction.

VIII In the third Class are contained particularly all succu-  
lent Herbs, and all their Parts, as Flowers, Leaves, Roots, and  
Stalks, is they are disposed to grow acid, rather than putrid.

IX. The fourth Class contains the fresh, native Juices ex-  
pressed from Vegetables, and especially from their Fruits, No;  
7, 8. Hither also we must reser that thin Liquor which distils  
from Incisions made in some Trees, as the Birch; Walnut, and  
Vine, particularly in the Spring. Season: For all these Juices  
usually undergo a spontaneous Fermentation, and then have  
their Nature quite altered by exchanging their acidish, stimu-  
lating, refrigerating Quality for one winch is heating, inehri-  
ating, and Vinous. Helmont the elder, recommends the Wa-  
ter that distiis from the wounded Birch in March, when new,  
or kept from corrupting, as a Secret for the Stoner And Mr.  
-Boyle, from his own, and other People's Experience, assures  
us of its efficacy in that Distemper,. bur he found, that though  
the fresh was of Service, yet it had quite altered its Nature by  
Fermentation.

X. To the fifth Class belong such Vegetable Juices, as heing  
generated, and inspissated by Nature,- are changed into a sapo-  
naceous Sort os Substance in the Form os a saline and pinguious  
Coagulum : Os this Sort are Manns, Honey, Cassis, Sugar,  
and all other Things os this Kind, which are not balsamicj  
gummy, resinous, or oily. '

XI. I Am in Doubt, whether we should refer the Waters *sis*Rivers to a sixth Class: These seem, indeed; to he common  
Lixiviums, impregnated with all Kinds, of Vegetables which,  
fall into them; are resolved in them, and at last intimately  
united with them. RiVer-waters derived into the Ditches of  
populous Cities are mixed with the fresh, fermentative Liquors  
Of Vegetables cast into them, and therefore, if they are put up  
in Casus, which were once used for Malt-Liquor, Wine, or  
Vinegar, may conceal a great Quantity os Spirits for a long  
Time. And hence, when they come under the ./Equator, or  
within the torrid Zones, by heing exposed to so great a Degree  
of Heat, they may he exalted into a Kind of Fermentation;  
To the foregoing six Classes, I think, may he reduced all Bo-  
dies susceptible of Fermentation, is they are managed aftei  
Various Manners suited to their different Natures.

XIL In the Bedies contained in the first five Classes, there  
are required some physical Conditions to render them the fitter  
for Fermentation, aS, 1

I. The most perfect Maturity designed by Nature in theif  
Kind: For all Seeds and Fruits, which are brought to such *ί*Perfection, that if sown in a senile Soil, and at the right Season,  
they will produce a Plant of their own Rind, are fit for this  
Operation. But when they are crude, hersh, and watery, they are  
certainly less disposed for it. The rough juice of unripe'Grapes,  
or Crabs, is but little disposed for Fermentation, though the  
expressed Juice of them, when they are ripe, ferments fpon-  
taneoufly ; and the Case is commonly- the fame in others.

2. A moderate Degree of Oiliness is also necessary ; for Very  
oily Substances grow rancid, rather than ferment, and those  
without Oil are unfit for Fermentation. Hence very fat Al-  
monds, is they are pounded, are less liable to he affected in this  
Manner ; but when they are carefully beaten up to a Milk with  
a great deal of Water, they usually hecome disposed for it.  
And when they are macerated in Water, and are just ready to  
shoot, the great Diminution of these Oil. renders them fit for  
Fermentation. ' \ . .- -

3. They must not he too rough'and astringent; sor such ’  
Substances are with Difficulty excited to this Action; Thus the  
Juice of Bistorts Tormentil, and the like, can scarcely he  
raised ton Fermentation.

4. It is one of the chief Properties of a fermentable Substance  
to be dissoluble in Water: Hence Barks, Woods, and Roots,  
*fo* long as they exist in these Forms, will not he changed in this  
Manner, though their expressed Juice, bring then miscible with  
Water, will ferment Very readily. .

**XIII. Ferments are principally,  
♦**

Il All such Substances as are spontaneoufly very prone to  
Fermentation themselves, and therefore are soon excited without  
any other Ferment: Of this Kind in particular are the Juices  
os ripe Summer-Fruits, which are so much disposed to Fer-  
mentation, that they can hardly he kept from is, but by tha  
Help of such Substances as have the Power of restraining'its  
Dough also, made of Flour, and worked with Water, if it  
lies in a warm Place, cannot he prevented from fermenting.  
We need not therefore hesollicitouS about this first Sort os Fer-  
raentf since Nature every where supplies us wish it abundantly.

**. 2.** Fresh Yeast, or Flowers of Malt-Liquor, or Wine, which  
work up to the Top in the Very Action of Fermentation ; for  
if this light, frothy Matter he mixed with other fermentable  
Substances, it wonderfully promotes their Fermentation, pro-  
vided it he fresh, and not sallen.

3. The same Matter, afterwards grown heavier, and sub-  
sided to the Bottom, if it is not too stale, still retains its former  
Virtue, though it is less active than hesore"; for these Lees he-  
ing mixed by stirring excite a new Fermentation in their own  
Liquor, and usually do the like in others.

4. Cassia, Manna, Honey, Sugar, and the like inspissated  
. Juices.

5. The acid, mealy, fermented. Leaven os the Bakers.  
For if fresh, sweet, Wheaten Flour, be kept in a dry  
Pisce, and secured from Insects, it may he preserved for  
Years without Corruption; but if it he kneaded with Water  
into a soft, sweet Dough of a good Denseness, and set aside  
slightly covered in a warm Pisce, it begins, within the Space of  
an Hour, to open, and swell on all Sides, to be full of  
Bladders, to lose its Smell, Taste, and Tenacity, and acquire  
an Acidity, in which State passing under the proper Appellation  
os ζὑμη. *Ferment,* it gave the first Name to the whole Opera-  
tion, hecaufe is this Leaven is mixed with fresh Dough not yet  
fermented, it will make it ferment much the sooner, and more  
effectually. .Hence it appears, that a Ferment may be soon  
Prepared, without the Help of one pre-existent.

6. The Residuums of former fermented Liquors, which stick  
**to** the Sides os the Cashs. For the Vesseis being thoroughly  
penetrated and seasoned by the Subtilty of the Liquors they for-  
merly held, are extremely adapted to excite a speedy and brifk  
Fermentation in any fresh Liquors that are put into them.

7. Among Ferments, we may also, reckon, though with  
less Propriety, the beaten White of an Egg, for it performs the  
Office of a Ferment in the following Case When some fer-  
mentable Liquors are so diluted and thin, that they too easify  
discharge the Air and Spirits, which both excite and keep up  
a Fermentation, and consequently do not retain them long  
enough to change their fermentable into a fermented State,  
the White of an Egg, mixed with the Liquid, by its Tenaci-  
ty, sufficiently inspissates it for the inviscating and detaining  
the active Spirits so long as it is requisite. Here indeed, it  
does not act properly aS a Ferment, being itself not sar from  
-Putrefaction, but only assists the Causes of Fermentation, by pre-  
venting their too speedy Exhalation. The same Thing there-  
fore may be easily effected by Other Viscid Substances, for  
which Reason,

**8.** Some have added Salts, as well acid and austere, as alca-  
**line;** but in this they have Respect only to particular Coses, **aS**in the former. Thus, when fermentable Substances have **so**great a Quantity os Acid in them, as to impede their Fermen-  
ration, it is observed, that a prudent Addition of a small Quan-  
**tityofan** alcaline Salt, will promote the Operation. And a-  
gain, when any Thing subputrid has happened to he genera-  
ted in the fermentable Matter, a proper Addition of a little A-  
cid, has restored A Disposition to Fermentation. Hence it ap-  
pears, that these are not Ferments in themselves, nor so much  
as FermentableS, but in some certain Circumstances by re-  
moving the Impediment to it, they become Promoters of Fer-  
mentation. Tartar however, if it is good, may in some Re-  
spects he accounted a Ferment.

**9.** It is observed, that the most austere Bedies have some-  
times, by their Admixture, procured a Fermentability, in **some**Subjects which they have been known to hinder in others.  
Hence Quinces, unripe Medlars, rough Cherries, and the like,  
have heen referred to the Class of Ferments, though never pro-  
perly and justly; but when the fermentable Liquoris of itself  
too thin, weak, and watery, and therefore wants an Addition  
os somewhat rough, to enable it the hetter to retain its Volatile  
Spirits.

XIV. We are now to consider the Preparations which fer-  
mentable Substances require to make them ferment more success-  
fully. Those which fall under the first Class require, for this  
Purpose, a Very particular Management, for,

I. AS for farinaceous Seeds, when they are ripe, and in their  
utmost Perfection, dry, ancj intire, if they are then, in a warm  
Season, first infused in Rain-Water, particularly what falls in  
the Spring, contained in large Vessels, and are there suffered to  
he till they are swelled, and have imbibed as much Water as  
they can, this is called Maceration.

2. The Corn bring thus soaked, is taken out of the Water,  
and laid in large Heaps In an open alry Place. In a short Time  
there fpontaneoufly arises in these Heaps a genial Warmth,  
by the Assistance os which the vital Powers of the Seed are  
quickened and rendered active, and begin to shoos, by putting  
forth their seminal Leaves, and the Rudiments os Roots. In  
this State, there is a great deal of Caution necessary, that the  
Corn, by too great an .lestuation, may not begin to putrefy, and  
**that** by too much germinating and growing out into Leaves and

Rootsit may not consume its mealy Substance ; for the Fer-  
mentation that comes afterwards always succeeds, in Proporti-  
on to the right Management *of* the Germination, which must be  
carried on to a certain Point, and no farther.

. 3. As soon as the Germination is sufficiently advanced  
through the whole Heap, the Corn must be immediately spread  
abroad, that it may continue no longer in a State os rEstua-  
tion, but he Ventilated, cooled, and dried in a Place pen/ionsto  
the Winds, especially the North-Wind. By this Means, its  
further Germination is immediately stopped, the farinaceous  
Part bring attenuated by the Operation, but not consumed. The  
Corn thus prepared, is siowly conveyed down a Pipe very much  
heated, which expeditioufly dries it to a Very gentie Degree of  
Torresaction. This is what Tacitus calis *Frumentum corruptum*[corrupted Corn] and what now goes by the Nameof *Malt.* The  
principal Alteration which the Corn undergoes by this Operation  
is, that its Viscosity is wholly attenuated ; so that though the  
native Corn will not dissolve in boiling Water, that which has  
undergone this Operation, is of so loose a Contexture, aS most-  
ly to he dissolved, and to have its Medulla quite exhausted by  
it : For crude Wheat, by chewing, will he reduced to a Glue,  
which can scarcely he attenuated, by long retaining it in the  
Mouth ; but Wheat made into Malt, and broken under the  
Teeth, totally diflolves, and gentiy melts away in the Saliva.  
Besides, the Malt in making acquires a soft, sweet Tails,  
which was not in the Wheat hesore. When this Malt is to he  
used, they grind it into a Meal, which is then called *ground  
Malt.* What I have observed os Wheat, is found to be true of  
all the Seeds in the first Class of FermentableS. Thus *is* Beans,  
, turgid with Maceration, are past into a Heap, and suffered to  
heat till they germinate, and are afterwards dried expeditioufly  
with a pretty strong Heat, and then ground, they will yield  
the same Phaenomena.

XV. The Preparation of the second Class of FermentableS,  
'is concerned about the soft pulpouS Fruits, in treading, pressing,  
and pounding them, by which Means their Juice is separated  
from them with a considerable Froth. But is their Substance be  
of a harder Kind, they may be boiled in Water, and afterwards  
reduced to a soft Pulp, as is often practised with Apples and  
Pears. If they are pretty dry, they may be rasped to a Powder,  
and then pounded with Water to a Pulp, as in the tuberous  
Roots os the Corona Solis, Potatoes, and the like, in which  
there is not much Tendency to Putresaction; for if that he **the**Case, then instead of fermenting, they will putrefy.

XVI. Such as helong to the third Class, are beat into a Pulp  
whilst they are fresh and juicy, adding only a small Quantity of  
Water, to make it os a thinner Consistence, and then they are  
sufficiently prepared.

XVIL AS for Bodies of the fourth and fifth Class, if they  
are of themselves too thick, they must he diluted with such a  
Quantity of Water, as will produce a Liquor capable of support-  
ing a new-laid Egg : Hence, if these native Juices are too thint  
and watry, and you want a well fermented Liquor, take your  
Juice when it is newest, and has had no Fermentation, and  
boil it over a gentie Fire, in a Very wide and shallow Vessel,  
till it has acquired a proper Thickness. If.it he not thus treated,  
st will hardly ferment, or generate many Spirits. But if it he na-  
turally too thick, it is reduced by Water to a just Consistence, as  
aforesaid, for in its fust State, it will hardly turn spirituous, but  
readily degenerate into an Acid. Sugar that is dry, will remain  
unchanged in warm Weather ; but if it he reduced to the Con-  
sistence os Cream, it ferments violentiy, and is converted into **a.**Liquor that plentifully abounds with Spirits. And the sama  
Thing is true of Honey, &c.

XVIII. The next Thing to he considered, is the Quantity  
os the Ferment that is necessary to he mixed with fermentable  
Substances, after they are properly prepared, that the Fermenta-  
tion may proceed the more successfully. Here observe, that

The Preparations of the first Class reduced to Malt, in the  
«Summer, scarcely require the Assistance of any Ferment, but  
are os themselves sufficiently, and often too much, disposed to  
Fermentation. In Winter, however, the Addition of some  
Ferment is necessary, as well as an artificial Heat, without  
which they would not be put into Motion. Hence again, if  
you take Care to keep them in a Very warm Place, they will  
require, though in Winter, but little Ferment, about an  
Ounce of Yeast, for Instance, to twenty Pounds; or Honey  
or Sugar in the same Proportion ; or Baker’s LeaVen in dou-  
ble the Quantity.

The second Class of Permentables scarce ever want the As-  
sistance of a Ferment, unless the Weather happens to he too  
cold, on which Account, if the Fermentation proceeds too  
Ilowly, you may add a littie Yeast

The third Class, in Summer Time, especially if it be pretty  
warm, readily enough ferment of themselves: In Winter, if  
the Fermentation is checked, it may he promoted by the Ad-,  
dition os Sugar, or Honey.

Nor in the fourth Class, are Ferments often necessary, for  
these Bedies, if the Weather is favourable, ferment so violent-  
ly, that they can scarcely he kept within Bounds . especially if

of all Ferments. But, secondly, in the second Stage or TerA  
mentation it is separated into three Parts, the Flowers at Top;  
the Liquid in the Middle, and a third Part, which begins to fall  
and he collected at the Bottom, under the Title of the *Facer,*which are the thicker and heavier Part now quite exhausted  
of that Principle which caused the Fermentation. And, lastly,  
in the third Stage iris again divided into two Parts, the Up-  
per, which is clear, fine, and thin, and called *Wine* ; and the  
Lower, which is thick, and lies at the Bottom, named *the Lees  
or Mother of Wine.*

5. But there is nothing more surprising, or more carefully to  
he observed in this Affair of Fermentation, than that prodi-  
gious *Spiritus Sylvostris,* which rushes out with such an Im.,  
petiis, when the Fermentation is at the Height ; nor is there  
any Poison that I am acquainted with, that is so subtile, swift,  
and satal ; for if a very large Vessel full of the best ferment-  
able Must, in the Height os Fermentation, should discharge this  
Spirit through a small Vent-hole in the upper Part, and the  
strongest Man. should but once draw this Vapour into his No-  
striis, he would drop down dead that Very Moment ; or if he  
drew in but a little, he would be taken with an Apoplexy ; if  
still less, he. would he deprived of his Understanding, and be a  
meer Idiot the rest os his Lise, or else become paralytic. And ’  
hence .the like Misfortune happens to those who are imprudent-  
ly busy in close Wine-Vaults, where the Wines are fermenting  
in the Time of Vintage.. For this Reason, these Places ought  
to he purified by Fires, and aired by setting the Windows open.  
From Sugar dissolved in Water, and its Froth first fermented,,  
we have an Account of a Spirit produced, which heing drawn  
into the Lungs, in a Very small Quantity, in an Instant stop-  
ped all Respiration, exciting an intolerable Asthma. *Phil. Trans..  
Ab .Vol.* 2. Let Physicians then consider the Force os Liquor  
drank in the Very Act of Fermentation ; and how Violent that  
Spirit may he, which in Summer is generated in the human  
Body, from a too free Use of Summer-fruits, when very ripe,  
if by a convulsive Constriction of the Stomach they are pre-  
vented from passing any further, and, by being kept in a warm  
Place, acquire and exert an extreme Elasticity and Acrimony.  
Hence in *Alcohol* there still remains a good deal of this Poison,  
and therefore if the Vapour os it he taken into the Nose in a great  
Quantity, and for a long Time, it causes the greatest Degree os  
Drunkenness, or a flight Apoplexy. If it he used too freely  
internally, it affects the Brain and Nerves particularly, and  
their Functions. In Chemistry we are still at a Loss  
from whence this Spirit arises. We know, indeed, it is the  
Production of an actual and present Fermentation; nor do  
we know that such a one is generated in any other Way ;  
but we cannot conceive how it causes Death, without any Dis-  
ease, or how it affects the Corebrum, Cerebellum, or Nerves,  
without Matter, or without any visible Alteration, either in  
the Solids or Fluids. ’

AS soon as the Fermentation is over, it is proper to close the  
Vessel, and let the fermented Liquor rest a While upon its Lees,  
for it will still consume much of them, and assimilate them to  
itself, and so he stronger, more spirituous, and much fitter for  
Distillation. .

XXI. The Time necessary for edmpieating a perfect Fehe  
mentation can scarce he determined exactly, as depending up.\*  
on the Place where the Vessel stands, the Season of the Year,  
the Heat, and Wind it is exposed to, and the Nature os the fer-  
mentable Matter itself. In Africa, the Liquor os the Palm-tree  
passes through this Operation in the Space os a few Honrs. In  
Asia too the Business is Very soon over; but in the Northern  
Countries it proceeds but Very flowly. The hot Summer Sea-  
son quickens, the Winter checks it. The South-Wind pro-  
motes, the North-Wind retards it. The expressed Juice os  
Grapes and Sugar ferment suddenly and violently; other Fer-  
mentables more flowly. It is easy, however, to know when a  
perfect Fermentation is at an End, which is, when all the Phae-  
nomena mentioned have appeared in the Order described, and  
at last cease spontaneously ; and then the Vessel must he i in me-  
diately stopped, and the fermented Liquor kept upon its Lees ;  
for otherwise the Spirit generated by the Fermentation, would  
in a short Time exhale, and leave the Liquor Vapid, and  
good for nothing; whereas if the Liquor is kept quiet in a Vesa  
sel well stopped, it grows gradually finer, more subtile, and fuse  
ler os Spirit. Thusche fresh expressed Juice os Grapes may,  
by boiling, be inspissated without losing any *os* its Virtue, but after  
Fermentation,, if it he only exposed to the cold Air, iris soon  
exhausted of all its Spirits. \* »

xxn. The Liquor prepared by a coinpleat Fermentation, has  
in all Ages, amongst all Nations, and in every Language, from  
whatever Matter it is produced, been called by the Name of  
*Wine.* Now the Nature of Wine is known by the following  
Marks which are common to every Sort of it :

I. It has aTaeulty of producing a Teniulency in the Fune-  
tionsof the animal Spirits and Actions. . This is what it effects  
while it quickens, refreshes, exhilarates, disposes a Person to  
Mirth and Prolicks, to be talkative, to rhiine and dance, then

the Weather he very hot, and the Fruits have had a fine Sea-  
fan for ripening-

The fifth Class Very rarely want the Use of Ferments, they  
rather acting the Part of Ferments themselves. You need only  
raise an artificial Heat, and maintain it in one constant Degree.  
Hence therefore, we see, that upon the Whole, Ferments are  
not so necessary, as is generally imagined.

XIX. After Fermentables of what Kind soever heve been  
prepared, and diluted with a sufficient Quantity of Water in  
the Manner explained, let them he poured into an oaken Calk,  
well seasoned with a Liquor of the fame Kind fermented in it.  
hefore. Let the Vessel stand in a Heat, between sixty and se-  
venty Degrees, and let the Bung-hole he left open, that the Air  
may pass freely in and out, or only covered with a Bit of Flan-  
nel to prevent any Infects from falling into it.

XX. I took a glass Cucurbit, the biggest I could get, and  
placed it upright in a wooden Box in such a Manner, that by  
putting a small Quantity os Fire at the Bottom of the Chest,  
I could keep it in an equal Degree of Heat. I then silled at to  
three Quarters *of its* Capacity, with a crude fermentable Mat-.  
-ter, properly prepared for Fermentation, covering its Orifice  
siightly with Flannel, and keeping up a Heat but .of betwixt  
sixty and seventy Degrees, even in the Winter Season ; and it  
was pleasant to observe the Phaenomena that followed, which in  
this Way lie open to Observation, always happen in the fame  
.Manner, and make up the whole History of Fermentation.

I. The Mass, which at first is at Rest, and takesup a certain:  
Space in the Vessel, begins insensibly to swell, rarefy, to be ele-  
vated, and conceive an intestine Motion through all its Parts,  
which discovers itself by the strange Whirling of the Liquor,  
upwards, downwards, and sideways, nor ceases though the Im.  
petus changes every Moment. In the mean Time Bubbles ap-  
pear to he generated in every Part of the Mass, which with a  
strong Tendency endeavour to ascend, sometimes bursting as  
they rise, or else at the Surface, with a hissing Noise. Hence  
the whole Matter grows frothy, but the Surface in particular,  
and with a Noise, like that of Ebullition, there is discharged  
an acrid Spirit, that affects the Nostrils with its Acrimony, is  
acidise, wonderfully elastic, incoercible, bursting by its im-  
mense Force almost all Vefleis in which it is confined, nor in  
these Respects is it to be equalled by any Thing that I am ac-  
quainted with. Hence the great Helmont thought proper to  
distinguish it by a particular Name, and therefore called it *Gas  
Sylvestre. . '. .*

2. Whilst these Things proceed in this Manner, 'the thicker  
Part of the fermentable Mass begins to be separated from the  
thinner, and is thrown up to the Top, where it is collected  
in a thick, fpongy Crust, which accurately covers the- Liquid  
underneath, and confines and repels its more active Parts, so  
that they cannot easily .exhale before they have performed their  
proper Office. And then it is Very entertaining to see, how  
great and constant an Agitation there is through every the least  
Particle of the more liquid Part that lies under the incumbent  
tenacious Crust. Certainly, we can scarcely conceive a greater  
Attrition than arises from the rapid Agitation of these Corpus-  
cles among one another., i And hence it comes to pass, that the  
Crust being elevated and separated by the repeated Explosions,  
there frequently bursts out a Vapour through the Clefts with a  
considerable Noise ; upon which the Crust presently falling  
down closes again, and confines, aS before, the active Princi-  
ples, so that they Cannot too easily exhale and be dissipated.  
And indeed, the Formation, and Continuance of this Crust,  
tends above all Things, to bring about a perfect Fermenta-  
tion. \_ ..."so", ci...

- 3. In "the Midst-of these Observations one cannot but take  
Notice that whereas all the thick Part of the fermentable Mat-  
ter. was at first carried up, find .collected at the Top, there are  
stow some Parts at the Bottom of the Crust, which growing  
less rare, and being no lunger supported thy those rare Bubbles  
that rendered them light, begin to descend through the liquid  
Part, are agitated upwards and downwards, form Bubbles about  
them, by .their Assistance rise, and then by their Displosion  
fink again, and when it has happened alternately in this Man-  
Iler Tor a good While, *Act*last subside to'the Bottom, and re-  
main: at Rest. Then other Glebales take their Turn, and play  
the same Part, and when it has thus proceeded for some Time,  
it often happens, that the whole upper Crust, now grown .hea-  
vier, and less rare, on Account os the exploded Spirits, finks  
down at once, and soon after rises again, almost intire, and  
that with such an Impetus, as is hardly credible to one who has  
-not’.seen it. When the: whole Crust is perfectly dissipated and  
funk to the Bottom, the Fermentation ceases, though the same  
Degree of Heat is still continued ; a dear, thin, light Liquor  
swims at Top, and the Faeces subside to the Bottom.

.4. Hence in every truePermentation, the fermentable Mat-  
ter is at first of an unequal Consistence, but afterwards separat-  
ed into two Parts, the more liquid, which is undermost, and  
the more solid Crust, which covers it. This Crust, so long as  
it keeps the upper Place, is called the *Flowers* of the fermentable  
Liquor, or Yeast, and is the most convenient and serviceable

proves an Incentive to the hidden and peculiar Passions of each  
Breast, reveals Secrets, and lays a Man open; and at last dis-  
orders, debilitates, takes away spontaneous Motion, so that nei-  
ther Foos, Hand, Tongue, nor Reason can exercise their pro-  
per Offices; the Consequences of which are Sleepiness, Palsies,  
Apoplexies, and Death. This is a Property peculiar to Wine,  
nor is there any Thing like it in any other Body that I am ac-  
quainted with; for Henbane, Tobacco, Opium, and the Thorn-  
apple, whilst they affect the Brain, act in quite a different Man-  
Iter. And this Faculty is much the same in every Sort of  
Wine ; for Malt-liquor, Mead, Cyder, Perry, and Wine  
made with Gooseberries, Grapes, or any Sort of Berries, have  
constantly the same Effect; so that this surprifing Power is sole-  
Iy the effect of Fermentation. -

2. But Fermentation likewise changes vegetable Juices from  
their relaxing, resolving, saponaceous, refrigerating, and for  
the most Part purging Quality, into one that corroborates,  
thickens the Humours, dries, and heats. Farinaceous Sub-  
stances reduced with W ater to a crude Pap, the inspissated fresh  
Infusion of Malt, before it is fermented into Beer, Mulfum,  
SynIps made with Sugar, Manna, or the Pulps of Cassia diluted  
with Water, the fresh expressed Juices of full-ripe Summer-  
fruits, and fresh fermentable Herbs at their Maturity ; any of  
these too freely drank, produce windy Disorders in the Boweis,  
excite a Diarrhoea, and make a Person chilly. But when by  
proper Fermentation they are madeinto Beer, Mead, and Wine,  
how Very different are their Powers and Effects l They retain  
nothing of their former Disposition, but all Things are become  
new. The .fresh Juice of perfectly ripe Grapes is perhaps the  
most powerful Dissolvent of Humours we are acquainted with,  
and if used immoderately, often brings On a fatal Dysentery ;.  
and. an Infusion os Malt inspissated by helling (Sweet-wort)  
drank plentifully, has the same effect. But- strong, old Wine  
from the former, or generous old Beer from the latter, or the  
distilled Spirit from either os them, but especially *Alcohol,* is a  
good Antidote against, the sonnet.

3. Another perfectly singular Property of Fermentation is  
that from the fermented- Matter it produces a Liquor, called  
a *fermented Spirit,* which has this particular Quality, that it is  
convertible into a lucid Flame, and at the same Time capable  
of being thoroughly mixed with Water, and yet quite of a  
different Nature from the Spiritus Sylvestris before described,  
which seems to be produced in the Very Act of Fermenta-  
tion, and lost at the same Time. This Liquor has scarce any  
Thing else like. it. For the Volatile inflammable Spirit, which  
I once saw in a Very dangerous Manner burst out of the Re-  
tort in the Distillation of Phosphorus, would norths diluted and  
extinguished with Water. And what arises from large Quan-  
tities of human Excrements, thoroughly putrefied in a close  
Place, and takes Fine, and bursts into a Violent and Very  
dangerous Flame upon the Application of a Candle, seems to  
be of the same Natures shut horribly foetid. Oily Substances, .  
when urged with the last Degree of Fire in Distillation, send  
forth white-bluish Fumes, which, upon holding a lighted Match  
to them, will also take Fire, but these return to an Oil, or a  
Phosphorus, that will not mix with Water. So that upon a  
careful and thorough Examination,. I have not been able to  
discover any Liquor, which would absolutely, and spontaneous-  
ly, as it were, mix with Water, and was at the same Time  
convertible into a pure Flame, except what is Produced by the  
Fermentation above described.

4. Another Effect of Fermentation is the Generation of the  
Wine-stone, commonly called *Tartar.* I confess, that this is  
not produced from all Sorts os Wine ; for it is neither gene-  
rated from the hest Malt-liquor, Mead, nor many other Sorts  
of fermented Liquors. From some Vegetables, indeed, this is  
'formed good and pure, hut then only when they have been con-  
verted into a Wine by a perfect Fermentation, and are in-  
tirely defecated. Hence, therefore, I always esteem Tartar as  
a peculiar Production of Fermentation, and think, it should  
he called the *Oily essential Salt of the Wine,* and he absolutely  
distinguished from the Mother nr Lees.,

5. Fermentation also induces a surprifing Alteration in the  
Smell, Taste, native, 2nd artificial Virtues of Things. The  
cohobated Water of frosh Rosemary, for Instance, differs in  
every Property.from what in drawn from it aster it is ferment-  
ed with Honey. The Must fresh pressed from mature Rhenish  
Grapes, that grow exposed to the Sun upon the Sides ofMoun-  
tains, is of an exceeding sweet Taste, but when perfectly fer-  
mented and grown fine in the Cask, it has a grateful and  
acrimonious Acidity. Other Wines which are not thorough-  
ly fermented, but have their Fermentation checked, keep their  
Sweetness, but Very easily relapse into a Fermentation, and  
when it is finished turn acid. That Aloes and Colocynth, by  
Fermentation, lose their Bitterness, is an Observation of We-  
delius. *Act. Lipsi.lSSsi.*

6. Fermentation also produces a new Smell, Taste, and Vir-  
tue, which are properly called *Vinous.* Even Meal, Sugar, and  
Honey, produce something that is acid, warm, and rich.

y. Fermentation generates these Spirits either from a Matter  
which was hefore of a different Nature, or from the Oil of

the Plant. This last is indeed Very probable. Put then from  
which of the Oils have they their Origin ? Almost all the  
Chymists say, from their essential Oih But by whet Expe-  
riment they are able to determine this, I own, I cannot com-  
prehend ; for the Spiritus Rector, which forms the essential  
Oil, is lost in the Fermenting. In fermented Matter, deprived  
of its Spirit by Distillation, there remains a considerable Quan-  
tity of Oil; and yet I could never excite a new Fermentation  
in the Residuum, nor by any Art extract more such Spirits  
from it. In every fermentable Substance, therefore, -there is  
naturally only a certain Part which is disposed for the Gene-  
ration of Spirits, in a determinate Quantity, by Fermentation;  
But there is yet another Thing which deserves Consideration,  
and that is, that the finest and most thoroughly fermented  
Wine generates white Tartar, which is full of a perfectly in-  
flammable, and most penetrating Oil, and yet you lean by no  
chymical Operation produce inflammable Spirits from this, aa  
you can abundantly from the Wine. Hence it appears, that  
the Matter which is convertible into these Spirits by For-  
mentation, is of a fingular Nature. But as Fermentation,  
thus productive of these Spirits, is every "where at Work,  
there must of Consequence be Vast Quantities of these Spirits  
generated, which are either consumed by Animals, Or dissi-  
pated into the Air. The Saliva, Blond, and Urine Of Ani-  
mals, who constantly use these Spirits, hardly, indeed, afford  
any Spirits in Distillation; but then there is never waning in  
in Nature proper Matter for producing more, let but Fer-  
mentation come in to its Assistance; But Fermentatinn ge-  
nerates also something saline ; since an Acid is here pro-  
duced which is considerably Volatile, though less so **than the**Spirit. Thus from Vinegar there rises a Volatile Acid **and**somewhat pinguious Sals, which the unfermented Matter did  
not afford. The Spirits themselves which are generated by  
Fermentation, have somewhat in them of this Volatile Acids  
Hence the Oils, and acid Salts of fermentable Bedies, seem **to**to he attenuated, rendered Volatile, and united by Fermenta-  
tion, and to he consumed in a certain Quantity. Thus if **I**distil unfermented Rosemary with Water, I obtain an Oil,  
which has the true Smell and Taste os the Rosemary, and **a**milky Water impregnated with the same Qualities. If I fer-  
ment it with Honey, and then distil it hefore the Fermentation  
is compleated, it affords a white, thick, opakc, pinguious dis-  
tilled Water, richly endued with the Virtues of the Rosemary,  
together with some Oil swimming at the Top, though in **a**smaller Quantity than before. But if it he first compleatly fer-  
mented, and afterwards distilled, you draw off an excellent pel-  
lucid Spirit of Rosemary, that will mix with Water, and is  
endued with great medicinal Virtues ; but the former essen-  
tial Oil appears no longer.

8. This Spirit produced by Fermentation, which partakes of  
the Oil, hecomes by this Operation more volatile than Wa-  
ter itself; whereas the essential Oil, before the Operation,  
was not so Volatile as Water; but the Vegetable might, by  
a gentle Heat, he deprived of all its Water, no Oil ascending  
withit.

XXIII. The Circumstances necessary to a successful Fer-  
mentation are principally these :

I. It is requisite that the fermenting Liquor should remain  
at Rest, that the Crust which forms itself at the Top may keep  
intire; for to be continually stirring, and mixing it with the  
Liquor underneath, prevents a perfect Fermentation.

2. There must be a free Ingress and Egress os the common'  
Air, which must also he intimately mixed with the fermentable  
Matter, by treading, kneading, or pressing, otherwise the Fer-  
mentation will nor proceed.

**3.** A Degree of Heat between forty, and at most eighty.

4. The Spring and.Autumn in particular, are said to savour  
this Operation, when those Vegetables are in Flower, from  
which the Wine was made,. Hence the Wine of Grapes is re-  
puted to grow foal, and easily ferment again» when the Vine **is**in Blossom. ‘ .

XXIV. The Checks to Fermentation, by which it IS either  
impeded aster it is hegan, or. intirely stopped, are as follow:

**I. The** acid Vapour of burning Sulphur long included, **and**in a considerable Quantity, with that Air which is in the **Calk**above the fermenting Liquor. For if a Vessel first thoroughly  
penetrated and replete with this Vapour, receives the ferment-  
ing Liquor, and the upper empty Part he afterwards filled with  
. the same Vapour, and carefully stopped, you will prevent **any**farther Fermentation, \* which, after some Time, may be revived  
by proper Means and restrained by the same Fumes. The same  
Effect follows from mixing a large Quantity of a strong Acid  
with the fermenting Matter. The Acids of Alum, Nitre,  
Salt, Sulphur, and Vitriol, prevent Fermentation, but at the  
same Time spoil the Liquors.

2. Alcaline Salts also, if they are mixed in great Quanti-  
ties with fermenting Liquors, excite for the present ed Very

Considerable Effervescence, but that soon cessing leaves the  
Liquor incapable of farther Agitation, its Nature heing so ut-  
terly destroyed, that it can scarcely he afterwards railed to a  
Fermentation, but rather tends to Putrefaction. Hence it ap-  
pears, that Alcalies are a greater Obstacle to Fermentation  
than Acids, the former destroying or suffocating all the Acid.  
Wherefore,

3. All Bodies intirely absorbent of Acids, If mixed with  
fermenting Liquors in a proper Quantity, after a short Struggle  
and Effervescence,put a Stop to this Operation; Chalk, Crabs-  
eyes. Coral, Pearls, Oyster-shells, Iron, Lead, and Tin, have  
-this Effect. .. .

4. Stopping the Vessel so closely,, that nothing can pass  
in or out, provided the Vestel he so strong as not to be burst  
by the Force of the included Liquor. This is evident in  
new Ale put into very strong Bottles, where the Admission  
os Air converts the Fermentation, so long suffocated, and pre-  
vented, into the most Violent Effervescence, and discovers a pro-  
digious collected Force. The same Thing happens also in  
Casks, for there is a constant Struggle and Renitency between  
the fermenting Body and its containing Vessel.

. 3. A great Degree of Cold destroys all Fermentation, for

under thirty-six Degrees of Heat it will hardly make any Pro-  
gress.

*- 6.* Nor is too much Heat a less Obstacle to it, which, is it  
exceeds ninety Degrees, rather dissipates the active Principles of  
FermentableS, than assists and quickens them. Hence an Ex-  
halation under a greater Degree of Heat inspissates Fluids to a  
Degree of Density, unfit, for Fermentation. Boiling has a  
much quicker Effect, so that the richest Juice os Grapes, which  
can hardly he kept from fermenting, will by quick Boiling lose  
all its Disposition to ferment, and be conVerted into 2 Mass  
\* that will rest for Years without Alteration.

7 . The Separation of the elastic Air, by Means of Boy seis  
Air-pump, during the Absence of which, this fermentative Mot.  
tion intirely ceases.

8 . Lastly, an extraordinary Condensation of the same Air  
with the fermentable. Matter absolutely prevents both the Be-  
. ginning, and Progress of Fermentation.

XXV. After Liquors thoroughly fermented haye been kept  
some Time in a cool Place, together with. their Flowers, and  
Faeces, and in Vesseis Very closely stopped, and pretty full, and  
.by this Means having acquired more Spirits are proper for Dis-  
tillation, it .is adviseable to sti them about, and mix them  
. with their Lees, for they will then give out their Spirits in  
sar greater Abundance. But then you ought to take Case that  
the Lees in Distillation do not subside to the. Pottom os the  
Still, and being there condensed and burnt, affect the whole Li-  
quor with an Empyreuma. For this Reason the Liquor must be  
kept stirring with a Stick, till it is ready, to. boil, by which  
Means the Lees being equally mixed, and afterwards kept in  
Motion by the Heat, there will be a perfect Mixture of the  
thicker Parts with the thinner. By this Method then yon will  
obtain the Spirits, as well from the Faeces, as the Liquor, itself,  
end will in the best Manner provide against an Empyreuma.  
But if the Liquors have rested some Time hesore the Distillka  
tion, there is less Danger of their ascending in Flatulencies,  
. or rising out of the Still; whereas, if yon go about to distil  
them when they are just fermented, the Impetus of Fermen-  
tation that still remains often carries them np when they come  
.to boil violently, and so disturbs the whole Operation. At the  
Beginning,: therefore, in is necessary to proceed with Caution.

XXVL Aur Empyreuma is prevented :

. i. By rubbing the Bottom and Sides os the Still with some  
pinguious oily Matter, before you pour in the Liquor. ,

2. - By constantly stirring the Matter till the supervening Heat  
causes a thorough Mixture, and so. prevents the. thicker Parts  
- from collecting and sticking to the Bottoms Y,

3. Nothing morepreventS an Ambustion or Empyrenina, than  
boiling Water brishly in the Still, and immediately after pouting  
rin your Liquor at once ; for then thethotWapour filling the Ca-  
vity of the Still; will hinderthe fermented Liquor from gather-  
ing and fixing to the Sides.

XXVII. If the whole fermented Matter consisting. os the  
.Flowers, the middle Liquor, and the Mother, which were first  
well kept and distinguished, are Very carefully mixed hesore Dis-  
tillation, you will extract good Spirits» , ..

.XXVIIL When your Liquor is heated Io such a Degree, as  
to be just ready to boil, you must beware os the first Impetus.  
This is best guarded against, by leaving the. Still one third emp-  
ty, and covering the Aperture of the Still with a thin Cloth,  
hesore you fix on the Head; and then managing the Fire in  
such a Manner; that the Drops shall fall quick one aster ano-:  
ther. In this Manner your Distillation will go on safely, and  
aster it is thus continued for some Time, it may with due Cait.  
tion he somewhat increased, so as to obtain in the most com-  
modious Manner all the Spirits.’ The thinner, and purer Li-  
quors, indeed, as Mead, Wine; and old Beer, do not require so

much Caution ; but in sarinaoeoua Substances, distilled aster se  
perfect Fermentation, you cannot he too careful. The forme?  
you may at once Venture to distil in luch a Manner, that **the**Spirits shall almost run through the Worm in a full Stream.

'. XXIX. In the Distillation os fermented Substances in the  
Manner described, there first comes over an acrid, heating, and  
pungent Liquor, of a very particular penetrating Taste, called  
*Spirituous,* and of an extremely active and volatile Nature, in  
which it is exceeded by Very few Bedies ; for a pure alcaline  
Spirit that sties off in Fumes from Tin, Glauber's Spirit of  
Nitre; and his Spirit of Sea-salt, and a pure volatile alcaline  
Salt, are all that are known to have a greater Degree of Vola-  
tility. This Liquor, when it is Very much heated, readily  
takes Fire upon the Application os Flame to it, and will almost  
totally consume. Taken internally, it causes Drunkenness,  
Stupor, and Apoplexy. In a moderate Dose it wonderfully raises  
the Spirits. It very speedily heals Punctures, Dilacerations,  
and Pains of the Nerves. All animal and Vegetable Substances  
put into it, are intirely preserved from Putrefaction; only some-  
what altered in their Colour. If you dissolve a littie os the  
finest Sugar in it, when it is not perfectly free from Water,  
the pellucid Liquor thus made, preserves the most tender Bodies.  
If it is diluted with Water, and then used warm as a Fomenta-  
tion, with Sal Ammoniac and Vinegar, there is nothing, per-  
haps, that more effectually resolves Coagulations, discusses in-  
spissated Humours, prevents the Spreading of a Gangrene, and  
causes a Separation of the unsound Parts, or dries up a Defluxion  
of thin Humours more effectually. This Liquor is called *Spirit  
of Wine,* and that Part of it which comes over the Very first, is  
called the *Pracurs.or.' -*

XXX. When this Spirit is all drawn off, if yoiiurge the Re-  
siduum with the same Fire, in the same Vessels, yoit will ob-  
tain a Fluid which is less Volatile, acetose, acid, astringent,  
cooling, nauseous, and foetid. At the Bottom will remain  
some thick Faeces, which by ho Means nor Method can ever  
he brought to ferment again, and yield new Spirits, though..  
from the Consistence of them one would expect it. But is  
you expose this Residuum to a Very strong Fire, yon may draw .  
from it a foetid, empyreumatical Oil.

- XXXI. If the Lees *os* any fermented Substance after Distil-  
lation are dried and burnt in an open Fire, they are convert-  
ed into salt Ashes, from which may be obtained a sub-alcaline,  
or alcaline Salt. Hence it evidently appears, that the most  
perfect Fermentation is not able to render volatile that Matter  
of Vegetables, which is fixed by being burnt, and which is con-  
vertible into an essential Salt by proper Operations hesore Burning,  
ME AL and MALT, worked together with a proper QUAN-  
TCT.I. os WATER, ferment.

I. Having premised the general Doctrine of Fermentation, it  
will be proper to give some Examples of it, that the Manner  
in which’ both Art and Nature proceed may be understood.  
You are then to observe, that there are two different Ways  
of Operation ; by the first os these Beer, or Wine of Corn, .id  
prepared, and from thence Spirit of Wine; by the second, a  
Spirit is drawn immediately from fermented Corn, in the same  
Manner as it is from Beer. In the first Method; upon ground  
Malt you pour Water almost scalding hot, mix them well toil  
gether, and let them infuse for three or four Hours, by which  
Infusion the Malt will impregnate the Water with its. floury  
Part, which would not have heen effected by crude Meal. The  
. Liquor then being drawn off from-the Malt, must he boiled  
till it is reduced .to R proper Thickness ; and this Decoction,  
Tn this State, is emollient, loosens the Belly, purges, cools, and  
resists Inflammation, rs, when this Liquor is cool, yon mix  
with it some strong Ale-yeast, or Grounds, and let it stand in-a  
warm Place, in a Vessel with the Bung-hole open, there will  
arise a Violent Fermentation, which heing quite compleated,  
the Liquor is immediately strained cold through a Cloth, and  
stopped up Very dose in its Cash, and becomes Very good Bees,  
But in order to preserve it for a considerable Time, and pre..;  
Vent-its growing sour, yon must add a certain Quantity os some  
Very bitter Herbs to it whilst it is boiling. If this Decoctioni  
Of Malt then is made sufficiently bitter, boiled to a proper  
Thickness,. perfectly fermented, stopped up Very close, and put  
into a Cellar, and, after it has been kept a considerable Time,-  
is distilled, it will the first Time yield as fine a Spirit of Wino  
as you dan obtain from any Sort of Wine by any Art whatever,  
which will he exceedingly fragrant; nor have any the least dis-  
agreeable Smell. I learnt by Experience that there is scarce  
any Difference betwixt such Beer and the most generous Wine,  
and could not help wondering, that this Art should be very well  
known and practised in all Ages of which we have any Ac-  
count. Thus Diodorus Siculus tells us, *L.* I. *That in those  
Countries, where there tvcre no Vines, King Osiris taught the  
Inhabitants to make A Liquor from Barley, which in the Fra-  
grants os. its Smell, and Svveetnefi of its Taste, was not much  
inferior to Wine.* Herodotus also in *Euterpe* mentions an *Ale,  
or lVine, made from Barley,* ζὑοος. οείος. ἀπὸ κριθῆς γενόμενος. And  
Tacitus, *de Mor. Germ,* says, *they had a Liquor prepared front  
corrupted Barley, or Wheat, ccioich resembled lVine.* And accord-

log to Aetius *scn,* signifies Barley wetted, rill it begins 'to ger-  
minate, and then dried together with the germinating Shoots.

II. The same Thing is performed in another and more com-  
mon Way, as follows : They take of ground Malt fourteen  
Pounds, of Rye Meal seven, which are mixed and worked  
well together with hot Rain-water, till they are reduced to  
a Liquid of a moderate Thinness ; this they put in an oaken  
Cask, which is placed in a wooden Chest, that it may keep  
in the Heat of Summer. It ferments brifkly enough, and they  
leave it to itself till the Crust, which during the Fermentation is  
formed at the Top, disappears, and subsides to the Bottom.  
They then stop up the Cask, and let it stand for some Time,  
till the Liquor at the Top becomes clear, and acidish, and  
at the Bottom there is colleited a large Quantity of a fan.  
naceous Matter, not glutinous, but sit for Distillation.

**MALT and MEAL fermented, and then distilled into IN-  
FLAMMABLE SPIRITS and VINEGAR.**

I. Put a Pint of helling Water into the Still, and mahe Esse  
enough to keep it in a State of Ebullition, and then pour in  
the Malt and Meal well fermented, taking Care first to strake  
and mix them very accurately, till the Still be twoThirds full  
Then kindle a Fire, and at the fame Time keep the Liquor  
‘continually stirring with a Stick, that the thicker Part may  
not gather at the Bottom, but the. Whole continue as tho.  
roughly mixed as possible. When it is grown so hot as to  
be just ready to boil, six on the Head, and manage the Fire  
in fuch a Manner that the Head may he very hot, and the  
Spirit may distil pretty fast through the Worm. There  
comes out a clear, thin, spirituous Liquor. This must be watch-  
ed carefully, to observe how long it continues to come off,  
and must he kept by itself.

IL This being quite drawn oss, there rises an acidish, dis-  
agreeable, nauseous, white Liquor, in which there is nothing  
of the warm, spirituous Taste of the former, and which, if you  
draw it any farther, begins to grow foetid.

**REMARK, τ**

This first Liquor is that which in the History of Fermenta-  
tion is described under the Character of a Spirit produced by  
Fermentation.

The **DEPURATION of the SPIRITUOUS LIQjroRs pro-  
duced by FERMENTATION.**

L Take any fermented Spirits that have been once distilled,  
sill a Still two Thirds full with them, and distil them with a  
moderate Fire, so as to make them come over in a constant,  
little Stream, or just to make the Liquor boil. There will first  
come off a very clear, thin, fragrant Liquor, of a spirituous  
Flavour. Often remove your Receiver, to taste whether the  
same Liquor still continues to rise. When this ceafes, change  
your Receiver, and keep this Spirit, which is called by the Chy-  
mists *Rectified Spirit of Wine,* by itself in Vessels very closely  
stopped. The Spirits which come over first are always the  
best.

II. When, therefore, in the Progress of the Distillation, there  
come oss acidish, white, and watery Liquors, they must **be**taken and set apart, that they may not mix with the first.  
These rife in considerable Quantities, and go by the Name os  
a *Phlegm,* containing but *very* littIe Spirit.

III. There remains in the Bottom of the Still a Liquor that is  
somewhat thick, opake, pinguiouS, acid, of a disagreeable Smell,  
and perfectiy aqueous with Respeci to Spirits. When pure Wine  
is distilled in this Manner, this Liquor thus remaining is always  
red, and of a roughish Taste, which Colour and Flavour are ow-  
ing principally to the oaken Casks in which such Sorts of Liquors  
are kept, where they extradi the oily and resinous Parts of the  
Wood ; for when they aro first distilled, they have neither that  
Colour, Smell, nor Taste, but acquire them hy standing in these  
Vessels, and get rrd of them again by Rectification.

**REMARKS.**

**-1.** Hence wo understand the Method by which these Spirits  
- may be so depurated as to be obtained at last almost pure arid  
alone; for the ossenor they are rectified in this Manner, the  
more simple they are, depositing in every Distillation a watery,  
acidish Phlegm; By thjs Means, however, though you heve  
them gradually pnrer and purer, yet they will-always retain  
some Water.

**Π.** Hence too we learn that tbe Spirit of Wine, sold com-  
monly in the Shops, under rbe Name of *Brandy,* consists of  
four Parts, intirely distinct from one another.. For it contains,  
First, the simple fermented Spirits j Secondly, a pure Water,  
which may be separated from it-alone - Thirdly, a certain ace-  
rose, fermented Acid, which rife th the thst Distillation of  
Spirit of Wine, and pretty tenaoioufly remains united with it,  
but may be accurately disengaged from it; ar4. Lastly, asmall Quantity of a somewhat fetid Oil, which always disco-  
vers itself upon mixing Spirit of Wine, simple or rectified, with  
a dry,fixed Alcali, or upon drawing the Spirit from the same by  
Distillation. And hence it has happened, thar the Cbymists,

not sufficiently, attending to this in their Use of common Spirit  
of Wine, have been surprised with Phaenomena which they did  
not expect, and which were not so properly owing to the pure  
Spirit of Wine, as to other Bodies mixed with in But  
these may he produced by other Causes, whereas this Spirit is  
the Effect of Fermentation alone. -

HI. There heve been Authors *of* Note among the Chymists,  
who observing an Acid almost constantly intermixed with there  
-Spirits, have hence assarted, thet these Spirits are acid, and are  
generated from an Acid. But if we consult Reason in the Case,  
it will perhaps appear otherwise: And certainly those most pure  
and simple Spirits, when they are distilled from off a fixed a lea-  
line Salt, are utterly void of all Acids that, are known to us,  
and yet they are very good and genuine. I allow; then, that  
these Spirits are not produced, except from Vegetables, and not  
from these, but when they are grown somewhat acid by Ret-  
mentation ; and yet so it is, thet these Spirits are not acid, but  
generated from acescent Matter We cannot, therefore, with  
Justice assart, that these Spirits are acid or alcaline, het., that  
they are of a peculiar Nature, and like nothing else.

IV. This Spirit exalted to its ultimate Perfection, by this  
. Method of Rectification, will still always continue "com-  
pounded.

**ALcoHOL prepared from FERMENTED SPIRITS, without  
any ADDITION." ...**

L Take any fermented Spirit, especially one that, is rectified, '  
and with a gentle Heat, not exceeding a hundred Degrees,  
draw it half off in a tall, narrow, glass Cucurbit; the Half  
that thus rife first, treat again in the famc Manner with Very  
clean Glasses, and repeat this, till rhe Residuum that is left in  
the Cucurbit appears as strong as that which is drawn *oE.* This  
Spirit is what goes commonly by the Name of *Alcohol of Wine,*and is looked upon as a most pure and simple Spirit that has  
nothing heterogeneous, no not so much as any watery Phlegm  
mixed with it. This was the Method mado Ufe of by the an-  
tient Chymists: However, more exaci Researches made hy later  
Chymists have discovered, that some Water still remains con-  
cealed in these Spirits, and to this .is owing the ill Success of those  
Experiments, where *Alcohol* unmixed with Water is necefiary  
Besides, this tedious Operation takes up a great deni of precious  
Time, for which Reason the industrious Chymists were not at  
Rest, till they had discovered some more expeditious Method of  
preparing pure *Alcohol,* which they sound might be done in the  
following Manner :

II. They contrived a Furnace, wherein a pretty large Sull  
might be set in a Bath of Water, which could receive no more  
than two hundred and fourteen Degrees of Heat. They filled  
'two Thirds of the Still with common Spirit of Wine, and  
fitted it with an Alembic that had a long, fmall, .upright  
Tuhe, which bent backwards, and had its Extremity'inserted  
into the Mouth of a Worm. The Distillation then begins with  
making the Water in the Bath boil, which makes the Spirit in  
the Still boil more briskly; by which Means, the Spirit alone I  
heing able to rise to such a Height, and through so narrow a  
Tube, will distil by itself, so long as there remains any of it in  
the Liquor.. But as soon as the pure Spirit ceases to come over,  
the watery Phlegm not being able to ascend, the Distillation  
brill be finished : And thus you will have, the first Time, and  
in two or three Hours, as much *Alcohol* as you could obtain by .  
the preceding Method in the Epace of a Month. No.body,  
therefore, should, 'he without this Apparatus, who has Occasion  
' for a large Quantity of *Alcohol* in his chyrnical Operations. Up-  
on a nice Examination, however, it is found, that, even in this  
Way, there was still somewhat, though indeed a very small  
Quantity, of Water, intermixed with the *Alcohol,* which in  
'Distillation, perhaps, might be carried up by the Spirits. For  
this Reason, I repeated the Distillation fust with the *Alcohol*alone in the fame Furnace, and I had then an *Alcohol,* which  
appeared with all the Marks of Purity, but yet was found to  
retain fome Water. Hence, therefore, I am induced to helieve,  
thet the Spirit can never, by this Method, he absolutely fepa-  
rated from the Water, though it must he acknowledged, that  
the Quantity :of Water that remains aster this Operation is  
as little as possible.

IIL For this Reasen, I afterwards performed the Distillation  
in the following Manner : I took the *Alcohol* which rises rhe first  
Time in the Method described; with this I filled a Still half full,  
and added half a Pound of the purest, hottest, dryest, decrepitated  
Sea-salt; then putting on the Alembic, and making all very  
olose, I let them continue thus for the Space of twelve Hours, in  
a gentie Heat, *so as by no Means* to make the *Alcohol* boil. **I**then began the Distillation, and the two first Ounces of *Alcohol*that came over I kept hy themselves, lest there should be any  
watery Vapour in the Tuhe of the Alembic, or rhe Worm,  
which would he easily brought away by there first two Ounces.  
The first two Thirds of the following *Alcohol* I received into a  
very clean, dry, glass Vessel, and kept by themselves in Bottles  
very carefully stopped. Then I drawed off the rest as before, and  
kept these last Spirits also by themselves. There remained io  
the Still a moist Salt, which attracted to itself the Water from

the *Alcohol,* and retained it so tenaciotisty, that though acted  
upon by the Heat of boiling Water, it would not part with  
It, and suffer it to rise with the *Alcohol.* Nor does the Salt, pre-  
Pared in this Manner, make any Alteration in the *Alcohol,* by  
mixing itself with it, because it is decrepitated, and put in hot.  
By this Method, in a Very short Time, may he prepared the  
purest *Alcohol* for any chymical Purposes.

**. .. REMARKS. ..mi. , ,,**

L. *Alcohol,* brought to this Degree of Perfection, is the lightest  
Fluid next to Air, perfectly transparent, very thin, most  
simple, totally inflammable, without producing any Smoke, or  
diffufing any disagreeable Smell whilst it is burning, is exceed-  
ingly Volatile, without leaving any Faeces; absolutely immu-  
table in Distillation; extremely expansible by Heat; Very easily  
disposed to Ebullition by Fire; of a Very pleasant Smell, and os a  
Particular grateful Taste. All the Humours of the human Bo-  
dy, that we are acquainted with, it Coagulates in an Instant,  
except the pure Water, and Urine, whilst it hardens all the  
solid Parts, and thus preserves both from Putrefaction, or  
spontaneous Colliquation.. It preserves the Bedies of Insects,  
Fish, Birds, and other Animals that are put into It, from Cor-  
ruption, or Alteration, for Ages, if closely stopped: With  
Water, Vinegar, any acid Liquors, Oiis, and pure, volatile,  
alcaline Salts, it suffers itself to he mixed, and that nearly with  
**an** equable Mixture; and gummy and refinons Substances it  
dissolves. So that we are acquainted with no Liquid, produced  
either by Nature or the Art of Chymistry, that is capable of  
heing united with inore Bedies than is *Alcohol.* But in a parti-  
cular Manner it proves an excellent Vchicle for the Spiritus  
Rector of Vegetables, which by uniting with it may he extract- -  
\ed from its proper Body, retained, and applied to medicinal,  
and other Uses. The great Masters of Chymistry, distinguished  
by the Title of *Adepts,* are supposed, in their Description of  
the artificial Preparation of this perfect *Alcohol,* to have shadow-  
ed out the Preparation of the Philosophers Stone: But it is  
certain, that this *Alcohol* owes its Origin to Fermentation alone, '  
. Itor can be prepared in any other Manner whatever. . -

**IL** In the human Body, by its Smell, Taste, and Vapour,  
**it** wonderfully quickens, gratefully affects, and. invigorates the  
animal, natural, and Vital Spirits, Nerves and Brain: Hence  
**it** exhilarates the Mind and Senses, makes a Person brisk and  
ngih and proceeding through Various Degrees, at last causes  
Drunkenness, which, as it here comes on Very suddenly, **so**likewise it goes off in the same Manner. The Blood, its Se- ‘  
rum, and other thin Juices it Coagulates ip an Instant, and  
hence bring drank imprudentiy, it is said to have killed Persons  
on the Spot. Applied externally, it dries, and corroborates the  
Vessels, and coagulates the Fluids contained in them, where-  
ever it can .penetrate; The Extremities of the Nerves where it  
**can** reach it Instantly dries, contracts, and deprives of all Sense  
and Motion.Hence it appears, how imprudently, and often,  
how unhappily,. *Alcohol,* either pure or impregnated with aro-  
. .marie Spirits, Camphire, or the like, dissolved in it, and order-  
ted to be applied hot, and inforced with Friction, is made use of  
as a Fomentationtn chirurgical Cases. I would advise, therefore,  
**to** he cautious upon theseOccasions,lest under a specious Pretence  
of Vivification, Calefaction, Resolution, Dissipation, and Resto-  
ration of Agility, you obtain no other Effects than what I just  
now ascribed to these Spirits. In . Wounds, Ulcers, and other  
visible Disorders, pure *Alcohol* performs the Very same Thing,  
rviz. coagulates, dries, and burns the Nerves. It is true indeed,  
at takes from the Nerves all Sense of Pain ; but then at .the same  
Time it destroys all their Use. And it has the same Effect,  
In mitigating Punctures or Dilaceratioris os the.lame Parts, i It  
stops Bleeding at once by contracting the Vesseis; and coagula-  
ting the Blood, whereat is applied, but with the concomitant  
.Circumstances Just mentioned. Hence, therefore, it is a Very  
speedy, and often an excellent Remedy in these Cases, though  
. .always attended with some inconveniences. .... ‘  
- t’ IIL From, what has been said..then, we learn what Effect  
pure *Alcohol* has upon animal or Vegetable Substances immersed  
in it. For it-disiolves into itself, and extracts whatever is oily  
in them ; whence they hecoine attenuated, contracted, and of-  
**.ten** corrugated. In this Manner the Preparations of. the Parts  
**of** Animals heve often been observed, to be changed : And aro-  
miatic Flowers, Leaves, and Fruits are thus affected from the  
-same Cause.. Small Binis in -their Feathers, and other little  
Animals covered with hard Scales, immersed in hot *Alcohol,* are  
preserved in their full Beauty, because this Attenuation, though  
it really happens, is concealed under their Feathers and Scales.  
These Animals heing macerated for some Time in the purest  
*-Alcohol,* till they are thoroughly penetrated by it, and then taken  
out, and dried in a hot, but not fervid; OVen, andasterwards  
put into glass Vesteis, and intirely debarred from any Commu-  
nication with the external Ain, may. he kept in their, proper  
.Form for Ages, to the Very great Advantage both ofNatural  
-and Medicinal History, because they afford lively and certain  
-Characters by which they may he known:

τ IV. Since there are infinite, and oftentimes Very inviting.  
Occasions in which Chymists and other Artificers stand in need

of the true and purest *Alcohol,* the- least Remainder of Water  
rendering the Operation unsuccessful, it is absolutely necessary  
we should have some Marks by which we may he able to  
distinguish, whether our *Alcohol* he pure or not: The principal  
Of these are, . .

**i.** Is the supposed *Alcohol* contains any Oil disiolved in it,, and  
so equably distributed through it, that it is no Ways perceptible;  
then upon the Pouring of Water into it the-Mixture will grow  
white, and the Oil will separate from the *Alcohol*

2. If any Thing ofan Acid lies concealed *in .Alcohol,* a little  
of it mixed with the alcaline Spirit of Sal Ammoniac will  
discover the Acid by an Effervescence, for otherwise there would  
he only a simple Coagulation. « . .

\* 3. Is there he any Thing of an Alcali intermixed, it .will  
appear by the Effervescence excited by the Affusion of an A-  
Cid : And as for other Salts, they are seldom sound in it.. . .  
- 4. But it is a Matter os greater Difficulty to discover whether  
there be any Water intermixed with it; and therefore Chy-  
mists have contrived certain Methods, by which this may be also  
determined. The first was the repeated Labour of so many  
Distillations, which they thought sufficient Grounds for them to  
presume that theywerein Possession of pure simple Spirits, without  
the Admixture of any Phlegm; but, as I took Notice before,  
I could never by .this Method obtain pure *Alcohol* but it would  
to the last retain something os Phlegm. Secondly, they put some  
*Alcohol* into a very clean, dry Spoon, and, heating is,. set it on  
Fire in a Place were there was not the least Wind, and if after  
the *Alcohol* was burnt out, there wasno Moisture left in the  
Spoon, they pronounced it pure *Alcohol.* Some more curious  
Persons, however,-by other Experiments, discovered, that by  
the Action of the Flame, the Water that lay concealed in the  
*Alcohol,* might he dispersed into the Air, and consequently that  
the Absence of Water in the Spoon, after the Consumption of  
the *Alcohol,* was no certain Proof, that there was none contain-  
ed in it, before it was set on Fire. In the third Place, there-.  
fore,, they took some of the best Gun-powder, and. drying it  
Very carefully put a little 0f.it into a clean and Very dry Spoon,  
and poured some *Alcohol* upon it, which heing heated, they just  
stirred it in the Very Surface, and letting it burn down in a Very  
quiet Place, if the Powder continued dry enough to take Fired  
by the Flame when just spent, they concluded that the *Akar  
hol* was pure: But against this Experiment, there lies the very  
same Objection as against the former. These two last Me-  
thods, therefore, when they succeed, demonstrate, thet the *Al-  
cohol* is in a Very great Degree, but not absolutely free from Wa...  
ter. In the fourth and last Place, therefore, there has been  
another Way discovered, by which it may be certainly known  
whether *Alcohol* contains any Water Or not, which is tins: "Take  
a chymical Vial, with a long narrow Neck, the Bulb of which  
will hold sour, or six Ounces of *Alcohol.* .Fill this Two-thirds  
full with the *Alcohol* you intend to examine, into which throw  
a Dram of the purest and driest Salt of Tartar, coming Very  
hot out.of. the Fire ; then mix them by shaking them together,  
and set them over the Fire till the *Alcohol* is just ready to boil.'  
Being thus shaken and heated, if the Salt of Tartar remains peril  
fectly dry, without the least Sign of Moisture, we are sure  
that there is no Water in this *Alcohol* By intermixing this  
Salt ofTartar, I have heen enabled to discover Water in what  
. has been taken for the best of *Alcohols* For.! took some *Alcohol,*which had burnt intirely. away, and had set Fire to Gun-pow-  
der, and upon putting such an alcaline Salt into it, I perceived  
by the Moisture it acquired, that there was still sortie Water in  
it: And again, I took some *Alcohol,* in which there was a fix-  
ed Alcali that-had remained dry. sot a long Time, and was  
still so, whenT Just put-a Drop or two of Water to it,.and  
though the Salt had continued Very dry so long, it soon after  
grew moist from so small a Quantity of Water, and appeared -  
in oily Streaks sunning down the Sides of the Glass. ' ,

-- Hence the singular Nature of *Alcohol* is abundantly deter-  
mined by its individual Properties; especially ifto what has  
heen said you add this Observation, that such an *Alcohol* is hot  
Visible whilst it distiis through the Alembic: For it neither  
forms dewy Drops like Water, nor Tuns down in Striae like  
strong Spirit of Winej- brit it is quite invisible ; which Property  
-was not unknown-’to the ancient Chymists as evidently appears  
by their Writings. This, then, is the ultimate Effect. oTFera  
mentation, 'for it is’ scarce possible to harry this *Alcshol* to any  
greater Perfection, or, indeed, to make any Alteration in. it.

The PRODUCTION of ALCOHOL by **ALCALIEs,**

.. I. Because a good Quantity of pure *Alcohol* is often wanted  
on a sudden, when there is no chymical Apparatus ready- for  
preparing it, find. the. Puspose may well enough he answered,  
though there should, by Chance, some fixed *Alcali* be mixed  
with the Liquor, the Industry os the .Chymists has sound out  
the following Method of preparing it : To common Spirit of  
Wine they pour a third Part of its Weight os the purest and  
driest Pot-ash, which presentiy finks to the Bottom. Upon sha-ι  
king the Vestel, the Salt immediately grows moist, and begins

fo dissolve at the Bottom, whilst a'thin red Liquor iwims at the  
Top;. and the more they are 'shaken, the greater is the Dis-,  
solution underneath, and the Separation upwards ; nor is it ever  
possible to make them mix, but as soon aS ever they come to  
rest, they immediately collect themselves into two perfectly di-  
stinct Strata. And here the stronger the Spirit of Wine is, **the**.greater will he the Quantity of the upper Liquor 5 and so on  
the contrary.

II. Let the Vestel rest for some Time, that the Liquors may  
become intirely separated, and then by a gentie Inclination of  
\* the Vessel pour off the upper Liquor into another clean, dry  
Cucurbit, taking as much Care as you can, that none of the  
lower runs in with it. At the same Time let there he ready  
a fixed, *alcaline* Salt, Very well dried by the Fire, and let it he  
put, while it is yet hot, into the Cucurbit, which contains the  
first Spirit that has heen once already drained of its Water. Let  
them he shaken together, the Cucurbit being stopped, for  
**a** considerable Time, and you will perceive the dry Salt to con-  
tract a little Moisture ; you are then to persist in shaking them  
together, till you observe that no more of the Salt will be dif-  
solved, but that there swims at the Top a red limpid Liquor,  
’ which wili he so much the purer, as the *alcaline* Salt was drier  
and hotter, and the longer it was shaken with the Liquor.  
This done, pour off the Liquor into a tall dry Bolt-head, and  
east therein a little more of the driest and purest *alcaline* Salt,  
as hot aS may he, and set them in an hundred Degrees OfHeat,  
shaking them about Very frequently; and if the Salt does not.  
then grow at all moist, the *Alcohol* will be perfectly freed from  
its Water; but then it will have a red Colour, a,Taste not  
simple, and a somewhat disagreeable Smell, and by its Effer-  
Vescence with Acids, and its fixations Taste, will evidently  
discover the Presence of a latent *Alcaii.*

. In this Operation there always appears a pinguious Oil,  
which separates itself from the Spirit of Wine, or the Pot.ash,  
Or perhaps from both, and has a foetid Smell. Besides, the fixed  
*Alcali ltntC* used, by absorbing and .uniting with itself the Acid  
winch was in the Spirit of Wine, is altered in its Nature, and  
at last becomes a compound and pretty Volatile Salt. Here I  
. found, that when this Salt had heen frequently used, and still  
dried aster every Operation, it became at last almost of the Na-  
ture of the Terra Foliata Tartari, and intirely unfit for any  
Purpose, where there was required a fixed *Alcaii.*

III. *Alcohol,* thus prepared, and distilled in a Cucurbit, over  
**a** gentie Fine, becomes sufficiently pure, and fit for almost all  
Purposes that require a simple *Alcohol.* It is true indeed, there  
will he somewhat *fubalcalefcent* still united with it, though this  
too may he removed, by cautioufly adding a few Drops of Oil  
of Vitriol before the Distillation, and proceeding so long as there  
is any Effervescence excited, and no longer ὁ for if you then  
distil it, your *Alcohol* is reckoned to he pure.

IV. Hence also it appears, that the Separation of pure *Al.,  
tohol* is not so easy as some People pretend : For in Distillation  
there is a somewhat acid, and a watery Liquid, which intimate-  
Iy adheres to the Spirit, and winch closely unites itself with **the***Alcali* that is added to it '.^Therefore, we need not he surprised,  
that some Very curious Experiments, which require the purest  
*Alcohol,* do so seldom succeed. And hence it is plain, that an  
*alcaline* Salt will often properly dispose *Alcohol* for particular Ope-  
rations, either as it frees it from its Water, Acid, and Oil, or  
as it impregnates it with an *alcaline* Quality, and thus improves  
Its dissolving Power. We must have a due Regard, therefore,  
to all these Considerations, hesore **we can** determine its Effects.  
*Flocrhaau. Chym.*

Thus I have traced the Preparation of *Alcohol* from the Vege-  
table from which it is generated, through all the succeeding  
Processes necessary for its Production. And hecause all vinous  
Liquors harrow their Intoxicating Qualities, and all their Pro-  
perties wherein they differ .from other Fluids, from the *Alcohol*which resides in them, I shall make some Remarks, with Re-  
spect to the Uses generally made of them in common Life. ?

First, then, as Vinous Liquors have Effects upon animal Bo-  
dies,'nearly allied to those of the Gas Sylvestre, or incoercible  
Spirit which sties off from fermenting Liquors, it seems near  
a Certainty, that fermented Liquors inebriate, and produce all  
their deleterious Effects by 2 Portion of this. Gas Sylvestre re-  
siding in them. - . . . \_ ..S'

Hence appears the Imprudence, I should rather say Madness,  
of .those who take into their Stomachs .large. Quantities of a  
Fluid strongly impregnated with the most subtile and penetrating  
Poison known in Nature,. and which we find by dally Experi-  
ence never faiis to disorder, and if persisted in, to destroy the  
animal Machine. The Frequency of this Practice is amazing,  
and would scarcely he credible, if it was not common. I  
should think mysels happy» if any Thing I could say would put  
the least Check to thia bestial Crime, to which it is astonishing  
there should he any Temptation, for I am satisfied, that this  
alone destroys more Lives than the Accidents of War, added, to  
all the Distempers with which Providence has thought proper to  
afflict Mankind; and it is very remarkable, that hesides the

Distempers produced by drinking spirituous Liquors, an habitual  
Use os these renders all Diseases from other Coufes more dif-  
ficult to cure. " \* '

It is certain, that fermented .Liquors are deleterious, in Pro-  
portion to their Strength, that is, in Proportion to the poisonous  
Spirit or Gas.they contain. However, though small fermented  
Liquors do not immediately manifest their Effects, yet I think  
it is not to he doubted, but that an habitual Use of even these  
must in the End induce an Alteration in ‘the Constitution to its  
Disadvantage. I am sensible, a Habit of drinking these Liquors  
renders them somewhat necessary, and makes it difficult to leave  
them off, and sometimes even dangerous. It is therefore a  
great Imprudence in People of Condition, to inure their Chil-  
dren to the Use of Wine, and other fermented Liquors, from  
their most tender Years. - -

If we consider *Alcohol* as acting upon the Stomach only, and  
at the same Time reflect upon what is observed above with Re-  
spect to its Operation on the Nerves, which is, that it dried and  
contracts them, and -deprives them of all Sensation and Motion, ,  
we shall readily perceive, that if taken in the Stomach, when it  
is empty especially, they must necessarily, by their proper Activ  
On, take away that Sensation which we call Hunger, and de-  
stroy that Elasticity of the Fibres os the Stomach, which is ab-  
solutely necessary to the Digestion of the Aliment. To these  
Inconveniencies arifing from the internal Use of *Alcohol* it may  
he added, that it. coagulates animal Juices, and consequently ay  
the Fluids it finds in the Stomach, I mean, those Fluids which  
are separated in the Glands of the Mouth, Fauces, and Sto-  
mach, and which are designed by Nature to promote the Solue.  
tion of the Aliment; now when these are coagulated,. and renydered Viscid, they are utterly unfit to promote the aboVe-menti-  
Oned Solution, . but rather prevent it. Every one that has **seen  
a** Person, much habituated to drinking Drams, take a Vomit,  
must have observed him to discharge from , his Stomach great  
Quantities of a Viscid roapy. Jelly. -

If we Consider spirituous Liquors aS a Solvent of the Ali-  
ment, we shall find it so far from heing fit to promote this SoTlution, that it greatly contributes Io prevent it, f0r .it hardens  
animal and vegetable Substances, and hinders their Solution in  
the Stomach, for the Very same Reasons, that it prevents these  
Putrefaction out of it. ..

It would he well if spirituous Liquors had any Virtues to  
make .Amends for the HaVock and Destruction they make in the  
World. And, to do them Justice, I believe, that rough austere  
red Wines may he of Service sor bracing np a relaxed Habit,  
and promoting Digestion Vitiated by an accidental Laxity os  
the Organs subservient thereto; and that the more penetrating  
whiteWines, well diluted, may he of Service as Medicines. The  
particular Cases are taken Notice of under the Article ALcALi  
from Hippocrates, and are also mentioned under the several Dise  
Orders wherein they are useful . .. ' ***s***

' But with Respect to any Thing more spirituous , than Wine,  
there in scarcely any Case wherein they can be. of sufficient  
Service to compensate for the great Mischiefs they produce 5  
insomuch that every Person who drinks a Dram, seems to me  
guilty of a greater Indiscretion, than if he set Fire to this Houses  
and *sor* the same Reasons, Cordial-waters are the most dange-  
rous Furniture for a Closes, particularly as there is something  
like Fascination in them, which obliges the Possessor to make  
Use of them, to the Destructinn both of Health and Intellects..

On this Account, I cannot forbear admiring the .great Wis-  
dom of Mahomet, .who has strictly forbid his Followers the Use  
of fermented Liquors, sor better Reasons than are generally ape  
prehended.

However *Alcohol,* and fermented Spirits in general, are.of  
good Service externally applied in many Cases. Thus Spirit of  
Wine, especially camphorated, is a very good Addition to For  
mentations designed to resolve Inflammations, whether external  
Or internal. υ . . . ' .. 00

Wine used as a Fotus, or applied externally, .cools, and **al-**lays the Heat of the Parts, notwithstanding it warms taken  
internally. Spirit of Wine does the same. Pliny says, it in  
**the** Nature ofWine to warm the Viscera taken internally, but  
to cool externally applied. *Harris Dissert. Chyrurg. . .. . ...*

Hippocrates says, that Ulcers should he washed with nothing  
but Wine, *Galen, L.2. Methedi, Gati* Assays, Wine is the  
best Medicament for Ulcers. Diofcorides says, that Wine in  
Lana shecida, is a good Application for Wounds, and Inflamma-  
tions. Dr. Harris from bin .own Experience affirms, that  
linnen Cloths dipped in warm Spirit of Wine, often Cure  
Burns from scalding Water, melted .Pitch, Fire, and. Gunr.  
powder, hetter and sooner than all other Applications. **He**gives an Instance, os a Boy that was blinded by a Drop of Pitch  
sailing into hi.s Eye, and of another blinded by Gun-powder,  
who both recovered their Sight the Very next Day, by a Fotus  
of warm Spirit os Wine. *Harris Dissent. Chyrurg.*

Dt. Harris also affirms, .that warm Wine is the best Applica-  
tion sor Wounds, .Ulcers, and Inflammations, especially those  
of the most sensible Parts., that are full of Nerves. Tendons, and

Blood-relinis, ai the Fingers and Toes, where incisions and  
Punctures often cause, great Pain, and endanger \_a Mortifica-  
tion. .. di- .

The Turks, who are ignorant generally of Surgery, unless  
perhaps forne wandering Jew practises it amongst them, foment  
their Wounds, and wash them with Wine successfully.

Gangrenes will sometimes hepped from unskilful Cutting  
Corns, or the Nails of the Toes, especially if they are exaspe-  
rated wish Unguents and Pleisters. Spirit of Wine and Theria.  
ca are the best Topics in such Cafes. *Harris Dissert. Chyrurg.*

Spirit of Wine used as a Eotus for a sufficient Time, and up-  
ton some Occasions repeated, extinguishes the Heat of an Ery-  
sipelas, sooner than any other Fotus whatever, whether the E-  
rysipelas is cutaneous, true, and genuine, or spurious, more  
profound, and deeper in the Flesh. *Harris Dissere. Chyrurg.*

Erysipelatous Pains in Wounds and Hlcers are cuted by a  
Fotus of Spirit of Wine. *Harris Dissere. Chyrurg.*

If Vesicatories caufe great Pains, and endanger a Mortifica.  
tion, a Fotus of Spirit of Wine wril pure them. *Harris Dissert.  
CayrUrg. .*

. Inflammations caused by Vesicatories, which are attended  
with violent Pains, and a blackish Colour, and which tend to  
**a** Gangrene, are easily cured by fomenting them with a linnen  
Cloth doubled, and dipped in hot Wine, or Spirits of Wine,  
and afterward applying such a Cloth wetted with Wine, or  
Spirit of Wine upon the Part, without Pleisters, or unctuous Mi-  
dicines. *Harris Dissert. Chyrurg.*

There is a Species of Colic, which Women are fubjeit to,  
which is extremely painful, and is sometimes fixed on the right  
Side, fometimes on the left, below the Navel, without Vomit-  
ings. DI. Harris says this is cuted in a Day’s Time, or on the  
fame Day, by ah Application of doubled linnen Cloth dipped in  
very het Spirits of Wine, and continued a long Time, even  
where Narcotics are useless, of sometimes noxious. *Harris  
Dissert. Chyrurg. . . ..*

This I heve frequently found of great Efficacy, in the Case  
**the** Do&or mentions: As this Author was a Man of uhdoubt-  
ed integrity, his Authority has the greater Weighs.

. Pure *Alcohol* is the heft of Stiptics, for being received upon  
jinnen Tents, whilst it is almost hot, and is pressed upon a  
Dleeding Wound, and covered over with a Hogs-Bladder oiled,  
the Haemorrhage will presently he stopped; and the Dressings  
Cray he kept on three Days, in which Time the bleeding Vei.  
seis ufually concrete together. *Boerhaave. : ,*

- As to the Antiquity of *Alcohol,* these who are follicitous a-.  
bout raising the Charactsr of Homer, by attributing to him ail  
Sorts of Knowledge, are furnished with a very good Opportunity  
of making him a most excellent Cbymist. This great Author,  
speaking of the Wine with which Ulysses made Polyphemus  
drunk, says it was given him by .Maron, and thet it was so  
strong, that though, mixed with forty Times the Quantity of  
Water, yet retained a great Fragrance.; Is this was, tiot a poe-  
ileal Exaggeration,, Wine like this must he stronger then any  
*Alcohol* known at this Day. But, in reallty, we meet with no-  
thing like Spirit of Wine hefore the thirteenth Century, when  
Thaddaeus takes Notice of it.; And some little Time after. Ar-  
haldus. de Vilia Nova mentions it in very high Terms, under  
the Title of *Aqua Vines* It is certain, that the thirteenth and  
fourteenth Centuries were remarkable for many considerable  
Pssedveries ; but as the Tree of Knowledge brought Death  
ojrrginally into the World, so the Period above-mentioned, toge-  
ther ..with an Increase of Knowledge, introduced Gun-powder,  
the Pox, and Brandy, the most pernicious of the three by.nra-  
ny Degrees. . .. ced υ.-. ’

All that Set of Alchymists in general, who acquired the Name  
*A Adepts,* fpeak much of Spirits of Wine, as aEhingused in  
the Preparation of their secret Menstruums, and hence Weiderr-  
feld was of Opinion, that we only wanted the Preparation of  
their true philosophical Spirit of Wine, in order to he let into  
all their Secrets; But Boerhaave feems inclined to think; the  
Spirit which wecireScquainted with’ answers the Charaofcrs of  
that used by the old Chymists in every Relpecti, except-that  
theirs is staid to dissolve Salts, which ours will not do. But he  
makes a Doubt, whether .thisdepends upon out Ignorance of  
their true Spirit, or our Want of knowing their Method ofprer  
paning Bells, in order to render them thus soluble.

. ALcoHOL,considered as a MENSTRUUM, dissolves.

**I.** All true vegetable Resins.

2. Most Sorts of Gum Resins.

3. pure, volatile, *AlcalineSaltci ~*

" 4. Pure, fixed , *Alcaline Salts,* when rendered extremely dry.

5. Most saponaceous. Substances. . .. . . -

6. SulpbutS, when opened by *Alcaline Salts.*

But AL co Ho L will not acti upon

I. Native compoand Sajis, as Sea-Salt, Nitre, and Sal Ant.  
Inoniac.

ki Nor Sulphur, unless opened, by *Alcaline Salts, .*

- 3. Nor Earth, Mercury, Metals, Semimetals, Stones, ami.

Gems. .ainsqc.'-

ALGOL. *Vinegar. Fodandus.*

ALCOLA The fame as Aphtha, in the Phrase of Avicena  
na. See ApHTfrA. \_\* *s;*

In the Language of Paracelsus, *Alcola* is the Tartar, or Ex-  
crement of Urine, whether it appears in the Foam of Sediment;  
Sand, or viseous Mucilage. Hence . \_ . , }

AI.COLITA, is by this Author applied to signify Urine;

*Castellus. τι* ; : χ, , , ...' ..

ALCOLISMUS. The Reducing any Substance to fine Pari  
tides by Corrosion, or otherwise. *Rulandus.*

. ALCONE. *Brofs. Rulandus. .*

ACOR. *Burnt Copper. 'Rulandus.*

ALCORE. A Sort of Stone, having Spots in it reseinu  
bling Silver. *Palandas. , , - ..*

.. ALCTE. *’lumen.* Erotian fays this is the Name of a  
Piant mentioned by Hippocrates. Foesius thinks he means άκτνἰ,  
The *Elder. ... ... ... .st*

ALCUBD, or ALUMBAik. Rulandus explains this Buty.-  
rum crudum, crude Butter, which Johnson, and Castellus  
transcribe, without any farther Explanation. .. . ' '

ALCUBRITH, ALCUR, or ALUzAR. *Sulphur. Rulcm.  
das. ' ~ \ .. . .*

ALCYONIUM, *Bastord Spungr.* Is a Sort of spungy Plant  
which is sound in the Sea, or upon the Shore, or rather a Froth,  
of the Sea, which is hardened by the Heat of the Sun, and of  
disserent Shapes and Colours. ... *si*

What thofe Bodies are, which the Greeks call *Alascnia,*and whence they have their'Original, has been a controverted  
Point among the Botanists, and is not yet decided. Pliny,  
writes that they are the Nests of some Sort of Birds, that build  
in the Sea. Imperatus would have them to he nothing bub *s*Bits of Straws and Hair conglobated into a Mast by the Agitat,  
tion of the Waters: Schrochius affirms they are produced of  
Reeds, and their Leaves, and thet in several which he cub  
open, he found the very Riant, the Reed, rolled up and iriolofed  
in the Middle. Diofcorides reckons five Species. The first  
is called .. , .ἐν- - ' . . : -I' ’

*Alcyonium dartum, Q&pe. Alcyonium datum seat primum Diosc.  
caridis Imperato,* C, B. 368. Tourn. Inst. 576. *Alcymisim spon-  
giosam Oflicinarum,* J. B. 3. 8I6. Chain 579. Raii Hist. I;  
82. Hist.. Oxon. 3. 654. *Alcyonium spongiosam Diofcuridis,  
staemcm marinum quiorundem, Donat.* II. *Alcyoniam primum Die.  
ascaridis, -Cale.* Must 2I. *Alejcnium, seu eorum rusetan,* Worm,  
48.. HARD BASTARD SpUNGE. *Dale.*

It resembles in some Measure a Sponge ; but it is hard,  
leavy, and of a sour Taste,- and disagreeable Smell, like a Fisht  
It is commonly found on the Sea Shore. \_ *Lemcry des Drogues. .*' The second, is called .. . : . ’ s /

*Tarreisc* Ostin. Aristot. *Farrago australis. Alcyonium secundum  
Diofcoridis,sel.* B. pin. 368.*Vesicaria marinanigra, FarragoArisc-*ίοιι/ό ριιοτίιμὲνηί, J. Β. 3. 8I8. Chain 580. Del?. . : ).

It. is tailed by Lemery *{Favdge diastralis,* C. B.) It is sight,  
porous as a Sponge, and sinelis like the Alga. *Laeinery dei  
Dragrus. - '* v ’ ‘

The thud is called -. . ... / ,

*Alcyonium vermiculaturi,* Ossie. *Aleyarsturn vermiculare Imper  
raii,* C. B. 368; *Alcyonium vermiculare.* Imperat. 639. Hist.  
Oxon. 3: 654. *Al'cymium tertium Diofceridls,* Cofalpin. 6\_o8.  
*Aleyordura asenniculaturi purpureum candidum, et estavesepri,*Tourn. Inst. 576. *sof* ERMicULATE BASTARD SEtrNGjL  
Δια.ίς-.:.'.. . "τις ./ i \

It is: called by Lemery *Mnlestunt. .* . τ .. Ο

It A.in- the Form of little Worms, of a purple Colour,;  
sometimes white, arid, other Times; yellow, and they give R  
the Name of *Alcyomuin vermiculare. Lemcry des Drogues.*

**. The** fourth is called \_ , -.i i

*Alcycnitonestuppefum,* Ossic. *Alcyoniam estuppesitm Imperati, jo*B. 3. fl *1*7. Rail Hist. I. 8a. *AlcyoniumJluppefum,* Imp. 64-Q.  
Toutn.Tnst. 576. *Aleylumuriestuppesam dicttm,* Chain 579. At.  
*eypriurissluppesam vci quartum Diofcondis et Imperat},* C; Β.  
3,68. ϊμα.Ὁκοη. 3. 654. Tim.EAnY BASTARD SEUNGI.  
*Dale.* -V- ........ - ., r

. .Called by Lemery *Alcyonium mdle.* It is light and soft, *xtsator*bring greafy Wool [ὀισυπίροΰ]:*.. scfmery des Dfoguiss*

The fifth is called , ... .. ,. ; -σ-

*dlcyoniuri tubcroforn,* Offic. J R g..817. Ran Hist. r. 8ai

Hist. Oxon. 3. 654. *Alcyonium ntuberofum seclis forma.* Imp..  
641. Tonin. Inst. 576. *Anyrniurn forma fructus almajus stcus,*C B. 368. TuBEaosE BASTARD SvUsiGE. *Dale. :*

It is called by Lemery, *Alcyonium foraminosam.* It is forne-  
whet like a Mushroom, soft to the Touch without Side, ofin  
sharp Taste,. het rough within, and porous like the Pumice-  
stone, without Smell. . . . ' . . ;

There are, besides these, a great many other Kinds. ,  
They contain a great deni of Ost and Salt,- some more than  
others., *Lemery'des Drogues;*

**- . ... PnTPA-nATroN of ALCToNIUir.-**

To calcine any Species of these *Alcyonia,* put them in an  
earthen Pot never burnt, with a little Salt, and having well luted  
the Month, set it in the Furnace, and when the Pot is thoroughly  
baked, take it out, and lay it up for Use ; it is washed like the .  
Cadmia. *Diosc. Lisi.* 5. *Cap.* I36. ' . .

All the ..duryozinz. are detersive and difcussive, and of an acrid  
Quality; but the Milesian, or Vermiform, is the best; where-  
sere, .when it is? burns, it cures the Alopecia, and cleanses the  
Skin from the Impetigo and Vitiligo. That with a smooth  
Superficies is the strongest, as not only deterging, but excoria-  
ting ; but that which, is like greasy Wool, is the weakest of all;  
*AEginet. Lib. J. Cap.* 3. . ..

The fust and second Sort are proper for the Erysipelas, the  
Ring-Wonns, the Itch, the Leprosy, and all other Disorders  
of the Skin, to take away Freckles from the Face, heing ex-  
ternally applied in Powder, or in Decoction.

The third is esteemed good to excite Urine; to expel the  
Stone of the Kidnies and Bladder ; to remove Obstructions of  
the Spleen, and for the Dropsy ; it may he taken in Powder,  
or in Decoction. Being burnt, it makes the Hain grow, if  
applied to the Part, mixed with a little Wine.

. The fourth is. resolvent. -

The fifth is proper to clean the Teeth, and if it is calcined  
with Sals, it makes a . Depilatory, or Remedy to destroy Hair.  
*. Lemery des Drogues. ) . .*

\*. ALDABARAM. A Name for the Sesamoide Bones of the  
Great Toe. See ALBADARA. SeeSESAMOlDAEA.-  
.. ALEC, or ALECK. *Vitriol. Rulandus. Johnson.*

. . ALECHARITH. *Mercury. Johnson.*

ALECTORIA, or LAPIS ALEcTORIUS.: From’ΑλυΠοιρ,  
*a Coch.* A Gem sabled to he found in the Stomach of a Cock,  
some say os a Capon, after it is sour Years old. It is said to  
he as clear as Crystal, or Rock-water,- and about the Size of a  
' Bean. Many chimerical Virtues are attributed to this Stone,  
as that it renders the Possessor rich, eloquent, and courageous,  
'that it increases Venereal Vigour, and procures Friends. If  
is Woman possesses .it, some Authors assure us, that she must  
of Necessity he Very beautiful and charming in the Eyes os the  
Men. - Pliny says, Milo of Crotona was invincible only he-  
.cause he had this Gem in his Possession, and carried it about  
him in his Combats. It has also, aS it is reported, the Power  
.of .quenching Thirst, and mitigating Heat, if held in the  
Mouth. *Rulandus. Pliny. Gul. Menens.*

.. ALECTOROLOPHUS. A Plant thus distinguished:

*Alectorolophos,* Ossie. *Crista galls. Ger.* 912. Emac.1071.  
Chain 467. Mer.Pm. 3I. RiVin.Irt.M. 92. Dill. Cat. GiIL  
Bo. *Crista galli fcernina,* ju B. 3. 436. Buxb. 88. *Crista  
galli pratensis humilior, corna*sesed, Rupp. Flor. Jen. I 94. Ρφόν  
*dicularis sive Crista galli lutea.* Park. Theat. 719. Ran Hist,  
ϊ. 769. Synop. 3. 284. *Pedicularis pratensis' latea, uel Crista  
'.Salli,. Q.* ILPm. I63. Tourn. Insta 172. Elem. Bot. 14I.  
Boerh.Ind. A. 235. Hist. Oxon. 3. 426. *Pedicularis pratensis  
lutea, flue Crista galli. Herbariorum,* Mere. Bot. 1. ^7. Phyt.  
Brit. 89. YELLOW.RATTLE. *Dale..:-'*

*Alectorolophos,* which among us goes hy the Name of *Crest  
(Crista)* has Leaves like a Cock’s Comb, or Crest, many in  
Numher, a slender Stalk, and black' Seed. *Pliny, Lib. sui.*

*- Cap.ssc . οὐρεἴοὐρ*

. Lohel writes, .that this Herb is called *Pedicularis* for Its poI-  
ishnous Qualities, and because it infesta the Meadows, and is an  
Enemy to Lice. . On the Contrary; \* Dodonaeus calis it *Pedicu~  
laris* from its Effect, which is to breed Plenty of Lice upon the  
Cattle which feed in the Pastures where It grows. Bur to me  
the Leaves osthis Plant seem, by their Furrows, to he Very like  
rhe Back of a Louse, and thence perhaps it took its Name. \*

From a small, white, single Root, -that sends forth some col-  
lateral Sprays, and is not deep in the Ground, there shoots up a  
Stalk, for the most Parr single, - a Foot high, stiff, smooth,  
square, strait, (lender, light, oftentimes .Variegated with black  
Spots and Streaks, and towards the-Top of a purplish Colour.  
It is divided into several Branches, which stand opposite, and  
.are encompassed hy two -Leaves, -without Pedicles, wide' at. the  
Base, and growing narrower by Degrees, to the.Vety .Top, of  
Ά Finger’s Length, sharp-pointed,’ indented at the Edges, re-  
sembling a Cock’s Comb, a remarkable Vein running on the  
" Right and Tesq to each Indenture. From the Midst of the  
Leaves proceed small Branches hy Pairs, or two standing op-  
posite. On the Tout of the Stalkand the Branches grow small  
Flowers close set, in-the Form os nd Ear, or Spike, and pro-  
ceeding in like Manner from the Leaves, a single one from each  
-Sinus; with very short Pedicles. The Flower-cup is turgid,  
compressed, and eut-just within the Edge into four acute Seg-  
ments.- The Flowers are monopetalous, yellow; in Shape re-  
sembling a Hood, which incloses and hides from View a flen-  
der Style, with four Chives, and their Apices. - The Flower  
' falling off, the Cup swells into a Vastly larger Vesicle, which  
contains within itself and compresses a large Seed-vessel,- diVid-  
ed in the Middle into two Celis, which hold several Seeds close-  
Jy compressed, and surrounded with a membranaceous Border  
of a dusty Colour. When the Seed is ripe, the membranous

Celis on a sudden fall asunder and gape wide, and shine when  
they are dry. . \_ .

It flowers in June, and the Seed is ripe in a short Time, and  
then immediately falis off, and the Plant soon aster withers away  
to the Very Root.

It grows chiefly in the barren Sort of Pastures, and oftentimes  
in Plowed Fields, heing of no Use, but hurtful in both Situa-  
tions. *Raii Hist.*

Boiled with hushed Beans, and sweetened with Honey, it Is  
good fora Cough. It also cures Dimness of Sight, for winch  
Purpose they cast a whole Seed into the Eye, where it causes no  
Disorder, but takes off the Mist or Cloud upon itself. It changes  
Colour, and from Black begins to turn white, then swells, and  
comes out of itself. *Plin. Lib.* 21. *Cap.* 5.

Besides the Fore-mentioned, Ray enumerates, -

I. *Crista Galli Mas.* J.B. The.Male Crista Galli ofJohn  
Bauhin. It differs from the Female in Tallness, growing some.;  
times to the Height of a Foot and half, has a stronger Stalk,  
broader Leaves, and much larger Flowers,, is whiter at the  
Tops, and has hairy Vesicles. It grows together with the Fed  
rnale in the Meadows about Geneva.

*2. Crista Galli spicata store luteo magno MesisunenstV.* The  
spiked *Crista Galli* of Messina, with a large yellow Flower.. .

3. *Trixago Apula Unicaulis, ruresteseuxyns ( Tetrastachys)* Col;  
*Crista Galli fpicata Flore viario esc albo et purpureo. An Antir-  
rhinurn Folio serrato,* J.B. The *Apulian Tristago* with a single  
Stalk, the *Tetraftachys* of Columna ; the spiked *Crista Galli*with the white and purple Flower, *Qu.* Whether the *Andr.,  
rhenum,* with a serrated Leas, of John Bauhine ?

*An .Pedicularis pratensis rubra stlulgarii. Park. Pratensis purr  
purea,* Co B. *Pedicularis,* Ger. *Pedicularis, quibufdarn Crista  
Galli Flore rubro,* J. **Β. RED RATTLE.**

The Flowers, aS in the common Crista Galli, spring forth  
from lax, smooth Vesicles, but not so much compressed, fur-  
rowed, and of a deep Green, a little inclining to Red, and  
Are of a red Colour, seldom os a Carnation or White. The  
upper Lip has a Beak, and conceals within its two Cells sour yel-  
sow Apices, deeply fet.with a purplish Style ; the lower is deeply  
cut or jagged into three exactly round Lobes. The Leaves have  
something resembling Filipendula, but are much smaller, and  
more nicely cut at the Edges, are of a green or .light red Colour,  
and stand on weak, hollow, angulous Stalks, eight or nine  
Inches high. The Root is somewhat bitterish, white, furrow-  
ed, shaped like that of Parfley, scarce as big as one’s little  
Finges, but runs out in small Fibres. From the Top of the .  
Root spring forth broad, thick, sharp-pointed Leaves,, serrated  
round the Edges, from the Middle of which the other Leaves  
together .with the Stalk arise. The first Leaves of the new- '  
sprung. Plant are so like the Oak-fern, both in Shape and InCi.-  
sions, that some.would take them for the same. The Seed is  
of a sooty. Colour, and round, contained in large, falcated Ve-  
sicles, which run out with a Sort of Beak. .

It. grows in Meadows; Pastures, and on Heaths, wherever  
the Ground is” moist and boggy, in great Plenty, all over  
England. ..

- 5.- *Pedicularis palastris rubra elatior. An Pediculariae Can.,  
pestris prior species Tragi -* ' The red, tall *Pedicularis* of the  
Marshes, *Qu.* Whetherit he the first Species of the Field *Pe-  
diculario* of Tragus ? si - -- - - '

ThiaHerb, if we may believe Tragus, eaten by the Cattie,  
breeds such Swarms os- Lice about them, that they are not to  
he cured without great Trouble and Danger. . . . Ψ  
*'. 6. .Crista Galli montana. Floribus pallidis in fpicam congestis.  
The Crosta Calli* os the Mountains, with a Spike of pale  
Flowers./ ' --- sc - - . -; ' ... :

*J. Pedicularis mayor Dalechampii, jc* Bt *'- Alpina Filicis Fo-e  
lio majorgiCl. B. Mayor Alpina.* The larger *Pedicularis* of Dale-  
chimpins, John Bauhine. The greater Alpine Sort, with the  
Fern-leaf,. Gaspar Bauhine. / The greater Alpine Sort of Par-  
kinson. !-- ; . r

8. *Filipendula mimtanu altera,* C. B. *Montana mollior altcra,  
PzrkTA.lectorolophus* II. Clus. Hist. One of the two *Moun-  
tain Filipendulas* of C. B. ; The softer os the two Mountain  
Species Of Parkinson; The eleventh Species'of *Alectorolophus*in Clusius. . . /

9. *Pedicularis Bulbofa,-* J. B. *Ftlipendula montana Flore Per  
dicularlae,* C. B. *Filipendula montana mayor albida.* Park. *Alec...  
torolephus Alpinus major 's.* Clnf. *- Ftlipendula niontana.* Ger.  
The *bulbous Pedicularis* of J. B. \* The *Mountain Ftlipendula,*with the Flower of *Pedicularia,* C. B. The greater white  
*Mountain Filipendula* of Park. The first Species of the greater  
Alpine *Alectorolophus* of Clusius. r The *Mountain Filipendula* of  
Gerard. ' .... .

*IO. Pedicularis Alpina lutea,* C. B.Tarki *Alpina Flene lu.  
teo. Radice nigra,* J. B. The yellow Alpine *Pedicularis* of  
C. B. and Parkinson.. The Alpine *Pedicularis,* with a yellow  
Flower, and a black Root, of J. Β.

- II. *Crista Galli urnbellata,* C. B. Prod. *Galli lutea Amati..  
lata.* Park. The umbelliferous *Crista Galli,* in Gaspar Banhineis  
Prodromus..' The yellow umhelliferouS *Crista Galli* of Parkin..  
son.

12. *Crista Galli angastis.olia montana,* **C.** B. Park. **The** nar-  
row-leaved Mountain *Crista Galli* of Co Bauhin and Parkinson.  
*Rail Hist.*

ALEFANTES. Rulandus explains this by *Flos Salis.*

ALEIMMA. Ἄλειμμα. An Ointment or Liniment, any  
unctuous or greasy Topic, that has no Wax in the Composi-  
tion, to give it a greater Consistence.

ALEION. Ἄλίιον. An Epithet applied by Hippocrates **to**Water. It signifies edaiouI. *Gorraus.*

ALEIPHA. Ἄλειφα. It signifies the Oil of Vegetables, and  
Fat os Animais. It farther signifies any Sort *of medicated* Oil,  
that is. Oil impregnated with aromatic, or fragrant Vegetables,  
prepared for anointing the Body, and therefore of such a Consi-  
stance as is proper for this Purpose; consequently no Wax enters  
the Composition os an *Aleipha,* nor Powders in Quantities suffi-  
cient to render it too thick.

Hippocrates, and all the Antients, abound with Ointments, ’  
which they applied not only as Topics to particular Parts, but  
with a Design of inducing some Alteration in the general Ha-  
bit, as we may learn from their almost universal Use of them  
In all Distempers, herb acute and chronical. And it is remark-  
able, that they frequently relaxed the Skin by warm Baths he-  
fore the Application of their Oils, with a View of gaining **a**mote easy Admission to the Particles of Oil into the Habit.

It is amazing that this Practice which the Antients recom-  
mend so strongly, and from which it is evident they found  
great Advantages, should so sar have grown into Disuse, aS to  
be seldom or never taken any Notice os by the Moderns in the  
Cure of Distempers, though it seems to be of Importance  
enough to deserve the Regard of. every Practitioner. I am  
afraid this is not the only Instance of a Disadvantage arifing  
from a Dependance on Theory, so sar aS to proserihe from  
Practice whatever has not suited with the crude and imperfect .  
Ideas we conceive os the Operation of natural or artificial .Bo-  
dies, without consulting Experience, the only Thing which  
should guide us, and which is capable of determining, whether  
the Theories we form are just, or otherwise.

I think the following Fact will make it highly probable, that  
Physicians have done extremely wrong, to neglect so much as  
they have, the general or particular Use ofOiis.-.

The Year before the Viper-catchers discovered that the com-  
mon Salad Oil was their grand Secret for curing the Bite of a  
Viper, I employed these People to get a considerable Number  
**of** Vipers, in order to make some Experiments. According-  
ly a great many Chickens, and some Cats were bitten, some  
**os** which were cured, and others suffered to die of their Wounds.  
Upon dissecting those which died I observed, that the Blond  
all along the Course of the Vessel which was wounded by **the**Viper, was coagulated like Jelly, looked black, and stagnated, \*  
and the nearer it approached the Heart, the wider was the Coa-  
gailation. Lividness, and Stagnation, spread. If then the Poi-  
son of a Viper produces deleterious Effects by causing a Stag-  
nation of the Blood, it seems plain, that Oil must cure the  
Disorders depending upon such a Venomous Bite, by resolving  
the Coagulations already made, and preventing more from bring  
-formed.'

It is, I confess, a Secret to me, how Oil performs these  
salutary Resolutions of coagulated Blond, for I can form no  
satisfactory Idea of its mechanical Way of acting, in order to  
produce such an effect. I am sensible it has been said, that the  
*Saline Spiculae of the Vipcrine Pseism are ineveloped and blunted by  
thy viscid Particles os. Oil*; but this gives me no Satisfaction, for  
.. by any Thing which appears, it may or may not he so. But  
let this Resolution be brought about by any mechanical Means  
whatever, is Oil applied externally is capable of resolving coa..  
gulated Blood, and os hindering the Blood from running into  
Concretions, in one Instance, it occurs to me, that it may  
probably have the same Effect in other Cases, where the Blond  
has a Tendency to stagnate and coagulate. And if so, univer-  
sal Unctions may, in an inflammatory State of the whole Blond,  
he of great Use; as particular Unctions may he, when parti-  
cular Parts are inflamed, that is, where the Blood stagnates,  
rand coagulates. In Confirmation of this, it must he remem-  
hered, that Relaxing the Solids is the most effectual Method of  
removing Inflammations, and that Oil is known to relax in **a**great Degree.

Hence we may form a Judgment of their Opinions who for-  
.bid the Application of Oils to inflammatory Tumors, where  
The Intention is to discuss, for Fear it should obstruct the Pores;  
for though the Pores should be obstructed by the Application of  
Oils, if these Oiis resolve and prevent Coagulations, their good  
Effects will more than oVer-ballanhe the Mischiefs which may  
arise from their Obstructing the Pores.

ALeLAION. ἈΜλαει» An Application made Use of by  
-Galen in lax Tumors. It consists of Oil beat up with Salt.

*Foesius.*

ALEMA. Ἄλημα. *Boiled Meal.*

ALeMBACI. *Burnt Lead. Rulandus.*

ALEMBIC. Rulandus explains this *Mercury.*

ALEMBICUS. The Derivation of this Word is half Ara-  
hic, half Greek. It comes from the Word Ἴψβεξ, which is

again derived from Λμβαίνω sor Ἀνακταμα, *to ascend,* the Arabic  
Particle *Al* being added to it. In Latin Seneca calis it, Ass-  
*liarium.* In English an *Alembic,* or *Lambic.*

Before the Use of Retorts became so common as they have  
heen for some Years, the most general Way of distilling was to  
put the Matter to he distilled into a Vessel, called *a Body,*and to sit a Head to it, in order. to receive the Vapour,  
which there condensing into a Liquor, is conveyed by a Ca-  
nal, called the *Rostrum,* or *Bealc,* from the Head into the Recei-  
ver. This Head is properly the *Alembic,* and is called *Alent-  
Ficus Rostratus,* to distinguish it from another Sort of *Alembic,*called *Alembicus Carcus,* a *blind Alentbic,* which is without a Pipe,  
**Or** Canal, and is destined to receive Substances of a dryer Na-  
ture, which are sublimed into it out os the Body. Sometimes  
also the *Alerrwic* is perforated at the Top, in order to per-  
mit a Part of the Vapour to escape. Thus is *Alembic* properly  
the Head of a Distilling-vessel, but it is now frequently used to  
signify the whole Apparatus. .

ALEMBROTH. In a Treatise printed in the *Theatrurn  
Chymicum, Vol.* 4. called *Saper Tractatulum, Mer Fugi dum bi-  
bio, Alembroth* is said to he a Chaldee Word, importing *Clavis  
Artis,* the *Key of Art.* Rulandus explains this by *Sal Mercurii,*or *Sal Philosophorum et Artis.* Castellus says it is called also  
*Elembrot,* and *Sal Fnsionis,* or *Sal Fixionis.* Some Sorts of this  
are prepared artificially, hut that from which the others seem  
to have taken their Name is said to he produced naturally in  
Cyprus, and to he got in the Form and Colour of concreted  
Blood. *Alembroth desiccatum* is explained by Rulandus, *Salt of  
Tartar.* Hence *Alembroth* should seem to signify a fixed *Alca..  
line Salt,* either natural, or artificial, which are all Very use-  
fid in opening the Bodies of Metals,, destroying their Sulphurs,  
and promoting their Separation from the Ore.

A LEMZA DAT. *Sal Ammoniac. Rulandus.*

ALENON. Ἄληνον. Gorraeus says AetiuS calis Oil of Al-  
monds Ἄληνον ἔλαεον. \*

ALEOPHANGIN.E PILULE. A.Pill .directed by the  
College, thus prepared:

V . \*

. Take of Cinnamon, Cloves, the lesser Cardamoms, Nutmegs,  
Mace, Calamus Aromaticus, Carpobalsam, or in its De-  
fect Juniper Berries, Schoenanth, yellow Sanders, Galan-  
gals, and red Rose-Leaves, each half an Ounce: Let these  
be grofly powdered, and a Tincture he drawn from them  
with Spirit of Wine, in a glass Vessel close stopped, enough  
to strain off three Pints, in which dissolve one Pound of  
the finest Aloes, and to it add of Mastich and Myrrh in

- Powder, each halfan.Ounce ; of Saffron, two Drams; of  
Peruvian Balsam, half a Dram ; and reduce the Whole in-  
to a due Consistence for Pilis, by Evaporation of the su-  
perfluous Moisture oyer an Heat of warm Ashes. *London  
Dispensatory.*

\* /

" The Quantities of some of the Ingredients are somewhat  
" diminished to whet they were before. These are the *Pilu..  
" la Aromatica* of Mefue. Zwelser is Very large in his Ani.-  
" madVersions upon this. Composition, which in the *Augustane  
" Dispensatory* a little differs from this, and he is Very elaborate  
" in its Correction. He directs to draw the aromatic Part os  
" the Ingredients off by two or three Cohobations with five or  
" six Ounces of Spirit of Wine by a Retort, which is to be  
" saved, and a Decoction made of the Residuum in plain Wa-  
" ter, in which.the Aloes is to he dissolved and evaporated, and  
" then the Myrrh, Mastich, and Saffron to be put to it,- with  
" the aromatic Spirit hefore drawn ; or else to take such ArO-  
" matics as have not their essential Oiis in the Shops, and ma-  
." nage thus ; and put a due Proportion of those essential Oiis,  
" which are drawn, to. the Whole at last, which seems to he  
" the better Way. This is directed in the *Pharmacopoeia Pel.  
" gia* with Hellebore, and intitled; *Pilulae Aleephangina Caps..  
" tales et Stomachica,* but they are now. out of Use." *lsquncs.s  
Note. .*

This Medicine is imitated from Lamposss Hiera, described  
by Galen, *L.* 8. *de Compositione Medicamentorum, Co 2.*

ALEORE. 'Αλιωρἡ. From ἀλνὰ, to *avoid* or *escape,* is used  
by Hippocrates to signify that Ease which a Person finds from  
the Abatement or Intermission of any Distemper ; "Ανισις γἀρ Minof  
κἀμὲντι παρέχει μίγάλην άλεωρήν, " The Remission of any Disorder  
" administers great Ease or Relief to the Patient." *Progno-  
sties. Sect.* I.

ALEO3. Ἄλεος. Taken as an Adjective, signifies *heaped,  
crouded, condensed,* or *continued,* and in this Sense is used by Hip-  
pocrates, who, speaking of the Epimenia, sayS, '.Αλλ’ αὑδις πβλ-  
λὰ τε *area.* " But if they stow in great 'Quantities and without  
" Intermission.” And a Line or two after, καὶ *atice* επιφίρἠται,  
ἄχςους ea ἔσται μέχρις ὰν δοως εχη. " If they oome down very fast, **the**" Party will be of a pallid Countenance, so long as she in thus  
" affected.” *De Morb. Mulier. L.I.*

Taken aS a Substantive, it is interpreted by Hefyohius and  
others, by the Words θέρμἠ, θἀλπφ.. *Heat, Warmth*; and is  
derived by them from Ἀλία, *Hiat.*

ALES i Ἄλες. An Adjective, which like obrlon, signifies  
*heaped, condensed, crouded.* in this Sense it is applied by Hip-  
pocrates to the Excrements in the Case of PolemarchutS Wife,  
in the seventh Book of his *Epidemics.*

, It also sometimes signifies *contracted,* as, τῆς Μἡτξένν ἀλμα ίασέων.  
" The Womb heing contracted.” *De Morb.Mulicr. L.* **I.**

The Chymists likewise give this Name to a compound  
Salt.

ALES CRUDUM, *Crude Ales,* is those Drops which often  
sail in the Night Time in the Month of June. *Johnson.*

ALESCH. *Alumen plumosum. Plumose Alum.* See **ALUMEN.**

ALETON. ἌΛκτα. *Meal,* as Erotian and HefychiuS ex-  
plain it. It seems derived from *dolum, to grind,* and to import  
the Meal of any Sort of Corn. This Word is frequently made  
Use of by Hippocrates. Thus *de Victus Ratione, Lib.* 2. he  
says, Ἀλητον καθαρὸν ππέμενον εν ὕδἀτι ψὑχει. *Pure Meal drank in  
Waler refrigerates.* And a little aster he informs us that *Meal,*ἄλκτα, *drank in Milk is more subject to purge than when taken  
in Waler.* In the fecond Book of *Epidemics* the same Author,  
speaking of the CEsophagUS a little obscurely, says, "AxsjTov ἁς θίρ-  
μάτατον οἳδίνα., καὶ υινον άκρήτον, *give very hat Meal., and suorrtixed  
Wine.* The Interpreters tranilate διδοἱαι by *appontto,* aS if Hip-  
pocrates directed a Cataplasm of Meal and Wine, which seems  
a Mistake in this Place, though in others he orders Cataplasms  
of Meal (άλητον) for particular Purposes.

ALEURON, Ἄλἱυρον, *Meal.* From ἁλέιο, to *grind.* It strict-  
ly signifies the *Meal os. Wheat,* but is applied by Hippocrates to  
the *Meal of Lentils,* or os the *Seeds of Darnel.*

ALEXANDER. A Physician of the sixth Century was  
named *Trallianus,* from *Tralles,* a City of Lydia where he was  
hern. He was equally happy in all the Circumstances of his  
Birth, for Tralles was fernous for the Purity of its Dialect, and  
his Father Stephan us was by Profession, a Physician, whose  
Tenderness probably enforced his Instructions, and contributed  
much to the Advancement of his Son’s Studies.

*' Alexander* having been some Time taught by his Father, either  
aster his Death, or in Hopes that aS every Man of Eminence  
has some Excellencies peculiar to himself, the Precepts of another  
Master might afford him new Light, became the Disciple of  
another Physician, the Father of that Cosmas at whose Request  
**he** compiled his Book, and made such Advances in Physic, as  
procured him when he engaged in Practice the highest Reputa-  
tion ; a Reputation so extensive that not only at Pome, but  
wherever he travelled, he was consulted and applied to as the  
greatest Master os his Art, and became known by the Title of  
**ALEXANDER THE PHYSICIAN.**

His Claim to this honorary Appellation appears to have heen  
founded not. upon popular Coprice, or some single Instances of  
. accidental Success, to one or other *of* which many have been  
indebted both for their Honours and their Riches, but to exten-  
five Knowledge, and judicious Practice. He is the only Writer  
of the inter Ages who has Ventured to form his own Plan, or  
who can claim the Character *os* an original Author.

" His Method is accurate and perspicuouS ; he begins with the  
Distempers os the Head, and descends to all the Parts of the Bo-  
dy in their natural Order. His Account of the Diagnostics is  
remarkably exact, and his Method of Cure for the most Part ra-  
tional and salutary.

Without engaging in. Disquisitions relating to the Materia  
Medics, Anatomy, or Surgery, he confines himself to the De-  
scription of Diseases, which seems to he his peculiar Excellency,  
- and the Method of Cure, which the Multiplicity of his Practice  
enabled him to lay down with more Accuracy and Certainty,  
than those whose Learning was less assisted by Experience.  
Of many Cases he has lest exact Histories, with a regular Detail  
of the Succession of the Symptoms, and the Application of his  
Medicines.

It is to he observed to his Honour that his Omission of Sur-  
gery was not the Effect of his Ignorance of that Science, but of  
**his** Knowledge os the Art os Writing, and his Conviction os  
the Necessity os one simple uniform Plan. He had observed  
how much Digressions into remote Enquiries, and a Mixture of  
different Subjects, had contributed to the Obscurity of Writings  
Intended to promote Science, and therefore proposed, as he in-  
forms us, to treat of Fractures and the Diseases of Eyes in sepa-  
**rate** Books.

HiS intire Omission of the *Distempers of Women,* is another  
Instance of the Accuracy os his Method. As those Disorders  
proceed from the peculiar Structure and Functions of the Parts,  
he. probably imagined, that they bad no Place in a general  
Treatise os Physic, and thet by enlarging his Scheme he should  
only perplex it.

VVhether he intended another Treaiso on Female Diseases, or  
whether he lived to execute his other Designs, it is now im-  
possible to discover ; but as he wrote the Books which now re-  
main in his old Age, when he could no longer support the Fa-  
rigue of Practice, it is more probable that he did not live to  
. finish his Designs than that any of his Works could perish,

\* He appears through his whole Works to have attended dili-  
gently not only the Instructions of his Predecestbrs, but th the  
**Precepts** of sar greater Certainty, the Dictates of Reason,

and the Evidence os Experience. He seems to have adven-  
tured to use violent Methods in Extremities, yet not wan-  
tonly to have sported with Lise. He frequently deviates from  
the received Practice, and perhaps the Introduction os *Steel in  
Substance* may he justly ascribed to him, fince it is mentioned by  
no earlier Author.

*Alexander's* Learning and Judgment did not exempt him  
from some Weaknesses, from which it might he justly ex- .  
pected that either his Reason should have preserved him, or his  
Experience set him free. ' '

He is strongly inclined to believe whatever has been told of  
the efficacy of Medicines, and seems never to suspect either  
Weakness or Imposture. Nor is the Power os Medicines the  
only Object of his Credulity, which extends even to the effica-  
cy of Amulets and Charms, and he mentions some Remedies  
of this Sort for the Ague, Stone,- Gout, and Colic. Those  
whose Reverence for Antiquity produces in them a Regard  
even for the Follies and Superstitions of antient Times, mav  
here gratify their Curiosity with a Quotation from Ostanes,  
one os the old Persian Magi.

It is uselefS either, to inquire into the Reasons of this Deprava-  
tion of *Alexander’s* Understanding, or to extenuate his Error,  
by enumerating the learned and wife Men that have been  
milled by Superstition. The Causes of Error are innumer-  
able, and therefore cannot he particularly pointed out, and to  
produce Testimonies in Favour of Folly, is at least to-contri-  
bute very little to its Extirpation.

It is probable from some of these Charms, which consist of  
Passages from the Bible that *Alexander* was a Christian ; het if  
this Proof of his Religion he allowed, it evinces likewise, what  
is no Advancement os his Character, that he had learned hiS  
Religion with a Very flight Attention.

Whatever might have been his Character as a Man, he has  
deserved as a Writer much more Applause than he commonly  
receives, and perhaps he is in Merit the next of the Greek Au-  
thors to Aretaeus and Hippocrates.

The EDITIONS of ALEXANDER’S WORKS are

In Greek, *Parisiis apud Robertum Stephanum,* **I548,** *Fol.  
cum Castigationibus Jucobi Goupili. -*

An old barbarous Latin Transiation, in the Opinion of  
Fabricius, from some Arabic Transiation, under the Title os  
*Alexandri Tatros Practica, of* which there have been many Edi-  
tions, aS *Lugduni,* 1504. 4to. *Papiee,* 15I2. *Suo. Vinetiis,* I522. "  
*Fol.*

Albanus Torinus afterwards put this into hetter Latin, but  
this was not a Tranflation from the Greek, but a Metaphrasis  
of the barbarous Tranflation above-mentioned. It was publish-  
ed, *Basu, apud Hinricurn' Petri,* 1533. *Fol.* and I54I. *Fol.*

Johannes Guinterius Andernacus tranflated the Greek into  
Latin. Of this Tranflation there have heen the following  
Editions: '

*Argentorati apud Remigium Gtiidonem,* **I 549.** *8vo.*

*Lugduni apud Antonium Vincentium,* **156O. I2mo.**

**Ζιιράμπέ, I575,** *cum Johannis Molinai Annotationibus.*

This Tranflation is also amongst the *Medicee Antis Principes,*published by Stevens.

Many detached Pieces have also been published amongst Col-  
lections of Authors upon different Medicinal Subjects.

There is a small Treatise, περὶ Ἀμίκταν, of Worms, which is  
ascribed to *Alexander* by Mercurialis, and is addressed by *Alex.,  
ander* to his Friend Theodorus. This is published amongst  
some of the Works os Mercurialis, and is inserted by Fabri-  
eius in his *Bibliotheca Graca,* in Greek and Latin, at the End  
of his Article of *Alexander.* It is not printed amongst his other  
Works.

There were many Physicians of this Name before *Alexander  
Trallianus,* but we know of nothing remarkable relating to  
them.

ALEXANDRIA. A Name of the Daphne *(Bay-tree)* it is  
hot, acrid, and bitterish; whence it provokes Urine and **the**Menses. The Daphnoides *{Periwinkle}* has the same Qualities,  
and so has the Chamaedaphne *{Spurge-laurel}* which is also eaten.  
*P. AEginet. L. J. Co* 3.

ALEXANDRI ANTIDOTUS AUREA. *Alexanders gosu  
den Antidote,* excellent for Defluxions from the Head, for it  
immediately alleviates the Pain of it, stops Tears from the Eyes,  
and cures the Tooth-ach, not only drank but laid on the Place.  
It perfectly relieves those who are taken with a sudden Fit os an  
Epilepsy, composes the extravagant Gestures of mad People,  
and is admirable sor all Kinds of Pain in the Head. It is good  
sor coughing, consumptive, cardiac, and asthmatic Patients.  
It wonderfully relieves such as Vomit Blond, from some in-  
ward Erosion, is good for the Palsy, and Disorders of the  
Viscera and Sides, breaks the Stone, cures the Strangury and  
Difficulty’of Urine, and all Disorders of the Uterus ; gives Re-  
lief in Quotidian, Tertian, and Quartan Agues, if taken he-  
fore the Fit. Whoever shall accustom himself to this Antidote,  
will never he subject to the Apoplexy nor Colic, jt in prepar-  
ed in this Manner:

Take of Asarabacca, Henbane, Carpoballamum, each two  
Drams and a half; of Cloves, Opium, Myrrh, Cyperus,  
each two Drams ; of Opohallamum, Indian Leaf, Cina.  
mon, Zedoary, Ginger, Cost us. Coral, Cassia, Euphorbi-  
urn, Gum Tragacanth, Frankincense, Styrax Calamita,  
Celtic Nard; Spignel, Hartwort, Mustard, Saxifrage, Dill,  
Anife, each one Dram ; *of* Xylaloes, Rheum Ponticum,  
Alipta Mofchata, Castor, Spikenard, Galangais, Opopo-  
nax, Anacardium, Mastich, crude Sulphur, Peony, Erin-  
go. Pulp of Dates, red and white Hermodaolyls, Roses,  
Thyme, Acorus. Penyroyal, Gentian, the Bark of the  
Root of Mandrake, Germander, Valerian, Bishops Wced,  
Bay-Berries, long and white Pepper. Xylobalsamum, Car-  
nabadium (that is. according to the Commentator, Ethio-  
pian Cummin) Macedonian Parstey-seeds, Lovage, the Seeds  
of Rue, and Sinon (a Sort of wild Parfley, according to the  
’ Commentator) of each a Dram and half., of pure Gold,  
Pure Silver, Pearls not perforated, the Biatta Byzantina,  
, the Bone of the Stag’s Heart, of each the Quantity of four-  
teen Grains of Wheat ; of Sapphire, Emerald, and Jasper  
Stones, each one Dram ; of Haste-nut, two Drams *, os* Pel-  
v , litory of Spain, Shavings of Ivory, Calamus adoratus, each  
the Quantity of twenty-nine Grains of Wheat; of Honey  
or Sugar a sufficient Quantity. The Dose is the Quantity of

*i* an Haste-nut. *Myrepfus, Sect.* i. *Cape* I.

ALEXANDRI REGIS COLLYRIUM SICOUM, *King  
Alexanders dry Medicine for the Eyes,* was composed of Saffron,  
Celtio Nard, and Terra Ampelltis (a Sort of bituminous Coal).  
*Aetius, Tetr.* 2. *C.* 39.

ALEXANDRINUM EMPLASTRUM VIRIDE. A  
Pleister described by Cessus, *L.* 5; *C.* Id. and by him recom-  
mended as a Drawer.

- Take of Plumose Alum, one Ounce twenty Grains ; Sal  
Ammoniac, seven Drams seventeen Grains and a half;  
Squama AEris, two Ounces forty Grains ; of Myrrh and  
Frankincense, each two Ounces, two Drams, forty-five  
Grains ; of Wax, one Pound, seven Ounces, four Drams,  
fifteen Grains; of Colophonian or Pine-rosin, two Pounds,  
five Drams, fifty-five Grains ; of Oll, half a Pint; of Vi-  
negar, a Pins.

ALEXANTHI, or AL tin **CAT.** Rulandus explains this  
*Fles Acris, Flowers of Copper,* perhaps the Rust.

. - ALEXASTHAE. Ἀλἐνσθιίι. . Erotian and Hefychius ex-  
plain it by the Word βοάοῦσαι, *io bring Aid, repel, succour.,* and  
thus it is used by Hippocrates, Διιτ »» τώσιν ιπιτ,,ὸειίμ.χσι τοεν,ίονσ»  
ἀλἐνσθιίι, *by this Regimen therefore fuch mast be relined. - De  
Salla). Vict. Flat. -* 7

ALEXICACON. An Amulet, said to he powerful against  
Poisons. From aZtio, *to repel,* and *χαχα, Evil. Blaniard.*

ALEXION: This Physician lived in the Time of Cicero  
and Atticus, and had a great Share in the Friendship of both  
those illustrious Persons. He died hefore Cicero, and was very  
rniich lamented by him, as appears from what Cicero hirofelf  
writes to Atticus on that Occasion : , “ *O factum male de*

Alexionel *incredibile est quanta me mciestist affecerit ; nec me-  
\*" hcrcule ex ea parte maxime quod plerique mecum; ad quem  
“ igitur te Medicum conferes ? Quid mihi jam Medico ? Aut st  
opus est, tanta inopia est ? Amorem Aga me, humanitatem,fua-  
" mitatemque desedero ; etiam tilled, quid est quod non pertirnescen.*

*dum set, cam hominem temperantem,sammum Modicum, tantus im-  
premise morbus appeessesit ? Sed ad hac omnia una consciatis est,  
“ quod ea conditione nati simus , ut nihil quod homini accidere pesset  
recusare debeamusP—Epifol. ad Attic. Lib.* I3. *Cap.* I, :.

" What a Misfortune is the Death of *Alexim l* I cannot express  
bow deeply I am affectsd by it ; not for that Reason which

“ chiefly afflicts others; their being at a Lost what Physician  
they shall apply themselves to. For whet Occasion have I  
, for a Physician ? Or if I had, is there so great a Scarcity of

"" them; No,—-what I lament is the warm and sincere Friend,  
.“ the generous, humane Man, and the agreeable Companion.

Besides, whet has not one to fear,- when we fee it in the  
- “ Power of a Disease to snatch away, so suddenly, a Man of  
: “ his Temperance and consummate Skill in Physic ? But *for*" all these Things we heve ouly one Consolation, namely,  
“ that we are hern into the World on this Condition, that  
“ we rubmit to all those Accidents to which human Nature is  
"‘ fubject.” What Cicero fays here gives us a very advarrta-

geous Idea of this Physician. It is a Loss to the World that  
we have no farther Particulars concerning him.

ALEXIPHARMACA. From Ἀλίέν,- *to repel* or *drive away,*. and Φάρμακον, properly-α *Pcascm. Alexipharmics. pin Alexiphar-  
rnic* seems originally to have signified a Remedy to expel, or pre.  
vent the ill Effects of Poisons taken internally, and this is Ga-  
- sen’s Explanation. But since some amongst the Moderns hed  
conjured up a chimerical Poison, in order to inflame or other-  
wise affeci the imaginary animal Spirits in acute Distempers,

*Alexipharmics* have been understood to mean Remedies hdapfed  
to expel this Poison by the cutaneous Pores, in the Form of  
Sweat. Hence it appears, that *Alexipharmics* mean just the  
fame as *Sndoristcs.* I am persuaded that no Theory was ever  
introduced into Medicine without very ill Effects upon Prac-  
tice ; but that which paved the Wry for *Alexipharmics* has exert-  
ed extraordinary. Heroifms, and made uncommon Havock  
amongst Mankind. . . -

Hippocrates in his Treatise-ώ *Ratione suctus in Acutis,* has  
the following Passage . *Whoever in the Beginning of an iastamma-  
tsry Disease attempts the Cure by Cathartics, dees not in the least  
dirninisc the Tenfan and Inflammation of the Part affected ., spy  
the Distemper in this State of Crndity, will net yield c, saso  
Medicines ; on the Contrary, this- Method of Treatment liquesces  
and wastes the found Parts, which would otherwise resist the Disc  
temper ; and when the Body is in this Mosnner weakened, the Dise  
ease gets Ground, till us last it becomes incurable-.* Though thia  
is said with a great deal of Justnefs and Propriety, I, am per-  
sanded it may with stronger Reason he applied to Sudotifics, that  
is, to *Alexipharmics,* which frequently do a great deal of Mis-  
chief And indeed there is nothing in. which the lower Class  
of Practitioners in Physic make more fatal Errors, than in the  
Use of *Alexipharmics,* which I have frequently known exhibited  
to young People of plethoric Habits, in the very Beginning os  
Fevers, and even without previous Evacuations.

About the Year 1723,1724, or I725, a Fever appeared with  
uncommon Violences and was more universal than any I hard  
ever known, and by this great Numbers of working People  
perished, insomuch that in many Countries scarcely enough  
were left to gather in the Fruits of the Earth; and this Sort  
of Fever continued formany Years aster. In this Disorder it  
was remarkable, thet a warm Regimen, or hot Medicines, sel-  
dom or never falled to render the Fever continual, and keep it  
so, bringing on Deliria, and all Symptoms of Malignity .  
whereas a cool Regimen, with Evacuations by Bleeding, and  
Purging with Caution, and an intire Abstinence from hot Me-  
diolnes, almost always brought the Fever to a regular Interims-  
sion, and then the Bart effectirally took it off. As I had an  
Opportunity of seeing a great Number, of Patients under this  
Fever, I was abundantly convinced, thet more died of *Alexi,  
pharmsts* than.of the Distemper itself. , . „ ... .

. But thet I may not appear singular with.Respect to this Sort  
of Medicine, I shall give .the Opinion of the illustrious Hoff,  
man upon this Subject, who having just hefore mentioned Ca-  
thartics goes on thus: , ν

There is another Set of Evaciiants which carry off the more  
subtile Parts of the morbific Matter, bythe Pores of rhe Skin, in  
Ἀ plentiful, less offensive, gentle, and more imperceptible. Man-  
ner. The Remedies most conducive to this are called *Suderi-  
stcs,* and by the Greeks *Hiydrutics* ; by whose Operation s *sen-*sible Moisture is perspired through the cutaneous Glands,' Os  
the vegetable Kind the most efficacious, for this Purpose, are  
the Roots of a very acrid, penetrating, oily Taste, as those of  
Angelica, the different Species of Master-wort, Butter-burr,  
. Elecampaie, Lovage, Swallow-wort. Valerian, Contrayerva,  
Virginia Snake-root, Lignum Guajacum, and Sassafras, with  
their Barks. In the mineral Kingdom crude Antimony, Regu-  
lus Antimonii medicinalis, volatile Tinctsre of Sulphur, pre-  
pared of Quick-lime, Sal Ammoniac and Sulphuc. corrcoled  
and fixed Sulphur of Antimony, and allo the Mixtura sim-  
plex. Likewise Venice Treacle, its Essence, Spirit, and Wa-  
ter ; all Spirits and. volatile Salts prepared from the Parts: of  
Animals, particularly Harts-born, Ivory, . and Earth-worms,  
Spiritus Bussir, Tartar, Silk, Soot, the Essences of Woods, and  
the distilled foetid Oils, as foetid Oil of Harts-horn dissolved in  
Spirit of Wine; . ' . , - .

These riobler Medicines, of the fudorisic Kind, owe the Vir-  
tue of their Operation to the Power they possess of increasing  
the Systaltic Motion of the Heart, and the Elasticity of the Ar-  
teries, as to the .Number and Force of their Vibrations, by  
which Means, a greater Velocity heing added to the Circulation,  
they protrude the perspirable Matter through the outward and  
porous Substance of the Skin. This they perform either by **a**subtile, acrid, hot OU, as the Roots above-mentioned, which  
are also called *Alexipharmics*; or by a volatile empyreurnatic  
Salt of an igneous Nature, such as are all the Spirits, vola-  
tile Salts, and Oils from Anirnais; or by an acrid, resinous  
Salt, more or less fixed, as the Root of white Burnet, Guaji.  
cum and its Bark, Contrayerva, Virginia Snake.root; or lastly,  
they acti and that very powerfully, by Means of a very fine  
mineral Salt and Sulphur, by which they roust. th, nervous  
Fibres to a violent Motion ; and for this Purpose a very, final!  
Dose is sufficient. Thus a single Grain of our diaphoretic  
Mercury, or two or three Grains of sixth Sulphur of Antr-  
mony will mire a Sweat over every Parr of the tiody. A De- ’  
coition of the .Woods, or a Decodtion . of crude Antimony  
with the Woods, allo Regulus Afitimonii medicinalis have the  
same Effects . ... . .

**I.** These strong Sudorifics, though given in a larger Quants,  
ty, will by no Means mile a Sweat unless the Body is oreoar.

**ed** for it ; that is, unless the porous Substance of the ssxin he  
sufficiently open and last, or unless the Blood be enough diluted.

. Wherefore if any one, in the Cure of a Disease, thinks Sweat-  
ing required, it will be necessary for him Io give the above-  
tnentioned Sudorifics with a sufficient Quantity os some Liquid  
to dilute the Blood ; for Example, a weak Tea, ora Decoction  
of Barley; and that the Pores of the Skin may obtain a due  
Relaxation, the Person to he sweated should he pur into a warm  
Bed, or het Stove, or into a Bath, especially a Vapour-bath, that  
fo a plentiful Sweat may be excited.

IL These very active Sudorifics rarely find a Place in Me-  
dicine, and are not to be administered except with singular Cau-  
tion. For a Sweat never arises in a healthful and natural State,  
unless the Blond is put into an extraordinary Motion ; nor  
when this happens, is it a Sign of Health, like insensible Per-  
spiration, the Matter of which is Void of Acrimony, watery.  
Os Kin to the nutritious Juices, and almost without either Taste  
or Smell, and differs Very much from Sweat, which is of a  
fait Taste, a foetid Smell, and approaches the Nature of Urine.  
Besides, these Sudorifics excite a great Commotion, and notable  
Orgasm ; for they act not with Moderation but. Rapidity,  
whence it comes to pass, that in Bedies full of Blood, or con-  
taminated Serum, by impelling the Fluids with too much Vio-  
lence to the small and narrow Vesseis, they bring on dangerous  
and acute Symptoms, occasioned by the Inflammation and Re-  
dundance of Humours. But they are. most hurtful where the  
Primse Viae are obstructed by a Load of VitiouS Humours, where  
the Body is costive, and when they are administered immedi-  
ately aster a Violent Fit of Anger. By this pernicious Practice,  
I have known them more than once occasion arthritic and rheu-  
matic Pains, flow and hectic Fevers, which have proved of long  
Continuance, and been attended with imminent Danger.

III. In all acute Diseases, as inflammatory and scarlet Fevers,  
Sudorifics are to be intirely banished, or, at least, to he admi-  
nistered Very seldom, and that with the greatest Caution. For-  
**I** have often observed that the promiscuous Use of Alexiphar..  
mics, as the Custom too generally prevaiis, has only served **to**increase Heat, Anxiety, and the Violence of.she Symptoms.  
These Remedies are called *Alexipharmics,* as are also all those os  
the theriacal-Rind, from a Virtue attributed to them of resisting  
Poisons and malignant Humours, for which Reason they are  
highly extolled by Physicians in the Plague, and other conta-  
gious Distempers. But the Truth is, they are much more pow-  
erful sor the Prevention than Cure of these Diseases, especially  
when an epidemical and malignant Distemper owes its Birth to  
anover-wet, soggy, cloudy Seasons which has been long desti-'  
**tute** of the east and North Winds, or to a Deluge or Inunda-  
tion os Waters. For in this Case it will he much hetter and  
safer to give them .in Wine-vinegar diluted with Water, or to  
infuse the sudorific Roots in Vinegar, which thy this Means  
heing impregnated with their *alexipharmic* Virtue, two or three  
Spoonfuls may be drank in any convenient aqueous Vehicle.  
The Aqua prophylactica Sylvii is also of admirable Use at A  
Time when such Distempers are abroad. ...

*It is to be remarked. That the East and North Winds, by bring-  
ing with them plentifully an Acid, render the Air more cool and  
-active, and destroy Contagion.* See **AER.**

IV. But Sweating is very serviceable in those Diseases which  
proceed from external Cold, and obstructed Perspiration, aS in  
Catarrhs, Rheumatisms, Fluxes, Stoppages of the Head,  
Coughs, and glandular Tumors: Also when Danger is appre-  
hended from a Person’s having drank a large Quantity of any  
cold Liquor, when Very hot, or in a Sweat. But then they  
should he administered in the Beginning of these Disorders,  
and in such Cases Bezoardic Tincture, or Spiritus Bezoardicus  
Bussii, mixed with our anodyne Liquor is of excellent Use,  
Nor is a Sudorific *of* less Service in the Beginning of any infec-  
tious Distemper, taken immediately after a mild Emetic; and  
for this Purpose may he used Bezoardic Vinegar, or the Bezoar—  
die Powder, with a little Camphire, which is the chief of *Alexi-  
epharrnics.*

*V.* Likewise in those Diseases which have their Seat **in the**porous and fibrous Substance of the Skin, and consist of an  
acrid Viscid Mattes, .which destroys and deforms its Texture,  
as an inveterate Itch, the Ring-worm, Leprosy, and Vene-  
real Pustules and Ulcers,-a plentiful Sweat may he excited  
to great Advantage, with proper Remedies. The same may  
he also practised in arthritic and rheumatic Pains in any Part os  
the Body, for by this Means the acrid. Viscid, and stagnating  
-Serum , which adheres to the nervous Membranes, is thrown off  
.and discharged. For. the same Reason in all those Diseases  
which are called *cola,* as in Dropsies os every Kind, the cold  
:Scurvy, Pox, settled Gout, Sciatica, Palsy, and others of the  
-same Nature, Sudorifics are of great Efficacy; hecause they  
promote and restore the elasticity and contractile Power of the  
Heart and Vesseis, which in Disorders of this Kind are very  
. much depressed, and increase the Circulation of the Blond, for  
the better Separation of the morbid Matter. But this Course  
-must he persisted in for some Time-

VI. Sudorifics always operate best, when taken in a sufficient  
'Quantity of some warm Liquid. Celsus, in the sixth **Chapter**

os his, third Book, commends warm Water for this Purpose r  
His Words are these. *Si Nota est Sudoris venturi, turn demum  
calidam Aquam Point dare oportet, cujus sialubris Eflsectus est, si  
Sudorem per omnia Membra esisundit.* ‘ When you perceive the '  
‘ Sweat coming you should give warm Water to drink, which  
4 \_ hath a most healthful Effect, is it excite a Sweat over the  
‘ whole Body.’ It is notorious that this is procured in the most  
plentiful Manner by a Decoction of the Woods, whose Use in  
venereal Coses, and other cold Distempers, cannot he enough  
commended. I have also known several Country People hap-  
pily cured of Intermitting Fevers, and Tertian and Quartan .  
Agues, by taking a sew Hours hesore the Fit a Vomit,, and  
immediately after it a Sudorific (observing a Regimen) of Roh of  
Elder, Salt of Tartar, and a sew Corns of Pepper, mixed to-  
gether in a Spoonful or two of Brandy.

*In the Pas.suge above quoted Celsos only advises to promote a Sweat  
when the Marks of one approaching are evident.*

Diaphoretics are inferior in their Power of acting to Sudo-  
rifles, but much superior to them in their healthful Qualities,  
which gently increase and promote Perspiration. Of these the  
chief in the vegetable Kingdom, are the Roots of China, Sarsa-  
parilla, the Carline Thistle, and Gentian. Of Herbs, rhe  
holy Thistle intire, its Seed and all the Preparations from is,  
whether Essences, Waters, Extracts, or Salts ; Water Ger\_  
mander, the Elder, and: Dwarf-Elder, with its Flowers,. Rob,  
and Water; also Fumitory, Scabious, Saffron, the Flowers os  
Marygold,. and Opium. In the animal Kingdom, all Bones,  
Horns and Teeth of Animais, whether rasped, or burnt toAshes and chymically prepared, especially those helonging to the  
Stag ; the Stones, . Shells, and Claws of Crabs. Of Earths,  
all sealed Earths, and different Kinds of Marie, and the BoluS .  
Fabrilis. Of Salts, the Salts of Plants procured by Buming,  
and Nitre. Of precious and exotic Stones, the Petra di Porco,  
and the Eastern and Western Bezoar Stone. Of Minerals and  
chymical Preparations, the Flowersand Milk of Sulphur, Cm.,  
nabar, native, common, and that of Antimony ; diaphoretic ‘  
Antimony, Ceruss of Antimony, Magistery os Antimony, the  
Bezoardic Mineral, Tinctura Temperata of Antimony, pre-  
pared from the Regulus and Salt of Tartar, and PoteriuS's An-  
tihectic. Of Compounds, Goa Stone, which is compounded  
of oriental Bezoar, Tragacanth, and Amhergrise; SennertuS's  
Bezoardic Powder, the English and Pannonian red Powder,  
Dorncrellius’s Cordial, our mineral anodyne Liquor, Wine  
Vinegar, or distilled Vinegar, with Elder Flowers, or Crab Stones  
infused in it ; our Pulvis Polychrestus Diaphoreticus, Theriaca  
Coelestis, Liquid Laudanum, and Wildegansius's Pilis.

The Operation of Diaphoretics is manifold and various ; for-either they act in a privative Manner, by absorbing and chang-  
ing the Acid in the Primae Vise, which, carried into the Blood,  
depresses its Spirituosity, Fluidity, and intestine Motion, of  
which Kind are all the Earths of an alcaline Nature: Or by  
imbibing the superfluous Moisture, and bracing the relaxed Fi-  
bres, as the sealed Earths, Boles and MarleS; also Bones and  
Horns, both those bumt and those chymically prepared, and  
the Unicorn Stone: Or by relaxing and mollifying, in Diseases  
of the Skin, its contracted Superficies by their mild anodyne  
and Vaporous Sulphur, aS the different Species of Elder, espe-  
cially the Flowers, Saffron and its Extract, the Flowers of red  
Poppy or Corn-Rose, our anodyne, mineral Liquor, the Emul-  
sions of Poppy-seed, corrected Opiates, particularly the Theria-  
ca Coelestis, Wildegansius's Pills, and Liquid Laudanum prepar-  
ed as directed by Sydenham : Or by composing and quieting **the**too Violent intestine Motion os the Blood, aS the Remedies of the  
nitrous Kind, corrected by heingjoined with the more fixed Dia-  
phoreticS ; also Spirit of Nitre dulcified. Emulsions of the four  
greater cold Seeds, and the milder Acids, aS Juice Of Lemons’  
and Vinegar: Or lastly in a positive Manner, by gentiy stimu-  
lating the Fibres and languid Vessels, of which Sort are the  
holy Thistle, Water Germander, Fumitory, Chins, Sarsapa-  
rilla, lesser Centory, Scabious, Carline Thistle, and Gentian.

I. Now as this Evacuation of the finer Parts of the morbific  
Matter through the Pores of the Skin, by insensible Transpira-  
tion, is of all others the most healthful; and as an Obstruction  
thereof is the Occasion of many Maladies ; so the Use of Dia-  
phoretics, which promote this cutaneous Excretion, is certain-  
ly Very great, universal, and almost infallible, in almost all Dis-  
eases, even those which, from their present Symptoms, we are  
not thoroughly acquainted with; so that a Physician can by Iro  
Means he without them. For an increased Circulation of the  
Blood, and an enlarged Perspiration, are the grand Mediums and  
Instruments of Nature, by which the morbific Matter in any4.  
Disease is corrected, digested, resolved, and at last thrown ost, and  
the Distamper cured without Danger. Particularly in all acute  
Diseases, as Fevers and inflammations of all Kinds, these alone  
given in some convenient Vehicle, in small Doses, and continu- .  
ed for some Time, answer every Intention of Cure, and are in  
Truth the hest Discutients and Purifiers of the Mass of Blood.

II. Because excessive Heat, especially in Summer, and in cho-  
leric and bilious Constitutions, also in choleric and bilious  
vers, dries too much, consumes Moisture, and hinders Perspira-  
tion, acidulated and nitrous Remedies, and particularly Crabs-

rryes with Nitre, given in a Julap of diaphoretic Waters End ;  
Syrup of'Citron-juice, by moderating the too great Heat, and  
procuring a plentiful Diaphoresis, give great Relief to the Pa-  
tient.

IIL When through the Violence of any Disorder the Skin  
is dry and without Moisture, and its Pores become narrow and  
contracted, it is always best to join some mild Anodynesand An-  
xispasmodics to the Diaphoretics; and in this Cafe our anodyne  
mineral Liquor, mixed to the Quantity of three Parts with one  
Part of Spiritus Bezoardicus Bussii, is of admirable Virtue, as  
is also the fixed diaphoretic Powder, a littie nitrous, with  
Cinnabar, and one or two Grains of Wildegansius’s Pill, as is  
witnessed in many Instances by Ettmuller, in his Dissertation  
**on** the diaphoretic Virtue of Opium.

IV. Diaphoretic Powders heve this peculiar Property, that  
. they not only promote Perspiration, but also often exert a loosen-  
ing and remarkably diuretic Virtue. This I can affirm from  
manifold Experience, that our bezoardin polychrest Powder,  
heing taken in the Morning or Afternoon; if'it meets with  
acid Juices in the Primae Viae, will give four or five Stools,  
which in old Men and Hypochondriacs is attended with great  
Advantage. The same heing given at going to Bed; if the Skin  
is not properly disposed to admit *of* a Sweat, aS in the Beginning  
of Catarrhs, will work off by a large Discharge os Urine ; but  
where the Skin is sufficiently disposed to a Diaphoresis, a plenti-  
ful Sweat frequently ensues. \* ' . .

- V. In acute Diseases and Fevers, where but little Acid is  
Iodged in the Primae Viae, it will be safer and of more Ser-  
vice to give the fixed and earthy Diaphoretics in a small' Quan-  
. tity, and well mixed with Syrup of Citron-juice, or Wine  
Vinegar, because Vinegar alone will not coagulate with Wa-  
. ter, but often resolves and throws off the stagnating Blood, espe-  
cially is joined with Diaphoretics. *Frideric. Hiffman. Medicina--  
-Rationalis Systematica.*

. Thus Hoffman Very justly distinguishes hetwixt Sudorifics or  
Alexipharmics, and Diaphoretics ; Alexipharrnics being such  
Medicines as excite a great Degree of Motion and Heat, and a  
considerable Orgasm in the Body, which tend to extort pro-  
fuse Sweats, and do a disagreeable, and prejudicial Violence to.  
Nature; who is by this Means deprived of a great deal of  
rhe more fluid Part os the Blood, which otherwise might he of  
great Use in preserving the whole Mass .in a State of Fluidity,  
In promoting the Solution of the stagnating, and obstructing  
Humours, and. assisting in the Expulsion of the morbific Mat-  
ter out of the Limits of the Circulation; whereas Diaphoretics  
are Medicines endued with a gently stimulating; and perhaps  
resolutive Virtue, , by which they aid and assist Nature in carry-  
ing on her own salutary Purposes, without any Tendency to  
divert her from her Method, or to do any Violence.

In order to account for the Very sudden Effects which some  
Alexipharmics have in raising a Sweat, hefore they can possibly  
he supposed to enter into the Blood, we must reflect, that Alexi-  
pharmics consist of very penetrating and stimulating Particles.  
Now when these act upon the nervous Coats os the Stomach,  
the Stimulation thereby caused derives a greater influx of the  
nervous Fluid (is any such there be) into these Nerves, and all  
the correspondent Branches os NerVeS proceeding from the  
. same Trunk. \_ Now the Stomach receives a great many Nerves  
from the descending Tranks of.the Par.Vagum, and some  
χ Branches immediately from the Plexus Cardiacus, formed by  
the same Par Vagum, and situated a little above the Heart,  
- from which Plexus; the Heart in famished with Neryes. What-  
ever therefore stimulates the Nerves of the Stomach, must also  
affect the Nerves of the Heart, the Consequence of. which is,  
that the Force and Frequency of the Contractions os the Heart  
must be increased, and of Course the general Heat os the Fluids  
circulating by Means os such Contraction, because the Mo-  
tion and Friction is greater than hefore. The Blood thus cir\_ ’  
Culating with an increased Velocity, must he impelled more fre-  
quentiy and with more Force towards the Surface of the Skin,  
and hence an increased Evacuation by the cutaneous Pores. I  
am far from heing certain that what is generally understood by  
the *Animal Spirits,* or nervous Fluid, really exist in Nature,  
hut let the immediate Vehicles of Sensation and Motion he  
whatever they will, what I have said with Respect to the Stimu-  
lation os the Nerves must hold true. -

ALEXIPPUS, was one'of the Physicians of Alexander the  
Great, who, aS Plutarch informs us, wrote him a Letter of  
Thanks; on Account of his having recovered Peucestas from a  
- dangerous Disease.

. .ALEXIPYRETICUM, ALExIPYRETos, and ALExI-  
**' P YR ET UM.** From **άλέξω, to** *drive away,* and **Πυσττὸς,** *a Fever.*

It signifies any Remedy for a Fever. .'

ALEXIR. A Medicine chymically prepared; an *Elixir.  
Rulandus. Johnson. ' - .*

ALEXITERIA. *Alenitcrials.* In Hippocrates,

and indeed strictly (Ἀλψετ,,ρεα) *Aleniteria* signifies nothing more  
than *Helps,* or *Remedies.* Thus in the first Book *on the Diseases  
of Women,* the Author having mentioned Asses Milk and  
Wine aS proper in a particular State of the Uterus, add

Red T ἄλλα ἀλξιπόρεα, *and other Remedies.* Thus also in his Treal.  
*rise on Regimen in acute Diseases,* having just hefore taken Nol  
tice of some bad Symptoms arifing from the continual Use of  
Hydromel In acute Cases, he says, αλίξιγήρια δε Ttioin γεγξἀψνίται;  
*The Remedics for these stall be specified. . .*

.. But later Writers applied *Alexiteria* to external Remedies  
against the Bites of Venomous Animals, and even th Amulets  
and Charms, directed to be wore, with a View os preventing  
the ill Consequences os Poisons, Incantations, and Enspina4  
tion.

- It is said by some Authors, that *Alexiteriah* differ from *Alexi-  
pharmics* thus : *Alexipharmics* signify Medicines against Poisohe  
taken internally ; whereas *Alexiterlals* am Remedies against the  
Poisons of Venomous Animals inflicted externally. Hence thd  
Word has been said to he derived from ὰὴέξω, *to drive away,*or *repel,* and θἠρ, *a wild,* or *poisonous Beast* hut this - seems  
without any Foundation, for Ἀλεξετήρνα seems to import exactly  
the same as βςιηθἠματα, *Helps, Aide, Remedies,* aS άλἰξασβα. is in  
Signification the same as βοηθῆσα.,. *to help, did, or ofsisu .* And  
thus both are. explained by Galen. .......

;. Our *College Dispensatory* give a ..Water under the Title of  
*Alexiterial Milk-Waler,* and some Troches under the Name of  
*Trochisci Alexilenii, Alexiterial Troches'. . .*

**AQUA LACTIS ALEXITERIA,** *Alenitocial MtlsuWatir;*

Take of the Leaves of Meadow-sweet, Carduus Benedictus,  
and Goats-rue, each six Handfuss ; of Mint and Worm-  
wood, each five Handfuls ; *os* Rue, three Handfuis; of An-  
gelica, two Handfuis. Pour three Gallons of new Milk

. upon the Ingredients when bruised, and dishl in a Bath  
or a Sand-heat.

**. TROCHISCI ALEXITERII,** *Alexiterial Troches t*

Take os Zedoary-root, of the Virginian Snake-root, and of  
the Powder of Crab’s Claws, each one Dram and half ;  
of the outer Bark of Citrons dried, and of Angelica-seeds,  
each one Dram; of Armenian Bole, half a Dram; and of  
white Sugar-candy the Weight of the Whole. Let them  
: , he all made, into a fine Powder;-and then, with a sufficient

Quantity of the .Mucilage of Gum Tragacanth made in  
Treacle-water, work them into a Paste fit for Troches.

These are transcribed into the first Edition of the *College r  
Dispensatory* from Renodaeus, much in the same Manner as  
Schroder hath also got them in his *Pharmacopoeia Medico-Caymid  
ca,* and it was continued down to the last of the *College* with-  
out the. Emendations here, though much corrected to whet it  
was hefore. The Virginian Snake-root here is intirely new;  
and many Things are lest out which not only made the Me-  
dicine too nauseous for this Form, especially the Gentian, but  
also lessened the Proportions of the most efficacious Ingredients,  
and frustrated the main Intention, which seems originally to \*  
have heen contrived as a Preservative against pestilential Conta-  
gions. *Quincy's London Dijpensotory. , .. ,*

ALEZARAM. *scLotura Plurnbi] The Wasting of Lead!  
Rulandus. Johnsim.*

ALFACTA. . *Distillation. . Palandus. Johnsim,*. ALFADIDAM. . The *Scoria* Of Gold, Iron, or CoppeI.  
It also signifies *Burnt Copper. Castelius* from *Rulandus* and  
*Johnson. : (. ... - .' . - -*. ALFASIT, orAL.UASIT *(Testa)dn earthen POL Rulandus.*... ALFATIDA. *Burnt Capper, Gr.l^Laminatiird}* the *Lamina  
or Scales of Copper.. Rulandus. Johnsen. .*

ALFATIDE. *Sal Anantmiac. Rulandus.*

ALFESERA, **or ALPHESERA,** is the Name of a Consec-  
tion descrihed by Mesue, and said to he good in spasmodic Af-  
fections of the Nerves. From the Arabic Particle *Al,* and the  
Word *Fesera,* or *Phes.era, the Root of the Vitis Alba. Castellus.*

ALFOL *Sal Ammoniac. Castellus* from *Rulandus:*ALFUSA: *Tolly. Castellus* from *Rulandai.*

: ALGA. A Sea-plant thus named by Authors *i*

**Φὕκος δαλασαίω,** *Dioseor. Alga,* **Offic. GRASS WRA6K.** Ges,  
Emac. I569. *Alga,et Ulva,* Chain 569. *Algu anguisuli'a vsu  
trariorum,* **C.** B. 364. J. B. 3. 794. Ran Hist. I. 75, *Facui  
marinus, five Alga marina graminea,* **WRANE, OR Sea  
WEEDE, OR GRASSE,** Park. I29I. Hist. Oxon. 3. 64Y.  
Rail Synop. 7. **GRASS WRACK.** *Dale.*

There are three Kinds -of *Alga-,* one broad, another oblong  
and reddish, and the third white, which grows in Crete along  
the Sea-shore, bears a good Flower, and is not subject to' Pu-  
trefactions ...

- All the Kinds are of a cooling Nature, find effectual in Ca-  
taplasms, for the Gout, and Inflammations. But they are to  
he used while they are moist. Nicander gives rhe red Sort  
a Place amongst the Alexipharmics, and some have taken it  
for the Fucus which Women use to give themselves a salse  
Colour, but this last is a Root. of. that Name which serves  
them for the said Purpose. *Dioseor. L.* 4. Co I 00. Coined by  
*Oribastus Med. Coll'Lib.* **12. , .**

*Alga, Eeo-wrach,* called also seed θαλάσσιον, *Sea Mosuarscs llentAla*is compounded of a terrestrious and aqueous Substance, both  
Cold, sor it is astringent to the Taste, and refrigerating to rhe  
Touch. *Orib. Med. Col. Lib.* 15. *Cap.* j..

Taken green and wet just out of the Sea, it is an extraordinary  
Cooler, with a moderate Astringency. *Orib.de Virt.Simpi. L.*2. Co i. *Aetius, T.etr.* i. *Serm.* I.

*Alga* is a Kind of Plant which grows in the Water. There  
are several Rinds of it. The most Past shoot out their Leaves  
like Grass, the rest like Hairs.

. The common *Alga* is a Sea Plant, its Leaves are about a  
Foot and half long, smooth, soft, and easy to break, sometimes  
white, sometimes red, or of an obscure green, narrow, but  
some narrower than others. This Plant grows in great Quan-.  
tities along the Shore of the Mediterranean Ses, and else-  
where. The Countrymen dry it, and it serves for Fodder for  
-their Oxen and other Cattie, and obtain from it a Very good  
Manure for the Earth.. .

They also make Glass, of it as with the Kali, for it Contains  
**a** great Deal os Salt.

It is aperitive. Vulnerary, and desiccative, it is also esteemed  
good to kill. Lice and Flees. *Lernery de Drogues.*

. ALGALL *Nitre. Rulandus. Joohnsm.*

ALGAMET. *Coads.. Rulandus. Johnson. .*

ALGARAB, or GARAB. *An Anchilops. Avicenna. Sen-  
nert.Tom.2.* **SeeANoHILQPS.**

.ALGAROT SeeALGEROTH.

ALGATIA. *(Cibetta) Civet. Johnson..*

\_ ALGeDO. A Name of an Accident which sometimes  
happens in a Gonorrhoea, Of which Cockburn gives the fol-  
lowing Account: ..

Amongst the Various Accidents that happen in the Course of  
a Gonorrhoea, nonAdin attended with more Violent Pain, and  
more dire Consequences, than a Running stopping soon after  
II appears, Vthich we may properly cast the *Algedo*; yet I do  
. not. find that any Author has offered any Observation of this

Kind to the World; which Neglect Very much arraigns their  
Sincerity,, or the Accurateness, at least, they pretend to, in  
relating the Various Appearances that occur in the Practice of  
a Gonorrhoea. Musitanus alone suggesta the Symptom, but  
rnjudicioufly places it among those, that precede a Caruncle,  
For he alledges that we may apprehend a growing Caruncle,  
*Ex preegrlsusfoeda Gonorrhoea, qua mode Stranguriam, mode Dysu-  
riam, yam Ischuriam insert.* But I have observed, that if the  
Running does not proceed after the common Manner already  
related, but continues to be in a small Quantity, as it always  
shews itself at first; or if it stops without any sensible and ob-  
vious Cause of an improper Administration; in that Cafe  
there is often an intense .Inflammation on the Glands, and an  
insufferable Pain striking into the Anus, sometimes into the  
Testicles, without their heing in the least swelled, and most  
commonly into the Bladder, which last Pain is always attend-  
ed with a frequent Desue. of making Water; but it is made  
in a Very small Quantity, and with much Difficulty. These  
Symptoms thus related become Very manifest from the Nature  
of a. Gonorrhoea, and of the Liquor of the Lacunae. For  
let the infected Liquor of the Lacunae he tied up by Applinati-  
ons or Administrations of any Kind, or become grosser on a  
sickly Account, so that the Stimulus of the Corruptinn does not  
excite the Quantity os the Efflux in a due Proportion; in that  
Case the Liquor is still more corrupted, and becomes more  
sharp.'. Now this sharp Liquor being constantly applied in the  
excretory Ducts ths the Glands,.to the membranous Coat os'  
the Urethra, excites Pain and an Inflammation. . . , :

Pain heing thus made in .the-Urethra, we may easily conceive,  
how it is propagated into the Bladder, and other Parts men-  
tioned above ; for the Urethra is a continued Duct to the Neck  
of the Bladder, and the Inflammation is Very readily carried its  
Length,, and communicated to the Bladder, and with it the  
Pain. ' This is likewise the Reason that the Vasa Deserentia and  
Vesiculae Seminales, that open into the Urethra, purtake os this  
Inflammation, and communicate the. Pain into the Testicles :  
As also, that the Pain is conveyed into the Anus by the Means  
Of. the accelerating Muscles os the Penis, winch terminate in  
that Part. . .. ... ........

.. But to explain these Symptoms more particularly, that, the  
Design we have in curing may become more obvious and di-  
rect, we will begin with accounting for the frequent Desire of  
making Water ; and why it is voided with great Pain, and in  
a small Quantity. The Reason of this Symptom is, that the  
Neck ofche Bladder heing vastly inflamed, it is vchernently  
stimulated by the Saltness of the Water, and by this Stimulating  
a frequent Desire of discharging it is excited. The Bladder it-  
self bring also inflamed, it cannot be so easily applied for ex-  
pelling the Urine, and therefore it is thrown out in a smaller  
Quantity ; and, upon both Accounts, is made with great Pain.  
Moreover the Neck of the Bladder heing thickened by the In-  
flammation, it is opened or dilated with great Difficulty, and  
therefore the Urine is jnelther freely expelled, nor without great  
**Pain. '. ..**

The frequent Irritating the Bladder with the sharp Urine is  
the Reason why the quick and repeated Pain in making Water  
is. a more Constant Symptom of the Stoppage of the corrupted  
Matter, than are either the Pain in the Anus or in the Testicles,  
though the Pain in these is produced as really by the Pain in the  
Urethra as that in the Bladder, but not so directly. For Pain  
made in contiguous Parts is occasioned by the Stimulus or Com-  
preffion of adjacent Parts that are affected; so that the derived  
Pain is equally owing to the Inflammation, as is the Pain in the  
Part originally affected. Dally Experience affords us Various  
and sensible Examples of Pain derived to a contiguous Part  
from another that is first hurt. A Pain any way produced in **a**Finger is not only propagated by the common bending Muscles  
that Inay send a Branch to some Distance, and thus he carried  
directly a great Length up the Arm, but it likewise affects other  
Muscles in the same Contiguity, and reaches farther than the  
Origine ofany of the'Muscles os the Fingers, and may be pro.,  
pagated to Parts Very distant from that first affected with Pain.

But which is more surprising, contiguous Parts affected mutu-  
ally by the Inflammation of either, not only receive Impres-  
sions of Pain from each other, but will even adhere and stick  
to one another. The Adhesion of the Lungs to the Pleura is  
an Affection of this Kind, as is the Adhesion of an Intestine to  
the Peritonaeum, and such Adhesions of many other Parm  
that have often been found in dissecting Bodies, especially those  
that were morbid or sickly.

All these grievous Symptoms heing produced by the retarded  
Efflux of the Liquor of the Lacunae, notwithstanding that is.  
sharp and corrupted, and commonly stows in a greater Quantity  
upon that Account ; yet as this Liquor is found at present in **a**small Quantity, for Reasons afterwards to he assigned, it ac-  
quires the greatest Degree , os Corruption possible, and that by  
its not running off in the ordinary Quantity. Now as this Very  
-sharp Liquor is constantly applied to the Urethra by its continu-  
ing in the Lacunae, which run parallel to its inner Coat, the  
Pain is rendered more and more intense. Our Inquiry there-  
fore must he, why this Efflux is retarded, notwithstanding that  
**the** Liquor is more sharp, or is indued with a greater Stimulus,  
a Cause we formerly found sufficient for exciting a Running.  
It will easily he believed that Injections and Medicines, that are  
any thing astringent, inwardly administered have sufficient  
Power to check the Discharge of the corrupted Liquor ; nay.  
Medicines of such Qualities are esteemed so sufficient a Cause,  
that seldom any other has been assigned for the Interruption ;  
so that we may astert, that these Medicines are sometimes the  
Occasion of. checking the free Essiux of the Liquor of the La-  
cunae, though it he corrupted, and were otherwise sharp enough  
to produce a Running.

But another Couse never yet assigned for producing fuch a  
Stoppage, is when the Liquor of the Lacunie, eVen in this its  
corrupted State, acquires an extraordinary Grolfness, and on '  
that Account hecomes incapable to stow, or flows only in a  
Very inconsiderable Quantity. This Groffness of the Liquor of  
the Lacunae is acquired from a Groffness in the Blond itself  
in a great many Diseases, as in a Cold, a Fever, &c. The  
Way how this Groffness. is formed by a Cold or a Fever, is ob-  
ViouS from the general Defect of Secretions at that Time ; info-  
much that Hippocrates .observes that Ulcers, and I have oh-  
served that Issues, Very commonly dry up in the Beginning of a  
Fever. And in great Colds, when a Fever is generating, and  
in several other Distempers, the Liquor of the Lacunae is be-  
come so gross, that the Quantity of its Essiux is het moderately  
augmented ; though it being corrupted it stimulates the GlandS  
sand their excretory Ducts, and fur that Reason ought to in-  
crease its Quantity considerably: Hence it is that the Pain, and  
all the above-mentioned Evils or Misfortunes are produced.

. Some very good Practitioners, who have been apprised of the  
great Danger and Difficulty that arises from the flow Running in  
this Circumstance of a Fever, have attributed the Slowness of a.  
Running, or the Smallness of its Quantity, to the Heat of the  
Fever, which they supposed did lick up the Matter of the Run-  
ning ; but this flow Essiux is ’ truly an Unaptness in the Li-  
quors to run off, and that hecaufe of their Thickness.

Because an inward Shanker fometimes.suppreffes the Running,  
it may give some Suspicion of its heing an Occasion of this ter'.,  
rible Symptom ; but Shankers seldom give any great Pain, nor  
do they infect the Liquor of the Lacunas till they begin to dis-  
solve ; and this Liquor not heing infected during the Hardness  
of theShanker, there is not naturally any Pain produced on that  
Account, or Shankers in the Urethra never produce this pain-  
ful Symptom. All this is manifest from the Experience of in-  
ward Shankers.

From what has heen said it plainly appears, That the Inflam-  
mation and Pain in the Urethra, in the GlandS, Bladder, Te-  
sticles, and in the Anus, are altogether the Consequences of this  
sharp Liquoris heing pent upjn the Lacunae ; and therefore,  
that in curing these Symptoms, little or no Regard is to he had  
to the Inflammation in the mentioned Parts, hut rather to what  
may make the pent up Liquor flow. Indeed the Folly of en-  
deavouring to cure Diseases, by taking Aim at their Symptoms,

is aS conspicuous in the present Case, aS it can he in any other  
**whatsoever: So** that Bleeding, Emulsions, and other cool Ad-  
ministrations that most readily occur to French Surgeons, are of  
**no** manner of Use. But Bathing, that commonly goes along  
with the former, is of great Use ;. though not for cooling an  
Inflammation, as they think, it really satisfying the principal  
.End and Design of unlocking the Lacunae, and giving a Pass  
sage to the stagnating Liquor. So Vastly different is a Practice  
managed upon Analogy, \_ and a blind Experience, and when our  
Experience is directed by Reason.

And therefore, as the Indication of Cure is always best drawn  
from the Nature of the Disease, I will endeavour to deduce the  
Method of Cure from the Nature of this Symptom thus ex-  
plained, which heing occasioned by the Discharge out of the  
Lacunae being very little or nothing at all; and that upon the  
Account of the extraordinary Groflhess. their Liquor acquires,  
either on Account of the present State of the Blood, or that the  
Blood and the Liquor *of* the Lacunae ase become thicker by the  
Means of Medicines that bring this Quality of Thickness upon  
the Blond. The Method of Cure therefore consists in destroying  
the mentioned Grofiness of these Liquors, which will he found  
more easily done when this Thickness is acquired by Medicines,  
than when it is occasioned by the Means expressed, while I in-  
vestigated the Symptoms of Inflammation and Pain.

In conducting the Practice of Physicians for relieving these  
Symptoms, I 'cannot proceed in the Method of giving the De-  
signs and Prescriptions of other Authors, none other having  
- ' spoke of this Accident before me, and on that Account we  
have nor any Method forcuring what either they never observed;  
or they were afraid to relate Symptoms so surprifing, and at **the**same Time so new, lest the first should cast some Reflection on  
their Judgment in treating, or the last on their Skill in disc  
cerning them. But as I am sure that no such Symptom has  
. heen mentioned among Physicians, so the Mistakes I might he  
under in first apprehending it, give more Credit to the rest of  
the Relation To Men of Worth and ingeniousPhysicians.

History **I.**

In August I7i6,1 was sent for to Visit a Patient who had been  
long ill of a Gonorrhoea, winch had been checked by an Injeci  
tion made with Plantain Water, Honey of Roses, and Sugar of  
Lead. He had it once checked hefore he brought it from a  
foreign Country. . As I found the Running of a Very green Co-'  
. lour, And the Glans Very much inflamed, I was persuaded that  
the Inflammation was continued from about the first Lacunae  
down to the Neck of the Bladder, so that the best Course was  
toexcite the Running. . \*

For this Purpose I prescribed him a Scruple of .ZEthiops Anti-  
monialis with ten Grains of Gum Goaiacum, to he taken eve-  
ry Night going to Bed, and in two or three Days the.Running  
increased, and his Pains Vanished.

**HIST OR Y si. -**

It was in August I7I6 that I found the *Algedeq* when a  
. Gentleman put himself under my Care to he cured of a Gonor-  
thcea ; but finding he was ill of a continual Fever, I recom-  
mended it to him to return to his Lodging and to go to Bed.

Next Morning his Running was in a Very small Quantity,  
though it had then appeared five Days ; the Glans was prodi-  
gioufly inflamed, and the Fever of a low Sort, that was like to  
hold him a Fortnight, or three Weeks. '

. Ltold him that in his Circumstances no Method forcuring a  
Gonorrhoea could agree with the Practice of the Fever, except-  
ing that by a proper Injection; but something extraordinary ap.  
pearing in the Running, I was not willing to make Use of thin  
new Method in a Case liable to a great Variety of Accidents,  
whereby both I and the Method might be exposed to much Ob-  
loquy ; and as the Infection could not creep into the Blood by  
neglecting to cure it, the safest Course we could take was for  
curing the Fever.

Our Matters went Very successfully while wo pursued this  
View, but I was surprised that the Running did not increase as  
the Fever came to its State; but was rather less, and the Gen-  
tleman begun then to complain of a Pain in making Water,  
and that he had often Occasion to make it. In a Fortnight  
the Fever went off, but my Patient was not yet in a Condition  
to enter upon any Course for the Gonorrhoea,. which continued  
to he as was related at the Beginning. When he had heen three  
or four Days about the House, and the Season of the Year warm,  
he was tempted to go out a walking in an adjacent Garden,  
though the Wind was Easterly, and the'Garden on the River  
‘Side. He took Cold; and the Pain and Desire of making Wa-  
ter increased so Vehemently, that he could not steep, hut sent  
' early next Morning for the.

When I had considered these Symptons, I found the Blad-  
der was inflamed, bur did not dream of. this Inflammation be-  
ing derived from some other Part, and therefore I ordered him  
Emulsions, Bathing, to he bled, and Clysters, on Account of  
this’ Inflammation. Moreover, the Pain heing excessive, he  
sometimes took Clysters in a Very small Quantity, in which  
were five Grains os Opium, to procure a little Quiet and **Re-**

spite from’it. But as these Methods and Applications afforded  
small Relief, I was joined with another Physician, who agree-  
ing with me, about the Opinion I had of rhe Bladder heing in-  
flamed, we pursued the former View with Changes os Medicines,  
arid with aS little Success.

The Pain darting some Time into the Anus, gave the other  
Physician some Suspicion .of the Piles, but I thought it passed  
into that Part from the Bladder, »as I did believe the Pain he  
found sometimes in fome one os his Testicles likewise did *: Nay,  
after* every Day suspecting a new Disease, this Physician, at  
length, suspected his having a Carnality, which I convinced  
him to he impossible in so littie a Time; yet these Differences  
occasioned Mention to he made of having Assistance from a  
Surgeon, which I readily- agreed to, and was mightily pleased

. with the Person he named, though he was a Stranger to me, he  
haying a Very good Character, both for lus Honesty and Skill.

But before we met, the Disease shewed itself, for in the Wa-  
ter, appeared a great deal os Running, and of a Slough; so  
that afterwards we sound we could have no other End to pur-  
sue, than that of exciting the Running’. The Surgeon con-  
fessed he never had any such Case, but that the Matter of the  
Gonorrhoea had been licked up by the Fever. I added, that  
the Fever had certainly hindered the Running, as I have former.»  
ly explained, together with the mentioned Symptoms os Pain in  
the Bladder, Anus and Testicles; hut when this Surgeon and I  
were met alone at this Patient's Lodging, I offered my Opinion  
about the true Couse of all such Accidents, which he generous-  
ly acquiesced in, and told the, he had long entertained a like  
Opininn. He took Occasion, likewise, to declare to my Pati-' -  
ent, that no Method could have been taken for the Gonorrhoea,  
that would not put him in Danger of his Lise, or have ended  
in the Tues Venerea.

The Method therefore we took to provoke the Running,  
was by giving mercurial Medicines, and purging them off.

Take Calomel fifteen Grains,  
Solid Laudanum one Grain,  
Conserve of Hipps, enough to Itiake a Bolus, to he taken  
going to Bed, and to he repeated the two succeeding  
Nights.

Take of Gereons Decoction of Senna, four Ounces,  
Calabrian Manna, half an Ounce; make a Potion, to **be-**taken the Morning after the last Bolus.

He proceeded in this Method almost a Month, hefore he was  
free from Pain. In all that Time, his Running never was iii  
a great Quantity. He was obliged to persist taking the EmuI-  
sions. Broth, and other soft Liquors that were formerly pre-  
scribed sor the Inflammation, which were proper enough to ease  
this Symptom, though not to cure it. When the Pain and  
Difficulty in making Water were removed, the small Gonor-  
rhoea was cured by one of the common Forms

**HISTORY IH.**

ln the same Month of August, 17 I 6, I received a Letter  
from a Gentleman in the Country, desiring my Advice sor aiI  
intolerable Pain he had when he made Water; and the fro-  
quent Desire he had to make it; which he always did in a Very  
little Quantity. He told me, that he often was afflicted with  
the Pain in his Testicles, or in the Anus, .when it was not  
working about his Bladder. He sound he had a Gonorrhoea  
in the Morning, which stopped by Noon, and ever fince that  
Time he had been tortured with Pain.

(These Symptoms increased so fast upon him, hefore he could  
expect an Answer to his Letter, that he \_ forthwith came to.  
London, and made me a Witness of his Torment. But as it  
was manifest that the Pain was .occasioned by stopping of the  
Gonorrhoea, and this by an excessive Cold; I endeavoured to  
excite the Running, .and that by the mentioned Method of Coe  
lomel Boluses he took four Evenings successively, which were  
afterwards purged off next Morning aster he had taken every  
Bolus. His Drink was aS soft as we could contrive, but not\*  
diuretical, and his Diet was chiefly Broth; yet we found no  
Manner os Respite from these terrible Symptoms in a Fortnight.  
And therefore I ordered mercurial Medicines os greater Efficacy,  
and that he should take a Bolus every other Evening made with  
eight Grains *os* Turbith Mineral; which neither purging nor  
vomiting him, each Dose was augmented to fourteen Grains in the  
Turn of a Fortnight; which Very great Dose would purge him  
twice or thrice, but never Vomited him.. I would gladly have put  
him into a Salivation, rather than have continued in a Course  
of so Vast Dofes of so rough a Medicine; but some Business ho  
had then depending did not admit of it, so that. I was forced  
to proceed in this Method for a Month or five Weeks before  
he found any Benefit from it. After that Time he had no Dart-  
ing into the Anus, he made his Water very freely and without  
Pain, but he suspected that he sometimes sound a Darting into  
one of his Testicles. It ran a little for three or four Days, but  
it afterwards Ceased of itself.

When our Matters were brought to this Pass, I had him purged  
four ‘or five several Times, intermitting always a Day be-  
tween the Purging ; and aster he had taken this PhysickI order-  
**ed**'him fifteen Grains of Turpeth Mineral twice a Week for a  
Fortnight. After all, he drank a Very strong Decoction of **the**Woods for six Weeks together.

Notwithstanding the great Quantity of Mercury this Gentie-  
**man** had taken, which he took aS well as the Diet-drink with the  
utmost Exactness of Diet, and Manner of Living, he broke out  
all over his Body sour Months aster he had finished this Course ;  
yet he found nothing to complain of, but that he had at Times  
a small darting Pain in some one of his Testicles. This Mis-  
fortune put us under the Necessity of a Salivation for a more  
perfect Cure, and his Astaire now savouring this Method, he  
went straight under that Course.

' He spit about two Quans every Day for about a Month, and  
about a Quart in a Day for three Weeks more; in the last Part  
of this Time he felt no Manner of Pain; yet in less than six  
Weeks after the Salivation, he broke out again in his Legs and

' Arms, but was cured by the diaphoretic Mercury of Paracelsus,  
*Cocldurn os. a Gonorrhoea.*

ALGEMA. Ἄλγημα. *Uneasiness, Pain.* The Word is al-  
so often used by Hippocrates, to signify the Disease whence **the**Pain proceeds. This Author makes Use of the Word in a Mul-  
titude of Places. χ ’ -

ALGEMET. *Coals. Rulandus.*

ALGERLE, ALGERIE. *{Calx} Lime. Etdandus. fohn,  
son.*

ALGEROTH. *(Mercurius Vitae) Mercury of Life.* **A**Preparation os Antimony and Sublimate, so named from *Alge-  
fothos,* a Physician of Verona. *Castellus.*

ALGOIDES. An aquatic Plant of which Monsieur Vaillant  
gives the following Account:,

*Algoides vulgario, Potamogeton capillaceum. Capitulis ad Alas  
trifidis,* Έ. Pin. 193. Prod. **I0I.** Raii Hist. **I. I9o. N° I2.***Item, Potamogesto Affinis,' GraminiseUa, aquatica,* - Raii ibidem.  
**No I3..** *Itemque Polamogiton omnium minimum. Graminis Facie  
capillaceum. Filiculis curvulis bints, tcrnis, Dorsi dentato,* .Kort.  
Gath, ejusdem Raii Hist. 3. I22.- *Petamogeitosimilis, ramosis,  
et ad Genicula polycrratos,* Pluk. Tab. 102. fig.-*J. Equisetum  
polygonoides. Aquis innatans, Potarnogeitonir tenuisellae Facie, ad  
Genicula vofculis.crum.* Hist. Oxon. 3. 621. No 2o„

It is strange that a Plant, so common Jn our Waters, should  
not he mentioned in the *History of those Plants which grow in the  
Country about Paris.*

»: It is to he observed, i. that though Ray he not one of those  
Botanists who love to multiply the Species of Plants without  
Necessity, he has yet made three of this one, as you see by  
the Quotations of the different Synonyma. 2. That though  
among the Characters he gives os the *Potamogeiton* he had  
mentioned the Growing os the Flowers in Form os an Ear, and  
though he had observed that those of this Plant, whose Struc-  
ture he did not know, were dispersed along the Stalks and  
Branches, yet he scrupled not to reduce it under that Kind,  
from whence he should in Truth heve excluded it both in the last  
Edition os *lds.Synopsts,* and in that of his *Methodus.* 3. If this  
Author saw no more than two, three, or at most but four Pods,  
Or Cornicula (so he names what I call *Capsula)* at each Joint of  
the Plant, it was hecause he had the Fortune only to meet with  
one or two that happened to he no better furnished, for they  
have commonly five and sometimes six at a Joint. ’

. The *Algoides* is a Species of aquatic Plants, with imperfect  
and hermaphrodite Flowers. Each Flower proceeds from the  
Wing of a Leaf, and commonly consists only *of* a Testicle, Or  
Stamen, and some Ovaries disposed in a circular Order, which  
become so many solid monosperm Seed-Vessels. The Leaves are  
simple, intire, without a Pedicle, and for the most Part stand  
opposite by Pairs. -

We know only one Species of *Algoides.*

.. It grows at the Bottom of Waters, and hecause its Leaves  
resemble those of *Alga,* I suppose it took the Name of*Algdi-  
des. Memoires de PAcademie Royale des Sciences Ann.* **I7***icy.*

*. ALGOS.* **Ἄλγος.. The same as ALGEMA, which see.**

ALHAGI. This is **the** *Ages et Alrnagi Arabibus, Planta  
spinose Mannam resipiens,* j. B. *Genista spartium sipinosurn Po-  
stis Polygoni,* C. B. *Spinosum Syriacum,* Park. The PLIANT  
**THORNY BROOME OF SYRIA.**

It rises a Cubit or more in Height, and is set Very thick  
round with a great Number of exceeding sharp, (lender, pliant  
Thorns, on which grow divers Flowers of a purple Colour.  
When these sall off, they are succeeded by small, long, red-  
dish Pods (like those of the Scorpius) full os Seeds of the same  
Colour.

The Inhabitants of Aleppo gather from it a new Kind os  
Manna, the Grains of which are somewhat larger than Cori-  
ander.

It in bushed round with an almost infinite Numher of small,  
smooth Branches, which disperse themselves from the Trunk in  
*d* Very beautiful Order, and are for the most part overspread  
**With** Dodder, after the Manner of Thyme, At the joints of

the Thorns grow the Leaves, which are ash-eoloured, oblong,  
and of a polygonal Shape, The Root is long and of 4 purple  
Colour.

The Manna, gathered from this Shrub, is Called by the Ara-  
bians *Tereniabin,* or *Trangeina.*

It is sound in Persia, and in the Neighbourhood *of Aleppo ;*also about Kacka a City in Mesopotamia.

The Leaves are of a hot drying Nature, and the Natives use  
the Flowers as a Purgative, one. Handful of which boiled in  
Water suffices for a Dose. *Raii Hist. Plant.*

ALHANDAL. *Colocynth.* See COLOcXNTHIs.

Our *College Dis.pens.atory* directs a Troche under the Name **of***Trochisci Alhandal,* as follows ; .

Take os white Colocynth Palp cleared from its Seeds, and  
cut small, of Gum Arabac, Tragacanth, and Bdellium,  
each six Drams. Let the Gums he macerated *for* three  
or four Days in a sufficient Quantity of. Rose-Water,  
so that they may he diflolved in it ; and with the sore-  
mentioned Palp let all together he heat up into a Consistence  
for Troches.

“-This Contrivance is as old as Mesue, and hath been but  
" little Varied in all the Hands it hath passed through; \_ it seems  
" originally designed by the Gums to deaden, in some Measure,  
" the Violent Operation of the Colocynth." *lQuinofs London  
Dispensatory.*

ALHANNA. The same as ALANA TERRA, which fee.

ALHASEF, or ASEF. A Sort of Pustule, called also HT-  
DRoA, winch see.

ALICA. A Food much .celebrated amongst the Antients.  
But the Various Accounts given of it by different Authors  
make it somewhat uncertain whet it was. For some represent  
‘ it as a Sort of Grain, and others as a Sort *of* Aliment made of  
Grain.

In order to give a just Idea of this Aliment, I shall insert  
the different Passages wherein the Antients have taken Notice  
of, and then give the Opinion of Salmasius concerning it.

The Greek Word is χοἱδρος. ’

*Alica* cleansed is a proper Aliment .for the Sick in Fevers.’  
**Is** the Stomach he firm, and the Belly bound, it is adviseable  
to give it in Hydromel; but if the Stomach he weak, **and**the Belly loose, it is heft taken in Vinegar and Water. *Celsius,  
D3.C.6.*

*Alien* is in the next Degree to Ptisan for Goodness, and has  
some few Qualities in common with it, which are the Cause  
that .it is highly esteemed. Viscidity, Smoothness, and Plea-.  
santness of Taste, are common to them both, het in all other  
Respects Ptisan exceeds *Alica ;* and both of them are either  
simple or'compounded with Honey only. *Anetaus de Acut.  
Morb. L.* I. *C.* IO.

The Chondrus [χίνδρος} is made of that Sort of Zea which  
is called dicoccoS *(double-grained}.* It is more nourishing and  
binding than Rice, and much mote agreeable to the Stomach.  
Boiled in Vinegar, and the Parts anointed therewith, it takes  
off the Lepra [λέπραςΐ amends the Roughness and Scabbiness os  
the Naiis, and heals a beginning .ZEgilops.' The Decoction  
ufed in a Clyster, is good for such as labour under a Dysentery  
accompanied with Pains. *Dioscor. L.* 2. *C.* 118.

*Alsea* in other Things is like Chondrus, but binds the Belly  
more. *Paulus AEginet. L.i. C.foe. -*

*Alica* is a Kind of Wheat. We ought to he Very careful in  
preparing those sorbile Liquors which are made os it; for its  
Juice is mixed with Water, and requires a good deal of Boil-  
ing; whence it is apt to deceive those that prepare it, who  
think it is boiled enough, and *so* present it to the Sick who  
are great Sufferers by if, *for* it soon thickens, being of a gluey  
viscid Substance. Therefore putting a great deal os Water to  
it, boil it Very well, and stir it with a Stick of Dill till in  
he enough, when you may throw in a little Salt, and if you add  
*Λ* little Oil at first, it will he never the worse. But for healthy  
Persons, who by Reason, of a Vehement Gnawing of the Sto-  
mach, or a sudden Transit of a bilious Humour, may want **a**hearty Draught, let the *Alica* be boiled till it be quite soft, **and**then strained, and then it makes a Liquor like Ptisan, which  
is to he drank off The fame Way of Preparation is to he used  
with *Alica* after it is steeped in Water. *Oribas. Galeno-Med.  
Col. Lib.* 4 *C.* i.

*' Alica* ought first to he macerated in Water, and three Eights  
of a Pint allotted to three Pints and a half of Water, and two  
Pints of Milk. Let it boil gently over the Coals, and stir is,  
holding the Vessel in your Hand that it may not burn. But  
observe that the Milk is to be poured hot into it, when almost  
boiled enough. *Oribas. ex Dieuch. Med. Col.* 4. *C. y.*

*Alica* is is more drying than Wheaten Meal, and therefore  
not so proper to bring a moderate Inflammation to suppurate aS  
the other, but is better than Wheat for humid Inflammations.  
*Oribas. Med. Col. Lib.* I4. *Cap. pscsu*

*Alica* and Simila are of a Very thick and glutinous Juke.  
*Oribas. Euporist. Lib.* I» *Cap. tsp-it.*

*\*Asica* is a Rind of Wheat, Very nourishing, and os a gluey  
Juice, whether you eat it boiled in Water, or take it in Mul-  
sum, or Sweet-wine, or with some Astringent (which may he  
proper on Occasion) or eat it fried with Oil and Salt. Some-  
I times Vinegar is put to it ; and *Alica* prepared aster that Man-  
: ner, we are told thy Physicians, made a Ptisan; and some say  
chat a Ptisan os *Alica* was Fond for a sick Person. Some os  
the Antients, aS DiocleS and Philotinus, call *Alica* thus prepared,  
. 4 *Wheatm Ptisan.* Therefore its Name, as well as that of  
*Sitanium,* is seldom to he met with in old Authors, for they  
.call it by the common Name of *Wheat. Galen, de Aliment.  
Lib.* i. *Cap.* 6.

*Alica* is like the Seed of Tragum. *Galen, de Aliment. Cap.* i3.  
Galen, after discoursing of the Typha, Olyra, and Zea, says,  
there are Very many Sorts of Grain like them, though not quite  
of the same Kind; some of which seem to hold a middle Place  
between Barley and Typha, or between Typhe and Olyra, or  
Olyra and Wheat ; some come nearest in Nature to Olyra,  
others to Barley or Typha ; some to Wheat, others to Pana-  
cum, or Millet. And these have Names too; some simple,  
as that of winch *Alica* is made in Italy ; some compound, as  
what in Cappadocia they call *Gymnocrithos,* that is. *Barley hulled,*and whet in Bithynia they name *Zeopyros. Galen, de Aliment.  
L.* I. *C.* 13.

There is no small Difference in the Kinds of Wheat; for  
**whet** is heavy, dense, and yellow in its inner Substance, affords  
most Nourishment, and such as is of a thick and glutinous  
juice ; but the light, rare, and of a white Substance, nourish  
Joss, and generate a Juice not so glutinous. Similago and *Alica*nourish much, and are of a thick and glutinous Juice. Such  
as are obliged to use an attenuating Diet must not meddle with  
Similago, but they may seed moderately on *Alica,* either boiled  
in Water, or with Mulsum, or Wine, and that *of* a sweet  
Kind, provided it he yellow, of a thin Body, and nearest in  
-Strength to the *Falernum. Galen, de Atten. Vict. Cap.* 6.

*Alica,* white Bread of Wheat, Tragus, Pork, and Eggs,  
rare Aliments of Very good though viscous Juice, and afford  
' excellent Nourishment, where the Stomach is able to .concoct  
them, and the Liver to convert the Chyle mm Blood. But  
as they retain their Viscosity, the Passages of the Liver and  
Reins, especially where they are strait by Nature, are subject  
to be obstructed by them. Therefore the frequent Use of. them  
Is observed to beget a Sense of Weight, and sometimes a Pain  
about those Parts. But an Obstruction of the Liver isaccom-  
panted with the Hindrance of the Distribution of the Chyle,  
-and a Plenitude in the Meseraic Veins and those Of the lower  
.Belly, whence there is Danger Of a Phlegmon in the Parts  
where the Collection is made, or a -Putrefaction of the redun-  
**dant** Humours, which must of Necessity .he .concocted and con-  
verted into Blood, or else putrefy, as it always happens where  
they make-too long a Stay in a warm Place. *Galen, de Succ.  
Lon.Cap.* 2.

Ptisan seems to nourish soon after it is taken, but it affords  
thttle Nourishment and quickly ceases:; whereas *Alica* nourishes  
much, and continues to do so sor .a long Time, *Galen, in Hipo  
poor. Aphor. Com.* 2. *Aph.* I8. \* ss

*... Alica* is reckoned \*by Pliny among the vernal frumentaceons  
Kinds, or such as are sown in the-Spring, with Respect to Italy,  
.aS Milium, -Paninum, Lens, and Cicer. *Plin. Nat. Hist. Lib.*I8. Cap. 7.

r Pliny, in his *Natural History, D* IB. *C.* IL. aster, entertain-  
ing us -with an Account of several Borts of Bread and then  
.Names, with Various Ways .of dressing Grain, and taking NO-  
Iice of the Rise of Bakers, congratulates his Own Country,  
Italy, as carrying the Balm for Fruits, on Account of the finest  
-and most wholesome *Alica,* which .is no where else do. well pre-  
pared. It .is true, fays he, it is prepared.also.in Egyps, het  
that scarce deserves mentioning. It is made in several Places of  
"Italy, as in the Districts of Verona .andPisa, but -the-best as in  
-Campanini *Alica* is made of Zes, -which we. .call *Peed.*

.This they .pound in a wooden Mortar, lest the Hardness of  
?a stone Mortar should break it too much, wish Pestles, and  
-Criminals condemned to hard Labour, as.every.one knows, are,  
-employed in it. To the foremost of thefe Mortars .«stands :af-  
ifixed an Iron Grate-box, whence the Chaff, .heing rwinnowed  
**.off,** the Grain thus stripped of its husky Part is beaten over  
. again. By this Means we have three Sorts of *Alica,* .thessmali,  
fthe Middling, and the Largest; this last They *casl Apharema.*All this While they have acquired nothing of that extraordinary  
.Whiteness which so much .recommends Them, .thougfrthejAlex-  
. andrian are. in this .State the best. Put whatsis really Io head-  
mired, after they have taken so much Pains to cleanse :it,rthey  
rhave a Way to-mix it-with Chalk, .which .incorpotatesrwith it,  
- and communicates its' Colour and Fineness.——-Bastard *Alica sm*made chiefly of African Zes, which degenerates in that.Coun-  
try. It has a broader and .blacker Ear, ; anda.short Stalk. They  
t. pound it with Sand, and yet can hardly free it from the Hulls,  
.- after which it shrinks to half the Measure of the original Grain.

. Then they add to it. a fourth Part of white Gypsum (Plaistery  
and having well mixed them pass them through a Sieve that

a

is used sor Meal. What remains they call *Excepti lions,* and  
is the largest Sort. The rest is passed through a Sieve with finer  
Holes, and is called *Secondary.* This is passed through a third .  
Sieve so fine that it will only transmit Sand, and has then **the**Name *Ds.stsuibraria* bestowed on it. There iS another Wav  
of adulterating it, which is used every where. They chase  
the whitest and largest Wheat, and having first parboiled it,  
dry it in the Sun, and then sprinkling it a little, break it  
in a Mill. Better *Alica* is made from Zea than Wheat.

*Alica* is an Invention of the Romans, and of no great Anti-  
quity, for if it were, we should not have heard so much from the  
Greeks in Praise of Ptisan. I do not think it was in Use in the  
Time of Pompey the Great, and therefore we find very little  
written of it by the Disciples of Asclepiades. That it is highly  
useful none doubts, whether it he taken diluted in Hydromel,  
or boiled and the Decoction drank, or eaten aS Pulse. To  
stop a Looseness it is first roasted, and then prepared with  
Wax. But it has a peculiar Virtue in restoring such aS by  
Jong Sickness are reduced to a Cachexy ; let a Quarter os **a**Pint boil gentiy in a Pint of Water, till the Water he con-  
**sumed ;** then put to it a Pint of Goats or Sheeps Milk, and  
drink it for several Days together, and then mix Honey with  
... Such Draughts are good to mend a consumptive Disposition;  
*Plin. L.* **2.** *C.* **25.**

*Alica* was thought to nourish much (whence it took its Name,  
according to Sextus Pompeius, *ab alendo)* so that it deserved to  
he cafled full Diet, according to Galen. It generated good  
Juice, but glutinous, and apt to cause Obstructions; to reme-  
dy which Fault, the Antients had various Ways of preparing it;  
oftentimes they mixed it with Hydromel, sometimes with sweet  
Wine, to make it an arteriaca! Medicine, and good sor Con-  
sumptions ; sometimes with an Astringent for shiarrhceas, or  
with Pomegranate Seeds, and sometimes fried it with Oil and  
Salt. And hecause χίνδρος, or *Alica,* has nothing in it detersive  
or attenuari ng, if they intended to prepare it for a sorbile Li-  
quor that should have these Qualities, they boiled it not only  
with Dill, hut with Leeks, Penyroyal, Calatnint, or Hyssop.  
The χίνδρος of the Antients does not stem to differ much from  
our wheaten Preparations, if you except their Chalk and white  
Mortar. There was also a Sort os Bread made os Chondrus,  
called χμάρίτης, which nourished Very much, and did not east- ,  
ly pass off downwards. When we read in Aerius χίνδρος *satiedur,*in Conjunction, he means no more than barely χοἱδρος; bur  
seems to join the Names, hecause none should doubt os the  
Thing .signified. But it is plain that both he and Paulus have  
inserted many Names in their WFirings, winch were unknown  
to the Antients, and in so doing Consulted Convenience mote  
, than Elegance and Propriety. *Gorrlumus in voce* χὀνδρος.

*\_ Alica* is sometimes taken sera certain Species of Bread-corn.  
See Pliny and Celsus shesore quoted] hut more frequently .for  
a Preparation os Zes, which is called *'steed. Alica,* in its huge  
Acceptation, differs from the Chondrus os .the Greeks, aS the  
Genus differs from the Species, for the Chondrus was not pre-  
Dared with .Chalk, - but with white Mortar and Sand, like the  
African Bastard Zea mentioned by Pliny. *Rail Hist.*

*-Xpripla. is Aspect,* for so the Gloflaries interpret it, *Alica, xbibestes.*How it was made Pliny explains ; " *Alica,* says he, is made .os  
" Zea, which we called *a Seed, &ccsu* So then .the Zea was  
pounded in a wooden Mortar to make *Alica,* not in a stone  
Mortar, lest the Hardness os the Stone might break it too much,  
for it was only to he hulked, not bruised,, and was to he heaten -  
fill it had lost all its -Coats,. This done, the naked Grain was  
to he pounded, or beaten again, which produced three Sorts ;  
that is, .the Least, -the second Rate., and the Largest. This, says  
Pliny., was called *Asiharema, dssisasque,* .which was in a Manner  
only stripped of Its Coats, the Grain, or Medulla, remaining  
unbroken ; and this was properly the χοἱδρος. .of the Greeks, foe  
.which there were three Sorts, hut the largest was the .best. So  
the *Geoponic Eclogues t 'Emde Ti dura,* ιπιπτίσῆη, *yeocapi.w xtapecrapicstici*ἁδροτερω’ κἀλλιστος δὲ ο πρῶτος, σητεὶς γγνἱτα. χἀδρος, δεὑτερος. σι ο εσὶ  
μάΤῳ,,καὶ ελἀκταν :ὁ τρέτος. ‘‘Aster they are hushed .or pilled rto-  
" gether, they are passed through a coarse Sieve, and the fairest  
ee is.whet remains of the first Winnowing, viz. the Chondrus,  
" the Secondary, or second Rate, is next, and the third is the  
Ci worst and smallest." The Author says the same as .Pliny,  
.who expresses himself more clearly .a littie .aster, speaking of  
.the Way of making the Alexandrian *Alica,* he says, « They  
'"increase it a fourth Part with an Addition os white Oyp-  
" sum (Plaister) *.SaF* as above. Here .this Passage of the  
*Greek Georgies* .above-cited is clearly explained. What in call-  
*ed exceptitious, excepwia,* in -the .Editions, is *exeepiica* in the  
Copies. -It .certainly .ought,to *te.Sestica,* χη,-εκτα, so called μα?  
ὰξοχἠν, *by.Way of Eminence,* which was paffed .with wider.Holes,  
-which Pliny:called *farinarium,* .and the Greek Author .. ἀῤρέτερον.  
Hence ,it appears, that the Greek χίνδρος .is .the Roman *Alica.*And the Greeks called It *esroestes, Chondrus,* hecause It ’.was  
broken into great Fragments, not ground toa Meal. Hence  
Πυρὸς χονδρώδης in Athenaeus, *Corn ground into gros.s Fragments.*So χονβρέινὰμὲν. *Corns:ofSalt,* χάὸνβν4.βευου, *Pits .of Frankincense.*.Henceρὶςθ χπόρίτης *chondritessereaclg*-w^S mmie of

Wheat bruised or broken into large Fragments like\* χοἱδρος,  
*Chondrus.*

Though the Nature of the *Chondrus,* or *Allen,* sufficiently ap-  
pears from whet has been said, some have reckoned in among  
the Species of Grain, as a Sort of Wheat. Paulus yEgineta,  
‘-χονδρω σιτου τὸ Ιιδος, *The Chondrus, a Species of Grain.* And  
Galen, τα γενους τω» πυρων ἔστιν 5 χόνδρος, ἰκανῦς τροφιμ» τε καὶ γλίσχρον  
ί?χων τὸν χυμὲν. *Chondrus is a Kind of Wheat, sufficiently nourtjh-  
ing, and of a viscous Juice. Lib.* I. *de Aliment.* He adds  
that by the Antients it was called *vrapir si- wcperrrragia.*Wheat appellatively. Who cannot but admire so much Igno-  
rance in so great a Man? He cites Hippocrates, who says, μὲν  
lon σου χόοὐρου καπέσκευασμὲνας ἄρτας τροφιμοτιάστας μὲν ίιναι, διαχωρετν δὶ ῆήτον.  
*Bread made os.* Alica *was very nourijhing, but not very eas.y to  
pose off.* Hippocrates does not speak this of such a Sort of  
Corn, but as the Property of a Kind ΟΓ Meal, properly  
so 'called from its heing coarfly ground.. Bread made of this  
Meal, he says, was Very nourishing. These were called χαδρετ-οΛ,  
*Ghlmdritai,* as the σεμιδαλἔται, *Semidalitai,* were so called, because  
they were made of Semidalis, which also was nor a Species of  
Grain, but a Sort of Meal. In Galen's Time the Greeks had  
left off the Use of the Word γήιδρος for *Alica,* and changed it for  
the Word *Alica,* corrupted άλξ. So that they knew nothing of  
the antient χοἱδρος, and by that Means came to interpret it of a  
Species os Wheat. *Salmasius de Homonym. Hyles Latr. Cap. esesu*

ALICES. The littie red Spots in the Skin which precede  
the Eruption of Pustules in the Small- pox. *Castellus.*

ALICORNU. The same with UNICORNU, which see.

ALIENATIO MENTIS, is the same as DELIRIUM,  
which fee.

ALIENUM. In a medicinal Sense It is applied to any  
Thing that is foreign and troublesome to the Body. Some-  
times also it imports *corrupted,* but *alienatus* is generally used in  
this last Sense.

ALIFORMES PROCESSUS. See PTERYGOIDEs.

ALIGULUS. A *Confection. Rulandus.*

ALILAT, ΟΓἌλικτα, an Arabian Word, signifying what the  
Asiyrians call Μύλιττα, the Jews rl'bth *Lilith,* and the-Greeks  
Ἐιλειόςεα; and is the fame as *Meter Torrs,* and *Filia Lucina,* or  
*Luna,* the Deity that presides over Child-birth. Ἄλιλάτ is as  
you would say jnwim *Alilaih,* whence comes *Idlith,* and also  
the Word nwb *Lailah,* signifying the Deity of the Night.  
Ἄλικτα is as much as to fay NnsaN *Alitha,* which also signifies a  
Goddess, as well as the Greek Ἐιλείθυεα, which is much the  
same as NnnsaiN *Elithuia.* In the most ancient Ages, “'Ηλνος, or  
Γήλεος, among the Greeks, signified *Filius, a.* Son. Therefore  
ἘιλείΑυεα was .the same as Κόρη, or *Filia,* a *Daughter,* or *Libera ;*as Ἔλεος was the same with Κόρος, or *Libor Patcr.* **THA** is also  
the Gothic Name of the Sun. The Assyrian Μὑλιττα, or  
NmsalD *Molidhetta* signifies a *Midwife*; for Women with Child  
reckon by Moons. *Alilat* therefore is the same as *Lucina.*

ALIMA A Sort of Sand, found in Gold Mines, of which  
they make Lead. *Rulandus.*

ALIMENTA. *Aliments.* Whatever is taken to nourish  
the Body, from *Alo,* to nourish.

. The Nature of *Aliments,* in general, may he understood by  
what is said on this Subject under the Article ACIDA, and the  
Article ALCALI. And the Properties of particular *Aliments*are specified under their respective Names.

The Antients, particularly Galen, have been very diffuse on  
the Subject Of *Aliments.*

AS I would avoid heing tedious, I shall give Hippocrates's own  
Abridgment of his Sentiments upon *Aliment,* I mean his Trea-  
tise *de falubri Victus Rations*; and because Galen is too prolix,  
**I** shall insert his Doctrine from later Authors who seem to have  
taken great Pains to epitomise his Works, not without adding  
some Things from their own Fund. And I shall end this Article  
with some Chymical Observations made by Mr. Geoffroy the  
Younger, and by him communicated to the Royal Academy of  
Sciences.

I attribute the following short Treatise to Hippocrates, on  
the Authority of Galen, who thinks it certainly done by'him,  
or his Son in Law Polybius, though even in the Time of Ga-  
Ien it was said by some to ho wrote by others either contempo-  
ry with, or perhaps elder thanHippocrates.

But I must remark one Error which was universal amongst '  
the Antients, which is, that they imagined the Blood to he  
formed from the *Aliment,* in the Liver. But this Piece of  
Theory has heen absolutely confuted, since modern Discoveries  
have made the true Passage Qf the *Aliment,* and the real Me-  
thod of the Blood's circulating, manifest.

With Respect to *Aliments,* it must he observed in general,  
that it is Very littie worth their While to consider the different  
Qualities of Foods, who use Exercise daily sufficient to bring  
them to the Verge of Lassitude, who go early ata Night to  
Bed, and rise soon in the Morning; for all *Aliments* supply

a good Chyle when perfectly digested, by the Assistance of  
Exercise and Regularity. But the Consideration of *Aliments*is a Speculation of great Importance to the Waletudinary, the  
Lazy, and the Riotous.

The Regimen best suited to Persons in the ordinary Way of  
Lise [ἰδιώτας] is to eat -plentifully, and drink sparingly in the  
Winter Time. They ought to drink pure undiluted Wine, to  
eat Bread, and to have their Meat all roasted. Greens are sel-  
dom or never to be eaten during this Season: By this Method,  
the Body will be preserved dry and warm.

In The Spring they should bring themselves by Degrees to  
drink more, and have their Wine more diluted. Their Vege-  
table Food is to he more thin, and less in Quantity. Maza is  
to he used instead *of Bread ;* their animal Fond is on the same  
Account to be diminished, and boiled Meats are to supply the  
Place of roasted. They are to he sparing in the Use os Greens  
rill Summer approaches, but seed on the inore thin Vegetable  
Foods, and boiled Flesh, and some Herbs boiled, or raw ; their  
Drink in like Manner ought to he much increased in Quantity, -  
arid much diluted. But this Change must be brought about by  
Degrees, that the Transition may not he too great and sudden.

In Summer the Food ought to he thin Maza [μάζα μαλακηψ  
-the Drink plentiful and diluted, and all the Flesh boiled.' And  
this is the Way of Living to he chosen while Summer lasts, in  
order to render the Body cool and moist during this hot and dry  
Season, which inclines the Body to Heat and Dryness. . By this  
Management, we guard against the InconVeniencies of Summer s  
And by the same easy Steps aS we pass from Winter to Spring,  
are we to proceed from Spring to Summer, in shortening our  
Allowance of dry Food, and increafing our Measure os Drink;  
but just the contrary Method must he taken as we pass on from .  
Summer to Winter. .

In Autumn our *Aliment* os the frumentaceous Kind *[crarsa] -*ought to he more in Quantity, and drier; and our animal  
Food [οψα] in Proportion. Our Drink, on the contrary, is to  
he diminished, and to be less diluted, that so we may pass over the  
Winter in the most commodious Manner, when our Drink  
comes to be least in Quantity and undiluted, and our *Aliment*the most copious and driest, under which Regimen a Person  
shall enjoy a good State os Health, and be least sensible os the  
Severity of the Weather in this cold ’and humid Season of the  
Year. -

For Persons of a full Habit of Body, whose Flesh is soft,  
and their Countenances ruddy, it is most advisable to use a dry  
Kind of Diet for the greatest Part of the Year, because their  
Constitutions abound with Moisture. On the contrary, they  
who are lean, whose Fibres are dry and tense, and whose Com-  
plexions are tawny or black, ought to feed'on moist *Aliment* the  
most Part *of* the Time, as bring most agreeable m the Drffm  
ness of their Bedies.

. . Young Persons are to chuse such Meats as are tender and  
moist, because their Youth inclines them to Dryness, and their  
Fibres are rigid. But Persons of an advanced Age are to use  
a dry Kind of Diet for the most Part of their Time, because  
Bodies at that Period of Life are soft, moist, and cold.

In general, our Regimen os Diet is to be accommodated to  
the Age, Season, Custom, Country, and Constitution, in such  
a Manner as to always guard against Attacks from Heat, or  
Cold'; for this is the .Way to live sound, and free from Dis-  
eases, . \_ .

In Winter you should travel sast. In Summer flow, except in  
the burning Heat of the Sun. The Corpulent are to travel fast-  
est, and the Lean stowesta In Summer you are to bathe often,  
in Winter, but seldom ; and Bathing ought to be used more  
frequently by lean than fat Persons. The Clothing of fat Peo-  
pie in Winter ought to be the natural Stuff, in Summer the  
same dipped in Oil but lean Persons are to observe the con- -  
trary \*.

. Such aS are burdened with Fat, and desire to he thin, ought  
to take all their Exercises sassing, and afterwards to sit down  
to their vegetable-Food, before they have recovered Breath froth  
the Fatigue, or are cool, and then to hegin with a Draught  
of Wine, diluted, and not too cold. Their Flesh ought to he  
dressed with Sesamum [oily purging Grain, *Dale.] or some -*grateful preserved Vegetable, or something Of that Kind, and  
to be very sat, that it might the sooner create a Satiety. Besides,  
they ought to eat bur onoe a Day, to abstain from Bathing, to  
lie on a herd Bed, and to exercise themselves in walking naked  
as much as possible. : ;

Lean Persons, who are willing to grow fat, ought to act di-  
rectly contrary to the aforementioned Precepts, and to use no  
Exercise upon an empty Stomach.

As to Emetics and Clysters, observe the following Rules:  
During the six Winter Months use Vomiting, hecause this  
Season is more phlegmatic than the Summer Half-year, and  
generates such Diseases as affect the Head, and the Reo-ion above

\* Tins Passage perplexed Galen very much ; het Dacier has taken away the Difficulty, by the Addition of three or foar Words in  
which he is warranted by a ManuscrJpt in the King of France's Library.’ -.... ἐν .. . ...

the Diaphragm. When it is Very hot, make Use of Clysters, -  
for then it is very sultry, and the Body abounds with Choler,  
there is a Sensation os Weight upon the Loins and Knees,  
Heats arise, and griping Pains affect the Belly. The Body then  
wants to he refrigerated, and the Humours, which are exalted  
and tend upwards, ought to he drawn down from the higher  
Parts.

For corpulent Persons, who abound with Humidity, Clys-  
ters of a saline and thin Substance are to he prepared ; to dry;  
lean, and feeble Bedies, fatter Clysters, and of a thicker Con-  
sistence, are best accommodated. These last are prepared with  
Milk, or the Decoction of Chich-pease [εάβευος] or other like  
Ingredients, the thin and saline Clysters are made with Brine,  
or Sea-water, and other Things of that Nature.

The Uss of Emetics is to he regulated in the following Man-  
ner : Persons os a sat and full Habit os Body are to Vomit upon  
an empty Stomach, after Running or Walking very fast, about  
the Middle of the Day. For this Purpose they may take soin  
Ounces *of* Hyssop bruised in six Pints of Water, with an Additi-  
on of Vinegar and Salt, to make it the more agreeable; let them  
drink this first leisurely, and afterwards quicker.

They who are of a thin and weak Constitution must Vomit  
aster Eating, in the following Manner: Aster coming out of  
the hot Bath, let them take half a Pint os pure Wine, and then  
make a Meal on Variety of Vegetable Fond ; but not drink ei-  
ther at or aster Eating, abstaining from Drinking while a Man  
may run ten Stadiums [about an English Mile and a Quarter].  
Then mix up sor them three Sorts of Wine, which must be the  
austere, the sweet, and the sour. Let these be' drank first  
pure, soberly, and by small Quantities; hut afterwards more  
diluted, and hy quicker and more plentiful Draughts.

Such aS have accustomed themselves .to Vomit twice a Month  
had better take an Emetic two Days one-after another, than\*  
every fifteenth Day; but some observe a quite contrary Me-  
thod- . - .

As for those who are subject to throw up their Victuals by  
Vomit, or are costive, the best Method is to eat often in a Day,  
and of all Kinds ofFood , to have their Meat dressed all Man-  
ner of Ways, and to drink of two or three Sorts of Wine.-  
Those who are not subject to Vomit, or who have loose Bellies,  
ought to manage themselves by a Method directly contrary to the  
foregoing.

Infants are to be washed with warm Water for a song Time,  
and to drink Wine diluted, but by no Means cold. Let their  
Wine be such as will not breed Inflations, or cause the Belly to  
Twell; by which Means they will be the less subject to Con\*  
vulsions, will grow large, and have a good healthy Colour.

Women ought, in general, to observe a dry Regimen ; for  
" dry *Aliment* is best accommodated to the Softness of their Flesh,  
and Wine almost pure is best for the Womb, and to nourish  
the Child therein. ssss I . . . . .

i. As to Exercise, Running and Wrestling ought to he used in  
the Winter; in Summer but little Wrestling, and no Running,  
'but 'much Walking in the cool- Air is then Very'convenient.

Those who are tired with Running ought to wrestle ; \* and  
those who are satigned with Wrestling ought to Tun ; for by  
this Means he who exercises will procure a Warmth to the  
fatigued Part, Compose himself at Leisure, and afterwards hetake  
himself to Rest in the most agreeable Manner. .

If a Person, during a Course os Exercises, be seized with a  
Diarrhoea, and his Food comes off undigested, he must forbear  
one Third at least of those Exercises, and eat but half his usu-  
al Allowance. For it is plain, that the Stomach is destitute  
of sufficient Heat to. concoct such a Quantity 'of Food. Let  
him eat Bread very well toasted and put .into Wine*, let.* his  
Drink be Very little in Quantity, but. of the purest and undiluted  
Wines, and let him not walk after Meals, of which he must  
make but one in a Day, while under this Regimen. By this  
Management the Stomach will be wonderfully warmed and che-  
rished, and have Strength to digest whatever it receives. . This .  
. Kind of Diarrhoea in most incident to such as have firm, hard

Flesh, especially when they are obliged to live much upon ani-  
mal Food, being naturally disposed to this Disorder; *for* their  
. strait and narrow Vessels are incapable of receiving the *Ali-  
ments.* This is a very uncertain Sort of Constitution, and rea-  
edy to turn either Way, never remaining long settled on a  
:strm Basis of Heasth, But they who are of a thinner and more  
lax Habit of Body, and more hairy, bear Eating os Flesh, and  
^sustain Labour much hetter, and enjoy their Health much lon-  
ger, than the others.4 They who are troubled with Eructations,  
and Inflations os the Hypochondria,-from the indigested Food  
os the preceding Day, ought to fleep longer than ordinary, and to  
Force themselves upon some new Exercise, to drink their Wine  
pure, and in larger Quantities, and at the same Time to shot-  
ten their Allowance os Food ; for there are plain Indications,"  
that the Stomach, by Reason of its Coldness and Imbecillity,  
iis unable to digest the great Quantity ofFood which it receives.

For such as labour under Thirst, less Food, and less Exer-  
cise, with the most refrigerating and diluted Wines, are most  
.proper to be advised. Tltey who are afflicted with Pains in the  
Viscera, whether from Exercise, or hard Labour, ought to he-

take themselves to Rest without Eating, and to take a Draught,  
which, though little in Quantity, shall he a most powerful Diu-  
retie, that so the Vessels osthe Viscera may not he distended .  
through a Repletion, whence Tumors and Fevers arista

Persons who labour under Disorders that proceed from the  
Brain are first affected with a Stupor; they make Water of-  
ten, and heve other Symptoms in common with those who suf-  
fer under a Strangury. These hold them for nine Days, and  
if there he an aqueous or mucous Discharge from the Nose or  
Ears there is a Solution *of* the Disease, and the Strangury .  
-ceases. Plenty *of* white Urine comes off from the Patient with-  
out Pain till the twentieth Day, at which Time the Pain of the  
Head leaves him, but a Dimness of Sight remains, when the Pa-  
tient sixes his Eyes long on any Object..

The Man of Understanding knows that Health is the most  
Valuable Gift to Mortals, and when attacked by Diseases has  
Skill enough to baffle them, and he his own Physician. Hip-  
pocrateS περὶ διαίτης ύγιεενῆς. .

The Man who takes due Care of his Health ought to know,  
above all Things, the Nature os *Aliments.* To say somewhat  
then in .Relation to this Subject, *Aliments* that heve an atienu- '  
ating Quality open the narrow Passages, scour off the glutinous  
Particles that stick to Bedies, and incide and attenuate those  
which are gross. But if a Person accustom himself sor a long  
Time to the Use of them, he is in Danger of heing over-run  
with serous and bilious Humours; and is he perseveres in such  
a Diet, his Blood, in the End, will become melancholy. For -  
all Foods of this Quality are apt to heat and dry to Excess, and  
by that Means to breed the Gravel in the ItidnieS. He must  
abstain therefore from the continual Use os them, especially of  
such as are of a bilious Nature; for Meats os this Kind are  
only -proper for those who abound with Phlegm, and crude,  
gross, and tenacious Juices. Many chronic Distempers have been  
cured meerly by the Use of an attenuating Diet. And it is much  
hetter to abstain from Medicine, in Cases where we may attain  
out :End by a Regimen ; as I have known that out of many '  
Persons labouring under the Gravel, and not a sew under the  
Gout, who have had their Joints laid bare with Tophe, some  
have been perfectly cured, and others much relieved, by a.  
strict Observance of the Rules of Diet. Some who have  
been a long Time afflicted with an Asthma, or Difficulty of  
Breathing, have heen wholly released from that Disorder, or  
had the InterVais of their Fits Very considerably lengthened. An.  
attenuating Diet reduces an overgrown Spleen, and mollifies an  
hardened Liver, perfectly cures Epilepsies, if undertaken in the  
Beginning, and not a little moderates them, when grown in-  
Veterate. All that are irritating, or biting to the Taste, or  
Smell, are acrid and attenuating; and whatever, is nitrons or  
hitter, the same has an inciding Quality. But there is no  
small Difference, whether any of these Simples he administered  
in Oxymel, Vinegar, Salt, or Oil. For Vinegar and Oxymel  
increase their Strength; but Oil diminishes it. In the Whole,  
among attenuating Eatables we shall find more Medicine than  
*Aliment. - - -*

Foods of an incraflhting Quality afford much Nourishthent,-  
proVided they are well concocted in the Stomach and Liver ; nor  
do they fail of generating Blond of a good Juice, and yet they  
cause Obstructions of the Liver and Spleen, and if there he but  
the least Beginning of an Inflammation in the Viscera, they  
greatly increase it, as well as Inflations; and scirrhous Affecti-  
ons, and generate Abscesses. Of this Sort of *Aliments* some  
there are which generate only a thick Juice, as Lentils ; o-  
thers a glutinous, as Mallows; some both, aS Animals which  
are covered with a Shell. But it is a safer Way, in order **to**Health, to use an attenuating, than an incrasiating Regimen  
of Diet. But hecause the sormemeither affords much Nourish-  
ment; nor gives Force and Strength to the Fibres, we may -  
safely; though with Moderation, at proper Seasons, indulge  
those -who live by attenuating Food in the Use *os* Meats that  
generate a thick and very nutritive Juice, especially when they  
find themselves to want Nourishment. Indeed such as are not  
concerned in publick Offices, but can use much Exercise, and  
steep as long as they please, are enabled by Custom to indulge  
.themselves in the Ufe of Meats that yield a thick and glutinous  
Juice, and especially if aster a full Meal they have no Sen-  
sation of a Weight or Tension in the Hypochondria. But such  
as, through Age or Imbecillity, cannot use Exercise before  
Eating, must wholly abstain from fuch Fond; as well as they  
who spend their Lives in Sloth and Idleness; for Rest of the  
Body is as great an Enemy to Health, as moderate Motion is R  
Friend.

After all. Meats of a middle Nature between attenuating  
and incrasiating are the best and fittest to be chosen, as keep-  
ing the Blood in a due Consistence. *Aliments* of this Kind then  
- are most accommodated to our Bodies; but such aS generate  
bad Juice are hurtful; and always to be avoided. And you  
will find it the hest Way to shtm Variety in Foods, and the ra-  
ther if they are of contrary Natures, hecause they will never  
.he brought to a due Concoction. *Orib. Med, Coll, ex Galena  
Lib.* 3. *Cap.* i.

**ALIMENTs of an ATTENUATING NATUaE.**

*Aliments* of an attenuating Nature are Garllct, Onions,  
Leeks, Cresses, Mustard, Pepper, Alexanders, Pelhtory of  
. -Spain, Origanum, Nep, Hyssop, Water-Mint, Penny-Royal,  
s Thyme, Savory, when they are green; het dried, they become  
medicinal. And, generally fpeaking, dried Simples are stronger  
than the same green ; and what grows on Mountains, or in dry  
Places, has more Virtue then whet is gathered in Plains, or  
in Gardens. After the fore-mentioned, follow in Order Rocket,  
Water Parsnip, Smallage, Parsley, Basil, Radish, Cabbage,  
Beets, Carduus, Eringo, Nettles, Fennel, Coriander, Rue,  
Dill, Lovage, Cummin, Capers, tbe.Fruit of the Turpentine-  
Tree, the Seeds of Caraway, of Anise, of wild Parsley, of  
Bishops-Weed, of Heartwort vulgar, and of Candy, and of  
wild Carrots, all odoriferous, acrid, and manifestly het  
Simples. The Seeds of Rue and of Hemp vehemently attenu-  
ate, so as to become medicinal. Of Corn, only Barley pro-  
perly belongs to this Class, and, though in an inferior Degree,  
wheaten Loaves baked in an Oven. From the rest you are to  
abstain, unless you have a Mind now and then to taste some  
Peafe, or Lentils. But we arc plentifully supplied with attenu-  
ating *Aliments* from Rock-Fish, and Mountain-Birds; for Ani-  
mals that live on Mountains are of a hotter and drier Nature,  
and their Flesh least pituitous and glutinous. Therefore you  
may eat Starllngs, Thrushes, Blackbirds, and Partridges, with  
Hoofe-Sparrows, and such frnall Birds as live about the Vine-  
yards. Of Pigeons, wild ones are better than tame; and ob-  
serve, in general, that Animals which are exercised, and live on  
dry Fond, and breath a pure and free Air, arc wholesomer  
than such as lie still, feed on humid *Aliment,* or are confined in  
Coops and Stalls. Of Rock-Fish, you may eat of the Rain-  
bow-Fish, the Cock-Fish, the Old Wife, and the Scare, and,  
**in** short, wherever is of a soft and friable Flesh. But meddle  
not with those whole Flesh is hard and glutinous. The Cosi-Fish  
is of a foft Flesh, but less friable than that of Rock. Fish ; **on**the contrary, that of the Mullet is friable, but nut soft. There-  
fore let Softness and Friability he rhe two Properties by which  
you are to judge of the Flesh of Animals ; where these are in  
Conjunction, you may eat to Satiety when both are absent,  
avoid such Fish intirely ; if either be wanting, yon ate to eat,  
in such a Case, where better is not to be had, hut not to Sa.  
**they.** Your Cod-Fish then, and Whiting and Mullet, and  
other Sea-Fish may he eaten, for Want of Rock-Fish, espe-  
cially with Mustard, as the Scorpion-Fish. There are some  
other Sorts of Fish that are endued with one of the above-men-  
tioned Qualifications, but, by Reason of an Excels in another  
Property, ate to he refused. For Eels, and most cartilaginous  
Fish, are of a foft, but, at the fame Time, of a glutinous and  
Pituitous Flesh, and are therefore hurtful to such as have Need  
**of** an attenuating Diet. Of cartilaginous Fishes,, only the  
Cramp-Fish and Turtle are allowed, and may he eaten, when  
Rock-Fish cannot he procured ; the Sole and Plaice hive the  
same Properties. As to Birds, I do not forbid those who use  
Exercise the Eating of Hens, Pigeons, and Turtle-Doves,  
especially such as live in the Mountains ; but they must not he  
fresh killed, but the Day before at least, which I would -have  
observed of all Animals whose Flesh is moderately hard. Salted  
Fish attenuate and incide in an extraordinary Manner-; of these,  
ctiuse such as are naturally of a tender Flesh, but the cetaceous  
Kind is to he avoided. Pork faked may he , safely eaten with  
Moderation. Of autumnal Fruits, such as mollify rhe Belly  
can do no Harm ; ctiufe therefore soft Ftuits hesore hard, and  
refuse such as fey a long Time in the Body.; but eat of none  
**to** Satiety. Fruits extraordinary sharp or four are contrary  
to the Regimen proposed ; but the most adapted to our purpose  
- are Figs, Walnuts, Fistic Nuts, and bitterish Almonds. O-  
lives are of such a Nature, that I can neither commend nor  
disapprove of them. As for sweet Things, whether Meats or  
Drinks, none but Honey, I hare say, generates an exquisitely  
thmijoihe. White and thin Wines cut .gross Humours, and  
expel them by Urine. Whey is accounted among Things en-  
dued with an attenuating Virtue, but Oxymel is much more  
accommodated to rhe Purposes os an attenuating Diet. *Orib.  
Mede Col. Lib. 3. (Ap* 2. *ex Galena. y*

**ALIMENTs of an tNcRASSATING NATURE.**

Things which generate thick Juices are Loaves baked under  
she Embers, and inch as am not wall made, what they oast  
*Tragus,* Cakes made of Flour and Must; and those they call  
*Itria,* and whatever else is made of wheaten Meal, without  
Ferment, or Leaven, particularly Cakes made in a costly and  
artful Manner of the fame. Besides thefe, Simiia and Alica  
**breed** Plenty of a thick Juice, but Amylum moderately. Kid-  
.ney.Beans are of a thick Juice, and st, are Lupines, and the  
inner Substance of Lentils, the Seeds of Sesamum and of  
Hedge-Mustard, Fishes which are called*fast,* fUCb as the Rinds  
of Cuttle-Fish, the Polypus, and the cetaceous Kind. The  
.following are of an extraordinary thick Juice r Others, Whelks,

**the** Purple Fish, Eseallops, the several Sorts of Cockles, Na.  
kers, and, in one Word, all that are covered with a Shell.  
To thefe we may add Eels, Snails, Deer, and Goat ; Beef;  
Pork, Hare, Liver, Kidnies, Testicles, Brain, spinal Marrow,  
Udder, Tongue, Glands, this fast moderately; Milk too much  
helled, all Cheese, but least when new, or made of sour Milk,  
sour Milk boiled over the Fire, Eggs boiled to a perfect Con-- ’ -  
cretion, and more fo when roasted, but most of all when they  
are fried in a Pancake; Dates, Chefnuts, Acorns, Bulbi,Tur-  
neps. Mushrooms, the Root of Arum, Truffles, Pine-Nuts,  
Figs not full ripe, the Pulp of a Citron, Cucumbers too  
freely eaten, unripe Apples. Of Wines, the fweet generate **a**thick Blood, especially what they east *Defrutum*; and so does  
Must, and thick and biack Wines. *Oribasc Mede Cal. Lib.* 3.  
*Cap.* 3. *ex Galena.*

**ALIMENTS of a MIDDLE KIND.**

Meats of a middle Nature hetween Attenuating and Ineras, *'i*sating are. Bread well made. Hens, Dunghil-Cooks, Pheasants,  
Partridges, Pigeons, Heath-Cocks, Turtle-Doves, Thrushes,  
Blackbirds, and all small Birds, Fish that live about the Rooks,  
near the Shore, or in the Shallows of the Sea, as Sea-Gudgeons,  
Lampreys, Soles; in a Word, ail such as do not taste flimy,  
nor have a rank Savour; ripe Figs, and among Greens that  
grow wild, Seris, which is a common Name to several Species,  
for which the Attics , have distindt Appellations, as Lettuce,  
Gum Succory, Chervil, and others innumerable. To this  
Class of Meats helong also wild Sparrowgrass, with the tender  
Shoots of the Dwarf-Laurel and Bryony. And also Wines of  
a yellow Colour, sweet, and pellucid, as those of Chios, Lesbos,  
Falernum, and the Mountain.Wine of Tmolus; for all these  
generate a laudable and moderately thick Blood. *Idem, Cap.* 4.

**ALIMENTS which generate a vIscID JUIca.**

Foods generating a viscid Juice arc. Wheat that is ponde-  
rous, dense, and yellow in its inner Substance; but the light,  
thin, and of a white Substance, has less of this Property. Simila  
allo and Alien are very viscid Food, as likewise Tendons, and  
the nervous Extremities of Muscles, the Parts about the Lips,  
the Tongue, all Swine’s Flesh, and Lamb, the Seed of Sese-  
mam. Bulbi, and sat Dates. *Idem, Cap.'s. ’ ’ -*

**ALIMENTS generating CRUDE HUMOURS,**

Green Dates so fill the Body with crude Humours, as to  
cause a Shivering in those who eat them, which is difficult to  
remove; Turneps too freely eaten ; testaceous Animals of the  
Water, who have hard Flelh, and have lost all their salt Li-  
quor by too much Boiling ; those you call sese, as the Polypus,  
and Cuttle-Fish, and the like, with the cetaceous Kind ., **the.**Ventricle, Intestines, and Uterus of Quadrupeds . bard Glan-  
dules boiled, sour Milk, Cheese, Bread fried in a Pan, Lupines,  
Grands that burden the Stomach ; all these Foods generate **a**crude Juice, 'and sill the Body with raw Humours. *Idem,  
Cap.se.*

**' nAjLlMTNTs generating co-LD HUMOURS.**

, - They who seed on Cucumbers to a Satiery must of Necessi-  
ry, ahdhy Order of Nature, fill their Bodies with cold Juices,  
which are not easily converted into good Blood. The .like  
are generated by the Bellies, Intestines, and .Uterus of Qua-  
drupeds, by sour Milk, Mushrooms, unripe Apples and Bulbi.  
*Idem, Cap. y. '*

**\ AI.IMENTS** generating **PHLEGM.**

Phlegm, or a merely pituitous Juice, am generated'by the  
nervous Parts of Animals, Glandules, helled Lamb, the Mush-  
rooms called *Amanita,* testaceous -Fish whose Flesh is soft, un-  
ripe Apples. *Idem, Cap. 8.*

**ALIMENTS** generating **a IaEL-ANciiOLY JUICE.**

. Beef, and; Goafs Flesh, but especially that of a He-goat, and  
-Bull’s Beef, generate a melancholy Juice ; -much inore the  
Flesh of Asses, Camels, Foxes, Dogs, Hares, Wild Boars,  
the Flesh of terrestrial Animals faked, and their Milts.. Of  
Sea-fish, the Tunny, the Whale, the Sea-calf, the Sea-dog, anil  
all the cetaceous Kind, produce the like Humour. To these  
we may add Snails, Cabbage, Ruds of Trees pickled, as those  
of the Lentisk, Turpenrine-tree, Bramble, and Dog-rose. The  
Pulp of an Artichoke and Lentiis are very melancholy Food.  
Of the same Quality are Bread made with Bran, and inch ςκ is  
made of Typha, and other coarse and bad Sort of Grain ; so  
are green Wheat, Aphace, Viche [Kinds os Vetches] and thick  
and black Wines. *Idem, Cap.* 9.

**ALIMENTS .generating a BILIoUS JUICE.**

The Juice of the Artichoke is bitter, and rarefies the Bile;;  
it is heft therefore to eat the Artichoke boiled. Honey also ea-  
**sily** changes into Bile in hot -Bodies; which is also the case  
with

frith all sweet Wines, and sweet Food, which supply Maury  
for the Generation of Bile. *Ham, Cape* Io.

**ALIMENTS generating an ExcaEMBNTITIoUS JUIcE.**

Wood-Pigeons, Geefe, except thein Wings, all Viscera,  
. spinal Marrow, Brain, Birds thet five near Marshes, Pools,  
and Lowlands, Chicties, green Beans, Egyptian Beans, Pegi  
just farrowed, and the Young of all Animals newly fallen from  
their Dams; Animals that lie at Rest., Fish thet live in Rivers  
and standing Lakes, and delight in Mud, and all Sea.fish ofthe  
cetaceous Kind, generate all of them a foul and excrementitious  
Juice. *Idem, Cap.* **II. . . ,**

ALIMENTS void of EXCREMENTfi.

' The Necks, Taris, and Wings of Birds, the Flesh of wild  
Quadrupeds, and such as use dry Places, are void of excremen—  
titious Matter. *Idem, Cap.* **I** 2.

**ALIMENTS full of NUTRIMENT.**

The Flesh of Swine, bred up and fatted by Hand, nourishes  
above all other Eatables. The Brains of Oxen, their Testicles,  
**Heart,** spinal and other Marrow, the Wings of Geefe, and  
more the Wings of Herrs, the Bellies of all Birds, Snails, espe- ‘  
orally aster two or three Boilings., all these afford abundant  
Nutriment. Of testaceous Fish those whose Flesh is hard, as  
Cockles, the Purple Fish, Whelks, and others of the. llke Sort;  
also the Kinds of Lobsters, Cray-fish, Crabs,' Shrimps, and sisch  
Iike, with those culled sese, as Polypuses, the Kinds of Cuttle-  
fish, and the like, nourish much; of the cartilaginous Kind,  
the Cramp-fish, and the Weass, or Old Wife, nourish mode-  
lately; the Thornback, Maid, and Skate, more then these;  
and the Mullet and Sea-gudgeon lest. Milk thet is thickest  
nourishes more than the thinner. Of Bread made of Siligo  
or Simila, the former nourishes most, and next to these what  
is mined with Bran. Boiled Wheat, Simila, Alica, Beans,  
generate Flesh not firm and clofe, but of a lex Texture. Chi-  
ches and Kidney-beans nourish more then Beans, and Octiri  
than Fenugreek. Kidney-beans nourish as much as Pease,  
Lupines, Chesuuts, Lentils, fweet Dates, rich and sweet Grapes,  
Acorns, a Sort of Tumeps, called *Navews,* and Bulbi, are all  
very nourishing, especially after two Borlings. Honey clarified  
is proper not only for Nourishment, but for the Distribution of  
the fame; and so is Hydrornel well helled. All Wines nourish  
in Proportion to their Thickness; therefore red and thick  
Wines are best qualified to breed Blood ; next to these are the  
Black, Sweet, and Thicke where these Properties unite as be-  
fore, and after them the Red, Thick, and Astringent at once.  
Wine that is white, thick, and austere, is less nourishing; and  
Wine that is both white and thin, least of all. In short, all-  
Foods of a thick Juice, if they are well-conceited, afford much  
Nourishment. *Idem, Cap.* 13.

**ALIMENTS which yield little NUTRIMENT.**

., The extreme Parts of Animals nourish little; which Pro-  
perty belongs also to the Uterus, Belly, Intestines, Tail, Ears,  
Feet, and Suet. Birds nourish less than terrestrial Animals;  
the Flesh of old Animals nourishes less than while they are  
growing. The Aliment that Fishes afford, breeds a thinner  
Blood, as not being in a sufficient Quantity, and soon digested.  
Of testaceous Fish, such as have soft Flesh, aS Oisters, nourish  
little. Barley-bread, howsoever made, nourishes less than.any  
other; fo does the Polenta that is made of in The fame may  
he said of Bread mixed with Bran, or any other coarse Ingre-  
dient, and of Loti, Amylum, Maza made of Barley, Polenta,  
Oats, Millet, but especially Panic, Rice, green Beans, Poppy-  
- seed, Liofeed, Clary, Hips, Juniper, berries. Myrtle-berries, Al-  
monds, Pissaches, Plums, Peaches, Apricots, Olives,especially ripe,  
Haste-nuts, but especially the largest Sort of Walnuts, Jujubes, .  
the Emit of the Cornel-tree. Blackberries, the Fruit of the Straw.  
herry-tree. Zizypha (a Sort of Jujubes) common Walnuts, Win-

. ter-cherries. Capers, especially pickled with Salt, Cabbage, Beets,  
Docks, sharp, pointed Docks, Purssane, Night-shade, Radishes,  
Turneps, Mustard, Cresses, Pellitory of Spain, all young Shoots  
of Plants, Parfrreps, Carrots, Carraway Root. Onions, Garlick,  
Leeks, Vine-leeks, eaten raw, afford no Nourishment, and  
very little after two or three Roilings. Pomegranates nourish  
little; as for Pears, especially the larger Kinds, I have little to  
say of them. Gourds afford some Nutriment, as do dried Rai-  
sins, which are austere and not fat.

Of a middle Kind between Foods that nourish much and  
those which nourish little, are Kidney-beans, Birds-peafe, wild  
Vetches, Cbiches, and Figs, which lest give but a final! Mat.  
ter of Nourishment, and contrary to that of other autumnal  
Emits, for they generate a lax Kind of Flesh, as well as Grapes.  
All Eatables that are endued, in an eminent Measure, with some  
medicinal Quality, which they lose in Roasting, Boiling, or  
any other Way of Dressing, assord but a small Pittance of Nu.

tn meat to the Body, aster they ate thus prepared, and none  
before. *Idem, Cap.* 14. '

**ALIMENTS of GOOD JUICE.**

Among the vast Variety of Things we seed on, there is scarce  
airy of hetter Juice than Milk. The best Milk is whet is just  
drawn from sound Animals. Poached Eggs are a Meat of good  
Juice. The best are those of Hens and Pheasants, and the  
worst are those of Geese and Ostriches. Birds andTishes are  
almost all of them reckoned to be os good Juice, except such  
as live in and about Marshes, and Pools, and muddy Streams,  
especially if the Water comes through some City, where it  
receives all She Filth of Baths, Kitchens, and common Sewers,  
or runs by some Fuller’s Yard, whence it comes impregnated  
with the Washings and Scourings os dyed Cloaths. It is safest  
therefore to eat Fish that come from the Sea, where there is no  
Mixture of fresh Water. Such are Fish thet live in the Sea, anil  
about Rocks, for in Goodness of Joice, us well as Delicioufiiess of  
Taste, they far exceed the rest. As for such as use both Waters,  
as the Pollard, the Sea-wolf, the Cod, the Sea-gudgeon, Lam-  
preys, Crabs, and Eels, you am first to inquire where they were  
caught, and then tojudge of them by their Taste and Smell. Fish  
that live in impure Waters, though fatter, than others, are ill  
tasted, and stinking, and mucous, whence they soon putrefy.  
And you may easily know by your Senses, that Fish are better  
or worse. adcording to their *Aliment.* For Instance, the worst  
of all Mullets are such as heve fed upon Crabs ; the Flesh of  
others is hard indeed, het of no ill Juice. The Black-cap,  
Turhet, Bream, Sole, Plaice, and Sea-lizard are of a middle  
Nature between such as have tender and fucti as have hard  
Flesh, and they afford very good *Aliment* to those who use no  
Exercise, or are of a weak Constitution 5 but for sound and  
healthy Bodies, soft and friable *Aliment* is most proper, and  
generates the best of all Juices. Quadruped Animals, if well  
digested, create very good Blood, especially such as are of. good  
Juice, as the Swine in particular .\* for Pork, both sot Savour  
and Concoction, is a most excellent Kind of Flesh. The  
heft is of a middle-aged Hog, for aster that Time the older the  
worse he grows ; and the Flesh of newly farrowed Tigs is too  
humid, and generates Phlegm in Abundance. The Dug is of  
good Juice. The Liver, the Parts about the Lips, the Grille  
of the Ears and Snout, and the other Extremities, the Inter-  
tines, the Uterus, and the Tail, are not of so good a juice as  
the rest. The Glandules are next to the Flesh in Point of  
Nourishment. The Heart is of no bad Juice, the Feet are  
better than the Ears and Snout ; for a Cartilage of perfect  
Animals can never be conceited, but while it is in Growth,  
provided it be well broken and chewed in the Mouth, it ad-  
mits of Concoction. In proportion as the Flesh of other Qua-  
drupeds is exceeded by thet of Swine, their extreme Parts are  
to he accounted inferior to thofe of that Animal. The Brain  
of winged Animals far exceeds that of Quadrupeds. . The Flesh  
of wild Animals is of better Juice than thet of tame. Bread  
pure and well made is of good Juice; Aced, Ptisan well boil-  
ed, Beans, and Chefnuts are of no ill Juice. Ripe Figs, ripe  
Grapes hung up, are not to be condemned. Dried Figs, spee.  
dily distributed, are of good Juice, but retained long in the  
Stomach turn to bad Juice, and generate Lice. Eaten with  
Wainuts they are a very good Kind of EOod . bUt Ergs,  
whether green or dried, eaten with any Thing besides Wal-  
nuts, are bard of Digestion. Among Greens, Lettuce breeds  
good Blond, next to that is Endive. Fragrant Wines are of  
good Juice ; the best are those of Falernum, especially the fweet  
Sorts, those of Chios, and the sweet yellow Mountain Wine  
of Tmolus. *Ibidem, Cap.* 135

**ALIWENTS Of BAD JUICE.**

All *Aliments of* bad Juice are not of the fame Kind, for one  
Sort is cold and phlegmatic, another hot and bilious, and a  
third atrabilious. My Advice is to abstain from all Meats os  
bad Juice, however easily concocied in some Stomachs. For  
the bad Juice they generate is collected, and lies hid a long  
Time in the Veins, and, upon the least Occasion of Putrefac-  
tion, gives Rise to malignant Fevers.

Meats of bad Juice are Mutton and Goats Flesh, because of  
their Acrimony. The Flesh of He-goats is worst, hext that of  
Rams, and next to this is Bull’s Beef. Of all Kinds the Flesh  
of the castrated is the best, and thet of old Animals the worst.  
Hare generates a thick Kind of Blood, het is however to be  
preferred to Beef, or Mutton, or Venison, which is of as bad  
a Juice as either of the foregoing. The Kidnies and Testicles  
of old Animals, except the Testicles of old Cocks, are of bad  
Juice. The Brain, spinal Marrow, Heart, Milt (though Hog’s  
Milt, least) all Viscera, fried Eggs, old Cheese, Mushrooms,  
and Funguses, called *Amanita,* are of bad Juice ; and rhe safest  
Way is to avoid all other Sorts ns Muflirooms. Fenugreek,  
Lentils, Tipha, [a Grain much like Rye] Oats, and Bread  
made of them, are of no good juice. Olyra is as much in..

**’ Swines Flessi may he agreeable to some Appetites, xed sices not feern dissicult t0 digest, but it certainly supplies an excessive had  
Nounfhrnent. β .τι**

**serior to Wheat, as it** exceeds Tipha and Oats. Panis, Millet,  
and other like Grain, contain no good Juice. Of Fish, the  
Weaves, Gurnard, Hound-fish, Scorpion-fish, Banstiokls, Mul-  
lets, Rusts, and all ofthe cetaceous Kind, am os bad Juice. **All**

Summer-Fruits are of bad Juice, but Figs less than others. But  
dried Figs, if too freely eaten, breed no Very good Blond, as.  
appears from the Plenty of Lice which is the usual Consequence.  
Unripe Apples and Pears, and the Fruit of the Turpentine-tree  
are of bad Juice ; and so aro Artichokes, especially when they  
are herd, with Cucumbers, Pompions, and Melons, but these  
last are not so bad as the rest. The Gourd is better than all  
**of** them, though this too, if it happens to corrupt in the Sto-  
Inach, yields Abundance of bad Juice. Of Greens there is,  
none os a good Juice ;X Lettuce, Endive, and Mallows are a  
Mean between Good and Bad; next to these are white Orache,  
Purilain, Beets, and Dock. The Roots of Gardeners Ware,  
such as have an acrid Taste, as Onions, Leeks, Garlick, Ra-  
dishes, and Carrots, are of a bad Juice ; of a middle Kind are  
the Roots of Cuckow-pint, Turneps called *Navewssuud* the Roots  
Of Carraway. Basil is Very bad Juice, as well as raw Turneps,  
Cabbage, and Bulbi, not well boiled; Leeks, Onions, Garlick, and  
Vine-leeks, after two Boilings, lose their bad Quality. But all  
Greens that are called *Wild,* are of Very bad Juice, as wild Lettuce,  
Gum. succory. Shepherd’s Needle, Chervil, Seris, and wild Suc-  
cory. Thick, foetid, and austere Wines,such as is imported from  
Bithynis, in large Vessels, and at a low Rate, are of bad Juice ;  
for whet comes in smaller Vessels is neither good nor had, but  
**a** Mean hetweerr both. *Ibidem, Cap.* X6.

**ALIMENTS Of EASY CONCOCTION.**

Food os easy Concoction are. Bread made as it ought to be,  
all Rock-fish, the Sea-gudgeon, the Cramp-fish, and the Turtle.  
All Rinds of Birds are easier os Digestion than Quadrupeds, espe-  
tcially the Partridge, Wood-cock, Pigeons, Hens, Dung-hill  
Cocks, Pheasants. The Wings of Geese are easy to be con-  
cocted, but those of Hens are easier ; and, in short, the . Wings  
**of** those that are young and well fed, are of excellent Concoc-  
tion, but Very bad if lean and old. Such as are fed on Whey,  
the Livers of Geese, and others fattened aster, the same Man-  
' her, with the Testicles of Dung-hill Cocks, are Very easy to  
he digested ; so is Pork. Veal is easier of Concoction than  
Beef, and Kid than Goat, and the Flesh of growing than of  
declining Creatures. Animals that live in dry Places, are ea-  
fier to he concocted than such as live in moist, and Walnuts  
than Halle-nuts ; Bulbi, aster two Boilings, are easily digested,  
as well as poached and sorbile Eggs, Lettuce, Endive, and  
Mallows, and boiled Gourd too, when it is not corrupted in.  
the Stomach. Sweet Wine is more easily concocted than sour;  
and in general of Things equally wholesome, the most agree-  
able passes best off the Stomach. *Ibidem, Cap.* 17.

**ALIMENTS of DIFFICULT CONCOCTION.**

. Goats Flesh, Beef, and Venison, are hard of Concoction;  
**bur** the hardest is the Flesh of a He-goat, the next that of a  
Ram, and Bullis Beef takes the third Place. \* The Flesh of  
old Animais, particularly Swine, is fibrous and dry, and there-  
fore exceeding hard'to digest. The Ventricle, Intestines, Ute-  
rus, Heart, Testicles of adult Animais, and Geese, except their  
Wings, are difficult of Concoction. The Flesh of Wood-  
pigeons, Starlings, Blackbirds, and small Birds is hard, that of  
Ducks and Turtie-doVeS is harder, but that of Peacocks and Bu-  
stards hardest of all The Gizzards of all Birds are hard of Dige-  
stion ; and they therefore who eat the Gizzard of an Ostrich, or  
of a Cormorant, as imagining it will strengthen their digess  
tive Faculty, impose upon themselves, *for* neither is such Meat  
digested without much Difficulty, nor has it the least medici-  
nal Tendency towards that End they propose from it. Snails  
are hard os Digestion, and so is sour Milk, especially to a cold  
Stomach. Old Cheese has the same Quality ; but what is  
new, or made of sour Milk, is accounted better. The Flesh  
of the Purple-fish, Whelks, and other testaceous Kinds, whose  
Substance is hard, are difficult os Concoction. Also the Kinds of  
Lobsters, and Crabs, and others of that Kind, Polypuses, the  
Kinds of Cuttie-fish, and all those of soft Flesh, Thornbacks,  
Maids, Skates, Weaver, Gurnard, Hound-fish, Scorpion-fish,  
Banstickles, Mullets, Rusts, Stock-fish, Congers, Sea-eagle,  
Eggs roasted, boiled, fried; boiled Wheat, Tragus, coarse  
Meal (which is harder of Concoction than Polenta) Tipha,  
Oats, Bread made of them. Beans, Pease, Kidney-beans, small  
ChicheS, Chiches, Rice, Lupines, Panic, Millet, and such like.  
Lentils, Colts-foot. Sesamum, Hedge Mustard, Chefnuts, Acorns,  
Apples, Pears, Figs, unripe Services, acid and austere Grapes,  
all Dates, Carobs, Citrons (the outer Rind of which, taken  
medicinally, helps Concoction, as do most Actias) Bassi, Tur-  
neps, and Bulbi, too raw, Parsnep, Carrot, Carraway-roos, all  
Roots os Greens, and Greens themselves, except Lettuce and  
Endive, as well as all the foregoing, belong to the same Class.  
*Jhidens, Cap.* I8.

**AI.I2HI.NTS AGREEABLE and. CORROBORATIvR th the  
STOMACH.**

Things grateful to the Stomach are, austere Dates, Quinces; ‘  
Olives pickled with Salt (but the best are those prepared with  
Vinegar) austere Raisins, Grapes preserved. Walnuts more  
than Haste-nuts, and especially is eaten with dried Figs. All  
prickly Things are moderately grateful IO the Stomach. ' Of  
this Kind are Carduus, the Distaff-Thistle, St. Mary's Thistle,  
the Teafel, the Tragacanth, the Artichoke, the Root of Skir-  
ret helled. Chervil, and Venus’s Comb, which raw or boiled  
is wonderfully grateful to the Stomach ; it will not.bear mucfr  
Boiling. Add to these Mustard, Radish, Turneps,. Cresses,  
Pellitory of Spain, Asparagus, Butchers-broom, the Dwarf-  
laurel, Barherry-shrub, and Bryony.’ The Bulbi and Capers,  
pickled with Salt, excite an Appetite ; the outer Rind of a  
Citron, taken medicinally. Corroborates the Stomach. Austere  
Wine, especially warm, is good Tor an hot Intemperies of the  
Stomach. Of medicinal Things; Wormwood and Aloes cor-  
roborate the same Part. *Lb. Co* I9. - - .

**' ALIMENTS DISAGREEABLE to the STOMACH;**

Juniper-herries are hurtful to the Stomach, and much more  
the Fruit of the Codas, Flower-gentle, and the Seed of the Vi-  
tex. Beets are so disagreeable to the Stomach, that the plentiful  
Eating of them causes a gnawing Pain in that Part. Add Dock,  
Basil, Turneptoo raw. Elites, white Orache, except it he eaten,  
with Oil, Vinegar, and Garum. Fenugreek and Sesamum  
subvert the Stomach. Milk turns acid in cold Stomachs, and  
nidorouS in hot;. hence it is justly forbidden in Fevers. Milin  
drank with Honey excites Vomiting.- Pompions not well con-:  
cocted usually bring on bilious Disorders. They are proper to  
provoke Vomiting, before they are Corrupted, for if a Person  
seeds plentifully on them, and takes no *Aliment* of a good Juice;  
afterwards, they will he sure to give him a Vomit; the same  
Property belongs to Melons. All Brains, and Marrow os Bones  
are ungrateful to the Stomach, and create Nauseas. Black and  
austere, aS well as thick and new Wines, easily turn acid, and’  
excite Vomiting. Of medicinal Things Southernwood, Sea-  
wormwood, and Aphronitrnm, are disagreeable to the Stomach»  
*Ibidem, Cap.* 2O. .

**ALIMENTS HURTFUL to the HEAD»**

. Things noxious to the Head are MulherrieS, Blackberries,  
**the** Fruit of the Strawherry-tree, of the Cedar, Hemp-seed, **the**Root of Spignel, all Sorts of Dates,. Rocket, Fenugreek, and  
the Seed of the Vitex. Wine that is yellow and austere hurts  
the Head, and affects the Mind, more than what is black and-  
austere. Fragrant Wine also flies to the Head, but **this Wins**causes. no Pain in the Head, nor stimulates the Nerves ; **and**what they call ὸλεγοφὸνος even easeth the Pain of the Head, -  
which is caused by the Juices in the Stomach. Milk is not.  
proper for the Head, unless it he a Very firm One. Water in  
which Grapes have been soaked causes Head-ach. *Ido C.* **21.**

**ALIMENTS which cause no INFLATIONS.**

- Peafe, Kidney-beans, Cummin, the Root and Seed of Lovage,  
the Seed of the Vitex, and the Fruit of Hemp, cause no infla-  
tions. To these we may add, what would unprepared cause  
Inflations. Beans helled or stewed. Bulbi much or twice boiled,  
and eaten with Oil, Garum, and Vinegar. Clarified Honey,  
and Oxymel discuss Inflations. Barley Bread, however made,  
is inoffensive in this Respect. Of a middle Nature, hetween  
*Aliments* which cause Inflations, and such as Cause none, are  
Kidney-beans with some Sorts Of small Pease and Chiches, *Ida  
Cop.* 22»'

**ALIMENTS which cause INFLATIONS.**

Chiches,Lupines, Kidney-beans, Panic, Ochri, Millet,and **the**like, inflate. Beans hulled are more apt to cause Inflations when  
cooked by themselves than otherwise. Maza made of Polenta  
generates Flatuosities; but is it he well beaten and worked up, it  
moves the Belly, especially if some Honey be mixed with is.  
Malt Liquor and all Juices cause Inflations, especially the Cyre-  
nean, that *of* Satyrion, with the Juice and Root of Silphium.  
Figs cause a short Inflation, because they soon pass through ;  
but when thoroughly ripe, they can hardly he said to do any  
Harm, no more than dried Figs. Green Dates have much the  
fame Effect as Figs, Or raw Turneps. Milk soon breeds Flatuo-  
fities in the Stomach, as well as taw Bulbi, or Honey not well  
purged. Sweet Wines cause long Flatuosities; but such as arg  
both sweet and austere, and are neither distributed or digested,  
but remain a long Time in the upper Belly, there generate In--  
stations; Mustum also is a Very flatuous Liquor. *Id. C.* 23.

**ALIMENTS of a DETERSIVE, INCISIVE, and APERI-  
TIVE QUALITY.**

Detergents are Ptisan, Fenugreek, Melon, Pompion, **sweet**Raisins, Beans, Chiches, especially the black Kind, yyhich is

also an excellent Lithontriptic. Capers are of pretty fine Parts,  
but pickled in Sals, they become a good Detersive, and cleanse  
the Stomach .of Phlegm, and open Obstructions of the Liver  
**and** Spleen ; for which Purposes they are to he taken in Oxy-  
mel. Vinegar, or Oil, before any other Fond. The Juice of  
Beets has an abstersive Faculty, and frees the Liver from Ob-  
structions, and especially when eaten.with Vinegar and Mustard.  
Docks too and Netties belong to this Class, with the Roots of  
Wake-Robin and Asphodel, which are of fine Parts. Bulbi  
are detersive, attenuating, and aperitive. On this Account,  
the tender Shoots of Asphodel are prescribed as a sovereign Re-  
medy in the Jaundice. Onions, Garlick, Leeks, and Vine-  
Leeks attenuate and cut thick and glutinous Humours; after  
two or tbree Boilings these Simples lose their Acrimony, **but**retain their attenuating Virtue. Whey attenuates a thick **Hu-**mour; Figs absterge; whence in nephritical Disorders much  
Gravel has been Voided after Eating of Figs. Dried Figs atte-  
nuate and incide; whence they are great Cleansers of the Reins.  
Juniper-Berries cleanse the Liver and Reins, and attenuate  
gross and tenacious Humours in those Parts. Almonds absterge  
and attenuate, and scour the Viscera, and cause a free Expecto-  
ration. Pistach-Nuts are good to strengthen the Liver, and  
**to** cleanse st of those Humours winch obstruct its Passages. **Ra-**dish has an attenuating Virtue. Honey is of the more attenu-  
ating Nature, aS it is collected from, hot and dry Plants ; so  
that eVen Hydromel is apt to provoke Spittle. Oxymel pro-  
motes the easy Discharge of other Humours hesides the thick  
and glutinous, and cleanses the Viscera without Pain or Sick-  
**nets,** and has an admirable Effect in Diseases of the; Breast and  
Lungs. Such as abound with thick Juices ought to drink thin  
Wines, and if distempered hesides with cold Humours, are to  
chuse Wine that is old, thin, and acrimonious. Small **Wine**promotes the Discharge of Humours from the Lungs, for it  
corroborates, and dilutes the Juices, and is moderately incisive.  
Sweet Wines are proper, in acute Distempers, as a Peripneti-  
-mony and Pleurisy, after a Concoction, to provoke Spittings  
*Idem, Cap.* 24.

**ALIMENTS which cause OssTRtrcIIoNs.**

Milk that contains much Whey can do no Hurt, though you  
seed on tt never so long; but the long Use of Milk that has  
little Whey, and much Cheese in it, is dangerous ; for it is  
had for the Kidnies that are subject to the Gravel, and promotes  
Obstructions of the Liver, when it is predisposed to them.  
Dates are hurtful in Inflammations of the Liver and Spleen, as  
well as Figs, not from any peculiar Property, but from the  
Nature of sweet Things, sor all sweet Things aye hurtful in  
Obstructions, or scirrhous Disorders of the Liver and Spleens.  
In their own Nature they can neither do much Good nor Hurt;  
but in Conjunction with detersive and inciding Simples they  
may have a very good Effect. Hydromel in. hurtful to the  
Viscera under a Tumor, ScirrhuS, Oedema, or Inflammation,  
hecause Honey *of* its own Nature is soon changed into a bilious  
juice. The Seeds of Poppy stop Evacuations from the Breast,  
and rich and sweet Dates cause Obstructions, and the green  
more. All Sorts Of Cakes made of Honey, Meal, and Oil,  
and those made of Simila; are of an obstructing Nature, and  
augment the Spleen, and generate Gravel in the Kidnies;  
wheaten Meal wetted with Milk has the same Effect. Alica,  
also is hurtful to such aS labour under Obstructions of the Liver, .  
and are subject to the Gravel in the Kidnies. Sweet Wines are  
obstruent, and augment Tumors in the Viscera.. *Id. Co* 25.

**ALIMENTS of Slow PASSAGE.**

*1 . Aliments* flow in passing are all such as are made of Itria [a  
Sort of Cheesecakes] and Simila, fried Beans, the finest Bread,.  
Lentils pilled. Brain, spinal Marrow, Liver, Heart, boiled  
Wheat, boiled Eggs, roasted more, and much more fried  
Lupines, Pease, Sesamum, Hedge-mustard, Acorns, Apples,  
unripe Pears, the Fruit of the Carob-tree, sweet Wine, and

. more what is austere and black without any Sweetness ; thick  
Wines, and all new Wines. Water is of very stow Passage.  
*idem. Cap.* 26.'

**ALIMENTS EASILY CORRUPTE.D.**

Peaches,» Nectarine, Apricots, are easily corrupted, and  
so are all Summer Fruits, which heing of a humid Nature are  
easily Vitiated in the Stomach, if they are not soon discharged  
thence. Therefore they ought to he eaten hefore all other  
Meats, for by this Means they are soon discharged, and carry  
**off** other Things with them ; but if they are eaten last of all,  
they corrupt, hesides themselves, the rest Of the Food. *Idem,  
Cap.* 27.

**ALIMENTS NOT EASILY CORRUPTED.**

**Of** this Property are the Chemulae [a small Sort of Cockles]  
**the** Purple Fish, Whelks, and all testaceous Animais, whose  
Flesh is hard, and which are usually prescribed to such as, by  
Reason os ill Humours, corrupt their Food. They boil them  
**twice** or thrice in the best Water, and take them out into

another clean Water as foon as they are thought to he seasoned;  
To this Class also belong all Sorts os Lobsters, Crabs, Shrimps j  
and others os that Kind. *Idem, Cap.* 28.

**ALIMENTS that LOosEN the BE LIS.**

Lentils and Cabbage excite to stools Os Fishes, almost all  
The testaceous Kind are endued with contrary Qualities ; *for* the  
folid Part of their Substance is stow in passing, and binds, the  
Belly, but their humid Part provokes Excretion downward.  
Therefore if you boil Lentils or Cabbage, or any of the Ani-  
mals hefore spoken of, and season the Decoction with Oil,  
'Garum, and Pepper, and then let any one drink os rhe same,  
you wist soon see the Effects of a Cathartic: Nay the very  
Broth of the Sea Hedge-hog, of all small Shell-fish, and. of an  
old Cock, moves the Belly. Whoever has a Mind to reap  
the like Benefit from Cabbage, must take it out of the Pot,  
with the Liquor in which it is boiled, and clap it into Oil and  
Garum ; it must not boil long. Coarse Bread excites to Stool,  
both on Account of the Quantity of Excrement it creates, and  
of the detersive Quality of Bran. The Juice of Fenugreek,  
-boiled with Honey, is good to purge off. all corrupt Humours  
from the Intestines, and thy its abstersive Virtue stimulates them  
*to* Excretion, but the Quantity of Honey must he but small,  
for Fear of a biting Sensation. Salted Olives eaten in Garum,  
before other Food, have a cathartic Virtue, as well aS the Juice'  
of testaceous Animals and small Shell-fish, which some pickle  
*sor* that Purpose with Oil, Wine, and Garum. .Milk, the

‘ more liquid it is, the more it loosens the Belly, Whey is a  
great Opener, and yon may sweeten it with as much of the best  
Honey as the Stomach cart take, and as much Salt as will males  
It palatable, and if yon desire it should work more effectually,  
you must add more Salt. The Flesh of very young Animais,  
and their Extremities easily pafs through the Body. Of earth,  
laginous Fishes, the Cramp-fish and Wests are moderate O-  
peners. Beets, Docks, Nettles, .new Cheese with Honey,  
white Orache, Elites, Gourds, Pompions, Melons, Figs,  
dried Figs, sweet Grapes, especially when full of Juice, Mui-  
berries taken on an empty Stomach, and before other Food,  
very quickly pass through the Body, and make Way for the  
rest: But eaten after a Meal, if they meet with a Vicious Juice  
in the Stomach; they,, as well as. Gourd, are Very soon cor-  
rupted. New Walnuts loosen the Belly, and so will dry ones,  
if first soaked in Water, as well as green ones. Plums in. their  
full Moisture are loosening; dried Plums infused in Hydromel  
that tastes much of the Honey, though eaten alone, are a sash-  
cient Purge, and much more if the Hydromel he drank with  
them. You will be satisfied of their Virtue,- if you drink sweet  
Wine some Space of Time after taking them, and defer your  
Dinner. Mulberries, Cherries, Apricots, Peaches, and all  
moist and aqueous Things, and, in general, all such as are no  
way remarkable either sor Taste or Smell, if the Belly he free  
for Dejection, easily make their Way through the Body : But  
is the Belly he otherwise disposed, they stay behind the rest, nor

. excite the least Motion, because they have no Acrimony, nor  
nitrous Quality.

The SubstanceOf these *sase Aliments* is, in some Sort, a Me-  
dium hetween such aS bind and such as loosen the Belly, inclin-  
ing Very little on either Hand, when they do not meet with a  
Body Very ill disposed for Excretion, or strongly inclined to  
Distribution. Thus sometimes the Belly is bound,, and Hydro-  
mel, when there is a quick Distribution, does not only excite  
the Belly to Excretion, but carries off other Foods mixed with  
itself If the Distribution be flow, it immediately stimulates  
towards a Motion, becausett has somewhat of Acrimony. EVen  
Honey itself, sucked from the Comb, loosens the Belly; and  
Hydromel that has hed little or no Boiling passes off without  
Distribution. Oxymel more gently stimulates the Intestines.  
Sweet Wine is somewhat opening, and Raifin-wine works more  
effectually.

**ALIMENTS Of a MIDDLE NATURE between PtrRGAT XyEse  
and EMOLLIEN TS. ’**

*- Aliments* of this Kind are. Mercury, dressed alone, or with  
other Greens, and first eaten, and then the Pottage drank»  
Polypody also and Herb Terrible, ate. of the same Nature, and  
the Seed of this latter taken to the Quantity of a small Spoon-  
ful purges black Bile. The like Virtue is in the Seed os Holy  
Thistle, bruised and taken in Hydromel or Cock-broth, or  
mixed with Almonds, Nitre, Anise, Honey, and dried Figs.  
*Qribas. Synep. L. An Cap.* 28.

**ALIMENTS which bind the BELLY.**

Austere Dates and Raifins, Mulberries, Blackberries, bind  
the Belly; and, more than these. Hips and Sloes. Apples of.  
an astringent Taste are binding, but acid ones meeting with  
thick Juices in the Stomach, incide and separate them, and by  
that Means loosen the Belly; but if they are received into a  
clean Stomach, they render it more bound. Apples of a sweet  
juice, without Acrimony, are easily distributed J- het acrid  
ones are unfit for Distribution, and the watry and insipid are

void of Properties, and good for nothing. What has been said  
of Apples may he applied to Pomegranates and Pears. Milk  
\* boiled Till the Whey he consumed is not loosening, for if you  
quench fiery Stones in Milk, till the Whey he evaporated, the  
Remainder is an Astringent; and usoally prescribed when the  
Intestines are afflicted with a growing Pain .from the Acridness  
of their Contents. This Intention is better answered by quench-  
ing red-hot Globes of Iron in the Milk.. But Milk so pre-  
pared easily curdles in the Stomach, and therefore it is usual to  
put Honey and Salt in it, though Water is better. Nor is it  
-without Reason that wo pour Water in the Milk, when the se-  
rous Part is consumed,' for it is not the Humidity of the Whey,  
but the Acrimony that infests the Inteshines, which we would get  
Iid of. The several Kinds os Lobsters, Crabs, Shrimps, and such  
others as are covered with a soft Shell are binding, though less  
thanfuch aS are inclosed in a hard Shell. But the former have  
a salt Humour, and if this be lest behind them in the Water,  
they prove no less astringent than Oisters and other hand-  
shelled Fish. Lentils and Cabbage twice boiled., to the Con-  
sumption os their Juice,, bind the Belly. When we intend to  
.ston a Looseness, weboil Cabbage moderately, then throwing  
away the first Water, pour other hot Water to it, and boil it  
afresh till it he dry, taking Care that no Air or cold Water  
come to it, for there is no making os it quite dry, boil it never  
so much.: Pilled -Lentils lose their strong astringent Quality,  
-and.ure- os no Efficacy in a Flux of the Stomach ; but if you  
bruise them, and give, them two Boilings, and aster throwing  
-away the first Water, put a little Salt and Garum, with some  
palatable Astringent, to it, you will have prepared a Very plea-  
sant and wholesome Food and Medicine. Polenta drank in au-  
stere Wine, and Rice, are Binders; and so are Panic, Millet,  
fried Meats, Hares Flesh, austere Wine, and yellow austere Wine.  
*Oribas. Collect. Medicin. L.* 3. *C.* 3I.

**ALIMENTS of an ACRID and HEATING QUALITY,**

Heaters are boiled Wheat, Bread made ofWheat, Tipha,  
Oats, Fenugreek, Juniper-berries, sweet Dates, sweet Apples,  
'Sesamum, and Hedge-mustard; these provoke Thirst, by their  
heating Quality. To these we may add Hempseed, sweet  
Grapes, sweet Raisins, Mallow ( which heats moderately)  
-Smallage, Alexanders, Rocket, Garden and Horse-radishes,  
-Mustard, Cresses, and Pellitory of Spain. .

Food of both an acrid and heating Nature are Parshep,  
Carrot, Carraway; these are manifestly hot. Garlick, Onions,  
Leeks, .Vine-Leeks, are sufficiently acrid, but aster two or  
three Boilings they lose their Acrimony. Old Cheese is hot,  
and excites Thirst. Sweet Wine is moderately hot, and haS  
the same Effect. The deep Yellow is hotter than the Black, but  
rhe bright Yellow is the hottest of all ; the next in Degree of  
- Heat is the deep Yellow, then the Red, next the Sweet, and  
lastly the White, which heats least of all; but all Wines very  
Iong kept are sufficiently heating. *Ide Cap.* 32.

**ALIMENTS of a REFRIGERATING QUALITY,**

In the Numher of Refrigerants are Barley, howsoever pre-  
pared, Millet, Panic, Mushrooms, boiled Gourds, Melons,  
Cucumbers, Plums, austere and acid Grapes, and austere Rai-  
sins. Astringent Apples are of a cold and earthy Juice, but the  
Juice of acid ones is cold, and of sino Parts. The watry and  
fuch as have no remarkable Property, Pears, and Pomegra-  
nates, and the Fruits of many other Trees, especially such as  
will not endure to he kept, am of this Clast. Astringent  
Dates have a cold Juice, Ind so have Lettuce and Endive,  
though in a moderate Degree, Purflane, Poppy-seeds, which  
are soporiserous, and hurtful if too freely taken, but good for  
thin Distillations from the Head, for which Purpose the white  
. is best Myrtle-berries refrigerate, hut are no Astringents, bring  
endued with an acrimonious Quality. Solanum is an effectual  
Refrigerant and Astringent; Water and small Wines are no  
manifest Heaters, and therefore may the more safely he given in  
Fevers. Wine that is whits, austere, thick, and new, mani-  
festly refrigerates, as well as Vinegar, which being of sine Parts,  
is therefore more penetrating into the inward Parts than other  
Refrigerants; on which Account it is an Enemy to the Nerves.  
Of a middle Kind of Nature between Heaters and Refrigerants  
are Bread made of the Fruit of the Lote-tree. Amylum, and  
Grapes. *Id. C.* 33.

**- . ALIMENTS of a DRYING QUALITY.**

' Lentils and Cabbage are Driers alike, and for that Reason  
dull the Sight, except the whole Fye he moist ; but the  
young Buds, or Coleworts, are less drying. Of other Greens  
the Stalk is the driest Part. . But rhe Contrary is true of the  
Radish, Onion, Mustard, Cresses, Pellitory of Spain, and all  
these whose tender Shoots are acrid. Polenta and the Seed of  
the Vitex are Driers. Vetches twice boiled, and often thrown;  
into sair Water, make a dryingFood; the bestSort in the White.  
Roasted and boiled Meats yield a drier *Altmens,* boiled Meats a  
moister, fried Meats are of a middle Quality. Whatever is  
most seasoned with Wine and Garum is the driest, and what.

ever has least of these, and most: of Defrutum, find is 'boiled  
in simple and pure white Broth is the moistest, or if it he boil-  
ed only in pure Water it is moister than the first. But Seeds,  
Greens, and Plants differ much according to the Ways of  
seasoning them, and though they are all drying, yet they ex-  
err more or less of that Quality according to those Ingredients  
with which they are mixed. *Id. Cap.* 34.

**ALIMENTS of a MOIsTENING QUALITY.**

Ptisan, boiled Gourd, Pompions, Melons, Cucumbers, greet!  
Nuts, Plums, the Fruit of the Sycamore-tree meerly mois-  
ten without Refrigeration, except they, he eaten cold. Let-  
tuce and Endive moisten too, but in a lower Degree. Purs-  
lane. Mallows, Elites, and white Orache, are the most watry  
of all Greens. Most Fruits are .humid, especially such as will  
not keep. Lettuce, and Poppy-Seed, green Beans, and green  
Chiches, moisten. Water moistens and refrigerates, but hot  
Water both heats and moistens.. *Ib. Cap.* 34. ...

**ALIMENTS NOXIOUS to the HEAD. ' '**

- The Fruit of the Sycamore hurts the Head, Blackberries  
cause Head-ach, as do Dates, Rocket, and Fenugreek. . Aus-  
tere Wine of a deep Yellow creates Head-ach, and disorders  
the rational Faculties, more than black and austere Wine.  
Fragrant Wines have the same Effect. *Oribas. Medoc. Col-  
lect. Capo* **51.**

**ALIMENTS BAD for the TEETH.**

. The constant Use of Milk is had for the Teeth, and causes -  
them to rot, and loosens the Gums. Therefore, before you feed  
on Milk, wash your Mouth with diluted Wine ; but it is beta  
ter to put Honey in the Milk. *IA C. asp.*

. in treating of the Qualities of *Aliment's,* we are to shew first ,  
the Nature of each Quality in general, and then to speak in  
particular of those belonging to the various Kinds of *Aliments.*

Of Qualities some are simple, which seem to belong to the  
peculiar Nature Os *Aliments,* Others compounded; some Intense,  
other remiss ; some so attempered as to conspire in the same  
Purposes with the prime efficient or constitutional Quality,  
others tending a different Way. If we should undertake to  
speak of Qualities in this Method, a Multitude of Heads would  
offer themselves. But waving these, and to come directly to  
**Our** present Purpose :

' Of Qualities, with Respect to our Sense, there is the *Sweet,*the *Fat,* the *Acid,* the *Astringent,* the *Salsuginous,* the *Bittcr,*and the *Acrid.* If we fancy there are more, we shall find them,  
on Examination, reducible to one or other of the soremention-  
ed. For aqueous Dulcidities come under the general Epithet  
Of *Sweet,* oily Qualities are comprehended in the *Fat,* and the  
austere and sour are Species of the *astringent* Quality, differing  
only in Degree. Besides the above-mentioned there are reckon-  
ed the *aqueous* and *frumentaceous* Qualities ; not that these, re-

‘ present any manifest Quality to our Sense, but on Account of  
our Familiarity with them, by taking the Word in a large Ex-  
tent, heve obtained that Name. The *Vinous* may be said to be  
a Mixture of Qualities divers Ways concurring, and admitting  
os innumerable Distinctions, aS it inclines more Or less to this  
Or that Quality. The *Frumentaceous* is that Quality; or Pro-  
perty, which belongs to Seeds adapted for Bread, to Pulse, and .  
others of that Kind. The Aqueous is inherent in Greens,  
Herbs, Fruits, and some Roots which make hut a saint Im-  
pression on our Sense. On this Quality we also bestow the  
Epithet *os cold,* in a large Sense, comparing it with the just  
and equal Temperament Of our own Bedies. The *dulci-  
aqueous* Quality, as you may call it, seems to have lost just as  
much of the cold Quality os simple Water, as it has acquired.  
of Sweetness, though by Comparison with an equal Tempera-  
ment, it may still he accounted, in some Measure, cold. Both  
indeed have a Humidity beyond a just Proportion, but the  
exquisitely Sweet consists in a moderate Temperament, which  
heing intended to a more than just Proportion of Heat,  
loses as much of a moderate Share of Humidity. The fat  
and oily are temperate Qualities, and friendly to Nature,  
and are hesides endued with a Power of relaxing the over-  
strained Fibres; they seem to have the Pre-eminence above the  
Sweet, in that Concoction is better performed upon them. Both  
of them by Length of Time acquire much Heat, and lose aS  
much Humidity.. The Sweet in Time degenerate into their .  
opposite Quality, (Bitterness, when their Sweetness hecomes in-  
capable of Increase. The Fat pastes into the nidoronS, and we  
have no Name for the Sensation they give us under that State.  
Things dressed and concocted by an external Fire are in much  
the samestate as those that struggle with and are digested by their  
native Heat, especially where Acridity is predominant. The  
acid Quality is among the cold ones, and heing of fine Parts has a  
Power of inciding, and moderately attenuating, and is no lesa  
wont to exsiccate. The Austere has a moderate Astringency, and  
cements, and incraffates Mattes, strengthening the loose Parts ;  
and consisting of grosser Parts, refrigerates and exsiccates. This

Quality, in heing rendered more intense, passes into the Sour,  
which is made up of still grosser Particles, and is a more pow-  
erful Dryer. The Salsuginous is hotter than the Sweet, and nor  
much drier than the Fat. It seems to consist in some Measure  
of fine Parts, winch attenuate, and consume superfluous Moi-  
sture. Being intended, or increased, it participates of the  
Bitter, and becomes hot and dry, and prevailing over Salts by  
its abstersive Faculty. Again, the Acrid is fnuch the hottest and  
driest of all the Qualities, consisting of fine Parts, which easily  
intrude into the most profound Recesses, inciding, attenuating,  
opening Obstructions, and consuming Superfluities.

So much for simple Qualities in general; which heing  
rightly comprehended, compounded ones may easily he under-  
stood ; for there are a Thousand such; with their Opposites, and  
distinguishing Characteristics, the accurate Consideration where-  
of will instruct *a.* Physician to apply them as seasonable Remedies  
to their Contraries. Nothing appears more evident than this to,  
:a Person well Versed in the best and most useful of all Arts,  
who imagines and forms to himself Complications and Distinc-  
tions of Qualities and Temperaments, according to what he ob-  
serves in Herbs, Fruits, and other more simple Bedies, in order  
to qualify himself for undertaking the Cure of Various and oom-  
plicated Distempers.

**Of FRUMENTACEOUS ALIMENTS, and PULSE, with  
their DIFFERENCES.**

The Frumentaceous and other Kinds, contained under the  
Notion of simple *Aliment,* are by no Means to be considered  
after the Manner of Qualities, such as those above-mentioned,  
unless they are found to have something like it in them; but  
are proved and distinguished, every one, by Concoction, Eli-  
xation. Density, or Tenuity. Some are defective in Point of  
Dressing and Seasoning, and by that Means hard and distaste-  
sui, and flow and difficult of Concoction. Among Animais,  
Tome of a greater Bulk than ordinary are harder, and have  
more of Earth in them than others, and they differ also in  
Respect of Health, Age, Diet, and Exercise. And all these  
are proved by their Suitableness to the peculiar Temperament,  
for the same Things do not agree with all, but this with that  
‘and not with another. Respect heing had to the Constitution,  
and Employment, so far that if a Person he ignorant of these  
Differences, and how to suit them to their-proper Subjects, he  
will in Vain set about prescribing a Regimen.-

- Since then there is a vast Variety of *Aliments,* and a much  
greater in the Ways of cooking them, I think we cannot do  
. 'hetter than hegin with the most common, and what most  
Mortals feed upon. Wheat then (for This is the most common  
Food os the human Race) is but one in Kind, but admits of  
several specifical Differences and Properties, for one Sort is of  
a deep Yellow, Or a denser Substance, or perhaps both ; on  
the Contrary, another shall he white, small, furrowed, or  
plump. Hence you may infer Variety of Properties and Effects.  
The deep Yellow, Or Fallow, is reckoned the' hottest (for  
among Things of the same Kind this Colour is thought to sig-  
nify the most Heat). The dense requires most Pains in work-  
ing and preparing, and yields Plenty of *Aliment \*,* but the thin  
and striated owe these Properties to some Defect in their natural  
Powers. Persons who use Exercise Ought to feed on the most  
Tolid Wheat, aS their Perspiration and Waste of Spirits froth  
all Parts is greater, and for that Reason require the stronger  
and more solid *Aliment.* But for such as lead an easy Life, and  
are discharged from Labour and Toil, the lighter Sort is most  
convenient, and such as is brought to a proper Degree Of Ma-  
turity ; for if this he wanting, it is so far weak and imperfect.  
Care ought to he taken that it he not tainted with noxious Ef-  
fluvia from neighbouring Bedies, *of* which it runs great Ha-  
Rard when reposited in Granaries, and that it he not mixed with  
other Grain. And now we are speaking of the lighter Sort,  
which best agrees with those who lead a sedentary Life,  
we ought to he somewhat particular. To eat green Wheat  
moderately, can hurt but moderately, for heing now in its hu-  
mid State, there is no Danger of its Adhesion to the Viscera,  
but it passeth off without any Damage; The daily Use of it  
parboiled may have Very ill Effects *, for* the crude and in-  
digested Mass Very often sticks to the Viscera, whence as from  
an impure Spring a Multitude of Crudities are difpersod over  
the Body. It is much the wholesomest Way to use it thorough-  
ly cleansed, and well boiled, as we usually eat it dressed with  
Oil and Fat. Of Wheat well ground, the finest Part is called  
the Flour *[nsscuorcmaj]* and the coarsest Part is what they call the  
*Bran.* . The Meal then is a Medium between them, and the  
Similago is more solid as well as finer than the Polenta’.1 Of  
the finest and whitest Part of the Meal they make the Bread  
called *Siligineus,* from *Siligo,* as the *Similagineus* is made of *Si.,  
milages* and the *Fursuraceous* [branny πιτυριαςΐ after the finer  
Parts of the Meal are taken away. The συγκίμ.,-ὸς [miscella-  
neous] is made after the Bran only is cleansed off. All these  
Sorts are prepared with Salt and Leaven, or without them ; and.  
are baked either in Ovens, or heated Pans, or in hot Embers.  
The first two are called ikence.,. and μαβαν.ται, and the other

Σπροφία., because in Baking they are hidden in the Embers, *T*think the most wholesome Way - of making them is with Salt  
and Leaven, and - that they are best baked one of the former  
Ways, that is, in a standing or portable Oven ; for they are  
much the better for heing free from Ashes, and other Sordes.  
But the Salt and Leaven are highly serviceable, in consuming  
whatever is recrementitious, and at the fame Time imparting  
a Sort Of Concoction, or more elegant Consistence to the Mass.  
For unleavened Bread is more difficult of Concoction, and re-  
quires much exercise of Body, which does not comport with  
their Way of lining to whom this Advice is directed. . The  
best Bread then is the *Siligineous,* because it affords the most  
Nourishment; the next to this is the *Miscellaneous* ; the *Si.,  
rnilagineous* comes in the third Place, and the worst of all is the*Fursuraceous,* which yields the least Nutriment, passes soonest  
through the Body, and is easily converted into an atrabilious  
Juice. As the Siligineous consists of the: purest Part of the  
Wheat, so it yields the purest *Aliment* to the Body. The Sinai-  
Iagineous, aS being close and compact, though it generates good  
Blood, certainly requires a longer Time for Concoction. Thd  
middle Sort between them, or the Miscellaneous, is most service-  
able aS well as harmless, for it is not hard of Digestion, like tho  
Similagineous, nor affords such an Abundance of Nutriment as  
the Siligineous, and thereby obstructs the Passages. It is to bo  
observed also that Bread differs much in Goodness, according  
to the Rate of Baking, which ought to he understood of all Eat-  
ables that require Dressing. Cakes fried in a Pan made os Meal,  
Water, and Oil, afford much Nutriment, and that of a solid  
-Kind, but require a Very strong Stomach, and are fitter sor  
athletic Constitutions than others, in whom they are apt to  
breed crude Humours.

Next to Wheat, Barley deserves to he considered, according  
to the Saying of a certain Author: *Next to Bread of Wheat, give  
me good Maza* [a Sort of Barley-Pudding]. Barley is less nor Irish-  
ing, and more abstersive; than Wheat, and is besides of a cool-  
ing Nature, and exceeds, on that Account, other fruthen race.»  
cus Fruits. The Crernor prepared of it is Very wholesome both  
for healthy Persons who are of. an acrid Temperament, and for  
feverish Patients, whom it refrigerates and moistens. If to this  
you add the Cremor of Almonds, they will make together an  
excellent Kind of Food, light of Digestion, and of good Juice,  
and endued besides with an attenuating and abstersive Virtue ; ‘  
in short, desirable upon all Accounts. The best Barley is  
white, and of a good Body; and does not prove itself any Way  
vitiated by its Smell. . -

Zea is reckoned among the light Kinds of Food, when  
thoroughly cleansed, and dressed after the Manner os a Panada.  
But it generates not the best os Blood, nor affords sufficient Nu-  
triment, much less Strength to the Body ; however, it deserves  
a Place among light Meats. Millet, though like Zea, it  
nourishes little, yet has an Advantage over it, in 'that it im-  
parts some Kind of Firmness to the Body, and breeds Flatulenil  
cieS. Beans, though abstersive and nutritive, generate a thick  
Blood, and a Multitude of Flatulencies besides, and are there-  
fore, as well as the former, forbidden the Weak and Sedentary;  
But if Necessity at. any Time requires the Use of them,'they  
archest when made into a Gruel, which is more abstersive, and  
loses most of its Flatulency in the Dressing. But is yon add  
thereto some of the carminative Seeds [άφυσα] or Honey, yod  
will expel much of their ill Qualities out of theini Kidney  
Beans are worse, heing accounted of a hot and earthy Nature,  
and Disturbers of the Brain and Spirits, caufing unquiet Sleep.

Chiches yield a strengthening and moderately pore *Aliment,*though it he flatuous, and requires a strong Stomach. But the  
Broth made of these is Valued, heing abstersive and diuretic,' as  
participating of a salsuginous Quality; wherefore this is whole.,  
fomer than the Substance of the Pulse itselfr Rice is moderately  
hot and' dry, nourishing, and obstructing the Passages ; but if  
you allow it a sufficient Time to work off and he distributed,  
it produces no ill Effects. Lentils are accounted the worst  
Kind of Pulse, generating a thick, earthy, and atrabilious  
Blood. They bind the Belly, after two, three, or more Boil.»  
ings, and throwing away\_ the Liquor ; but any other Way  
prepared, are said to increase a Looseness. We shall take onr  
Leave of the Frumentaceous and and Leguminous Kinds of Food,  
with observing in general, that they are accounted best while  
green, as retaining in that State something of Humidity ; but  
when, by Length of Time, they have wholly lost this Property,  
they become gross, heavy, and earthy. And aS much as juicy  
Things are preferred to dry, so much are boiled to he valued  
above raw, and Things prepared hesore crude and unprepared.  
**Os GREENS, and AUTUMNAL FRUITS, with their diffe-**

**7 rent SPECIES.**

We are to observe, in general, that all Greens generate a thin  
and waterish Blood, in Comparison of other *Aliments,* and that  
they differ from one another in Quality and Goodness of Juice,  
and in some remarkable Property.

Cabbage, in the first Placs, is a Sort of Food, that is-of a  
IIinderatelV hot. but more of a drV Nature. If it be hoihisl

and its Juice not exhausted, it loosens the Belly, but if you give  
It three or four Boilings, or more, still throwing away the Li-  
quor, and then eat it, it has a binding Effect. And this ought  
not to seem strange, for «the Juice of Cabbage is of arr abster-  
sive Nature, but its Substance is astringent. It is too apt to  
breed an atrabilious Humour, and therefore is to he sparingly  
eaten.

Beet far exceeds Cabbage in Goodness, for it generates no such  
had Humours as the Other, and, by the nitrous Quality of its  
Juice, loosens the Belly; it is accounted of a moderately hot  
Nature. The Roots yield a stronger Nutriment, and breed a  
much thicker Blood, than the Green, and hesides cause Flatu-  
Jencies, though in other Respects they pass well through the  
Body, and therefore may now and then be used. -

Purslane and white Orache are Greens of a cold and humid  
Nature, accommodated to hot Temperaments, and the hot Sea-  
son of the Year. They generate a thin and watery Blood, and  
are hurtful to cold Constitutions.

Endive too is accounted one of the cold Eatables; *it* breeds a  
thin Blood, but much worse than white Orache. In other  
Respectsit is agreeable to the Stomach, and strengthens the  
LiVer by its moderately astringent Quality.

Lettuce is much colder and moister than the former, and  
generates a thin but florid Blood, if it be well concocted; and  
procures Sleep by refrigerating and moistening the Brain. How-  
over it is to he used with Caution, lest it should render the  
Brain too cold and moist, and *so relax* the due Bent ofit, which  
is necessary for the Exercise of its Faculties.

Wild Radish is of an acrid Quality,- and therefore medici-  
nal, by.inciding and attenuating the Humours in the Stomach  
and Viscera; it is herd enough of Concoction. The Garden  
Species is of a milder Nature in all Respects, for which Rea-  
son the Wild Sort is neglected, and deservedly, hecause, like  
other AcridS, it causes an Effervescence in the Blood, by com-  
municating its Acridity ; unless any one has a Mind to use it  
medicinally.

. Smallage, Fennel, and others of that Kind, are of an hot  
and dry Nature ; hut they provoke Urine, and relieve under  
Oppressions, heing otherwise difficult of Concoction, and rather  
to be used aS Medicines than Food. Leeks, after Boiling, are  
more approved than Onions, sor they lose much of their bad  
and acrid Juice in dressing. They are esteemed Very hard of  
Digestion, from their fibrous Substance, but, by their natural  
Viscidity, render the Humours in the Breast fit for Expectorati-  
On; they are moderately diuretic. ’ .

. Raw Cucumhers deserve no hetter Character, sor they gene-  
rate raw Humours, and are cold and humid to Excess, and dif-  
sicult of Concoction. Pompions are a much hetter Fond, as  
heing allowed to ripen; though these, if they are not well di-  
gested, nor pass well through the Body, are apt to Corrupt in  
the Stomach, and to communicate their Depravity to the Hu-  
Inonrs; but their detersive Quality renders them easy to work  
Off, and they usually carry with them other bad Juices. How-  
ever they breed but a thin and watery Blood, if they he never  
io well concocted. :

Gourds eaten raw are a Medium between Cucumbers  
and Pompions I boiled it grows hetter. They afford an  
*Aliment* os a cold and humid Quality; and though they are  
much used in Medicine, they are good for little else, yielding  
very little Nutriment, but Plenty of watery Humours, especial-  
ly when they meet with a cold Stomach.

Amanitas, (a Species of Mushroom) Mushrooms, and Truse  
fles are of a cold and humid Nature, and generate thick' and  
Crude Juices; they agree with hot and dry Constitutions.

Sparrow-grass is in best Repute of all Greens: It creates  
pot the least Molestation to the Stomach in Concoction, is  
moderately hot, consists of fine Parts, and renders the Blood  
every Day purer ; and if any Green provokes Urine, it is sure  
to do it. Wherefore I think it adviseable not only to eat it in  
the Spring, when it is at the hest, but to keep it in Pickle all  
. the Year, because it nourishes without Dilpute, and generates a  
pure Blood . and in also highly serviceable in opening Ohstruc-  
lions os the Viscera, and attenuating, the Humours contained in  
them. So much for Greens.

AS to Fruits, we shall begin with Cherries. These, in ge-  
neral, are cold and m0ift j some os them are sweet and soft,  
x Others hard and more astringent. The first are to he chosen,  
as heing more easy of Digestion, and passing sooner off the  
Stomach ; the other agree best with a bilious Stomach, because  
' they are not easily corrupted, and hesides corroborate the Sto-  
mach by their astringent Virtue. But the immoderate Use of  
' them, if they are not corrupted together with the inbred Juices,  
fills the Body with watery Humours, . ’ - ' '

The best Sort of Apples is what they call *Poma Regia,*which are themselves of a cold Nature ; but they are esteemed  
Cardiacal, hecause they repel the smoaky and fuliginous Vapours  
that annoy the Heart, and thence ascend to the Brain. They  
are good to settie the Head aster Drinking, for which Purpose  
the acid ones are hest, aS heing of a cooling Nature, arid by  
the Fineness of their Parts qualified to penetrate .into the in-  
most Recesses. The most Valuable Apples are such as will keep

during Winter; for acquiring due' Maturity by Time, they  
are much fitter for Use, and not so easily corrupted.

Peaches and Apricots are also os a cold and and humid Na-  
ture, and, when they are well digested, generate a thin and  
humid Blond. Besides, it is usoal with them, if they pass not  
soon off the Stomach, to corrupt; wherefore I would advise  
those who cannot pass them through their Bodies without Mo-  
inflation, to abstain from them, unless he can warrant the  
Temperament of his Body to he accommodated to fuch *Alsu  
mail.*

Plums are more commended than these last, as heing quick  
in Passage; but where they are not so, which is the Case in  
some Constitutions, they are also liable to .he corrupted.

Pomegranates, aS well as other autumnal Fruits, yield light  
*Aliment,* and always generate a thin Blood. They are friendly  
to the Stomach, and blunt sharp and gnawing Juices; for  
winch Reason they are Very helpful, when Heat predominates  
in the Body, and the Season of the Year calls sor Coolers. In  
other Circumstances, it would he imprudent to turn Physic into  
Food, especially when the Temperament runs counter to the  
Dictates *of* senseless Appetite and Custom.

Quinces are an astringent Kind of autumnal Fruit, which  
bind the Belly. This Effect it has on some Persons, when  
eaten hefore other Food, and a contrary one, if taken aster-  
wards.. Nor is this to he wondered at; for Astringents, by  
compressing the Mouth of the Stomach, forcibly protrude the  
*Aliment,* as we are wont to shew the like Effect upon a Bag or  
Leather Bottle, by squeezing them between Our Hands, and  
thereby easily getting out their Contents, especially if they are  
pretty full, and their upper Part strongly compressed.

But among all these Fruits, the greatest Astringents are Ser-  
vices, Corneis, and Medlars, which are very much used in  
Medicine, and are otherwise good sor the Stomach from their  
Astringency. But taken as *Aliment,* they generate Blond no  
Way laudable, and where Costiveness prevails, are very hurt-  
ful to the Head, and other Parts of the Body. ...

Figs and Grapes, considered as Eatables, have the Preference  
hefore all autumnalFruits, in that they breed hetter Blood, and  
yield more Nutriment. But eVen these are accounted a flatu-  
lent *Aliment,* and are supposed to generate a lax and flaccid  
Kind of Flesh, and to he Very bad for Scirrhosities or Obstructi-  
ons in the, Viscera. Figs excel the other, in having a peculiar  
Virtue of purging the Reins of Gravel. Both of them loosen  
the Belly, though the Stones are binding ; By Age they lose  
mnchos their recrementitious Humidity. . ..

Chesnuts are Fruits of a cooling, drying, and moderately  
astringent Quality, but generate abundance of Flatulencies. *It  
is certain that they* nourish 5 Roasting Very much abates their  
Flatulency, whereas they would otherwise stick in the Passages,  
and he Very hard of Digestion. : . *.i*

*Walnuts* are accounted hot and *dry i* the constant Use of  
them Very much affects the Head, and Stomach, and they are  
Very difficult of Concoction. They areIhoughtIo he whole-  
fomer when eaten with Figs, hecause by their Means they are  
quicker in passing through the Body. .

Haste-nuts may indeed be supposed good sor the Stomach, on  
Account of their Astringency ; but are, notwithstanding. Very  
hard to he concocted, by Reason of the Closeness os these Suh-  
stance, which also renders them more binding to the Belly.

Almonds surpass the former in Goodness;. but especially **the**Cremor and Oil' drawn, from them, which are well known IO  
he effectual, as Lenitives, in Stiffness or Roughnesses the jaws  
and Aspera Arteria, and as Pectorals, in evacuating the Breast  
and Lungs of pituitous. and: Viscid Humours. Of the Cremor  
boiled, is prepared a sorbile Liquor, which is-hoth nutritive and  
aperient, that strengthens the Reins, and thoroughly'-cleanses the  
Thorax arid Viscera, but is not so well accommodated to the  
Stomach. Almonds eaten whole are hard of Digestion; .but  
the Cremor of them mixed with Barley cleansed and boiled,  
or something of that Kind, and especially Amylum, makes an  
excellent Food upon all Accounts, being light, and easy of Di-  
gestiori, of good Juice,, and generating a fine and florid Blond.

**OfQUADRUPEDS, BIRDS, and FIs HES, withtheirSPECIES,**

Os Anirnais, the Species of which are Vastly numerous, some  
ate terrestrial,, others winged for Flying in the Air, and a third  
Sort live in the Water. Each of these may he distributed into  
Ran ks or Classes,\* greater or lefler, according to their different  
Kinds.. And as to Individuals, with Regard to our present  
Purpose, a Distinction is to he made with Respect to Age; some  
are young and. tender, others in full Vigour, others again are  
worn with Age. Besides, we must distinguish hetween wild  
and tame, or domestic Animals, and hetween those which are  
used to much .Exercise or Motion, and these that Are used to  
little or none. .

As for terrestrial Animals, Or Quadrupeds (with which we  
shall begin) they are all accounted hot, beyond a moderate De.t  
gree, affording a strong *Aliment,* which generates a thick Bleed,  
which is hest accommodated to athletic Constitutions. Vola-  
tile or aereal Animals afford not so much, but a far lighter.  
Nourishment. They are, in some Measure, more dry and

fibrous, and generate a thin Blond ; but such as use the Water  
are accounted more humid and cantons than the rest. Aquatile  
Animals, generally speaking, are far more humid and cold, than  
those we have been speaking of; but there is no small Diffe-  
rence between them ; for there is the sealy, the soft, the testace-  
ous, and thecrustaceous Kind of Fish. And of the first of there some  
are cetaceous, and five in the main Sea; others live about the Rocks  
and Shores. Again, among thefe, fuch as are of a larger Bulk,  
yield a more plentiful, but gross *Aliment,* whereas the smaller  
afford a more scanty, but purer, Measure of the same, especially  
the rocky Sort. And there is no lest Ground for a Distinction  
Io he made between them, with Respect to their Food. For  
since Sea-fish are universally preferred before firch as live in  
fresh Waters, a Number of Differences will hence arise to he  
made on the foregoing Account. Fish that are Inhabitants of  
the Deep, and are continually toiled and dashed hy the Waves,  
ate hetter exercifed, and feed on cleaner *Aliment,* and their Flesh si  
is finer, and more solid, than others are able to shew; for which o  
Reasons they nourish more, and generate a thick Blond. But  
Fish that get their Fond in the Mouths of Rivers, or in mar-  
shy and muddy Places, or where Sinks and common Sewers dis-  
charge themselves, may indeed he fat, and savoury enough he-  
sides, but heve nothing good or wholesome in them. Rock  
Fish,, that live in pure Waters, heve much better Flesh, are  
eofy of Concoction and generate a pure and thin Blood. All  
soft Aquatics, as to Goodness of Juice, are preferable to many,  
of the scaly Kind, as generating a thin and florid Blond: But  
they are full of Nerves, which makes them harder of Concoction

. then the rest, and they are also supposed to be colder, as be-  
ing void of Blond. Next to the seaiy and soft Kinds of Aqua-  
tics, are the Crustated, which are easier of Digestion than the  
Soft, and generate a thinner and purer Blond. The Testaceous  
are less valued, because they are never exercised or moved, for  
which only Reason fome prefer Scallops because they alone, of  
all the testaceous Kind, are endued with a locomotive Facul-  
ty, or Power of shifting from Place to Place. Testaceous As  
quaties breed a thin and watry Blond, and are besides herd of  
Digestion, and lie long in the Stomach. Many persons chuse  
Fish with Scales and Bones, and they may easily persuade me  
that their Flesh is drier then that of others. For that a dry  
Thing may be sound among moist is no more absurd, than to  
meet with a moist Thing among dry, of which letter we have  
Examples among Birds in the Dunghill-Cock and Pheasant, and  
more especially in the Goofe and Duck, and all aquatic Fowl.  
. Now as we heve said that terrestrial Animais consist of an  
earthy Substance with Abundance of Blood and Juice, and be-  
cause it is presumed that they impart to us an *Aliment of the*same Nature with themselves, it would he adviseable to chuse  
fuch as are young and tender,, and some of the least in Bulk of  
their Kind, and not too much inured to Labour or Exercise.  
For as the Sluggish and Unexercssed are over-run with Humidi- ,  
ties, and excrementitious Juices, so those which are over-work-  
ed, or ever in Motion, are dry, and of little Substance ; Excess  
is to he avoided in all Things. And there is a Difference to he  
made, even with Regard to the Members, or Limbs, ofthe  
same Animal, for the outer Parts thereof yield a drier and lefs  
lecrementrtious Juice than the inner, a smaller Limb than a  
greater, heing so formed by Nature. There is else a Way of  
trying these Animais by Inspection of their Flesh, for in Pro.  
portion as the Flesh of any Animal degenerates from Whiteness,  
so much is the Goodness of its Juice depraved. In Animais of  
the fame Species, it is universally observed that young ones yield  
a humid *Aliment,* the full-grown a firmer, hotter, and drier;  
and the old ones the worst of all, and fuch as increases an atra-  
bilious and excrementitious Humour, in Proportion to their  
Bulk, and their Measure of Exercise.

**Of WINE, WATER,MILK, Eccs, HoNRY, OIL, So Ast,  
VINEGAR, JUICE of UNRIPE GRAPES, PoMEGRA-  
KATES, and SALT, with their different SORTs.**

. : Of Wines, there is the thick, the thin, the austere, and **the**sweet; and of these, one is white, another of a deep Yellow,  
and a third red, for we need not mention the intermediate or  
bordering Colours. Again, some Wines will beat much Dilu-  
tion with Water τπολυφόροι], others but little [όλνγοφοξοι]. . The  
thick are most nutritive, and generate a thick Blood, causing  
Obstructions in the Viscera. Thin Wines, on the, contrary,  
are diuretic, and generate a thin Blond. Austere Wines are  
hest accommodated to the Stomach, but nourish little ; the  
sweet are just the contrary. White Wines are not fo heating  
aS others. The deep Yellow heve the most Heat, and next to  
them are the red; small Wines, that require but little Dllu.  
iron, and are therefore called *Oligophara,* are the lowest, and  
least affech the Head. For fuch as study only to cherish their  
Bodies, and keep them in good Cafe, rich and high-coloured  
Wines will hest answer their Purpose; het let such as heve these  
Health and the calm and free Course of their animal Spirits  
most at Heart, he content with *sligoplarous,* which is white and  
thin, except when an extraordinary Chiiness and **low** State of  
the Blond di tech to the Use of more generous Liquors.

The hest Water is such as no way affects the Taste, nor is  
standing like those in Pools or Lakes., or stagnates and cor-  
rupts, as in Marshes and low Grounds, that are impervious to  
the Winds. Spring-water is more commendable, as well as  
that which is drawn out of Wells, whose Waters.are in con-  
tinual Agitation. Next to these, in Point of Whelesomenefs,  
are River-waters, if they run pure and unpolluted from common  
Sewers, and Ditches, that derive into them all the Filth and  
Sordes ofthe neighbouring Cities and Country. - Rivers that  
are remarkable for their cold and chilling Quality, or are swelled  
with melted Snows, are especially to he avoided; likewise all  
such as run soul, have muddy Bottoms, or take their Course  
hear some hot Spring. The most wholesome Water is that  
which is soon hot, and soon cold, and neither affects the Taste  
or Smell with any sensible Quality.

Milk is to he considered as consisting of the serous, the but-  
tery, and the cheesy Parts. The ferous Pa or Whey, is  
only to be used medicinally, as a Cooler, and L.oosener of the  
Belly ; for it nourishes little or nothing, but is a Detergent.-  
Butter, being beating, and its Humidity surpeoled, is noxious  
to the Stomach j but generates Blond, if it he well concocted.  
It foon changes into Bile, if it meets with a hot Constitution.  
The cheesy Part is earthy, herd of Digestion, and creates Ob-  
structions, especially where the Viscera are already stuffed, or  
the Passages strait by Nature. Milk indeed, taken in the1Whole, is a nourishing Food ; though it affects the Head that  
is subjecti to Repletion. The Curd caofes Obstructions in the  
Viscera. Goats Milk is to he preferred, as heing of a thinner  
Substance than the Milk of Ewes or Cows. Chuse your Cheese  
new, and little salted; avoid all other, as heing hard of Con-  
coction, hurtful to the Stomach, causing Obstructions, and  
generating a thick Blood.

Hens Eggs are best, next are those of Pheasants, then of  
Ducks, and lastly of Geese. The hest Part of the Egg is the  
Yolk, which affords pure and plentiful Nourishment to the  
Body; but the rest is harder and flower of Concoction  
AS to the rest, whet has been fain of Animais may he laid of  
their Eggs. The Eggs of Fishes are far inferior tothose of  
Birds, both for Heat and Nutriment, as their Flesh, in Good-  
ness, is surpassed by the others. Eggs dried with Salt are hard  
of Digestion, and corrupt the Blood f and the same may he  
said of all salted Meats,

Honey is good for the: Aged, and Persons of a cold Constitri-  
'tion, and in the Winter-season; but hurtful to bilious Constitu-  
tions, or used in Summer. For Honey being of a heating and .  
drying Quality, and, from its Gratefulness, familiar to the  
Palate, where it meets with a Temperament as much too cold j  
beyond a moderate Rate, as itself is too hot, they must, be-  
tween them, generate a pure and temperate Blond. But when  
two Things of the same Quality concur, as the Honey and A  
hot Stomach, the Degree of Heat is augmented, and the Sweet-  
ness of the Honey converts it into Bile. Some have a Way of  
clarifying it, and hy that Means, blunting its. Acrimony, take  
off much *of* its Heat. Being fo prepared, and mixed with  
some other Kinds of Fond, in Cases where Heat is nor in Fault,  
It becomes most wholesome and medicinal, nor Only nourishing  
the Body, hut gently purging the Belly. '

Oil is of a moderately. het and moist Quality, but usually  
disagreeable to the Stomach, on Account of its Fatness, as well  
as other Things of an oleous and fat Quality. Wherefore  
though the moderate Use of it with Meats has no sensible ill  
Effecti an immoderate Quantity of it, as its Nature is to swim  
uppermost, extinguishes the retentive Faculty of the Stomach.  
Oil extracted from Linseed, heing neither fo het-nor glutinous,  
and of finer Parts than the other, is more easy of Digestion;  
and less offensive to the Stomach. Oil of Almonds surpasses  
them both in Goodness; being not only of siner Parts by Na-  
tore, and lefs incommodious to the Stomach, but an incisive,  
and an excellent Pectoral, and Emollient of the Jaws. Sapa  
*[Vim made of Grapes]* allo makes a Part of our Diet,: and is  
not only less beating, and more nourishing, than Honey, bur  
causes not the least Obstruction, and moderately loosens **the**Belly.) - /

' Vinegar; except in cold Disorders, is wholesome Sauce with  
Meats ; for being of a cold and dry Quality, of the finest Parts,  
and A great incisive, it cuts, attenuates, and absterges those ill  
IIumours which oppress and olog the Stomach and Viscera ;  
and where any Fond of gross Parts has been received, it is atte-  
nuated, and, as it were, elaborated, by the prevailing Force of  
the Vinegar.

The Juices of four Grapes, called *Cmphadum,* and of Rome-  
granate, are useful as Medicines, but unnecessary otherwise \*  
for though the first of them he agreeable to the Stomachi yet,  
as if consists of gross Parts, is of a ccid Natote, and' binds **the**Belly, it must he hurtful in some Constitutions. The Juice of  
four Pomegranates, though it he of pretty fine Parts, a Resister  
of Bile, and a Cooler especially of an immoderately heated  
Blood and Liver, yet it is too incommodious to the Stomach  
to be used. The Abuse of this also binds the Belly, sot the:  
Acid has always a Mixture *of* the astringent Quality,

**\* The Author makes a Mistake in this Place, for the white of Eggs is excellent *Aliment,* for Reasons given under the Article** Albumen.

Salt, used to season our Foods, is hot and dry, her mode-  
randy excites an Appetito. It exhausts and exsiccates a redun-  
dant Humidity. But the frequent Use of jt is to be avoided,  
as it is an immoderate Dryer, increases Thirst, and corrupts  
the Blend. Used only as a Preserver and Relisher of cut Mears,  
it can do but little Hurt; it is the immoderate Ufe of it thet  
does the Mischief.

**Of the QUANTITY of FooD.**

The Measure and Rule of Eating, in all Kinds of Fond,  
must be such as comes short of Satiety; for then the natural  
Heat will prevail, and have Force sufficient to make a perfecti  
Concoction. It will he advisable also to take our Measures  
from the Strength of the *Aliments, so* as when we sit down to  
seed upon very strong and nutritive Meats,' we take Care tOleave off long hefore our Appetite forsakes ns. In E00cj thar  
affords but frnall and light Nourishment we may freely indulge  
ourselves, and approach much nearer to the Bounds of Satiety,  
for this Sort is soon concoctsd, but the former stays long in the  
Stomach. Out Measure of Drinking must he regulated by the  
Dryness or Humidity of out *Aliment. Thofe are admirable  
Rules. -*

Whether it be best to eat twjcs a Day ?

For the Preservation of Health, and the due Supporting and  
Recruiting.of the animal Spirits, my Advice is, that the Provi-  
sion for the Day he divided into three Parts, of which two are  
to he taken at Noon, and the third a little before Night. For,  
by this Method, the Brain will have the Benefit of a continual  
Hurnectstion, Sleep will the more easily he procured, and the  
Spirits heing thus cherished by a perpetual Irrigation, will hold  
out the longer, nor he liable to take Fire, or he refrigerated,  
with too long Fasting, for either of these may happen, accord-  
ing to the Difference of Temperaments and Seasons. But if  
Custom contradicts this Rule, and you are loth to spend your  
Time in doing the same Thing twice, let Custom, which has  
brought upon the natural Faculties a Habit of performing this  
necessary Work at sisch long Intervals of Time without Injury,  
he obeyed. Besides, the Spirits are rendered, though Jess firm  
and durable, yet brighter, by this Management. *Actuarius de  
Spir. Animal. Natritione.*

One Regimen of Diet will by no Means suit with all Persons,  
but must differ according to Constitution, Habit, and Way of  
Lise, or any other Circumstance that may require an Alteration.  
There are a thousand Differences in Constitutions, whether you  
.consider the Struiiure of the whole Frame, or only of the Vis-  
cera, and consequently as many Distinctions are to be made in  
. Diet, in order to select what is most proper for each Particular.  
Custom allo, as an external Principle, will furnish out a great  
Variety on this Head. No sewer than these, but almost infinite,  
are the various Kinds and Measures of *Aliments* that are adapted  
to Individuals. One likes this, another that; and every one  
judges ofthe Fitness of an *Aliment* by bis Sense, and the Estedt it  
thas upon him, and sounds his Choice on Experiments, and the  
Testimony of bis Senses, which are unerring Guides in these  
Matters. As to the Nature of *Aliments,* with Respect to Man-  
:kind in general, some are of good Juice *[isxsfuri,* others of bad  
Juice *[χαχ,χνμα].* The \_ first are such as are endued with the  
Virtue of generating a pure Blond; the other generate Bile, or  
an atrabilious Humour. Again, such *Aliments* are said to be of  
a crude Juice [ώμόχομα] which naturally generate a crude and  
pituitous Humour. Moreover some Sorts of *Aliments* are easy  
of Conccoction *[a'ndla],* others difficult [ὸυσπ«ἰία], Themist of  
these, we fay, are agreeable to the Stomach, the others disagree-  
able and noxious to the same. Some loofen the Belly,.others  
hind it, and every Sort is supposed to be endued with some pe-  
culiar Virtue or Property, the Reasons of which are sounded in  
Nature. But when we say that this and that Sort of Fond are  
so and so qualified, -it must he understood with Respecti to A  
rightly constituted and well tempered Body. Wherefore when  
you examine the Lists of *Aliments,* and see one consisting of  
Meats-easy os Concoction, another of the contrary, one List  
of Emollients, another of Binders, &c. and are ready to ob-  
jost from Experience, that the Event has not answered the Vit-  
tues ascribed to them, you are not to impute it to the Ignorance  
of the Professors in tbe Arr they pretend to, but to an Altera-  
tion in the Thing prescribed, which is produced in it from some  
Perversion or Distemperature of the whole Body, or some Part  
of the Viscera v for a flight Disorder in the human Frame some-  
times causes a great Alteration in the natural Functions; nay,  
the Redundancy of any Humour may possibly work the same  
Effecti - Proper Allowances must also he made for the Season of  
the Year, for Age, Calling, &c. for these may cause consider-  
able Changes in the natural Disposition. Take Care therefore  
of Mistakes, when you fee such and fuch Food pais off easily  
with a Man, another Sort loosen his Belly, and a third have a  
contrary Essed, and consider with yourstls, whether, and how  
sartowards either Extreme, by any of the fore-mentioned Causes,  
he is removed from a moderate Standard ; fot, observing this  
Caution, you will know how to appoint him a Regimen of  
*iDmaj* that shall move Step by Step with his Advances, and di-

rectiy counter to the Progress of any morbose Disposition.  
Contraries, you know, destroy one another, and so produce **a**good Effecti; and Things alike are consumed by Union. Upon  
the Whole, then. *Aliments* seem to vary according to the Tern-  
perarnents they meet with ; and if we are not able to explain in  
what Manner they act, or how we thus become the Subjeci of  
their Action, it is enough that we are convinced by Experience,  
though sometimes Reason may, perhaps, succeed in her Enqui.  
ties.

The Quantity of Fond must vary according to Age, Season,  
Constitution, and Nature of the Food it fess. Young Persons  
not full grown, and such as are in the Flower of their Age,  
demand more Sustenance; the first, as not yet arrived at their  
just Dimensions, want more than ordinary Nourishment; and  
**the** latter, hecaufe of the Vigour of their natural Heat, and a  
greater Measure of Exercise withal, have strong and quick Di.  
gestions, and therefore require as much Food as the other. But  
Persons in a State of Life declining to old Age, mnst diminish  
their Diet, as their Vigour decays, and rhein Years increase  
upon them ; for if they load themselves with more then their  
natural Heat is able to concocti Crudities are generated in A.  
bundance, and lay the Foundation of many grievous Distem-  
pers that accompany them to the End of Life. As tO Seainns,  
if we Regard the Strength of the natural Heat, the Winter  
requires most *Aliment,* next to that the Spring ; and a mode.:  
rate Quantity agrees hest with Summer. For in. Winter the  
natural Heat retires inwards, and is supposed toaugmerrt **the**Force of the concoctive Faculty; but in Summer, it is wea-  
kened, and exhales, heing called forth, and dissipated by the  
external Heat of the Season. The natural Excretions are no  
less to be minded, for if these do not proceed according to Cut.  
tom, a proportionable Quantity os Food must he subtracts^  
Again, the Nature of Foods, in Respeci to their Nutrition, is  
a Matter no Jefs worthy of Consideration. Flesh, especially of  
large and full-grown Animals, is supposed to he the most nu-  
tritive of all Foods. And next to these are the younger and  
smaller. Inferior to these, in Point of Nourishment, are all  
exanguious Meats, and Vegetables in particular, which differ  
allo as much from one another, in this Respost, as they are all  
surpassed by sensitive and locomotive Beings. The surest Rule,  
then is, when the Body wants Nourishment, to chuse such Foods  
as will best supply its Necessities; when it grows luxuriant, to  
betake ourselves to Meats of a less nourishing Kind. If the Ap-  
petite he voracious, because the extraordinary Heat of the Sto-  
mach soon consumes, or makes away with whatever comes in-  
to it, though the Body stands in no Need of Repair ; in this  
Cafe, if nothing contra-indicates, Meats of frnall Nutrition,  
and of’flow Concoction, are advisable. Moreover, another  
Consideration, of no fmall Importance, is the Person’s Measure  
of Exercise and Motion. For Bedies accustomed to much and  
vehement Motion, stand in Need of stronger and more copious  
*Aliment,* than such as are indulged in Ease and Rest. Another  
Thing, not to he negleoled, is. Whether the Belly be soluble,  
and the Pores free for Exhalation in the Bath, for these contri--  
bute not a llttle to a good Digestion, and consequently require  
a suitable *Aliment.* To proceed; as the Quantity and Quali-  
ty of the Food, so the Times' and Seasons for receiving it, are-  
to be heedfully regarded. - If Concoction beperseiled, the Sto-  
mach is free for a Dinner; but if-an Error he committed in  
Concoction, we are to heware of receiving *Aliment* upon Crudi-i  
.ties. For when crude Juices are mingled one among another, we  
may reckon ourselves very fortunate, (as it rarely happens,) is  
we can discharge them upwards or downwards. But it gene-:rally falls out, that the ill Humours settle themselves in the Bel-:ly, or Viscera, and there breed Vertigoes, Eructstions, Gri-  
pings, and other Disorders. If the Humours.discharge them-  
selves outwards into the Limbs, they are attended with ass the  
Symptoms of aOefluxion, as the Gout in the Feet and Joints,  
and the consequent Disorders, Therefore he that intends a Re-  
gimen *of Diet,* must not determine himselfto one or two Meals  
a Day, but to eat after perseol Concoction. For two Meals  
may he too much for him, and even one, if chosen of improper  
Meats, and his Digestion he vitiated, may be hurtful; but let  
him, however, feed on pure and light Fond, and such as is fa-.  
miliar to his Temperament and Disposition. For it must he  
observed, that among several Sorts of Meats, of good Juice,'  
and easy of Concoction, some are more acceptable than others,'  
on . Account of ascertain grateful Propriety and Familiarity with  
the Stomach and Palate. Hence the fame *Aliment* is not to he  
offered to all indiscriminately, without the least Variation ; for '  
sometimes a Defeci in one Fond, compared with another of  
better Juice, is more than compensated by the good Liking  
of the Appetite towards it. And this ought nor to seem strange,  
but very reasonable, that Food with which our Body is fami-  
liarized, should prove most grateful and nutritive. For since  
there are various Temperaments and Qualities in *Aliments,* it is  
very reasonable and natural, that we should prefer such as agree  
with the Disposition of our own Body, or at least of our Sto-  
manin *Actuarias de Methode Medendi. LU.* 3. *Cap.* I2. . .

*Aliment* in too great a Quantity, though of good Juice, usu-.  
ally causes Crudities, Vomiting, and a Looseness ; *Aliment* in a

less Quantity than Necessity requires, renders the Body empty,  
lean, weak, and unable to perform its accustomed ^Duties for  
Want of Spirits. *Aliment* of bad Qualities generates a Cacochy-  
. - mv, which is known by the prevailing Quality. Again, a

Person opprefled with the Quantity of Food is immediately  
sensible of the Hurt he receives ; but the Eviis proceeding from  
Food of bad Juice are not felt under a long Time. Hence,  
'though a Man may seem to bear bad Diet, and to come off well  
and unhurt, he cannot he said to have escaped whole and Unda-

...' maged, but the Issue is to he expected a good while, when the  
Mischief at last will appear in the Form os a putrid Fever, or  
break out in Scabs, Tuhercles, or other priniginons Affecti-  
ons of the Skin. Wherefore we ought not only to take Care  
that our Food be moderate in Quantity, but also that this mo-  
derate Quantity offend not in Quality, that we may not feel  
the bad Effects os it hereafter; except in Cases that require a  
medicinal Diet, which ought then to he followed for the  
greater Security of the Patient. But an *Aliment* of bad Juice,  
and yet medicinal, is quite different, as to its Use, from *Aliments*to which the Body is accustomed. For in sound and temperate  
Constitutions, that want Nothing which is excessive in any Re-  
spect, whatever agrees not in a like moderate Commixture of  
its Elements, we place under the general Title os *Cacochyma,* or  
*Aliments* of had Juice : But *Aliments,* which by their Excess in  
any Quality supply the Defect of it in our Bodies, and so re-  
duce it to a just Temper, we Call *medicinal. . Actuarius de Me.,  
thodo Medendi Lib.* 3. *Cap.* 9. ..... .

As the preceding Rules of Actuarius are generally excellent,  
and give many useful Hints, I could not deny myself the Sa-  
tisfaction os inserting them.

- In the preceding Pages I have given the Sum of what the  
Antients have wrote with Respect to *Aliments.* I shall now pro-  
ceed to give the Sentiments os Hoffman, who has treated the  
Subject more scientifically, and has given better Reasons sor his -  
Assertions.

The Health of the human Body evidently depends upon the  
.Quantity and Quality of the Blood and Juices ; whence it is  
plain, that all those *Aliment's* which preserve and maintain a just  
.Temperament, and a due Quantity of these, are heneficial to  
Health, and that such as have a contrary Tendency are to he  
reckoned unwholesome.

For Blood of a just Temperament, and neither exceeding nor  
sailing short in Quantity, as it circulates most easily through the  
Body, and is clear of all foreign Particles, is admirably adapted  
to nourish the Parts and increase Strength ; so that, it may he  
called *the real Treasure of Life.*

Blood os a due Temperament, and benign Quality, by its  
progressive as well as intestine Motion, which continue during  
rhe whole Course of Lise,, is not only continually wasted, but  
likewise acquires a Inothid Disposition, and degenerates into an  
impure and excrementitious Mass. ’

. Experience proves, That the Blond of those who have fasted  
- inng is converted into saline and bilious Excrements, which are

. discharged by .Stool, Urine, and. Sweat, and eVen loses that  
- natural balsamic Quality which is. necessary to Health, and

the Mass os Humours is by this Means rendered so thin and  
fluid, that it becomes intirely unfit Tor. nourishing the Parts.  
This appears still more plainly *from continual* Fevers, and hectic  
Disorders, the Nature of which Diseases It is to waste the Juices,  
and convert the most henign Humours into useless, salt, and  
bilious Excrements.. Labour also, and. Exercise, hecause. they  
augment the intestine and progressive Motion of the Blood con-  
siderably, lestim the Quantity *os* superfluous Humours, .as Per-  
Jons of full plethoric Habits experience, to the no small Ad van-  
rage os their Health. , ; . . ..

Because the Bloed, by its continual Motion, is wasted and  
.converted into an excrementitiout Mass, utterly unfit Tor nou-  
rishing the flolids, or recruiting that fine Fluid which isupplies  
the Body with'Sense and Motion, it is plain thet Life and  
Health cannot be preserved, unless these natural Motions he con-

Iinually repaired, and new Juices substituted in the Room of  
-those thrown opt os the Body as exerementitiouS. '

ι The Reason is therefore plain, why People stand in Need of  
continual INGESTION and EGESTIoN, or, in other Words,  
of Eating, Drinking, and Evacuations, forHealthcannotTong  
he preserved, unless the Place of the corrupted Humours dis-  
charged he supplied by new Juices, -

Solid Foods of a good Quality, as well aS Liquors, recruit  
the lost Juices ; and therefore all those *Aliments* that are nearly  
Os the same Nature with the Blood, and easily mix with it.  
Ought to he reckoned amongst wholesome *Aliments. ;*

- Bloed and Juices fit for Nourishment are of a henign Quality,  
of a due Temperament, and resembling a Jelly, consisting of  
-small earthy, aqueous, oily, and easily moveable Particles, tho-  
roughly mixed with each other : Hence all those *Aliments,* which

-. abound with a mucilaginous Juice os a due Temperament, are  
most fit for SANGUIFICATION, or the Preduction of new  
' - - Blood. - . - r

The Flesh of young Animals, their Juices, and Broths' made

of them, especially of young Beef, Vess, fin'd Mintos, afford ..  
large Quantity of Jelly, and on that Account are justly rec-  
honed among the *Aliments* which are most quickly converted into  
Blond. All Sorts of the Hen Kind and Pigeons, with their  
Young, are likewise well disposed for Nourishments because they  
afford a more subtile Jelly than the animal Flefn above-men-  
tioned, though in a smaller Quantity.

It is worth while to observe, that the CLEAN ANIMALS;  
which, according to Moses, were used by the Israelites in their  
Sacrifices, were principally such as afforded a good and whole-  
some Nourishment, since they abounded more than others with  
nutritive mucilaginous Juices. ' *, . . i*

Broths and Jellies made os Flesh are therefore, not without  
Reason, prescribed sor recruiting the Strength os those who  
either by large Haemorrhages or Violent Fevers have sustained  
a Loss of Blond ; and People who seed much upon those mu-  
cilaginous *Aliments,* which the French above all other People  
in the World do, can bear to have Blood taken from them more  
frequently, and in larger Quantities, than People who are not  
so much accustomed to them.

The Chyle is the immediate Matter of the Bloed, and re-  
sembles a natural Emulsion made of soft, oily; insipid, waterjS  
and mucilaginous Particles ; for this Reason all thoso *Aliments,*into the Composition os which Parts resembling Chyle enter,  
are proper for nourishing the Parts, and producing Lymph and  
Blood.

Milk, which is nothing but Chyle, is an universal *Aliment,*and, in Respect of Nourishment, to he preferred to all others. .,

And for this Reason Milk is given as the first *Aliment,* not  
only to Children, but to robuster Animals, that,their Bodies  
may grow the faster, and acquire Strength, and Maturity the  
sooner; for Fond that is solid, of a firm Cohesion, or herd Di-  
gestion, does not well agree with young and tender Bodies, be-  
cause the Stomach and Intestines have not that Strength and  
Force which are necessary for the Digestion and Expulsion of  
solid Foods. Hence a Reason may he assigned, why some  
People, especially the Swiss, who are great Lovers of Milk, and  
make much Use of it in Fond, grow so Very large and tall, that  
scarce any Nation in Europe can surpass them in that Particular.  
Pliny, Tacitus, Justin, Caesar, and Salust give us Accounts  
of many who by the Use of Milk have lived Io . a Very great  
Age; and Galen, *in Lib.* 5. *Cap.* 7. *de Sanitate tuenda,* men-  
tions a Man who, using no other Fond than Milk, lived to  
more than a hundred Years. In Holland, and some Northern  
Countries, and likewise in Friseland,, many use Milk for their  
ordinary Drink instead os Beer ; and Ovid gives us the Sense of  
Antiquity with Regard to Milk in the following Lines, *Lib. as  
Fast.*

*Lacte moro Vetcres usi memorantur et Horiis,  
Sponte sua si quas Terra ferebat.*

All mild Seeds which abound with a milky Jtsice are to he  
reckoned among the Class of nourishing *Aliments. .*

\_ Hence appears, the Reason, why Seeds and Grains of most  
Kinds, such as Barley, Wheat, Oats, Rye, Beans, Pease, Al-  
monds, Chesnuts, Pine-nuts, Fistick-nutS, Rice, Mays, and  
Turkish Corp are extremely proper for nourishing Animals,  
and why the Meals of these baked into Bread . are the principal  
and most general *Aliments* made Use of; from this likewise one  
may account *sor* People’s heing able to live tolerably on Bread  
and Water only. \_ . l  
... Among all other *Aliments* Bread holds the principal Place, nor  
.can we possibly want is,without injuring Health. Its Use is  
proper at all Seasons, and accommodated to all Constitutions,  
.and may therefore properly he called an *uniucrs.al Aliment*; nor  
.can Flesh and other Substances he taken alone, and without it,  
smce in that Case they create a Nausea.

The.Texture of-the Parts os Bread is admirably adapted to  
the Nature of the nutritious Juices ; sor it is mixed-with mild,  
.oily, and .mucilaginous Particles, and likewise with a subtile  
acid Sait,, which are Very grateful to the Stomach, and quicken  
-the dissolving Power os the sslival and fermentative Juices. But  
aS all Bread is not made of one and the same Grain, so one  
.Kind of Bread is preferable to another with Regard to its health-  
shl Qualities. The hest and most nourishing Bread is made of  
dry Rye-meal, not Very.white, but mixed with the smaller and  
finer Parts os the Bran. For by a chymical Analysis; blackish  
coarse Bread upon Distillation affords more Oil, which diffuses a  
.more agreeable Flavour, and more effectually recruits Strength,  
.than .that which is drawn from fine Bread. But that which, is  
made' of Barley, Oats, Turkish Corn, or even of Acorns or  
.Chefnuts, is heavier on the Stomach, noris it so effectual for.  
repairing lost Strength. See BO Μ P E RN I c k E L.

Eggs, hecause they contain a .Very sine, balsamic, pellucid  
Dymph, which approaches nearest to the immediate Matter of  
Nourishment, therefore afford a very speedy Nourishment to

\* the Parts.„ . .

Eggs afford a very speedy Nourishment, if they are new laid  
and soft, according to that Maxim of the *Schola Salernitana,  
Si fumas Ovum, molle fit atone novum.,* i. e. *Lf you incline to eat*

*an Egg, let it be sese, and new laid.* The Yolk contains many  
Unctuous, sat, and sulphureous Parts; the White, on the other  
Hand, consists of moist, balsamic Parts like those of the Serum,  
so that if any Food is universal, this is certainly such, and is in  
**a** peculiar Manner adapted to increase the seminal Liquor. Eggs  
are os all other Things most proper when the Body, either  
weakened by an Effusion of Blond, or wasted by the Shocks of a  
FeVes, requires *a. Very* speedy Supply os Nourishment. For  
this Reason the *Talmud* advises poached Eggs for those who **have**had a Vein opened. They are Vastly heneficial to old Men,  
who stand in Need of good Nourishment, and such aS may he  
easily digested by the Stomach. I do not, on the contrary,  
approve of their heing used by those who have their Stomachs  
Ioaded with Bile, or any Collection of acid Humours, because  
the more Bodies abounding with impute Juices are nourished,  
**the** more they are injured by that Very Means. They are  
known to he fresh by their heing pellucid when exposed to a  
'clear Light, and by their retaining their milky Liquor, after  
having been boiled over a strong Fire.

Cheese and Butter are universal and most excellent *Alsu  
rnents.*

Since Milk is resolved into Butter and Cheese, and since the  
Butter contains its oily, and the Cheese its mucilaginous and  
terrestrial Parts, it is therefore plain that these two, especially  
with the Addition of Bread and Water, must he a Very Valua-  
.ble and universal Nourishment, fit for Persons of all Ages and  
Constitutions. The newer Butter din, it is of Consequence at  
once the more grateful to the Stomach, and the more conducive  
to Health; but when long kept, it grows foetid and rancid.  
The too great Or too frequent Use of it, by relaxing the Fibres  
**os** the Stomach, weakens its Tone, and excites Nauseas. But-  
ter joined with Cheese is likewise Very nourishing; but Cheese  
should he neither too new, nor too old. If mo new, it loads the  
Stomach, and binds the Belly; if too old, it increases the Acri-  
mony and Impurity of the Humours, as it is endowed with a  
Poignant Taste, and a foetid Smell.

As the Blood, the nutritive Juice, and in general all the  
parts of the Body, are made up of three elements, viz. First  
*of one* which is sulphureous, oily, and inflammable : Secondly  
ione of an earthy, subtile, alcaline Nature, which is neverthe-  
less jnore fixed : Thirdly one ofan aqueous; *so the several* Kinds,  
and Virtues of *Aliments Caa.y* he most commodioufly -reduced to  
these three Classes. ' .

*Aliments* of these three several Qualities, duly mixed with  
One another, afford a proper Nourishment for the human Bo-  
by\* . ’ si

The Flesh Of Animals, especially when roasted, affords the  
Body its principal Supply of the sulphureous Part; but it is to.he  
observed, that wild -Animals are preferable in this Respect, to  
those of the tame and domestic Kind, *because their Oils and  
Salts are exalted by their habitual Excrcis.e.*

That the Flesh of Animals contains more of a subtile Oil,  
than Vegetables, is plain from this,, that in the Summer Flesh  
very soon turns putrid and offensive, which is hot found to he  
the Cose with Respect to Vegetables. - . ι ’ -

Vegetables have an Acid in their Composition, and their Oils,  
excepting some of the hotter Herbs, are *for* that Very Reason so  
much the milder. Animals, on the other Hand, have no A-  
cid in their Composition ; for all the Parts of them, subjected  
to Distillation, yield a subtile Oil, and a Volatile Salt; and this  
hot Oil is what principally excites an intestine and fermenta-  
tive Motion in the Blood, and proves the Occasion os the pe-  
netrating and disagreeable Smell which is felt upon Putresactit  
On.- ’ i

The roasted Flesh either of wild Beasts, or wild Fowls, fur-  
rtish the Blond with greater Store Of a light sulphureous Sub-  
stance, than boiled Flesh, or those of tame Animals. si: i 7 \*

The Flesh of wild Animals, and wild Fowls, is undoubted-  
Iy lighter, more subtile and oily, but fraught with a smaller  
quantity of mucous balsamic Mattes, than the Flefnoftame A-  
. nimals; because wild.Animais use more Violent Exercise, breath  
a freer and purer Air, and feed upon drier *Aliments..* Add to  
this, that by the very Roasting much of the Humidity is eva-  
porated, by which Means the oily Principle disentangling it-  
fess from the rest of the component Parts, and heing exalted by  
the Fire, enjoys its full Liberty, and has the Ascendant over the  
other Parts. = . . u t

Among the *Alimems* which furnish the Blood with its humid  
Parts, of Animals Fish, and os Vegetables Pot-herbs, the mil-  
der Roots, and some Summer Fruits, are reckoned the princi-  
pal. *i*

Fish subjected to Distillation yields much Phlegm, little  
Oil, and very littie volatile Salt. *Tois Asserti™ is a little tea  
general.* See **ALCALI. .** . δ ..

Because Fish contains only a very fmall Quantity os Oil and  
volatile Salt, is does not so easily turn putrid, as Flesh, and for  
this Reason is generally less hurtful in Fevers than Flesh. *.1  
suppose Hoffman means River Fests, which have Seales.*

To the third Class oft *Aliments* which supply the Blond with  
Its fixed and earthy Parts, helong all Kinds of Grains as the

several Kinds of Bread, Rice, Peale, Beans, Lentils, Chesnuts,  
Almonds, -Cacao, Cheese, *etc.*

From whet has heen said it will appear, that all fuch *Aliments*as are os a mild Quality, and resemble the Chyle and Blood, are  
fit for Nourishment.

All such *Aliments* therefore as either recede from, or are  
quite opposite to the Nature of the Chyle and Blood, are unfit  
for Nourishing the Parts.

All *Aliments* in which there is too much of an Acid, are im-  
proper for Nourishment; hecaufe Milk and Blood will not  
mix with an Acid, which is quite opposite to their Natures, and  
induces a Coagulation of the circulating Juices.

Hence the Reason is plain why the too liheral Use of Salads,  
Summer Fruits, especially whilst crude and unripe. Vinegar,  
sour Ale, and Wines that abound with an Acid, are so remark-  
ably prejudicial to Health.

No Salt whatever can he mixed with the Blond, Chyle, and  
Milk, for winch Reason all Salts, and all Foods too high  
salted, must he improper and unfit for. Nourishment.

Blond and Chyle never incorporate with spirituous Liquors,  
but rather separate from them ; whence it is-easy to judge how  
detrimental the free Use of them is, both to Health and Noud  
rishment.

All sweet Things, asSugar, and Honey, have no Affinity with  
the Blood and Chyle, but rather recede from their Nature,  
smce they have an exquisite Taste which the Blood, Chyle,  
and nutritive Juices have not.

Though sweet Substances consist of a temperate Mixture of  
Parts, and may on that Account seem proper for Nourishment,  
yet the sweet Particles are Salts of a peculiar Kind, which are  
dissoluble in Water; hence they cannot be joined to the Sub-  
stance Of the Parts, fince they are liable to he dissolved by the  
circulating Fluids. . .

*Aliments* proper for preserving Health ought not only to con-  
tain a laudable Juice, but should likewise he easily dissolved by  
the Stomach. Hence it is plain, that all those Kinds of Food,  
which on Account of the Closeness and Compactness of their  
Texture are with Difficulty dissolved, are for that very Rea-  
son less conducive to Health.

The Flesh of old Animals, Flesh dried in the Smoak, herd  
Eggs, Sea Pish almost, of all Kinds, and Very coarse Bread, on  
Account *of* the rigid and complicated Texture *of their* Parts, are  
for that Very Reason with some Difficulty concocted by the  
Stomach, and converted into Juice and Blood.

- As these hard and compact Foods require much Warmth,  
Abundance os fermentative and salival Lymph, and a strong  
Stomach to disjoin and break their complicated Textures, so they  
do not agree but with robust Constitutions, and People that  
labour hard; for this Reason the Inhabitants of some Northern  
Countries, such as'the Swedes, the Norwegians, the Laplanders,  
.the Finlanders, the Westphalians, and the Pomeranians are not  
easily injured by Foods of this Kind, because their Stomachs he-  
Ing not only naturally Vigorous, but likewise strengthened by  
Custom, easily distolve and digest them. -

Of Vegetables, Roots, Fruits, and Herbs, especially if eat  
crude, and hesore they are sufficiently softened by Boiling, are  
difficultly concocted by the Stomach, because these fibrous Tex-  
ture is hard Io he diflblyed. - - ' -

*Aliments* Of the vegetable Kind are for that Reason likewise  
heavy on the Stomach, -since they produce many Flatulencies  
which disturb and disorder the primae Vise.

To this Class helong all unripe Fruits, Pease, Beans, Turnips,  
Rape, bulbous Roots, the several KindS-of Cabbage, Garlick,  
Onions, Radishes, Sallads prepared ofLettice and other Herbs,  
Pears Apples, Prunes; Honey and Water, Honey, Must, and  
all sweet Fruits of whatever Kinds; for such is the Nature of  
these that they easily run into a Fermentation, or even be-  
come sour, and by Reason of their viscid Tenacity are res.  
solved-into Fumesand Vapours. -

The tenacious and glutinous Parts of Animals, among which  
are the Stomach, the Intestines, .the Spleen, theKidnies, the  
Beaks, the Vulvae, the Ears, the Skins, and the Claws, are of  
herd Digestion, and with Difficulty yield to the-Menstruum of  
the Stomach. - . I t. ..tio

Fat Substances are with Difficulty digested by the Stomach,  
for ifan Acid, with which Vegetables principally abound, be ad-  
eded to them-they.run intoa Coagulum. ; ' 'ἐν

Fat Foods require an alcaline Liquor for breaking and dis-  
joining their complicated Textures; for which Reason a good  
Deal of Bile is requisite to prevent their proving hurtful to the  
Stomach; for when an Acid in the Stomach attempts the So-  
lution of fat Substances, hot sulphureous Vapours and Eructations  
are caused, which are Very troublesome to the Alimentary  
Tube. - . - - - - -

The more Viscid, rancid, and old, sat Substances are, they are  
for that Reason so much the worse. The new and recent are  
hetter, and sooner yield to Solution and Digestion.

Hence the Reason is plain why the Fat of Beef is not so  
hurtful when used in the Preparation os Food, aS the Fat of  
Mutton, or that of the Kid, the Sow, or the Goose. Hence

likewise may a Reason he assigned why old Flesh fuch as is’ har-  
dened in the Smoak, because of the Rancidity which Fat con-  
tracts, and Bacon which has acquired a Rustiness and yellow-  
Colour, are highly improper for the Preservation of Health.

In order to the Performance of the Office *of* Nutrition, it is  
necessary that the small Mouths of the internal rough Coat of  
the Intestines absorb the Chyle, and convey it to the Blond;  
for which Reason none of those *Aliments,* which either ob-  
struct, or too much corrugate its Mouths, can he used, without  
in some Measure injuring Health.

Since the effete Mass of *Aliments* drained and exhausted, by  
the Separation of the Chyle from it, ought by the expansive and  
contractive Motion of the Intestines to he thrown off from  
them, it must of Course follow, that all those *Aliments* are pre-  
judicial to Health which either pass through the Intestines with  
- Difficulty, stop their Motions, or weaken these Tone, and im-  
pair their Strength, by suppressing Excretion so necessary to  
Health. :

All *Aliments* that are acid, astringent, mouldy, glutinous,  
viscid, austere, or such as easily run into a Coagulum, are for  
this Reason prejudicial to Health, because they weaken the Tone  
of the Intestines, and by that Means prevent the superfluous  
Fences from heing discharged. . :

This Characteristic of Unwholsomeness belongs to all unripe  
Summer Fruits, Pears, Quinces,: Pomegranates, Medlars, the  
Fruits of the Thorn, and Myrtle, fiea Biscuits, the Crust of.  
Bread, Bread that is mouldy, hard, too coarse, or taken warm  
from the Oven, all farinaceous Substances, Grueis made of Pease,  
Beans, Lentils, and Millet, Cakes or Bread not sufficiently.,  
fermented. Cheese eat too freely. Sheeps Milk, and in fine all  
milky, and sat Substances; all which *Aliments* do still more;  
remarkably hurt the Constitution, if Wine, Acids, or cold  
.Liquors, are used along with them.; for by this Means they.  
are reduced into a firm. Coagulum, which adheres immoVeably  
to the Coats of the Intestines, and incrustares the Orifices of  
Iheir small absorbent Veffeis; whence proceed copious Flatulen- -  
cies and Spasms. . ......

The Unwholsomness of *Aliments* is to he estimated from their  
impairing the fermentative and solutiVe Powers of the Stomach,  
fince by that Means Crudities are generated.

' '. The Action os the fermentative Juice is impaired and wea-:  
kened by all fas, oily, and very sweet Substances; by Honey,.  
Hydromel, or Honey and Wine,. new Grapes, Summer Fruits,,  
green Figs. All Pulses, farinaceous Substances, Grueis made of  
Millet, lukewarm *Aliments,* the fibrous Roots of. Pot-herbs,.  
Cheese, and curdled Milk, all which are the more prejudicial to:  
Health, the greater Quantities.ofchem are taken into an emp...  
ty Stomach. -- . . .. i .. t .- ..

Every Acid, and every Putrefaction, are prejudioiallo Health;  
and for that Reason all *Aliments.*which easily grow four or pu-  
trid in the Stomach, may be justly reckoned nnwholfome.

An Acid is equally injurious to the Primae Viae and to the  
Blond,, for it destroys the alcaline and balsamic Quality of the:  
Bile, coagulates the Chyle, and retards the Expulsion of the'  
Excrement. -Add to this, that when it .is mixed with the  
Blood, Stagnations of the Juices, and Infarctions of the Vifcera,-  
are generated. - (This Assertion is a little too general. See the:Article Ac E T UM.) And when the first Organs of Digestion are  
affected by putrefied *Aliments,* and the -Putrefaction extends it-  
self towards the more -internal Paras, it .communicates its own:  
bad Disposition to the most wholesome Juices.. Among those  
Foods which by their long Continuance iff the Primae-Vise grow  
acid, may he reckoned all Summer Fruits, Milk, Honey, alV  
most all Sorts of Tarts, sweet VVines .os several Kinds, Must,  
Hydromel, and fermented Bread; and those *Aliments* .which  
foonest grow putrid by a long Stay in the Primae: Viae are boil-  
ed Flesh; for of all *Aliments* used by ths, none heve a greater  
Tendency to Putrefaction than Flesh. Wherefore it is for Very  
valuable Purposes, that Nature in acute Diseases, and in Habits  
abounding with impure Ju ices, does of her own Accord loath  
anil abhor'Flesh, and those Physicians laudably assist , Nature, in  
carrying on her Design, -who in -Cafes: of that Nature forbid  
their Patients the Use of nourishing Broths; for *Aliments* of  
this Kind wonderfully add to jthe Putrefaction which is **.the**formal Cause of the. Malignity. For This Reason when Pest  
silences or other epidemical Diseases rage, it it advisable to ab-  
stain from Flesh, and use acidulated Liquors, whiefi .strongly  
resist Putrefaction, and by -that Means prove remarkably ser-  
*y* iceable; but. this is to he understood of those .Constitutions  
which are infirm, weakened with Fevers, or loaded .with im..  
pure Juices ; so . that Hippocrates was Very just in his Obser-  
vation, That *the more Bodies abounding with impure Juices are  
nourished, the- more they are injured.* Corrupted Fish, putrid  
Flesh, or that of Animais-which laboured under any Disease,  
have os all other Kinds of Fond the strongest and most direct  
Tendency to produce a Putrefaction iff the Bedy. *Hoffman. Me.,  
dicina.Rationalis Sysiemat. . ' -.-* \* 0 = so

*Α.* CH YMI CAI. ExAMEN of FLEsH-MEATs .commonly  
used for BROTHS. By Μ. Geoffroy the Younger. *Ms...  
moirs de ΐAcad. Pay. I*730.

Of all *Aliments* those derived from Vegetables must he fittest  
for sick Persons, because, heing less complicated with Respect to  
therr Elements, they seem to bear a greater Analogy to Nature,  
as M. Lemery has proved in one of his Memoirs. How reason-  
able soever this appears. Broths made of Flesh are established  
by Custom, and generally pass for the most wholesome and ne-  
cessary Food in Cafes os Sickness, when it is almost the only  
Diet in Use.

It is only by an Examen of the Principles contained in this  
Sort of *Aliment,* that we are qualified to give it with Discretion,  
so that we may avoid on the one Hand the Danger of prescrib-.  
ing it too freely, in Circumstances where a strict Diet is al-  
most the only Remedy, and yet not he too sparing on the other ..  
Hand, when the Patient exhausted by long Sickness requires a  
gradual Augmentation of *Aliment for* the Recovery of: his.  
Strength. I\* or our Satisfaction in this Point, and that we may  
know how to adjust the Proportions of such Food in whatever  
Cases may offer, I have made an Analysis of such Flesh-meats  
aS, are most in Use, or contain an *alimentary* Juice which is'ac-  
counted salutary; such as Beef, Veal, Hens, &c. I undertook  
this Disquisition only hecause the Analysis of carnous Poods had ,  
not been carried so sar as that of Vegetables.

- The late M. Dedart, whose Memory is so much respected by  
the *Academy,* and who was distinguished for his extreme Aceu-.  
racy, contented himself with saying; in 1702, That he was of  
Opinion, with the late M. Bourdelin, that .the Flesh of Animais  
boiled to a Jelly, and afterwards distilled, yielded no less Quan-  
tity of Volatile Salts, than if they had been distilled raw.. Now;  
as it appeared that none, had been so careful as to determine **the**Quantity os the Extract which these Jellies lest after Evapora-,  
tion, and what these Flesh-meats had communicated of their  
Principles to the Water in which they had heen boiled, I un- .r  
dertook the Assair, with an Intention to adjust that neglected.  
Part according to Analyses which are already well .known. I  
proposed to myself to discover the Quantity and Quality of the  
Principles of the raw Flesh-meats which are put in Distillation ;  
what Principles they impart to those solid Extracts which are.  
made out of them by Ebullition and Evaporation ; the essential  
Difference of those volatile Salts which are. drawn from them ;  
what Principles are yet further contained in these Meats, aster  
they are exhausted of their Juices, and become dry , lastly, I  
shall determine, in another *Memoir,* the .Quantity of Nutri-  
Inent that is to he expected from the Bones and osseous Sub.»,  
stances in the Dressing. . .. '

- E BEEy.

To begin with Beef, I took a thick Piece of the same, and;  
\* having cleared it of the Fas, Bones, Cartilages, and Memrf  
branes, had it cut into Slices of a Quarter of a Pound Weight.  
One of these I distilled in a Bath Heat, without any Addition ;  
it afforded two Ounces, fix Drams, and thirty-six Grains of  
Phlegm, or Humidity, which pasted into the Receiver, and  
the dry Flesh, which remained in the Retort, was reduced to  
the.Weight of one Ounce, one Dram, and thirty-six Grains.  
The Phlegm had the Smell of Broth, and had some Characters  
Of a .Volatile Salt, for . it precipitated 'a white Powder from a  
Solution Of ..corrosive sublimate Mercury, as is the Manner of  
pure Volatile Salts and the Phlegm that came over last in .the  
Distillation gave yet more sensible Marks thereof, by precipi-  
taring a greater Quantity of the fame Solution.

:. The dried Flesh, weighing as aforesaid, heing placed in **the**Retort, in **a** reverberatory Furnace, in order to an Analysis,  
afforded a small Quantity of Phlegm, charged with a Volatile'  
Spirit, which weighed one’Dram sour Grains, and after that  
three/Drams jortyrsix Grains of a Volatile Salt, and as thick,  
fintid: Oil; .which could not he separated.

( The: Caput Mortuum, or Substance left in the Retort,  
weighed three Drams thirty Grains. It was a black Coas  
shining; and os little ..Weight, which was calcined in a Cru-  
cible Oyer, a very. strongTire, and by that Means reduced **to  
Ashes,** .which, weighed forty Grains. ' These Ashes,- heing ex-  
posed to the.Air, imbibed the Humidity which augmented their  
Weight. They were made into a LixrviumjWhich being examin-  
ed. afforded, no Signs of an alcaline Salt, but of Sea-salt, by pre-  
cipitating a white Powder from a Solution of Mercury in Spirit  
ofNitrI.. It caused no Change in the Solution of the sublimate  
Corrosive, except that, after It had rested some Time, It formed,  
at the Bottom of the Vessel a Sort of Cloud, in Form of **a**flight Coagulum. Now hitherto we know of no Salts, except  
those .which are of the Nature of Sal Ammoniac or Sea. salt,  
that .precipitate a white Powder from a Solution of Mercury in  
Spirit of Nitre ; nor any Thing, except .the absorbent animal  
Earths that.I:have observed Io siightly precipitate **a** Solution  
*of* **Corrosive sublimate, . - ’**

Upon fctir Ounces os Bees, dried In a Bath Heat, I poured  
**the** like Weight os Spirit of Wine well rectified, and let them  
digest together for a very long Time. The Spirit took a weak  
Tincture from the Flesh, and extracted from it some Drops of  
Oil, the Colour it had acquired was red, and it had a faint  
Smell. Oil os Tartar mixed with this Spirit discovered itself  
by an urinous Smell. Its Mixture with a Solution of Mercury  
in Spirit of Nitre turned it white, whence proceeded a yel-  
Iowish white Precipitate. This Liquor afterwards became  
gritty, from the urinous Sal Ammoniac with which the Spirit  
of Wine was impregnated. The Experiment of mixing this  
Spirit of Wine with a Solution of Corrosive sublimate produced  
a white Precipitate, which turned a littie yellow. In this last  
Cafe there would have heen no Precipitation, but for the uri-  
nous volatile Salt which entered the Spirit of Wine with the  
Sal Ammoniac.

. Four Ounces of the like Beef heing helled in a Vessel well  
closed with three Pints of Water, and the Boiling heing renewed  
fix Times with the 'like Quantity of new Water, in order to  
exhaust aS much as possible the Juice of the Meat, I put toge-  
ther all the Liquors of these Dressings, the two or three last of  
which had only a Very faint Smell of Veal-broth, evaporated  
them by a gentle Fire, and towards the End of the Evaporation  
filtrated them in order to separate the earthy Part; and there  
remained in the Vessel an Extract moderately solid, which very  
readily imbibed Humidity from the Air, and was found to  
weigh one Dram fifty-six Grains. Thus the Result of this  
Experiment is, that since four Ounces of boiled Beef afford one  
Dram fifty-six Grains of Extract, one Pound of the like boiled.  
Bees must yield seven Drams eight Grains of the like Extract,  
besides eleven Ounces, six Drams, sixty-four Grains of  
Phlegm, and three Ounces two Drams of Fibres exhausted of  
all their Juice. This Produce may vary according to the Feed-  
ing of the Animal in good or bad Pastures, or as the Flesh we  
chuse for the Experiment is fresher or staler. It is to he Ob-  
ferVed, that good Beef boiled will scarce ever turn to a Jelly, if  
we strip the Flesh of the Membranes, Tendons, and Cartilages.  
Now by *Jelly* I do not mean the Extract above-mentioned, but  
what after Boiling becomes of itself one clear, trembling Mass  
when it is cold. '... . ..

The Extract of this Bees, which weighed one Dram fifty-six  
Grains, afforded in its Analysis one Dram two Grains of Vola-  
tile Salt, which adhered to the Sides of the Receiver, not in  
Ramifications, as is usual with Volatile Salts, but in flat Crystals,  
shaped for the most Part like Parallelopipedons. The Spirit and  
Oil,-which came together, after the Volatile Sals,- weighed  
thirty-eight Grains. The fixed Salt Of Tartar, mixed with  
this Volatile Salt, seemed to augment its Force, which might  
give Room to sufpect that this last was an urinous Sal Ammo-.  
Diac, and so much the more for that the Crystals of this Vola-  
tile Salt had a near Resemblance to the Volatile Salts of Urine,  
which are known to he different from other Volatile Saltsex-,  
tracted from the Flesh of Animals. .

The Caput Mortuum, or Coal which remained in the Retort,  
**was** Very light and porous, and weighed-but six Grains. The  
Lixivium thereof precipitated a white Powder from a Solution of  
Mercury, like the Lixivium of the Ashes of the raw Bees above-  
mentioned.. - - - 1 . ' -

The six Drams thirty-six Grains Of the dried Mass of Fibres,,  
heing analysed after the same Manner, yielded two Grains of  
Volatile Salt, in the Form of common Volatile Salts, which ad-  
hered to the Sides of the Receiver in Ramifications, mixed with  
a littie foetid Oil, , thick enough, but not so brown as what was  
extracted from the boiled Mass. The Spirit, which was .of a  
citron Colour, being separated from its Oil, weighed thirty-**six**Grains. The Caput Mortuum weighed one Dram sixty Grains.:

The Lixivium made after the Calcining could not alter the.  
Solution of Mercury made with Spirit of Nitre, because, when  
the Fibres of this dried Beef were analysed, they were already  
deprived, not only *of.* all their essential Sal-Ammoniac, but also  
of their fixed Salt, which-is os the Nature of Sea-salt; for these  
. Salts pasted off, in a great Measure, with the Oils, into  
the Water, during che long Boiling of the Flesh. This Lixivi-  
um had only a saint Tincture of the Colour of an Opal. ( The.  
Solution of Corrosive sublimate proves that there still remains  
an oily Part. It is known that sulphureous Substances precipitate  
a black Powder from that Solutions or rather a deep Violes,  
which begins with an -opal Colour. . . "si.... . ... ? . ..

It appears then by the'Analysis of the boiled Mass, that there  
Passes into the Water, during the Ebullition, a Sal Ammoniac,  
which we may look- upon aS the essential Salt of this Kind of.  
Flesh, and which, in the Distillation of the Extract, appears  
Under a different Form from whet was extracted from the Flesh  
distilled raw, which was the Method of. former Analyses. And  
It seems probable, that this Salt is the very .same as is separated  
from the Blood by Urine after Nutrition, fince rhe volatile Sals,  
which I gained by this Extract, has a near Agreement, as Γ  
, made appear, with the Salt extracted by Analysis fr0m Urine.

**. The** Salt then produced by the Extraction wist he rhe Product of  
that natural Sal Ammoniac which is in Flesh-meats, and is  
easiest yo he sublimated with that which is afterwards extracted

from the Fibres. And we may fay, after rl.is Operation, -  
the Volatile Salts are almost constantly the Product of rhe ythe  
since Principles so littie sensible will discover themselves n0 sar2  
ther, than as they are disclosed by the Violence of the Eire a&.  
ing on the Matter by Burning or Calcining, in order to the  
Formation of the Volatile Salts.

I have given a particular Relation of my Operations on gees,  
that I might give an exact Account of my Labours, which were  
the same on all other Kinds of Flesh-meats which I examined, so  
that I need not repeat the Process in the Course os chin Afr..  
*moir.*

**VEAL.**

Four Ounces of Flesh, cut from a Fillet of Veal, 2nd dis-  
tilled in a Bath Heat, aS the Beef .was, afforded two Ounces, fin  
Drams, fiher-four Grains os Humidity ; the dried Flesh weighed  
one Ounce, one Dram, eighteen Grains, aster it had yielded out  
its Principles by Analysts. The Caput Mortuum weighed two  
Drams fifty one Grains; its Lixivium gave MarkSsifa Sea  
Salt, as did the Beef.

Four Ounces of the fame Flesh boiled afforded a Substance  
somewhat like a Jelly, which was reduced by Extraction to  
λ two Drams thirty Grains of a pretty solid Matter, though  
difficult to he dried The Mass of the dried Fibres weighed  
five Drams sixty-two Grains: So that one Pound of a Fillet  
Of Veal contains eleven Ounces, six Drams, sixty-four Grains  
of Phlegm, one Ounce, one Dram, forty eight Grains of Ex-  
tract, and two Ounces, seven Drams, thirty two Grains os.  
Fibres dried, or intirely deprived of their Juice,

By comparing the Products of the first Operations made on -  
Beef with the like made on Veal, I found the Veal to contain  
more Phlegm than the Pees, by four Ounces eighteen Grains;  
that it afforded forty-six Grains more of Extract, and that the  
dried Fibres weighed forty-six Grains less. Now since the  
dried Fibres weigh less than those of the Beef, and finoe more  
Phlegm and gummose Parts are thence extracted, may we not  
presume1 that the Liquids which circulate in the Body os the,  
Cals, where they serve not only for Nutrition, but also for the  
Growth of the Animal not yet come to Perfection, contain  
Particles more disposed to hecome solid, than the Liquids cir- .  
Culating in the Beef, where they serve only for Nutrition ? For  
the same Reason the Extract from the Veal becomes firmer than  
that from the Beef; because it contains a greater Quantity of  
those gummy Partides which are appointed to become solid for  
the Lengthening ofthe Bones, Cartilages, Tendons, &c. And it  
is impossible to give the same. Firmness to the Extract os Bees,  
unless it he boiled with the Bones, Cartilages, and Membranes,  
which are nothing, as I may say, but a Composition os these ,  
gummy Particles. '

The two Drams thirty Grains of Extract from the Veal;  
afforded me in the Analysis one Dram twelve Grains of Spirit, ;  
Oil, and volatile Salt, .which last had the urinous Character  
like that of Beef. The Caput Mortuum left in the Retort;  
weighed but a Dram.

The five Drams sixty-two Grains of dried Fibres, from  
which the Extract was made,: heing put in the ReVerheratory,. ’  
afforded one Dram fixty-six Grains of volatile Salt, of the :  
Character of common Volatile Salts, that is, it was in Ramin. .  
sications; and one Dram thirty-seven Grains of Oil and Volatile  
Spirit;; the Caput Mortuum in the Retort weighed two Drams:eighteen Grains. t

Here I take again the Weight of these Caput MortuumS, or.  
Coals, in which there can he no Mistake, especially with Re-.  
spect to their Weight. That of the extract of Beef weighed but  
six Grains, that of the Extract of Veal seventy-two; so that  
there was a Difference of sixty-fix Grains in the Weight os the  
two Coals of the Extracts.

The Coal of the dried Fibres of the Beef weighed but one  
Drain sixty Grains; that of the Veal two Drams eighteen-  
**Grains ;** here is another Difference Of thirty Grains.

- These two Excesses added together make a Total of ninety-  
six Grains of Parts, considered as solid, more in the Veal then,  
in the Beef. : These solid Parts added to the gummy Particles:  
spoken of above, which are \_ appointed Io hecome solid for the.  
Growth Os the Animal, heing .Very considerably more nurne-; .  
Ions in:the..Veal then in the Bees, might not one conjecture  
that if these. Particles preserve in our Bodies, when we. take  
them as *Aliment,* the fame Disposition which they seem to have ;  
in the Body ofthe Animal whence they are taken, Veal must 7  
he agreeable: to Children, because they are growing, and to-  
sick Persons who are much extenuated, and have undergone a  
considerable Loss of Flesh; and that Beef would better agree  
with adult Persons and such, as enjoy a perfect State of Health ? ~  
But I offer, this only as a Conjecture.

**MUTTON. /**

Four Ounces os Mutton, taken from the Leg, distilled in a  
Bath Heat, yielded two Ounces six Drams thirty Grains Of  
Phlegm.

The Flesh drained of its Humidity weighed one Ounce one  
Dram forty two Grains, which being placed in a Reverberatory,

after it had been exhausted of its Principles, lest in the Retort *i*Coal which weighed.but two Drams thirty-six Grains;, the  
Lixivium of which gave Marks of a SeaSalt, that in to jay, it.  
made not the least Alteration in a Solutionthsc corrosive Subli-  
mate, rand precipitated a white Powder from a-SolutionofMerol  
cury.I *a. - - - - - - - r- '-si* j 'j

. Tour Ounces-of the same -Mutton -boiled,' yielded- two'  
Drams fifty-eight Grains of-Extracti. Hence -one -Pound\* of  
such-Flesh-must yield eleven Ounces five Drams thirty-two  
Grains ofcPhlegm, l one Ounce three Drams sixteen Grains  
or Extract, two Ounces seven Drams twenty-four Grains of  
Fibres, exhausted of their Juice.’.ss -ssi.,-ss y.ss τ.Ἄ .εἴκύπὸΚ

The two Drams fifty-eight Grains, distilled in a Reverbera-  
t.ory, afforded about as much volatile Salr..as the Boes; and-morer  
than the Veal; he Crystals took\_a'hetter'Forim\* : The Caput  
Mortuum weighed but fifty-four Grains, the Lixivium of which  
gave more abundant Marks of a Sea Salt than ‘the other Flesh-  
meats. , .

~The dry Fibres, of. this Mutton, after the Extract was made,  
weighed but five Drams sixty Grains ; which evidentiy proves,  
that Mutton contains more nourishing Parts,, anti,volatile Prin-  
ciples, than either Pees or Veal, since it leaves infits Analysis  
less of a fixedfMatter. TThe Analysis of these Fibres yielded a  
good Quantity of Volatile Salt in Ramifications, shch as always  
results from the Analysis of the dried FibIesof Flesh-meats :  
The Caput Mortunm weighed .two Drams ;its Lixivium- gave  
Very flender Marks of a Sea Salt with Solutions'of Mercury, be-  
cause: the greatest Part of the.Salla were Volatilized, onpasted  
into a sal Ammoniac in the Extracti \_ frss.ss

E ss - ’CHICKS N-sssst-he- rssessinsss  
*c* This being one of the most common kinds of Flesh, eaten  
alone,' or with other Meats"dressed with it, I undertook a like  
Examen of it as I did .of. the-others— .I. took-, aChick winch  
weighed nine Ounces four Drams Torty-eight Grains; after  
bruising it; I boiledrit irrseveral Waters,~wluch produced asselly-  
like Extract, winch- weighed- seven Drains Thirty-fix Chains";  
the Flesh and Bones, dried in a Stove, as the other Flesh-In eats,  
weighed but one Ounce-six Drams forty Grains: Whence the  
Chick contained six Ounces six Drams forty-four Grains of  
Humidity.' I -distilled, separately, in a Reverberatory, six  
Drams eighteen Grains of .the dry .Flesh,.and three Tinams  
nine Grains of the1 dry Bones, which was all I could'got ? The  
Flesh yielded some Volatile Salt in beautiful Ramifications ; the

. - Caput Mortuum weighed one Dram fix) Crains ;τ the .Lixi-  
Vinmsof the Coal gave no Mark of a Salt. ’ \_ χ z. ς/  
ζ The Bones afforded, hesides the. other Principles, a. small  
Quantity of volatile .Salt,..of the same Figure-as that of the other  
Sorts, of Flesh: The Caput Mortuum, which weighed two  
Drams eight Grains, produced nothing' remarkable in the  
Experiments made on its Lixivium.

The Extract of-the Flesh/ which -weighed seven Drams  
thirty-six Grains, yielded a Volatile Salt os the same Figure as  
that of Beef, which however would not come over without en-  
forcing the Fire: The Caput Mortuum weighed two Drams  
twenty Grains; The Lixivium-of it afforded some Signs -of a  
Sea Salt. - - “ " “ - - . - " κί'κί  
*: - T The* COCE.

An old Cock, which weighed two Pounds two Ounces six  
Drams, yielded four Ounces seven Drams sixty-six Grains  
of gummy Extract, transparent, and. very'dry.

ὓ ; *"A* ~C A P‘O-N.:-"-:: - ‘ '-Ἕ- ' ’

The Flesh of a Capon,;stripped of the Fat,Ind weighing  
one Pound seven Ounces two. Drains .forty-eight- Grains,  
yielded one Ounce five Drams os Extract, which. it was diffi-  
cult to dry.

ΤΙ G E O N S.TssissH

Two young House-pigeons, which weighed fourteenjOunties,  
afforded an Extract solid enough to become dry; it weighed  
seven Drams thirty-five Grains.' . *e -y ♦. \*

*The* PHEASANT\*.

. Α Pheasantsiof the Weight os two Pounds, afforded, a. sa-  
line Extract, which could not be sufficiently dried to soon in so-  
- lid Extract, thoss left ita long time in the Stoye : ThatiEx-

tract weighed two Ounces four Drams sixteen Grains; so  
that this Flesh furnishes more Extract, than Beef

*The* .. P A R T R I D G E. \_ . λῆςῥα

Two Partridges, weighing one Pound- two Ounces five  
Drams, yielded-one .Ounce six Drams, thirty Grains of Ex-  
tract, less solid than:that of the Pheasant. - ίΟΣπ.--?.ί'ῖ

*- The* TURKEY.- ‘E 'scr

A Turkey, weighing nine Pounds, yielded twelve Ounces  
forty-three Grains of Extract, considerably solid, which could  
not be dried, but always continued oily, and, aS it were, re-  
finous.

.. The Result of all that has been said, is, that the Extract of  
boired Flesh-meats ought to be looked upon as the nourishing  
Part afforded by *the* Flesh’ of'AninialSinheilirig 7 1 don’t.Inean-  
by this, that the Whole of it is concerned .in Nutrition, hecause  
it contains-also gross Particles, which, .in .the-Work ctfiDTs  
gestion, are separated-as-useless-by-the. Organs,: fa greater or  
lesser Quantities, according to the Statejos-thePatieut:. -This,  
heing supposed, we are to make.it appear, what Nourishment :ig  
communicated to a sick Person from the Quantity of a Gallon  
os: common BrothcT ..

If, according to Custom, the Boiling consists of a Slice of  
Beef weighing a Pound, a Pound and afhaif oT AFillet of Veal,  
with half a Capon, which may weigh fourteen Ounces; if all  
these Sorts of Flesh, weighing together theeePounds six Ounces,  
are boiled ip sevenrPinssjofiWater-tilireducedYoThree:'Pirsta, im  
order to make six Messes, -which oitghf to:boss .Jelly when the  
Meatatis-sasticientiy boiled, these six Messes will contain two  
Ounces five Drains' thirty-sour Grains of Extract at least ;  
sor the total Extract of all these Meats would be more by three  
Drams twelve Grains, if the/Boiling were- repeated as I did  
it, when I had a mind to shave out ail the nourishing juice 4.  
and if the Patient 'takes me whole six - in'Twenty-sour Honrs,;  
he will coyisequentlsi have received about *.two, Ounces five:.  
Drams thirty-four* Grains of Aliment, ^whseh heing compared  
with the whole Weight of Bread and Flesh, which he may be  
supposed to eat in Health, appears ta bs more than enough:.  
Hence thecV tdgar are“mistaken, in imagining Thar sick Persons  
are not sufficiently nourished withTBroths. ’ i J c "

~ There are Circumstances in which even Veal-water, or  
ChiclPen-wates, "would afford sufficient Nutriment to the Pa-  
rient for Ihe first, which would .be made with.one Pound of.  
Veals,, boiled in four Pinin of. Water till reduced to half,'would  
contain one Ounce one DramTorty-eight Grains of Extract ;  
and Chicleen-water, where the Chick perhaps might weigh  
nine Ounces sour Drams and some. Grains, affords seven  
Drams thirty-six .Grains os ...Extract. You are also desired, to  
take Notice, that the Oil and Volatile ,Salts of these Extracts,  
which are dispersed Jo,the Boilings, are Inorodisengaged.,. and  
inore readily pass into the Blood; than those which are still ein-  
harassed iff the gross Fibres of the Meat; and require a long.  
Time? for Digestion ; hot' to "mention, thafrit- is- easier for this  
KinssofIAliment, than any other, to unite with the Juices of  
such Plants-as shall he thought proper to mix with it, in order  
to temper and moderate its Action in the Blood.

I shall not repeat here the Relations hetween" Extracts -of  
other Flesh-meats, because I have jeined-with -this Memoir a  
Table, containing^ in Columns, the partioulur. Products of any  
Operations, - h-\_ nt./i.ss.ss-C.O

|  |  |  |
| --- | --- | --- |
| A. TA B L E *of the* **PRODUCTS of EXPERIMENTS** *rsiade* " n 0 rasc» FLESH-MEATS. ' . .  BEEF R A W, *distilled in Balneo Maria.*  *' “Y c Oz. Dr. Gr.*  *First Water. ‘ 's-*  Four Ounces of Beef-yielded of thefirstaPhlegm '2 - fr sx3(^ The dry’thFlesh in Balneo Marine-weighed- ri.ysq *tsso -nst*  soso 0 o - - - - - - Total- 4- O ol w | | |
| *Exiractsirom Bees, boiled.*  Four Ounces *os* Beef yielded of Extract Weight of the dry'd Fibres .\* . .... .. ... ....  ... st. Total  Water, of Phlegm, ' drawn in BaineOMariaetiosi ~ To this must she added a" second Phlegm, -which J " conld pot he extracted in Balneo Mariae j  TotalthsHuinidity, or Phlegm, contained in the ί ° four Ounces of Beef, 2 Ounces, 7 Drams, S.  52 Grains. ..ἈἀΛ \_ y | **0 6. Ο l of O** | I 56 L6L#  8 20  *iapiseS* |
| p. 0 ο - - - rrirZOtal- -  *The Weight of the several constituent Parti of .* ὶ ° *~α Pounds of Bees.si* -.0...  Onepound of sixteen Ounces contained of Phlegm  .\* \* Of Extract  Dried. Fibres,.;-  tt Ο O \* ' ‘ I" ' ’ ' 'i' ‘ | 4 :  **!l**  **II 0**  Δ | . . l.. . . . S. ..  6 64  7 « |
| . - - Toral | **Τ6.** | **ο Ο** |
| *Analysis ofrthe Extract of four Ounces of Beef, which profluendi Dram nst.Grains.*  Volatile Salt - - ' - “I . » ’ οῦ-dw Ἀ' Ἀ  Ost and Spirit S-- ’-Π A ..... ..... -... -  Caput' Morsuum,' or-Coal, δ᾽ Ess"- ; . '-ί'  Loss il- e *- a* -.. - ... = .. .... .μ; :εἴϋ.\_ | **ε /0 0 O Ο 1** | **Ο Ο O w . »**  **ο** |
| *z so Cs ‘ ses* Total  A a a a | **0** | 1 56  *Analysis* |

|  |  |
| --- | --- |
| - ε . ’ ; sin.Dr. Gr.  *Analyses of the 6 Drams* 36 *Grains of dried ;*  .-:u.ced i... *'ViibTes. . ... c- ,* . .j . .00  Volatile Salt - - I-. - οϋ . - - o 2- Q  Volatile Spirit.';.'- ., δο - - - .W, & 0 36;  Caput Mortuum, or. Coal, - . o .. I 6c  .Lossἐν... . .. e. . o *rdur, ice.* | |
| . Total G fr  οὐροδ᾽ III **a** I. R AW. dur- -Ἀπὸ  ’. . τ. *First Water.*  Tour Ounces of Veal yielded for the first Phlegm *a - An* Dried Fibres in Baineo Marise - I:-I- | *&*  5Α  IR |
| ; ; Total 4 : epv  *Extract of Vial:.i, - ’ -*  Four Ounces of Veal produced of Extract - *6 2*  The dried Fibres ' - - O 5  Water in BalheoMarise - - -' - - - 2 6 | g  54 |
| ,ς’Ἀ ς 'I' ' ' .εἴ-' . I ς.7 ' To be added a second Phlegm, not extrtioied ins .'  Balneo Marise, or Loss, -ju.i'.ss  Total Ἀ.Ἀ  Water, or Phlegm, of the first Evaporation 2 6  ‘ χ ' ” Of the second Ἄ - - - - .. . O o  . / .. .6. Total a2; ry  *TheWoight of the several Divijions of the Pound*  *" ‘ '' of Veal. : i - ~s*  The Pound of I6 Ounces contained of Phlegm II 6.  *-Of*’EXtraA. - - - .... I I  - Dried Fibres -- - . - .- - ^a .dur  -ςμα -s: : Total I6. o  *Analysts of the .Extract of Vaal, weighing* 2  *Drarns* 30 *Grains. . .* r./.-rsi  Volatile Salt, Oil, and Spirit - - - - - -o । Caput Mortuum --------- u of- Tosh r - - su- S no -tat  Total o 2  *Analysts of the* 5 *Drams* 6a *Grains of dried Fibres.*  Volatile Salt ; . -.f- / W’ainis?-.. o r  Oil and Spirit - . --4 he μα:of\* χ  Caput Mortuum - -- -- -- o  Losse - -i.etr ------ 0 ; | a  po  ‘ o  54 7d  Az  *Ca* 48 32  o  Ia o  I8  .3°  66  *3i*  I8  *\*3* |
| Total G  ’ M U TT O N *destilled in Bastien Maria. " \* " -ἐν ; First Water. ‘ -*  Four Ounces of this Flesh yielded of. the first 1 , .  Humidity or Phlegm ... *ee . - J ...... po*  Dried Muttost in Baineo Mariae - :- - 4. : y  *) 'si "i:si*ssssssS4 Tood 4 o  *Extract of Mutton boiled.* | 6a  To 4a  O |
| Four Ounces of Mutton produced - - - o Dried Fibres -- s . - - - r- - - o . -  Water in Baineo Marise - - - - a 6  mi ύ :μχ sisqusi- st - *\_ i Tates squsu*  To this add a-second- Phlegm, which could not » - -the extrafted in Baineo Mariae - - - 1 ° ° c ΰ cc J | 58  6o  3o  I’;4  68 |
| ῖ v - ' ε . : : Total r 4. -Q.  *Woight offne several Diosijions of ane Pound,*  -The Pound of Τ6Ounces contained of phlegm *-Az i' su* Of Extract ----- 2 .J, 5  c: o Gf dried Fibres - - - \_ - 2 -3  - - Total I6 O | °  3^ Γ6 29.  0 |

|  |  |  |
| --- | --- | --- |
| c : e i r-.. *: - OpliDr.scfsc* | | |
| *Analysis of the Extract of four Dunces of* ilsin- |  |  |
| *. ton,. 2. Drams* 58 *Grains. ...* v : . '  Volatilesiale . *..e* ---. .vc- s\*e.h /'. | *O* | *Is* CP |
| Oil and Spirit -------- | *a* | I GV |
| CaputMortutim no-elυ'νὰΐ rub τθ-.ε: | *°so* | o 54 |
| Lost .K so . - .. *rc* i;~ - ' | *ticr.* | 00! '4 |
| *cxtn.s4.-ae.cs* uut *ivo-:r -) . - ;* ..ιυστ.  ir-fi naofr.st artcmit. earrir . . err. Total | ol'V | a SR |
| 1 ,-,Γὰ " τ'.-.'”, i.T.'ss. ζ’τε\*. O’. |  | Ἴ-. di .0 |
| *Analysts of the fate Drams stxty Graius of dried* | *. - ;r* | et- -ί Ἴ. |
| -.Hsne'.'ifi : i *' Fibres:* ι-τἐν.-λν-: | *- .* |  |
| Volatilesialt, and inseparable Oil τ - \* | *su* | 3 la. ' |
| Spirit ? - . -- - - - | o | O 24 |
| CapimMoritium - ~ | 0 *.s* | in'To’ |
| Lose-- ~α- - - \_ | 0 | ° 24, |
| - ί.ττ'.νὰ ' .. .V’ .T'oed | o | *S* eo  1 - .. .'r |
| LAMB, *a Pound of the Flejk without Fat.* | I: se | -.1—/\*!\*\* '\* |
| The Extracti difficult to he dried, and always 7  moist'. \_ 5 | I | fr- W |
| T CHICK, *Flesa andiSone together,* 9 *Ounus* ξ . -' 4 *Drams* 48 *Grains.* |  |  |
| Phlegm c --’ ’ *''-..crc —- -----* | 6 | 6 44 |
| Extracti - - - | σ |  |
| Dried Flesh and Bones ... | I | 6 40 |
| ; . ' ' " Total | 9 | 4' 48 |
| *Analysts of the* 7 *Drams ofs Grains of Extract.* |  | f - |
| Spirit, Oil, and Phlegm - - - - | 0 | *A AS '* |
| Volatile Salt and Oil - ... - | 0 . | 0. s8 |
| Caput Mortuum | o | *2 ua* |
| Lose - | 0 | *0 15* |
| su sasi .sifrfr "\si . . Total. | 0. | *7: Sb* |
| *Analysts of the dried Fibres, being* 6 *Drems* ' -I8 *Grains. -* |  |  |
| Spirit, and a thick Oil - - - - - . | o | - 3 34  I ό |
| Volatile Salt - - - - - - - : .2 | O' |
| Caput Mortuum ' - - ; - | 0 | r 6 |
| Loss :. - *r - - -- --* | 0 | o 5o |
| υ:\_ cr. ... . ε 7j: Tomi | o | 6 IS |
| *Analysts of the Bones of the Chick after bailing.* |  |  |
| *- - being* 3 *Drams g Grains.* |  | - |
| Spirit, Oil, and volatileSalt - μ - | 0 | 0 69 a 8 |
| , Caput Mortuum - . ei - - - - | 0 |
| Lost | 0 | 0 4 |
| Total | . 0 | *3* 9 |
| *An Old* COCK, *JVcigkt* 2 *Patrnds* 2*Ounces* |  |  |
| *6 Drums.* |  |  |
| The dry Extraft like a,Jelly - - - . - of CAPON, *the Plesc cleared from the Fat,* | 4 | 7 66 |
| *l Pound* 7 *Ounces 7. Drams* 48 *Grains.* |  |  |
| The Extraft difficult td he dried - - - | X | 5 0 |
| *Tame* PIGEONS, mie *weighing* I4*Dunces.* |  |  |
| The solid ExtraA in Lozenges - - Xi- | o | 7 35 |
| of PHEASANT, *Flese and Banes weighing* |  |  |
| *e-ap.Unds. .* |  |  |
| Extrail .of a soft Consistence ...... | 2 |  |
| Dried Fibres, with the-Bones - - |  | 4 Io |
| Ehlegin όσ -Y-' - - - - - | 20 | 2: 3a  I' 24 |
| r ‘ ’ Ἀ Total | 32 | o o |
| *Analysts of the Flese only of the Pheasant,* 'so -.u.-::/) .. - ’ 4 *Ounces.* |  | - |
| Phlegm .D .. - - - -. 4 | 2 | 6 36 |
| Spirit and Oil - - “ - — - - | o | - \* at- -' El |
| Volatile Salt - - - - | 0 |  |
| Caput Mortuum - , ' | 0 | 2 48 |
| Lo ss . - - - - , - . .- .- | Q | , o 24 |
| f e. . - - - . Tout. | 4 | 0 o |
|  |  | *Analysts* |

|  |  |  |
| --- | --- | --- |
| *. Oz.E*  *Analyjis of the Extract of the Pheasant,* I *Dram,* 56 *Grains.* | | he.Gr. si c c |
| Spirit and OU . - | Ο | o 4Β ‘ |
| Volatile Salt -- - - *i ....* | O | ° 3si ‘ |
| Caput Mortuum - | o | ° 3e \* |
| Lost - - .... - - - - - | o | 0 8- |
|  |  | — — |
| Total. | o | I 5fr ‘ |
| *The; dried Fibres without the Bones,.* 6 *Drams* |  | c |
| 36 *Grains.* p: |  | |
| Spirit, volatile-Salt, and a thick Ost -- - A | o | 5 to ‘ |
| Caput Mortuum .... - | O | I IT |
| Loss - - - - - - -.' 4. | 0 | o I4 ‘ |
| Total | 0 | 6 36 ‘ |
| PARTRIDGE.. *Tua old Partridges weigh-* |  |  |
| *ing* I *Pounds* 2. *Ounces* 5 *Drams. .* |  |  |
| An oily, or fat and humid Extract - ~ | 1' | 6 3o , |
| *A* TURKEY : *A Turkey of* 9 *Pounds.* |  |  |
| A fat and oily ExtraA - - - - | Ii | O 43 |
| CALVES HEARTS: *Tpla Calves Hearts ’*  *Weighing* I I *Dunces* 4 *Drams. .*  Yielded an Extract which would not turn to a i | o |  |
| Jelly, nor be dried - -. - - - J | S eo |
| *A.* CALF’s LIVER, *weighing* a *Pounds* 7( *Drams.* |  |  |
| It,afforded of a watry Extrait ,. -  CALVES. FEET, *eight Feet weighing* 6 *Pounds* 8 *Ounces.* | 2 | i 60 |
| ' - ' . | *P.* | thD.th |
| Phlegm - - - :. s'-:  Ά gummy and dry Extract - . α  The Bones as they came humid out of the boll-; | 3 o | 5 Ἀ 45  8 3 ay |
| ing, with the Cartilages - , - - - " | i2 | io o O |
|  |  | |
| Total  *Analysts of* I *Ounce of the gummy and dry Ex. tract of Calves Feet: -* | 6 | 800 |
|  | *κτα. Dr. Gr.* | |
| Spirit and Oss - - - - - - | 0 | 3 o |
| Volatile Salt ( - - - - - - - . | O | a 18 |
| Caput Mortuum ------ | o | 2 25 |
| Loss - -- -- -- -- | o | o 29 |
| Total  *Two Macreuses weighing* a *Pounds* 7 *Ounces.*  The solid Extracti which erew moist at the | I  7 | O 0 |
| Change of the Weather - - |  | I 50 |

Mr. *Geoffrey* in a Memoir for 1732, pursues his Sublech, and .  
proceeds to the Analysis of other Substances used sometimes by  
way of Aliment, or Medicine :

\* Having in my former Memoir given the Analysis of some.  
*f* of out most juicy Foods, I now proceed to that of the most  
\* solid Parts of Animals, which are their Bones., and saving,  
ς for that Purpose, made Choice of the Bones of an Ox’s Leg,  
" " because they contain little Marrow, I ordered them to be

" carefully stripped of their Flesh, and rasped down, during  
\* care at the same tune not to break the inner Lamina, which  
‘ covers the Marrow : I put a Pound of these fine Shavings,  
" well-dried, into a Pewter Pot, exactiy covered with eight  
" Pints of Water, with which I boiled them five several times,  
‘ adding fresh Water at each Bossing, and pouring the Water

. # of each former Boiling into a Vessel by itself: The Shavings  
" of there Bones were reduced into a whitish Kind of Pap, and  
\* the Broth, loaded with their most subtile Parts, could not be  
‘ depurated without Filtration, and that too with some Djssi-  
\* culty: Being put into a Silver Bason, in order to evaporate,  
" it did not thicken into a Jelly till towards the End of the  
K Evaporation, during which no Precipitation happened.

" This Jelly, or Extracts dried readily in the Air, and was’  
\* reduced into a gummy, transparent, very dry Substance, which  
A weighed three Ounces three Drams and thirty-fix Grains:  
-♦ I call it a gummy Substance, because it remained olear anil  
\* transparent, became brittle by being dried, and, as to its ex-  
k ternal Appearance, exactiy resembled the Gum produced by  
\* the extravasated Sap of Trees.

" An Ounce and forty-five Grains of this Substance, fubledIed  
ς to Distillation, yielded three Drams and eighteen Grains of

a very while volatile Salt, which crystallised itself inRamdur  
cations, as othur vciatileSalts generally am r The Casiut Mor“  
tuum, remaining in the Retort, weighed only two Drams-  
and thirty-six Grains; its Lixivium had some faint Cbarame-.  
rishcs of Sea Salt, like the: Caput, Mortuum of. tile Reed .men-,  
stoned in my first Mernpir-

" Four Ounces: of the dry white Paste-which remained upon  
theFiltre, when subjected to Distillation by a reverberatory-’  
Fire, yielded verylittle volatile Salt, which was formed **into-**llat Crystals of the Figure of Paralleilopipeds,. like .those:  
procured from, rhe Exgnist of *the* Beef Rroth The Caput-  
Mortuum lixiviated did, upon Trial, give.some MarkAof, a-  
fixed Alcali ; and this Substance, after a new Calonintiostin *R.*clofe. Fire,, ought to. be.looked- upon as a hind; of *Calx,* or-  
.Lime: Its Lixivium,.attentively examined, lest me.noroom-

to doubt of its being possessed of the Chamifteristic of 4..fined  
Alcali, since it produced a red Precipitation in a.Solutinn of  
corrosive Sublimate, like well calcinedHbrtshorn. - ....

HARTSHORN, s ; z

" Haedhorn managed in the seme Manner, arid ih the fem  
! Quantity with\_ the. Bones, of Bees, yielded a olear Broth;  
i which became:-a Jolly as soon as cold; after Evaporation, it-  
5 left a gummy Substance, which, when .dry,, weighed shun  
ι Ounces two Drains and sixty-three Grains.. ... „.

"- An Ounce and. fbrty-sive Grains of 'this Substance, ana-  
t lysed by a reverberatory Fine, yielded only two Drains. Of  
‘ volatile Salt in Ramifications, and thirty Grains of a volatile  
ς Citron-Coloured Spirit,, mined with a. lied? send Oil of-a deess  
ς red Colour, rhe .CaBIt Mortuum yieighed two.Drams, and  
\* thisty-τιχ GrainsS its Insofion produced a greyish white Preci-  
\* pitatation, in a DillolininA of.Mercury, and in. a Solution of  
ς corrosive Sublimate. εἴ..: -: -

". The Mam remaining ofter the. several Boilings, when pret-  
" ty dry, weighed only, .nine Ounces, three Drams, and, thirty-  
ς six Grains.: your Ounces of this Substance, subjected .to. an  
" Analysis, yielded one Dram and eighteen Grains, of a yolaa  
ς tile Salt, of the fameFigure with that of the Beef Broth, and,  
5 like is, loaded with an Oil and a Phlegm; which, when, sepaa  
" rated with all possihie Care, weighed about a Drain s The  
" Caput Mortuum of -this Substance, .which weighed three.  
" Dinins and' twenty-four: Grains, gave in its Lwh’ium all the  
‘ Proofs and Marks of a Sea Salt i heing then freed from the .  
‘ Remains of its volatile Oil, by Calcination, it produced a red  
S Precipitation in the Solution of corrosive Subllmate.

ε I have made the seme Experiments upon Ivory, thinking it  
\* proper to compare the Results of them with those madhiort  
" other bony Substances, since Ivory is often ofed in Ptisans,  
" Broths, and jellies lor rhe Sick. . .l

IVOR Y. 'ἐν '

‘ A Pound of Ivory Shavings produced a limpid clear Broth,  
" which coagulated in Proportion.to; its cooling ; but, in. the  
" Evaporation, it insensibly let sell a very fuie white Earth-,  
" loaded with forne Quantity os an essential Salt, which Obliged  
‘ me to strain the Liquor again : The gummy Part, which .re-  
‘ mained after the Evaporation of this Broth, now. twice sil-  
6 traced, became more dry, herd and solid, than that produced  
‘ from the Bones of the Beef, but less coherent than that pro-  
" diiced from the Hartshorn ; This gummy Substance weighed  
" four Ounces seven Drams and one Grain; and when strhe  
‘ jeHed to an Analysis, it first yielded a little Phlegm, then.an

Orarige-coloured Spirit, then a white volatile Salt in Ramifi-  
‘ cations, which weighed forty-eight Grains; the thick-black  
" Oil, which it yielded last of.all, weighed, together with the  
" Spirit, theee Drams and thirty-six Grains.

" The Likiyium 'of the Caput Mortuum,-which weighed  
‘ three Drains and twelve Grains, produced a white Preci-  
‘ pitation in the Solution of Mercury, and only rendered chat  
" of the corrosive Sublimate a' little turbid.

" Thu white Paste, remaining after the Filtration of rhe.

" Broth, afforded no concreted volatile Salt in Distiiiauonj it  
" only yielded a Cirron^coloured Oil, and a volatile Spirit of a  
" bliush Colour i The Whole, taken together, weighed four  
" Drams and thirty-six .Grains. The Lixivium of the Caput  
‘ Mortuum, at first rendered the Solution of corrosive Suhli.

mate turbid, and at last produced a white Precipitation, but  
‘ produced no manner of Effect upon the Solution of Met-  
cury.

‘ These three Analyses furnish us with a very curious Ob-  
" fervation. One would think it rnore difficult to extract, he  
" helling, the volatile Sults from solid Substances, than from  
‘ these of a tenderer Nature ; yet, in boiling, they deposit in  
‘ the Water *sticit* Principles, and volatile Salts, sooner, and in  
‘ greater Quantities, than the Fieshes of Animals : For, in my  
. " first Analy ses mode fast Year, tho’ I ball stripped, if I may so  
. ‘ speak, those Fleshes of their Principles by bossing, yet their  
" Fibres, when dry, yielded a considerable Quantity of volatile  
‘ Salt: This, Mr. *saeddard* has asserted ; ‘this. Experience has  
. ‘ confirmed. In comparing the Analysis of Beef with that of  
‘ its

c Its Bones, we find, that' six Drams and thirty-six Grains of  
\* dry Fibres, that remained of four Ounces of Flesh, have"  
\* yielded two Drams of volatile Salt and Oil; whereas four’  
\* Ounces of the dried white Mass, produced from boiled Bones',J\* have yielded only three Drams and an half of-Spirit, inn-’'  
‘ pregnated with a Very littie fetid Oil, and with so small a  
‘ Quantity os volatile Sait, that it could not he weighed. Thar  
‘ which, in the Analysis of Flesh Broths, appeared to me an'  
\* essential Salt, probably remains closely united to the Bonas  
‘ during their Growth ; fince in rhe Analysis of Bonos, itidoes  
‘ not discover itself in the same Order in which the same Salta  
‘ discover themselves in the Analysis of Flesh. Aja Extract" .  
c from Flesh has first yielded me an urinous Sal Ammoniac, of  
\* the Figure of Parallelepipeds; their Fibres, a Volatile Salt in  
\* Ramifications, which nevertheless was of a more stxed Na?  
‘ ture, since it-was forced out by rhe Violence of the Fire,  
‘ which alcalizes it. The Bones of Beef, on the other hands  
‘ have, in bossing, freed themselves of the ramified volatile Salts'  
‘ contained in then laminae; and thefe same linminy, after  
e heing long boiled in Water, have yielded an urinous Sai Am-  
\* moniac, though in a small Quantity^ like that which Ϊ have  
c drawn from an Extractos Flesh. Thus one may conceive,  
\* that Bones are more easily penetrated byWater than the Fibres  
\* of Flesh, which, by their pliant yielding State, elude, as if  
‘ were, the Action os that Fluid. ' . t '' ' '  
si so'Hartshorn is at first a fleshy Substance, as may he observed  
‘ in the small sprouting Horns of the Deer; but, in Proportion  
\* as the Horn is nourished and augmented, that which before  
\* consisted of a fibrous fleshy Substance, and a thick Skin, fur-  
\* rushed with Vessels,.hecomes so dry; that theJuices not being  
‘ able any longer to enter it, that Horn salss ost, heing thrust  
\* out by a new sprouting Horn. If an Observation of the Harts-  
\* horn was not sufficient to prove it a fleshy Substance, yet the  
c Chymtcal Analysis Of it would almost afford a convincing  
\* Proof, that it is so ; since it is a Substance which yields Princi-  
e pies, which, of all others, come the nearest those of Animal  
\* Flesh: Its Extract yields a sufficient Quantity of Volatile Salt,  
\* which indeed appears in Ramifications ; and the gross thick  
« Substance, that remains after Filtration, yields one Drain  
‘ and eighteen Grains of Volatile Salt of an urinous Nature,  
‘ which is a considerable Quantity, and makes Hartshorn aped  
\* proach nearer to a fleshy Substance than to that of Bones,  
\* fince those latter furnish scarce any os that Salt. 7 '  
. ‘ Ivory is a Substance which pretty much resembles Bones,  
‘ and like them consists of several Laminae, or Plates. If we  
\* saw Ivory into thin Plates, and boil them in Water, these  
f. Laminae, or Plates; may he easily separated; for they disen-  
\* tangle themselves from one another, and at the same time pre-  
\* serve their almost circular Figure. It is probable, that the  
\* Teeth of the Elephant have not, at first, all that Solidity  
\* winch we find theimendowed with; that they have them  
\* Vesseis corresponding to the Pivot which filis the cony Hollow  
‘ Of the Base of the Teeth; and that, at last, being arrived at  
f their full Growth, winch they acquire in the Way of Strata,  
6 or Layers, and in many Years, the Vesseis, we now suppose,  
\* are dried up and disappear. Ivory, upon its Analysis, yields  
4 no other Principles then those of Bones ; that is to fay, all  
‘ the Volatile Salt in the Extract, and almost none in the white  
\* Mass, stripped of these Juices. Ivory contains a greater Quan-

. « tity of Juice than Bones, but has nevertheless a smaller  
\* Portion Of volatile Salt in it : One might assign aS a Reason  
.\* for this, that the Ivory comes from warm Countries; and  
c that in its Way to the *African* Ports, the Heat of the Cli-  
e mate has insensibly dissipated the Volatile Salts. ' -

c The Analysis of a Chicken confirms my Position, that the  
\* younger the Bones are, the more immediate Approaches they  
c .make to the Nature of Flesh ; fince three Drams and nine  
C Grains of Chickens Bones yield thirty-five Grains of ah  
\* urinous or an ammoniacal Salt; an Extract of Chicken Broth  
‘ does not yield its volatile Salt but by means of a strong Fire,  
\* and that Salt resembles urinous Salts; that is, it is of the Fi-  
c gure of Parallelepipeds; whereas that yielded by the Fibres  
*A* deprived of their Juices, was in beautiful Ramifications, and  
\* .under a drier Form. z

WHEY.'. ced

\* I also examined Whey, and for that Purpose took twelve  
‘ Pints of new Milk, without anyMixture ; and after curdling  
‘ it with one Dram *of Runnes,* I put it on a gentie Fine, to  
c produce a more thorough Separation of the Whey, which,  
i after Filtration, weighed eight Pounds; while the Curd in the  
\* mean time weighed only two Pounds and seven Ounces: As-  
\* ter having evaporated this Whey, in *Balneo Maria,* almost so  
\* Dryness, (for the Whey does nor become thoroughly dry, on  
\* the contrary it becomes very suddenly moist, if taken off the  
♦ Fine for eVer so short a time; I say, after having almost eva-  
porated it to Dryness) its Weight waa nine Ounces and twch-.

‘ ty-four Grains.

‘ This Extract, subjected to an Analysis, yielded Phlegm, an  
« acid Citron-coloured Spins, and then a pretty thick Oil;

€ there were, in all. Tout Ounces six Drams and thirty-six  
‘ Grains of Liquor, without any Appearance of Volatile Salt;.  
‘ The Caput Mortuum, which weighed three Ounces and six  
‘Grains, heing-exposed to the Air, became-moist,, and its Lixi-  
‘ Vium had the Marhe-of a-Sea Salt. - As there was enough of it.  
‘ to afford its Salt, I had from it cubical-Crystals .like thoseegift  
f Sal Geminae, or those of Salt regenerated by the Spirit osSalt.  
\* upon-the Salt of Tartar; and this is a Proof, that there is a  
\* Sea Salt in the very' first Juices of Animals. The Caput Mor-  
‘ tuum dried, and thoroughly calcined, in its Lixivium had the  
‘ Marks of an Alcaline Sait, and produced ared-Precipitatiomml  
\* a Solution of corrosive Sublimate.

- f As Fish are also sometimes used in making Broths, - I have;

c. examined,some of them.- -

S " \* CA“RP. - " " - suss

ὓ Upon boiling a Pound of Carp, clear of Skin and BoneS, in  
c four Pints of Water, like other Victuals, and frequently re-  
‘ posting the Bossings, the Broth, filtrated, lot fall a Precipitahe  
‘ like that of Beef; when it was evaporated to the Confum-

ption oshalf, and then-filtrated afresh, the dryExtract weighed  
\* one Ounce and eight Grains.

‘ A Dram and fifty-six Grains of this Extract analysed, in  
C order to he compared with the same Weight os Extract of  
c Beef, yielded half a Dram of Volatile Sals, distinctly formed  
‘ into Ramifications; its Oil, which was of a yellow brownish  
c Colour, and mixed with the Spirit, weighed half a Dram;  
\* and the Caput Mortunm, in the Retort/ forty-eight Grains ;.  
\* so that there were eight Grains of Loss.. ~

\* The Lixivium of the~ Capur Mortuurn produced a. white  
e Precipitation in a Solution of Mercury, which is a Proof os its  
\* being a Sea Salt, and a greyish Precipitation in a Solution of  
‘ corrosive Sublimate. . ...

‘ The Mass of dried Fibres weighed one Ounce six Drams  
6 and twelve Grains. . ^

»\* Six Drams and an half of this Mass yielded a Drain.'and  
c an half of volatile Salt in Ramifications ; theGil and the Spi-  
ς rit weighed two Drams sixty Grains ; and the Coput Mor-.  
\* tuum, remaining in- the -Retort, oneDram fix Grains; its  
‘ Lixivium produced a white Precipitation, in the Solution of  
c corrosive Sublimate, but produced no Change in that of Mer-  
\* curyt - \_ - - - :. ...so . . . X\

. \* It is a common Opinion, that Fish, being nourished in Wa-  
c ter, cannot contain so much nutritive Juice as the Flesh of  
\* Land Animals ; which we may he assured of, by adverting to  
‘ the following Proportions : .......

\* Beef has no less Humidity than one .Ounce two Drams  
5 and sixty Grains.

- c Extract of. Beef contains thirty-eight- Grains of volatile  
c Salt more than-the Carp, and two Grains- more of Oil and  
c Spirit. - - - - - - ι . *A.*

‘ The dried Fibres osBeef, compared with those of the Carp,  
c contain thirty-six Grains more of volatile Salt ; and the Carp  
\* yields in Volatile Spirit, and in fetid Oil, two Drams and  
‘ twenty-four Grains more than the Bees.

P I K Ε. \_ .

‘ Four Ounces.of Pike's Flesh, boiled like the Corp, yielded  
c two Drams’ and twenty-four Grains of solid Extract : This  
‘ Extract, subjected to an Analysis, yielded forty-six Grains of  
ς a Citron-coloured Oil, mixed with the Spirit; and the vola-  
c tile Salt, which came last, was of an urinous Nature, and  
ζ weighed thirty Grains r The Caput Mortuum weighed one  
C Dram eleven Grains ξ its Lixivium produced a white Preci-  
\* pitation in a Solution of Mercury, but had no Effect upon that  
C of corrosive Sublimate: The dried Fibres, which weighed on- ν  
‘ sy four Drams fifty-nine Grains, yielded two Drams and .  
C fifty-six Grains of Oil and Spirit of a yellowish Colour, and -  
ζ sixteen Grains of a volatile urinous Salt S The Lixivium of the  
‘ Caput Mortuum, which weighed one Dram fifty Grains,  
e did at first produce a white Precipitation in a Solution of Mer-  
C cury, then a yellowish one, and at last theWhele became black;  
‘ being poured upon a Solution of corrosive Sublimate, it prod  
‘ duced a white Precipitation, winch, without changing, re-  
‘ mained in the same Statei s'

FROGS.'

C Two Pounds of the Flesh of Frogs, of which I only took  
C the ThighS, and the half of the Legs, with the small Bones,  
‘ yielded a white Broth, which afforded one Ounce one Dram -  
C and thirty-six Grains of Extract, without forming irsolf into  
‘ a Jelly. One Dram and fifty-six Grains of this Extract  
‘ yielded fifty-six Grains os Volatile urinous Salt, and then forty-  
\* eight Grains of Volatile Spirit and Oil somewhat thick .. The  
\* Caput Mortuum, which remained in the Retort, weighed  
. ‘ thirty-six Grains : Its Lixivium produced no Effect upon the  
‘ Solution of Mercury, but produced a white Precipitation in  
A that of corrosive Sublimate. ' .

‘ The dried Fibres, with their BoneS, weighed three Ounces  
\* four Drams and thirty-six Grains; six Drams and thirty-

" six Grains of these Fibres yielded two Drams of volatile Salt  
" in Ramifications, which was very dry, and. hess a Damn of  
" Spirit and Oil of a deep yellow Colour : The Caput Mor-  
" tuum,which remained weighed two Dtatns: ItsLikivium  
"prnduced no Precipitation in a Solution of Mercury, bub a  
‘ white one in that of the corrosive Sublimate.

TORTOISE. ' .

- " A fmall Land Tortoise, which, weighed thirteen Ounces  
" and eighteen Grains, being separated from its Shed, rhe Flesh,  
\* with the Head, the Feet, and the Tail, stripped of the Skin,  
. " weighed eight Ounces, exclusive of the Intestines, which were

" thrown away : TheBroth prnduced from them became a lit-  
5 tle gelatinous; and heing filtrated, and evaporated to Dryness,  
"it formed an Extraci which weighed five . Drams and fix  
\* Grains. ....... - . ..

‘in distilling it, I procured from it first a Phlegm, then a  
\* reddish volatile Spirit, and afterwards a pretty rich Oil, the  
\* Whole together weighing fifty-sour Grains ; The Lixivium of  
\* the Caput Mortuum, which weighed two Drams and twenty-  
" four Grains, produced no Change in a Solution of cor-  
" rosive Sublimate; but immediately produced a white Precipi-  
".ration in a Solution of Mercury, and soon after a blackish  
\* grey one, because that Lixivium was loaded with Sulphur:  
\* The fleshy Fibres separated from then Juices, and the Bones,  
" when dried, weighed six Drams and forty-eight Grains; in  
f analysing them they yielded a Phlegm, a Spirit, and an Oil,  
*e* whigbing two Drams and sixty-fix Grains of volatile Sain  
" in Ramifications ; the Mass, which remained in the Retort,  
" weighed only three Drams and forty-six Grains its Lixis  
." vium, like the before-mentioned, oniy produced a white Pre-  
" cipitauon in Solution of Merubry.

LOBSTERS.

;f Four Ounces of Lobster, pounded and well washed, yielded  
." a gelatinous Broth; the Extracti from which, when very dry,  
.\* weighed two Drams and thirty-three Grains: This Extracti  
δ; yielded Phiegm, a little volatile Spirit, a little Oil, and so lit-'  
**δ** de volatile urinous Salt, that it was impossible to colleci ip in  
\* order to he weighed r The Whole, taken together, weighed  
**T one** Dram twenty Grains; and the Caput Mortuum, in  
hy the Retort, one Drain : Its lixivium prnduced, ar first, **a**st white Precipitation in Solution of Mercury, which afterwards  
5 acquired a *grey* blackish Colour hut produced no Change in  
e the Solution of corrosive Sublimate: The gross Matter srdm  
**\* which the** Extras was made, when dry, weighed fix Drams  
\* and thirty-six Grains; and, when fubjectsd to an Analysis,.

;T- yielded a Phiegm, S Spirit, a .fend Oil which weighed two  
\* Drams sour Grains, and a Quantity of volatile Salt; from  
\* which twenty Grains, in a dry Form, and in Ramifications;  
" were procured : TheLiaivium of the CaputMortuum, which  
st weighed only one Oram, produced a yellowish white Preci-  
\* citation in a Solution of Mercury ; but had no remarkable  
y Effeci upon that of corrosive Sublunate.

**VI PE RS.'**

\* As the Viper is used in Broths, in Powder and in Troches,  
r I have examined it.with fuch a Degree of Attention, that one  
\* may safely rely on the Detail I am now to give.

" I weighed very exactiy two llve Vipers, and their Weight.  
c amounted to three Ounces two Drams eighteen Grains:  
\* I cut off their Heads and Tails, which weighed two Drachms  
\* and a half; in cutting them they yielded fifty-four Grains of  
is Blood ; their Skins were taken off, that so their Ovaria and  
\* Livers might he got from them: The two Skins, and Entrails,  
\* weighed four Drams and fifty-four Grains: The two  
\* Trunks, with the Eggs and livers, weighed one Ounce six  
\* Drams and thirty-six Grains. There were thirty Grains of  
\* Loss or Evaporation. I then took a Part of another Viper  
\* Ito makeup the. two Ounces: I madeaBrotb of theseVipers,  
\* cirt in.theordinary Manner; which, ofterFiltrauonand'Eval-  
\* poration, reduced itself into » geiatioous Extracti .which,

.when dry, weighed one Dram And thirty-six .Grains.

. \* The Fibres and. dry Bones, .after boiling, .weighed .three  
\* Drams and sixty-six Grains , so there .was in two Ounces  
**\* -of the** Trunks of the Vipers, an. Ounce two Drams and  
\* forty-two Grains of Phlegm. ,

/ That .! might .still, with the greater Accuracy, assure nry-  
\*1 fed of the Weight of all the 'Parts of the Viper, I began to  
**a** mare my Observations -upon fresh Vipers; and - accordingly  
\* got one of the largest Kind, which .weighed, when alive,  
Μ-three Ounces six Drams and an half.

\* Tine Head and-theTail, -when cut.off, weighed, together,  
\* one Dram six Grains. - - 1

Y « The Blond, yielded hy the Viper, one Dram eight  
'\* -Grains.

‘ The Skin, four Drams sixty-two Grains.

- ia The Liver, one Dram fourteen Grains.

’ \* The Heart, six Grains.

*The* Gall-bladder,Jeven Grains.

« The Fed three Dintat sorty-souj-Grahis.

" The Entrails, four Drains sixty’'Gsshis. ‘ .

« The Trunk itself, one. Ounce three Drams and sixty-

\* three Grains. . 1

: ς Thus there werei in the Whole, one Dram and silty-two  
Grains w Humidity lost his Dissipation. . - . '

- " The Trunk, when dry, weighed there. Drams seventy-  
" one Grains.; so that it contained seven Drams arid ftaty-  
" four Grains of Humility .?--- . .. . . .

" The Blood, when dsyr seventeen Grains, and a half; Hu.

" midity statyrtwo Grainsiap.il a half. i

" The Heart, whgnidry, one Grain-anddn quarter; Humi-

" dity, lour Grains and three quarters..; :: Vrn .-.'si 5 -

ε The Liver, when dry,, sorry-tbree Grains pod a half; Hu.

" midity, sorty-rwp Grains anil a half.; - - -

" The Galihiadder, when. dtJS one Grain and a half, Hu-

" midi7, five Grains and φ half. . . '

" The Skin,.when dry i one Dram seventeen Grains; Hu-

S midity, three Drains, and sprty-dure Grains. υεη:γί -  
" The H ead and Tail, when dry, twenty-eight Grains and

" a half; Humidity,; forty-nine Grains and A ha If. . .

" The Trunk of a Vsper, whose Shin was taken pss, .and  
" weighed four Dmms fisty-sour Grains, yielded, by boiling,  
" thirty Grains of a gelatinous Extracti The Flesh, dried and  
" separated from the Baines, weighed lonty-feven Grains j. the  
\* Bones, .dried,, thirty-six .Grains and a half, so that the Trunk  
" of the Viper contained two Drams, sixn-sour Grains and **a**\* ’half ’of Phlegm. We may he readily assured, that the ordi-  
" nary Broth of a Viper, which weighs onsp four Drams 'and  
s fifty-sour Grains, is only impregnated with about thirty  
\* Grains of the Substance of the Viper ; and that, when one  
‘ takes the smallest Dose of Viper Powder, which is twelve

Grains and a'haif, of three-Quarters of a Grain, the Turn of  
" the Balance heing fubjeol to vary, this is equivalent to: thirty-  
" seven Grains anda hast of recent VipersFlesh. .We may also  
" know, from this Calcination, what we ought to think of the  
\* gelatinous Parts, when .drawn from the Trunks of Viners,  
V to be used in Trooher. Fur, suppose we Irse sour Ounces of  
‘ the Trunks of Vipers, whose Skins are newly taken off, there  
" may he drawn from them one Ounce fourteen ^Grains and a  
\* quarter Grain of Extract from the Broth, or the dried Flesh ϊ  
*s* and there will he found, of what remains, three Drams  
" thirty-three Grains ansi three quarters of a Grain; and two  
*s* Ounces three Drams and .tjyenty-four Grains of Phiegm  
" and Moisture. \*

ὸ" A Viper’s Livet .and Heart, -width Wished shim-one  
Grains, yielded, by the Evaporation of the Broth, three Grains

" of a geiatioous Extract; and the Heart and: Liver dried, aster  
‘ boiling, weighed no pxerc than eighteen Grains and a hash

*Analysts of the Extract of Viper Broth.*

" I took the Extrast of the Eroth mede from two Ounces of  
‘ Viper, the Heart and Liver included ; = it vyejghed one Dram  
f and thirty-six Grains : It yielded in Oil, Spirit, and volatile  
-c Salt, of the Figure of Sal Ammoniac, fifty-fourGrains: The  
" Caput Mortuum, remaining in the Retort, weighed.also fisty-  
" four Grahis; and its Lixivium had the Matios of a Sea Salt.  
‘ The. dried Fibres, and the Bones, which weighed three  
\* Drams and sixty-six Grains, yielded in Spirit, in Oil, and  
’\* rn volatile ammoniacal Salt, one Draco and fifry-four.Grtios.  
-c The CaputMortuum, which weighed culy two Drams and  
\* six Grains, by its Liyivium prnduced a white precipitation in  
" a Solution of Mercury.

‘ To make the Analysis complete, I teojt the Bones of Vi-  
f pers, which, by helling, had been freed of.all their Juice, and  
then of all their Fibres, by wasting them thoroughly inWa-

\* ter. Two Ounces of theseBones, well dried, yielded, when  
" subjecied to on Aredysis, ;two Drams and .forty-four.Grains  
" of .volatile .Spidt.and Oil. . The yoIarde.Salt, which had .44.  
" hered in a dry Form .to.the.Sides of the Vestel, and which .was  
crystalliced like the voiatileSalt of Urine, was sound .to.weigh

.\* seventy .Grains. By still .augnrnntiog.theFiresor five Hours,  
\* there were twelve Gmins of volatile Sait in Ramifications,  
" like .that which is drawnfimo Hartshorn.: I procured eighty.-  
\* twojGmins ofvolatileSalt, in a dry Form, from two Ounces  
" of Viper Bones, which one weuld.heve imagined destitute of  
\* .allitheirPrinciples.; andedut Abundance.os volatile Salt is al-  
‘ most equal to that which’ is drawn from theHattshorn. The  
Α Lixivium of the.Caput Mortuum of these Bones, .did .not  
\* change a Solution of corrosive Sublimate, but oniy discovered  
.\* some Marks of Sulphur, .v

‘ This Analysis of the Bones of Vipers, proves, that the .Ast.  
i" .tionts were in the'kight to boll Vipers, in order to draw out -  
‘ their Principles in the Troches destined for the *Thuriaca and*" that the Bones have nothing noxious, nor even useless, in than  
" Antidote; since being.disentangled, and rendered friable by .  
" boiling, they , furnish a. Substance like Hartshorn prepared in  
‘ boiling Water: But whet ought .to. make us regard them as  
\* ofesiil.in mis Composition, is, thet .the..preceding.Analysis

Τί 1... t.. 1. - \* C *Λ*αιη rc, εfl.ezie.

\* demonstrates, that they contain almost as innch volatile Salt as  
« Hartshorn.

**B R E A Da**

\* I shall close this Memoir hy giving the Analysis of Bread,  
\* in order to shew hew much Extract, and grosser Parts, Bread,  
\* managed like other Aliments, and prepared by reiterated Boil-  
\* ings, would yield ; and afterwards what Principles it yields,  
\* when subjected to Distillation r But I must advertise the  
\* Reader, that the Experiments upon Bread Vary according to  
k the Differences os Breads, according as the Meal is fine or  
\* coarse, and the Bread itself high or low baked.

\* I chose, for my principal Experiments, a kind of Bread  
\* which, to me, appeared to have the least Mixture of hetero-  
C geneous Substances in its Composition, as having neither Barm,  
\* Milk, nor Salt. I took, at different times, four Ounces of  
\* this Bread, which was baited the Day before I took the Crust  
\* off, because it might, as well as the Degree of baking, acce-  
\* senate or retard the drying of it, which is more equally per-  
\*' formed upon the Crumb.

\* Four Ounces of this Crumb, well dried, were reduced to  
« two Ounces seven Drams and thirty-six Grains.

. \* The Crumb and the Crust cut in small Slices, as it were  
**T** for Pottage, did not diminish so considerably, by reason of the  
\* Crust, which is dry ; and four Ounces of the one, and of the  
\* other, dried at the same Fine, and at the same time, weighed  
\* three Ounces and six Grains.

- \* The Extract of it was made with all possible Care, but the  
\* Decoction could not be filtrated, though made with a pretty  
\* large Quantity of Liquor; so I was obliged to allow it to set-  
\* tie at every different Boiling, and put the best clarified Part  
\* of it into a V effel by itself.

\* The Decoction, clarified from the Crumb of the Bread,  
\* was reduced by Evaporation into a gummy Extract, tolerably  
\* transparent, and weighing six Drams: The remaining Part,  
\* after all the Washings and Boilings were over, being rendered  
A fo dry as to break, weighed no more than one Ounce seven  
\* Drams and fifty-four Grains, or two Ounces within eighteen  
\* Grains. . . ’

s The Bread winch had its Crust yielded, by the same Process,  
\* an Ounce two Drams and eighteen Grains of Extract; and  
\*- the Mass; remaining after the Boilings, weighed an Ounce  
\* four Drams and fifty Grains.

. \*\* The six Drams of Extract, analysed as above, yielded a  
\* Phlegm, an acid Spirit of an Orange Colour, and a fetid Oil,  
\* which, together, weighed three Drains. The Caput Mor-  
\* tuum weighed two Drams: Its Lixivium produced a very  
\* flight Precipitation in a Solution of Mercury in Spirit of Ni-  
\* tre j .which indicates a light Ammoniac, or urinous Salt,  
\* fince the same Lixivium produced no Effect upon a Solution  
\* of corrosive Sublimate.

\* The dried Paste which remained after the Boding, and  
\* which weighed two Ounces within eighteen Grains, yielded  
\* the same Principles which the Extract did; and the Liquors  
\* drawn from it, weighed in all seven Drams and eighteen  
\* Grains. The Caput Mortuum, remaining in the Retort,  
\* weighed six Drams and forty Grains: Its Ltxivium produced  
\* no Effect in the Experiments I made with it.

- \* By these Experiments we may be assured, that in a Pound  
\* of such Bread as I have mentioned, and used the Day after  
\* baking, there will be three Ounces seven Drams and forty-  
\* eight Grains of Moisture ; fince that Pound, when dry, will  
\* weigh no more than twelve Ounces and twenty-four Grains ;  
\* and that it will yield five Ounces and one Dram of Extract,  
\* which is probably the Matter which, by Digestion, is fepa-  
\* rated from it for the Nourishment of the Body,, and sixOunces  
\* and three Drams of a gross crude Matter.' *Memoires del  
Acad. Roy. des Sciences.*

ALIN DESIS, 'Αλἰνδησιςν Ἀλινδὸς, an Exercise os the Body,  
mentioned by *Hippocrates* in his second Book *de Victus Ratione,  
'FlumivQuaetc, nuppaMatiasu\* ndmaj ehaaroriassuu. hesm.vet* fl μᾶλλον  
διὰ τήν κόνιν, καὶ σαρκύί *nosor.* " Rolling on the Ground has  
" nearly the same Effect as Wrestling; but it dries more, he-  
cause of the Dust, and is less productive of Flesh.'' And  
again, in his Treatise *de Insomniis,* Τρίψις δὲ μή ἔστω, μηδὲπάλπ,  
μηδἐ άλίνδησις. \_ *cc* Neither let Friction, nor Wrestling, nor  
" Rolling in the Dust he used."

This Exercise consisted in rolling in the Dust, after being  
anointed with Oil.

ALINTHISAR, the same **aS** *Vua otVvulae Procidentia.* See  
**UVULA.**

ALIO CAB, Sal Ammoniac. It is also called *Alemzadar.  
Castellus* from *Rulandus.*

ALIP.ZENOS, 'Αλιπαινος, ’AAhisavJ^from α Negative, and  
λιπαίνεεν, to *grow scat.* A Word used to express external dry  
Medicaments, or Remedies which had no pinguious Ingredient  
in their Composition ; and thus it is explained by *Colsus* in the  
following Passage: " There are no Plasters of greater Use  
" than those which are immediately laid to green Wounds,  
"" and called ἔντεμα by the *Greeks.* For they resolve Instant-

" tnations, tmlels very violent, and even then they very much  
" abate thein Violence, and close and cicatrize thofe Wounds  
" which suffer no Inflammation. They are made up of In-  
" gredients that are not pinguious, and are therefore called by  
" the *Greece* Ἀλίπαντα." L. v. Chap. I9. They were op-  
posed to the Emplastra λιπαραί; which were made of pinguious  
Ingredients. *Galen* called them Ἀλιπή.

ALIPASMA, from *Aatipla,* to anoint.. . A Powder which,  
when mixed with Oil, is to he rubbed over the Body, in order  
to prevent Sweat. *Blancard.*

ALIPILI, Servants attending upon Baths; so called from  
their heing imployed to pull off *(Alarum Pilos)* the Hain os **the \***Arm-pits with Tweezers.—*Castellus.* For this Purpose they  
also applied Plasters, called *Dropaces,* made of Pitch and Rosin;  
which, heing torn suddenly off, pulled off the Hair together  
with them ; or they were anointed with certain Unguents called  
*Psilothra,* which had the Power of bringing off the Hain. Hence -  
the Men who performed this Office were called *Drapacesta* and  
*Alipilarii,* and the Women *Picatrices and Partiltria. Le Clena  
Hist. Med.* i

. ALIPTTE, (from Ἀλείφω, *to anoint)* Servants belonging to  
the Baths, whose Business it was to anoint Persons after bathing.  
" This they did at first under the Direction of the Physician,  
" who was himself above this mean Office: Whence they were  
" called, among *tiae Ramans, Unctores,* or *Reunctores,* and were  
" generally of a servile Rank, as *Pliny* testifies os *Prodicus* the

*Selyrnbrian, Mediastinis Reunctoribus vectigal invenit.* **[ He**-" received Wages among the servile Herd of Anointers. ] But  
" after they had acquired a Dexterity ’ in this Very meanest  
" Branch of the Art, they began, by Degrees, to shake off  
" their Dependence upon the Physicians, and at last engrossed  
" it into their own Hands-; nor contented with this, assumed  
" first the Name of Jatroaliptae, and soon after that of Phyfi-  
" Clans,

' " This; at length, brought a Reflection upon Physicians in  
“ general, many Slaves having learnt this Art, which they prac-  
" tised in the Houses of the Nobility, especially among the *Rtsc  
" mans,* at a Very low Rate : Whence it comes to pass, that  
" many idle People will object to Physicians, even at this  
" pay, that they were no better than Slaves at *Flame*; though  
" they cannot six this Reproach upon any hut such as our ino-  
" dern Walters at the Bagnios; far thest are the only true SuCi.  
" ceffors of the antient *Alisita,* who, while Athletic Exer-  
" cises were in Fashion, managed the Bufiness of Bathing,  
" Friction, and Anointing." 1 .

*' Schulxii Hist. Mede*

The *London Dispensatory* directs the following Troches under  
the Name of *Trochisci Alipta Mofchata,* " Balsamic Troches  
" with Mush." . . ;

Take of the purest Labdanum three Ounces; of strained  
Styrax one Ounce and a half; of Benjamin in Powder one.  
Ounce; of Aloes Wood two Drams; of Ambergrease one  
Dram ; and of Mush half a Scruple. Let the Labdanum he  
rubbed in a Brass Mortar with an Iron Pestle, both warm,  
and rubbed over with an Almond with a httie Rose Water,  
until by Agitation it becomes dissolved : Then put in the  
Styrax and Benjamin, which manage the same way ; and  
lastly, put in the Aloes Wood in Powder, with the Music  
and Ambergrease dissolved together, in another Mortar  
with Rose Water; and when the whole Composition is  
almost cold, form it into Troches. *S. A.*

" This is from a Prescription of *Nicolaus,* and is transcribed  
." into the *Augustane* and College Dispensatories, With half **4**" Dram of Camphire, which is here omitted; as giving to **it**" a Flavour very disagreeable to most Persons.'' *stsuincfoe  
London Difpenfat.* ῖ . / .

ALISMA. This is the Ἄλισμα Dioscorid. in the Opinion **of***Matthiolus. Arnica* Offic. Schrod. 2O. *Arnica Officinarum,*Buxb. 98. *Arnica Schroderi,* Rupp. Flor. Jen. I4I. i *Doro..  
nicum JrveAlis.ma et Arrtica Germanorum,* Cod. Med. 46. *Do.,  
ronicurn Germanicum,* Park. 320. Rail Hist. I. 276. *Doroni-  
cum plantaginis folio altcrum,* Co B. I85. Tourn. Tnst. 48y.  
Boerh. Ind. A. 100. Hist. Oxon. 3. I27. Buxb. 98. *Doro-.  
nicum Germanicum foliis semper ex adverse nascentibus villosis,  
J.* B. 3. I9. Chab. 33o. *Calendula Alpina,* Ger. 603. Emac.  
740. , *GERMAN* LEOPARD'S BANE. *Dale.*

Alisma is by some called Alces, hy others Damasonium, **thy**some Acutus, and again by others Lyrus. Its Leaves are like  
those of Plantain, only narrower, with the convex Side towards  
the Ground: It has a slender smooth Thyrsoidal Stalk above  
Cubit high, and bearing small Heads at the Top; the Flowers  
are thin, and of a white Colour, inclined to a palish Yellow;  
the Roots are like those of black Hellebore, flender, scented, of  
an acrid and moderate sat Taste. It delights in a watery Soil.  
*(This Description is transcribed by* OrlbasiusJ

Ἄ Dram or two of the Root, taken in Wine, cures those  
who have eaten of the Sea Hare, or heve been bit by a Toad,  
or drank too much Opium. It is also goed for the Gripes and

Dysentery, either drank alone, or with an equal Quantity of  
Wild Carrots Seed; and is of good Efficacy in Convulsions and  
Hysteric Fits. The Herb binds the Belly, but provokes the  
Meofes, and discusses Tumours, if applied. *Diosc trides, Lils.*ri. *cap.* I 69.

We have found, by Experience, thet the Decoction of the  
**Root** of Damafonium, or Alistns, in Water, being drank.  
Breaks the Stone in the Kidneys. *Actius Tetr.* L *Serm.* i. *Tit.  
Damasenitrn.*

Alistna is the fourth Species ofDoronicum; it is a Plant which  
sends from its Root many Leaves, resembling those of Plantain,  
fibrous, somewhat thick, downy; and spreading upon the Ground.  
From the Middle of these proceeds a downy Stem, which grows  
to the Height of a Foos, or a Foot and a half, bearing Leaves a  
.great deal smaller than these at the Bottom; and ar the Top a  
yellow radiated Flower, resembling thet of Doronicum, or  
common.Leopard’s Bane, but larger r ItsSced is longish, and of  
a sharpish, acrid, and fragrant Smell: Its Root is reddish, sur-  
rounded with long Filaments, like that of black Hellebore;  
spreading under Ground; of a sharp, aromatic, and agreeable  
Taste: It grows in hilly Places; it contains a great deal of Salt  
and Oil. . ,

It is diuretic, sudorific, and sometimes a little emetic: It  
dissolves coagulated Blond. *Lemery des Drogues. .'*

It is found by frequent Experience to be a Diseussive and **a**Vninerary, and is counted the very best and only Panacea *for*such as heve hurt therofelves by Falls from high Places.—*Ephern.  
Germ. An.* 9, if Io. The Country People use it, instead of  
Hellebore, for the Murrain among Cattle.—*Hasse. Cat. Attests  
Dale, p.* 88. , .

i *Tourntfort* mentions five Sorts of Alistna. The first is the  
*Alistna repens, foliis gramineis et subrotundis: Damafonium  
radiculas emittens ex geniculis. Ranunculus palastris, foliis gra-  
mineis et subrotundis. Petit. Epit. pag.* 47. *Damaseniurncrepens,  
Potamajpetonis rotundisalii folia-. Tab. 4. Figi* 9. *Acti Ac. Regi  
Sc.* I7I9. *Vail.* 46, in the great Lake below the old Castle at  
*Llanberys.—*Mr. *Brewer.* The second is the

*Alistna Card, in Diosc. - Rjoniaicului palustris. Plantaginis  
folio ampliori. last.* 292. *Plantago aquatica latifolia. C. B.  
Pin.* loo. *Plantago aquatica. J. Bi* 3. 787.. *Plantago paluse.  
tris five aquatica. Tabenr. Icon,* Great Water-Plantain;

*‘ Tabernaemmtamus* has a very good Figure of it; we must  
mot confound it with thet which *Libel* calls *Plantago aquatica,  
foliis Beta aut Plantaginis, stare Galin albi,* as *C. Bauhin does'  
Libers* Figure gives a better Representation of the following.  
The third is the

*Alistna angastifolium uriibellatum, capitulis rotundis. Ranun-  
culus palastris. Plantaginis folia angustiare. last.* 292. *Plantago  
aquatica atigulstifolia. C.B. Pin.* I90. *Plantago aquatica miners,  
Tabem. Icon.* 734. The lesser Water-Plantain, I heve net  
found this about *London*. It is common in the Moors about  
*Cambridge.*

Wc must not confound *slum Plantago aquatica humilis,dngasti-  
folia et lengifoliaLib.* with this Plant, as *C. Bauhin* has done:  
**We** need but compare the Figures of *Tabemamcmtanus* and  
*Label,* to see **the** Difference. The fourth is the

*Alistna umbellaturn, foliis angastissemis. Ranunculus aquaticus.  
Plantaginis folio angastijjime. Inst.* 291.

The Root of this Plant is aTuft of white capillaceous Fibres:  
The Leaves are two or three Inches long, two or three Lines  
broad, pale-green, having Nerves running lengthwise, pointed,  
sustained by a pretty long Pediole, insipid at first, but after-  
wards tasting something like Coriander : The Stalks are usually  
crooked, naked, one Line thick, terminated by an Umbel of,  
Flowers, the Rays of which are an Inch and a half long . each  
Flower has threePetals, which are almost round, pointed, white,  
inclining to a Flesh-colour, with a yellow Nail: The Empde-  
rnent consists of three hollow, yellowish-green, smooth, shining  
Leaves, a Line and half long, pointed, chanelled; each Flower  
has six very short Chives, each loaded with a yellow Summit;  
the Pointer of the Flower is a little greenish Button, which be-  
comes afterwards three Lines diameter, and sustains several clus-  
tered Seeds, chanelled, one Line long, pointed, of the same  
Taste with the Leaves.

It flowers in *July* and *August :* It varies according to **the**Soil I heve observed it at *Montpelier* a Foot high, and wish  
**' two** or three Umbels, one above another.

*» Clusecs’s* Description of his *Plantago aquatica minima,* would  
agree well enough with this Plant, if he did not affirm, that the  
Fruits open into two Parts, and inclose sinall Seeds j which  
agrees better with the Damafonium. The fifth is the

*Alistna humile, supinum, angastifoliurn. Ranunculus paluse  
iris, Plantaginis folia, humilis et supinus. last.* 292. *Plantage  
aquatica, humilis, angastifoUa et lengifolia. Lob. Icon.* 3OO.

This Species is very well represented by *Libero* Figure.  
ALISTELES, Sal Ammoniac. *Rulandus.*

ALITURA, Nutrition. *Blancard.*ALKAFIAL, Antimony, Fodandus.  
ALKAHEST. See ALCAHEST.

ALKALE, *(Oleum Gallina*) the Fat or Oil of a Hen. *Fu~  
landus.*

ALKALI.' **See AEcstLt.**

ALKALIA, *[Fas]* a Vessel. *Pulandus.*

ALKALID, ALEE si orAmioE, f *Acs astum)* burnt Brasi.

*Palandas. , .*

ALKANT, either Mercury; or a kind of Inin *Rulandus.*ALKANTUM, burnt Brass, or a kind of .Aromatic, or,  
according to some, Arsenin.. *Rulandus'.*

ALKANRI, or ALcANRI, the Name gjveri by *Mesoe to*a particular Electirary or Confection; nowont of Use. *Castellur.*

\* ALKARA, or ALcARA, a chymical Cucurbit; called so  
from its Shape, which is like thet of the Cucurbita or Gourd.  
*Rtstandus. - -*

ALKARANUM, *Rulandus* **explains this** *Dlienec viridr.*

See **DUENEC. - - \_ ’**

ALKASA, the same as ALKAzoAI., or ALBoT, which  
*Pullandus* interprets a Crucible.

ALKAUT, **ALMARKAsITA,** Mercury. *Johnsen,* who  
by a Mistake transoribes *Alcaut* for *-Alkaut,* from *Rulandus'.*

ALKAUTUM. *Jcbnsan,* the literal Transcriber of *Ru. .  
landus,* alfo mistakes this for *Alkanturn. -*

ALKEKENGL A Plant thus distinguished :

Alkekengi, *Halicacabum,* Ossie. *Alkekengi Officinarum',*Tourn.Instt I5I. Elem. Bot. Ϊ26. BoerhTnd. A. 2. 66. Dill.  
Cat. Gissi 83. *Alkekengi .Thurnofiortii,* Rupp. Flor. *Jen.* 38.  
*Solanum vesicarium,* C. B, Pin. I66. *Solanum vesicarium vul-  
gatius repens, fractu et vesica rubra.* Hist. Oxon. 3; 526. *PLalir  
cacabunt,* Ger. 27 I. Ernac. 342: *Solanum Halicacabum vul-  
gare,* J; Β. 3.609: Chain 522. Raii Hist. I. 68Ij *Silanum  
vesicarium sive Alkekengi,* Parlt. Parad. 532. *Halicacabum,*Rrvin. *Halicacabum five Alkekengi vulgare.* Park; Tineat. 462.  
WINTER CHERRY. *Anale...*

The Root of the Winter Cherry rims creeping in the  
Earth, shooting out in the Spring several brownish Stalks  
about two Foot high, somewhat angular, about a Finger  
thick, and not much branched; beset with many dull-green  
Leaves, broad at Bottom, and ending in a sharp Point some::  
what waxed about the Edges; in Shape like she common Night-  
shade) but larger. The Flowers come forth at the setting  
on os the Leaves; ort-long Foot-stalks; each-Flower being  
a single. Leaf, divided into five Segments of a white Colour;  
with yellow *Stamina* in the Middle ; when the Flower falls off,  
its *Calyx* is extended into a large thin roundish Hsish or Bladder,  
as big asia Walnut, first greenish, and as it grows to Maturity,  
of a reddish Colour, inchiding a Berry of the Bigness and Cod  
lour of a red Cherry, containing a great many sinall flat Seeds in  
a clammy pulpy juice. They grow with us in Gardens, where  
they are easily propagated; it flowers *in July* and *Auriest.* and the  
Emit is ripe in *Septemlser.* The Leaves and Berries are used.

The Leaves are cooling; and of the Nature .of commosi  
Night-shade. The Berries are a singular good Diuretic, and  
ufefiil against the Gravel and Stone : Being boil’d in Milk, and  
sweetened with Sugar, they cure the Heat of Urine, making  
bloody Water, and Ulcers in the Kidneys and Bladder. They  
help the Jaundice, by opening the. Obstructions of the Liver  
and Gall-bladder, and the Dropfy; by carrying off the Water  
through the urinary Passages. . .

The only officinal Preparation, is, the Trochisci Alkekengi.  
*Miller Bet. Off". ...*

The Berries have a vinous and most penetrating Juice, like  
Wine, or the Jnine of Citrons;.and are therefore commended  
in burning Fevers. The dried Berries ground to, a Meal, and  
infused in Wine, is a principal Diuretio, and besides moves the  
Belly; and is the more beneficial, as there is nothing in our  
. Bndy but Urine, that inclines to an alkaline Putrefaction j  
wherefore alkaline Diuretics areto besuspectsd. Half an Ounce  
of the dried Berries bruised, and taken as Tea or Coffee with  
Sugar, cleanses the Reins, corrects grumous Blond, helps the  
Yellow Jaundice, Strangury, Gout and Dropfy. The Smoke  
of the Seeds received into the Mouth, makes the Worms drop  
jut of a hollow Tooth in a wonderful manner. *Boerhaave.*

*Lemery* adds, Thet ilt is good for the Nephritic Colle; it is  
commonly appiy’d in Decoction, and dry sometimes, and som&t  
times pulverized. - - -- - - "so.'. ' - . .

Alkekengi, is an Atmiain Name. *Lemery de Drogues, p. 26.*The Species of this Plant are: ' S

I. Alkekengi *Officinarum. Tourn.* Common Winter Cherry  
of the Shops. - .

*Ί.* Alkekengi *Officinarum, foliis variegatis. Totem.* Common  
Winter Cherry, with variegated Leaves. ' ;

3. -Alkekengi *structu parvo verticillato. Tourn.* **Winter**Cherry with small Fruit, growing in Whorles round the Stalks.

4. Alkekengi *Virginianum, fructu lutes. Thiam. Virginian*Winter Cherry, with yellow Fruit.

5. Alkekengi *Indicum maquis. Tourn.* Greater *Indian* **Win-**ter Cherry.

6. Alkekengi *Americanum annuum ramesissernum, fructu ese  
luteo virescenti. Hioast. American* annual branching Winter -  
Cherry, with a yellowish-green Fruit.

7. Alkekengi *Americanum annuum maximum viseoficrn. Hiriest.*The largest annual *Arnerican* Winter Cherry..

x 8. Alkekengi *Barbadenso patulum,eparyjostore, stnectu amplo,  
mucrone productiori. Act. Phil.* 2V 399. Dwarf *BarbadesSNitttnt*Cherried, with a. small Flower, and an .ample pointed Fruit.

9. Alkekengi *Curajjavicum, foliis Origani incanis, store viete  
sulphureo, funda purpureo.. Boerb. Indo ale.* IT. her. . Hoary  
Winter Cherry fromoCorasi, with Origany Leaves,, and Sui-  
phur-colourid"Flowers,, with purple Bottoms.

. IO. Alkekengi *Americanumfrutescens, friectu glabosu rubro,  
vesica atro-poerpurea. Hausu* Shrubby *American* Winter Cherry,  
with a round redFruit, having.a dark-purple Bladder.. *Millen,  
Supplement to Gard. Dict.*

The third Species os Alkekengimentiohedhyssisi7/er,isthus  
distinguished:- .

Στρύχνον ὑπνωτικόν. D.oseor. . . , \* - .

*Solanum somniferum,* Ossie. Ger. Emac, .339. Parle. Theat.  
gl.5. *Solanum somniferum verticellatum.* C. Β. Pin. *166.*

scab. 522. Hist. Oxon. 3. .526. Comm. Flos, Mal. 253. *Suri  
lanum somniferum Antiquorum.* Alp. -Exot. 7i. ' *Solanum  
ajertictllatum.* J. B. 3. 6IO. Raii Hist. I. 6R2. *Solanum,  
Alkekengi Mexicanum.* Hern. 296. *Alkekengi fructu par-vo  
verticillate.* Tourn. Inst. I5I. Elem. Bot. I26. Botch. Ind. A. 2.  
*her. Pevetti* Hort. Mal. 4. 113. *Baccis.era Indica, statibus ad  
foliorum exortus, fructusulcato, decapyreno.* Rail Hist. 2..I632.  
SLEEPY NIGHTSHADE. " , ζ... E

. It is cultivated by the Botanists, and blossoms in *July.* The  
Root and Fruit are in U se: The Root has a somniferous Qua-  
hty, but milder than Opium. The Fruit powerfully provokes  
Urine, and therefore is prescribed in hydropic Cases. Its De-  
coction easeth rhe Tooth-ach.: The Juice os the Root with  
Honey, cures Dimness of Sight. DALE from *Dioseorides.*ῖ The Winter Cherry, is not a Native os *England*;. but is  
cultivated commonly in. Gardens for medicinal Uses.

. Alkekengi Leaves are acrid and bitter: They give no  
Tincture os Red to th e blue:Paper; but the Fruit gives it awery  
.deed one. It seems at first to he sourish,, but afterwards Very  
hitter , so that 'tis probable there may he in the Fruita-Salt,  
like. the. *Oxyfal diaphoreticum. Angcli Sala,* mix'd with a little^  
foetid Oil, but so involv'd inthe Leaves with Sulphur and terS  
sestrial Parts, aS not to be perceptible. :

- The Alkekengi is Very aperitive: and diuretic;. *Dioseorides*'made use os it. for the Jaundice, arid Suppression of Iirioe.  
Ἀ-The bimfing or squeezing s three or four Winter Cherries  
he a Glass of Wine, in hydropical Coses, and Suppression of  
Estine,jo advised by *Arnaldus de Villa. Nove* and *Cafalpinus.* In  
Vintage-time- take a sufficient Quantity os Winter Cherries  
and Grapes;' squeeze or bruise both together to make a- Must,  
tun it. up,' and take four Ounces of this Wine every Morning  
sor the Gravel. The juice, thickened to the Consistence os an  
Extract, has - the same Virtues. Four or five Cherries. squ eezed  
in an ordinary Emulsion, drank while in the Bath, is good sor  
.suppression ofUrine.*. strafsuuola* used the Juice os theie Fruits  
-in the same Disease : He affirms, Thatone who *suffer'd* exqui-  
site Pains for three Days, was perfectly cured by it. There  
are Lozenges-prepared of the Fruit os Alkekengi.- M. *Lemery*lias given an excellent Description of them t This Fruit is ufed  
in the Syrup of Succory,. and the Anti-nephritic Syrup os the

’ Royal Dispensatory. . *Martyn's Tournefort.*

-The Trochisci Alkekengi, Troches' of Winter Cherries, is  
.directed by the College to he prepared thus:

Take of Winter Cherries three Drams; os Gum Arabae,

‘ . .Tragacanth,. Qhbanum, Pine. Nuts, -Sweet Almonds,

. Starch, Juice of Liquorice, *Armenian* Bole, and Whim  
ῖ Poppy seeds, -each-, six Drams; of Melons, Cucumbers,

./ Citrulls, and Gourd Seed, each three Drams and an half;

‘ ' of the seeds os Smallage, and. white. Henbane, -white  
Anther, *LernnianSaxffi,* and Opium, each two Drams;  
and make them all together into a Paste, os a due Con,-  
sistence for Troches, with a sufficient'Quantity os the  
**.sc : fceshSince** os Winter CherrieS. *S.A. '*

This is an Old *Arabian* Prescription, taken originally from  
*Mefne.* Both the *-Angustane* and first Dispensatories Of the Col-  
lege have got it considerably different from what it is here, and  
in some respectis also different from one another; but this is  
exactly as in the last Edition Of the College. . *squincsis sand.  
Dispensatory.*

ALKERMES. The *Confectio Asscermes* is thus directed by  
the College: i

**. .Take of.**the best scented Rose-water two Pints,, of **the**Juice of Kermes Berries three Pints, of the whitest Sugar

*- : . Ono* Pound.; boil, them almost to the Consistence of  
Honey, and then stir inthe Powders os Cinnamon, and

- - -Aloes Wood, both the best in their- Kind, uach *six Drams,  
and make into a Confection. S.A.*

This was originally a Composition of *Mefne,* but it hath  
" 'undergone many Alterations amongst Dispensatory Writers,

" and particularly those of the Faculty of *Menepelier* and *Lrpri  
so den,* ass may he seen in the *Pharmacopoeia. Regia Ds Tati e lifer ,*or but they are all perplexed and injudicious: Processes,. The  
" College at first received it into their Dispensatory, nccord-  
"ing to the original Prescription -si but it hath, upon every  
" Revise fince,. been altered,, until reduced so the simple and  
" easy manner as herein ordered. All the superfluous Ingrei-r  
" dients,.and troublesome Parts of the Process, are here re—  
" jected, and nothing retained\* but what is os some Efficacy  
". to the malm Intention, and easy, to manage-: The Omission  
*or os the Gold,, indeed,,* may lessen it. in . the Esteem os such . as.  
or attributed any cordial.Virtues to st off that. Snore; but when:  
" they have learned to judge better,, they will be more-recon-.  
" oiled to. it,, as. here, ordered, without that Decoration. ”  
*Fssuinofs Lend. Dis.pensut.* . ς '\_ . *. so . .si s si*

For the Virtues’or the **CONFECTIO ALKERMEai. Seel  
KERMES.** ’ ἐν.;..Ἀ ς : ί. - ’ :..ς.-.ί/οὐρ-

Many: prefer the simple JuiCe. of the *Kermes* to this.sCae-  
*section. ' . ’. .*

ALKIAN, is defined by the Chemists to be that Spirit, which  
nourishes and governs a Man, by which his Food is turned, into  
Nourishment, and Animal Generation performed, andhy whinfr  
Man. himself subsists,, or. is. a mixed Substance of alt these, to-  
gether. *Theat..Chyrni ssernn.sp. p. "*

ALKIBRIC, **ALCHIBRIC,. ATCHIBERT, ALGIBIC; AL-**RIBIc, or ALcH ABRIC4. the same as. *Sulphur vivurn... Eulsinr  
dus. Johnson* calis *it Alkibrie.* In. the fifth Volume of the.  
*Theatrum Chymicum, p.* 492. it is said by ascertain anonymous.  
Author,Io he incombustible Sulphur.. . ’

ALKIEN. This Word is used in the *Theatrum Ckyrticuns,*Vis. 5. jo *Visls.*. It is not easy to understand it. by the. Defini-  
tion there given..- The.Author says, *Alklen Terra est Alkien  
Animalis t in sinibus Terras in lamina alia sunt Vires praepara-  
tione, sicut Vires Animalis quas vocant Medici Alkien.* Probably  
*AlkienT.crree* is that Spirit winch carries oh. all the Operations’  
performed in the Earths.as *Alkian CapiAlkian Animalis* does,thofe  
in Animal Bedies. . .. . - ’ 'si.

' ALKIMIAL- See ALCHEMIA. *f . ' '*

ALKjN, *(Dinis clavel latus)* Pot-Ashe *Rulandus. wr.*ALKIR,. Smolin,. Or. Coals. *Rulandus..*

ALK.ITRAM, *si.Pix'Hquida.)* Tar..’ *Rulandus. .*

ALK.OEL, a verjofine sort os Lead dug out of the Mines.

Others affirm into he the *Lapio Lazuli,* and. others,, tharit.ir  
Antimony. *Eulastdus.* See.ALcoHOL. ’

ALKOL, the same as ALCOHOL, which see.

’ ALKOSOR, Camphine. \* *Rulandus.*

ALKI *Plumbi,* a certain sweet Preparation from Lead, per-  
heps *Saccharurn Saturati Rulandus. - -*

ALLA, Ale, a Liquor very well known in our own Conn-  
try, the Nature os which may he comprehended from what-is  
said under the Article ALCOHOL. As a spirituous Liquor, It  
must necessarily be pernicious, if taken in too large Quantities,  
or too frequently.. It is distinguished from Beer by. the Age.  
As Ale, properly so call'd, is not kept. a. sufficient Time sor  
the remaining *Gas Sylvestre* to be destroy'd, or incorporated  
with the Liquor in such a manner as to lose its Elasticity, or  
ar least a Part of it, this, as an Aliment,, must be excessively  
windy; ‘and we frequently find Violent Colics produced by it.  
Some, who have drank considerable. Quantities, in a short  
Space Of Time,, of Very flatulent Ale, have been almost in-  
stantly kill'd by the extreme. Rarefaction of this *Gay Sylvestres*- or incoercible Spirit. Others have feli into the *Cholera Mjor.c  
bus,,* and difficultly escaped with Lise. . .

It must, however, be allow'd, that Ale, as an acescent Fluid-  
must be a very proper Drink, when alcalescent Aliments are used  
in. Quantities superior to the Powers of Digestion. Ale  
also is esteem'd by many to he less productive of the Stone and  
Gravel, than Wine,or any other Liquor, Mead excepted- ..

Upon.the Whole,'Ale well prepared, and kept to a proper  
Age, so as to lose its flatulent Qualities, seems to he a.much

Taser, and perhaps more healthful Liquor, than that Wins  
winch the Merchants and Vintners are pleas'd to supply US  
with, which is to such a Degree sophisticated, as to make it  
utterly uncertain, whether a single Glass of genuine Wine i%-  
onany Terms, to he procur’d from their Cellars.

*Lornery* makes the following Remarks on Ale and Beer: '  
There are several Sorts of Beers, which differ from one an\*  
other, according to their Consistence; For some are. heavy,  
thick, and muddy, other clear and fine. Secondly, according  
to their. Colour; for you will find those that are pale, yellow,  
and red. Thirdly, according to Taste; for .some are sweet  
and penetrating, others bitter and sharp, and fome again, al-  
most as pungent as Mustard. Lastly, they differ also accord-  
ing to their Age: for new Beer hath a Very different Taste  
from, that which is stale. These Various Differences proceed  
from the Way of brewing them, from the different Countries  
or Climates, from the Water that is used, from the Time  
spent about them, and from the Ingredients put in, and the  
Proportions *os* them.

- Yon are to chuse that Beerwhich is clear, of a good Colon  
-of a pungent and agreeable Taste, that sparkles much when  
.you stir is, and that is neither too old, nor too new, and  
- without any Sourness, according to these Lines: :

*Non acidum fapiat Cerevisia I sett bene clara :  
Et grant'sfit cocta bonis: sutis de veterata.*

Beer is of an opening, fortifying, moistening and refreshing  
Nature: It's nourishing enough, and makes People sat, winch  
is manifest enough in Northern. Countries, where most People  
drink nothing but .Beer, and where .they are almost all  
.fetter, bigger; and more Vigorous, than those' that live in  
Countries, where Wine is their common Drinlc. .See how  
-the School of *Salernum* explains .the Effects *os* Beer. - . -

*Crasses humores nutrit Cerevisia, vires*

*Prcastat, et augmentat carnem , gencratque cruorems*

Beer, when drank:to Excess, makes People drunk.; find the  
Effects of it This way, last longi When 'tis too new, 'tis  
.windy, provokes Venery; and sometimes so operates upon the  
Chanels, that it .causes a kind of Gonorrhoea, which indeed  
is a little dangerous ; and this, .perhaps,, has made some People  
say, that the Use of Beer, is pernicious to the Reins and  
Nerves; thss Experience does by no means confirm it, but on  
the contrary, makes this Drink to he generally Verywholfome. d

They extract an Inflammable Spirit from Beer, like that of  
Wine ; they also draw Phlegm, , black Od, and a Spirit from  
.It, which is nothing hut acid Salt, dissolved in the Phlegm. ι

Beer agrees, at. all times, with any Age and Constitution;  
hut especially more .with plump and sat People, than others\* --  
-'’ sq "fr-: feR E MARKS. - . susqu  
Beer is a Liquorwell known, and which by Fermentation has been  
made Vinous: It'S made of Barley, Oats, or some other Sort  
of Corn, which they reduce into large Meal, ofwhichthey  
rake a certain . Quantity, put .it into hot Water, wherein  
they boil it for some time, till the Liquor has impregnated the  
active Principles of the Meal; . after which they draw it off,  
and boil it again with Hops in it, or.a littie Wormwood, or  
other bitter Plants.. When the Liquor is boiled enough, they  
.stir it much, and .pour it backwards and forwards, from one

Vessel into another, while'tis yet hot: Then they let it  
work, in order to winch they put Yeast or Dregs of Beer .  
into it, or some other fermenting Matter. Lastly, when it  
**has** been well purged and clarified by Fermentation, they put  
it into Tuns or Barreis, and keep it. : ‘

The working os the. Beer proceeds from the essential. Salts of  
' the Corn, which; rarefy, attenuate, and exalt the oily Parts  
of the same Corn. This Fermentation ceases, when the Salt  
has surmounted the . Opposition made by .the oily Principles

. and when the gross Matters have been precipitated into the  
Bottom of the Vessel: This. Fermentation is still more **or**

.. less full of the Principles of the Corn.

The' we have, in thin Pisce, but related one Way of brewing  
Beer, yet'tis done several Ways ; for we may say, that  
every Brewer has his own Method t IPs enough, that we  
. have shewed that which is most common, and most in use.

Hops, or other bitter Plants, which they put into Beer, pro-  
duce good Effects therein ; they help to rarefy the gross and  
viscous Part of the Corn. Moreover, they hinder the Beer.  
from growing sour; for every body knows, thathitter things

« . are Ver)7 proper to consume those that are sour.

All Sorts of-Waters are not alike "good for brewing of Beer  
with ; those which are Very dear, cold, and Vivid, such as  
Well and Spring Waters, are to be. preferred before others ;  
because that, being not liable to ferment, they hinder the

... Beer from being spoiled. In short, .is Beer does work at  
.. first with too much Violence, or else is it ferments anew,  
... after it has once worked enough, this Fermentation will

make way for the spirituous Parts to sty away ; and then **the**acid Salts which are in the Beer, extending themselves much,  
and getting the Ascendency, never sail to make the Liquor

- turn sour. ' . .

Hence it is, that the Beer which is brewed in the Northern  
Countries, as in *England, Sweden, Flanders,* and several  
Parts of *Germany,* is hetter, and keeps longer, than others.  
In short, as the Sun has but littie Power in those Parts, the

. Waters upon that Account are colder and rawer, and do  
. more Vigorousty retain the active Principles of the Corn :

And by this Reason also we may perceive, that the Beer  
brewed in hot Countries will not keep long, and therefore  
'tis not proper to brew any in *Provence, Dauphine,crc Lan-  
guedoc. , '. .*

We know by Experience, that the heft Time of the Year for  
. brewing of good Beer, is in cold Weather, as the Beginning  
or latter End of a Winter; and that that which is brewed  
in Summer, does not keep so long.

Beer may be called a liquid Bread, because 'tis made of the  
Meal of Corn, steeped in a deal of Water: This Drink is  
. nourishing and **moistening, by reason of the oily and balsamic**

Principles, which the Com supplies it Very largely with; it  
makes People intoxicated, when drank to Excess, because  
: it contains many spirituous Parts, that cause Drunkenness in  
the same manner; as other Vinous Liquors do, as we have  
already, accounted for.

Beer that is too new, contains much viscous and acid Phlegm;  
which not having been sufficientiy attenuated, during the  
Fermentation of it, causes Wind, and rarefies itself in the  
Bowels, by the Heat of the Body : It also causes Heat in  
the Urine, and eVen a kind of Gonorrhoea, by sticking in. the  
urinary Passages, and strongly pricking them. These Acci-  
- dents are remedied, by drinking a littie Brandy, which se-Jperates and cuts this Viscous Phlegm, and expels it from the'  
: Places where they were lodged : This is the Phlegm which\*  
contributes to make the intoxication, caused by Beer, to he  
longer-and more dangerous,. than that done by *French*Wine, because it doth, in some measure, obstruct the Cha-  
neis os the Brain, at.d bear down the Animal Spirits in such  
a manner, that, it-requires a pretty deal of Time, to brings  
t .them into their pristine State again. - --

The *Englisu* prepare another' Sort of Liquor, which they call

Ale ; it is yellowish, clear, and transparent. Very pungent  
and subtil: It tickles the Nose and Mouth of those who  
drink .it, somewhat Tike Mustard: It's Very opening, and  
rnorepleasant to the Taste; than common Beer. They pre-  
tend, that there are no Hops, or other bitter Plants,- put.  
into it, and that its Strength proceeds from an extraordinary’  
Tr Fermentation, caused therein, by the Help of some sharp and  
~ pungent Drugs. In the mean time, *Schookins,* in his Trea-

rise of Beer, observes, that some put a few Hop-tops into'  
- them Ale, in order to qualify the overSweetness of the Malt. «  
*Mundy,* a *London* Physician, speaking os Beer, says. That.  
. - when this Liquorin new boiled, many put some Birch Boughs

into it, in order to make it a littie more pungent, -and the  
.. sooner drinkable: He says also. That some others put.  
. Ground-ivy into the Vesseis, wherein this Liquor is put, by

the Help of which, the Liquor is fined in a littie Time :  
They usually bottle up their Ale, and cork them well : But  
Care must be had, when you drink it, that you open the  
Bottie by Degrees; for the Liquor is rarefied to such a Degree,  
when the Bottle is suddenly opened, that it flies, and so is spilt.’  
Beer in *Latin, is Cerevisia, a Cerere,* because Corn, which

*Cores* was reputed the Goddess of hy the Antients, is the  
ingredient of which it is made: It’s also for the same Reason,  
that some call it *Liquor Ccrcris,* the Liquor of *Cores. ‘ .*It's also called. *Vinum Hordeaceum, Vinum Regionum Septen-i  
. irionalium,* because 'tis made of Barley, and in the Northern

Countries used instead *of* Wine: - It may be also said, that it\*  
- has this Advantage of Wine, that it may be made at all  
ί- times, that it moistens,-is more nourishing, and market-

able. *Lemcry on Foods.*

ALLABOR, **ALAHAnAR, ALABARI, ALCHONOR, AL-  
I.ARIN0CH, ALHOHONOCH, ALRACHAs, ALASTROB,  
ALOMSA, ALOOC, ALCAMOR,** Lead. *Rulandus.*

ALLABROT, a kind of factitious Salt. *Rulandus.*

ALLANTOIS, from ἄλλας; a Sausage, or Hogs Pudding,  
as we call it; because in Brutes it is long and thick.

It has been much disputed by Anatomists, whether the hu-  
man Foetus was furnish'd with an Allantois or not. But DI.  
*Hale,* in the *Philosophical Transactions,* and Monsieur *Littre,*in the *Memoirs of the Academy of Sciences,* put the thing out of  
Dispute; I shall therefore give their Sentiments and ObserVa-  
tions on this Subject.

- I shall here give a true and exact Account of a human *Allans  
tois,* as-it appeared in two Subjects, still by me; one of  
which I observed several Years ago, and the other in *March*I698-9. 'n ς . ; .

Most of the Antients allow os one; not from their Experi-  
ence of it, but hecaufe they took it for granted, that Men, and  
other Animals, were alike, in the *Viscera, Membranes, Vessels,*&c. *Hippocrates* says. That Twins lie in *Sinufs.es,* and that  
the *Uterus* has *Cornua. Galen* describes the *Navel-string to*Consist of four Vessels, besides the *Urachus,* and the *Allantois*to he like a Pudding reaching from one *Cornu os* the *Uterus* **to**the other. In short, notwithstanding the Antients might some-  
times dissect human Bodies, and although *Herophilus* and *Era.,  
sistratus* did open live Men and Women, yet it.can’t he found,  
what great Use was made of those Opportunities. For the  
Antients Accounts of many Parts, particularly of the *Urachus.*and *Allantois,* (as to its Name, Figure, Site, *etc sty* agree only,  
to them Appearance in *Brutes.* I shall say nothing of the  
*Allantois* in Brutes, fince it is granted by most Anatomists to  
be in these Animals, and sufficiently described by Dr.  
*Needham,* who also first discovered Part os the *Allantois* in.  
*human* Subjects 5 but neither he, nor any other, has taken  
the right Method of finding it intire ; and 'tis no Wonder they  
Could not truly descrihe what they never saw. Dr. *Needham  
says. That after* the *Amnios* is cleared, and left fixed to the  
*Umbilical Rape,* you may divide by the Fingers, or Knife, **the  
remaining** Part of **the** *Involucra* **.into two** *Membranes.* **The**

*Exterior* he truly calis the *Chorion,* **the** *Interior* he takes to be  
the *Allantois.* But by these ways of Separation, you will pre-  
sently tear the *Allantois,* and he able to. discern only some small  
Pieces of it. Besides, the *Allantois* is at first Sight so like the  
*Amnios,* that many who suppose the *Amnios* double, and that  
its Coats are easily separable, have taken these Pieces of the  
*Allantois* for broken Parts of one of the Coats of the *Amnios t*Whereas having first found the Hole whence the Urine came  
sorth, (if the *Allantois* is not too much torn) you may blow  
lip the *Allantois* with a Pipe to its fall Dimensions, and then  
fee its true Shape, the *Fundus,* the *Cervix,* .the Insertion there  
of the *Urachus,* its relation to the other Membranes, *etc.* Be  
the *Allantois* never so much tom, yet this way you may easily  
separate many Inches of it from the *Chorion* and *Amnios:*Which easy Separation demonstrates a Distinction of Mem-  
branes, since no double Membrane can be divided by the  
Breath alone. ...

.. Indeed *Hoboben* and *Diemerbroech* made .it a Very easy thing  
to separate the *Allantois* from the other Membranes, .only by  
the Fingers ; but 'tis plain from their Descriptions, that they  
never saw one intire. - Amongst .other Mistakes, *Diemcrbroech*fays. That the Urine of a *Foetus* lies between the *Urinary*Membrane, and the *Chorion ;* as though, not contained in a  
distinct Bladder, but in a Cavity made partiy from the *Chorion,*partiy from the *Urinary* Membrane. I confess *De Graaf* telis  
US, That by blowing with a Pipe into a Hole made through  
the *Chorion,* all the Membranes of the *Secundines* will appear  
distinct. He has also delineated an *Allantois,* with the;other  
Membranes, *etc.* as he-says he sound them; yet this Figure  
must be drawn from his own Fancy, and not from any Prepa-  
ration, for these Reasons : First, Becausethy tins way of Sepa-  
ration, yon can only part the *Allantois* from the *Chorion,* hot  
never see its true Dimensions, nor any Appearance of . a Blad-  
der, as.the *Allantois As,* can be shewed only by blowing into its  
Cavity, or by finding it full. Yet in this *Figure* no Sign can  
he observed where it was blown up, and tied. *De Graafp.\so*speaking of making a Hole only in the *Chorion.* Nor can this  
*.Allantois* be supposed full of Urine, because 'tis not of the Shape  
of a full *Allantois-y* and our Author himself calis it only .the  
inflated Part of the *Allantois.* However, I can’t conceive how  
the *Allantois* could remain partly silled with Air,, (any. more  
than it might with Urine) so long as till this *Figure* was  
drawn, unless some *Hole sn-te* tied up, whence the Urine came  
forth, and the Air was blown in. : Secondly, Because in this  
*Figure* .the *Umbilical Rope* seems to run through both *Amnios,*and the *Allantois,* to its Insertion on the *Placenta*; whereas  
the *Allantois* is no-where perforated by the *Umbilical Rope,* nor  
does it any-where pass through *tspae Amnios,* but only runs under  
it, at the Place of its Insertion on the *Placenta..* If the *Navel-  
string* could be allowed to enter the *Amnios,* and to pass under  
it to the *Placenta,* why should it not appear (which it does not)  
under the *Amnios,* as well as the thin Substance of the *Allantois ?*Again, according to *De Grasses* Position of the *Secundines,*nothing Cmdd hinder a'plain View of the Place where the *Navel:  
string* is set on the *Placenta.* This will be easily apprehended,  
by supposing the Part Η, in my *Figure, (Plate* 3. *Tab. 2.) to*lie uppermost, the *Fundus* G and *Navel-strings* being turned  
over; for then the *Strings* will run over the *Allantois, as in De  
Gradscs* Cut, and its Insertion appear plain on the *Placenta,*which yet can't he discover'd in his *Figure.* I am sure the  
Whole is irregular, and I take it to he fictitious. As for the  
*Urinary* Membrane, it seems to be, the *Allantois* of a *Colt,*(where *Needham* fays. The *Umbilical Rape* runs through the  
*Urinary* Membrane) not less absurdly added to the *Secundines*of a *human Foetus,* than the *Secundines* of a *Whelp* are to a like  
*Foetus,* by *Vesalius. ......*

Lastly, 'Tis most evident, that *De Graaf* knew nothing of  
the true Shape of this Membrane, and that he had never seen  
one intire, because he consents to *Needham.’3* Description of it  
as true, which yet is false in several Particulars. For, First,  
The *Urinary* Membrane does not cover the whole *Fcctus,* fas  
he affirms) but only that Part os it which respects the *Chorion,*and does not lie on the *Placenta;* for the *Allantois* can be.  
extended at farthest but to the Edges of the *Placenta,* where,  
the *Amnios* and *Chorian* are so closely joined by *Fibres,* that no  
Membrane can come between them. Wherefore, Secondly,  
The *Allantois* is not every-where fastened to the *Chorian.* And  
consequently. Thirdly, The *Allantois* can't he of the same  
Shape that the other Membranes are of, nor he like the *Allan.,  
toes* of a *Colt,* which contains the *Faetus* in the *Amnios*; all  
which, nevertheless, *Needham* asserts. In short. Dr. *Need-  
ham* had seen only Pieces of the *Urinary* Membrane, but never  
an intire one, and *so* could only guess at the Shape, *etc.* of it,  
. from what he had observed in *Mares,* and *Glanduliferous* Ani-  
mals, He might have made a hetrer Guess at the Figure, Site,  
*etc.* of a *human Allantois* from that of a Whelp, winch does  
not every-where encompass the *Foetus,* as he observes. *Bidlso,.*in most of his *Figures* of the *Secundines,* letters some *Festigia* of  
the *Urinary* Membrane ; but in any of these *Figures* you only  
fee broken Pieces of one, so confusedry placed, than.no *Idea tA*

its Bigness; Shape, Or Situation, Can he sormeth from thenis  
I must confess, thet oftentimes the Membranes os the *Secun-  
dines* are .so torn, that no Art can exhibit an! intire *Allantois y*however, among the many *Secundines* that have come under  
the Hands of Anatomists, several, no doubt, must have been  
intine enough for a fuller Discovery than they have made, had  
it not heen, by their ways of Proceeding, *segiix.* by Knife,  
Pingers, or blowing under the *Chorion)* impossible to discover  
any thing plain, or satisfactory, even in the fairest Subjects. :  
r I come now to answer. theObjectionS of those who still deny  
*an Urinary* Membrane to*z human Foetus.* ...0 s ..

. The Difficulty of finding this *Membrane,* is by no means an  
Argument against the Existence of it λ Bur a Woman thet dies  
big with Child, is so saii a.Subject for the Discovery of *.thrie  
Membranes,* that I wonder *Parey,* having such an Opportunity,  
could find but two, if he was so careful aS he says he was. Dr..  
*Tyson* observed *three Membranes'fomz* Years ago, in a like Sub-  
jects " Aster the *Chorion* was divided, and laid aside, hespaw  
*two Bladders,* containing Liquors of different Colours, .which  
he pressing one towards the other, did not mix, but.remained  
distinct..- This .Observation fully satisfied that great Anatomist,  
as to the Existence of *za Allantois* ;I and its Figure, Texture,  
Site, *.etc.* might al so have been .'discovered by. him, herd not the  
less curious Spectators been impatient to pass on to other Parts  
of the Dissection. ‘ ’ ss .... . ..... ..

Some deny 4 *Urinary.* Membrane to a *human Factus,* because  
they .suppose .the *Urachus* to be impervious, and that therefore  
there, would be no Passage for the Urine, and. consequently no  
Need: of an *Allantois. Needham* indeed says. That he could  
never find anySign of. a Cavity in the *Urachus*; yet is os-Opi—  
nion, that by blowing from the *Bladder,* the Air might be  
forced through a *Human Urachus,* as easily as he has often done  
it through , that of a *Whelp.* I don't- understand -why -Dr.  
*Needham,* and others, should insist so much upon an apparent  
Cavity, in The *Urachus, .cor* expect that Air should necessarily  
pass through it upon binwing, and think that otherwise it can-  
not be sit for the assigned Office ; fince many Bodies, as Mem-  
branes, *etc.* will not admit Air, *etc.* yer let Water pass-freely  
through them. It will not seem strange, that Water should  
pass throughthe Substance\*.ofthe *Urachus,* -if we consider, that  
the Cavity of the *Urachus* to the *Navel* is. open, as appears by  
Inflation, Or Injections (to shy nothing of those who are -men-  
tioned to have made Water by the *Navel)* ; and that the rest  
of the *Urachus* is perVious, the' not plainly, hollow, (the Urine  
rather soaking gently,, than running through its more strait  
Tubes) may.be gathered from hence; First, ThatThe Sub-  
stance of the *Urachus foes* well aS the Cavity of the *Allantois)*is always found turgid with a Liquor, that in Colour, Taste,  
and Smell, seems urinous. Secondly, That fince the *mucous  
Coat* of the Intestines is demonstrated to be Vascular by Mr.  
*Leeuaaenhoeck,* therefore the mucous Substance oft he *Urachus*may’ also be vascular. Thirdly, Thet Urine may aS easily ouze  
through these mucous Vessels, as other Fluids run through vas-  
cular *Cartilages,* and *Bones,* &c. or the Chyle into *Lacteals,*(whose Orifices, as *Leewwenhoeck* observes, will scarce admit  
of Particles so big as 1,000,000,000 Part of a Grain of Sand)  
the great Cavity of the Intestines heing open at the same Time,  
or as easily as grosser Parts of the *Semen* pass the Tubes of the  
*Testicles,* whose Cavities are not more perceptible. I am sure  
the Urine is more assisted in its Motion by the *Detrusor Urina,*&c. than any of these Fluids can be by the *Heart,* or other  
*Muscles.*

Others will not admit of an *Urinary* Membrane, they think-  
ing it would be useless, because they imagine, .that when the.  
Bladder is full, the Urine must he discharged at its *Cervix,* and  
not at its *Fundus* .by the *Urachus.* But in answer th this, the  
Urine can. never pass .through the *Cervix* and Urethra, unless  
the *Abdominal Muscles* contract ; because we never Void Urine  
naturally, but by the Help of these Muscles, nothing less being  
able to force open the *Sphincter Visica. Now* it heing more  
than probable, that these Muscles never act hefore *Respiration,*no Urine can pass , through the *Sphincter,* hefore the Child  
breathes. No Reason can he given, why the *Abdominal Musi-  
cks* of *RFcntus* should yoluntarisy contract, since neither the  
Quantity nor Quality of the Urine can excite to such an  
Action: For when the Bladder is too full of Urine, it will  
ouze through the lax spongy Substance os the *Urachus,* being  
gently pressed by the *Detrusor* alone. There would arise many  
Inconveniencies from the Voluntary Contraction of the *Abdomi-  
nal. Muscles* of a *Foetus,* as Voiding *Faeces* as well as *Urine*into *tiae.Antnios,* which should he more prejudicial than Sweat,  
*etc.* Yet. if we should suppose the *Abdominal Muscles* of a  
*Pentus* to actF the Urine wifi however pass where it can most  
easily, that is through the *Urachus,* which is partiy open, and  
altogether of such a Texture, aS in no wise can hinder the pas-  
sing of the Urine, much less he able to resist a considerable  
Force, as the *Sphincter Visica* can. Besides, the *Urachus is*not only thus qualified for the Admission of Urine, but when  
the Mother lies down, 'tis almost upon a Level with the *Ure-  
thrae* and. what has once passed *the Urachus,* cannot return by

fieasonsofthe Length,. Situation, and peculiar Structure of if.  
Lastly, The *Pudendi Clausura,* sometimes happening in both  
finales, demonstrates, that then at least the Urine cannot pass  
dhrough the *Urethra: . .... . .. .*

*gulDionis not* finding .any *Allantois,* nor *an Urachus* plainly  
.pervious, . thinks there is no Need of either, on another  
Account. For he supposes, that the Blood which ferves for  
the Nutrition of the *Foetus,* is depurated from all Excrement.  
But I cannot apprehend, whet should make this Portion of the  
Blood and Chyle .freer from Excrement, than the rest of. the  
*MAs.su Sanguinea.* ..There .is indeed, no Portion of it, which  
does 'not contain Parts unfit for *Assimilation ' Nutrition.*Our Author would heve been convinced of this Error, had he  
ever, opened *Abortions* of five Months old or upwards, them  
Bladders being always full of *UrineyaDd* some Foeces constantly  
in the Intestines. .’Tis difficult to determine when this Separa-  
tion of *Urine* first begins; but I am apt to think it much sooner  
than is generallyssuJiposed;' *Dig.* 4. *Plate .sc* is the *Allantois* of  
a Very small *Abortion,* which I have still by me. Since all the  
Parts are perfectly formed before *Impregnation,* not Very long  
after Impregnation, they may begin to perform their Offices.  
No doubt theytheginas soom as there in Occasion for any Sepa-

\* ration ; and a SeparatioILof Urine is necessary, when the *Pectus*ss’firstinourished by*ssaeUfniilicaiArteries.* r i-- ςννύ.

The Existence of an *Allantois .in.* denied by some who grant  
an *Urachus,* but will have it convey the *Urine* to hetween the  
*Amnios-anti Chcrtdn. . DiemcrbroecPs* Opininn is somewhat like  
this, only he. would have the Urine lodged- between the *Urinary*Membrane 'and .the *Chordous.* These Men don't consider, that  
theUrine in this: Case would get .into the *Amnice,* as well as  
the: *Succus Nucritiur.osu* the *Chorion,* whether imbibed from the  
*Uterus.* by; the *Cherian,.* or separated, by its *Glands'.* Such a  
*SiAecudNlutritiuaesa star: Chorion* is -granted by the Maintainors of  
the forecited Opinions, , .asi well as by those who deny an  
.zfisoi/ofr altogether,.-orhsuppfOse it: to have a different Figure,  
*etc. from* what *Diemerbroesi.* assigns:-let \* The Transudation  
(or Filtration through the .Membranes) of this *Succus* seems  
most likely in *Mares* land. *Sows* sor in a *Mare,* the *Chorion is*not joined to the Uterus,. till sheas half gone and in *3. Sow, st*.. does not adhere to the *Uterus,* till near the End os her going  
with young : Btit /tis most evident, that the Urine *sas ^ Hieman  
Foetus* is not contained between ishe *Chorion* .and *Amnios,* -nor  
hetween the *Chorion rtiii Allantois,*..-from the close Connection  
**of** these. Coats to one another \ also from .the Observation os  
Midwives, who often find a Bladder of -Wster (they call it a  
By-watery offering itself before the Child, whereas the Humour  
**of** *t\xc Amnios* is littie, and osthe *Chorion* much less, and of an-  
**other Colour,,** *etcetcet* **the** time ofBirth. This By-water in  
taken.,Notice of, I ns am. Argument for. an *Allantois* by Mr.  
*Cowper,* to whose Assistance we owe, that the Figures helong-  
Ing to these Papers appeal correct.I . . .. ;

- /The great *Harvey.*will not allow ari *Allantois* even to  
Brutes, and fancies the *Allantois* .and the *Chorion* to he the  
same Membrane, that has two Names, the first from its Shape,  
the other from its Office, or Number OfVeffeis. Yet it is  
plain froth *Galen,Andiils* the'-Antients, that they-ineant two  
distinct Membranes by the *Allantois* and *Chorion.* Dr. *Harvey*chinks,' that a *Foetus* does not Void Urine, but that the Bladder  
Contains itedill the Time of.Birth. What was offered against  
*Dionis’s* Opinion, may serve for an Answer to this also. Be-  
cause, Twas impossible for this diligent Anatomist not sometimes  
io observe, an *Urinary* Bladder, he has thought of ways to  
explain .such *Phenomena,* without granting an *Allantois.* **In**Sheep-and Does, he had seen as it were a certain Process  
between the Um bilical Arteries full of Urine. -This Process is  
no douht the *Allantois,* though *Bartholinus* Calls it the *Urachus.*Again, he thinks what Is called by others, an *Aldantais,* (if it is  
’ not the *Chorion)* is some Coat accidently formed-from a Redu-  
plication of the Membranes ; hecause (since every Membrane  
is doubles Nature may, upon a Streight, lodge the Urine he-  
tween a Duplicature. Yet he-does not tell us how his Dupli-  
catnre is to he filled, he allowing no *Urachus..* But in short,  
this *Urinary* Bladder can he no Duplicature Of the other Mem-  
branes, fince in all Animals it differs from them,' as. to Figure,  
Texture, and in having an *Urachus,* which no Other Mem-  
brane has; and since every Animal that has a Bladder, must  
have a like Necessity sor a Receptacle of Urine till hern ; since  
also the *Urachus* is ever alike inserted in the same *.Species* of  
Animals, and the *Urinary* Bladder constantly the fame, as to  
the Shape, Texture, Situation, *eta.* the *Urachus* arid *Allantois,*with its By-water, can be no accidental or -preternatural  
things. - s. *s'.'* ' χ 39 ' - re ..

*Fig.* 2. *Plate* 3. represents the Secundines of Twins, to  
shew the *Allantois,* and its Relation to other Membranes, *etc.*after the Parts were prepared and dried.

.. AAA A, Part of the *Chorion* expanded. Y  
- Β B B, a Line expressing the Edges of **the** *Placenta.***. C C C,** *tsae Amnios,* which is united **to ν ' .'**D, the *Allantois,* at  
**Ε E E,. the Line of Union,**

F, the *Cervix* of the *Allantois. .*

**G,** a Hole at the *Fundus* of the *Allantois,* whence the Urine  
came forth, and where the *Allantois vras* blown up.

**Η,** Part os that half of the *Allantois,* which lies under the .  
Line of Union, and immediately covered the *Fcztusts,* unless it  
is supposed that *the Amnios* is continued under the *Allantois. '*

**11,** two Stiles or Probes thrust under- the *Amdics.* They  
support the *Allantois,* and keep open *tiae ; Aperture* of the  
*Amnios,* whence the *Twins* came forth.

K, Partof the *Placentae* with some Blood-yeffeis injected.

L LL L, the Arteries of the *Navel-firing* filled with red  
wax. d si - , , - -

M M, the Umbilical Veins filled with green Way.

Ν, a communicant Artery, by the means of which all the  
Arteries of both Navel-strings were filled at once, and the  
Veins were silled by one Injection in like manner. s

O, a Pin thet keeps out the *Amnios,* where, from the Edge  
of the *Placenta,* it runs partly to the Line of Union or Adhe-  
sion, and partly over the *Placenta. '*

P, Part of the *Chorion* at the Edge of the *Placenta,* where it.  
runs under the *Amnios* on the *Placenta.*

*ssta,* a Pin, that by a Thread helps to pull open the Aperture  
*GsfrA Amnios. si's ‘ : - . ' ' . '*

.. -R R-R,- the *Urachusf* lying between the Arteries.

a 4 a, Fibres, or Vessels 'winch fasten the *Allantois* to the  
*Chorion..’. -*

*Fig:* 3.- exhibits a Side-View of the same Preparation,' that  
the InsertionOf the *Urachus,* &c. may be better seen.

*' N. B.* That *A,* and all the same Letters in these three  
Figures, denote the same Parts in every one. ...

S,. shews the Course of the *Urachus* R at F in pricked  
Dines. . --'o . :; - - su ’

- T, .Part os the *Amnios* raised from the *Placenta,* to discover -  
the *Placenta* K and Ἄ ’ ' p

**V;** that Part of the *Allantois* whichi is below the Line of  
TJnion,- near its Neck Ft. . ? ' ’

*Fig.* 4.: shews an intire *Allantois* of a Very small *Abortion.*

.‘ AL Εἰ This *Allantois*was easily separated from the other  
Membranes, between which it lay ; and the *Amnios* remained  
an intire Bladder or Membrane under the *Allantois.*

- Now some Object; that-which is called the Line os Union,  
can hono real Thing As to this, I don't know whether the  
*Allantois* of Twins may not require such a Conjunction to  
sustain, and keep steady,. a greater Quantity os Urine; nor can  
J resolve, - whether the *Allantois* os Twins (like that os a single  
*Faetus* in *Fig. A.)* may not be distinct, and separable from the  
*Amnios,* but was not discovered by me to be sso, thro' want os  
Skill or Care. However, the Reasons why such a Line was  
figur'd, are these: - . τε ί ’

. .It Although I used more Forde, with equal Care, to sepa-  
rate the *Allantois* in this Place, than in any other, (where  
nevertheless the Separation was- Very easy) yet I could not  
divide these Membranes farther than that Line.

\_/ 2. This Line seeming so regular, as to divide the *Allantois*into two equal Parts, I could not take it to be the Effect of  
Chance; or my Separation. \ ’

- 3. The Part H below the Line EE, was alike in Transpa-  
rency to that Part of the *Allantois* D above it; whereas had .  
the *Amnios* been joined to the *Allantois,* (as the Objectors sup-  
pose) the *Allantois* below this Line must have appeared thicker  
than that Part above it, fince the *Amnios* alone is much thicker  
than the *Allantois.* 'Tis easy, indeed, to conceive the *Amnios*running an intire Bladder, or Membrane, under the *Allantois,*and perhaps it may be so; but I think it disingenuous to con-  
ceal what I did observe. Or to make out by Fancy, whet **I**icoullthnot discover in Fact:. ’

' Others have -thought this *Allantois* to be an *Amnios* of one of  
The Twins helonging to these Secundines. This Objection,  
though it may seem plausible; yet it is of no Force. For, first,  
this *Allantois* is much finer to the Touch, as also much more  
transparent, than the other *Amnios,* which still remains stiff,  
whilst the much thinner *Allanocis* finks under the least Blast os  
Air, notwithstanding the Stiles 11, which assist it. Secondly,  
This *Allantois* had two Visible Urachus’s, and is of an Oviform  
Figure, somewhat like the common Cuts of a Man's Bladder  
(for a true Cut of a human Bladder I never yet saw, for it  
ought to he made -much bigger (as it really is) at its *Cervix,*&c.) ; also this *Allantois* no-where touches the *Placenta,* nnlefs  
at the Neck F; but -on the contrary, the *AtnniQs* is of the  
fame irregular Figure, as the Position, Motion, *IAec.* of the  
*Faetus* require ; likewise it covers the whole internal Surface of  
the *Placentas* Thirdly, They who make this Objection must  
suppose some Hole in this Bladder, and in the *Amnios,* through  
which one Umbilical Rope may pass from the *Placenta* to the  
*Foetus;* but such a *Foramen* would be preternatural, because  
the Navel-string only runs from the *Placenta to* the *Foetus,*under a Coat taken from the *Amnios,* and lies with the *Foetus*. in the Cavity of rhe *Amnrti^* that is no-where perforated.

Fourthly, The Hole at the *Fundus* G was scarcely wide  
**; enough-to receive the End of a** Man's Finger, whereas **the**

Twins did not want six Weeks of their full Time. Since  
therefore a .Fimus of near eight Months could not possibly pass  
'this Orifice, this Bladder could not he an *Amnios. .*

, Nothing in these *Secundines* is preternatural. Only some  
things were not before observed. Hitherto Anatomists have  
not allowed Twins to lie in a common *Anrnios,* but supposed  
each *Festus* to have a distinct *Amnios,* The Reason, of this  
Opinion might be, that some, denying any Urinary Mem-  
brane, called every Membrane they, sound (except the *Chorion)  
nti Amnios* and these, finding two Membranes in the *Secundines*Of Twins, supposed them to he two *Amnioss :* That others,  
granting an *Allantois,* but not distinctly discoVering it, but. only  
two Membranes,-also imagined them to be two *Amniogis'y* both  
os these taking that for the *Amnios,* which might really he an  
*Allantois.* But since One *Chorion,* and one *Placenta,* (the  
*Placenta* and *Chorion* heing ever os the same Numher) generally  
serve Twins, snay, sometimes three *Foetus’s)* why should it  
seem strange, that one *Anrnios,* (at least sometimes) and One  
*Allantois,* should serve the like Number ?

I am not ignorant, that *Mauriceau,* and *Dicmcrbroeck,* think  
there is an absolute Necessity for every *Foetus* to he in a distinct  
*stmnios,* and that otherwise Twins in the same Membrane would  
grow together, and make a Monster. *Aquapendens* farther says.  
That all *Ova Gemellisica* do produce some other sort of Monster ;  
yet ’tiS most certain, that *Ova Gemellisica* do exclude two perfect  
Chickens, however not both alive. The great *Hartley,* indeed,  
thinks .it possible, thet such an *Ovum* may produce a monstrous  
Cluck, is its *Vitelli* are contained in the same Membrane, *etc.*yet does not positively say it must he *so. For* my Part, I can-  
not see any more Reason, why Twins in one *Amnios* should  
grow together, than that the Hands or Heels of the same *status*should grow to its own Body. How can the Humours that  
lubricate a single.*Foetus,* and help it to. move, join two Toge-  
ther? Since the Humours are the same, and the-Parts, of the  
same *Fcetus* as tedder aS those of Twins are, and he aS close to  
one another, as Twins do. 'Tis very observable, that among  
all Monsters we read of, there are very few which seem to be  
Inade of two intire Bodies joined together, and that most of  
these, upon Dissection, were found to have but *one Hoars, one  
Liver*; whence 'tis most plain, that these Monsters (and no  
doubt all others) were originally Monsters in the *Ova* before  
Impregnation, and not so from want os the *Amnios.* Yet  
*Diernerbroeck* does not a little boast of having first (as he thinks)  
found the Reason why Twins must lie in distinct *Amnios?st*But fince the Matter *of Fact* (sometimes at least, as in these  
*stecundines,* there was only one *Amnios,* and - two regular  
*.Poetatis)* is not true, his Argument for a Necessity os two  
*Amnios’s* for two *Fas lusts* will never prove valid, even where  
Twins, and two *Amnios's,* are found, indeed any Part may he  
made to grow to any Part, as we see in the Cure of Hair-lips,  
*etc.* but then the Fibres must be first broke, before there can  
he any Union. Now I cannot conceive what should naturally  
break the Fibres of the Twins in the *Uterus.* But although 'tis  
evident, from what has heen said, thet Twins may be distinct  
in the same *Amnios,* yet there must be as many *Urachuses* aS  
*Pentus’s.* In these *Secundines* I few two running over the  
*Placenta,* to the Neck of the *Allantois,* which I communicated  
to.some Physicians, before the Parts began to grow dry. The  
*Urachus* passes under the *Amnios,* as the other *Umbilical Vessels*do, and runs from that Part where the *Umbilical Rope* is set on  
.to the *Placenta,* strait to the *Cervix* F. 8 describes the  
Course of that *Urachus* marked R, at F in the second Figure.  
The other *Urachus* lay about a quarter of an Inch laterally  
heyond that marked R in the fame Figure. I mean by two  
*Urachus’s,* two long roundish Bodies, os a depressed Figure ;  
they seemed as big as a Knitting-needle, and were of a darker  
Substance than the *Placenta,* on which they lay ; they appear'd,  
in every respect, like that Part of the Navel-suing which is  
allowed by all Anatomists to be the *Urachus,* and in like man-  
ner shrunk in two or three Days from a mucous Substance to a  
mere Membrane: These two are the only intine Urinary Mem-  
branes that I have prepared. Yet in the *Secundines* that have  
come to my Hands, I heve ever found three distinct Mem-  
branes easily separable. *Phil. Trans, abr. Vol.* 4. *p.* Sy *tc* 96. ‘

M. *Littre,* in his Observations on a monstrous Human  
Foetus *(Mem. de st Acad. Ray. des Sci.* I7OI. p. II5.} says.  
That he found in the After-birth of that Foetus, besides the  
Chorion and Amnios, a third Membrane, of the same Make as  
. the two others, and not like a Gut, but exactly what we find  
in some Animals, and call Allantoides. This Membrane he  
intirely, with his Finger, and blowing, separated from the  
Amnios, and from the Chorion, aS sar as where this adheres to  
the Placenta, and even partly in that Place, but with a little  
more Difficulty. This third Membrane was a httie thinner  
than the Amnios, but *ps* thick as the Chorion ; he could per-  
ceive no Blood-vessel in it, nor any Liquor between that and  
the Chorion ; but hetwixt it and the Amnios, there was half  
an Ounce of yellowish mucilaginous Liquor, which, he says,  
was probably the most glewy Part of the Urine, which, by  
reason os its Viscidity, Could not run off with che reft at the

Rupture Of the Membranes in the Birth. And perhaps It is  
this Matter that remaining between the two Membranes, aster  
the thin. Part is run off, glues them together, and causes them  
to be taken for one. Since this, he fays, he found the same  
Membrane in several human Foetus’s', perfectly well form'd,  
by taking hold of it in the same manner, as he did in the mon-  
shous Foetus. :. ..I ss r : :.r *-o'.*

.. The Use of this third Membrane Of the After-birth of **the**Human Foetus is, probably, the fame as that of the Allantoides  
in Animals where it is found, which Js, that the Urine which  
cannot he contained in the Receptacles of the Kidneys, in the  
.Ureters, nor in the Bladder, rnight.pass from the Bladder, by  
the Urachus, to the Cavity formed by the Amnios, and .this  
particular Membrane, to the there kept in Reserve till the time  
ofDeliVery. *Mem. de st Acad. Roy. des Sci.iyos. p. II5. - .*

. ALLELUJA, a Name for *Acetasu,.* Wood-sorrel. See  
**ACETOSA.** *. 1 : - :- s.*

ALLIAR jERIS, *B.* Term used by AlchymistS in their Proa  
cess for preparing the. Philosopher^ Stone, to signify the *AEs  
Philosophicum,* Philosophical Copper : It is also called *Aqua  
Mercurti,* Water of Mercury ; *Acs Alburn,* White Copper ;  
*Animal Kenael, Lapis et Ovum,* the Stone and the Egg;. and  
by innumerable other Names, as appears from *Gulielmus T.ece\*  
nensis,* in the second Chapter of ins *'Lilium de Spinis Evulso  
Theat..Chym. Torn. iv.po 889. ’-* . ssV

: ALLIARIA, a Plant thus distinguished: r -. J *r.z*

*: Alliaria,* Offics Ger. 65o. Emac. 794. Rafi Hist. IS 792-  
Park..Theat. *112. J.* B. 2. 883. .Co Β. Pin. i IO. Mer. Pirhi  
4. Mere, .Bos, I. I 7.. PhyI.Brit.4. *Alliaria Matthioli,* Ruppl  
Flor. Jen.; 6I. *Alliariag Alltaris,* Chain *2gI. Hesperii Allium  
redolens.* Hist. Oxon.2.252.Raii Synop.c3. 293. Tourn. Instr  
222. Elem. Bot. I9os Boerh. Ind. A.. 2.. I7. Dill. Cat. GilL  
5I. *Hesperiofaparia allium redolent,* Bnxb. i«. JACK. BY  
THE .HEDGE. SAUCE ALL ALONE. ‘ *Dale. ;.su*

**ALLIARIA.** This Plant .has a small woody whitish Roos,  
perishing every Year after giving ripe Seed , the Stalks grow **to**he about two Foot high, slender and striated, and a little hairy , .  
the Leaves stand on longFoot-stalks ; the lowermost are round-i  
ish, hollowed in next the’Foor-stalk; those which grow on the  
Stalk are somewhat pointed, and waved about the Edges, thin  
and tender; being rubbed, they smell strong of Onions or Gar-  
lick ; the Flowers grow on the Tops of the Stalks, small and  
white, of four Leaves a-piece, and are succeeded by long (len-  
der Pods, including small long Seeds: It grows in Hedges and  
Bank-sides, and flowers *in May.* I

The Leaves are used; heing het, and of thin Parts, they  
provoke Urine, and are good for the Dropsy; the Juice mixed  
with Honey helps old Coughs; they resist Poison, and pestilen-  
tial Distempers; outwardly they are used with good Success in  
Gangrenes. *Mellen’s Boy. Ossi,so.- . ' '*

It contains a great deal of Essential Salt and Oil. ... su

It is incisive, attenuating, and detersive; good for the Venom-  
ous Bites of Serpents, sor the Dysentery, to strengthen the Sto-  
math, and to abate Hysteric Vapours: .It is used in Decoction.  
*Lemeryf de Drogue. .. . . \ .* ί ' χ .

st is esteemed an excellent Antiscorbutic, eaten by way of  
Sallad. ' ,

ALLIGATURA, is used by *Scribonius Largus* for Ligatura,  
a Bandage. *Scribon. Larg. Cap.* 77. *N.* 209. She **LIGATURA.;..**

ALLIOTICUM, (from ἀλλιοω, to *alter* or *vary J A* Ga-  
lenical Medicine, which .alters and purifies the Blood ; consist-  
ing chiefly of the Roots of Dandelion, Succory, Fennel, and  
Raisins; with the Herbs Endive, Common Ox-eye, Lettice,  
Sorrel, Fumitory, *etc. Blancand. -\_.su*

ALLIUM, Garlick, 4 Plant well known.

There is in *AEgypt* a mild Sort of Garlick, which is cultivated  
in Gardens, and grows after the manner of Leeks, with a single  
Head ; this is sweet, small, ’ and os a purplish Colour: But in  
Other Places it is white, and has a.Head composed of a Multi-  
plicity of Cloves, called (in *Greek) dyht^at, Aglithai.* .There  
is also a wild Rind, called όφιόσκορδον, *Ophioscordon. .* (Vipers  
Garlick!) ?.

Garlick, is of an acrid, heating, biting Nature ; expels Wind,  
disturbs the Belly, dries the Stomach, excites Thirst, and causes  
Inflations ; will raise Blisters on the Skin, and dull the Sight.  
The Ophioscordon, called also ελαφόσκορδον, *Elaphosiordon,*(Stags Garlick) heing eaten . has the same Effects. Garlick,  
taken in Food, expels the flat Worms, and provokes Urine;;  
and there is nothing better for the Bite of the Viper, or the *Hae..*morrhoids, than to eat Garlick after a Glass of Wine, or to  
drink it bruised in the Wine. Applied outwardly as a Cata-  
plasm, it is good for the aforesaid Purposes, and also for the Bite  
Of a mad'Dog. Taken as Food, it prevents Injuries from Change  
of Waters, clears the Voice (αρτερίας λαμπμὲνει); and eaten  
raw or boiled, mitigares an inveterate Cough. Drank with a  
Decoction of Origanum, it destroys Lice and their Nits.  
Burnt and mixed with Honey, and the Parts anointed there-  
with, it cures LiVidness about the Eyes occasion'd by Blows,  
and the Alopecia; but for this last Affliction, there must he  
an Addition of Ointment Of Nard, Mix’d with Salt and Oil,

**A**

it cures the Eruption of Papule; and with Honey it heals the  
'Vitiligo (ἄλφος), the Lichenes, and Lentigines (φἀκίες), and  
Lepra. Boiled with Pine, Resin and Frankincense, and held  
In the Mouth, it assuages the Tooth-ach ; with Fig-leaves and  
Cumin, it makes a Cataplasm for the Bite of the Shrew-mouse,  
A Decoction of the Tops, added aS an Ingredient in Insessions,  
brings down the Menses and Secundines. A Suffnmigation  
thereof has the same Effect. Pounded into a Mass with the  
(Leaves of the) black Olive, which Composition they call  
*Myrtoton,* it provokes Urine, opens the urinary Passages, and  
is good for Hydropical Persons. *Dioseorides, Lib.* 2. *Cap.* I82.

Garlick is recommended by *Celjus* to he eaten hesore the  
‘Access os the Fit of the Ague, in order to take off the Shiver-  
ings. *Celsus, Lib.* 3. *Cap.* 12.

Garlick is mentioned, among CicatricerS of Ulcers, by *Orir  
basius* from *Zopyrus. [Med. Coll. Lib.* i4. *Cap.* 58.] And it  
heats and dries so powerfully aS to expel Leeches without **any**other Help. *Orib, de Virt. Simp. Lib.* 2. *sub Scordon.*

It has something medicinal, and of bad Juice in it, which is  
lost in boiling. The constant Use of it is to he avoided, espe-  
cially in hot Constitutions ; for Eatables of such an acrimonious  
Quality are only fit sor Persons troubled with pituitous, crude,  
gross, or glutinous Humours. *AEtius Tetr.* **I.** *Serm.* **I.** *Orib.  
Med. Col. Lib.* **2.** *Cap. Q.J.*

. - The Garlick Drawing Plaister for all Hardnesses, Abscesses,  
. Boiis, Strumas, Tumours in the Groins, Fistulas, kumid Tet-  
ters, and hardened Breasts.

Take of Wax two Pounds, of Colophony and Stags Mar-  
row each an Ounce and half, of white Nitre eight Ounces,  
twenty Cloves of Garlick, and four Pounds os Oil. Boil  
the Cloves first, peeled, in the Oil, till they are quite dry ;

-1 then strain the Oil, and put thereto the liquefiable Ingre-  
dients, and afterward the Nitre pounded, and so use it.

'. My Method-os Preparation is as follows:

Take of Wax, Colophony, Oil, each five Ounces, Nitre an  
Ounce and half. Stag’s Marrow two Ounces, with thirty  
Clove's of Garlick; prepare them as before for a Plaister,  
to be used especially for Fistulas; for it draws out the Hu-  
mour, winch must be often wiped away. This alone, with-  
out any other Help, draws, incarnates, and heals or ci-  
catrizes.. *AEtius T.etr. An Serm.* 3. *Cap.* 44.

Garlick, Onions, and leeks, are remarkable for their Acri-  
mony, on which account they heat and attenuate the Body, and  
cut gross, thick Humours. Aster two Boilings they yield a lit-  
tle Nutriment, but raw none at all. Garlick is the most dis-  
cutient and aperitive. The Ampelopraffum is drier than the  
Leek, as growing wild. *AEgineta, Lib.* I. *Cap.* 76.

Two or three Drams of Garlick, reduced to a Very fine  
Powder, and drank in Wine, is a good Phlegmagogue. *Actua-  
rius Meth. MedsuLih.* 5.’ *Cap.* 8.

There are several Sorts of Garlick ; the first is the

i. *Allium* Ossic. Ger. I41. Emac. I77. Park. Theat. 513.  
Rail Hist. 2. I I25. *Allium fativum.* C. B. Pin. 73. Hist.  
Oxon. 2. 387. Buxb. I5. Tourn. Inst. .383. Elem. Pot. 304.  
Boerh. Ind. A. 2. I47. Rupp. Flor. Jen. I22. *Allium vul-*r *gare et fativum.* Jo B. 2. 554. GARLICK. *Dale.*

The Root consists of several Cloves, or small Bulbs, of  
a reddish white Colour, set together in a round Compass,  
and inclosed in one common sitinny Coat or Cover, having  
. several small Fibres at the Bottom ; the Leaves are broad and  
Iong, like those os Leeks; on the Top of the Stalk, which  
grows two or three Foot high, stands an Umbel of small white  
nve-leaved Flowers ; the whole Plant, especially the Root, is of  
**a** very strong and offensive Smell.

Garlick is called the Countryman's Treacle, though it is  
not used nigh so much in *England* as it is in foreign Parts. It  
is accounted a Strengthens of the Stomach and Bowels, an Ex-  
.„ peller of Wind, and very good for the Colic; in Asthmas and

Difficulty of breathing, it is a Very good Medicine, the Root  
\*. . being either preserved with Sugar, or a strong Decoction of it

made into a Syrup.. *Mellcr Bot. Ossi. '*

It grows in Gardens, and flowers *in June.* The Root is  
used, being of a heating, drying, incisive, aperient and discus-  
five Quality, and an Alexipharrnac. Its principal Uses, inter-  
nal and external, are in the flatulent Colic, Worms, Pestilence,  
Cough, Stone, Itch, Obstruction of Urine, Dropsy, U*c. Dale.*

Taken internally, it is thought to preserve from the Influence  
of an infected Air. It is usedalso externally; for, heing bruised,  
it is applied to the Wrists in a cold Fit, or Beginning of an In-  
termitting Fever. It also is good to take away Corns of the  
Feet, being bruised and said upon them.

Rocambole, which they call Shalotes *of Spain,* are the Fruit  
of the Garlick, which is cultivated in *Spain. Lemery de  
Drogues.*

It provokes Urine, it kills Worms, makes the Voice good  
**and aoreenble-**

It causes Pains in the Head, heats too mttch, and makes **the**Humours too sharp, and over-agitates them; It is also pernicious  
for those that have the Piles, and sor Nurses. *Lemery on Foods.*

*. Hessenan* informs us, that Garlick is an effectual Remedy **sec**that Dysentery which Sailors contract in *East-India* Voyages,  
from the Use of putrified Flesh.

. Boiled in Milk, it iS a popular Remedy for the Worms.

The second Sort of Garlick is the,

. 2. *Opheoscorodon,* Offio. Ger. Emac. I8I. *Scorodoprafsum  
alterum bulhoso et convoluto capite* .Park. Theat. 872. Kali  
Hist. 2. H2O. *Allium fativum alterum, sive Allioprasesum  
caulis summa circumvoluto. C.* B. Pin. 73. Hist: Oxon. 2. 387.  
Tourn. List. 383. Elem. Bos, 304.. Boerh. Ind. A. 2. I45.  
Rapp. Flor. Jen. I22. *Allii genus Ophioscorodon,* Chain 20I.  
*Allii genus, Ophioscorodon dictum quibus.dam.* J. B. 2. 559.  
VIPERS GARLICK, ROCAMBOLE. *Dales*

It is planted in Gardens, and flowers in *fuly.* The Root  
and Kernel are in Use, and it agrees in Virtues with the former,  
hut is of a milder Nature. *Dale.*

The Ophioscorodon, which is a wild Garlick, is stronger than'  
the Garden Sort. *Paulus Algineta, Lib. y. Cap.* 2.

- A third Sort of Garlick is the,

3. *Scorodoprajsurn,* Ossic. Chain 20 I. Park. Theat. 872.  
*Scorodoprafsum primum Clusii,* Ger. emac. I8o. *Scorodoprase  
sum dictum,* J. Β. 2. 558. *Allium fphariceo capita, folto la-,  
tsiore, sive Scorodoprajsum alterum,* C. B. Pin. 74. Tourn. Inst.  
389. Boerh. Ind. Α. 2. I45. *Allium maximum multis porraceis  
foliis latioribus, siphatdceo capite ex floribus albis conflato.* Hist.  
Oxon. 2. 387. *Allium montanum majus Anglicum Nnvtoni,*Raii Hist. 2. II 25. *Allium Holmenso siphariceo capite.* Rail  
Synop. 3. 5yo. WILD LEEKS. *Dale.*

The Scorodoprason grows to the Bigness of a Leek, and par-  
takes of the Qualities of Leeks and Garlick; and by a Mix-  
ture of their Virtues serves for the same Purposes with either of  
them, though with less Efficacy. The Scorodoprason, boiled  
after the Manner of Leeks, grows mild and sweet, and eatable  
like other Greens. *Dioseorides, Lib .st.. Cap.* I83.

This Species of Garlick grows plentifully in *Hilmes-Isiand.*

A fourth Species of Garlick is the,

4. *Ampeloprasesiurn,* Offic. Match. 552. Comp. 299. Lugth  
I543. Cam. Epit. 323. *Allsum montanum bicorne, an Ampelo-,  
prasesurn,* Raii Cot. Angl. 2. I2? *Allium montanum bicorne,  
purpureum proliferum,* Raii Synop. 3. I69. Tourn. Inst. 384;  
*Porrum siylvestre vinearum,* C. B. Pin. 72. Tourn. Inst. 382.  
Elem. Bot. 303. Garr. 376. FRENCH LACK. *Dale.*

It grows on Hilis, in Meadows, and in the Gardens of **the**Botanists, and flowers in *June.* The Root is used, and is good  
against the Bites of Serpents, according to *Dioseorides.*

It has been much doubted, of late, by Very good Writers,  
what Plant is meant by Botanists under the Name os *Ampelo-,  
prajsium,* one fixing here, another there. They have been led  
into this Uncertainty by *Diofcorides,* in his omitting to give **a**Description of the *Ampelaprasesum.* There are four kinds of  
Herbs in *Baukine,* winch have had this Name from some or  
other of the Botanists, out of which I have chosen the fore-  
going, as having the most Vouchers. *Dale. .*

The Ampeloprason is not so agreeable to the Stomach as **the**Leek, but is more healing, and more powerfully provokes  
. Urine ; it also brings down the Catamenia; and, heing eaten,  
is good sor the Bites of Venomous Creatures. *Diofcorides, Lib.*2. *Cap.* ISO.

The Ampeloprasihm differs from the Leek, just aS the Wild,  
in all other Kinds, differs from the cultivated of the same Kind.  
*Oribas. Med. Col. Lib. Q.. Cap.Q.’J.*

The Ampelopraffum is drier than the Leek, as being wild ;  
it is hot and acrimonious in a Very high Degree, and therefore  
hurtful. It is of an incisive and deobstruent Quality, but un-  
grateful to the Stomach. *P. AEginet. Lib.* I, *Cap.* 76. *et Lib.  
7. Cap. 2.*

Another Species of Garlick is the

*Victoralis,* Offic. Schrnd. *L. An P.* I73. *Allium Alpinum,*J. Β. 2. 566. Raii Hish 2. 1122. *Allium Alpinum, Victoralis  
mas quibus.dam.* Chain 203. *Allium latifolium montanum macu-  
latum,* C. B. Pin. 74. Hist. Oxon. 2. 388. Tourn. Hist.  
388., Elem. Bot. 304. Boerh. Ind. Ass. I45. *Allium Alpsu  
num latifolium, feuVictoralis.* BROAD-LEAVED MOUN-  
TAIN GARLICK. Ger. Emac. I82. Ger. I42. *Allium  
agninum.* Park. Theat. 872. *Moly Alpinum latifolium macu-  
latum,* Rupp. Flor. Jen. I 22. SPOTTED RAMSONS,  
*Dale.*

It may be met with in **the** Gardens **of the Curious, where it**flowers in *fune.*

The Root is used, being of a heating and drying QpaliW  
like wild Garlick, with winch it agrees in all its Properties. **It**is commonly worn as an Amulet by the Vulgar Sort os **our Peo-**ple, as well as the *Truss,* who are persuaded that it renders  
them secure against insectious Air, and Apparitions, *Dale*(from *Schroder).*

*Mellen* mentions a Sort os Garlick under the Name of *Allium  
bulbiferurn Virginianum,* Boerh. Ind, Alt, Virginian Garliels,

Besides the above-mentioned, there are some others, which go -  
by the Name of Allium, as the

*Allium fylvestre,* Offic. Ger. Ernac. I 7g. Park. Theas. 870.  
Raii Hist. 2. II17. Synop. \_3. 369. Mer. Pin. 4. *Allium fyl- .  
vestre tenuifolium,* Volck. Finn Nor. I7. Merc. Bos. I. 17.  
Phyt.' Brit. 4. *Allium campestre suncifoliurn capitatum purpu..  
raseeris majus,* C. R Pin. 74. Dill.Cat. Gissi IIa. *Caepajun-  
cifolia mirar purpurascens,* Tourn. Inst. 383. *Capa fylvestris  
tenu 'folia, prilifera et storifera RarA.* Boeth. Ind. *L. 1.* I44.  
CROW GARLICK.

The Medicinal Virtues of this, are represented to-be the  
same as those of common Garlick.

*Moly,* Offic. *Diofcorideum,* GeI. I43. Ernac. I83. Park.  
Parad. I45. *Moly Dioscorides parvum quibuselasn,* j: B. 2.  
368. 'Raii Hist. 2. I I 23. *Moly Diofcoridis parvum quibusa  
dam,store candide.* Chain 204. *Muri angastifoliurn'umbella-  
ium,* C. B. Pin. 75. Bcerh. Ind. A: 2: I46. *-Moly angusu-  
folium umbellatunt aelbum. Hill. ORonc u.* 393. *' Allium an-  
gastifolium umbellatumalbumrToOXn. ln&. o&c.* MOLY OF  
DIOSCORIDES.

*DiafcBrides* recommends this, made into a Pessary, with Oil  
of Orris, (or MeaI of Orris, for the Copies differ) in Relaxa-  
tions of the Utente. ' -

*Mcly Theophrasti,* Offic. *Maly Theofhrasti magnum,* J. B.  
2. 568. Raii Hist. a. 1122. *Moly Theophrasti magnum, fiori-  
bus albis stellatis.* Chain 204. *Moly Harnericum,* Ger. I44.  
Emac. I83. *Moly Homericum, vel potius Theophrasti,* Park.  
Pared: I41. *Moly latifolium lilistorurn,* C. B. Pin. 75. Boeth.  
Isid. Α. 2. I46. *Moly latifolium store alba,* Rupp. Flor. Jen..  
I22. *Allium latiseliurn lilistorum,* Tourn. Inst. 384. *Omi-  
thogulurn Indicum latifolium stpriforurn sphaericum, colare colof-  
yino aut albo.* Hist. Oxon. 2. 38o. MOLY OF THEO-

. THRASTUS. - - - - - : '

The Virtues of this are said to be the same as those of the

*Maly of Dioscorides. '*

- ALLIUM GALLICUM, is a Name in *Marcellus* Aduri-  
*ricus* for Portulaca; and also, in the same Author, for Inula  
Rustica, or Comfrey Root, perhaps the last is, by Mistake, for  
Alus Gallica, one of the Names of Comfrey in *Gcrard.*

- ALLOBROGICUM VINUM. Am austere Sort of Wine,  
of the Growth of *Savoy* and *Dauphine,* recommended by *Cel-  
sius* in a Resolution of the Stomach. *Lib.* 4. *Cap.* 6.

r ALLOCHOOS, ἀλλοχοος. A Person who miles wander-  
' Ing, or delirioufly; in which Sense it is ufed by *Hippocrates* in  
his second Book of Epidemics :Όὑτοιπολλἄ μᾶλλον καὶ δὑσπνοοι,  
Ἀαι διαλετομ^ οιΛν ἀλλοχοοι. “ Such were much more troubled  
\*\*\* with Difficulty of Breathing, and wandering in their Dif-  
\*" coutfe.” Butit must not he omitted, thet for ἀλλοχοοι in  
'this Place, *Galen* reads οίαλοχόοι, which signifies those who spit  
'much; and that *Erotian* seems to approve this Reading.

' ALLOCHROEO, ἀλλοχροέω, to change the Colour of  
.the Skin, to appear first of one Hue, and then of another. And  
-thus it is-applied by *Hippocrates,* in hisTreatife *de Intern. .Affect.*λ'ίστάται οὗν η χολὴ ὑπὸ τοῦ δέρματι, καὶ ἐν τίι κἱφαλῆ, ώστ’ *debus*νὰλλοχροέει-τὸ *trZtjut.* " The Bile therefore stagnating under  
“ the Skin, and in the Head, immediately changes the Colour  
l“ of the Body.” .' -

ι ALLOCOTON,-aaAezoToI. *Hippocrates* makes ufe of this  
.to signify whet the *Latins* express by *alienus,* abfurd, or sin-  
.proper, or unusual. Thus in his Treatise of the Diseases of  
Women, he fays, they are perpetually desuing absurd or urina-  
vturaIFood (ἀλλοκοτων βρωμἀτων).. -

- ALLODEMIA, ἀλλοδημίη. This Word is used by *Hippo.*

*crates* to express travelling into another Country. Thus in his  
'Treatise *de Internis Affectionibus,* fpeaking of a Fever, attended  
with an odd kind of Delirium, be fays, it most frequently bap-  
‘ pens in άλλοδημίη, *(in peregrinatione)* in travelling, or on a  
- Journey into another Country. -

ALLOEOSIS, ἀλν.οίωσις, et ALLoEoTicos, ἀλλοιώτικὸς  
*(Alteratiosc* An Alteration induced in the Body by a proper  
’Regimen, and proper Medicines,, changing it from a morbid  
’ Condition towards a State of Health.

AI.LOGNOON,, ἀλλογνοων, -from ἄλλος, *{another}* and  
. γνοω *(to-know j.* It imports being delirious : Thet is, accord-  
- ing to the Derivation, knowing, Dr conceiving Things different  
“ from what they are in Reallty.

- ΑΕΙ.ΟΡΗΑ8Ι8,-ἀλλοφαοις, from ἄλλος, *(another)* and. φἀιο  
*’ (to speak).* It signifies a Delirium: That is, speaking of  
' ‘-Things differently from wbar .they really are. Hence  
ἀλλοφασσοντες is frequently used by *Hippocrates,* to express dell-  
ί rious, or light-headed .

ALMA, or rather HALMA, ἀλμα. Α Word which  
*\ Hefychius* interprets πηδημα, and fayS it signifies τὴν πρώτην τοῦ  
ι-ίμβρδομότιφατἀπόν Δοσιε. " The first Motion made by a Foetus  
. in the Womb towards freeing stfels from its Confinement.”  
. It allo signifies Water. *Rulandus.*

L -ALMABRI, s *Lapis Ambra Jimilis y* a Stone reseninsing  
Amber. *Rulandus.*

. r ALMAGER, the same with SrNopts, or RUBRrcA ' SI.  
.. K0PICA, .which see. It is a red bolar Earth. \_

‘ ALM AGRA, the *Bolum Cuprum, Laton,* the *Stone itself,*or the *Terra rubea,* the *Red Earth.* Or, AL MA GR A is the  
same as LOTUM, LoTio.- *Rulandus.* It is also a Name for  
*the Sulphur alburn.* White Sulphur of the Alchymists. *Theat.  
Chym. Torn. 4. P. susu*

ALMAKANDA, **ALMAKIST, ALMARIAB, ALMARC-  
HAR, ALMARCAB,** *(Lithargyriam)* Litharge. *Rulandus.*

ALMARCARIDA, *(Lytbargpriurn Argyritis)* Litharge of  
Silver. *Rulandus.*

ALMARCAT, the Scoria of Gold. *Rulandus.*

ALMARGEN, **AaMALGoL, ALMARAGo, Corah** *Rar  
landus.*

ALMARKASITA, Mercury. *Rulandus.*

ALMARTACKf *(Lytharginus cinis)* Powder of Litharge.  
*Rulandus. .*

ALMATATICA, *(Metallum cupri)* Copper.. *Rulandus.*ALMECASIDE, ALMECHASIus, Copper. *Plumandus.*ALMELILETU, a Word, used by *Avicenna,* to express  
a preternatural Heat less intense than thet of a Fever, and ,  
which may sometimes continue with Persons after their Reco-  
very from thet Distemper. *Caseellus.*

. ALMENE, Sal Lucidum, or Sal Gemmae. *Rulandus.*

ALM ETAT, *(Scoria Acre)* Scoria of Gold. *Rulandus.*ALMISA, Musk. *Johnsen.*

ALMISADIR, **ALMISADAR, ALMIZADAR, AMIZADIR,  
AsANoN,** Amis **AD U.** *(Sal Armeniacus praparatusy* Sal Ammo-  
niac prepared. *Rulandus and Johnsen.*

ALMISARUB, Earth. *Johnsen.*

ALMIZADIR, *(viride Acris)* Verdigrise. *Rulandus.*

ALMYRINTHRA, a Word used by *Moyrepsus.* It is sup-  
posed, by his Commentator, to signify the same as the *Arabic*Word **ALMYRA,** which is Quick-Lime. .

- ALNEC, Alienee, or Alcalap. *Tin. Rsclandus.*

ALNUS, a Plant thus distinguished : -

*Alnus* Offic. Ger. I294. Emac. I477. Jons. Dendr. 334.  
Raii Hist. 2. I409. Synop. 3. 442. Chain 60. Mer. Pin. 4.  
*Alnus vulgaris.* Park. Theat. 1408. J. B. I. I5I. Merc. Ros.  
**I. I7.** Phyu Brit. 4. Dill. Cat. Giss. 55. *Alnus retundisalia  
glutinosa viridis,* C. B. Pin. 4.28. Tourn. Inst. 587. Elem.  
Bot. 46o. Boerh. Ind. A. 2.18I. Rupp. Flor. Gen. 265. Buxb.

..I6. The ALDER TREE. *Dale.*

Its Leaves resemble these of the Hazel. The Male Flowers  
(or Catkins) are produced at remote Distances from the Emit  
on the fame Tree. The Fruit is. fquarnofe, and of a round  
Figure. *Aliller.*

- It delights in watry Places. The Bark and Leaves are in  
. Use: The Bark is drying and astringent. The green Leaves,  
apply’d, discuss Tumours, and allay Inflammations. Taken in- \  
ternally, they are Vulnerarias : Put in the Shoes of Travellers,  
they mitigate Pain and Lassitude. *Bund.* Scatter’d in Cham-  
bers, while they are green, and the Dew upon them, and soon  
after gathered up, they rid the Rooms of the Fleas, which are  
rapt to stick to them. *crag.* The Bark dyes a black Colour, zand may be used instead of Galls to make Ink. It is henesi-  
cially apply’d in Inflammations. *Dale.*

It contains a great deal of Oil, and hut little Salt, and that  
- almost all fixed.

. Its Leaves are resolutive, heing bruised-and apply’d-upon  
Tumours ; it serves for a Decoction to wash Travellers Feet  
with after being tired ; and, rubb’d upon the Posts of the Bed,  
it kills Fleas. The Bark and its Fruit are cooling, and pro-  
per for Inflammations of the Thioat, heing used as a Garga-  
risin. *Lernery de Dragues.*

*1 Lobel* represents this Plant in the Figure of the *Alnus altera  
Clusti,* which is very different: *Tragus, Gefrer, C. Bauhine .*upon *Mattiiolus, Dadonaus,* and *Stapel,* confound its Catkins

. with the. Fruits. *J. Bauhine* distinguishes them very well:  
This Author supposes the little Threads at the End of the  
young Fruit, to he the Flowers of the Alder; but this is no

. more than a Dispute about the Name. I believe we bad hetter  
- take the Catkins for the Flowers. All these Parts are cor-  
rectiy engraved in the *Element de Botariique:* The Dyers and  
Hatters make a beautiful Biack with the infusion of Iron ami  
the Bark of the Alder: The *Hist. Lugde* relates. That a  
Tinchute is made of Vitriol and an Infusion of the Fruit of  
this Tree *s* Thus it is probable, the Bark and Fruits may con-  
tain the fame Principles as the Galls; *via.* a great deal of Acid

. and Earth. *Tragus* and *Dedonaus* made ufe of its Leaves as a  
Cataplasm, to soften and refolve Tumours. Alder Leaves are  
used in the *Alps* in Paralytio Cases,- especially when the Dis-  
ease has proceeded from an external Cause, as lying in the

. Fields or damp Hoofes. Thus some Sack-fulls of the Leaves,  
' either dried in the Sun or an Oven, are spread forth. Upon  
which the Patient lies, heing sufficiently covered with the same,  
and other warm Cloaths, till he has sweated plentifully. This  
Remedy is good for the Rheumatism, Sciatica, and such-like

; Diseases: Those that have the Pox receive no Benefit by it.  
*Martin's Towmefort.*

There are two other Species of this Tree in *England,* ac-  
cording to *uriiller, viz.*

is excellent for cenglntinating of Wounds, if bruised, andsp-  
plied to the same.

There are two Kinds of this Juice; one sandy, which seems  
to be the Dregs or Dross of the purest Sort; the other resem-  
hies the Liver. Chuse the sat, and unadulterated, which is  
void of Gravel, shining, yellowish, friable, resembling the  
Liver, easily moistened, and of an intense Bitterness; but re-  
ject the Black, and hard to break. Some adulterate it with  
Gum-Arabic, which may be discover'd by the Taste, and its  
Coming short of the Bitterness and strong Smell of the true ;  
and also in thatitwill not crumble to Dust between the Fingers.  
Some will mix Acacia with it. „

AS to its Virtues, it is an Astringent, procures Sleep, dries,  
condenses, loosens the Belly, and cleanses the Stomach. The  
Dose is two Cochlearia in cold Water, or Water heated  
Milk-warm. It stops spitting or vomiting of Blood, and purges  
off the Yellow Jaundice, .if taken to the Quantity of half a  
Dram or a Dram in Water. Swallowed with Resin, or  
drank in Water or clarisy'd Honey, it loosens the Belly. The  
Weight of three Drams is a complete Purge. Mixed with  
other Cathartics, it renders them less incommodious to the  
Stomach. The dry Powder sprinkled [επυπαθἐν, according  
to the Scholiast, for ἐπιπαςθἐν] on Wounds, conglutinates  
them, and heals and cicatrizes Ulcers. It has a peculiar Virtue  
in Exulcerations of the *Pudenda,* and heals the torn Prepuces  
os Boys. Mix'd in sweet Wine, it cures the Condyloma, and  
Fissures of the Arms. It stops the Flux of Blood from the  
Haemorrhoids, cicatrizes Pterygia, and takes off the livid Marks  
of Bruises and Blows in the Face, being mixed with Honey.  
It mollifies the Roughness of sore Eyes, and the Itching of the  
Canthh Mixed with Vinegar and Oil os Roses, and the Fore-  
head and Temples anointed therewith, it mitigates the Pain of  
the Head ; and mixed with Wine, puts a Stop to the Shedding  
of the Hains. With Wine and Honey, it is good for the Dis-  
eases of’the Tonsils, Gums, and the other Parts belonging to  
the Mouth. When used in a Collyrium, it is roasted in a  
clean white earthen Saucer," and stirred with a Spoon, till it be  
equally and thoroughly done. It is usual to wash Aloes, by  
which the sandy Part finks to the Bottom, and is set aside aS .  
useless; and the rest, which is of a Very sat and smooth Sub-  
stance, is reserved for Use. *Dioscorides, Lib.* 3. *Cap.* 25.

Aloes is no Violent Purger; is very friendly to the Stomach,  
like Wormwood. Two Drams in Hydromel are a Dose ; it  
purges Bile and Phlegm. It may be taken every Day aster  
Supper; for it pastes off the Stomach, without disturbing the’  
Concoction of the Food, and causes no Thirst, but excites an  
Appetite. Bruise your Aloes, and with the Juice of Cabbage  
make it into Pilis, of the Sine of a Chich-pea or Bean, of  
which you may take two or three at a time, as Necessity shall1require. You may also make it into Pilis with Resin, or cla-  
rify'd Honey, especially for those who cannot well endure its  
Bitterness. It is proper also to be mixed with Scammony, OF  
any other Cathartic, which is subject to lower the Spirits.

It is good for Quotidian Agnes, Yellow Jaundice, Pains in  
the Liver, Nausea, and Crudities. It is aS proper for Women  
as Men, and would be a Very fit Purge for Children, were it  
not for its Excess in Bitterness, winch Children cannot endure.  
*Orib. Made Coll. Lib.* 7. *Cap.* 27. *Ruffus Ephesius, Fragment,  
de Med. Purg. . ' . .*

*Aloes* is excellent forDlcers, that are difficult to be cica-’  
tri zed, especially those in the Pudenda, and about the Anus.  
*Orib. Synop. Lib.* 7. *Cap.* II.

Aloes does not purge the whole Body, but is a fine gentle  
Cleanser of the Stomach, Belly, and Intestines, from Bile and  
Excrements. For this Reason, it is prescribed to such as have  
their Heads affected with continual Vapours from the Stomach,  
as it carries off the Seeds, and destroys the Original, of the Dis-  
order. On the same Account it is proper for such as are  
troubled with sore Eyes, or are subject to a Dryness os the  
Mouth and Tongue, from a redundant Bile, or are. afflicted  
with the Heart-burn, Nausea, or any weakening Disorder. It  
is also given to such as are unaccountably pale, and want Eva-  
cuation, when a 'Clyster, for some Reasons, cannot properly  
be administer'd. The Dose is two Drams in Hydromel.. It  
may be taken every Day, either in the Morning fasting, or  
after Supper. Pound ‘ the Aloes, and make it up into Pills of  
the Size of a Chich-pea, with the Juice of the Rind of Citron',  
or, for want of that, with the Juice of Cabbage , it may also  
be done with Turpentine, or clarisy’d Honey. The Pills ought  
to be swallowed in Hydromel, or a Draught os the same should  
be taken immediately after. Purging Medicines attract, like a  
Cupping-glass, the Causes and Seeds of Distempers, that infest  
the principal Parts, and evacuate them by the Belly. *AEtius  
Totr.* **I.** *Serrn.* 3. *Cap.* 24. *Actuar. Meth. Med. Lib.* 5. *Cab.* 8.

To purge Bile, give a Dram of Aloes in the Morning. They  
who prescribe it in the Evening, or aster a Meal, do hurt;  
for it corrupts the Aliment., in a less Dose, as half a Dram,  
it only evacuates the Belly of the Excrements. Of all Ca-  
thartics, Aloes only is grateful to the Stomach. For such as

Alnus *foiio oblongo viridi, Co B.* The long-leav'd Alder.

Alnus *vulgaris stub conis ligulis membranaceis rubris donata.*The scarlet Alder.

This last Sort was sour’d in a Meadow near *Longleet* ; but is  
a matter of Doubt, whether it is a distinct Species, or some  
accidental Variety. *Miller.*

Another Tree, which is also called Ainus, is the

*Frangula, alnus nigra,* Offic. *Frangula,* Volck. Flor. Nor.  
173. Tourn. Inst. 6I2. Elem. Bot. 486. Boerh. Ind. A. 2.  
23 I. Dill. Cat. Giff. 66. Rupp. Flor. Jen. 3.4. Buxis. II st.  
*Frangula, sive Alnus nigr-a bacgiifera.* Park. Theat. 240. Rail  
Synop. 3. 465. *Alnus nigra, sive Frangula,* Ger. I 286. Emac.  
I47O. Met. Pin. 4. *Alnus nigra baocis.era,* J. Β. I. 506. C.'B.  
Pin. 428. Ran Hist. 2. I604. Chain 45. Merc. Bot. Iy.Phyt.  
Brit. 4. *Alnus baccifera nigra vulgaris,* Jons. Dendr. 436.  
THE BLACK ALDER-TREE. *Hale.*

This Tree never grows to any great Bigness, but shoots  
Ont into many small Branches, covered with a reddish brown  
Bark; it bears broad roundish, but sharp-pointed Leaves, about  
the Bigness of the Leaves of the Pear-tree, smooth, and full  
of Veins. The Flowers grow on the younger Branches, on  
the lower Part next the Trunk, several together, at the set-  
ting on of the Leaves, being small and white ; and are suc-  
ceeded by small round Berries, about as big as *si usurper* Berries,  
green at first, then red, and when ripe, blackish, full os a  
greenish Juice, of a bitter Taste, and having two flat Seeds  
in every Berry. The black Alder grows in moist thick Woods,  
as in *Hornsey* and *Hampstead* Woods, and flowers in *May ;*the Fruit is ripe in *September.*

The inner Bark of this Tree (which is of a yellow Colour,  
and tinges the Spittle like Rhubarb) purges serous and biliose  
Humours pretty smartly, and is commended for the Dropsy  
and Jaundice; but it ought to be corrected with proper Aro-  
rnatics, or else it wili cause cruel Griping and Vomiting: Beaten  
in a Mortar, and mix’d with Vinegar, it is accounted very  
food for the" Itch, the Parts being washed with the expressed  
siquor. It is rarely used. *MlUcr Bot. Off.*

. The Species of this Alder, according to *Mellen,* are

Frangula *rugosiore et ampliore folio. Tourn.* Berry-bearing  
Alder, with a larger and rougher Leaf.

Frangula *montana pumila saxatilis, folio subrotundo. Tourn.*Tow Mountain rocky Berry-bearing Alder, with a round Leaf.

Frangula *montana pumila saxatilis, folio oblongo. Tourn.* Low  
Mountain- rocky Berry-bearing Alder, with an oblong Leaf. - "

Frangula *sempcr-virens, folio rigido subrotundo. Hint. Eltham.*Ever-green Berry-bearing Alder, with a round stiff Leaf, Coin-  
Inonly called the *Hottentot Cherry.*. ALOE, a Plant thus named.

The Aloe is like a Squill, only. bigger, and with fatter  
Leaves obliquely striated. It has a tender Stalk, red in the  
Middle, and not unlike the Anthericos. The best comes from  
*India,* but it grows also in *Asia,* tho' the Leaves only of this  
latter are used for unglutinating of Wounds, for which it is .  
excellent, even the Juice of it; and for that Reason is planted  
in Pots like the greater Houseleek.. Some Cut the Stalk, be-  
fore the Seed is ripe, for the sake of the Juice; others cut the  
Leaves for tho same Purpose. Sometimes the Juice is found  
.sticking to the Plant like a Tear ; On winch account it is usual  
Io make a Pavement round it, that the Tear might not be ah-  
sorbed in the Earth. We are told that in *Judea,* above *sueru-  
soalem,* it is of a metalline Nature; but this is the worst Sort’  
of all, as being the blackest and moistest. *[This last Circum-  
stance* Salmasius *treats as fabulous* J

Aloe is of an inspissating, condensing, and gently warming  
\* Quality. It is useful for many Intentions, but principally for  
purging, since it is almost the only thing of that Nature,  
which is so far from heing hurtful to the Stomach in any  
respect, that it strengthens it. The Dose is a Dram ; but in  
a Resolution os the Stomach 'tis usual to give the Measure of  
a Cochleare (about a Dram) in one sixth of R Pint of warm  
Or cold Water, two or three times a Day, at proper Intervais,  
as Occasion shall require. The highest purging Dose is three  
Drams ; and it works th^better for making a Meal aster take-  
ing it. *Pliny* finished what he has to say of it, in ascribing the  
.same Virtues to it, as you have in *Dioscorides. Plin. Lib. yap.  
. Cap* 4..

The Aloe has a thick sat Leaf, like the Squill, of a pretty  
.. wide Circumference, and convex on the Outside. On both  
Sides of the Leaves are here and there some blunt Prickles,  
which stand obliquely, and seem broken. It sends up a Stalk  
.like the Anthericos, [the Stalk of .this *Asphodel,* according to  
*’. Pliny"}* which bears a Flower and Seed like the Asphodel. The  
. whole Plant has a strong Scent, and a Very bitter Taste. It  
X has bfit one Root, winch runs downward into the Earth, like  
a Stake.

It grows very plentifully,, and extraordinary fat and rich, in  
*India,* whence the Juice is exported. It grows also in *Arabia,  
Asia,* and in some maritime Places and IflandS, as in *Andros :*This indeed does not yield its Juice freely'and copinufly, but

Cannot cniiure Its Bitterness, it is prepar’d in Pills. *.AEgineta,  
Lib. '. Cap.* 4.

Medicines arc generally hurtful to the Stomach; and for this  
Reason, all Cathartics ought to have a Mixture of Aloes. *Celsus  
Lib.* 2. *Cap.* 12. *P.* 32. *E. ’*

The *Arabians* call Aines in their Language *Sabr,* and say, \*  
tlr.it the *Sabr Al Sseotherig* tljat is, the Aloes of *Tsocatra,* excess  
what they call *Schegeri* and *Hadramnthi,* or the Aloes that  
grov.s in the Countries of *Sebeger* and. *Hadramuth. Hirbelot  
Bibl. Orient. Art. Soccthorah.*

*Edrissi sms.* That the Aloes of *sgocotra* excess all others;  
and that *Alexander* the Great, being informed by *Arismtle,* of  
the Virtues of this Plant, transported the Inhabitants os the  
Hand to *Arabia* and *Ethiopia,* and settled a Colony of *Greeks*in their Room, whom he charged with the Cultivation os the  
Aloe.

The Inhabitants gather the Leaves in *July,* and boil them  
in great Kettles to get out the Juice, which, after boiling, re-  
mains at the Bottom ; this they take our, and expofe it in  
otner V eisels to the Heat of the Sun, during the Dog-days.  
*Hirbelot Bibl. Orient. Art. Sabr.*

The Plants from which the Aloes, commonly used in Medi-  
cine, are procur'd, are

I. *Aloe Ojsic.* J.B. 3. 696. Chain 54I. *Aloe,* C. Β. Pin. 286.  
Ran Hist. 2. 1195. cist. Oxon. 2. 4I4. Tourn. Inst. 366.  
Elern. Bot. 294. Boerh. Ind. A. 2. I28. Hort. Beaum. 6;  
Herm. Hort. Luga. Bar. 16. *Aloe Dioseoridic,* Colum. Ecph.-  
I. 4o. *Aloe Dioseoridic et aliorum,* Sloan. Cat. Jam. 15.  
Hist. I. 245. *Aloe vera vulgaris,* Munt. Alcod. I7. *Aloe  
vulgaris, sivesempervivum marinum.* Ger. Emac. 507. Park.  
Theat. 149. *Caraguaia Brasiliensibus,* Marcg. 57. *Caraguata  
tertia,* Pison. Ed. 1658. 193. *Kadanaku vel Cateuala,* Hort,  
Mal. II. 7. Tab. 3. COMMON ALOES.

1 It grows in both *Indies.* The Leaves are the useful Part of  
the Plant; and the inspissated Juice of the *Barbados* Aloe, is  
called the *Officinal Aloes.* This is sometimes of a shining Black,  
sometimes nearly of a Liver-colour, of a strong Smell, and  
extremely hitter. ' It is brought to us from *Barbados* in large  
Gourds. The Leaves are commended against Burns. The  
inspissated Juice has the same Virtues as the *Succotrine Aloes. .  
Dale.*

2. *AloeGuineensis Caballina vulgari similis, sed tota maculata,*Commcl. Praelud. Bot. 40. HORSE-ALOES.

. The inspissated Juice is used ; the impure, blackish, drossy  
Part of winch is called *Aloe Caballina* ; the purer Part, which  
is of a Liver-colour, is the *Aloe Hepatica.*

The above-named Author calis this Species *Caballina,* be-  
cause the Leaves, when broken, shed a Juice like the Horse  
Aloes. *Dale.*

3. *Aloe Succotrina,* Offic. *Aloe Succotrina angustisulia fpi-  
nose, flore purpureo,* Breyn. Prod. 2. I2. Hort. Amst. I. 91.  
Commcl. Prati ud. Bot. 40. *Aloe India Orientalis serrata, sive  
Succotrina user a, floribus phceniceis,* Hort. Beaum. 5. *Aloe  
Americana serrata, floribus coccineis.* Pared. Bat. Prod. 306.  
*An Aloe Americana Anona foliis, floribus suave rubentibus, ex  
codice Beniingiano,* P. P. Tab. 24o. Fig. An SUCCOTRINE  
ALOES.

It differs from the *Horse Aloes* only in Purity, aS some  
think. - It has not only a purging, hut a heating and drying  
Quality. It opens Obstructions, clears the Passages, provokes  
the Haemorrhoids and Menses, strengthens the Stomach, kilis  
and expels Worms, and purges bilious and phlegmatic Hu-  
mours.

The Root of the common *Aloes* is pretty thick, running  
deep into the Ground, not much divided, but with several  
Fibres about it. It has many long, narrow, thick, sat and  
juicy Leaves, roundish on the Outside, and hollow on the In;  
the outer Leaves inclosing the inward; they are prickly about  
the Edges, and sharp-pointed, of a wlsitish green Colour ; from  
among these the Stalk arises two or three Foot high, divided  
towards the Top into several Branches, on which grow many  
Bottle-like Flowers, of one single pretty large Leaf, divided  
at the End into five Segments, of a yellowish white Colour;  
each Flower being followed by a cylindrical Seed-vessel, di-  
tided into three Parts, and containing fiat Seed. It grows in  
*Spain, Italy,* and the *West-Indies.* Of this Plant is made the  
*Aloes Hepatica* of the Shops, or the *Barbados Aloes,* which is  
brought over to us in Gourds, of a Liver-colour, and a very  
nauseous Scent. It is made by gently pressing the Leaves  
pluck’d from the Roots, stroaking them downwards; by which  
the bitter Juice, which is contain’d in particular Veins, drops  
into Vessels set under; and having stood all Night, the thin  
Liquor is pour'd off, and the Sediment is dry'd and harden'd  
in the Sun, which is our *Aloes.*

*Trae Aloes Succotrma* is made the same way, but from .an-  
other Species of this Plant; *viz. Alae Succotrina fpinosu an-  
gustis.olia, flore purpureo,* Breyn. *Prodeom.* 2. *Aloe vera minor,*ο Mooting *Aloedar,* This is a lesser Plans, fuller of Leaves,  
more neatly made, bearing red Flowers, in Form and Shape

like the other, but less. The *Aloes* made os this Species comes  
over from the *Easi-Indics* in Skins; the best being made in the \*  
Bland of *Succotra.* It is blacker, more shining and brittle,-  
and when powder'd, of a fine yellow Colour, not apt to clot  
together after it is powder'd, and of but little Smell, in Com-  
parison to the other.

Aloes is a purging Medicine much in Use, and chiefly bene-  
ficial to cold moist Constitutions; it is not much given by  
itself, unless now-and-then to Children for the Worms; but is  
a main Ingredient in most of the officinal Pilis, as also in the  
*Species Hiera Pierce*; it is accounted a good Stomachic, and  
useful to carry off tough and flimy Humours from the Bowels,  
and good to mix with Steel to promote file menstrual Flux.  
Outwardly, it is serviceable in fresh Wounds, a little of  
the fine Powder heing put in them ; it is also mix’d with  
other Ingredients, and laid to Childrens Navels against the  
Worms. .

Officinal Preparations from *Aloes,* are. *Aloes Rjos.ata, Pilula  
de Aloe lota* and *Ale ephangina. Miller Bot. Osse.*

*Mellen* enumerates thirty-seven different Sorts of Aloes.

The Succotrine Aloes grows in *Zocatra,* an Ifland in the  
Streights of *Babel Mandel,* where they formerly prepared the  
Aloes by expressing the Leaves, and then letting the expressed  
Juice stand in a quiet Place, till an oily Substance rose at the  
Top. This Substance they took off, and evaporated it to the  
Consistence of an Extract. ’ -

Theouccotrine and Hepatic Aloes are both very good Burgers,  
but they rarefy the Blood, and therefore cause Haemorrhages,  
and other undesign'd Evacuations, to those who are subject to  
them. This Medicine ought therefore never to be given to  
Women with Child, or to those who are subject to Piles, *etc.  
Again»* Aloes, after its purgative Effect is over, is constipating;  
and therefore to such Persons as are inclined to be costive.  
Cassia is preferable. The Dose is from four Grains to half a  
Dram. The resinous Part, extracted by Spirit of Wine, will  
purge Violently ; and the gummy Part, extracted by Water, is  
a good Vulnerary, especially in Ulcers os the Bladder and  
Kinneys. The Tincture of Myrrh and Aloes is used to pre-  
Vent Mortification in Wounds. " *Geoffroy.*

The' Aloes does not belong to the Class of drastic Purga-  
fives, it has Strength enough to he sufficiently cathartic, and  
uses to excite Vehement Commotions in the Mass of Blood ;  
*so that λ* sew Grains are enough for a Dose. But if it he dis-  
solved in Water, Rain-water, for Instance, and boiled a con-  
siderable time, its cathartic Virtue is weakened, so that it has  
no Effect at all, except the Dose be augmented. *Hoffman  
Obs. Physico-Chy. Lib.* 2.

Laxative Preparations of.Aloes, both the Hepatic and Sue-  
cotrine, are Remedies of great Efficacy, provided the Aloes,  
hy proper Methods, be freed from its foreign Volatile and sul-  
phureous Principle, and stript of the Refin which closely ad-  
heres to the Coats of the Intestines. These Preparations must  
he administered in small Doses, and mix'd with bitter Extracts,  
and mild balsamic Ingredients. For this Reason the Pills which,  
were perhaps casually found out by *Bechcrus,* and which, ac-  
cording to his Method, ought to be prepar'd os the best Aloes,  
cannot he too highly commended, because they gently open  
the Belly, and restore the Tone of the Intestines, when weak-  
ened by any Distemper, to such a Degree, that other Purga-  
tives would be prejudicial to them. And tho' these Pilis pro-  
duce no considerable Effects upon robust Constitutions, and  
People of plethoric Habits, yet their Virtues are Very consi-  
derable, and exert themselves very speedily in Constitutions na-  
turally weak, or such as have been extenuated by Sickness,  
and in Women who are either in Child-bed, or who, thro' some  
Fault of the Womb, have their menstrual Discharges in an  
irregular manner. They are likewise proper for correcting and  
evacuating crude Humours, wlren the Digestion of those who  
are recovering of a Fit of Sickness happens to be bad ; they  
are also beneficial to those who labour under hypochondriacal  
Disorders, whose Stomachs perpetually throw up acid Crudi-  
ties. Preparations of Aloes, on the other hand, administered  
without a proper Corrector, or in large Doses, put the Blond  
into a quick Motion; for winch Reason,, plethoric Persons,  
such.as are easily wrought upon, or such as are subject to Dis-  
charges of Blond, ought altogether to abstain from Aloes, he-  
cause all aloetic Preparations have this peculiar Disadvantage  
attending them, that they excite Very painful Haemorrhoids,  
and drive the Blond towards the Region of the Loins, and Parts  
contain’d in the Pelvis. But besides the Pilis of *Becherus,*there are others not to he defrauded of their Worth, nor banish-  
ed from Use, in which Aloes is made up with other proper  
Ingredients, such as the *Pilulae Tartarea* of *Schroder,* the  
*Aleophangina,* the *Marocostina, Pilula de Succino Cratonis,*and those of *Solonander. Hoffman. Medic. Rational. Systemat.  
Tom.* 3. *Sect.* 2. *Cap. 5. \* '*

The Author might have added rhe *Pil. Rusisu* and some  
Others in our Dispensatory.

M. *Boulduc,* in his Treatise of Purgatives, considers Aloes -  
in particular. It ought to be pure, transparent, bitter, and i  
of a strong Scent.: It is reckon’d among ..the moderate Pur-  
gatives. ,1s. . . -

By M. *Boulduds* Analysis by Extraction, .it appears, thaL  
the *Succotrine* Aloes contains scarce half the Quantity of Re-  
fin, or sulphurous. Matter, and about a third more os a fa-\*  
line Substance, than the *Hepatic.* As for the Horse-Aloes, It is  
so impure, and contains so much Earth in Proportion to her  
Sulphur and Salts, that it deserves not.to be regarded. .Y '

The different Proportion of the Principles of the Succo trine  
and Hepatic Aloes, might well be the Couse of their different  
Properties. As the resinous Parses Aloes, contrary to other Ca-  
thartics charg'd with Resin, is littie or nothing Purgative; the  
Succotrine, which has the least of that Resin, has been always  
preferrdd to the Hepatic for inward Uses; and, on the con-  
trary, the Hepatic, which has more of'it, excels as much the  
other, on account of- its external Usefulness, sor cleansing os  
Wounds, and closing the Lips of recent Cuts, *etc.* M. *Boulduc*equalsst, in that respect, to the natural Balsams. 'Tis plain  
enough,: that these Effects areshe natural Result of. the rest-  
onus and halshmic Parts, /. - - :

.. The SalU-of Aloes are Very active, and corrode, the .Extre-  
mities of the Veins, where the. Fibres are finest, , whence pro-  
ceed Haemorrhages. Therefore it highly concerns us, that the  
saline Part, which wants to be restrain’d by the resinous, he  
not separated from st; and yet this is the Case in several Pre-  
parations os Aloes, when they have not been made by skilful  
Hands.*. They have rejected* the resinous Part, as too gross,  
and good for nothing, because it kept at the Bottom of the  
Solution. : M. *Boufduc* assures us, that he has been several  
times a Witness to the fatal Effects of a free Use of *Elixir  
Proprietatis,* and all Preparations os Aloes, winch have either  
heen ill made, or taken to Excess. ‘ '

*M. Boulduc* is. so far from approving a Separation of. the .  
resinous from the saline Part of Aloes, that, on the contrary,  
he would have them more strictly united by the Mediation of  
an Alcali, such aS the Salt of Tartar. We are not only to  
assist Nature under Disorders by Remedies, but lend her our  
helping Hand in the Remedies themselves. *Hist. de sc Acad.  
Roy. des Sciences,* 1708.

ALOES RosATA, Rosated Aloes.

’ Take of bright Succotrine Aloes in Powder, four Ounces ;  
of the depurated Juice of DamaIk Roses, one Pint ; and  
digest them together over a gentie Heat, till the super-  
fluous Humidity-is exhaled, and the Remainder is of a  
due Consistence for Pilis, *S. A. .*

This is ordered, in the *Augustane* Dispensatory, to he done  
three times oyer; and. in the *Pharmacopoeia Regia,* it is di-  
Tected with an Addition oTDiagrydium, and Refin of Scam- .  
.mony ; but that is now.rejected. The same Dispensatory also  
orders another, with Infusion of Violets ; but this is the most  
simple of them all, and the only One, that is now used in  
.Practice.. -

**PILULAE DE** ALoE ίιοτΑ, Pilis of washed Aloes.

Take of Aloes, dissolved in the Juice of Roses, and again  
inspissated, one Ounce; of the Troches of Agaric, three

. Drams; of Mastich, two Drams; Syrup of Damask  
Roses, a sufficient Quantity ; to make into a Mass for  
Pilis, *S. A. J .*

*in*

This is, ‘ in the *Augustane* Dispensatory, under the Title of  
*. Pilulae de Aloe lota incerti Authoris,* with the Addition of half  
. a Dram of the Species *Diamoschu dulcis. .* It hath stood also  
in the same manner in the College Dispensatories down to the  
present, which hath also rejected that Species out of the Num-  
' her of that Class. *Zwels.er* finds Fault with the Title, because

Aloes cannot properly be said in this Process, nor indeed in any  
other, to be washed ; and directs the Aloes Rosata to be used  
in its stead. There are many other Compositions in this Form  
with Aloes, in the *Augustane,* and other Dispensatories, aS  
particularly, one with Mastich, from *Nicolaus' Myrepsius* 5 .-but  
they are quite rejected from amongst the present Ossicinals.  
*Ssuincfoe London Dispensatory. . ' ' ' gul*

ALOEDARIA, cathartic compound Medicines, so called  
from Aloes, a principal Ingredient.

. Aloedaria os *Phflagrius,* gently purging with Honey of  
Roses. . - ’ - '

Take of Aloes six Ounces; of Costus, Spikenard, Carpo-  
balsamum. Flowers of Juncus odoratus, each one Ounce ;  
of Cassia, one Ounce; of Agaric, four Drams; of Sas.  
iron, four Drams; the Tops of Centaury, four Scruples;  
of Honey, two Ounces; Juice of Roses, four Ounces;  
Epithymum, one Ounce; of Rheum, eight Scruples; of  
. Asarabacca, four Scruples; of Xylobalsamum, fin Sent..

pies 5 os Mastich, eight ScrupleS. Mahe cheminto an

Electuary with Honey of Roses, and let the Dote he ac-  
cording to the Strength of'the Patient.

Another of the same, gentiy purging without anv manner  
of Trouble, and good for Pains in the Joints and Coins, but  
especially for the Sciatica, and opening Obstructions of the  
Liver. ’ ς . . .

Take of Isium, ζ*supposed 'to be the black Chamaleon)* eight  
. Scruples j of Agaric, four Drams ; of Aloes, two Ounces;

of Spikenard, eight Scruples ; of Flowers of Juncus Odo-  
ratus, eight Scruples ; of Saffron, four Scruples ; of Cassia,  
λ .. sixteen. Scruples; of Costus, eight Scruples; of Carpo-  
**1** balsamum, eight Scruples; of Honey of Roses, three

Ounces and eight Scruples.- Bruise them, and make them  
into Pills with the Honey of Roses, of which give five  
after Supper, every Day, or every other Days as you  
please. It is a Detergent of the Stomach and Joints,  
and chiefly purges Phlegm. You may dine and sup during  
the' taking of themas usual.; .

.' Another, that purges both Phlegm and Bile.

’ “Take'oftheTops of Wormwood bruised and strained, and  
- .. of Aloes Very finely powdered, each one Ounce; and  
with the Juice of Spurge, .especially the Myrtie-Spurge,  
make into Pilis, os the Bigness of a Kidney-bean, *of* which  
give Three at atirne.

*s* Aloedarium from *Philagrius,* purging Bile and Phlegms

Take of the Medulis, or inner Substance, of the Colocyn-  
this, Aloes, Scammony, each five Drams; Juice or '  
Tops of.Wormwood,\_ five Drams; with the Juice os  
Cabbage make them into Pilis, os the Bigness of a Cinch-  
pea, and give one-and-twenty at a time to adult Persons;

’ Another, approved by long Experience, which purges three  
Humours. ... . ' υ

Take of Aloes, Epithymum, Scammony, each two Drams ;  
of Colocynthis, Agaric, each one Dram; make them  
into Pilis with the Juice of Cabbage, and give fifteen at **a**time, S -

Another, shade in the City of *Tyre.*

' Take of Scammony, two Ounces ; of Aloes, One Drath ;  
Of Mastich, Bdellium, Pepper, Wormwood, each one  
Dram ; make them into Pilis with the Juice of Citrons,  
and the Rind of the fame, and give ‘ seven or nine at **a**time. If you would have them work smartly, give **the**Weight of four Scruples and a half, or more, ’

The Aloedarium of *Oribasius.*

Tins is chiefly design’d for fore Eyes, and principally purges  
black and yellow Bile. I'

Take of. Scammony, ope Ounce; Rind of black Hellebore,  
' one Ounce; Sal Ammoniac, one Dram; Root of All-

heal, three Drams; Pepper, Penyroyal, each one Dram;  
make them up with Water into Pilis like a *Grecian* Bean,  
and give seven of them at a time, so as they weigh nearly  
one Dram and a Scruple.

Another of *Oribasius. - .*

Take of Aloes two Ounces, of Spikenard, Asarabacca,  
Mastich, Saffron, Xylobalsamum,- each six Drams; of  
Cassia, twelve Drams ; of Epithymum, twelve Drams ;  
make them into Pilis of the Size of a Vetch, with a De-  
coction of Penyroyal, and give twenty-one for a Dose.  
 This cures Quartan Agues. They may .also'be made up  
with boiled Honey. *AEtius Tetrabib.* I.. *Scrm. 'r. Cs*

' I05. *etc. '*

ALOFEL, according *tD Rulandus,* or ALOE EL; according  
to *Johnson,* a Cloth made use of to cover a.Veffeh

ALOGOS, ἀλογως, is: an Adverb, used frequently when any  
thing is said to happen without sufficient Reason or Cause: Thus  
when a Fever disappears withont.any critical Evacuation, *Hip-  
pocrates* says it is resolv’d ἀλογωίί without sufficient Reason,  
and in this Case is subject to a Relapse.

ALOGOTROPHIA, ἀλογοτραφία, from ἄλογος, dispro-  
’ portionate, and τρέφω, to nourish. Unequal or disproportions  
. Nourishment, as when, for Example, in. the Rickets, one Pare

receives a- greater Degree of.Nourishment than another.

ALOHAR, ALOHoc, ALOSoHoc, or.AI.cscT. Quick-  
silver. - *Rulandus.*

ALOIDES. *Alee palustres,* Offic. Mont. 36.. *Aloides,*Boerh. Ind. A. 2. 132. *Aloe palustris, C.* B. Pint 386.  
John Hod. Bot. Pl. Ign. *Aloe sive Aizoon palustre, J.* Β.  
3. 787. Chab. 567. *Militaris aiiuides.* Ger. 677. Emac. 825.  
Raii Hist. 2. I324. Merc. Bot. 2. 26. Phyt. Brit. 75. Mer.  
Pin. 77. *Stratiotes,sue militario Aixoides,* Park. Theat. I249.  
Hist. Oxon. 3. 6I8. *Stratiotes foliis Aloes, seminar longs,*Gundelsh. ap. johr. Raii Synop. 3. 29O. *Stratiotes aquaticus  
Belgicus,* Bod. in Theoph. 406. WATER ALOES, or,  
FRESH WATER SOLDIER. *Dale.*

. It has Leaves like the Aloe, het shorter and finaller, and  
surrounded with short stiff Prickles, with Peds hetween them,  
like Crabs-claws, which opening, produce white three-leav'd  
Flowers, Very much resembling those of Frog-bit *(Morsus  
Rana,* Dale) and bearing small yellow Chives. Its Roots con-  
sist of long, round, white Fibres, Very like long Earth-worms,  
or the bigger Harp-strings, which from a short. Head, when  
the Plant puts forth Leaves, shoot down towards the Bottom  
os the Water, but seldom reach it. Besides these, it has other  
Fibres, which run obliquely, and propagate it after the man-  
ner os Frog-bit.

It grows in flow Streams, and Lakes of Standing-waters,  
and is often found in large Ditches by Marshes, with most of  
its Leaves and Flowers above Water, the rest of the Plant  
heing hid under it. . . ss

This Herb, in the Ifle of *Ely,* flowers in *June* and *July,* and  
sometimes in *August. ......*

The Fibres, with which it isfurinsh'd instead os Roots, are  
shewn- by knavish Mountebanks to old Women sor“’Worms,  
in a Vial full os Water, to make them look the higger, the  
Cheats pretending they have brought them away from their  
. Patients, by Virtue of their Medicines. *Raii Hist. Plant.*

The Herb is used, being accounted among the Vulneraries.

*Dale. - - ἐν si si*

ALOPECES, (Lat. *Vulpes)* Muscles of the Loins, the only  
ones of the Back, which grows to the Loins, otherwise called  
ψόαι, Psoai, and by some νευραμώτερες, (read, also 'νευραμήτρες,  
for which some substitute νεφρομῆτρεςχάτα^ι *Ephesius, Lib. i.  
Cap.* 30. ' ' ’ ' - : -

ALOPECIA. A Distemper attended with Baldness, all  
or most of the Hair sailing off It is deriv’d from ἀλώπηξ, a  
Fox, hecause this Animal is said to be Very subject to 4 Distem-  
. per which resembles it. tio .

The Antients, amongst whom the’Disorder seems to **have**been more common than it is amongst us, have been pretty  
long in their Accounts of thin Disease: But as *Sennertus* has  
collected from them all, I shall content myself with inserting  
his Abridgment, after having given the Sentiments of *Celsius.*

There are two Rinds of Areas, in both which it is common  
.for the outer Skin to grow dead, and the Hains first to wither,  
. and then fell off; and if the Part he wounded, a thin Blond  
issues out, of a foetid. Smell. Both Areas in some, are of'  
a quiches, , in others, os flower Growth ; the worst is, what  
condenses and pinguifies the Skin, find renders it quite hare and  
smooth. . ' - ’ \* . '

That, called άλωπεκία; *Alopecia,* spreads itself under any  
Figured and affects the Beard as well as the Head ; the other,  
. which, from its resembling a Serpent, is called *atictaif. Ophi-  
asis ,'* begins from the Back-part of the Head, and creeps about  
the Breadth of two Fingers, 'till it has extended its two Heads  
to both the Ears, and sometimes to the Forchead, 'till both  
Heads meet in one. The Alopecia comes at any Age, the  
Ophiasis seldom but to Infants ; the first is Very rarely taken off  
' without Medicine, the other often goes off of itself.

Some exasperate these Kinds of Areas by scraping them with  
a Knife, others anoint them with Catheretics mix'd with Oil,  
.especially burnt Paper, dipt in Oil. Others again spread over1the\*Place Refin of- Turpentine with Thapsia (deadly Carrot).  
But there is no hetter way than to shave the Part every Day  
with a Razor; for in cutting away by little and little the  
outer Skin, the Roots of the Hains are opened; nor must  
we desist 'till we see rhe Skin set thick with budding Hairs. It  
is proper to rub over the Place thus often shaved with Vitriol  
*Celsus,Lib.(i. Cap. An \_ ......*

*Of the* **ALOPECIA** *and* **OPHIASIS.**

There in a peculiar Sort Of Falling-off of the Hair, called  
'Αλωπεκία " Alopecia," and ’Οφίασις " Ophiasis." It has **the**Name *os Alopecia,* because such a Destuxion of Hairs often  
happens to Fmgs; and it is termed *Ophiasis* from the Figure of  
the smooth aagjibald Parts, which wind about in the manner  
of a Serpent. - In both these Affections it is common for **the**Hair to fall off by Handfuls at a time, so aS to leave whole Spots  
quite hare; whence the Disease has also the general Name of  
*Area,* [a hare Pint of Ground] and *Celsus* treats of Areas, Alo-  
pecia, and Ophiasis, in the same Chapter. It took the Name  
**os** *Area* from **the** Areas you fee in Gardens in the Country;

- ’ sor as these are Plots disposed here and there, and are bare and  
naked, as having nothing growing on them, so does the Skin,  
in this Affection, at Certain Places, appear smooth and bald.

However these\* Affections differ ah least in Figure; for the Alo-  
pecia has no determinate Form, but, as *Celsus* says, extends  
itself under all Shapes ; but the Ophiasis creeps winding like a  
Serpent, sometimes from the Back-part of the Head on both  
Sides, as far aS the Ears, and of the Breadth of almost two  
Fingers; sometimes it. passes by the Ears, and extends itself,  
creeping like a Serpent, to the Very Forehead. Besides, in the  
Ophiasis there seems to he more Malignity in the Cause, since  
not only the Roots of the Hains, but the Cuticle itself, is cor-.  
roded as sar aS these Roots reach. From what has been *said,*the Alopecia and Ophiasis may he defined, a Defluxion of the  
Hains os the Head, winch lays whole Places bare at a time,  
and owes its Rise to a deprav'd and corrupted Humour, that  
Corrodes the Roots of the Hairs. -

The Author of the Treatise, *De Medicamentis facile para-  
bilibus,* reckons Alopecia and Ophiasis among the Affections  
which change the Colour of the Hain. But we ought to rake  
Notice, that this Alteration is not a Property of that Destuxion'  
of the Hain, winch occasions Areas; but the Change of Co.  
lour in the Hain either precedes the Alopecia and Ophiasis, as  
when the Hairs from a Vitiated Nutriment first turn white, ..  
and afterwards fall off; or this Alteration happens after the  
Alopecia and Ophiasis. For when the Hairs spring afresh  
upon these Areas, or bare Spots, they appear white or yellow,  
as white Halrs use to grow upon the healed Spot os an Ulcer  
in the galled BackOf a Horse, which owe their Colour to a  
vitio us Nutrition, and the Tenderness of the Skin. This is  
hinted also by *Celsius, Lib.* 6. *Cap.* I. where he observes, that  
the Ophiasis affects only the Hair of the Head; but theAlo-  
pecia extends itself to the Very Beard. '

The. Cause of both Affections is a depraved and acrid HtI-  
mour, of some Kind or other, that corrodes the Roots of **the .**Hains; tho' they generally proceed from a salt Phlegm, adust  
or putrefy'd. Hence *Galen, De Digs. Sympt. Cap.* 4. writes,  
that these Maladies are the Consequence of a depraved Nutri-  
’tion of the Skin of the Head. The Reason why sometimes an  
Alopecia, at other times an Ophiasis, are occasioned, orthat .  
the Hains sometimes leave a strait, sometimes a crooked Area,  
is owing to the Quantity and Quality of the Matter:. For if  
the Matter he thinner and more copious than ordinary, it cor-  
rodes the Hains alike in more' and larger Spots ; if it. he  
scantier, and mix’d with a gross Humour, the Destuxion of  
Hairs becomes unequal and crooked, because the Humours, br-  
ing various and mixed, don't readily take their Course strait  
forward, butcreep obliquely, corroding theHairs in theinWay.

The more remote Causes are the Heat of the Liver **and**' Head, and especially aFault in the first and second Concoction, .  
by which means salt and acrid Humours are generated. This  
Infirmity is incident to all Ages, but especially to Childhood,  
and succeeds the *Tinea, Achores,* and *Favi.*

Sometimes this Disease is produced also from external and  
malignant Causes, among winch *Galen, De compos. Med. Sec.  
Loc. Lib.* I. *Cap.* 2. accounts eating of Mushrooms, because  
they contribute much to the generating of Visions and corrupt  
Humours.' Among other Causes of this Rind, we may reckon  
the Pox, which also corrodes the Roots of the Hairs; and other  
malignant and contagious Distempers .may. heve the same  
Effect. ' ' ' : Ἀ ’

The Alopecia is distinguish'd from the. Ophiasis by the Form  
of its Area, and in that it occasions only a Falling-off of **the**Hair, whereas in the Ophiasis not only the Hairs sell off, but  
the Skin is excoriated, and changes its Colour, sometimes turn-  
' ing whiter, sometimes paler, or blacker ; and if it be.pricked,  
a serous Blood issues out. ’ \* ......

The Alopecia and Ophiasis differ from the Tinea; for in  
the Ophiasis the Excoriation in the Skin is but superficial, and  
when it is healed, the Hains grow again; but in the Tinea, the  
Excoriation and Exulceration are deeper, and the Skin is often-  
times so Vitiated, that the Hairs never grow again.

**AS** to Signs of the Causes, the kind of peccant Humour may  
he known by the Colour of the Skin ; for the better Observa-  
tion of which, the Hairs which are left, are to he shaved off,  
and the Skin gently rubbed; and there are other Signs by which  
you may know whet Humour abounds in the lpody. The  
Halrs also, when they grow again, will shew by their Colour,  
which Varies, according to the Nature of the morbific Matter,  
what kind of Humour is the Cause of this Affection.

The Alopecia and Ophiasis, tho' not attended with much  
Danger, occasion Deformity; and among the *Ramans,* these  
Slaves, who were affected with an Ares, and especially an  
Alopecia, were sold at a lower Price; and, in our Times,  
these Areas are matter of Disgrace, as giving a Suspicion 'of  
the Pox. . /

Whether **the** Alopecia or Ophiasis be most easy to cure, Au-  
thors are divided in these Sentiments. *Celsius* and *Avenzoar* write,  
that the Ophiasis in sooner cured than the Alopecia. *Alexander,  
Lib.* i. *Cap.* 2. and *Serapion, Lib.* I. *Cap.* I; say the contrary.  
But *Celsus* seems to speak chiefly of the Ophiasis of In sants, which  
often goes off of itself, by the Benefit of Age and Change: But  
in Adults, indeed indnyAge, if theAlopecia and OphiasiShecom- .

pared together, the latter seems on all accounts more difficult  
to cure, as owing its Rise to a grosser and more malignant  
Humour, that .corrodes not only the Roots of the Hairs, but  
the Skin itself, which does not happen in the Alopecia.

The more inveterate either of these Infirmities is grown,  
the more stubborn, it is to be remedied ; and the contrary.

-If the Place grow red. with Friction, there is Hope os a  
Cute; and.the sooner.in does so, the easier will the Cure be ;  
if the Place grows not red with Friction, 'twill be in Vain to  
attempt a Cure.

. The worst Kind Of Areas is, where the Skin is thick and .  
sottish, -and absolutely bald and smooth.

- Alopecia and Ophiasis froth a Leprosy, are incurable; from  
the Venereal Disease, are not to be cured, hefore that Distemper  
ds removed.

... There is good Hope of a Cure, when the Extremities of the  
Areas adjoining to the standingHairs, hegin to send forth Hairs:  
For the Parts next the sound ones, are less perverted from their  
natural State, and are therefore, sooner restored, and begin to  
produce Hairs. . ; -

\* If a VitiouS Humour abounds in the whole Body, it is first  
of all to he evacuated; otherwise it would continually foment  
the Disease And so if it accompanies the *Lues Venerea,* this  
latter, must first he cured, before the other can be removed.  
So also aDistemperature of the Viscera, on which depends the  
Generation of Vitious Humours, is to be Iectify'd. The an-  
tecedent Cause heing removed, the continent or immediate  
Caufe is to he taken off This *Galen* effects by Repellents and  
Digestives; hut Care must be taken at the same time to restore  
the Skin to its natural Temperament. '

: First then, the whole Body is to be purged by Remedies ac-  
commodated to the.Nature of the peccant Humour. After.  
this, *Galen* prescribes an Apophlegmatism for Evacuation of  
the Head in particular.

As to the Matter, while it is yet fluctuating, and in its Be-  
ginning, before the Areas are formed, *..Galen* makes use of  
Repellents. Tins is what *Avisma* also advises, when he telis,  
that the. Remedies for an Alopecia must he such as, by a mode-  
rate Astringency, strengthen the Skin of the Head, in *Septima  
ofuartiT.ract.* **I.** *Cap. 6.* " These Medicines, says he, must he  
" of a corroborating and repelling Quality,.by which means  
**\*5** the Head may he guarded against the Influx of the malignant  
\*6. Matter." But where the Alopecia and Ophiasis are already  
formed. Repellente have no Place, neither in these Cases, nor  
in. the Itch. ' :

If the Areas are already formed, and the Matter lodged in  
**the** Skin, Digestives are to be used. These are to be hot in  
.Quality, of fine Parts, and not too dry; for if they should be  
**.of** a drying Nature, they would not only discuss the vitious  
Humours, bur also what should nourish the Hairs.- And if the  
Temperament of the Skin he too het and thy, aS in is in con-  
firmed Areas, coaling and moistening Medicines are to he in-  
tennixid with the other Topics.

δ᾽' The Remedies which remove the proximate Cause of this  
Malady, are called μείασυζκριτικἈ " Metasyncritica ,' [See  
the Word]. Here, first, if any corrupt Hairs still remain, they  
are to be drawn out either with Tweezers, or by Dropacism;  
or the Place must be shaved with a Razor. Then the Head  
must he washed with Dye, in which Capillus Veneris, Poly-.  
trichum, Abrotanum, and such kind of Herbs, haVe heen boiled;  
after the Washing, let the Place be rubbed with a Linen Cloth,  
not too soft, nor too dry, till the Skin begins to grow red ;  
after winch let Topics be apply'd, such as Mustard, Nastur-  
tium, and Roots of white Lilies, (which last are also said to  
restore the Hains after Combustions) Rocket, seed. Nitre, Oil  
of Bays, Tar, Sulphur, the Powder and Ashes of Abrotanum,  
the Root of Sowbread, os Hellebore, the Seed of StaVes-acre,  
Pigeon's Dung, and; which are stronger than all the rest,  
Thapfia and Euphorbiuin; these last, the fresher they are,  
the more they retain of Acrimony, which they lose by being  
kept. Choice is to be made of these, as shall appear best suited-  
to the Case, and due Application is to he made. For not all the .  
Medicines just now enumerated are proper for all Areas, at all  
Seasons, in all their Degrees, and whether more or less inve-  
terate ; for each has its proper Season and Measure: To a be-  
ginning and flight Disease, 4 weak Remedy; to an inveterate  
one, strong Medicines are best accommodated; to tender Bodies,  
as of Women and Children, gentie Topics,, to those of adult  
Persons, and Men, smarter ones are to he apply'd.

*Galen, De Compose Med. Sec. Lora, Lib.* **I.** *Cap.* **I. has**many Compositions to this Purpose, examin’d and approv'd by  
Iong Experience, such as those of *Horas, Crito, Orcsiiinus,  
Ortho Siculus, Cleopatra, Archigenes, Asclepiades, Dionysiodorus,  
Soranus,* and others. He himself recommends the foliowing:

Take of the Leaves of Arundo Graeca burnt, four Ounces;  
of Hedghog calcin'd, one Dram; of Mouse-dung, two  
Drams [in *Galen* it is two Ounces] ; pound them in  
Vinegar, and anoint the Parts affected. Or,.

Take of the Ashes os burnt Reed, Goats Hain burnt.  
Maidenhair, Bear's Fat, Tar, Cedar-Turpentine, of each  
. an equal Quantity.' This he calls an admirable Remedy,  
.Os, - '

Take of domestic Mice burnt. Linen Cloth burnt. Horses  
Teeth calcin'd. Bearis Fat, Stag's Marrow, Bark of Reed,  
of each equal Parts; of Honey, a sufficient Quantity;

. make them into an Ointment. Or,

Take ofEuphorbium,Thapfia,Oil ofBays, each two Drams,  
Sulphur vivum. Hellebore, each one Dram; Wax, **fix**Drams; melt them up, and mix them together with Oil \*  
of Bays, or old Oil, or Tar. .This is the strongest Medi-  
cine of all, and best accommodated to the Disease, when  
grown inveterate, 4. i

In a more moderate Degree of the Distemper, a Remedy .  
prepared of Abrotanum, or the Roots of Reed burnt, . -  
mixed with old Oil, or Oil of Bays, or Tar, will be fuse  
sicient. Or,. ‘ .

Take of‘Rocket-seed, Nasturtium; Nitre, and mix them  
with Oil of Bays, or Tat. Or, which is milder, and

. adapted to Women and Children,

Take of Abrotanum, the Ashes of the Root and Bark of.  
Reed, Frankincense, an equal Quantity; of Bearis Fat,  
and Oil of bitter Almonds, a Sufficiency. Make a Lini-  
ment. \* If there be Occasion to make it. stronger, you  
may add Froth of the Sea, Sulphur Vivum, Ox Gall,-  
Rocket, Nitre, or even Thapfia. Or, ’

Take os Mustard, Thapfia, and Seed of Nasturtium, equal  
Parts; reduce them to a fine Powder, and add thereto  
Oil of Bays and Resin, of each a sufficient Quantity; .  
and make thereof a Plaister by the Fire-side.

A Multitude of such Remedies are every-where to he found  
in the Works of *Viilescus de Toranta, Rondeletius, Hillertus,  
T.rincavellius,* and other practical Physicians.

In using the stronger Kinds of Medicines, observe to apply  
the softer and more liquid Sorts, and such as ate temper'd with  
the Mixture of Oiis, which moderate in some measure their  
Porce; and then taking Notice of what Alteration is wrought  
in the Part affected by the first Medicine, increase or diminish  
its Strength, as you see Occasion. Now an Alteration may  
he best discover’d by attentively observing whether the Skin he  
Sown redder, or will redden with a strong or gentie Friction.

or the greatest Care is to be taken, that the Skin be not  
parched by the repeated Use of the stronger Medicines. It is  
farther to he observed, with respect to compound Medicines,  
that, if the Parts are quite bare, they are fittest m be used in  
a solid Form, as by way of Planters; but if the Hairs are not  
clean gone, more liquid and softer Forms, such aS Liniments -  
**and** Ointments, are most convenient.

The milder Topics must remain Night and Day on the Part,  
that they might he able to exert their Force; the stronger ones,  
till you can perceive they have made some Alteration in the  
Skin, and Pain begins to he felt.- Therefore in using these  
latter, the affected Part is to be inspected once or twice every  
Day; and if they have had too rough in Effect, recourse must .  
be hed to milder ones; and the Part is to be anointed with the  
Fat of a Goose, Oil of Dill, or some such Anodyne Medi-  
cine ; for if the stronger Remedies he kept on longer, they will  
burn the Skin. Thus *Christophorus a Tessa* writes. That he  
had seen not a few Persons, who by the Use of too forcible  
Medicines, were reduced to a perpetual Baldness,- or remained -  
all their Life-time without a Beard.

A Regimen of Diet is also Very effectual in the Cure of air  
Alopecia and Ophiasis. Such Meats are to be chosen as generate  
good Blood, and put a Stop to the breeding of ill Humours. Let  
the Food he such Eatables as contain a good Juice, which may  
rectify the depraved Fluids. Let the Patient abstain from Wine  
till the Body be purged; for Wine serves aS a Vehicle to carry -\*  
the detained and corrupt Humours into the Veins. After suf-  
ficient Purging, Wine that is mild, and of a sweetish Taste,  
may be indulged, since it nourishes much, and generates good  
Blood. A warm Air suits best with the Patient. *Senacrtus,  
Lib.es Part.* 3. *Sect.* 2. *Copy* 4. et

ALOPECUROS, from ἀλῶπηξν .κ Fox, and orsta a Tail,  
It is a Plant thus distinguish'd ;

ALOPEcuROS, Offic. Ger. 8I. Emac. '87. *Alopecuros gda  
nuina,* Park. Theas, II66. Hist. Oxon. 3. i9I. *Gramen.Alo-  
pecuros sipsm brevi,* J. Β. 2. 474. Chain 186. Raii Hist. 2»  
I265. *Gramen Alopecuroides spica rotundiore,* C. B.. Pin. An  
Theat. 56. Boerh. Ind. A. 2. I59. Elem. Bot.4i8. *Gramen  
spicatum tomentos.um. lonaiflimis aristis donatum,* Tourn. Irish  
5I-7. FOX-TAIL. *Dale, su*

lr is a very, wader Herb, with a short Spike of about two  
Inches, pretty round, and nearly resembling a Fox’s Tail, white  
and thin. The Husks that hold the Down are almost hid by  
the Thickness of the downy Tufts, and are pretty long-beard-  
ed,’ fofr. and of a circular Form. The Stalk has many Joints,  
ano grows to the Height of a Cubit, or a Cubit and half, befet  
with grassy Leaves, which are cover’d with very sine soft Hain.  
The Root is small, white, and has abundance of Filaments.

It is obferved to grow in *Sicily,* at *Baia in Italy,* and in  
*Languedoc* near *Fronciane,* chiefly in sandy Ground, but with  
a short Spike, and a low Stalk, not above a Foot high, and  
ven. sicnder in the upper Part. *Raii Hist.* I265.

I don’t find any Virtues ascrib’d to it.

*Ray,* hesides the above, enumerates the following Species:

I. *Gramen Alopecuro senile Glabrum, cum Pilis longiusculis  
in spica, Onccarden mihi denominatum, I.* B. *Alepecursides Ma-  
ser,* Ger.' *Phalaroides Jldajus,P2ak.* Gr. *Phalaroides majus,  
seu Italicum,* C. B. *et forte etiam Phalaroides spica molli, five  
Germanicum,* C. B. Park. The MOST COMMON FOX-  
TAIL GRASS. This grows very plentiful in Meadows and  
Pastures throughout *England.*

*a. Gramen Aquaticum geniculatum spicatum,* C.. B. *Aland..  
atile spicatum,* Ger. *Aquas spicatum.* Park. SP1KED  
FLOTE-GRASS.

3. *Gramini Caudae Muris purpurascenti aliquatenus sensile,*J. B. '

4. *Gramen Alppocurinum minus,* Ger. *Atspecurcides fplaa  
longa majus et minus.* Park. *Typhoides,* V. *Seu spica angustiore,*C. B. *Cum Cauda Muris purpurascente,* J. Β. THE LESSER  
BASTARD FOX-TAIL GRASS. ‘

5. *Gramen pumilum hersatum fplaa purpuro-argentea molli,  
nostras.* THE DWARF HAIRY FOX-TAIL, WITH  
A SILVER WHITE SPIKE INCLINING TO PUR-  
PLE.

6. *Gramm Alapecuroides spica aspera,* C. Β. *Alep. spica  
asp. brevi.* Park. *Gra. cum cauda Leporis aspera, five spica  
murina.* J. Β. *Alppocurcides fplaa aspera Bauhini.* Ger. Emac.  
ROUGH-EAR’D FOX-TAIL GRASS.

7. *Gramen Alepecuros spica longa tomentofa candicante,* J. B.  
*Alepecuros major spica longiore,* C. Β. Gr. *Alopecurcides alte-  
ram radice repente, seu Pseude-Schcenanthum Aionfpelieastum,*Park. . *Schcenathum adaltermum,* GeI. GREAT’ LONG-  
EAR’D FOX-TAIL GRASS.

: 8. *Alepccuras maxima Anglica,* Park. *Altera maxima Anglica  
paludofa.* Ger. Emac. *Altera maxima Anglica paludosa. Jive  
Gramen Alapecuroides maximum,* J. Β. Lob. *Adv. pare. alt.*GREAT ENGLISH MARSH FOX-TAIL GRASS.

9. *Gramen Alapecurcidi accedens ac Phalaridi, spica lrngi-  
- useula, folio lanuginose,* J. Β. *Typhoides molle,* C. B. *Ale-  
pecuroides minus,* Ger: Long-eaFd soft-leaved FOX-  
TAIL. .. . . -. -

Io. *Gramen cum cauda muris, follis hirsutis,* J B. *Ty-  
phoides culmo reclinato,* C. Β. *Alopecurinum maius,* Ger.  
THE GREAT BASTARD FOX-TAIL GRASS.

II. *Gramen Alepecuros altera Lubelii,* J B. ONE OF  
THE SPECIES OF FOX-TAIL OBSERV’D BY  
LOBEL.

’ 12. *Gramen Alepecuros minos spica longiore,* C. B. *Cauda*

*vulpina Manspelienstum,* Adv. Lobel. FOX-TAIL OF  
MONTPELLIER.

13. *Gramen Typhoides maximum spica longissema,* C. B.  
*Typhoides maximum.* Park. *Typhonum tertium.* Ger. Emac.  
THE GREATEST CATS-TAIL GRASS. *Raii Hist,  
p.-ssup.*

AL0PEX is a Sea-fish, mentions! by *Oribastus, (Med.  
Coll. Lib.* 2. *Cap.* 58.) among those which frequently  
come up the Rivers into fresh Water, and are hard of Coh-  
coctian. .

ALOSA sive CLUPEA, the Shad: It is a Sea-fish, which  
often travels into Rivers; it grows to the Bigness of a Salmon;  
it is cover’d with large Scales, but thin and easy to be pulled  
off; it is sharp-snouted, and has no Teeth; there appears at  
the Top of its Head, above its Eyes, a Bone or a Scale on  
both Sides, which js bright and shines; its Tongue is blackish,  
the Back is of a yellowish White, the Sides and Belry of a  
silver Colour. This Pish loves Salt, and has a delicious Taste;  
it contains a great deal of voiatile Sale and Oil. When this  
Fish is not very fresh, it tos a Taste somewhat acrid, which  
Offends the Gums of those wne st.

They find in the Head of this Fish a stony Bone, which is  
Aperitive, and good for the Gravel and Stone, and to absorb  
Acids, being itself alcaline.

The Stomach of this Fish, dried and reduc’d to Powder, is  
.proper to strengthen the Stomach, being taken inwardly.  
*Lemery de Drogues.*

It agrees in the Spaing, when ,t is better than in any other  
Season *of* the Year, with any Age and Constitution, provided  
it he moderately used.

It’s said this Fish is so afraid inf Thunder, that the Noire  
thereof many times kills it out of Fear. *Pondelcrius* says.

that he hed seen some of them, bv playing on the Lute, run -  
and sitio about on the Face of the Water.

They pickle Shad to keep, and for the exporting it into-  
other Pans ; but ’tis not so well tasted as before. *Lemery on.  
Foode.*

ALOSANTHI, Flos Salis, Flower of Salt *Rulandus.*

ALPAM. This is the Slliquosa Indica flore tripetalo, sili-  
quis teretibus, pulpa absque seminibus repletis. *Raii Hiest.  
Plant. ‘ "*

The Stem of this Piant, which divides itself twice or thrice,  
" is covered with a Bark of an ashy, green Colour, inodorous,  
and os an acid astringent Taste. The Branches are of a whitish  
Wood, heve a green Pith running thio’ them, and are distin-  
guished into Joints. The Root is red, composed of a great;  
Number of capillary. Fibres, which disperre themselves 02.  
every Side. The Leaves are of a narrow oblong Form,,  
and terminate in a sharp Point, of a Deep-green on the  
Outside, hut pale on the Imide, heve their main Rih very,  
milch branched, are interwoven with many Veins and Fibres,  
and are set single on thick, short Pedicles, which are flat on-  
the Inside. They heve a Smell not ungrateful, and taste some-  
what acrid. The Flowers, which are of a dark-purple Colour,-  
and inodorous, grow on very sicnder, round Pedicles, some-,  
times two or three together, and consist of three broadisu,  
sharp-pointed Leaves, which are covered on the Outside with  
very white Hairs, and in the Middle heve their Stylus divided  
into three oblong, red Stamina or Chives, that cross one an.  
other. To the Flowers succeed the Pods, which are sharp-  
pointed, round, and full ofa carnose Pulp, but without Seeds,  
at least any that are discernible.

It delights in sandy, open Soiis ; and is sound in great  
Plenty in *Aregatti* and *Mondabelle,* and many other Places, o

It bears Flowers and Fruit, as . well at the End of the Year  
as in the Beginning, and is always full of Leaves.

Any Part of this Shrub, made into an Ointment with Oil, is  
a powerful Remedy in case of the Scab, and old Ulcers.

The Juice of the Leaves, with Calamus Aromaticus', is  
good against the Venom of Serpents; and the Root bruised  
with Juice of Lemon, tied in a little Knot, and thrust up **the**Nose, by way of Errhine, is esteemed a Specific against the  
Bite of the Serpent called *Regulus,* or *Cobra Capella.* The  
Poison of a young *Cobra Capella* is also expelled by the Root  
drank, in CowS-milk. For the fame Purpofe Cataplasms are  
likewise used, made of this Root and Calemus Aromatious.

.ALPHABETUM CHYMICUM. *Raymond Lully has*presented the World with a Chemical Alphabet, but to whet  
End, and with what Design, will be a difficult Matter to dis-  
cover, especially till it can be understood ; and till then I shall  
beg leave to give it in his own Words, it heing very difficult  
to transtate whet one cannot comprehend.

*Significationes Literarum hujus Testatnenti.*

. Α *Significat Deum.*

B *Significat Mercurium.*

- C *Significat Salis petram. ' .*

*D Significat Vitriolum.*

E *Significat Menstruale.*

F *Sigulstcat Lunam claram,*

G *Significat Mercurium nostrum.*

H *Significat Solem purum.*

**I** *Sigulstcat compasctum Luna.*

K *Sigulstcat cornpasttum Solis.*

L *Sigulstcat terram compesiti Luna.*

M *Sigulstcat aquam compcseti Luua.*

N *Significat aerem compesiti Lunae.*

O *Sigulstcat terram compesiti Solis.*

P *Sigulstcat aquam compesiti Solis.  
QJSigulficat aerem compesiti Salis.*R *Sigulstcat ignem compesiti'Solis.*

S *Sigulstcat lapidem album. .*

Τ *Sigulsaat Aiedicinam ccrperis rubei.*

U *Sigulstcat calorem fumi secreti.*

X *Sigulsaat ignem siccum cineris.*

Υ *Sigulstcat calerem balnei.*

Z *Sigulstcat separationem Liquorum.*

S *Sigulstcat alernbicum cum cucurbita.*

ALPHENIC, an *Arabie* Word, which signifies Sugar-  
candy, or Barley-sugar. *Blancard.*

ALPHESERA, the same as ALFESERA, which see.

ALPH1TA, ἀλφιτα, the Plural Number of *if.at-ror;* it is  
said to signify, strictiy, the Meal of Barley hull’d and parch’d ;  
though forne take it to he the Meal of Barley, as ἀλευρον, ac-  
cording to their Interpretation, is the Meal of Wheat. It is  
certain, hewever, that *Hippocrates* uses ἀλφιτα to express the  
Meal of all sorr5 of Seeds. And *Galen* telis us. It signifies  
Meal' of a moderate Fineness; whereas κείμνα signifies the  
coarsest Sort, and ἀλέυρμ the finest; and this Explanation seems  
the nearest to Truth.

- Ἀλφιτα .προκώνια is also mention’d by *Hippocrates,* and signi-  
fies probably Meal made of very new tender Barley, before it

was

was laid to dry. in the Granaries.' It seems it was the Custom  
amongst the Antients, especially thofe who liv’d in moist Situ-  
ations,. to set a Post erect upon a Floor, and lay their Barley  
round it, to dry, so that the Heap resembled a Cone (κῶνος).  
*vAyAfra. peerndvea* then was Meal made of Barley, before it was  
laid to dry in this manner; though *Galen* says, some took it  
to signify Meal made of Barley unparnind.

Hence ἀλφιτον was also taken for a kind of Hasty-pudding,  
which the *Romans* call’d POLENTA. It was generally  
made of Barley-meal moisten’d with Water, or any other  
Liquid, as Wine, Must, or. Hydromel. This was a very  
common Food, ofpecially amongst the Soldiery, and therefore  
we may conclude ft was esteemed very coarse. *Hippocrates*frequently orders ἀλφιτα medicinally, without Salt (άναλτα).  
Hence .

ALPHITEDON, ἀλφιτηδὀν, was apply’d to a Fracture,  
when the Bone was broken into very small Fragments, like  
Alphita. ...

ALPHUS, ἀλφος, one os the three Species of *Vitiligo,*the other being *Melos* and *Cause,* described by *Celsos; in*which, says he, the Skin is of a white Colour, with a kind  
of Roughness for the most part, not continuous, but sprinkled  
with somewhat like Drops; sometimes it spreads to a consider-  
. able Breadth, with some void Intervals. *Celsos, 'Lib. su  
- Cap.* 18. . .

. Some Authors make but two Species of *Vitiligo,* compre-  
hendingthe *Melas* under the common Name ALyKUs.

„ The *Alphi* bear the same Analogy to the *Lessee,* [λεὑκη] as  
the Scabies to the Lepra : For the *Liuce* commonly deseends  
deep in the Flesh, and infects the Hains with their own Colour,  
but the *Alphus* sticks in the Superficies; though now-and-rhen  
they take deeper Root, and also change the Colour of the  
Hairs. The *Alphus,* for the most part, is of a milder Nature  
than *thsL.euce,-* and gives way to moderate Remedies; but  
when grown inveterate, it approaches more and more to the  
Nature of the *Leuce,* and has: Need of the same Medicines.  
*Actuarius, Meth. Mede Lib. 2. Cap.* II.

The Species of Vitiligo called the *Leuce,* is generated from  
a pimitous and glutinous Blood, which by Length *of Time  
assumes* a- whiter Colour. The Alphus has a like Original,  
hut does not penetrate the Flesh, - sticking only about the Skin.  
The Alphus si generated from a pituitous Humour, the biack'  
from ini atramliosis. The Lepra is generated by a Humour  
that strike deep within the Flesh, but the Scabies principally  
affecti the Superficies of the Skin.

... One of the most certain Remedies for these fort of Distem-  
perSis to wash the' Parts affected with Lime and Water, made  
considerably strong or thick, which is done by pouting Water  
irpon Lime-stones washed and dried But the Alphus requires .  
only a thin or weak Liquor, the Scabies a thicker, but the  
Lepra a very thick or strong one. The Root of Tarragon in  
Vinegar cures the Alphus, heing washed therewith, and both  
the Hellebores do the fame. The Decoction of hitter Lupines,  
or the Meal thereof, with Honey or Vinegar, externally used,  
have a like Effects Other Remedies are, the Bark of Caper-  
, roots and Vinegar, Lily-roots and Honey, Onion and Vinegar  
apply’d in the Sun, the Dung of a Lizard, Starsings fed 'only  
on Rice, arid the Shell of the Cuttlefish calcined. *Oribasais  
de Morbi carat. Lib.* j. *Cap.* 58. -

.. The Alphus is fo called from ἀλφαίνω, an old Word, signi-  
Ring to *change,* because it changes the Colour of the Skin. It  
has the fame kind of Original,with the *Liuce* and *Lepra,* only  
Is not so deeply rooted, nut like Scales sticking on the Skin,  
the white ones being derived from a phlegmatic, the biack ones  
from an atrabilious. Humour.

To cure the white and black Alphus.

Take Fig-leaves, Sulphur vivum. Alum, of each an equal  
Quantity, and .Vinegar, and anoint the affected Parts, It  
heing an excellent Medicine.

For the biack Alphus, in Particular i

Take of black Hellebore, and Terra Cimolia, equal Quanti-  
ties, and dilute them in Water, or Vinegar, to the  
Thickness of Lees of Oil, and therewith anoint the Parts  
in the Sun, being first well rubb’d over.

For the black Alphus, when grown inveterate, and harden’d  
to a Callus on the Superficies of the Skin.

Take of the Root of the black Chameleon, nine Ounces ;  
Sulphur vivum, two Ounces; Aphronitre, oneOunce:  
Macerate them in Vinegar, and therewith anoint the  
Parts in the Sun.

Another most effectiral Medicine, and sweet-scented withal,  
is as follows: -

Take of white Hellebore, eight Drams.: Iris, Aphronitre,  
Coitus, each sour Drams : Macerate them in Vinegar,  
and S» rub them on the Parts in the Bath, without min-  
gling any Fat with them.

.. Another very celebrated Remedy for both the black and  
white Alphus; *viz.*

Take of Myrrh, Sulphur vivum, Spuma Nitri, white ,Hel-  
lebore, each two Ounces ; burnt Bastard-spunge, ari  
Ounce and ah bass: Make them into a Wash-ball, and  
use them in the Bath, or in the Sun with Vinegar.

. But here is to he noted, with reference to all that has been  
said. That Purging ought to precede external Appllcations.  
For the white Alphus you. may begin with Galon’s Hiera, or  
Pills of Colocynthis and Aloes ; and for the black sort, you  
may purge with black Hellebore and Epithymum. *Aetiui  
Tetr. 4. stcrm. I. Cap.* I 3a. \_ . - .

ALRAMUDI cineritious. *Isulandeus.*

. ALRATICA, a Word used by *Albusasts,* to sighify the  
total or partial Impersoration of the Vagina, whether natural  
or accidental. . '

ALSAMACH, or ALSEMACH, the *Arabic* Name sot  
the great Foramen in,the Os Petrofum.

ALSECH, Alumen Jamei. *Rulandus.* Thet is, Alumeri  
Plumosum.

ALSELAT, Burnt Copper. *Rulandus.*

( ALSINASTRUM.

I.. *Alfsnastnun Graiiolae folio,* Inst- 244. *et Alstnastrum  
Gallii folio.* Ibid.- Found by Mr.' *J. Sherard,* on boggy  
Ground, on the Common jost by the Road from *Elibnm to  
Chisalhuast. Syn. Stirp. Brit.* 346.

The Roots are composed of white Fibres corning out of the  
lower Joints of the Stalk, and disposed in Whirls. The.Stalk  
is divided on the Ioside, and lengthwise, into \_ ten Celis,  
formed by little membranaceous Leaves, which are placed in  
Form of a Ray. It is chanelled througheut its Length ; and-  
that Part which appears above the Water is pale, the other  
washed with a little Purple, and distinguished with Joints, at  
the Distance of two Lines, to which are fastened eight or ten;  
Leaves,, and sometimes twelve, before the Stalk gets above the  
Water, These Leaves are disposed in Rays, and are but about  
one third Part of a Line broad at theis Base, to eight or ten.  
Lines in Length. .Thofe which appear above the Water, are  
much.broader and -shorter not much unlike those of rhe *Clause  
Maritima,* C. B, The Flowers grow in theBosoms of forne of the  
Leaves, and consist of four white round Petals, about one half  
of a Line in Diameter, placed round a Pointal, and opposite to.  
the Divisions of an Empalement, which is cut into four equal  
Segments. It has four very short Chives sustaining white Sum-  
rnits. The Pointal at last becomes a round flat Capsule, ribbed  
like a Melon, having a Navel on the Forepart, and opening  
into four Parts to the very Base, and disclosing many oblong  
Seeds. It flowers in *July* and *August. Vaill.*

2. *Alstnastrum serpyllisiolium, store albs tetrapetala.* Vaill:.;.

3. *Alstnastrum serpyllifolium,.store roses tripetalo.* Vaill: 5.  
*ilstartin’s Tournefort.*

ALSINE. A Plant thus distinguished.

’Αλσίνη, Diofcorid.

I. *Alfine,* Offic: *Aistne minor.* Park: Theat: 760... *Alfine  
media,* C. B. Pin. 250. Hist. Oxon. in. 550. Tourn. Inst.  
245. Elem. Bos. 208. Boerli. Ind. A. .209. Rupp. Flor.  
Jen. 87. Dill. Cat. Giss. 4I. Buxb. flo ;Merc. Bot. I. I8.  
Phyt: Brit. 6. *Alfine minor save media.* Ger. 489. Emac.  
6II. *Alfine vulgaris five morsas Gallina,* J. B. 3. 363.  
Rail Hist. 2. I030. Synop. 3. 347. *Alfine Jive morsis Gal-  
lina,* Chain 449. *Aistne minor media,* Mer. Pin. 5. CHICK-  
WEED. *Dale.*

ALsINE is by some called *Mausear,* because its'Leaves  
resemble the Ears of Mice ί Bin it has the Name of *Alsene* from  
[ἀλσος, *lucus],* it delighting in Groves, and shady Places.  
The Herb is like Pellitory of the Wall, but lower, and with  
longer Leaves, and not at ell rough, but being rubbed, fends  
forth a Smell llke a Cowcumber. , , ,

It is of an astringent and refrigerating Quality, on which  
Accounts it is good for Inflammations of the Eyes, being  
applyd in a Cataplasm with Polenta. The Juice of it, instill’d  
into the Ears, easeth the Pains thereof; and, in short, it has  
the same Virtues, and serves for the fame Purposes, as the  
*Hilxine. Dioscorides, Lib.* 4. *Cap.* 87,

It grows in Gardens, especially on the Walls. It springs in  
the Midst of Winter, and withers away in the Heat of Sum-  
mer. It is weaker than the Helxine, hut has a peculiar  
Virtue in Inflammations of the Eyes. It is good alfo in  
.Ulcers, and Distempers of the Pudenda, being apply’d with  
Barley-meal. *[Farina Hordeacea, by which, no doubt,* Pliny  
*means the same as* Dioscorides *by his* ἀλφίτα» *commonly ren.,  
derd* Polenta.] *Pliny, Lila oq. Cap. 4.*

*' ChicHaced* is a small tender Plant, arising, above half a Pinot  
high, having its weak brittle Stalks growing thick together,  
which are round, and have two small roundish shasp-pointed.  
green Leaves, urowing at each Joint, opposite, one to the  
other;. on the Top of each Stalk, it bears many small, star-  
like, white Flowers, Os five narrow Leaves apiece, with a  
green *Calyx* cut into as Tnany Parts under them. The Seed-  
vesiel is long and round, containing many small, round, brownish  
Seeds.. The Root is small and fibrous, perishing after Seed-  
time. It grows every-where in moist Places, and in Gardens  
too frequently. ' -si

*Chickiaeed* is cooling and moistening, good for Inflammations  
of the Liver, St. *Antons.s Fire, Redness* and Pimples in the  
Face, being applied so the Parts affected aS a Cataplasm, or  
Cloths flipp'd in the Joice, said on, and now-and-then  
shifted; made into a Poultice with Hog's-lard, it helps hot  
Swellings and Tumours ; the Juice dropp'd into the Eyes,  
takes. away Redness arid Bloodshot. *Miller Bot. Off.*

It contains a great deal of Phlegm and Oil, and out little-  
Salt. \_ \_ , ’ . ' ' ' ’

It is sweetening and thickening, it stops the Flux of the  
Haemorrhoides, and it mitigates Pain, being taken in De-  
coction, and externally appsy'd. *Lemery de Drogues.*

It grows in watery Places, hy the Sides of Hedges and Paths.  
The Herb is in Use; it refrigerates and moistens, and has the  
Virtues of Peliitory of the Wall, only, it has no Astringency.  
It is supposed to he very nutritive, and therefore a wholsome  
Food for Persons in an Atrophy-or Phthisis. *Dale.*

The Chickweed varies according to the-Place of its Growth,  
*as Tragus* has- observed. The Figure of the *Alsine media,  
T.abcrn.* represents it high and spreading, as one finds it in  
shady Places. In *Dodoriaurs* Figure it appears more low,  
bushy, and like that which grows frequentiy in Gardens. 1  
fufpect it is the *Alsine marina* of this last Author. *Jo. Bauhin*supposes this to he the Species which he has named *Arsine. Plan-  
taginis folia.* - For my part, Ϊ do not like *Dodonausts* Figure ;  
and it seems to resemble neither *J. Badhiofs* Plant, nor that of  
which we are speaking: So that it sis a Wonder, that *Label*should make use Of this Figure to represent the Chickweed ;  
but he had but a Confused Notion of it, as *J. Bauhin* demon-  
strates. *Thalius* probably spoke Of this Plans, under the Name  
of *AlsineAninor* ; but as he makes several Species of it, we must  
say *Alsine minor foliis oblongis mucronatis,* and not simply  
*Alsine minoras G. Bauhin* has done. -

The Chickweed -is Of an herby Taste, a littie faltish.  
*Cordus* Sound something nitrous in it; nevertheless, aS it gives  
- a Pretty deep-red Colour to the blue Paper, its Salt seems io  
resemble the -Sal -Ammoniac', which is natural in the Salt of  
the Earth, brft in 'this Plant is dissolved in a great ^Quantity of  
Phlegm. *Jo Bauhin* affirms. That the distilled Water of  
Chickweed, or ’the Infusion of it in Wine, restores those who  
are emaciated, after long Diseases. *Schroder* commends it  
highly for the Phthisic. The Use-of this Plant cures Children  
of Convulsions; and they give a Dram of its Powder for sue  
Epilepsy. *Solenander* says. That its Powder being laid on the  
. Piles, stops their immoderate Flux, and assuages 'the Pain.

The Juice of Chiokweed is Vulnerary and detersive, like .the  
*Sal Ammoniac,* which is good to cleanse the Mouth, and take  
away Inflammations. For spitting Blood, the Patients must  
eat Omelettes made os this Herb, minced small, instead of  
'Pariley. Applied to the Breasts, it dissolves the'curdled Milk,  
and dissipates the too great Quantity of this Liquor. To all  
thefe Virtues we -may add -that Of Tooling, -which is attributed  
-to'the Chickweed: Forthe greatest Part of Remedies cool mo  
otherwise, than thy quickening the : Motion of-the Blood,  
which, because of Lome Obstructions inthe.Boweis, stagnates,  
-ferments more violently, and heats all the neighbouring Parts.  
Aperitives are ^capable of Cooling in that *Sense,* thecause they  
openshe Passages through which the Liquors ought To Circu-  
date. The Antients, who in Remedies inquired moreintoche  
' Effects than-the Causes, Ought mot-to hethlamed -for casting  
ithe greatest Part -ofchose cooling, which are capable of aug-  
-menting the Motion of the Humours. Every body knows,  
«.that Chickweed is frequently .used to restore rhe Appetite to  
Canary-birds, Linnets., and other caged Binds: TinsUseis  
not ;new. *Tragus, -Anguillara,* and several Authors, 'have  
.mentioned it.

- -2. *Alsine Plantaginis falsu*,J.B.3. \*36.4. PLANTAIN-  
’LEAVED CHICKWEED. in ifhady Places, and 'among  
-Bushes. .

Mr. *stay* has described this Plan tvery'well,’but he had no  
-Reason? to suspect, that Ft was that «which *'Co Pauhin* calis  
*Alsine aquatica media :* That *Qs Bauhin* is very well engraved  
*tin-Tabernenmontanus,* and is not often ‘sound but '.along the  
-Brooks, -in the *Pyrenees,* -and the *Alps.*

' The Petals of this are intire ; .it -is the.*Spcrgula Plantaginis  
folio.* Dillan. Cat. Gissi 58.

*‘ ~'g.iorAlsine minor -multicaulis,* C. .B. ‘Pin. -240. *.Alsine rtini-  
ma,* J. B. 3. 364. THE DEAST CHICKWEED ON  
-WALLS.

T. *Bauhin’s* Figure is transposed ; that of *Tabcrnanunttanas,*who calis it *Alsine minor,* is not bad. This Plant Varies  
according to the Place where it grows ; and I believe there is  
little Difference between it and that which the same Author  
calis *Alsine petraa minima.* If *Tragus* intended tn comprehend  
it under his four Species of Chickweed, he is mistaken ; for  
its Flowers are whitish, and not blueish.

This also has intine Petals: It is the *Spcrgula multicaulis,.*Dillen Cat. Gist. 58t - .

4. *Alsine verna glabra, 'floribus umbellatis albis,* Inst. 242.  
*Caryophylius aruensis umbellatus, folio glabro,* C. P. Pin. 2ro.  
*Caryophyllus aruensis urnhelliferus,* J. B. 3. 36I. *Holostiurn  
Caryophyllaeurn arvense,* Tahernt Icon. 233.

- This last Author's Figure is a great deal better than that of  
the *Alsine verna,* Lugd. *Dalecharnpius,* however, is the first  
who has ascribed this Plant to its true Genus.. *Fabius Columna*has confounded it with that which he Calis *Eufragia Lint folia.*Part 2. 68.

*M. Faillant* has observed. That the Flower of this *Alsine,*or *Spcrgula,* has but three Chives ; and that the Pointed ends’  
.in three Threads, which are expanded horizontally. *Martfoec  
Tournefort. - 1 ‘*

5. *Gramen Leucanthernon,* Ossie. Ger. 43. Emac. 47,  
Park. Theat. I325. *Gramen Fuchsii five Leucanthemurn,  
J.* Β. 3. 36I. Chain 448.. *Caryophyllus. aruensis glabcr, fiord  
majore,* C. Β. Pin. 2I 0. *Caryopifyllus holnsteus arvensis glaber  
store may ore,* Raii Hist. 2. IO27’. Synop. 3/346. *Holosteum  
vernum seu Gramen Leucanthejnurn,* Mer. Pin. 6.3. *Holostcum  
vernum, flore majore, Euphrasia Gramen Tragi,* Merc. Bot. i.  
43. Phyt. Brit. fin. *Lychnis arvensis glabra, store messore.* Hist.  
Oxon. 2. 546. Boeth. sod. A.2I4. *Alsinepratensis, graminea  
folio ampliore,* -Elem. Sot. 2og. Tourn. Inst. 243. Dill. CaI.  
Giff. 50. Rupp. Flor. Jert. 87. Buch. IS. *Alsine holosteii '  
glabra, folio graminn, store mayors,* Volck. Flor. Nor. 2I.  
STITCHWORT.

. It grows in Woods, bushy Places, and Hedges every-where,  
and flowers in the Spring. The Heth is used, which is of a  
refrigerating and drying-Quality, and is good for Inflammations  
of the Eyes. *Dale. . ,*

*Dodonceus* affirms. That the Fruit of this Species is Oblong ;'  
it appears TO me to be rather spherical.

The Juice of this Plant, its distilled Water, Its Leaves and  
Flowers bruised, are good to appease the Inflammation Of the  
Eyes; for which Reason *Tragus* calis it *Euphrasia gramen.*Sari- . . .

*6. Alsine. pratensis, gramineo folio angustiore,* Inst. .243.  
*Caryephyllus arvensis glaber, store rninore,* C. B. Pin. .2IO.  
*Gramini Fuchsii Leucanthemo Affinis, et similis planta,* J. B. 3,  
36i. THE LESSER STITCHWORT. Among Bushes,  
especially in a sandy Soil.

- T. *Bauhins* Figure is good for nothing at all ; that *Qs'T.abcr-  
naernontanus* is good, under the Name of *Gramen floridum mi-  
nus,* Icon. 232. .

- Mr. *Ray* Observes Very well. That the Summits of this Spe-  
ties are red.

7. *Alsine aliissimarnernorum,* -C. B. \*Pin.-25o. *Alsine mayor,  
repens, pcrannis,* J. B. 3. 362. *Alsine major,* Dod. Pempt. 29.  
GREAT MARSH CKIC-KWEED. Tn marshy Places,  
and by the sides of Brooks.

Mr. *Ray* had Reason to helieve, that it was the .same Plant  
with the *Alsine aquatica mayor,* -C. B. Pin. for the *Alsine pallum  
stris.* Tabent, aloes mot seem Io he different from the *Alsinc  
mayor*ofthe same Author.z

8. *Alsine maxima solansiolia,* Mentz. pug. Tab. 2.

This Plant is larger than .the preceding ; its Leaves are  
waved and notched upon the Edges. ;Mr. *Ray* believes It to  
he but a Variety. ...

*M. Vaillant* corrects our Author-with regard to the Notches  
mfthe Leaves, and denies that any *Alsinc'foes* notched Leaves.

9. *Alsine tenuis.olia,* J. B. -3. 364. FINE-LEAVED  
CHICK WEED. On the Borders of *Triplow PLcath in Cam^  
hridgesoire. . . - - ’*

This Kant intirely-resembles that which *Jo Bauhin* describes  
To grow about *Montpelier* ; and ! believe That *Co Bauhin has*described it.under the Name of *Alsine nodas.a Gcrmanica.* Prndr.  
Ίΐύ. si .

This has intins ‘Petals': 1 have called it *Spergula tenuifoliet  
Alatior...* It flowers in *May* and *June.*

TO. *Alsine 'verna glabra,* Bot. Monsp. defc. 14. *Alsine  
tetrapetalos, Caryophylloides, quinus.dam Holosteum minimum,*Raii Hist. IO25. *Alsineliansoliis Caryophylleis,* Cat. Gissi 47.  
THEXEAST STITCH WORT; It is common in barren,  
gravelly’Places.

’ The Flower consists of four white, blunt-pointed Petals,  
two Lines long, and half a Line broad. The Centre of the  
Flower is occupied hy an oval Pointal, encompassed by four  
^Chives, -with'white'Summits, and divided at Top in form of a  
Cross. The Empalement is tetraphyllous. The Fruit is cylin-  
.drical and transparent, having eight Indentations at the Top.  
It flowers in *April* and *May.* Vaill.

II. *Alstne minima stare fugaci,* Inst. 243. *Saxifraga dri-  
glica Alstnefolia annua,* D. Plot. Rafi Hist. I026. Synopsi  
Ed. 3. 345. ANNUAL PEARLWORT. ; \_ ,

The Flower of this is llke that of the former ; but the Pe-  
tals of this are very soon lost, whereas those of the former com-  
monly stick about the Emit till it is ripe. The Sced-vessel of  
this opens at Top into four or five Segments. It is said to he  
found about *Hidington* and *Cawley* in *Oxfordstiire.*

I2. *Alstnespergulae facie minima, feminibus ruidis,* Inst. *244.  
Saxifraga palaestris Anglica,* GeI. Em. 367. *Arenaria,* J. B. 3.  
p. 2. 723. Valll. 7.. *Spergula minor,foliis Knaveel,store rnajuse  
cula alho,* Dillen. Cat. Giss. 156. ENGLISH MARSH  
SAXIFRAGE. In boggy Pisces it flowers in *July.*

I 3. *Alstne saxatilis et multiflora, capillacee folio,* Inst. 243.  
*Alstne polygonoides herbacea miner. Laricis foliis capillaceis, ex  
uno pedicule plurimis,* Pluk. Phytogr. Tab. 75.

The Fruit of this Plant (according. to MI. *Vaillant)* opens  
into three Parts, from Top to Bottom. The Petals are entire.

14. *Alstne segetalis, gramineis foliis, unum latus spectantibus.*

The Petals are entire; the Seeds are very small and brown.

It flowers in *May and June. Ibid.*

IS. *Alstnespergulae facie, minima, seminibus marginatis,* Inst.  
244. *Alstne spergulae facie, minima,* Bot. Motile. I4. *Spergula  
annua, semine foliaceo nigra, circulo alio membranaceo cincto.*Mor. H. Ox. 2. 35 I. ' - —

Dr. *Sherard* sound it in *Ireland,* in sandy Places.

Ϊ6. *Alstnespergula dicta maser,* C. Β. Pin. 251. *Spergula,*J. B. 3. 72a. Dod. Pemps. 537. SpURREY. It is often  
found amongst Corn. . ' .

17- *Alstne spergulae facie minor, sene spergula minor, stoseuia  
subcaeruleo,* C. B. Pin. 25I. *Spergula purpurea,* J. B. a. 722.  
PURPLE SPURREY. Common in sandy Places.

L8. *Alseus folio graminea angustiore, palustris,* Dillen. Cani  
Giss. I73. *Caryophyllus kalastius arveofis medias,* Raii Synopsi  
Td. T 347\* ....

This ἐν easily distinguished by its .glaucous Colour. I have  
sound it in great Plenty on the boggy Grounds about *Gamlin-  
gayin -Cambridgespire.*

19. *Alstne segetalis, gramineo folio glabra, multifloras* D.  
Sherard. Raii Supp. 500.

20. *Alstne Hyperici foiia,* D. Vaillant, Inst. 2.4.2. *Aesine  
-iongifolla uliginoso proveniens decis,* LB. 3. Lib. 29. 365. At-  
*sens aquatica media,* C. B. Pin. 25I. *Alstne fontana,* Tabern:  
ic. 752. LONG-LEAVED WATER CHICKWEED.  
In Boggs and watery Places.

- It flowers in *Magi, June, iorciJssty.* Its Flower is but too  
Lines in Diameter: It has five white .entire Petals, ending in n  
Point: They are placed immediately .upon the Segments of the  
Empalemeut, which they cover; the Chives are ten in Num-  
ber.; thePointal is surmounted by three Threads, disposed in a  
Triangle. The *Alstnefontana,* Tabern. It. 712: resembles our  
Piant pretty well. *Marisen* (H. Ox. 2. 55I.) says, the Petals  
-are bifid, but he is mistaken. Mr. *Ray* (Synopf. 348.) is like-  
aviso mistaken.for .he affirms, that they are divided in two, to  
the very Base: *J.. Bauhin* soys, the Flower has ten white Pe-  
tals. *jraill.*

. al. *Alstne Alpina .subhirsota, Linariae folia,* Inst: 339. *Lych-  
atcides Juniperi folia, perennis.* Vaill. Iii. d \_ '

aa. *Alstne palustris minima, stofcaiis .albis, fouctu Coriandri  
.exigua,* .Ment.Pug. Tab. 7.

ALSINEF.QRMIS. A Plant thus distinguished:

*Alstneformis paludosa pricarpas, stasculis .albis inapertis ,*Pluk.Thy tog. Tab. 7. Fig. 5. *Alstne palustris. Portulacae  
.aquatica fimsclis,* RaiiHist. I035. *Portulaca exiguastve arven-  
esis Cameraria.* J. B. 4.,678. SMALL WATER CHICK-  
WEED., .GR PURSLANE, By SOME CALLED BLINKS.

It siowers in the .Spring, and is not uncommon, in moist And  
-boggy Places. Dr. *Dillenius* fays, the Flower is monopetalous.  
M. *Vaillant* affirms it to be pentapetalous. *JAartgulz Touxne-*

*' fort. .. . .*

ALSIRACOSTUM, the Name Of a Compound Medi-  
mine in *JAefne,* which he recommends much in Fevers at-  
-tendedwith great-Heat

ALTAFOR, Camphire. *Johnsen. . .*

ALTAMBUS. *Furiandus* explains this *Lapis rubeus,* that  
sis, Human-Blood.

ALTANUS, the South-West Wind. *Rulandus.*

ALTARIS, ALTARLT, or ALoxET, Quicksilver. Tin-  
*.iandus. .*

- .ALTERANTIA, .Alteratives. Thus Medicines Are called  
-which induce a Change in the Blond and Juices for the better,  
"Without rany manifest Operation or Evacuation. Alteratives,  
therefore, must generally, he either fuch Remedies as destroy  
some prevailing Acrimony in the *Primae Via,* or in the Juices;  
.or else such as refolve Concretions in the Blond-vessels, and  
dispofe them, whenthus resolved, to pass out of the Body by  
-Perspiration, or some of the least remarkable Evacuations.

*Haofman* has given us a Dissertation on Alteratives, which I  
-shall insert, as it seems worthy of PerofaL

. Since almost the whole Duty of a Physician consists in sea-  
sonably administering fuch Things as are proper to preserve or  
restore Health, and are effcctiial to relieve'the Sufferings of  
his Patient; and, ar the fame time; in artfully avoiding,  
whatever may he unwhelsome or prejudicial; it is plain, that  
nothing is so necessary to accomplish these Purposes, to a de-  
sirable Degree of Perfection, as a distinct and accurato Know-  
ledge of the Instruments by which Health is preserved or re-  
stored : Now this Knowledge supposes not only an Acquaint-  
ance with their Efficacy and Virtues, but also with their Ele-  
ments, and Manner of Operation; by which means a Physi-  
cian may he enabled to judge, by solid Reason, what are the  
Things, in all the *Materia Medium',* which are serviceable or  
prejudicial, in this or that Distemper, to this or that particular  
person, at fiich or.such a Season, with a due Regard'to all other  
Circumstances.. That he may rightly conduit himfelf in these  
Affairs, and he ready furnished with proper Means to answer  
ell Emergencies; nothing seems fitter, and more conducive to  
the Purpose, than an artful and compendious Distribution of all  
the *Materia Medica,* under certain Heads, according th their  
Principles, their Way of Operation, and the Effects which,  
-under, fitch ano . such Conditions, they are quallfied to pro-  
duce.

There are, indeed, many Catalogues and Synopses of Medi-  
nine, and some of them composed by learned Men; but, if it  
he allowed to speak the Truth, most of them are huddled toge-  
ther in such a manner, as to he rather an Obstacle than Furr  
therance to solid and rational Pharmacy, and can scarce be per-  
ofed, by Men of Skill and Experience in the Art, without In-  
dignation.. There you shall meet with many needless, and al-  
most innumerable Classes of Remedies, as I myself, not long  
since, in a.Medley of this kind, reckoned no less than fifty,  
which the Author diversified, with respect to the Parts affefted,  
the Diseases for which they were proper, and their internal as  
well as external Effects. And these very Heads, or Classes, are  
so diffuse, and crowded with such a Variety of Medicines, of a  
different and manifestly .contrary Nature,, that.whoever shall  
confide in them str far as to depend upon them, without  
snaking a new and accurate Distinction, in the Preparation of  
his Remedies, must, ofNecessity, fell into great Confusion and  
Mistakes. .... ....... . \_ i

- Wherefore it is my Opinion, that Medicines inayhedisposed  
under their general Heads in a far more proper and cornpen-  
.dious Way ; if we .consider, that whatever is subservient. to .the  
Ends .of Medicine, is.diredted in its manner of.acting towards  
-the Removal of the Caines of Diseases. Bur in everc Dssease  
there is a Depravation, either in the Motion, or in the Matter  
which is moved, or even, disposes to move: And since Motion  
is excessive.or defective, either .in the whole-Body, or fomeParit  
of it; and Matter is in she Fault; either upon account of he  
Quantity or Quality; all Remedies must, in general, he.port-  
kerned inthe, Regulation os depraved Matter or Motion. TO  
Matter vitiated in Quality, we appropriate Alteratives; toMat.  
ter offending in Quantity, Evacuants; jf, on the other hand,  
the Motion is defective .or impaired, or .if the Parts have lost  
their proper Tone, restorative and corroborative Medicines are  
to he ofed ; .and if the Motion is too intense and accelerated, or  
-the Parts racked with Spasins, then, and in that Case, sedative  
.and composing Medicines .ate, of all others,, most efficaciously  
cedministeced. . ...

Thefe are the: sour general Classes of .Medicines, to.which.all  
rthe Stores, with which bountiful and indulgent Nature has.en-.  
inched the Art of Physic, mayhe reduced3 for, by this,means,  
-and by the Afiistance of.thefeHelps, allthe feverallntentions  
of the medicinal Art. may .he exactij' anil effects ally answered ;  
-SO *slumsHippocrates* has .given a Definition of Physic, which is,  
-at.once, beautiful and truly mechanical, .when he fays. That  
It *iz-no.mcre than an Addition and Subtraction seasonably made ;*-a *SubtraSim of .thfise Things which exceed, and an Addition of  
-those Things which,are. defective : .Ha suhc bast san do these two  
Things, is deservedly esteemed sue hast Phystcjan, and the lasts ae  
- Man is .qualistedfor carrying an these two Designs, the mare ig-  
norant he is of the true ..and genuine Principles of Phystc..* De  
-Flatibus, Lib. .3. ... '

Then as to whet relains to the Influence and Operation of  
Medicines, they. act.directiy and immediately either upon the  
fluid or the folld'Parts. of the Body., .so that alterative and eva-  
.cuatingMedicines are appropriated to the Fluids, and thofe of a  
corroborative and composing Quallty to the Solids. But as si-  
quid as well as solid Bodies, are of different Qualities, so they  
produce their .respective .Effects in different Ways; for some  
Medicines, by then .immediato Action, assced that most subtile  
and easily .moveable.Fluid which is lodged in the Brain and  
Nerves, and is the chief Instrument of Motion and Sensation,  
either by augmenting its Quantity, or accelerating its Motion ;  
such as analeptic, cordial, and sweet-scented Medicines; or by  
quelling and becalming its more violent Motions; fiich as anti\*  
hysteric and anodyne Medicines, Opiates, and Foetids; which,  
even when exhibited in very inconsiderable Doses, produce very  
sudden, and almost instantaneous Effeols. Other Medicines

operate immediately upon the Blond and Juices. themselves;  
inch aS those of the diluting, incrassafing, and attenuating RindI  
and also; such as are endowed with.an absorbent Quality, or  
are calculated for subduing any corrosive or sulphureous Acri-  
*jnony. :*

- These Medicines which induce a Change upon the Solids,  
produce their immediate Effects upon the more nervous Parts;  
-such as the Stomach and Intestines, winch are endowed with a  
-most exquisite Sensation. To this Class belong all the medi-  
cinal Preparations of Minerals,, which produce their Effects  
when given in small Doses, resolve themselves into Particles os  
.an incredibly small Size, without losing their Texture and Vir-  
tues,, enter the minutest Recesses of the nervous Parts, and are  
‘.with some Difficulty washed away: .Such as, among Emetics,  
Emetic Tartar; among salivating Medicines, White Precipi-  
tate ; among Sulphurs, the Sulphur of Antimony, prepared in  
my. Method, to winch Volatile Salts may he added: Other Sub-  
stances strongly stimulate the nervous Parts, by that subtile cau-  
stic Salt with which they abound ; such as, among Poisons, Ar-  
senic ; among Purgatives, White and Black Hellebore, Gam-  
.boge. Rosin of Jallap, and some more of the same Kind, tor.  
gether. with all Insects, especially Cantharides. 'Tin neverthe-  
less to be observed, that os Medicines of this Kind, some affect  
particular nervous Parts more than others ; for Instance, Mer-  
curial Preparations affect the GlandS, the Lymphatic Ducts,  
-and the Jaws themselves ; Emerick Preparations of Antimony  
-affect the Biliary Ducts; Preparations of Colocynth, the ner-  
-VouS Coats of the intestines; Hellebore, the (Esophagus, La-  
.rynx, and Aspera Arteria ; Cantharides, and other Infects, the  
nervous, urinary, and seminal Ducts; and, in fine,.oily Vola-  
tile Salts and Sudorifics, prepared of the Volatile Salts OfAni-  
Inals, affect the Coats of the Arterial Vesseis. Some others of  
those Medicines, thet are appropriated to the Solids, infinuate  
their Virtues more effectually into the muscular and fibrous, than  
unto the nervous and membranous Parts ; among the Number of  
.which are all those Corroboratives, which either abound with a  
sulphureous, or with a mild astringent, fixed, and earthy Prin-  
ciple. *t . ' - ' ' . : ; - . ' ' .*

The whole Body Of Medicines in general, is, with Reason,  
distinguished-^ thin Manner; and in .this Manner are we to  
form our Ideas of their respective Methods of acting, and Man-  
ner of operatings I now come to treat of each Class in parti-  
cular: But aS the Art os Physic,: in order to become rational;  
rnusthe built upon'most evident Causes, all obscure ones heing  
rejected, aS *Celsius* says, not only by the Physician, but also  
-from the Art of-Physic itself; so that particular Branch Of Phy-  
sic which displays the Virtues of Medicines, and accounts for  
:their Methods of Operation, is, in my Opinion, to he drawn  
not from obscure and too remote Couses, nor from the atomical  
and geometrical-Principles of the Magnitude and Figure of the  
Parts, which are in reality incomprehensible; but from Causes  
that are evident, immediate, comprehensible, subjected to our  
Senses, and made known by Experience. This Method I shall  
- at present follow,: and in my Explication of the Virtues and  
-Powers of-Medicines, proceed in a Method that is plain,  
simple, and easy to be conceived, but, forbearing to enumerate  
all the several Species belonging to each Class, I shall only touch  
-upon the select ones, such as by. their Worth have highly recom-  
.mended themselves to Mankind, and, as clearly as I can, ex-  
plain their Uses, and Methods of operating. I shall begin with  
Alteratives, which make up the first Class of Medicines, and  
. are principally employed in correcting Matter that is faulty in  
point of Quality : But because the Matter to he corrected in  
Diseases may be faulty in different respects, so 'tis plain, that  
there must he Various Species of Alteratives, adapted to the va-  
rious Defects of the offending Matter. For InstanceIf the  
Juices of a human Body, which , in thejr natural State, are the-  
nign, mild, and balsamic, should either acquire a-salino-acid,  
and corrosive Quality, Or assume a hot, subtile, sulphureous In-  
temperies, or hecome thick,' Viscid, and tenacious, or over-  
acid and corrosive; I say, in such an Instance, Alteratives *of*four different Kinds ought to he admim’stered : That is, Abfor-  
hents for imbibing and blunting the Acid ; temperating Medicines  
for checking and mitigating the Rage of the bilious Intempe-  
ries; penetrating Medicines for dissolving and attenuating the  
thick and viscid Juices ; and, in fine. Demulcents for sheathing  
and mitigating the burning and corrosive Acrimony, i I νύ

In the first Kind of Alteratives are included Absorbents; the  
principal of which aro os Sea Substances, as the Mother os .  
’ Pearl, Cockle-shells, Oyster-shells of all the several Species,  
Coral, red and white, and the BoneS of the Cuttie-fish : Of  
Animals, the Bones and Homs, whether subjected to boiling, :and softened by Evaporation, (which in Pharmacy, is styled Pin- .  
- Iosophically prepared) or burnt in an open Fife, their Teeth  
. and Claws, the Shells of eggs, the Claws and Eyes of Crabs, -  
the Jaws of Fishes, the animal and fossile Unicom: Of subter-

" raucous Substances, the *Lapis Specularis,* (or Selenite) Chalk, -  
prepared Crystal, Osteocolla, ( or the Bonebinder) all Stones  
calcined and burned, and Various Kinds of Boles, Clays, and  
sealed Earths r Of Metals, the Filings of Steel*. Of* Chymical

Preparations; all Salts prepared by Incineration, *Coneres clavesu.*last, (or Pot-ash) Salt of Tartar, fixed Nitre, urinous Spirit of  
Sal Ammoniac, Volatile Sal Ammoniac, the Magnesia alba,1-Tincture of Salt of Tartar, and of Antimony.

- 'Tis the Nature and Property of all these Absorbents, that  
they speedily incorporate with any Acid that salis in these  
.Way, imbibe it, blunt and destroy its corrosiveOuality, and are,  
along with .it, changed into a’ third neutral and inoffensive  
Body. This Effect is plain, from the Example of our extreme-  
ly corrosive Spiritus Nitri fumans," from Oil of Vitriol, Subli-  
mate Mercury, Aqua-regia, Aqua-fortis,' and other highly cau-  
stic Liquors; which, by the Addition, of Filings of Iron, the  
Mixture of an alcaline Sals, or an earthy absorbent Substance,  
lose the Whole of their acid and corroding Qualities; . But al-  
though all saline and earthy Alcalies agree in .this, that they  
subdue anyAcid, and change it into, a third Substance; yet there-  
in this Difference between them, thet alcaline or lixivious Salts'  
are quickly and totally dissolved in the Body, not only by any  
Acid, but likewise by any aqueous Fluid ;- whereas earthy Sub-  
stances are not, without Difficulty, entirely dissolved, aS is plain  
in Corals, Filings of Steel, and Quick Lime, which are never  
thoroughly dissolved by an Acid, especially of the vegetable  
Kind, but always remain a kind of fixed earthy Substances:  
And, winch is still more, alcaline Salts, besides their absorbent  
.Quality, do, after they have, in a manner, embraced the Acid  
acquire a new and additional medicinal Virtue, which is,-rhur.  
of attenuating and collinuating the viscid, flimy, and tenacinurd  
Juices : They are likewise gentiy stimulating, and either open  
the Belly, or promote a Discharge by Urine, or even by Perspi-  
ration ; and are, besides, attended with this Advantage, rhur  
.they quickly pass through the excretory Ducts. But many  
Other alcaline Substances, instead *of* being calculated to quicken  
and forward the Secretions, rather prove astringent by their Elon  
sects, winch is usually the Case with Filings of Steel, Corals,.  
Boles, and sealed Earths. . t

I. Since then, as earthy Alcalies are not dissolved but.by an.  
Acid, we ought to be cautious in exhibiting them in Disorders  
where the first Organs of Digestion, the Scene where Abfor-  
hents produce their principal Effects, are loaded with any Col-  
lection of crude and Viscid Juices, lest they should adhere **to**them undiffolved, and so oppress the Stomach, destroy the Apt-  
petite and Digestion, and render the Belly more costive, as has  
sometimes happened in Fevers of the burning, bilious, and hec-  
the Kind, which were attended with a Decay of the Peristaltic  
Motion, and of the constrictory or retentive Force of the  
Stomach.

1 2. On the other hand, because these Absorbents'so readily de-  
stroy and consume the Acids, and because Acidity is what prin-  
cipally infringes and interseres with the Efficacy of Cathartics and  
-Emetics, they are very usefully, where there is any just Suspi-  
cion of the Redundance of an Acid, prescribed hefore.Vomit-  
ing and Purging, by way of Digestive.

3. Tho' all earthy Substances absorbfind blunt an Acid, yet  
-upon account of their different Natures and Textures, it some-  
times happens that they produce Very different Effects, and such  
as are often.contrary to the Intention os the Presenter; 'tis  
^therefore necessary we should be *very* cautious in our Choice Of  
.such as we design *to* use: When, for Instance, a Physician de-  
fines, besides an absorbent Quality, a corroborative and astringent  
..Virtue, marine Substances are chieby proper for answering his  
Intention, such as Coral, Oyster-shells, the Shelis of Eggs, ’  
.and the Various Species of Earths, *car Marls,* especially such as '  
are generally called *sealed.*. Is he desires a gentier Ashingent,  
Mother of. Pearl, and Shelis, .best answer, his intention ; and if  
.a Flux of the Seminal Matter.isIo he restrained, the Bones of  
-the Cuttle-fish are .peculiarly proper for that Purpose.:. When,  
.by Absorbents, a laxative Effect is, at the same time, to be pro-  
duced: The Magnesia alba, duty prepared of a Lixivium of  
Nitre, and winch is nothing else bur a fine Flower of Quick-  
lime, .is to .be administered,, which, being entirely dissolved by  
an Acid, is changed into a bitter halt of a middle Nature, which

-occasions a speedy Discharge osthe FoeceS ; for this Reason 'tis  
.of singular Efficacy in hypochondriacal Cases ; and when the first

Organs of Digestion abound with acid Juices, or when the Bel-  
ly is costive, when the .Effects of diuretic Medicines are to he  
. produced by Absorbents, the Claws and Eyes of Crabs, Shells,  
or Coral, calcined, and *Osteocolla,* (or *Bonebinder)* are in that  
Case most efficacious. For procuring a free and plentiful Per-

. fpiration in any Disease, the Bones of Animals burned, and phi-  
losophically prepared, are, of all other Medicines, the best cal-  
culated and most effectual : And, in fine, for resolving the stag- ’  
nating andcondenfed Humours, and the Blond itself, when coa-  
gulated, nothing is more proper than our common domestic  
Medicine, which consista of the Eyes of Crabs. dissolved in  
Vinegar,, and drunk.

4. Tho' absorbent Medicines are very simple, and, generally  
speaking/very easily prepared, yet their Virtues and Efficacies  
are almost superior to those of all others nor can they be suffi-  
ciently commended ; for none of all the Tribe of Alteratives are  
endowed with such a Power, of speedily subduing the bad .Qua-

Iities of noxious Juices; nor are any of them so safe and inno-  
cent as Absorbents, where not used to Excess. Add to this,  
that the Body is very subject to he affected by an Acid, especial-  
ly in those whose Bile is deficient; such as Women and old  
Men, those who lead a sedentary Life, or drink freely of Li-  
quois abounding with an Acid; and in many Disorders, espe-  
cially those of the melancholic and hypochondriacal Kind, the  
Quantity of Acid in the Body is scarce credible: But Acids,  
by their coagulating Quality, are hurtful to the human Consti-  
tution, obstruct the Circulation of the vital Juices, and lay too  
sure a Foundation for very terrible Disorders, especially of the  
chronical Kind. 'Tis therefore evident, that Absorhents are  
endowed with singular Virtues, and accommodated to a great  
Number of Diseases ; but they were very sparingly used by the  
Antients, and only brought into Credit by *Helmont* and *Take-  
nius,* and their two Followers in *Holland, Sylvius* and *Bonle-  
koe,* who assigned an Acid as the Couse of many Diseases, and  
prescribed Absorbents for their Cure.

The second Class of Alteratives comprehends those Medicines  
which are of a lenient and temperating Quality, such as check  
the hot intestine Motion of the sulphureous Particles os the  
Blood, and qualify, subdue, and bool the scorching, hot; and  
bilious Humours in the Intestines themselves. Of Vegetables,  
the Principal of this Kind are, the Root and Heth of Sorrel,  
Wood-sorrel, Citrons, Oranges, *China* Oranges, PomgranateS,  
Strawberries, Barberries, Raspberries, Cherries, and the .  
Juicesof them prepared; and likewise Syrups, and Water  
distilled from these; add to these the four great cold Seeds,  
and Decoctions of Oats. Of Animals, Whey, Butter-milk, the  
-juice of Craw-fish, a Decoction of Tortoises, thin Decoctions  
of theShavingaos Hartshorn, and Vipers-grass, with or without  
Barley, Jellies of Hartshorn, and Water distilled from the  
Shavings of Hartshorn. Os the mineral Tribe, well-purified  
Nitre is the best and most efficacious, and becomes still hetter,  
if restored from Aqua-fortis to its forrner State, by the Addi-  
tion of Salt of Tartar. Of chymical Preparations, the essen-  
tial Sait of Wood-sorrel, Cream of Tartar, Phlegm of Vitriol,  
sulphurated Quintessence of Antimony, *(Clyfsus Aniirnoniy sul-  
phuratus)* Tinctures of Roses, Daisy Flowers, and Violets’,  
philosophically prepared, with Spirit of Vitriol, are good turn-  
perating Medicines.

Temperating Medicines act in three several Manners; for  
they either, by their acid Salts, bind up the Volatile sulphureous  
Particles, and, by fixing and coagulating them, lessen in some  
measure their intestine and gyratory Motions; or they operate  
hy an expansive and aerio-elastic Quality, such as that which is  
inherent to Nitre, which. Consisting of an acid and alcaline Salt,  
contains great Store of sulphureous Particles, and also of a subtile  
aerio-aethereal Fluid, by means of which it dispels the hot Mat-  
ter, whilst in a gyratory Motion, and forces it, as it were, from  
the Centre to the Circumference ; by its neutral Salt attenuates,  
dissolves, and separates the Viscid Matter, which is the Matrix  
of Heat and Sulphur, and, at the same time, by its subtile Acid  
retards the accelerated Motion of the sulphureous Parts : Or, in  
the last Place, they restore the Moisture consumed by the Heat,  
by their diluting and dissolving the sulphureous Parts, and, at the  
same time, leflen the too great Elashcity os the Vessels, upon  
which the Heat; in a great measure, depends; as is observable  
in the Use of watery Liquors, Whey, Decoctions os Hartshorn,  
and of Oats.

I. These temperating and qualifying Medicines are os great  
Use in Physio,., where-ever a preternatural Heat is to be extin-  
guished ; and therefore cannot be wanted in Fevers of all kinds.  
Inflammations, Spasms, and grievous Palns, which are almost  
always occasioned by too great, or too hot, a Commotion of  
the Blood: Bur nitrous Preparatinns are deservedly to he pre-  
ferred to Acids, which six and coagulate ; for Nitre is not only  
cooling, but antispasmodic, and relaxes the Rigidity of the  
Parts; it, in like manner, promotes the Discharges by Urine  
and Stool. Besides, as other cooling and acid Fluids condense  
and coagulate, and as Nitre rather colliquates, ratifies, and at-  
tenuates thick and Viscid Humours, so when sprinkled either in  
Powder, or distblved in Water, upon black coagulated Blood, it  
renders it more florid: For this Reason, Nitre is not only pre-  
ferable to Acids in Inflammations, and even in inflammatory  
Fevers, winch arise from a black, coagulated, and pent-up  
Blood, but is likewise a noble and efficacious Preservative against  
Inflammations; hecause it effectually fuses and diflolves the Vis-  
cid Serum, which is to be observed in the Blood of those who  
are subject to Inflammations.

2. In chronical Fevers, such as those of the flow and hectic  
Kind, which, for the most part, owe their Origin to a Defect or  
Putrefaction in some of the Viscera ; and when a Cough, or spit-  
ting of Blood, is joined with them, or when the Lungs themselves  
are faulty, notAcids, butnitrous and diluting Remedies, especial-  
ly such as are taken from the Animal Kingdom, are to be used ;  
fuch asWhey, theWater, the Decoction, and the Jelly of Harts-  
horn. When also a .feverish Heat accompanies Diarrhoeas, Dy-  
senteries, or a~Cholera-Morbus, cooling Acids are to be abs-  
tained from, and diluting, gelatinous, and mucilaginous Me-

VOL. I.

themes, and temperating and absorbing Powders, with the Ad-  
dition of a Grain or two of'Nitre, are to he used.

In the third Class os Alteratives, are comprehended molding  
and attenuating Medicines; among which may be reckoned the  
Roots of White Burnet, Dragons, Sweet Flag, Asarahacca.  
Wild Radish, Elecampane, Succory., Florentine Iris, Solo-  
Inon’sSeal, Swallow Wort; the Herbs, Leopardis Bane, Brook-  
lime, Scurvy-grass, Water Cresses, and *Indian* Cresses, Dit-  
tander, Rosa Solis, Fumitory, Buck-bean, the lesser Centaury,  
Hyssop, Germander, Chervil, Carduus Benedictus, lesser House-  
leek, the several Species of Garlick, Leeks and Onions, Gua-  
jacum Wood, and its Bask ; the Spices Pepper and Ginger 7  
the Seeds of Mustard, Scurvy-grass, and Water CrefleS; the  
Gums Arnmoniacum, Galbanum,. Sagapenum, Opopanax,  
Myrrh, Benjamin ; of chymical Preparations, Mercurius dul-  
cis, yethiops Mineral, Flowers of Sulphur, fixed alcaline Salts  
of Vegetables reduced to Ashes, especially Salt *of* Tartar, and of  
Wormwood ; also neutral Salts, as the Digestive *as Sylvius,* my  
opening Salt, Sal Ammoniac, Sal Polyehrestum, Epsom Salt,  
Sedlita Salt, vitriolated Tartar, Terra foliata Tartars, called  
also Tartarus Regeneratus, Arcanum Duplicatum, a Solution  
of Crabs Eyes, Nitre, and Sal Ammoniac. Volatiles, aS Vola-  
tile Sal Ammoniac, urinous Spirit of Sal Ammoniac, and Oxy^  
mel ofSquilss, acrid Tincture of Antimony, Essence of Gum Am-  
Inoniae and of. *Indian* Pepper, Resin of Guajacum, Syrup of  
Tobacco, of Hedge-mustard, Facula of Arum, *etc.* Medi-  
cinal Waters also, which, besides their diluting and opening  
Virtue, are possessed of an attenuating and inciding Quality,  
such as the Waters of *‘EAra, Sedlitz,* and the *Caroline* Baths.  
AS also. Infusions in Form of Tea, which, by their great Store  
of ch aqueous Element, exert their Virtues, disjoin the coalese  
cent Globules; and, lastly, sweet Whey, which, on account  
of the fweet and subtile Salt it contains, is detersive, and opens  
the excretory Ducts.

Of these some act upon the fluid; and others upon the solid  
Parts of the Body : Those which affect the Fluids by imme-  
diate Contact, are Very few in Number, and those either con-  
fist of aqueous Diluters, winch are very efficacious for fusing  
the glutinous and viscid Juices, or of alcaline, fixed; and Vola-  
tile Salts, and nitrous Salts ; which; when mixed, especially in  
a liquid Form, with thick and coagulated Blood and Humours,  
liquify and attenuate them in such a manner, as eyen to be peri,  
ceptible to the Eye, All the rest operate upon the Solids, by  
augmenting their Tone, their Strength, and contractile Force,  
and by adding to the elastic Powers of the Vefleis, by which  
means they strongly prefs and agitate the contained Juices, ac-  
celerate their progressive and intestine Motions; and, forcibly and  
frequently propelling them through the Capillary Wessels, divide  
and disjoin the Viscid Juices into small Globules, upon which  
Fluidity depends. This Action upon the Solids is, in some  
Medicines, performed by a fixed acrid Salt; as the Roots of  
Arum, White Burnet, Asarahacca, Florentine Iris, Solomon's  
Seal; the Herbs, German Deopard'S-bane, Dittander, Rosa  
Solis, and Pepper and Ginger, which are, indeed, os. an acrid  
Smell; but being distilled with Water, by an Alembic, neither  
yield a Volatile acrid Oil, nor a Water of an acrid Taste, which  
is a sufficient Proof, that they are of a fixed Nature; Other  
Medicines, again, produce their Effects by-an acrid, subtile and  
Volatile Salt; such aS Wild Radish, Elecampane, Water Crestes,  
Scurvy-grass, Mustard, and all Kinds os Onions, Garlicks,  
and Leeks. Some act by their stimulating neutral Salts, os  
which Kind are those Salts whose Acrimony, and irritating Qua-  
lity, are not only discoverable by their Taste, but by their Ef-  
sects; *for* which Reason, when exhibited in large Doses, they  
open the Belly, and prove diuretic. Others produce their Ef-  
fects by an acrid Salt, which contains many sulphureous Parti-  
cles, as is obvious in Gum Ammoniac, Sagapenum, Opopanax,  
Guajacum. and its Resin, which,' besides their acrid Salt, con-  
tain an Oil, winch, upon Distillation, they yield in Abundance;  
Lastly, some Medicines perform their Work by a penetrating,  
subtile, and metallic Salt, as Mercury, especially Mercurius  
Dulcis, and fEthiops Mineral.

- i. The Virtues of attenuating and inciding Medicines are so  
extensive, that, on account of the great Variety of their Effects;  
they are usually ranged under different Denominations; for  
when tenacious Viscid Humours not onsp stagnate in the Cavi-  
ties of the Vessels, but stuff up and obstruct the small Tubes of  
the Intestines and Emunctories, these Medicines, by their in..  
elding and attenuating Quality, disengage the impacted Hu-  
mours, remove the Obstructions, and may, for that Reason,  
be called Aperients, since they produce the same Effect. They  
also deserve the Name of Anti-scotbutics, and Purifiers of the  
Blond; for since the Purity, and good State, of the animal  
Juices depends upon the due Secretion and Excretion of sthe  
perfluous and recrementitious Matter, and since Secretion and  
Excretion cannot be carried on, if the small Canals os the Glands  
and Emunctories are blocked up by viscid and tenacious Hu-  
mours, 'tis therefore plain, that those Medicines that are en-  
dowed with a Power of inciding viscid Juices, and removing  
Obstructions, must not onlv be Purifiers *of* the Blood, bur also

Preservatives against trie Scurvy, in which the Juices are of a  
bad Quality, and loaded with various heterogeneous, viscid,  
salt, sulphureous, and sharp Particles. Since attenuating Medi-  
cines produce so different Effects, the Physician ought to know  
what particular Attenuants are best adapted to particular given

" 2. In Disorders therefore of the Stomach, and first Organs  
of Digestion, for inctding and attenuating viscid Crudities, the  
following Medicines are excellently calculated. . The Root of  
Arum, of White Burnet, and of Calamus Aromaticus, Pep-  
per, Ginger, purified Sal Ammoniac, Vitriolated Tartar, Arca-  
num Duplicatum, the digestive Salt of *Salvius,* my aperitive  
Salt, Salt of Wormwood, Spirit of Salt, simple or dulcified, and  
*Moebius's* aperitive Tincture ; and if crude and ill-concocted  
Juices are to be evacuated by way of Excrement, the neutral  
Salts are preferable, especially the Sedlitz, the Polycheest, and  
the Epsom Salts, taken in large Doses, and drank in a sufficient  
Quantity os some aqueous Vehicle.

' 3\* se Disorders of the Breast, when Viscid Humours are to  
be attenuated, and thrown up by spitting, the most effectual  
are the Roots os Elecampane, and of the Florentine Iris, Rosa  
Solis, Hyssop, Germander, Maiden-heir, Gum Ammoniac,  
Myrrh, Berjumin, Sulphur, Balsam of Peru, Nitrum Anti-  
moniathm. Terra soliata Tartari, Oxymel os Squills, Solution  
of Crabs Eyes in distilled Vinegar, Syrup of Tobacco, and that  
of Hedge-mustard. -

4. When the Blood is tainted with any thick tenacious Im-  
purity, and by that means the Emunctories are clogged, and  
the Humours polluted and vitiated by a salt, sulphureous, and  
scorbutic Dvscrafy, the Medicines chiefly in Use, in that Cose,  
are, the Wild Radish Root, Garden Scurvy-grass, Water  
Cresses, *Indian* Cresses, Dittander, Brook-lime, the lesser Con-  
taury. Marsh Trefoil, Carduus Benedictus, Fumitory, the  
smaller House-leek, Mustard, Gum Ammoniac, Sagapenurn,  
Myrrh, Oil of fixed Nitre, Oil of Tartar per Deliquium, a  
Solution of Nitre, my Elixir temperatum. Tincture of Anti-  
mony, the Essence os the Woods, Spirit of Sal Ammoniac,  
Salt of Wormwood, with Citron Juice; and of medicinal Wa-  
ters, those of *Sedlitx -* and of *Egra.*

5. When grumous Blood, occasioned by Contusions, Blows,  
or Suffusions, is to he dissolved and fused, the Medicines most  
to be commended, in this Case, are Solomon's Seal, German  
Leopard's-bane, Chervil, Vinegar distilled with Crabs Eyes,  
Terra foliata Tartars, and antimoniated Nitre.

6. In Diseases where the Lymph is become thick, especially  
from a Venereal Taint, the principal, and most efficacious, are  
Guajacum, Sopewors, acrid Tincture of Antimony, Mercurius  
dulcis, and AEthiops Mineral, which, if prudently used, is of un-  
common Efficacy for colliquating and resolving the Viscid Hu-  
mours lodged in the Glands and Liven

I come now to the fourth and last Class os Alteratives, which  
comprehends the emollient and softening Medicines, of which  
the chief are, the Roots of Marsh Mallow, of White Lilies,’  
of Liquorice, and of Vipers Grass, the five emollient Herbs;  
Lattice, Bear'S Breech, Pellitory of the Wall, the Flowers of  
Elder, of Melilot, of Mallows, of Mullein, of Yarrow, of  
Chamomile, of White Lilies, of Barrage, of the Wild Pop-  
py, of the Lime Tree, of the *^Egyptian* Thorn, of Violets,  
and, most of all. Saffron; the Seeds os Flax, (Linseed) of Fenu-  
greek, of Anise, of Quinces, os Flea-bane, of White Poppies,  
the four greater and seller cold Seeds, the Siliqua, Sweet Al-  
rnonds. Figs, Pine Nuts, Pistaches, Cherry-tree Gum, Gum  
Arabic, Gum Tragacanth, Shavings and Jelly of Hartshorn,,  
Human Grease, that os a Dog, os a Capon, the Marrows of  
their Bones, the Fat about their Omentum, Bones, and Mesenry  
tery; the native Oils of Anirnais, fresh Butter, Cream, Milk  
itself. Crystals of Milk, SpermaCeti, Honey, the Yolk of an  
Egg, and its White dried, and reduced to a Powder: Of pre-  
pared Medicines, Oil of Sweet Almonds, Linseed Oil, Rape  
Oil, Oil of the Male Balsam Apple, Decoctions of Hartshorn,  
and Vipers Grass, mixed with theJuice of Citrons, the Ptisan,  
Sweet Whey, *Ferneliusfa* Syrup os Marsh Mallows, Ointment  
of Marsh Mallows, simple Diachylon Plaster, that of Melitot,  
and that of Frog’s Spawn. . --

. The Vtrtues of these Medicines are two-sold, the one ap-  
propriated to the Solids, the other to the Fluids. In the Solids  
they relax, soften, and render moveable the hard, stiff and tense  
Fibres ; and, at the same time, inlarge and dilate the Chanels  
. ot the small constricted Vestals. But. in the Fluids, they, by  
their viscid Mucilage, butd Up, involve5 and, as it were, inclose  
in aSheath, the piercing Points ns rhe (harp corroding Salts, and  
by that means prove excellent lenitive Medicines; and, when  
externally applied, they convert into a landable Pus any Col-  
lection of extraVasated Humours, which cannot he resolved, or  
taken into the refluent Mass by the lymphatic Vessels; so that  
having, by their moderate Warmth, dissipated the most subtile  
Part os the extravafated Humour, the remaining Viscous Mat.  
ter is happily disposed to maturate ; rhe Pores being now gently  
blocked Up, lest too much Moisture should he exhaled, sod the

nutritious Juice, of which Pus chiefly consists, heing excited  
to flow more plentifully through the small relaxed TubeS.

I. These lenitive Medicines are of incredible Efficacy, if  
any one has had the Misfortune to take a caustic Poison ; and  
scarce can more powerful Antidotes than these be used for  
checking and subduing the Virulence of animal and Vegetable  
Poisons, especially if abundance of Milk and oily Liquors are  
used as their Vehicles ; because these not only sheath up and  
blunt the sharp Points of the Poison, but also relax the Mem-  
branes, contracted and rendered subject to Spasms by the vio-  
lent Shocks os the Poison; and, by these means, they always  
promote the Evacuation of Poisons either by Vomit, or by  
Stool.

2. In long and violent Distempers, especially such as arise  
from an Acrimony of the Humours, and which prey upon the  
Nerves, infusions and Decoctions of these emollient Medicines  
are of singular Advantage; at least, I have often known Con-  
Vulsions, attended with Madness, scorbutic Contractions of  
the joints, and intolerable Gripes of the Belly, cured with De.,  
coctions of Piony Root, Marsh-mallows, Mallows, Pellitory,  
of the Wall, Bear's Breech, Flowers of Mullein, of Whim  
Lilies, os Elder, os Borage, of Chamomile, and Wild Poppy,  
and by Figs and Fennel Seed, prepared with Water or Whey .  
but they are to be usedin large Quantities, and for a long Time,  
with the Addition, now-and-then, of a Spoonful or Two os  
Oil of Sweet Almonds, sometimes hashing in freshheWater  
mixed with Milk. . \*

3. Fresh Fat and Grease of Animals, especially the Marrow  
of the Bones, which abounds with a very subtile Oil, arg Used  
internally with Success, in a sharp scorbutic Disposition os the  
Humours. . ’

4. in a Dryness os the Parts, and when the Joints can scarce  
move without making a Noise, and in arthritic Pains, thefe  
emollient Medicines (that is, the Root of Viperis Grass, Elder  
Flowers, Yarrow, Chamomile, the sour greater cold Seeds,  
but especially sweet Whey, as yet full of the fat littie Particles  
of the Cream, or even fat Substances, reduced to the Texture  
of Sops, with some Alcali) produce wonderful Effects; but  
these sat Substances are to be used when the Stomach is empty,  
and not in large, but in frequent Doses, drinking some suitable  
warm Draught after them.

5. In Exulcerations of the Kidneys, and Discharges of  
bloody Urine, which sometimes happen in the Small-pox, on  
account of the Acrimony of the Humours, Cherry-tree Gum,  
or even Tragacanth, or the dried White of an Egg, dissolved in.  
Whey, are of fingular Use: But in Disorders of the Breast,.-  
for blunting the Acrimony, which is the Cause of the Cough,  
’ and disposing the Matter sor Expectoration, the following Me-  
dicines are excellentiy calculated ; Decoction of Oats, Sperma  
Ceti, Liquorice, Oil of Sweet .Almonds, the Siliqua, Saccha-  
mm Lachs, Saffron, Figs, Syrup of Violets, and Flowers of  
Poppy and Elder.

6. In continual hectic Heats, and if the sweet Juices, by 2  
continued flow Fever, acquire a saltish alcaline Acrimony,  
Cream and new Butter, on account of their demulcent Quali-  
ties, are sound to produce excellent Effects.

. 7. In a Cholera-MorbuS also, and in a Dysentery, a Scurvy,  
a scorbutic Decay, a Consumption, and, in general, where-ever  
the Acrimony os the Humours gives Rise to the Disease, gela-  
tinouS Decoctions of Flesh, of Bones, and especially of Harts-  
horn, Calves Fees, and Sheeps Feet, are of fingular Efficacy  
and Advantage, as well used internally by way of Drink, as  
injected by way of Clyster.

8. When the Intestines are Violently contracted, and the  
Excrements pent up by Flatulencies, emollient demulcent Me-  
dicines, such as Oil of Sweet Almonds, Whey, Decoction of  
Oats and Hartshorn, produce Very great Effects; but should  
rather be injected by way of Clyster, than taken by the Mouth.

9. Emollient Flowers and Herbs, if boiled with a small Quan-  
tity of Saffron, inclosed in a Bladder, and externally applied  
Over the internal Part affected, procure almost incredible Eafe  
and Relief, as may be experienced in a Pleurisy, an Inflamma-  
tion os the Liver, .a Colic, or when the Anus suffers by the  
blind Haemorrhoids.

Io. When any extraVasated and impacted Humour is to be  
converted into Pus, no Applications can be more properly used  
than Liniments and Cataplasms, made of emollient Fats, and  
Milk; but especially of the Flowers and Leaves of White  
Lilies, Saffron, Figs, roasted Onions, Bean-meal, Yolks of  
Eggs, and Honey: But these are not to he used when the  
Matter is contained in harden'd and scirrhous Parts, where it  
cannot be converted into Pus, unless we incline to bring on a  
fatal Putrefaction.

II. Mucilages made of the Seeds of Quinces, and Flea-  
bane, with Rose Water, or Frog's Spawn Water, often afford  
immediate Relies in excoriated and exulcerated Parts, attended  
with Heat and Pain s such as the ulcerated Aphthae in the  
Mouth, blind and painful Haemorrhoids, a Tenesmus, Dysen-  
terins, Gonorrhoeas, or a corroding Fluor Albus.

ALTERCUM, or ALTERCANGBNON. The same with i  
HYOSCYAMUS, which fee. j

ALTEY PLUMBI, **or ALKY PLUMBI,** *(materia dulcis .  
ex Plumba)* a sweet Preparation from Lead. Perhaps *Saccha- '  
rum Saturni. Rulandus* and *Johnsen.*

ALTHAEA- A Plant much used as an Emollient. It is  
thus distinguished. i. ;

*Althaea, Bisenalva, Ibifcus,* Ossic, *Althaea Dioscoridis,* Breyn.  
Prod. 2: 12. *Althaea Diofcorides et Plinii,* **C.** B. Pin. 3I5.  
Dill. Cat. Gissi I44. Tourn. Inst. 97. Elem. Bot. 82. Boerh.  
Ind. Α. 269.' *Althaea vulgaris.* Park. Theat. 3o3. Raii Hist.  
I. 602. Synop. 3. 252. *Althaea, Ibifcus,* Ger. 787. Emac.  
933. Merc. Bot. I. I9. Pbyt. Brit. 6. MeI. Pin. 6. *Althaea  
jive Bisenalvaf* J. B. a. 954. Chain 30I. *Malva Bisenalmaj  
Officinarum dicta,* Volck. 272. *Malva fylvestris, autpalastris,  
out Ibiseus,* Hist. Oxon. 2. 523. *Malva palustris mollis et in-  
cana P. Herman.* Buxb. 2O7. Rupp. Flor. Jen. I2. MARSH-  
MALLOW. *Dale.*

. The Roots of Marsh-mallows Are pretty large, ..thick,  
woody and tough, and much branched, of a yellowish Co-  
lour on the Out-side, and whitish within, stimy and muci-  
laginous. The Stalks grow to be above a Yard high, soft and  
downy ; the Leaves are covered with a soft Pile like Velvet, of  
a yellowish-green Colour, more angular, longer, and sharper  
pointed than the common Mallows. The Flowers are alfo  
like the common in Shape, but less) of a paler red Colour, and  
without the deeper coloured Veins; and when they are fallen,  
coine the like Seeds, set together in a Round, like Cheefes.  
It grows in salt Marshes, and maritime Places, flowering in  
Testes

The Root and Leaves, and sometimes the Seed, are used. .  
. They are mollifying, digesting, and soupling, of great Ufe  
in the Strangury, Gravel, and Stone; in Heat and Acrimo-  
ny of Urine , against sharp, corroding Humours in the Sto-  
mach and Guts, which sometimes excoriate them, and cause  
Dysenteries. : .... . ....

They are likewise balsamic and pechoral, good to .help a  
Cough, Hoarseness, and Soreness of *sha Aspera Arteria.* They  
are frequently ordered in Clysters for the Stone, and .in Cata-  
plasms and Fomentations against Swellings and Inflammations,.  
and to ease Pain , as alfo to suppurate and ripen Tumours and  
Imposthumes.

. Officinal Preparations, which take their Name from Marsh-  
mallows, are, *Syrupus de Althaea s Pulvis. de Althaea*; and, *Un-  
guentum de Althaea. Miller. Bot. Off.*

*Eemery* adds, it is lenient and aperitive, proper for the Dif.  
eafes of the Kidneys, for the acrimonious Humours which aso  
fedt the Breast, and for the Nephritic Colic.' *Lemery de  
Drogues. ...*

. It .is found with Leaves more or less pointed; they appear a  
little too much so in the Figures of *Dodonaeus, Clustus,* and  
*Lobel. Matthislus, Fuchstus,* and *Tabernaemcmtamis,* have en-.  
graved it with rounder Leaves ; and it is, in all Appearance,  
this last Species which the learned Mr. *Sutherland,* Profusior of  
Botany at *Edinburgh,* has named *Althaea folia rotundiori, give  
minus acuminatas.* The Leaves of the Marsh-mallow are some-  
times, indeed, more or less singular. *M.. Harman* has called  
that with the angular Leaves *Malva fylvestris, aut palastris,  
aut Ibifcusfolia angulejiori. Cordas, J. Bauhin, Morisen,* and,  
Mr. *Ray,* have taken the Flower of this Plant to be pentape-,  
talons, whereas it is really monopendous.

The Leaves of the Marsh-mallow are glutinous and insipid,  
and give no Tinctirre of red to the blue Paper. Its Roots have  
**the** same Taste, hut they stain it a little.

.' Its glutinous Juice, which appears to be a Mixture of a great  
deal of Phlegm, a considerable Quantity of Earth, Acid, and  
Sulphur, fo clogs the acrid Salt, that it cannot discover itself  
hut by the Fire ; for it is certain, that by a ctiymical .Analysis,  
we obtain from the Marsh-mallow a concrete, volatile, and a  
fixed lixivia! Salt. The Acid is a little more disentangled in the  
Roots, because they give a faint red Colour to the blue Paper r  
Nevertheless, in all Probabillty, this Plant operates chiefly by  
its glutinous Juice, which the Fire entirely destroys. By the  
Consent of all Anchors, it is very lenitive and emollient. By  
its Mucllage it not Duly blunts the Points of the corrosive Salts,  
but, by relaxing the too much distended Fibres, restores them  
to their natural Tone, and consequently causes the Pain to  
cease. The Root of the Marsh-mallow is employed in lenitive  
Ptisans; but it must not he mixed till towards the End, for  
fear of making it too clammy. These Ptisans are of great Use  
in a violent Cough, when the Spittle is acrid and faltish. In  
four Quarts of Water boil four Ounces of the Root of Nym-  
phaea, and one Ounce of the Root of Marsh-mallow; strain  
this Liquor through a Linen Cloth, dissolve in it two Drams of  
Nitre, Crystal Mineral, or Sal Prunellae ; give a good Draught  
of it in a nephritic Colic, in a Heat and Retention of Urine,  
attended with a great inflammation: But when the Inflamma-  
tion is over, the Marsh-mallows must be omitted, for fear of  
rendering theHumours too viscid. Boil also three Pugils of Pel-  
litory, and one Ounce of-the Roots of Marsh-mallow, in three

Quarts of Water, and strain the Decoction; afterwards add as  
much Sugar as will bring it to the Consistence of a Syrup, and  
give it to drink; with convenient Ptisans. For great Inflamma-  
irons in the Abdomen, after necessary Bleedings, make alfo  
Fomentations with the Decoction of the Leaves, Flowers, and  
Roots of Marsh-mallows and. Violets, the Seeds of Fenugreek,  
and theTops of Chamomile and Melilot, and apply theFoeces  
to the part affected, in Form of a Cataplasm. These De-  
cessions make an excellent Semicupium ; give 'them allo in  
Clysters, with two Ounces of Honey os Nymphsea. The Sy-  
rup of *Althaea,* according to the Description of *M. Charas,* is  
of great Ufe; Dog’s-grass,Tellitory, Afparagus, and the.other  
Plants mixed- with it, sharpen the Marsh-mallow a little, and  
make the Syrup proper to provoke Urine, andpromote Expecto -  
ration. . It was with this Intention that the Iris of *Florence* was  
usedin the Lozenges of Marsh-mallows. *M. Lemery,* who has  
made an excellent Choice of the best Compofitions, and reformed  
them withn great deal of Prudence, quickens thefeLozenges with  
the Flowers of Benjamin. These are preferable to thofe which  
they call simple Lozenges of Marsh-mallows,- for this Plant has  
need of something to stimulate in Thus *Quercetan,* very judi-  
cioufly, has mixed, in hisLoboch of Marsh-mallows, the Flow-  
ers of Sulphur, the Powder Diaireos, *etc.* To render the Oint-  
ment of *sue Althaea* more resolvent, they have added very pre-  
perly Fenugreek, Squill, Galbanum ; and M: *Lemery* substitutes,  
not without Reason, the Gum Ammoniac to that of Ivy. The  
' camphorated Spirit of Wine may he mixed allo with it, when  
it is given for the Sciatica and Rheumatism - For the same Rea-  
son the Mucilage of Marsh-mallows, made with the Seeds, of  
Fenugreek, is preferable to that which is simple ; because it  
resolves by removing the Inflammation; one ought to put this  
Seed in the Poultis of Marsh-mallows and Milk, to dissipate 9r  
suppurate Tumours, according to the Disposition of the Hu.  
mour. The Cataplasms prepared with the Roots of this Plant,  
those, of the Lllies and Onions, together with the four Meals,  
are very good for the sameTumours, especially if the campho-  
rated Spirit of Wine, the Spirit of Sal Ammoniac, or some other  
spirituous Liquor, is rnixed-with them; We need not conclude  
with Μ. *Seger, Anas* the Roots of Marsh-mallows are acrid,  
because several red and painful Pustules have appeared on **the**Part where this Heth has been applled inCataplafms. It is more  
likely, that the obstrucied Matter ofTranspiration produce **these**Pustules. *Martyn's Tsurnefore. . .*

**PtjLvIS DIALTHAA,** *Compound Powder of Marsts..  
. ' mallows. - " - - . ---*

Take of the dried Marsh-mallow Roots. five Dram's *s of  
Spanise* Liquorice, and Medlar Kernels, each half an  
Ounce, of Grornwek, Parstey, and Fox-glove, each three  
Drams; of prepared Crabs Eyes, six Drams; of Gum  
Arabic, two Drams; of the Gums of the Cherry and  
Plumb Tree, each one Dram ; Let them be pounded toge-  
ther, so as to make a fine Powder.

This continues as the former Dispensatory, and is likewise a  
modern Composition ; but' it is seldom prescribed, and there-  
fore llttle made in the Shops.

**SyRUpUs DE ALTnAA,** *Syrup of Marfh-rnallaws.*

Take of Marsh-mallow Root two Ounces; of Grass, Aspa-  
Iagus, and Liquorice Roots cleansed, and of stoned Rai-  
, sins, each half an Ounce, of the Leaves of Marfh-rnal-  
lows, common Mallows, Pellitory of the Wall, Saxifrage,  
Pimpinel, Plantain, and the white and black Hellchore,  
each one Handful ; of red Cicers one Ounce ; of the sour  
greater and lesser cold Seeds, each three’Drams. Infuse  
them for a whole Day in six Pints of Water ; then hell it  
to sour Pints, to which, when.pressed out and strained,  
add three Pounds and a half of white Sugar, and boil it up  
to a Syrup in a Bath Heat. *S. Ac ’*

This Syrup is originally ascribed to *Fernelius,* and has **re-**mained unaltered in all the College Difpenfatories. If it is not  
boiled up;to a good Consistence, it is fo apt to ferment in warm  
Weather\* that it is very troublefome to keep. *Quincofs Lin-  
den Dispensatory.*

The *Edinburgh* Dispensatory directs "this Syrup somewhat dif-  
ferently.

Take of the Root of Marsh-mallows two Ounces; those of  
Afparagus, Liquorice, and Grass, of each half an Ounce;  
the Herb Maiden-hair, an Ounce ; the Leaves of Marsh-  
mallows, Mallows, Pellitory, Pimpinel, Saxifrage, broad-  
leaved Plantain, and stoned Raisins of the Sun, of each'  
half an Ounce ; red Cicers, an OunceSpring-water,  
three Quarts : Boil them together till one Third of the  
Liqtior is evaporated . then strain the Remainder, and add  
thereto sour Pounds os rhe whitest Snaar. and

Syrup thereof, according to the Rules of Art, by boiling  
it in Balneo Marine.

This Syrup ought to be made of a high Consistence in hot  
Weather; otherwise it presently runs into Fermentation, and  
is spoiled in the Capacity of a Syrup. The four greater and  
four Jester cold Seeds are here dropped by the Compilers, I sup-  
pose,. as heing judged foreign to the Purpose.

**UNGUENTUM DIALTHAEAE,** *Ointment of Marsip-rnallasvs.*

. .Take os fresh Marsh-mallow Roots bruised, two Pounds;  
of Linseed and Fenugreek Seed, each one Pound: Let  
them macerate three Days in eight Pints of Water: Then  
flightly boil, them, and press out the Mucilage, of which  
take two Pints; of Neats-foot Oil four Pounds ; and let  
them boil together, until the more aqueous Part oftheMu-  
cilage is consumed ; then add ofWax one Pound ; os Re-  
sin half a Pound; of Turpentine two Ounces r Let them  
be again boiled into an Ointment. *S. A.*

This is tided by the *Augustane* Dispensatory, *Unguentum de  
Althaea simplex,* in Distinction from an *Unguentum de Althaa  
Compositum* there also given, and both taken from *Nicolaus.*The *London* Dispensatory likewise received them both at first ;  
hut the greater Composition is Very blameable on many Ac-  
counts, as may be seen by Zwefev's Animadversions upon it;  
and therefore hath it been, for some time, justly expunged by  
our College : In that which is here yet retained, the Neats-foot  
Oil for common Oil of Olives, always hefore directed, is indis,  
putably a Very good Emendation, because its mucilaginous Qua-  
lity suits it much hetter to the Intention of the Medicine.  
*’Dwelifer* telis tis, that some put it in Turmerick Root to beau-  
tify the Colour, but blames it for being foreign to the true In-  
tention of the Whole ; and it is to be wished, that a much  
greater Fault was not to he found with some Medicine Mer-  
chants amongst us, who, to save both Trouble and Charge, put  
in little or none of the Mucilage, but give their smell to it by **a**Mixture of some of the Seeds, with which it ought to be made,  
in Powder. And this Caution, it is hoped, will not be taken  
amiss by any honest Compounder; hecause the Composition is  
Justly designed for some Purposes of Consequence, and which it  
may fail in by means of such unworthy Practices, *Nuincofs  
London Dispensatory. . '*

. The *Unguentum Dialthaa* of the *Edinburgh* Dispensatory is  
different, in some respects, from ours.

Take of the Oil of Mucilages, two Pounds; of yellow Wax,  
... half a Pound; of white Resin, three Ounces; and of

- Venice Turpentine, an Ounce and a half: Min them to-  
gether, and make an Ointment, according to Art.

. When the Oil of Mucilages is ready prepared, this is a.Very  
compendious Way of making the Ointment of Marsh-mallows:

*The* **OLEUM MUCILAGINUM,** *Col of Mucilages, is prepared  
. as follows.*

Take of fresh Marsh-mallow Root, bruised, four Ounces ;  
the Root of white Lily, and fresh Squill bruised, of each  
an Ounce; of Fenugreek Seed, and Linseed, each an

- Ounce and half: Steep the Ingredients in a proper Quan-  
tity of Spring-water; and afterwards boil them gently till  
they make a thick and Viscous Mucilage; winch being  
pressed strongly out, add thereto two Quarts of Oil-olive,  
and boil it over a Very gentie Fire, or in Balneo Marhe, till  
the aqueous Moisture is evaporated ; observing to keep it  
continually stirring, to prevent its burning.

The keeping this Oil in Readiness, as an Officinal, will great-  
ly ease the Trouble of making several Medicines, particularly  
the *Unguenti Dialthaa, Emplastr. Diachylon, Emplastr. de  
Mucilagintb. etc.* as we shall see hereafter.

The Compilers of the *Edinburgh* Dispensatory have given  
another Ointment, called

**UNGUENTUM DIALTHAE.YE COMPOSITUM,** *Compound  
Ointment of Marsio-mallows.*

- Take of the Ointment of Marsh-mallows, four Ounces;  
of Gum Ammoniac, dissolved in a proper Quantity of  
Spring-water, and strained, an Ounce; of Linseed Oil,  
two Ounces. Melt the Ointment and the Oil together ;  
then add the Solution of the Gum Ammoniac, thickened  
a little over the Fire, and whilst it yet remains hot ; last-  
-ly, boil ah together, till the aqueous Moisture is consumed,  
so aS to make an Ointment.

- This is a judicious Composition, and not chargeable with **the**Faults committed by others in ordering the»Compound Ointu  
snentof Marih-mallows.

ALTHrEA, by some called IB1SCUS, is a Species of Wild  
Mallow, with round Leaves like the Cyclamen, (Sow-bread) ,  
and covered with Down. It bears a Flower like a Rose; its  
Stalk is about two Cubits in length, and its Root of a flimy and  
glutinous Substance. It took the Name os *Althaea* from ζἄλθος,  
*Remedium)* its manifold and. extensive medicinal Virtues.  
For,

A Decoction of it in Wine, or Hydromel, or the Herb it-  
seif bruised, is an effectual Medicine sor Wounds, Parotides,  
Strumas, Abscesses, Inflammations of the Breasts, Pains about  
the Anus, Bruises, flatulent Tumours, and Strains of the.  
Nerves, -heing endued, for these Purposes, with a ripening and  
discuffive, or a breaking and healing Quality. Being boiled, as  
aforesaid, and worked up with the Fat of a Hog or Goose, or  
with Turpentine, in the Form of a Pessary, it is a Remedy for  
Inflammations and Obstructions of the Womb. The Decoction  
has the same Effect, and also brings away the Lochia. The De-  
coction of the Root, drank with Wine, relieves those who la-  
hour under a Difficulty of Urine, or a tormenting Fit of the  
Stone, Dysentery, Sciatica, Tremblings, or a Rupture. The  
Root boiled in Vinegar, for a Gargarism, assuages the Tooth-  
ach. The Seed, either green or dry; heing levigated in Vine-  
gar, cleanses the Skin from an Alphus, if it he anointed there-  
with in the Sun ; and, used with Oxyheum, prevents the Miss  
chief from the Bites of Venomous Creatures. The same is ef-  
fectual in Dysenteries, Diarrhoeas, and spitting or Vomiting of  
Bloed. The said Decoction of the Seed is usually drank with’  
Wine, or Posca, (ὸξύκρατον) by those who are stung with Bees,  
or any other little revengeful Creature; and the Leaves with a  
little Oil are applied as a Cataplasm to the Hurt; and the same,  
is good in Burns. The Root bruised, and said in Water, which  
is left to stand in the open Air, will coagulate the same. *Diosc  
corides, Lib.* **3.** *Cap.* **I 63.**

*Ebis.cus,* or *Althaa,* digests, relaxes, and mollifies, assuages  
Inflammations, and maturates stubborn PhymaS. The Root  
and Seed have the fame Virtues aS the Leaves, but are of finer  
Parts, and more drying, and appear to be more abstersive, in  
that they deterge the Alphus, and the Seed breaks the Stone in  
the Kidneys. The Decoction of the Root, by its astringent  
Quality, cures the Gripes and Diarrhoea, and relieves those who  
bring up Blood. *Orib, de Virt. Simpl. Lib. o.. Cap.* I. copied  
by *Aliius, Tetr.* **I.** *Serm.* **I.**

- The Wild Mallow is gently discuffive, and a little mollify-  
ing. The Garden Mallow, heing of a more aqueous and hu-  
mid Substance, is by so much the weaker in Virtues. The.  
former easily pastes the Stomach, not Only on account of its  
Humidity, but Viscosity, especially when taken with Oil and  
Garum, mixed with a little Wine, at Meals. The Seed os **the**Mallow is the more effectual, as it is the drier. The Dendro-  
molache, too, is a Species os the Mallow, but a greater Discus-  
five than the former; it is also called *Althaa. AEiius Tetr. i.  
Serm.* I. - - -

*Emplastrum ex Althaea Polletis,* POLLE Sis Plaster of Althaea.

Take the Bark of .the Root of Althaea, while the Herb is in  
its best State, and pound it in a Mortar. Then remove it  
into a Copper or Earthen Pot, and sprinkle it with old  
White Wine, that is fragrant and astringent, just enough  
to moisten it. Cover it, and let it stand three Days. Then  
pound it afresh, and strongly press out the Juice. This  
done, take of Colophonia twenty-four Ounces ; of Wax  
four Ounces; of Oil and Verdigrease, each two Ounces; of  
the expressed Juice osthePlant, two Attic Heminas (a .Pint).  
The Colophonia being first melted in the Oil, and then  
strained, boil it over a gentie Fire of Pine Wood, stirring it  
with a Spatula made of the same, till heing dropt into cold-  
Water, it consolidates. Then put in the Wax, and when  
that is melted, take the Pot off the Fire, and after it is  
cool, pour in the Juice by little and little, taking care of  
any Effervescence; sor it is subject to Ebullitions, and to  
overflow the Brim of the Pot. After it has stood a while,

' remove it to the Fire, and, when it is throughly hot, put  
in the Verdigrease; which done, take it off, and, after **it;**is cool, work it well with your Hands, that the ingredients  
may throughly unite.

This Plaster is good for old and fresh Ulcers, and for the Bite  
of a Dog, or a wild Beast. It draws out the Virulent Matter  
of Ulcers. It discufles Pain and Strumae, or suppurates and  
breaks them, drawing the peccant Humour to the Superficies,  
and there causing it to evaporate, aS in the Case of LiVidnefs  
from Blows in the Face. It easeth Pains, cleanses the Scabies,  
and scabby Naiis, the Lepra and Alphus, in which Cases it is  
not to be taken off till the seventh Day. It draws out Stings,  
or other Matters, fixed in the Flesh ; mitigates the Inflamma-  
tion, under an Exacerbation of the Gout; diflolveSTumourS of '  
the Joints and Ganglia ; heals the Favi and Ficus ; and cures  
Insanes of the Hydrocephalus; mollifies the Hardness of the  
Spleen; and is a Lenitive for Cancers that are not ulcerated,  
and restrains their threatened erosions. Used as a Pessary, it

provokes the Menses; and,, apply’d to the Pecten, it expels the  
Stone, helps Difficulty of Urine, and relieves under Costive-  
Itess. Diluted with Oil of Roses, it heals Fissures in the Soles  
of the Feet, and cleanses and incarnates Ulcers of the Testes  
and Pudenda. Prepared without the Erugo; it restrains phage-  
denic Ulcers, and is serviceable, instead *os an* Embrocation,,  
ip Fractures, as an Anodyne.

There is also a Very usefiil Medicine prepared of the Flowers,  
which are like Roses, in the following manner: They take the  
Flowers, and cutting off the Bottoms of the Leaves, first bruise,  
and then pulverize them. Of this Powder, they take twelve  
Parts, of Colophonia twenty-four Parts, of Wax fix, and Oil  
two Parts. Prepare them as directed in the former, and work  
them well with your Hands. It is more convenient for Use  
than the former, and a greater Anodyne. *Artius Tetr. An  
Serm.* 3. *Cap.* 14.

. An emollient Medicine.

' Take of Colophonia, Wax, each one Pound; of Oil and  
. Juice of Althaea, each two Pints. *Actuarius Meth. Med.  
1 Lib.* 6. *Cap.* 9.

Althaea has been the Occasion, that many have deceiv’d  
themselves, who presume they know it; and. imposed upon  
others, who .are credulous enough to take.then Word for  
it; for when . they would persuade us, that Althaea is a  
common Herb, and known by every body, they prove their  
Ignorance by so doing, and demonstrate, that they know no-  
thing of the Matter. The *Greek* Authors, on the contrary,  
who are to be found in close and select Libraries, affine us, that  
Althaea is a Very scarce Plant, and only to be met. with in *Asia*and *Sicily.* I shall give you their Very Words: Ἔ pise Αλθαία  
ήζαδίῳς ἐυρισκεται, φμομένη ἐν τοῖς τῆς ’Ασίας τόποιί ἤ 2ικελιας,  
έυρίσκύ/αι δέ ἐν τῇ Σμοὐρνη ἐν τῳ Σχελιτι ποταμώ.. " Althaea is  
es not easily met with. It grows in *Asia* or *Sicily,* particularly  
" near *Smyrna,* by the Banks of the River *Schelis. P.. Theo-  
phrastus* also hints, that it was a scarce Herb, when he telis tis,  
that it was to be met with among, the *Arcadians,* who called it  
Ἄγήα μαλἀχη, " wild Mallows," but the Sons of the Physi-  
cians gave it the Name of‘Λλθαῖα, ".Althaea," fromthe me-  
dicinal Virtues with which it is endued, *Libi* 9. *Cap.* I 4. Be-  
sides, he describes it by such Characters as they are forced to  
confess they never saw, -namely, with a yellow Flower: Ἔχει:  
δὲ ὑ'Αλδαίαφήλλον seise όμοιον μαλἀχνι,πλήνμειζον καί δασύτερβν,  
τῆς δέ καυλῆς μαλακους, ἄνθος μήλινον. " Althaea'has' a Leaf like  
" the Mallow, but larger and rougher, soft Stalks,. and a  
" Flower of a yellow or Honey-like Colour.'' *Dioscorides* says.  
It in ῥοδοβδἐς,." like a Rose, ” which we may understand to  
he meant, of the. Figure of a Rose, which', it may have under a:yellow Colour.. *Hdrpocration* in his Book Περὶ φυσικῶν. δυνάμεων;  
" Os' physical Powers, " says, that the Flower of Althaea: is  
€alled-a Rose;: whether from its Colour or Shape, issuncersain:  
Όνόθυρσίς βοτάνη ἐστιν, ἤν. οι *essi archorw nalumicsip. bi* δέ όνομολόχηπ  
ευυτή ἐστι τὸ ῥόδον, ἐξ *ν* τός σεφάνους πλἐκουσιν Ἔλληνες *vi rcctq*ἐβρτἄις τῶν θεῶν, φύλλα ἔχουσα όμοια μαλάχηστ ήμέρου\* *raso'so*Ἔςλίτνες καλῆσιν Ἄλθαίςχν. " The *Onothyrsisti* an Herb, which’  
" some call *Qnothure,* others, *Onomolocke.* It bears Roses,:" which the *Grecians* weave in to Crowns at the Feasts os their  
" Gods; and has Leaves like the Garden-mallow; this the  
*. " Greeks* call *Althend.* " .But it is' most reasonable to interpreti  
ῥβδοβδἐς [rhodoeides] of the Colour. For so πρασοειδὲς [pra-  
seeidesJIneans something of a Leelss-green Colour; and ῥὸδοεῖδες,  
(rhodoeides] apply/d Io Metals, signifies a Rose-colour; \_ Inhiss  
following Description of. Althaea,' he makes Its Flower to be'  
like a Rose: Ἄνθος μικρὶν ἐμφερὲς ῥόδῳ. " It has a small Flower

like a Rose.” Therefore by ροδοεῖδες hemeant the Colour,  
which an antient Transcriber οΓὈίρ/ῖὸτζἌιexpressed by painting-  
theFlowerof Althaeaof aRose-CQlourssf this be so, *Dioscorides*must have fpoken ofryurteinedisserent Plant froth the true Al-  
thaeafor.that bears a. yellow Flower. 'Some, I know'not  
for'what Reason, suppose it to be the *selentiluti QscAuisenasa*

*Anisina says* no more of his'Abutilon, than that it was a  
Plant like A.Gourd;; :to which his *Arabian* expositors add, ς that  
\* the Ahutilon resembled a Gourd not only in Leaves, but also  
in its Fruit, which sisnot round, but Oblong, and thatJt was to  
he found- ih 'the City of *Cana.* This, you see, is Very-different  
from the Althaa of the *Greeks. - Dioscorides* says, that. " It is  
called *Ebiseus* by some." Whyedid he not say by thessin-

*mans,* as he usually does on other Occasions? For none shut the'  
*Romans* called the Althaea *Ebiseus,'de .Ibiseus.* The old *Greek*Horse-Physicians, in that Part which is wantingin the Editions:  
Λέγεται-μὲνὶ'Αλθαία, ὑπὸ τινῶνδε Μολόχη/'Ρωμαιστἰ δέἝβισκος,

2αρμάταις δέ καὶ Γἔταις καὶ ΘρηξἰνἈρισ2.ι2. " It is called1*"i.Althaea* ; by some. *Moloche ; in Latin, Ebiscus*; by-the sear-  
*" rnaiians, Geter,* and *Thratians, Arifpis. ” Neophytus,* ’Αλθάἰα  
**δέ** ἈλθίσκὸΓ, .οι δέ μαλἀχην ὰγήαμ; ἈωμἀὶοιἝΒισκουμά " Al-  
" thaea is the Althiscum, some call it the *Wild Mallard,* and  
*" gicae-Romans* Ebiseum." In the Glossary,' Ἀλθαία is Hibiscutn;  
in other Glossaries it is,: without an Aspiration, Ibiseus, *HerbeI  
nullis*; thence comes the *Italian Malvandseo,* for *Malva Ibisco,*for which the *French* say, *Disco.malva gifot* **thence comes Thein**t **VOL.-L**

*Crirnausie,* we placing hefore what the.TraZedus place after.  
The *Barbarians* call it *Bifmalva,* which is plainly a Corruptiori  
of *Ibisco-rnalva. . - . -. - . - . .*

I don't wonder, that *Pliny,* in the Place where he speaks of  
Hibiscus, makes no mention of Althaea, rior says any thing os  
Hibiscus when he mentions Althaea. 'Tis plain, that he  
thought them different, as his Maimer is in other Cases. But  
I can't help heing surprised at his placing Hibiscus among the  
Kinds of Parship, and seeming willing to heVe it be like a  
Parsnip, and that in more Places than one. In Lib. ro. *Cap.* 5.  
treating *os* the Kinds of Parsnips, *Hibiscum a Pastinaca Gra.. '  
eilitate distat; damnatorn in cibis, fed Medicina utile est, et  
quantum Genus in eadern similitudine Pastinacae, quam Gallicam  
vocant, Grace-vero Daucon.* " Hibiscnni differs from a Parsnip  
6i on account of its Slenderness r it. is condemn'd as Pood,  
" but useful in Medicine. And there is a fourth Kind, re-  
fumbling in like manner a Parsnip,- which they call *Gallic  
ct Pansinip,* but the *Greeks* name it *Daucus. \*\** He pretends,  
that the Hibiscutn differs from a Parsnip only in Slenderness,  
that is to fay, is more flender than a Parsnip, but like in other  
respects; This he repeats io another Place, that is, *Lils.* 2o,  
*Cap.* 4. *Pastinaca simile Hibiscum, quod Molochm agriam.  
vocant, et aliqui Plistolochiiarn..* " There is a Resemblance he-  
" tween the Parsnip and the Hibiscum; which is commonly  
" called the *Wild Mallow, znd by* some *Plistolechia, \*\** which  
by all is recorded to be like the Mallow, and to be a kind of  
wild Mallow ; but how it. should come to look jikea Parsnip,  
I am at a Loss to imagine, especially of the Plistolochia j for this,  
in another Place, he ranks among the Aristolochia'S, and:  
makes a fourth Kind of it.

AS to Hibiscufn being dike *R'* Parsnip,, which *Pliny* affirms,  
I fancy, that’ I see whence he. derived his Concert. He hath  
read in some *Latin* Author, that Hibiscum was a .kind of wilds  
Mallow, and passed with some under the *Greek* Appellation, of  
Moloche Agris, and differed not at all from the Pastinata, but.  
only in Slenderness. Now by the Pastinata is to be understood,  
the Garden Mallow, which is planted *Posiinace,* μ in delved.  
" Ground." All cultivated Things are larger than whet are  
wild, and therefore the wild Mallow was flenderer than the.  
sative, or *pastinata, ct* planted in delved Ground." The Hi-  
blscum, he says, was condemn'd as Food, that is, the wild  
Mallow; for we are assured, that. the.Garden Kind was form  
merly *eaten. Pliny* therefore, having his Thoughts diverted an-..  
other way, mistook' *Pastinata sot Pastinaca,* a Parshin., ’\*i  
Tis certain, and not a little material to the Puspofe, that the  
most antient Manuscripts, in that Place, have *Pastinatu* in eher  
press Letters; *Hibiscum a Pastinata gracilitate dissert.* Hied  
" hiscuin" differs from the Pastinata in its Slenderness; ”  
whereas in other Places, the same Copies have the Word Pasti-  
nacd, whole and uncorrupted. The Author from whom *Pliny*borrow’d his Account, doubtless wrote, *ILibiscum, id est,  
agrestis Malva, a Pastinatis gracilitate dessert.* Hibiscum,  
" that is, the wild Mallow, differs from the cultivated, jin  
" Slenderness." He omitted the *agrestis Malva,* and read  
*Pastinaca for Pastinata,* as these two Letters, are often ex-  
chang'd for one another, in Words of that Form; for Example,'  
*Securiclatas securi ctaca', lingulata, lingulaca-, porsonaca, por- '  
sonata, » rgaaurirfeese,* fProsopitisj by some called *Pcrsonatia,.*i6 a Personation, " The Glossary has Pastinatio,' φήτὰ, .Pasti-  
nation [means] a'Cultivation.” It is not to he doubted then  
that ἡ φυτυειςῖ “ the planted,;" cultivated,'and Garden Mallow,  
was properly called *Pastinata,* iC planted in delved Ground, -so  
Under the same Mistake he assarts every-where, that the‘Hl-  
biscuin is like a parsnip.; . ....... . . : . ... .

I formerly .took theAlcaea *of* the *GrceEs* to be meant by the  
Name Hibiseuni; for the Alcari is a . kind of wild Mallow,.  
which Tome, we’ are’assured, have confounded with Althaea.  
*Eos'Naophstus,* under the Name Of Althaea, has described the .  
Alcaea, which he furnishes with. Leaves, επεσχισμἐνα πρὸς τὰτ.  
σῆς ίἐρας ῥατάνους, α indented dike those ofYervain. " Now Γ  
thought, that *Pliny* had reckon’d this indenting os the Leaves  
in Aleasa, which he took for Althaea, among the Characters in  
which it resembled a Parsnip; but nothing is more certain, than-  
that-hefell into this Mistake in the manner we have related.

The same Author, in another Place, thus, distinguishes the  
Althaea among - the other Mallows*. Eae fylfrestribyts, nui grande  
Folium, et Radices alba. Althaea vocatur ab excellentia Effectus,  
ab aliis Aristdlthaa.* ‘‘ Of the wild Kinds, that with the large  
" Less, arid the white Roots, is called *silthesa,* from its enceel-  
" leirf VhaueSasc hySdthe *uziferd siristalthadsu* An ahtient.  
Manuscript indicates, that this last Word is nos Yightly written,?  
by reading *ab aliis Plilolicia ίζ* by others Plitolidia'." Hence it  
appears, ’that it ’ ought to; be 'read *Plistolochia,* which is con-  
firmed by the Manuscript Index r *MeIlua"Altliaa, store Plastov  
lochia,.she* Mallow ..Althaea, Or Plistolochia.In another  
Place .it' 'fbyS,'that'H ibiscum is called her others *frsesistlochia :.*Perhaps it took that Name from its Virtue in extracting the  
Secundines, .which the *Greeks* call Άοχεῥα. .. . - i

*Pliny,* in reckoning the Kinds of Aristolochia, 'makes Plisto-  
lochia the fourth, which is also called πρλήῤῥίζοςψ many-

\*\* rooted; ” for thus it is written in the Manuscript Index:  
*Aristolochia, sive Climatitis, suae Cretica, sive Plisiolochia, sive  
Lochia Polyrrhizofqtie, qua Mulum Terra:. So it* ought to he  
read. \*

But I never read this Name *Plisiolochia in Greek* Authors,  
and I am afraid it took its Origin from some wrong Reading,  
either by *Pliny* himself, or one of those who used to-read to  
him, who hastily running over the *Greek* Book written in large  
Letters, and .flightly glancing on the Words, aS is too com-  
monly done, might for APICTOAOXIA read HAICTOAOXIA,  
which is not so very remote from the Truth, nor unsuitable to  
*Plins.s* Character. For my pars, I can give no Account for.  
the Name, the changing it into *Pistolochia* heing contradictory  
to.all the Books; nor can I see the Reason of this Word  
ρὶιστολοχία *\Pisiolochiasc*

' Authors say never a Word of the Althaea called *Plisiolochia, -*or *Aristolochia*; and I am apt to think, that *Pliny* made this too  
Ont os *Theophrastus,* by wrong reading and pointing hisWords.  
*Theophrastus,* enumerating the medicinal Herbs which grow in  
*Arcadia,* has these Words : Κρὶ ή *ldsi 'PDAaia., ertiyot* δε μαλά-  
χην ἀγρίαν, καὶ ή ά'ριστολοχία, καί τὸ σέσελι. *" Α,ηά* there is  
" the Althaea, winch they call *Wild Mallow,* and Arifinlochis,  
*" [Birihworti]* and Seseli *fasortwortsp”. Pliny scad* or un-  
derstood the Words, .as if they had been written ἐκεῖνος δἐ μα-  
λάχην ἀγρίαν, καὶ άβιστολοχίαν. iC They call it *Wild Mallow* and.  
*" Aristolochia si* where perhaps he read himself, or, deceiv'd by  
his Ears, imagin’d he heard another read καὶ πλιστολοχίαν," and  
" Plistolochia.''

: That Place in *Pliny,* where he distinguishes hetween μολόχη  
sMolocheJ'andμαλάχη [Malache] deserves our Laughter, The.  
Passage, as it ought to he read,. *Lib.* no. *Cap. 2i. runs* thus :  
*Duo Genera earum Amplitudine Folii discernuntur. Mnsorem  
Grace Molochen vocant in Sativis, alteram ab emolliende ventre  
dictam putant Malachen. “* Two Kinds of them are distin-  
" guished by the Largeness of the Leaf The greater is called  
" by the *Greeks, Moloche,* and is cultivated in Gardens; the  
" other is supposed to have its Name *Malache [Greek peanaysu*" soft] from mollifying the Belly. " But μολἁχη [Moloche] is.  
the Word in the *Attic* Dialect, and μαλάχη [Malache] in the.  
Others. This is the Rule in the antient .Grammarians; hut I  
should rather think μολοχη an *Asolic* Word; for 'tis their  
Manner to change α into o; *so they* say, ὸνογυραν [OnoguronJ  
for ἀνάγυραν [AnaguronJ which is in the *Attic* Dialect; *ovcares .*shr ἄνωνις, βότις for βάτις, and so in Hundreds of others; but.  
we. shall now finish what we proposed. Whet din commonly-  
Called *Malvaviseo,* or *Ibiseornalva,* is not the Althea of the  
*Greeks,* tho’ the old *Latins* called this *Ibiseus.* The true Al-  
thaea, at this Day, is unknown to onr Botanists; for the *Bis.-,  
malua,* which is the *Roman Hibiscum,* is not determined to one.  
thing. Perhaps the old *Romans* themselves were ignorant of  
the true Althaea; for what they called *Hibiscum,* was no other  
than whet is called *Malua-Ibiscum* ; so much is certain.

The' Althaea he like the wild Mallow, yet, which is strange,-  
*Dioscorides* has not assign'd it a Place among the Mallows, as.  
if he thought it ofin different Kind from them. For he de-  
scribes the common Mallows in his second Book, and defers the  
mentioning of Althaea to his third Book. Whet he thus sepa-  
rated, he does not seem to think of the same Kind, though he  
says, that Althaea is a Species of the .wild Mallow.

The ἀναδενδρομαλάχη [Anadendromalache] mentioned by.  
*Galen,* and mistaken by some for the same as Ibiseus or Althaea,  
is another thing. The Authors of the *Greek* Farriery have these  
Words: Ἔστι δὲ ἐτἐρα βότάνη λεγομένη. ἀναδενδραμαλάχη, ὑπερὸ  
τινῶν σαλκίηστ ἔστι τὸ φήλλονπλατήὑερον ταύτης, τὴν ῤίζαν ῶσαήτως  
σκευάζονται, καθῶς ἐπάνω γέγραπτςκι.χρετεθαι. ." There, is another  
" Herb called *Anadendromalache,* and by some *Salcies* ; this has  
" a broader Leaf, and the Roots are prepared in the Tame  
" manner aS before directed.'' I take this to be the Alcaea Of  
*Diofcorides,* which the Name σαλκίης, [SalciesJ being a Cor-  
ruption of ἀλκαίη, [Alcaea] plainly intimates. *Galen* does not.  
mention Alcaea, but seems to mean the same by the Word  
Anadendromalache. *Salmasiusde Homonym. HyLIatr. Cap.* 42.

Notwithstanding the Opinion of *Salrnasius* to the contrary,.  
I find most Botanists esteem our Althea to be the same as that,  
of.*Diosiorides. ' ~ ' 'so'*

i ALTHANACA, or ALTHANACHA, *(Auripigmentum)*Orpiment. It is also called ALTERNET, ALBIMEC.

\* ALTHEBEGIUM, the *Arabic* Name given by *Avicenna*to a certain Swelling, resembling those which happen in a Ca-.  
chexy, and proceeding from a morbid State of the Liver, and  
an ill Habit of.Body. The Swelling are also like those which  
impear under the' Eyes, and in the. Faces, of Persons who steep  
Over-much. A; Tympany is a Disease of the same Kind.  
*Fabric. Ab Aquapendent: Lib.* I. *Cap. το.*

ALTHEXJS, ἄλθεξις, front άλθεῖν, ίο cure or heal. It.  
signifies the Cure of a Distemper, in which Sense it is fre-  
quently used by *Hippocrates.* ’ ί . . ἐν '

\* ALTHOLIZOL See **ALTOLIZOIM. .. . ’**

ALTIHT. : The Name given by *Avicenna* **to the** *Laserpi-  
tium* of the Antients,

ALTIMAR,. AYCApHER, *(AEs ustum)* burnt Coppers  
*Rulandus.*

ALTIMIO, *(Fax Plumbi)* the Dross or Scoria of Lead.  
*Rulandus.*

. ALTINCAR, a sort of factitious Salt used in the Purgation  
and Separation *of Metals. Castellus* from *Libavius.*

ALTINGAT, *Flos AEris,* Rust of Copper, Verdigris.  
*Rulandus. . .' . . - .*

ALTINURAUM, Vitriol. *Rulandus. . '*

ALTOLIZOI, a Word mentioned by *Helmont,* which

is in a great measure unintelligible. In his Treatise *De Li-  
thiasi,* he directs the LuduS of *Paracelsus* to he well contused,  
calcin'd, and boil'd into the Form of an Oil, which is almost  
express'd hy a single Word *Pel Terree,* or ALTHoLIzOI *cor-  
rectum,* which he says, signifies, totally converted into Oil hy  
Ebullition. *Castellus* has made two or three Blunders under-  
this Article. For he casts it *Altolizoim,* whereas *HelmonPs*Word is *Altholixoi,-ussd Altholiatirn,* and he mistakes in his  
Explanation *Ludus,* and calis it *Lutum.* See ALKAHEST.

ALTUS. This is used sometimes in a medicinal Sense  
join'd with Sopor, to express a sound Sleep, inclining to a Le-  
thargy, or Coma. *. i: ' mi ' ss’ .. -*. ALU. See ARE-ALU, and ATTY-A LU.

ALUACH, or ALUECH, pure or refin’d Tm. *Rulandus.*

ALUCO, a Bind mentioned by *Pellonius, Aldrogiandussu.*and *Johnson. . .*

It is a nocturnal Bird of Prey, of the Owl Species; they are  
of different Sizes; for some are aS big as a Capon, and others of  
the Size of a Pigeon: They are os a Lead-colour spotted with  
White; their Head is large, black, without Ears, crown'd  
with Feathers ; their Beak is white, their Eyes are large, black,- -  
and seem to be sunk in their Heads, because they are surround-  
ed with many Feathers; their Limbs are cover'd with white  
Feathers, their Feet are feather’d and arm'd with long Claws,  
which are strong and sharp; they live in decasid Buildings,'  
Towers, in Caverns, and. in the Hollow of old Oaks; they  
ramble at Night in the Fields; they live upon Mice, and littie  
Binds; their Gullet is so large, that they swallow Pieces as big  
as an Egg; their Cry is frightful; they contain a great deal of  
Volatile, halt and .Oil. ...

. Their Blood is good for an Asthma, being dried, pulverized,  
and taken at the Mouth r The Dose is from half a Scruple to  
two Scruples; their Brains are esteemed good for agglutinating '  
Wounds. *Lemery de Drogues. .*

.. ALUDEL. An ALUDE L is a chymical Vessel used in Sub-'  
llmation. Many of these are generally imploy'd in one Ope-'  
ration, in the following Manner: The Matter to be sublim'd -  
is put into a Body, or Pot, the superior Part of which is fitted -  
into a Hole on the lower Part of an Aludel, and the superior i  
Part of the Aludel is received into the inferior Part of the next'  
Aludel, and so on, till aS many Adudeis are set one upon an-i  
other, aS the Process requires ; to the superior Part of the upper-'  
most Aludel, a Head or Alembic is fix'd, to receive the Matter.  
winch, sublimes. So that there is a continu'd Tuhe form'd by;  
the Aludels from the Pot which contains the Matter to he sub-  
lim'd, to the Head or Alembic winch receives it, in the manner,3that a consum’d Chanel is form'd by a Number of Elm Pipes:'  
The Use of Aludeis seems to be to remove the Matter sub-'  
lim'd in the Head to a Distance from the Fire. ’

. ALUDIT, Mercury. *Rulandus. '. (*

r ALVEARIUM, the Bottom of the Concha, Or *Hollow  
of* the external Ear; it terminates at the Meatus Auditorius,  
winch is. the Entrance of the Auris or Ear, strictly so call'd.  
*Drake.* . i

. It is generally defin'd to be that Cavity where the Cerumen'  
or Ear-wax is principally lodged. ' . . '

.ALUECH. See ALU ACH. . ..It

. . ALVEOLI, the Sokets in the Jaw Bones, in which the

;Teeth are plac'd, by that sort of Juncture or Suture, which’  
Anatomists call *Gomphosis,* by Joiners call'd *Pegging.* The-’  
Alveoli are fin’d with a Membrane of exquisite Sense, winch:  
seems to be nervous, and is wrapp’d about the Roots of each:

; Tooth..; *Drake.* ;.I ..

. There are usually sixteen Alveoli in each Jaw.

. - ALVEUS, Medicinally it js apply'd to many Tubes or Ca- -  
nals, thro' winch some Fluid flows, particularly to the Ducts:  
winch Convey the Chyle from the Receptacle of the Chyle **to-**the Subclavian Vein. ..... .. l \*.

ALUFIR, *Patibedo,* Redness. *Rulandus. .... . .*

: ALVIDUCA, *Medicamenta,* are purging Medicines. i  
ALUIS. *Rulandus* calls this *Alas.or, id est Vabs,* without.'  
any farther Explanation. But *Johnson* explains Alafor, *SalAlcati.*

. ALUM, or ALUS. A Name in *Scribonius Largus* for **the***Symphytum* Comfreys . - .

... ALUMBOTI, *Plumbum Ustum,* burnt or calcin’d Lead.  
*Rulandus. . .*; ALUMEN, Alum, Στυπτηρίη. *Hippocrates* recommends  
ALUM in many Passages of his Treatise os Ulcers, as a proper?  
Application for Ulcers, especially those of the depascent Kind  
*etlens ). sometimes* burnt,, and sometimes not. He thinks **the**

*Egyptian,* the hest, and next that the *Melian* (that got *vsuMalory.*And in his Treatise on the Diseases of Women, *Lib.* i. he  
Orders burnt ALUM as an Ingredient in an Application he di-  
rects for Ulcers of the Uterus. And afterwards in the same  
Treatise he advises *Egyptian* ALUM, with some other Ingredi-,  
ents, to be moisten'd with Goose Grease, and then with Wool,  
to be made into a Peflary, and apply'd to the Os Uteri, with a  
View of promoting Fecundity. And in his Epidemics, *Lib.* i.  
he also advises *Egyptian* Alum as a beneficial Application in  
painful Tumors of the Gums. .

*Celsus, Lib.* 6. Cap. I9. recommends *Melian* Alum pre-  
pared in the following manner, as an effectual Application to  
Ulcers of the Fingers, which the *Greeks* call πτερήγιαι Melt  
round *Mellan* Alum in Water, till it acquires the Consistence  
**of** Honey; then mix with it .a Quantity of Honey, equal in  
Weight to the Alum when dry, and stir them about with a  
Spatula, till .he Mixture is of a. Saffron Colour. : With this  
anoint the Ulcers. .ss . ’

. The Accounts of Alum we have from *Diofcorides, Pliny,  
Ortitanus* and *AEiius,* are as followst ' .. ..: ἐν

Almost every Kind of Alum is found in *Egypt,* and among  
the same Metals; for the *Scissile* Alum is, as it were, the  
Flower of the Bolar. It is also produced in other Places, as in  
*Melos, Macedonia, Liparcz, Sardinia,, Hicrapolis in Phrygian-  
Libya, Armenia,* and many other Countries, as -well as Okert  
There are very many Species of Alum ; but the most service\* '  
able sor medicinal Purposes, are .the *'Scissile,* the *Pound,* and the  
*Liquid,* and of these the best is the *Scifs.de.* Again, of this.  
*Scijsile* Alum, .the most valuable is what is fresh, very white,:  
free from Gravel, smelis strong, and is. of an extraordinary.  
Astringency; such as lies not close compacted like a Clod, nor  
falis abroad into thin Slices like Chips: but when broken.into  
Bits, and pulled asunder, runs out into Filaments, like grey Hairs.  
Such is the Sort called *Trichites,* [hairy] which grows in *Egypt.*There is a Stone very like this Alum,. but distinguish'd from it.  
by its Taste, which has nothing of Astringency. The round  
Species, that is factitious, is to he refused aS good for nothing ;

' . you may know it by the Figure. Chuse what has its Roundness  
from Nature, is fall of Bubbles, is of a white Colour, and  
powerfully astringent; and has, hesides these Properties, a sort  
**of** Paleness, and is somewhat fat, and Comes from *Melos* or.

*' Egspi.* The liquid Rind ought to be quite pellucid, milky,  
simple, and of .equal Liquidness in all its Parts, clear of Sand  
or Gravel, and exhaling a Warmth aS from a Fire,

- These Alunis are of a heating and astringent Nature, and  
have the Virtue of cleansing the Eye, and clearing it of what-  
ever darkens the Pupil, and also of consuming fleshy or other  
Excrescencies that grow about the Eyelids. The Scissile is more  
to be valued than the Round. They are burnt or roasted like  
Chalcitis. They restrain the Putrefaction of Ulcers, and stop-  
Haemorrhages. They compress the flaccid Gums, and sasten  
loose Teeth, if used with Vinegar or Honey ; mixed with  
. Honey, they cure the Aphthae , used with the Juice of Knot-  
grass, they are good: sor Exanthemata and Rheums in.the Ears.  
With Cabbage Leaves, or boil'd Honey, they are effectual in  
the Leprosy; and are good in warm Water to make a Fomen-  
tation for the Itch, Paranychia, Pterygia, and Kihes. Mix'd  
with Lees of Vinegar and burnt Galls, of each an equal Quan-  
tity, they are: good to anoint phagedenic Ulcers; and. with a  
double Quantity of Salt restrain the spreading of Nomae. -Mix'd  
with ErVum and liquid Pitch, they absterge ail Kinds of Scurf  
anointed with them; and, used in Water, scour away all Nits  
arid Lice, and are good for Scalds or Burns. They are used tOi ’  
anoint cedematouS Tumours, and to take off the rank Smell of  
the'Ahe and Pudends, What comes from *Melos* promotes;  
Conception in Women, net τῆς συνόδου παρατεθςισα *sta appease*σῆς ὑσίνρας, and’expels the Foetus. In short, the Alums .are,,  
all of them, proper sor Excrescences osthe Gums, and for the  
XXVae and Tonsillae ; and also for the Mouth, Ears, and Pudenda,:  
whemused with Honey to anoint the Parts. *Diofcorides, Lib.*

**5. Cqp. I23. : ; .I Ἀ ’ . .2 : -:**

Alum is supposedIo he a Taline Humour of the Earth *frfasu  
fugo Terras.* There are several Rinds-of it: In *Cyprus* they  
heve the White and the Black, where the Difference in Colour  
is inconsiderable, hut in the Ufe very remarkable; for the  
White and Liquid are Very useful in dying Wool os a bright  
Colour; and the Black, on the contrary, in giving it a sad  
and dark one ; the latter is also serviceable in refining Gold.  
lTis all, however, generated os Water and Mud, that is, from  
the Nature of the Exsudation os the Earth. What the Winter  
brings together by uniting Streams, is maturated by the Summer  
Suns, and whet comes to Perfection soonest, is the whitest. It  
is produced in *Spain, Egypt, Armenia, Macedonia, Pontus,  
Africa,* and the Iflands of *Sardinia, Melos, Lipara,* and  
*Strongyle.* The choicest is Io he had in *Egypt,* the next in  
*Melos.* There are two Kinds of this, namely, the Liquid and  
the Solid ; the first is presumed to be good, if it be limpid, and  
have a Milkiness, may be rubbed without emitting an offensive  
Vapour, but a sort of fiery Sparkles, with a sensible Heat : This  
alteycall .Piminwz,TusefulJ and try whether it be adulterated by

**. - ... .. . ι i ’**

the. Juice of a Pomegranate; which turns the true Alum hlaeksi  
There is another Kind, winch IS pale and rough, aod dy’d witlr  
Galls; forwhichReafon theycallitParaestesorosqgoedsornothingJ.

. The liquid Alum is of an astringent, hardening,, and corroding.. .  
Quality. Mixed with Honey, it heals Ulcers dur the Mouth,  
Pimples-, and Itching. For these Purposes, they mix two Parts\*  
of Honey with one Part of Alum, and manage the Cure in a.  
Bathe . It is taken in Pilis for Disorders os the Spleen, and to.  
remove an Itching, and for pissing of Blood. Mixed with.  
Nitre and wildTennel Flowers, it cures the Itch.

There is one Kind of concrete Alum, which the *Greeks* dash.  
*Schiston,* that cleaves, and when pulled asunder, runs into a.  
sort of grey Hairs, whence some chuse to call it *Trichites.. '*This is made out-os a Stone, whence it is called *Chalcitis, so*that it is a sort of a.. Sweat of this Stone coagulated into a spu-  
meous Substance. This Kind is drying, and not so astringent.  
as the other; but it is very proper for the Ears, either put into  
them, or the Part-anointed; and also'for Ulcerations of the.  
Mouth, and for the Teeth, if the Spittle be retained with it..  
It is .also an Ingredient tn Collyria, and Medicines adapted to.  
the Pudenda os both Sexes. They boil it in Pans till it will  
melt.no longer. :se

There is another Kind-, os an inferior Nature, which they call  
*SIrangyle ground.* Os this there are two Sorts, the Fungous, which  
readily imbibes Moisture, and is counted good for nothing ; -  
and the Pumicous, -which is better than rhe other, and lax and.  
porous/like. a Sponge, naturally round, hearing Pretty .much  
upon the White, has a sort os Fatness, is friable without Sandi-  
ness, and will not give a black Colour. - They burn it hy itself, .  
over a) clear Fine,- till it-turns to Ashes. All the Kinds of Alum  
are of an astringent Quality, from whence they have these r  
*Greek* Name.. *Pliny, Lib-.* 25. *Cap.* X5. ; - r

All sorts of Alum have a remarkable Tartness, and are of  
gross Parts ; the finest is the Scissile, and next to this the Round,  
and the Astragaline. The Liquid consists of Parts remarkably  
gross, as well as that Sort called *Placites,* and the *Plinthites. ’  
"Oribas. Med. Cql. yc,. Cap.* I. . ’ ,

All Alums are extremely astringent, drying, and conglu-;finating. the finest in the *Scissile*; it is usually added to other-  
Ingredients in Medicines aster they are boiled; sor there is no  
Rule ϊο direct us in the boiling of it. When it changes Co- i  
lour, it commonly takes a Green. *Antius Tetr .An Serm. NCap.:*25. P. 69.7. C. *... fro.su.. .ss:,..-.ss* E? :

There are three Sorts Of ALUM commonly used; thefirst :is the . ς.'.. .' - : ς' .. '  
*- Alumen rupeum,* Ossie. *Acumen rupeam sive Crystallinum,-*Ind. Med. 7. *Alumen factorium,* Mer. Pm. 2.17. *Acumen,*Schw. 362. *Alurnen fa (Attium pellucidum.* Calc. Mos. ι69.τ .  
*Alumen rupeum candidum et pellucidum,* Aldrov. Musi Metall.  
334. *Commune vulgo,.COMMON* ALUM. *Dale. ... si' l*τ. The second SorrofAlum is the

*Alumen Roche Callis,* Ossie. *Adurnen Idomanumnsigie rubrum,*Ind. Med. 7. *Alumen Rochez,* Aldrov.; Mus. Metall. '332..'  
Worm. 23. *Alwneu rupeum feu stsochce,* Charlt. Tost\*. 9..,  
*Alumen factitium ex praduro lapide subrubra consectum,* Cain.  
Musi I69. *Alumen Romanum quibufdarn.* ROCH-ALUM.

. It in like the common .Alum, only os a pale-red Colour..  
We have it imported from*scaly, Smyrna,* &c. They make it\*  
aster the .same manner as they do the common .Alum, but with--\* .  
out the Addition of Urine and Kali, aS I am informed by. al  
Letter from the learned DI. *Tastered kohenson,* M..D. It agrees:in Virtues with the preceding. *Dale. . A .*

. The third Sort of Alum is the τε

*Alumen plumosum,* Ossic. Ind. Med. 7.- *Alumen plumeum;  
five Tpichiies,* Schrod. 3. 477.' *Alumen.pluma, quod Scyjsile,  
Latinis,* Aldrov. Musi Metall. 33I.. PLUMOSE, or FEA- -  
THER'D ALUM.'"Dnce.' " -: μ ....'.sq:;

Tt is sometimes called *Alumen Jamatum. - .'  
. AlujnenGatenum* is a Name for the *Cineres clavellati.* Pot-ash. ,  
. In order to the understanding'what the modern Alum, which2  
we make use of, is, with Exactness, it will, he necessary to give,  
an. Account of its Production; and hy this it will appear, that.  
our Alum differs considerably from the Alum os the Antients ; .  
for theirs was found naturally, without the Help os Art, where-  
as ours is- factitious; and consists of other Ingredients, hesides  
the concreted Juice, which the Antients called ALUM. . -

*Alum* is made of a Stone, of Sea-weed and Urine. ' - -

The *Stone* is sound in most of the Hills between *Scarborough*and .the River of *Toes,* in the County of *Fork y* as also near  
*Preston in Lancnsoire.* It is *of sc* bluish Colour, and will cleave  
like *Cornijh Slate. '*

The Mine, which lies deep in the Earth, and is indifferently  
well moisten’d with Springs, is the best The dry Mine is  
not good; and too much Moisture cankers and corrupts the  
Stone, making it nitrous. - . -

In this Mine are sound several Veins of Stone call'd *Doggersgi -*of the same Colour, but not so good. Here are also sound  
those, that are commonly call’d *Snake Stones:* The People  
heve a Tradition, that the. Country thereabouts being very  
InimH annoyed with Snakes, hy the Prayers of St. *Hilda, -* there,

inhabiting, they were all turned into Stones; and that no  
*Snake* hath ever since been seen in those Parts.

For the more convenient working of the *Memes,* which  
sometimes he twenty *Yards* under a Surface or Cap of Earth,  
(which must he taken off, and harrow'd away) they begin their  
Work on the declining of a Hill, where they may he also well  
furnished with Winter. They dig down the Mme by Stages  
to save Carriage, and so throw it down near the Places where  
they calcine it.

The Mine, hefore it is calcined, being exposed to the .Ain,\*  
will moulder in Pieces, and yield a Liquor, whereof *Coppcras*may he made ; but being calcined, it is fit for Alum. AS song  
as it continues in the Earth, or in Water, it remains a hard  
Stone. -

\* Sometimes a Liquor will issue out of the Side of the Mine,  
**winch,** by **the** Heat of-the Sun, is turned into natural *Allan.*

’ The *Mine* is calcined with *Cinders os Newcastle Coal, Wood,*and *Furzes* ; the Fine is made about two Feet and an half thick,  
two Yards broad, and ten Yards long. Betwixt every Fine,  
are Stops made with wet Rubbish, so that any one or more of  
them may he kindled, without Prejudice to the rest.

After there are eight or ten *Yards Thicknefs* of broken *Mine*laid on this Fuel, and five or six of them so cover’d, then they  
begin to kindle the Fires; and as the Fine rises towards the Top,  
they still lay On fresh *Mine*; so that to what Height you can  
raise the Heap, which is oftentimes about twenty Yards, the  
Fines, without any further Help of Fuel, will burn to the  
Top, stronger than at the first Kindling, so song as any Sul-  
phur remains in the Stones.

In calcining these Stones, the Wind many times does Hurt,  
**by** forcing the Fire, in some Pisces, too quickly thro’the Mine,  
leaving it black and half burnt; and in others, burning the  
Mine too much, leaving it red. But where the Fine pafleth  
softly, and of its own accord, it leaves the Mine white, which  
yields the best and greatest Quantity of Liquor.

- The Mede, thus calcined, is put into PitS'of Water, support-  
**ed** with Frames os Wood, and rammed on all Sides with Clay,  
about ten Yards broad, and five Feet deep, set with a Current,  
that turneth the Liquor into a *Raeceptory,* from whence it is  
pumped into another *Pit* of *Mine*; so that every Pit os Li-  
quor, before it comes to the Bossing,, is pumped into four  
several Pits of Mine, and every Pit of Mine is steeped in four  
several Liquors, hefore it he thrown away ; the last Pit being  
always fresh Mine.

*This Mine, thus steep'd* in each of the several Liquors twenty-  
four Hours, Or thereabouts, is of course four Days in passing  
the sour several Pits, from whence the Liquors Pass to the  
Boiling-house.

.The *Wat or or Virgin Liquor* oftentimes gains, in the first  
Pit, two Pounds Weight; in the second, it increaseth to five.  
Pounds Weight ; in the third, to eight Pounds Weight ; and  
in the last Pit, which is always fresh *Mine,* to twelve Pounds  
Weight; and so in this Proportion, according to the Goodness  
of theMine, and the well calcining thereof. For sometimes the  
Liquors, passing the four several Pits, will not be above fix or  
feven Pounds Weight; at other times, above twelve Pounds-  
Weight, seldom holding a constant Weight one Week toge-.  
ther. Yet many times. Liquor os feven or eight Pounds  
Weight produceth more *Alum,* than that Of ten or twelve  
Pounds Weight, either through the Iliness of the *Mine,, or, as .*usually, the bad-calcining thereof. And if by passing the weak  
Liquor through another Pit of fresh *Mine,* you bring it to ten  
**or** twelve Pounds ; yet .you shall make less *Alum* with it, than  
when it was but eight Pounds Weight. For what it gains from  
the last Pit of *Mine,* will be most of in *Nitre 2nd Slam,* which .  
poisons the good Liquors, and.diforders the whole House, until;  
the *Slam* be wrought out. ’ . -

That which they call *Slam,* is first perceived by the Redness  
**os** the Liquor, when it comes from the Pit, occasioned either  
by the Illness of the *Mine,* or, as commonly, the-over or  
under calcining it, aS abovesaid ; which in the Settier sinks to  
the Bottom, and there becomes of a muddy Substance, and of  
a dark Colour. That Liquor which Comes whitest from - **the***Pits,* is the best..

; When a Work is first begun, they make *Alum* of the Li-  
quor only that comes from the Pits of Mine, without any.  
other Ingredients, and so might continue, but that it would  
spend so much Liquors as not to quit Cost.

*Kelp* is made of a *Sea-vjeed* call'd *Tangle,* such as comes to  
*London* on *Oysicrs.* It grows on Rocks by the Sea-side, he-  
tween High-water and Low-water Math. Being dried, it will υ  
burn and run like *Pitch* ; when cold and hard, 'tis beaten to  
*Asches,* steeped in Water, and the *Lees* drawn off to two Pounds  
Weight, or thereabouts.

Because the Country People, who furnish theWork with-  
*Urine,* do sometimes mingle it with Seaewater, which cannot  
he discovered by Weight, they try it, by putting some of it to  
the.helling Liquor; for so, if the *Urine* be good, it will work  
like *Yeast* put to *Beer* or *Ale,* but if mingled, it will stir no  
more than so much Water.’ - I -

It is observed, that the best *Urine* is that which comes from  
poor labouring People, who drink little strong Drink..

The *boiling Pans* are made of *Lead,* nine Feet long, five  
Feet broad, and two and a half deep, set upon Iron Plates  
about two Inches thick, winch *Paus* are commonly new-cast,  
and the Plates repaired five times in two Years.

When the Work is begun, and *Alum* once made, then they  
save the Liquor which comes from the *Alum,* or wherein the  
*Alum* shoots, which they call *Mothers*; with this they fill two  
third Parts of the *Boilers,* and put in one third Part of fresh  
Liquor, which comes from the Pits. Being thus filled up with  
cold Liquors, the Fires, having never heen drawn out, will boiL  
again in less than two Hours time ; and in every two Hours  
time, the Liquor will waste sour Inches, and the Boilers are:  
filled up again with green Liquor.

The Liquor, if good, will in boiling be greasy, as it were,  
at the Top ; .if nitrous, it will be thick, muddy, and red. In  
helling twenty-four Hours, it will be thirty-six Pounds Weight ;  
then is put into the *Bailer* about a Hogshead of the *Lees* of *Kelp,*of about two Peny-weight, which will reduce the whole  
*Boiler* to about twenty-seven Pounds Weight..

If the Liquor is good, as soon as the *Lees* of *Kelp* are put  
into *the Eoiler,* they will work like *Yeast* put *to Becrso* but if  
the Liquor in the Boiler be nitrous, the *Kelp-Lees* will stir it.  
but Very little; and in that Case, the Workmen must put in  
the more and stronger Zees.

' Presently after *fspetKAp-Lees* are put into the *Boiler,* all **the***Liquor* together is drawn into a *Settlor,* as big as the *Boilers*made of *Lead,* in which it stands about two Howrs, in which  
time most of the *Nitre* and *Slam* fink to the Bottom.

This Separation is made by means of the *Kelp-Lees*; for when  
the whole *Boilcr* consists of green Liquor drawn from the Pits,.  
it is of a Power strong enough to cast off the *Slam* and *Nitre ;*but when the *Mothcrs* are used,- the *Eelp-Lees* are needful to.  
make the said Separation. ' -

Then the said Liquor is scooped out Of the *Settlor,* into a:  
*Coolcr* made of *Deal Boards,* and rammed with *Clay.* Into,  
this is put twenty *Gallons* or more *cd Urine,* more or less, ac-  
cording to the *Goodrcafs* or *Bddnesu* of the *Liquor*; for if the  
Liquor he red, and consequently *nitrous,* the more. *Urine* iss  
required.

- In the *Coolcr,* the Liquor, in temperate Weather, stands four  
Days. The second Day the *Alum* begins to strike, gather,  
and harden about the Sides, and at the Bottom of the *Cooler.*

If the Liquor should stand in the *Cooler* above three Days; it  
would, as they fay, turn to *Coppcras.*

' The Use of *Urine* is aS well to cast off the *Slam,* aS*IDs*keep the *KelsuLees* from hardening the *Alum* too much.

In het Weather, the Liquors will he one Day longer in cool-  
ing, and the *Alam* in gathering, than when the Weather is  
temperate. In frosty Weather, the Cold strikes the *Alum* too  
soon, not giving time for the *Nitre* or *Slam* to fink to the  
Bottom, whereby they are mingled with the *Alam.* This pro-  
duceth double the Quantity; bus, heing foul, is. consumed in the  
Washing. .. . ..

When the Liquor-hath stood four Days in the *Coolcr,* then  
that call’d *Mothcrs* is scooped into a Cistern, the *Alum* remain.-  
ing on the Sides, and at the Bottom ; and from thence the  
*Mothcrs* are pumped hack into the *Boiler* again ; so that every  
five Days the Liquoris boiled again, until it evaporate. Ortura’  
into *Alum* or *Slam.*

The *Alum* taken from the Sides and Bottom or the Cooler,  
is put into A Cistern, and washed with Water, that hath been-’  
used for the same Purpose, being about twelve Pounds Weight,  
after which it is reached, asfolloweth: -

Being washed, it is put into another Pan, with aQuantity  
of Water, where it melts and hells a little.. Then it.is scoop-  
ed into a great Cask, where it commonly stands ten Days, and  
is then fit to takedown for-the Market. Ἀ

The Liquors are weighed by the *Troy* Weight, so that, halfff  
Pint os Liquor must weigh more than so much Water; by ftp.  
many Peny-weight. *Phil. Trans. Abr. Vol.* 2. .

Somewhat differentfrom this is the Account- given by Hoflfr.  
*man,* os the.Production Os-Alum at the Works near *Nall, in.  
Saxony.* As this Author's Experiments-and Remarks upon-  
**ALUM**-are curious and instructive, I shall infert them here.

*Of the Generation and Nature of* **ALUM. .**

As Vitriol is produced from a sulphureous Mineral, either  
simple or Compound; that-is, of Iron and Copper, so Alum,’  
which is, as it were, akind of white Vitriol, .is also generated’  
of a sulphureous Mineral, partly bituminous, partiy luteousz  
Therefore the Acid which is extracted from Alum, seems to;  
he of the fame Nature and Properties with what is afforded by-  
Vitriol, wherever Difference there is in the Earths, Or Recep-'  
taeles, in which both these Kinds of Salts are coagulated.' For  
the *Caput Mortuum* os Vitriol is of a Metalline, that is to say,  
of an'Irony or Copper-like Quality; but the Earth os Alum'  
seems to he a peculiar Kind of Bole, very spungy and subtil.

- The remarkable Agreement between the Acids of Vitriol and  
Alum will abundantly appear from the following Experiments: - ἱ  
- I. Vitriol of Iron is prepared with Spirit of Alum, and  
with Iron, as well as. with Spirit of Vitriol; and Aqua-fortin  
is aS well made with Alum as Vitriol and Nitre. Again, if  
the Acid- of Alum, by the Mixture of alcaline Salt, he con-  
verted into a-neutral Sait, and this Salt, with a little Salt of  
Tartar and Powder of Charcoal, he melted in a Crucible, there  
is produced a red Mass like Liver of Sulphur, in the same man-  
ner, as it usually happens, when the Acid of Vitriol or Sulphur  
is-fixed by Salt of Tartar, or the alcaline . Salr contained in  
Nitre or-common Salt, and converted into a neutral Salt. -

Tho’Vitriol and Alum he produced, as it were, from the  
same Matter,-and from one sulphureous Matrix, yet each of  
them is endued with peculiar Properties and Virtues. For  
Alum and Vitriol are Very different in Taste; and the common  
' ‘Vitriol leaves no such Astringency on the Palate, as is observed  
in Alum. . Again, a Solution, os Alum makm no Commotion  
nor Precipitation in a Solution os Gold or Silver, which a So-  
lution of Vitriol is known to effect. ‘ Nor will a Decoction of  
-Galls, or Poingranate Flowers, grow black, and be converted  
into ink, by he Mixture and Solution.of Alum, aS we observe  
tit does when mix’d with a Solution of VitrioL -Lastly, in  
Alum, the-Acid may be readily separated, by the Help of  
Fine, from its earthy Principle, in.which it is inherent; but  
the. Case is otherwise with Vitriol.. .

sc To proceed, in Alum the Acid is Very much saturated with  
-its Earth; for an Ounce-and a half of Alum, by a vehement  
-Calcination, affords six Drams and- a half of aluminous Earth,  
.quite insipid. That there is -a less Portion of Acid in Alum  
.than in Vitriol,-may -he known by this, that the Acid of Vi-  
triol, saturated with a Solution of Pot-ash, produces a sar  
greater Quantity of Sal Enixus, than would be afforded by  
ia Solution of.Alum saturated with the fame Lixivium.

.\* Besides, the Salt this way prepared of Alum is more success-  
sul in loosening and purging the Belly, than what is pre-  
pared of Vitriol, according , to the Method of *Tackenius.* And  
not long fince I met with a Phaenomenon not unworthy to be  
related, which is. That while I was managing and beating this  
Balt in a Mortar, it emitted Sparks in great Plenty, which I  
-never observed in any other Salt. . .

-- Here we must not pass over a very fine Experiment of  
*Haombcrgls,* who with three Parts of Alum, and one Part of  
any combustible Matter, which turns to a Coal, by a previous  
-Calcination, Distillation, and Ignition, in a closed Vestel, pre-  
: pared a Phosphorus, or sulphureous Matter, which immediate-  
Ty kindled at the free Access of Ain But this inflammable  
Matter cannot he produced with theAcid of Vitriol,nor- the  
Spirit of Salt or Nitre; a plain Indication, that the Acid os  
Alum, as being more siubtil, has a freer Ingress into the phlo-  
gistic Earth, than the Acid Of Vitriol itself. *See below Hom-*

*' hergfo Mernoire. - ' .* ο' '. - *.. sil. 'λ* r ἐν .

But it happens, that tho’ Alum is known almost to every  
. .body, yet its mineral Elements and Preparations are not clear-  
ly understood by the Curious Naturalists. “ Wherefore I thought  
' .it worth my Pains in this Place, to shew the Way how some  
thousands of Quintals are yearly made at the Village Of *Schweri-  
Acci,* near- the City of *Tieben,* five Miles from *Hall,* where are  
very plentiful Mines of Alum. ..

‘ Near this Village are Strata Of bituminous Matter, of vast  
Extent, which Matter is the Matrix of this Salt. These Strata  
lie two Or three Yards deep, whence they dig the Earth, which  
, is of a .blackish Colour, and of an astringent aluminous Taste.

If this mineral Earth he thrown into the Fire, it not only  
kindles, but emits a strong and foetid- Smell,-like mineral Sul-  
phur set on Fine. When burnt out, there remains a spungy  
-tasteless Mass of an Ash-colour.

. . The fresh Mineral Earth is thrown into Heaps, which lie a  
-Month expos’d to the open Ain; then they remove it into Vats,  
: and are for some Days extracting the Salt by Affusions of Win-  
Ier; after which, the Lye is convey'd by Pipes into leaden  
Cauldrons, and boiled. When the Liquor is inspissated by the  
Consumption of one half, they min it with a Solution of Pot-  
**..ash.** This excites a Vehement Ebullition with a Spumescence,  
.and a Powder in great Plenty subsides to the Bottom. When  
? every thing is cool, they take off the yellow Liquor, that swims  
at the Top, and the white aluminous Meal at the Bottom is  
.; dissolved in Water, and boiled anew; the Water, well saturated  
with Salt, is poured into great Vats, which stand together  
closed up for some Weeks. The Veffels heing open'd. Crystals  
.of a vast Bigness, in she Figure of an Octahedron, are seen  
-stinking to the Sides.

Besides this,.it is observable, that thefe vast Heaps of Alum  
i'Ore are kindled merely by. the Heat of the Sun, and burst into  
.Open Flames, which require the utmost Care and Pains to ex-  
'languish by. Affusions of Water.... For when the Salt of the  
’ Alum is diflolved by the Rains,. it begins to act upon its bitu-  
minous Earth ; so that a rapid .intestine Motion being by this  
-means.excited, not.only a Heat and Smoke, but even Flames  
-.are produced, almost in the same manner as it happens when a

Mass, consisting of equal Portions of Sulphur and Filings Of  
Steel, is moistened with Water, where, in a few Hours, arises  
an Ebullition, the Mass swells, fends forth a Smoke, and at last a  
sulphureous Flame ascends. These Experiments directly lead  
us to the Explication of the Nature and Causes of subterraneous  
Heat. ' Ἄ : ς *: i. -.et. i ;*

Moreover, it is worth Notice, that if these mineral Earths,  
after they are deprived of their Salt, are thrown together again  
in Heaps, and exposed to the open Ain for a whole Year, they  
become impregnated with a very aluminous Salt, so as to serve for:  
anew Preparation of Alum, and that forthree Yearstogether. .  
- Hence it appears very plainly, that, aluminous Salt is rege-\*  
nerated by the Ain, and doubtiess Contains some universal Acid,?  
which with the inflammable bituminous Parts, in Conjunction  
with-che earthy ones, constitutes the Salt of Alum ; n or do I  
know any Salt; that dan be so soon regenerated from its ex-  
hausted Mineral Earth.; sor if .crude'Alum be calcined thy a  
prettytstrong Fine, to such a Degree, that no Mark of Salt  
remain in its spungy Earth, and this Earth .be afterwards for  
some-Days exposed to the open Air; it not only increases in  
Weight, but. recovers its aluminous Taste, and makes an Ester-  
vescence with instilled Oil of Tartar *per Deliquium. .*

In boiling of Alum, there is also one thing worthy to he in-  
quiredinto, which is, that'Alum cannot he brought into any  
solid Form, much dess reduced into Crystals, from its Lye,  
without the Addition of Pot-ash, or some alcaline Salt. The  
Reason of this singular Effect, and Phaenomenon seems to con-  
sist in. what follows: The Lye of the Mineral Earth is too  
acid, and too sulphureous ; .hut because the sulphureous Liquor,  
in which the Acid is predominant, is very difficult to he form-  
ed into a solid saline Consistence, there needs the Accession of  
an Alcali, winch partly saturates the redundant Acid, and  
partiy imbibes and absorbs the pinguious and sulphureous Matter,  
which .hinders Crystallization ; by which means the Spicula  
may wedge themselves the more closely together, and form a  
more perfect Coalescence. Formerly, :and even now, in other  
PlaceS where they boil Alum, instead of Pot-ash, they use  
human Urine putrefy’d, because of the urinous Volatile Salt, -by  
which the redundant Acid is temper'd ; but since the Invention

. of so cheap and easy an Expedient, Urine is no longer used.

The Skilful in Chymistry know . what Care and Industry  
were smploy'd in finding out some Means for volatilizing the  
fixed Salt of Tartar, fince *Helmont* attributed a wonderful Effi-  
cacy to this Salt in curing Diseases. Hence, that otherwise  
celebrated Physician and Chymist, *Daniel Ludtrdici,* in a parti-  
cular Treatise os the *Volatilization of the Salt of Tartar,* com-  
.mnnicated to the Public a Method to effect it ; for while he  
was distilling crude Alum mix'd with Salt of Tartar, there  
came sorth a Volatile urinous Spirit. The good Man, who  
was perfectly sincere, believed, that this fixed Salt was render'd  
Volatile ; but he was not aware, that.Alum, according to the  
.Vulgar Method, was prepared by an Addition *of* human Urine,  
and that his Volatile Salt had no other Original; for when vo-  
latile Salt is fixed by the Acid of Alum, and there is afterwards  
an Accession of alcaline Salt, it is again set at Liberty, in the  
same manner as it happens with Sal Ammoniac. Wherefore  
if the same Experiment he try'd upon Alum, which has not  
been mix'd with human Urine, but Pot-ash in the Boiling,  
neither Salt nor volatile Spirit will manifest themselves. .

In the last Place, I think it proper to advise, that the Salt  
called *Epsom Salt,* which in great Quantities is exported from  
*: England* to many other Countries, and is really a Very elegant  
and safe Cathartic, may he prepared of Alum and common  
Salt. Now whoever undertakes to prepare this Salt from crude  
Alum, and common Salt, such as it is sold in the Shops, will  
come short of his Aim; but whoever tries the Experiment with  
a Solution of the mineral Earth of Alum, and the Lixivium  
winch remains in the Boiling of common Salt, and proceeds  
in a right Method, will hardly sail of accomplishing his Desire.  
*.Hofsinan. Obseru. Physico-Chym. Lib.* 3. *Obso* 8. . .. . i

The way of making ALUM in *Italy* is tontain’d in the-  
following Extract, from the History of the Royal Academy of  
-Sciences: - ' - . et . -

- M. *Geoffroylsad.* an exact Information, in *Italy,* of the way  
- of making Roch-Alum at the Alum-Works of *Ciuita Vicchia.*Near that City are Quarries of .a greyish or reddish Stone,  
pretty herd, like the Travertin. They calcine it in Kilns,  
and then boil the Calx in Water over a great Fire. The Water  
takes out all the Salt that is in tite Alum, there separates from  
it a useless Earth ; and, at last, the Water is left to cool, im-  
pregnated with a Salt, winch, for several Days together, shoots  
- into Crystals, like Tartar, about the Calks, and makes what  
we call *Pach-Alum.*

Alum is also made at the *Solfatara,* near *Puxxoli,* in the  
-Kingdom of *Naples.* The *Solfatara* was formerly a burning  
Mountain, of which there remains nothing but the Ruins, and  
a Circle of Rocks, which are of a yellowish White, dry, half-  
burnt, and calcined ; from which, in several Places, there issues  
forth a Very thick Smoke. The Natives have it by Tradition,  
That the Earth, winch was between these Rocks, and made

**the** Top of the Mountain, sunk down to a certain Height.  
After mounting these burning Rocks, you descend into a littie  
hollow Plain, winch .must have been the Top.. .It is nearly:  
Oval; being one thousand two hundred forty six Feet in Length, ρ  
**where** it as longest, and a thousand Feet in Breadth. The Earth ,  
of this Plain is a yellow and white Substance, all saline, .and  
so hot;? .that in some Places; you Cannot suffer your Hand long  
upon is, Ln Summer the Surface of this Earth is spread with a;

' saline Flour or Dust; which they need'only to sweep together,  
and then shovel it into the Ditches,: which are full of Water.at  
the Bottom of the Plain ; after which, to evaporate the Water,,  
which is impregnated with Sals, and depurated from .Earth,  
they want no other Fire than what burns; under the Mountaim'  
The Water is put into large Kettles sunk , in the Ground,-  
. which is their only Method. .This Alum does not. bear so  
great a Price aS that of *Cosovita Vicehia.o.TENap* make also Sul-  
phur at the *Solfatara,* whence the Place too has its Name. d  
. It appears by all the Preparations os Alum, that .the .same  
Mine which produces it, produces also, or might produce.  
Sulphur, Nitre, and Vitriol; and perhaps these different.Mr-  
nerals are no other at Bottom, than the same Principle dip  
guised in these four Salts, according as it is mixed. by.Natnre  
with other Substances, or undergoes Operations by Man. Μ.  
*Geoffroy* thinks he has Reason to conclude, that the Alum of  
*England* and *Sweden* participates more . of Vitriol, and! the  
*kalian* Of. Sea-salt ; which Consideration might occasion, a: Va-  
nation .in some nice Operations, and change the Effect of  
some Remedies, which require an extraordinary Preciseness.  
*Hist. de ΐ-Acad. Ray. des Scien.* I702. ... - J..

Alum, when united with, sulphureous Substances. of many  
sorts, has a. very remarkable Quality of taking Fire itself, and  
communicating it to all inflammable Substances, thy only being  
exposed to the Ain. This Discovery was made by M. *Ham-  
berg,* and farther examin'd by the Gentiemen. of the Royal  
Academy of Sciences, the Particulars of which are contained  
in the following Papers: .

. . Take sour Ounces of. Excrement, newly voided, and mix  
. . with it the like Weight of Roch-Alum, grofly pounded*r:*

Put:the Whole into *a.,* little iron Pan, winch will hold  
. about a Pint of Water, and set it in a Chimney over a  
small Fire of Coals; the Mixture will melt, and become  
as liquid as Water- - Let it boil over a small Fire, find  
keep stirring it with an iron Spatula : Continue this Fire  
.. Till the Matter he thy : It will grow difficult at last to he  
stilt’d, but you must continue to roast it in the Pan,  
always stinting it, and breaking of it into small Bits, - and  
... seraping. off with the Spatula whatever sticks to the Bot-  
. tom and Sides of the Pan, till it. he perfectly dry. You  
must, from time to time, take the Pan off the Fife, that  
tit may not grow red-het; and also remove the Matter  
from the Fire, to prevent its sticking in too great Quan-  
tities to the Pan.. When the Matter in become perfectly  
.. dry, and in small Crumbs, you must let it cool, and then  
pound it Tmall in a Mortar of. Metal... After this, you  
mustput.it again in the Pan; over the Fire, Continually  
stirring It. .It will still contract a little Humidity, and  
.gather into Clots, which you must continue to roast, still  
breaking them. as before, till they are perfectly dry ;let  
them.cool; then pound them to fine Powder, which.must  
be:put-in the Pat. the third Time, and placed over the  
Fire, and roasted till perfectly dry. This done, pound it  
Over again to a Very fine Powder, which put up in a Pa-  
per, to be kept in a dry Place. And this is the first Or  
. / preparatory Operation.

Take two or three Drains of thisPowder; find put it into a  
small - Matrass, whose Belly is capable of containing an  
. . Ounce, Or an Ounce and half, of Water, and whose Neck  
is six or seven Inches in. Length: Order it so, that the  
. Powder may take up no more than about one third of the  
’.. . Matrass; close the Neck of the Matrass Very slightly with  
a Stopple of Paper; then take a Crucible four or five Fin-  
gers Breadth inHeight, and in the Bottom thereof put three  
or four Spoonfuis of Sand: Upon this Sand place: the  
Matrass in the Middle of the Crucible; that is to fay, .so  
as not to touch the Sides. After this,- fill up the.Crucible  
-with Sand, that the Belly of the Matrass may - be hury'd  
in it. Tins done, pisce the Crucible with the Matrass in  
the MIdst of. a small earthen Stove, which has the Open-  
ing at the Top of about ten Inches wide, and is in Depth  
*to* the Grate six Inches. Pur live. Cnais all round the  
Crucible, to half its Height, for the Space Of half an  
.: -Hour ; ..then? lay .on more Coals, till they Teach the Brim  
τ . ...ofthe Crucible. Reep the sanie Fine for a good Haif-  
. .hour. Or till you see the Inside of the Matrass begin to he  
red; then augment rhe Fine by heaping Coais above the  
.r Brims of .the Crucible, and keep this great Fine for the  
Space of a full Hour, after which let if alone to gonut.. ..

In the Beginnings of this last Operation there will come forth  
thick Fumes through the Neck of the Matrass, across the  
paper Stopple. These Fumes sometimes come in so great  
Abundance, \_as to throw off the Stopple, which must he  
replaced, and the Fine diminished. These Fumes cease when;  
the Inside, os the. Matrass begins to grow red ; then is theTime  
*tp increase the Fire,* without heing apprehensive of spoiling the  
Operation, -mi..-. . ' ; '  
- When the Crucible is cold enough to he taken out of the  
Stove *without* sear of burning the Hand, the Matrass must he  
lifted out ofthe Sand aS far as the Middle os its Belly, and left  
to cool *for* about half a Quarter of an Hour; then it must he  
taken quite out, and rested a Moment on the Sand. But if  
you are not in Haste, or if the Operation be performed in the  
Winter, in; would be het rev to let the Matrass grow quite cold  
in the Crucible hefore you takeit out. ..'Tis adViseable also,  
at the same time, to put a Cork in the Neck of the Bottle,  
instead.os thepaper Stopple, Io prevent as much aS possible.the  
Ingress of the.Air into the Matrass. - . ; ' ; „ , .

γ Is the Matter, which is at the Bottom of the Matrass,, turns  
to Powder in the stirring, 'tis a Sign chat the Operation is well  
perform’d 4. if .it form a Coke, which will not resolve into  
Powder At the shaking of the Matrass, it.shews that the Pow-  
derwasnot roasted and dry'd enough, in the.iron Pan, during  
the preparatory Operation.;/. .\_ ....:

Having successfully gone through . the.Operations,. that, is,  
having got your Matter in Powder in .the Matrass, .poor a  
little of it, about the Quantity of a small Pea, upon a Bit of  
Papes, and quickly stop theBottie again. In a Moment astor  
.the Powder has been upon the Paper, it will hegin to smoke,  
and at the same, time to kindle, and will set Fife to the Paper,  
Or any other combustible Substance, τι : -y . .

If you happen to pour too much Powder out of the Matrass,  
you must not pur it back, tho' it be not yet kindled; for in  
would he sure to set Fire to all the Powder in the Matrass. .  
Hence it appears, that' there is no pouring os it from the  
Matrass into another Vial, but it must always remain in the  
same Vessel where it was calcined.-

This Powder is of different Colours,' sometimes black,  
brown, red, green, yellow, and even white, according to the  
Vessel in winch the preparatory Operation is made, and  
according to theDegrees of -Fine given it under the two Ope-  
.rations. . If you mix too much or too little Alum with the  
Excrement, ’the Powder will not kindle. ι -

- It kindles in the Day, as well as in the Night, without put-  
.ting one to the Trouble of rubbing, chafing, or even .mixing  
.it with any other combustible Matter ; ..and in-this respect it is  
-different From all the other factitious Phosphori as yet known  
Ito us ; for that made osDrine .stands in. Need, os a small De-  
-gree of Heat in order Io make it shine or kindle. *. The Sma-  
cragdine Phosphorus* requires.a great deal XofHeat. before it can  
produce its Effect. The *Bolagnian,* and the *Phosphorus of  
. Baldvvinus,* only shine during the Day, but produce no Effect  
.in the Night. The distill'd Oiis of Cinnamon, Cloves, -Sas- fTafias, land some others, do not kindle, without Fine, unless  
they he mixed with well rectified Spirit of Nitre. The Phos.  
-phorus describ'd by me in the Memoirs of the Academy for the  
-Year IA93. does not hecome luminous till briskly rubb'd,.or  
struck with some hard Body. . .' . -

have only yet made this Powder of Ord ure Or Excrement:  
But I am persuaded it may also be made of Urine 4. .and I even  
believe; that Urine, treated in this Manner, will yield a greater  
Quantity of its Phosphorus, than when manag'd In the com-  
mon way ; and that its *Caput Mortuum,* eVen after the Distil-  
.lation of the Phosphorus, will yield this Powder.

I have made three different kinds of it. The first fetS Fine I»  
combustible Substances, without appearing to he kindled itself :  
.The second not only kindles them, but burns itself like a Coal:  
And the third, at the same time that it kindles other combtisti-  
.hle Substances, flames itself like a Wax-candle, according as It  
-has had more or less Fire in its Preparation, or more , or less  
Alum in its Composition. . - .

In order to preserve this Powder good for any considerable  
time, it is necessary to keep it in:a dry, well-air’d Place,, so  
.have, the Bottle well-cork’d, with its Mouth always upright,  
: and to cover it with Paper, or some other Substance ; it. in  
. also proper it should he lodglu-in a dark Place, because a great  
Light spoiis it as much aS the Humidity, of the Ain, tho' not

To soon.

In order to have a tolerable Idea of .the precise Manner in  
.which thin Powder kindles, 'tis necessary to remember, that'tis  
a Substance strongly calcin'd by the Fine, and that \* by that Cal-  
cination it has lost all its aqueous Part, and the.greatest.Part of  
Its Oil and Volatile Salts. By this means it has acquir'd a great  
-many large Pores, which the Volatile Matter driven out. by the  
Fine have deft empty; so that the Powder which remains after  
-Calcination, consists only of. a spungy Contexture of earthy  
Matter, which has retained all its fixed Salt, and a lirtie of its  
foetid Oil ;. hut the. empty Pores retain for some time

.st Partof the Flame which enter’d them during **the** Calcination,  
almost in the same Manner with quick Laine.

As this is the Case, we must consider, that the fixed Salt  
which abounds ‘in this Powder, quickly absorbs, as it common-  
ly does, the Humidity of the Ain that comes into Contact  
with it. This sudden. Rushing of the humid Air into the Potat  
of the Powder, occasions a Friction capable of producing a. lit-  
tle Heat, which, being join’d to the Parts of the Fiame retain’d  
in the fame Pores, generates a Heat sufficient to set on Fire the  
final! Quantity of inflammable Oil which bad escap’d the Rin  
gour of the Calcination, and which isa Part os the P-owdeI.  
. As a Proof of this it tnay he alledg’d, that when this Row-  
dec is kept in a Vessel that is not closely stopt, it absorbs flowly,  
and by Degrees the.Humidity of the Air that reaches it, which  
not being able .to produce a Friction sufficient to generate a  
sensible Heat, spoils the Powder, fo that it will kindle no  
Inore,: just like quick Lime when expofed to the Air for some  
time, retains, its Heat no longer, because it has by little and  
little absorbed too small a Quantity of Humidity at a. time,  
fonprsdueing a Friction capable of exciting Heat. : : '

.- QuickLime, which:contains Particles of Fire, as. well as  
our Powiler, does not. produce Heat by the Humidity of the  
Air alone, as. .our Powder does, but it must be moistened by  
throwing Water on it before it has the sarne Degree of Heat.  
**The Reason of this in,** -because the Lime does not, , like our  
Powder,, confinii.gain capable of absorbing a great deal of  
hninid. Ain an a’ncee,. the violent Rushing in of which might  
prosiueeHeat; but. Water, (when thrown, upon it, rushes imp  
it suddenly enougnito^prnduce thesejneEffects i ...

And the Reason:why-quickLime .does not, like our Pow-  
der, produce a Flame, the’ it contracts as great a Heat, is, he-  
cause in .quick Lime thejte is no oily Mauer capable of being  
kindled by the Heat excited, as there is in our Powder; but  
if an Oil be artificially mixed with quick Lime, -It kindles in the  
same Manner. \_ ... Ἀ. . 'r i , Ἄ ?

We said before,: that jR,free Light spoils this powder, tho’  
stint up in. .a glass .Vessel well . stops. The 'Reason of this -is,  
’ that the .Friction produced by the Rushing in of the Humidity  
of the Air, is not the only Cause of a Heat capable of kindle-  
Inssthe Oil .contain’d .in our Powder :- Tire Particles of Fine  
which in has retained in its Pores,; contribute .also something to  
-that Effects. And as in the Duy-sime when the Matter of.the  
Light.always in great Motion .perpetually strikes the Powder  
.through the GherjSit; .difengagea her ilittlr and -little .that Tire  
which had been lodg’d in it during ‘Calcination; and diminishes  
in so. much, that, at -.last there remains no more of it to join  
the Heat produced by the Friction of the Air’s Humidity, and  
bis consequently , reodethd. incapable .of kindling- *Mr. Ifom.  
jherg,, 'sissem, de stAcp.il. dury. Anssulumcfpssflon.yyn:.* j::

*An Account of .different Substances, which, sain'd with Alum,  
“ 'make a Phofplarus. By M.* iLemery; ‘

- M. *Harnberg* havinggiven us, in-the.Meinpires of I7II, 4  
Description of a new Phosphorus, made with Alum and  
..human Qudure, which berng .exposed/to we Air shone as well  
by Day aS by Night, and set on Fire every combustible .Mat-  
ter that came near it, and needed not to he rubb’d or chased  
like what.is made of Urine shy Distillation, it put me upon  
^examining whether there were no other fulphureoin Matters  
capable of producingthesame Effects in Conjunction withAinm.  
... My .first Operation, was upon Urine, whence, I thought,  
agreeable to Mr. *Hambergul* Opinion, the greatest Quantity os  
-Phofpherus. could .be extracted by a .well .known Method, T  
evaporated then a .good Quantity of Urine to the Consistence  
of thick Honey \*. Qf this I took four Ounces, which I mixed  
-with the like Weight os RocheAlum pulverised in an Iron Pan  
.over-a finals Fire, to consume the Humidity, continually,stir-  
xing^and breakingjttlllin was perfectiy dry ; and when it was  
;cool, I reduced it to Powder, and kept it in a dry Place.

After this ! gut.it in. a small Matrass, of which ft took up  
a third Pau, and stopped, the Neck with a Stopple of Paper.  
**I** then took a Crucible, of the Depth of four or five Fingers,  
in the-Bottom of which I put a littio Sand, and placed the  
Matrass upon It, ninth surrounded the rest of the Matrass with  
Band. This done, I placed the Crucible in a little Stove, and  
onade a Fine about it of one Degree of Heat for half an Hour.  
When the Vessel was hot, I augmented the Fire till theMat-  
ter grew red,.which took up about an Hour and a Quarter.  
-Then I let the Fire go out. and stopped the Bottle.very well  
-with a Cork, taking care however to let it. cool by Degrees  
;before I quite closed it, lest the Vessel should burst, which in-  
deed once, happen’d, when having stopped toy Matrass too  
soon, the rarefy’d Vapour which continu'd to afcend from the  
.Matter, finding no Vent by the Neck, hurst a Hole in the  
.Bottom of the Matrass,.and moreover.destroy’d in a manner  
the Shape of the Vessel, which being pretty thin, the sooner  
gave way to the Efforts of the Vapour.

. When the Matter was cool enough, I poured it.upon a  
Taper, and it neither burn’d nor so rnucti as heated it. It was  
of a grey. Colour. ... . ...τ; " ' ' ῖ ' ς.

The same Process ferved for all the other Substances I try’st  
afterwards. Blood with an equal Quantity of Alum made a  
Phofpherus that kindledpretty quiche

The Yolk of an Egg, manag’d in the farne manner, made **a**very good Phosphorus, but the White did nothing at all.

Cantharides, and Earth-worms, did not succeed very west.

Beef, Mutton, Veal, choop’cl and pounded long enough to  
make them pass through a Sieve, anil mix’d with an equal  
Quantity of. Alum, produced a Phosphorus like that of Blood. "

Amour; animal Substances, Utioc, and the White of an  
Figg, Being- die only ones thin would not serve sot a Phos-  
phorus whh an equal Quantity of Alum, I try’d whet double  
the Quantity of Alum would-do, but without Succefs.

Afterwards I made Trials whether thofe Phosphori, which  
had succeeded with an equal Quantity of Alum, would succeed  
with double the same ; in which Procedure Blood, the Yollc  
of an Egg, the feveral sorts of Flesh before-mentioued, Hies,  
and Worms,. made a Phofpherus, which seemed to me to  
kindle quicker than when I u fed an equal Quantity of Alum :  
This gave me the Curiosity to augment by Degrees the Quan-  
utyofAlum. . *. ssu.- ... i '*

. I observ'd, that six Parts of Alum to one Part of the sul-  
phureous Substances before-mention’d made a Phosphorus -that  
burnt more briskly than those.of the preceding Trials. Seven  
parts ofAlom did; as .well as;six , hut eight had scarce any  
Strength at all, and would not kindle bur when it was hot,  
and Just when out of the Fire; and two or three Hours after  
it was amade, would do nothing at all, whereas the others  
kept their-.Virtues above eight Days, provided they were well  
stepped. - *'si. ' . i*

; Ten Parts of Alum to one of thofe sulphureous Substances  
never made any Phosphorus: Urine, and the White of an  
Egg, never succeeded with any Proportions of Alum which  
produc’d Phosphorus with other Matters.

From Animals I pass’d to Vegetables, and began with Seeds.  
The "Flour of Wheat, Barley, and Rye, would not kindle  
with equal Quantities of 'Aium, as did the animal Substances ; -  
'but from, double' *to* seven times the Quantity of Alum, the  
Phofphorus kindled better and better, and burnt -almost as  
well as that made of Blood, or the Yollc of an Egg.

Honey likewise did nothing with an equal Quantity, but  
succeeded very well with six Parts of Aluna.

; The Leaves of Rofemary, Baumi and Senna, made a Phot,  
phorus with two, thiee, and four Parts of Alum, but did ho-  
ceding with five 9r fix ; but their Phosphorus did not hold  
jong, and had tin good Esseci, but when in was a llure hot:  
That os Senna seemed stronger than the others.

- Flowers with theee.and lour parts of Alum kindled well,  
.especially Roles. \_ τ"

Woods of Sassafras and Guaiacum afforded a Phosphorus:  
But it must be observed, that in order to extrail one from  
’there Woods, the Fine must not he so great as for other Sub-  
. stances, without this Precaution you will obtain nothing.'

The .Roots of Orris and Rhubarb did not kindle well but  
with uto of threeTarts of Alum, and succeeded nor with  
more. ‘ '

As the Phosphorus is made by means of the oily Substance  
contained of those Bodies, *I* imagin’d that the Oils separated  
. from the other Principles, might, as well as the other Sub-  
stances above-mentioned, make a Phosphorus. But I found  
a great Difference, for , they produced nothing with an equal,  
double, or triple Quantity of Alum ; and though, by gradually  
' increasing, five Parts of Alum to one of these Oils afforded a  
Phosphorus, yet it was very languid in Comparison of one  
, extracted from Animals and Seeds. Whet was particular,  
. they .kindled with ten Parts of Alum, which other Matters  
would not do. ’Tis true, ten Parts of Alum to one did not  
imake so good a Phosphorus as five to one. The Oils I made  
use of were those of sweet Almonds, Ollves,, Guaiacum, and  
Hartshorn; of these the two last did best.

After this I diverted my Operations to Minerals and Me-  
, tals, .as Iron, common Sulphur, Antimony, golden Sulphur  
of .Antimony, and feme others. I mix’d them with different  
Proportions os Alum, but'not one of them produced any  
Fiame, nor so much as Heat; whence it appears, that to  
.make, such a Phosphorus as M. *Himbergis,* we must have  
. recourse to animal and vegetable Substances.

I shall next examine, whether any other Salt may he substi-  
tuted instead of Alum, in order to make this Phosphorus.

By the different Analysis of Salts that are keown to us, in  
appears, that the Acid of Vitriol, common Sulphur, anil  
Alum, are of the fame Nature, I had therefore a Mind to try  
if one of,these might not be substituted for the other. And  
as *M. Hasnberg fad* observed, that be bed rare Success with  
Colcothar, I fancy’d that Vitriol, which is much more preg-  
. nant with Acids, might have more Effeci: I used it then after  
.the fame maimer as I did Alum, but to no Purpose; I could  
never muke any thing even-of Colcothar, whatever Trials 1  
made. Perhaps I was wanting in some Circumstances, having  
**.several** times experienc’d, that the Success of some Operations

which I made on Vegetables, often depended either upon  
a httle Variation of the Fine, or the Quantity ofAlum.

I next toy'd Salt of Sulphur, which is known to he an arti-  
ficial Salt, compounded of the Acid of Sulphur, incorporated  
into the Pores of Salt of Tartar, but with the same Success.'  
Sea-salt, Crystals of Tartar, Borax, .vitriolated Tartar, and  
Salt of Tartar, mix'd in different Proportions with these Sub-  
stances, had no Effect.. ........

Saltpetre in our Operation did as it uses to do when mix'd  
with other oily Substances; that is, when the Matter has been  
warmed, it stew out of the Matrass with a great Noise and  
Detonation, and consequently no Phosphorus was to he made  
of it: But if to a Phosphorus made with Alum, and just on the  
Point of kindling, you add Saltpetre well drysd, at the rate of  
two Drams to half an Ounce of Matter, which you may mix .  
together Very well in the Matrass; after it is close stopped,  
you will find, that- being pour’d upon Paper, the Phosphorus  
will bum with much greater Strength, than it did hefore it  
was mix'd with the Sulphur. ' . . . i ’

Lastly, I was willing to see if Acids, disengag'd from their  
earthy or metallic Parts, as they actually are in Spirits of  
Nitre, of Salt, and of Vitriol, would succeed hetter than the  
concreted Salts from whence these Spirits were extracted ; but  
all these, together with the Spirit of Alum itself, had no better  
Success than the Salts hesore-mention'd. - *Memoir er de sc Acad.  
Roy. des Scienc. iofiAn - ----- -*

Though a Vast Variety of oily Substances are proper to enter  
‘.the Composition of M. *Hombergfs* Phosphorus, yet no other  
’acid Mineral is necessary to be join'd; than whet that Gentie-  
man only used, which is Alum. We shall give a-general  
Idea of this Phosphorus, which’ is of such a Nature, -as at all  
Times, and without any Assistance, to be kindled by Air alone.  
For the better understanding how thin is to be effected, we  
shall make use .of two known Phosphori. The first which  
has not the Name, and but imperfectly the Nature, is Lime:  
It is full of an Infinity of fiery Particles, introduc'd by Cal-  
cination, and imprison'd in an Infinity of little Celis. 7 This  
‘Matter, bring extremely dry, greedily receives the Water  
' poured on it; and the Water impetuoufly penetrating and  
opening the Prisons of these Particles of Fine, frees them, and  
To causes an Effervescence, and a Very sensible Heat, over all  
.the Substance of the Lime. This Water kindles this kind of  
‘Phosphorus, not by itself, but by the Liberty of Action which  
I it procures to the Particles of Fine. Ἀ ss

The second Phosphorus is the essential Oik of *Indian* aro-  
'Inatic Plants, which kindle into a Flame as soon as you pour  
on them acid Spirits well dephlegmated. ' . V ’

c In these two Phosphori the Water aloes not act immedi-  
ately of itself. . In the first we .shave already prowd it; in the  
'second, the Acids alone acton the Oil, which is almost entirely  
'Void of them; and the Phlegm or Water, in which these Acids  
Twim, is no more than their Vehicle. This second Phospho-  
rus only burns, hecause there is nothing but Sulphurs or Oiis  
'that will burn. Of which there are none in the Lime; and  
' Oiis themselves will not burn, but when they are animated by  
some Acid. Common Sulphur.wholly depriv'd Ofit would not  
burn. We are certain then, that an oily Matter, whose Acids  
'are separated from it, will be set on Flame, as soon as Acids of  
a good Degree of Purity shall come upon it, so as to penetrate  
’ it with Violence. ' ' .

) But if you would have the .Matter he kindled by the Air  
only, the Air will not furnish the necessary Acids; for it  
‘either contains them nos, or not in a Body strong enough for  
: the Purpose. The Acids then must he contained tin the oily  
'Matter os the Phosphorus, but' in such a manner, as not to be  
’ intimately united with it, but only, aS it were, mixed with it  
by small separate Parcels, so aS to want a more perfect Union.  
' ’ For this End the Acids must he for the present shut up in  
’their little Celis; but in so loose a manner, that the least Shock  
will diflodge them, ‘and make way for their sudden Irruption  
’into the oily Matter, and Penetration into its most intimate  
Parts. To this Purpose the Ain will he sufficient, not of  
itself, but by the aqueous Humidity it contains, that is, by the  
very small Parcels of Water, which, by dissolving the Acids  
that are proportion’d to them, put them on Action. This  
'subtle and invisible Water works the same Effect in this Phos-  
phorus, that the gross and common Water did in the two  
'others of which we have spoken ; son besides putting the Acids  
in Action, it also disengages the Particles of Fine winch the  
\* new Phosphorus requires in the Operation.'

τ Here you have the System of this Phefphorus : It is no  
.easy'Matter to prove by Ratiocination, that, such a thing  
\*is possible to be effected ; but as wo know by Experience,  
Ihat it is actually so, these are probably the Principles of its  
Torination. ?

τ Hence we see os what a delicate Nature it .is, and how the  
^Circumstances on winch it depends ought to hejust, and the  
^Quantities of Ingredients nicely proportion'd: For Example,  
"that the oily Matter, which must be deprived of its Acids, and  
'the concrete Salt, which is to supply the Acids, might he Cal-

cined together, there is nothing but Alum which can be that  
concrete Salt, which in spite os Calcination preserves a Quan-,  
tity of Acids necessary for the Effects of a Phosphorus, and  
also keeps them as loosely confined in their Celis, aS the Mat-  
ter requires. This depends almost upon an indivisible Point.  
The oily Matter having lost its Acids, which were carry'd off  
by the Fine of the Calcination, there remain their forsaken  
Cells, and it is the Alcali which absorbs the new supervening .  
Acids. Wherefore, that there might hen sufficient Supply to  
fill these Celis, and to penetrate the oily Substance, it is neces-  
sary that the Quantity of Alum be exactly proportion'd to the  
particular Nature of the oily Matter. The more Alcali or  
fixed Salts remain after Calcination, the greater is to be the  
Quantity of Alum ; for which Reason animal Oils, which  
have less fixed Salt than Vegetables, need a less Quantity of  
Alum. *Hast. de scAcad. Roy. des Scienc.* I7I5.

Μ.*Boulduc,* resolving to make an Examen of *Ebsint* Sals,  
was immediately inclined to think, by some Marks, and espe-  
cially the Swelling of that Salt, when it is hegun to be distil-  
led, in which it altogether resembles calcined Alum, that , st  
participated much of an aluminous Nature; Io discover which,  
he made continual Operations, upon Alum combined with  
other different (aline Substances. What succeeded best was  
Salt os Tartar,-or Oil os Tartar *per Deliquium.*

Alum in an acid Spirit, which is impregnated m the Bowels.  
Of the Earth' with earthy and alcaline Particles, enough .to make  
-it a concrete Salt. Now Salt of Tartar, pour'd on a Solution  
of-Alum, being a more powerful Alcali than, the earthy Mat-  
ter united with the Acid of Alum, forces them to separate,  
and-the Earth of the Alum precipitates, and there is anew  
'Unionof the Acid of Alum, with the Alcali of Tartar,  
whence results a new concrete Salt, entirely divested of its  
earthy Matter. - *, c. - : se. .*

- After M. *Boulduc* had jnade several Trials, and given his  
.salt all. the Persection he was able to do, he found it **in all**respects resembling -that-of *Ebsom,* only not quite so bitter,  
but the Difference was too inconsiderable to be regarded. But  
this Salt of M. *Boulduc* had the Advantage of being discharged,  
“of its earthy Part, which **the** other wanted ; for when mixed  
with the Oil of Tartar; it precipitated awhite and earthy Matter,  
‘like what was precipitated from Alum after the like Mixture,  
and even somewhat more in Quantity. **- M.** *Boulduc,* **who**thought himself the Inventor of this Preparation of Alum with  
Salt of Tartar, found-it afterwards in *Hartman. Hist, de  
'FAcad. Roy. des-Scien.syiA.*

*M. Geoffrey* discover'd, that the Basis Of Alum was a Bolar  
- Earth dissolv'd by an -Acid. - .

-Bo/w-are assort of sat, soft, brittle Earth. The Pieces of  
Pipes in *Holland* which- are made of these sorts of Earth, and  
theFragments of onr common Pottery-ware, which imbihe a  
good deal os Acid, hecause the Fine which bak’d them, open'd  
their Pores, afforded true Crystals of Alum: And it is further  
observable, that these Pipes, at the End of two Years, shot,  
forth fine Threads like those of plumoseAlum, which grew  
and. vegetated in the Air. *Histoire de VAcadem. Royale des  
Sciences, iy2S.*

'M. *Geoffroy,* before quoted, says. That

Besides\* those Mines which contain Sulphur, Vitriol, and  
-Alum; there are some purely of Alum. They who have  
hitherto written upon that Salt, have told ns, that the Base  
. which coagulates the\*Vitriolic Acid, is a white Earth not vitri-  
stable; and of the same Nature as Chalk.

I have proved by Experiments, says he, that this Earth is  
dispersed .and mixed in Very many Substances, and especially in  
Boles and Clays that are bak'd, fince they have all afforded me,  
with the Acid of Sulphur, or the Acid of Vitriol,- that Salt  
[AlumJ which I had a Mind to imitate I It is no longer sur-  
prising then, that there should be Glass which produced Alum,  
fince tit inclosed Matter capable of forming it, as soon as the  
vitriolic Acid should have Strength to make its Way between  
-the Laminae of the Glass, where that Earth was lodged, in  
order to Join it. *' I -*

*My* Experiment for producing Alum, that best succeeded,  
was thus managed : I took some of our common Potters Ves-  
sels that were not Varnished, but porous and brittle, and sprin-  
kled them with Spirin of Sulphur, and they imbib’d it more  
perfectly than Earths not baked, because their Pores are more  
open. They fermented flightiy with this Spirit, which in the  
Digestion became mucilaginous ; and that Mucilage, heing  
exposed to the Ain, produced Crystals of Alum, which in-  
creased by Degrees, and took the most exact Figure that was  
possible for that Salt to have. *Mernoires de Acad. Roy. de Sci.*1728. ' . . .

The factitious Alum is distinguished only by the Countries  
where it is made, into a great many different kinds ; and if it is  
in large Masses, like Rocks, it is termed Rook or Roch-Alum.;  
and if it looks like the Fragments of Ice, jt in termed Glacial,  
or Icy-Alum. Factitious Alum was entirely unknown to **the**Antients, but with us is the only kind in Use ; for we now  
know Very little of the natural kinds, winch, were formerly so

common. M. *Tournes.ort* found two Species of natural Alum  
in the Ifland *Milos,* or *Mila ;* one was in *Strata,* or *Crusts,*Of an astringent Taste, and an Ash-colour, covered with some  
filamentary Efflorescences, which smelled like *Aqua fortis,* but  
not near so strongly ; The other was the capillaceous or sila-  
mentary kind, or true *Alumen Plumosurn ,* it was in small  
Pieces, of the Thickness and Length of a Man's Finger, and  
might, by beginning at the Ends, be easily divided into small  
greyish Filaments, resembling a Tuft, or Pencil ; it was  
soluble in Water, and melted in the Fire, and of an astringent  
Taste. Even in *Dioscoridesls* Time, this Alum seems to be  
confounded with the *Lapis Amiantus* ; for that Author, talking  
Of the Scissile-Alum, observes, that there was a Stone Very like  
it, and that the way to distinguish them was by the astrin-  
gent Taste of the Alum, winch the Stone had. not; And he  
might have added. That it could mot be melted by Fire, nor  
diflolved .in Water. The History of Medicines being after-  
wards quite lost in the Ages of Ignorance and Darkness, the  
Name of the Salt was given to the Stone, and from thence it  
is, that it is still found thus mistaken in some Dispensatories. .

Alum is a strong, astringent, acid Drier ; The native Alum  
smells a little like Aqua fortis, but the-factitious has little or  
no Smell j when thrown upon live Coals, it rises in Bubbles,  
and melts in Water. The Crystals, of Alum have eight Sides,  
representing an hexagonal Pyramid, with the Angles cut off,

. Or they are bounded by four hexagonal and sour triangular Sur-  
saceS. A Solution of Alum coagulates Milk, turns the Tine-  
lure of Heliotropium purple, makes no Alteration in the Solu-  
tion of corrosive Sublimate, turns the Infusion of Galis turbid  
and whitish ; with Salt of Tartar it concretes into a white  
Coagulum, without any sensible Heat or Smoak; and often  
upon- mixing this Solution with Oil of Tartar, an urinous  
Smell is perceived ; but this happens only when the Alum has  
been purified with Urine, as in the *English* Alum.; but there  
is no such Smell in the *Raman. . ‘ .*

In Fluxes of Blood Alum may he used inwardly, in the fol-  
lowing manner: : .

. Take -Rock-Aluin, a Dram ; Plantane, and Knot-grass  
.T. Water, of each three Ounces: Add to the Solution,

Syrup of White-thorn, an Ounce: For a Julep, to be

. . taken by Spoonfuis.’ Or, ' ’ ' \* . \*

Take of pure Rock-Alum, two Ounces: Melt it over the  
Fire, adding, in the mean time, of the finest Powder of  
Dragon'sthlood, half an Ounce; and make this Mixture,  
before it grows hard, into Pilis aS big as a small Pea. The  
Dose is ’-front a Scruple to a Dram, every four Hours,  
till the Flux is stopped, and then once or twice a Day

. for some Days afterwards. After every Dose, the Patient -  
ought to drink a large Draught of some proper Liquor ;  
but great Core is to be taken not to stop the Flux unsea-  
fonably, and therefore Bleeding ought To go both before  
and aster it;, and Clysters ought likewise to be admini-

. . stared, from time to time, to prevent CostiVeness, which  
: . commonly follows on taking tins Medicine. *Geoflfroy.*

si 9 - / . \* l

" . Something different from this, .in the Proportion of the  
Ingredients, is that Pulvis Stypticus mention'd by. Dr. *Alexander*

*- Thompson,* of *Monirose,* in the following Dissertation ; ;so .

*'. Scribonius Largus,* the *Roman* Empiric, made use of sim-  
‘ ple Alum-in the. Evacuations of the Sex exceeding.their due

Bounds; and I have been told.by Ladies, ν that st has Very good \*  
Effects. .... ’.. .. . ; .. ’ . γ

*. Helvetius* improved on this, by adding Sanguis Draconis,  
«' whether as a Larva, to make it his.Own, or to prevent the  
' Uneasiness of the Stomach, which he might suspect the Alum

might give, I can't determine: .But Dr. *Pitcairn,* whose Μέ-  
ν mory must continue as long as Physic is known, was the first  
.who introduced the Use of it into this Country; at least, it

was he who first desired me to make Experience os it in a Case  
6 which had resisted a great many other Medicines. Its Repu-  
Iation kept up many Years, under the Name of PulVis Hel-  
’ vetii, as an-Astringent, especially in uterine Haemorrhages ;

and I see it inserted in the *Edinburgh* Pharmacopoeia,  
by the Name of Pulvis Stypticus, the' in some different

- Proportion, and different Manner of preparing, .from what  
I have commonly used. The Dispensary Powder being pre-

’ pared of a double Quantity of Alum to one of the Gum,  
and made into a Powder, without being put near to the Fire,  
whereas what I have used was equal Parts ofboth, the Alum

’ being first melted , in a Crucible, and the Powder of the San-  
guis Draconis added to It, and then powdered together in a  
Mortar, possibly the Difference Of their Effects may, notwith-

’ standing, be Very little.

The Use of both, I think, is now much laid aside, which  
I cannot but regret, fince I never found any Medicine (and  
. I have tried several) so much to be depended on in all the ute-

rine Haemorrhages, whether to correct the too frequent Re-  
turn of the Messes, or their too great Abundance ; to stop the  
Flooding which Women with Child are so subject to, or to  
moderate the Flow os too plentiful Lochia. I have tried it in  
so many Cases with. Success, that it would be altogether tedi-  
ous to give you their Histories.

. The Quantity I give *os* the Pulv. HelVetii is more or less  
according to the Exigencies os the Patient. In violent Blood-  
ings I give half a Dram every half Hour, and seldom or never  
miss to stop it before three Drams, or half an Ounce, is  
taken. - . . . - . ..

The Success of this Medicine, in these bloody Evacuations,  
has encouraged me to prescrihe it also in the Fluor Albus, that  
obstinate, pernicious Disease of the Sex, in which I have been’  
surprised at its good- Effects. *Edinburgh Medical Espays,  
Volsus.susqu. si jo*

When it is proper to present or check a beginningDeflua.  
xion in a Quinsy, Gargles may be made with Alum, in this  
manner: ’ ’

Take Red-rose Leaves, and Alum in Crystals, of each **a**. Dram : Boil them in eight Ounces os. Plantane Water;

and in the strained Liquor dissolve an Ounce of Syrup of  
Mulberries, for a Gargle.

In Inflammations of the Eyes, the following Collyrium is  
excellent:

.... f ' . . . . —.

Let the White of an Egg he shaken or beat with a Piece  
of Alum, till it acquires .the Consistence of an Ointment:  
Spread this upon a Linen Rag, and lay it warm to **the**

. .. -.Eyes. . . .J - . . . :

\* ... .. ί .\* st . \ - '. .' ; «

*Riverius* orders this Collyrium to he taken off after two

Hours, lest it should by its 'Astringency so far contract the  
Vessels, as to fix the obstructed Fluids in them. Some Physi-  
cians are of Opinion, that repellent and astringent Collyriums  
.should not be applied to inflamed Eyes immediately after the  
Inflammation appears, lest the Fluids- still in Motion should  
be fixed in the affected Part, . and thereby the Obstruction  
be increased ; but except the Motion of the Fluids toward  
the inflamed Part be very violent, this Precaution is unneces-  
sary; and, on the contrary, by increasing the Strength and  
Contraction of the Wessels, these Applications enable them **to**resist the Force of the Fluids, whilst at the same time other  
proper Means are to. be used to divert their Course another  
Way, such as Bleeding, Blistering, Purging, Cupping, and **the**like: Besides, if we: stay till the Quantity of the obstructed  
Fluid is very much increased, -it is in vain to think of applying  
Astringents, which would serve only, to condense them more,  
and prevent their being resolved. In scorbutic Disorders of the  
Gums, the following Wash in very proper : . ...

Take of- Camphire,- an Ounce ; Crystal-Alum, two Ounces;

Sugar-candy, four. Ounces ; *French* Brandy, a Quart :  
- Let them stand in a quiet Place for two Days, and then  
strain off the. Liquor, and keep it for Use.

Alum is by some reckoned'a great: Specific in intermitting ‘  
Fevers,.when prepared in this manner

. First calcine it in an open Fine ; and while it. is still hut,  
throw it into Vinegar, and let it dissolve ; evaporate **the**Solution, and beautiful Crystals will.he formed. It.is **to**be taken from a Scruple to a Dram, in a proper Vehicle,  
τ hefore the Fit,

The usual Preparations of Alum are. Purification, Distflla-  
tion, and Ustion or Calcination: It is purified by being dis-  
solved in fair Water, and then by evaporating and crystallizing  
that Solution in the Common manner. It is distilled like  
Vitriol, and the first thing that comes over is an insipid  
Phlegm, then an acid Spirit nearly the same with Spirit .of  
Vitriol. „ What remains in the Retort is a white, light, friable  
Substance, called Burnt-Alum ; being Alum deprived of its  
Phlegm, and some Portion of its Acid, and by a new Solution  
and evaporation, it will run into Crystals, aS before Distilla-  
tion. The Phlegm of Alum would be perfectly useless if  
pure ; but as it contains always some Portion os .the Acid,  
and some Alum also, which sucks in the Neck of the  
Retort, .it becomes a Very useful external Application Tn  
chirurgica! Cases, for moderating Inflammations, and drying  
Ulcers. One Drain of Alum .dissolved in six Ounces of this  
Phlegm makes an Alum-water, which is an excellent Deter-  
gent for Wounds and Ulcers. The Spirit of Alum is .used the  
same way aS Spirit os Vitriol. Burnt-Alum eats away fungous  
Flesh, and is usefully sprinkled upon Linen, to absorb bad  
.Smells arising from any Part of the Body. *Geoffrey.*

Alum is thus order'd to he burnt by the College i

Take any Quantity of Alum, put- it into a new earthen  
Pot, and let it hern in it as long as it will bobble up, and  
raise any Steam: When it is cold, keep it for Use.

*Bates* has three Preparations of Alum : The first he Calls

. ALuMENDULCE, Dulcisy'd Alum.

Disiblve Alum in Water, and coagulate; repeat this three  
times, that the Alum inay be purisy'd. This is also cal-  
led SanchanIm Aluminis, and is commended in Diseases  
Of the Breast, especially if they take their Rise from mine-

- -ral and subterraneous Exhalations. It gives Ease in the  
. Tooth-ach, if applied to the Gums. The Dose is half a

Scruple. '

The second is called ALUMEN FEBRIFUGUM, which he  
takes from *Mynsicht t - ' -*

Dissolve three Ounces of Alum, in one Pint and an half of  
Carduus-water, sufficiently ting'd with Dragon is-blood,  
and strain'd, and then exhale till dry. The Dose one  
- ? Scruple besore the Fit comes on. It provokes Sweat. -.

The third he calls ALUMINATUM :

' Take Lemon-juice, one Pint; Alum, half an Ounce: Boil  
and skim them. This is of great Service in Redness of  
the Face, and Pustules, drinking in the mean time the  
**CEREVISIA CATAPSORAs,**

ALUNIBUR, *(Luna-)* the-Moon, or Silver. *Kulandus.*ALUNSEL, *sStilldur* a Drop.r *Eulandus.*

' ALUSAR, Manna. *Eulandus.*

ALUSIA, ἀλκσίμ, from α Negative, and λήω, to wash.  
It signifies a Defect, or Neglect of washing.

ALUTA. It signifies a soft thin Leather, us’d to spread  
Plasters upon. See SCUT OS. -

ALVUS, the Belly in general ; but the Word is used by  
*Dilsus* for the Belly relative to Stools, in much the same Sense  
‘That κοιιάα, or κριλίη, -is us'd by *Hippocrates,* and the other  
*'-Greek* -medicinal Writers. Thus *Celsius, (Lib. a.. Cap. As.)*'speaking of the bad Symptoms in Fevers, says. That when the  
‘ Eelly *(Alvus)* is entirely suppressed, that is, when there are  
mo Stools, it is a bad Circumstance; as it is also when the Belly  
ds so loose in Fevers, that it will not suffer the Patient to rest  
Tn his Bed, provided what is discharg’d is very liquid, or white,  
or pale, or frothy: - Moreover it portends Danger, is what is  
excreted is small,.glutinous, smooth, white, and palish ; or-if  
It is livid, or bilious, or bloody, or more than ordinarily offen-  
. .five. ' These Stools are also had, 'which after long Fevers are  
: sincere... See AC^ATOs.

The Arttiertts had various cathartic Medicines, and were  
very attentive to keep she Belly loose in almost every Distem-  
per. For this Purpose they prescribed black Hellebore,' Poly-  
pody of the Oak, *fFiliculen* Squama KEris, called by the  
l *Greeks xlumtc AAhoci,* and the Milk of the Sea-lettuce, which,  
dropped upon Bread; purges Powerfully ; or they boiled the  
Milk of Asses, Cows, or Goats, with a little Salt, till it  
- curdled; and then taking away the Curd, prescrib'd the serous  
*: Part* for a Draught. -

But Medicines are generally hurtful to the Stomach, and  
' Therefore all Cathartics ought to have a Mixture of Aloes. If  
the Belly he Vehemently loose, or is too much purg'd, tile  
Body is weaken'd ; therefore it is never right to prescribe Re-  
“medies, with that Intent, in any Distemper, except it be  
‘ without a Fever ; as when we give black Hellebore to such-as  
- are afflicted with black Bile, *[atra Pilis’]* or in that Species  
‘ .of Madness which -is attended with Sorrow, or to those who  
. sire paralytic in any Part ; but where there is a Fever, arid we  
- would have the Belly loose, it is hest to prescribe such Meats  
' and Drinks as are both opening and nourishing ; and .there are  
Some Diseases in which purging with Milk is most proper.

The best Way of procuring Stools, is generally by Clysters,  
’. which *Asclepiades* censur'd, but in such a manner, aS pot utterly  
si to banish them out of Medicine ; -but in the present Age they  
- are much disused. However, it is hest to use the same Mode-  
‘ ration which that Physician seems to have followed, and nei-  
\* ther to satigue the Patient by frequent Clysters, nor to omit  
giving one, ' or two at the most, when the Case seems to re-  
quine it; as when the Head is heavy, in a Dulness of the Sight,  
and in a Disorder of the great Intestine, which the *Greeks* call  
κῶλον; *if* there be a Pain in the Belly below rhe Navel, [in *imo  
Pentrey* or in the Hip ; if there be a Conflux of bilious Juices  
"in the Stomach, or if Phlegm, or any watery Humour, infest  
that Part ; if there-he a Difficulty of Breathing . if there he

no spontaneous Motion to stool; if the Faeces be near their  
Outlet, and yet stick in the Passage; if the Breath of the Pa- χ  
xient, who is bound, finest of the Excrements ; if what, is  
voided be-corrupt if Abstinence, first try'd, has not taken off  
the Fever; if the Strength will not admit Of bleeding when  
convenient, and the proper- Time for it is elaps'd ; if the  
Patient drank freely before the Disorder happen'd ; if a Person  
becomes suddenly costive, who before was us'd to frequent;  
Stools, shontaneoufly or accidentally. Bur this must he  
understood with these Limitations, that we do not administer a.  
Clyster till the third Day; nor whilst any Crudities subsist,  
nor to-a Patient weak or exhausted by Sickness, ar whose Belly,  
discharges freely -enough. every Day, or whose Stools are of a  
liquid ConsIstence. We should also beware of giving a Clyster  
in the Violence of Afebrile Paroxysm ;. for. what is then given  
passes not through the Belly, bus, is cast back, and sties up to  
the Head, with much greater Danger to the Patient. Absti-  
nence is to he enjoin'd the Day before, that the Party may‘he  
the fitter to undergo the Operation ; and on the same Day,  
some Hours hesore the taking of it, warm Water is to be  
drank in order to moisten the upper Parts ;; then a Clyster is to be  
injected of pure Water, *if* a flight Medicine will servethe Turn,  
or of Mulsa, if something stronger he requir'd., for a Lenient, -  
take a Decoction of Fenugreek, Ptisan, or Mallows; and for  
a Repressive, a Decoction of Vervain.. Sea-water, Or any  
Other impregnated with Salt; is of an acrimonious Quality ;  
but its Acrimony is increased by air Addition of Oil, Nitre, or  
even Honey : The more acrimonious it is, the stronger is its  
Force, but the more difficult to be hern.. What is injected  
must be neither hot nor cold ; Tor either may do hurt. After  
Injection' the Patient ought to keep in Bed aS much as possible,  
and not he too hasty to give way to die first Motion, but go  
to the Stool when he can no lunger contain it. Much aster  
this manner are the superior Parts relieved, and the Violence  
of the Disease abated, by depriving it of the Matter that sup-  
ports it: Moreover when the Patient has gone to the Stool as  
often as Necessity requir'd, and is pretty well exhausted, he  
ought to take a little Rest, and to eat something the same  
Day, that his Strength may not sail him ; but whether little or  
much is to be indulg'd, is to be regulated according to the more '  
or less Apprehension we are finder os the Approach of the  
Paroxysm. *' Celsus, Lib. y. Cap. sm.* . ᾶ

Purging the Belly *[Aluus ddctfi]* often relaxes the Rigour of  
.the.superior Parts. *Celsius, Lib. lp- Cap. 2^. . ..*

Nothing more contributes to the Cure of Deafness, than a  
"bilious State of this Part.l *sisolsus, Lib. as. Cap. 8. ‘*

Costiveness of the Belly Tor several Days together, indicates  
either a sudden Motinn to stool, or a flight Attack of a Fever  
coming on. *Celsus, Tib. 2. Cap. y.*

They who are of a loose Belly in their Youth, are generally ,.  
.costive in their old Age; and they who Are hound in Youth,  
.are often loose when old. A laxer State In Youth, and rather  
. bound that) loose in Old Age, as most desirable. *Celsius, Lib.* 2.  
\_C00. so '

Binders of the Belly are Labour, sitting in'a Chair, Fullers-  
Hay said over the Body', Diminution of Food, and eating once  
a Day instead of twice, little drinkings, and that only aster a  
full Meal, Rest after Meals. On the contrary. Things which

' loosen the Belly are walking and eating more then usual, stir-  
ring after Meat, intermixing Draughts, with eating. And It  
ought to be observed, that a Vomit hinds a loose Belly, and

-loosens a bound one; and thata Vomit, taken immediately aster  
Meat binds the Belly, but delay'd rill a .considerable, time aster

- loosensthe same. *Celsus,. Lilt. i. Cap.* 3. j J

' The Belly Various, in its Excretions prognosticates Death;  
-as when it voids Strigments, ' (roapy Strings) Blood, Bile,  
green Excrements, sometimes at different Seasons, sometimes

- all together, and in a sort of Mixture, the' distinct. But  
-under these Symptoms Death :may not be immediate, which

however comes on precipitately, when the Excretions are liquid,  
and black, pale, or sat, and exceedingly foetid. *.Celsus, Lib.* 2.  
*Cap.* 6. . ... ς

- A Whiting *[Asellui .Marsm.sp* boiled with Dill, and sea-  
- son'd with a little Oil and. Salt, .cures all Diseases of the inter-  
; nal Parts, .especially of rhe Rally when insisted with aCrimp-

nious Humours. *Aetius, Tctr.* I. *Term..2. Cap.* I84.

In Wounds of the Hind, .a spontaneous Excretion from the  
: - Belly portends Death, hert the contrary gives Hope of a Cure.

*Gastii Problem.* LI. ii i . Ἀ.

*it* Constipation of the Belly occasion a Pain in the Heed, let  
it he your principal Care, by a proper Diet, and mild Cathar-  
tics, to render it soluble. Os these there is great Variety, and  
-among these Salt. If Costiveness beowing toViseous Idu-  
moms,-use the following Medicine:

Take of Sal Ammoniac, two Drams ; of Pepper, and Eu-  
phorbium, each a Dram; And give three or tour Scruples,  
or two or sour Drams, in an Egg, or in Ptisan, *lor* a

**- Dose.**

- If the Fault he not in the Viscosity of the Humours, make  
**use** of fuch Remedies as have Scaminony for an ingredient 5  
the following, for Example t

Take Of common Salt torrefy'd,z three Drains ; Pepper,  
**two** Drams ; Scammony, a Dram. The Dose is a  
Cochlearium id an Egg, Bread, Or in whatever you  
**please.**

These Salts are admirable for opening and purging the Belly,  
in the most gentle manner, without Griping or Sickness.  
You may safely use these Medicines, and also those which have  
a Mixture of Euphorbium. But if the Belly is too loose, and  
the Head is in Pain by reason os a too great Dryness of the  
Habit, endeavour to restrain it by a proper Regimen, and pro-  
per Medicines. *Trallianus, Lip.* I. *Cap.* II.

Costiveness of the Belly is accompany'd with Heaviness os  
**the** Head, Vertigo, a Bitterness in the Mouth, with a Disre-  
lish of, and Aversion to. Food, sh this Case a Clyster gives  
immediate Relief; for it certainly Very much Concerns us,  
that the Belly should perform its Office. We meet with some  
who, at certain Seasons and Intervals, have the Benefit of  
spontaneous and copious Evacuations that way, and at the same  
time get rid of a Multitude of infesting Humours, whereby  
their Health is repaired, Others, by a plentiful Discharge, by  
vomiting of all sorts of. Crudities, have prevented many  
threatening Disorders. But if these Evacuations don't happen  
**at** their usual Seasons, after they are grown into a Custom  
establish'd by Nature, many grievous Distempers, usually come  
in their room. We ought, therefore, by all means, when  
these Customary Excretions fail us, to he provided with **the**necessary Assistance of Art. The fame Advice in no less proper  
with respect to stated Haemorrhages by the Nose, or Hiemor-  
ihoidal veins ; for if the Blood refrain its usual Course, with-  
out manifest Cause, either the Passages must be open'd for it,  
**or** its Redundancy diminished by breathing a Vein, except  
where a great deal os Exercise consumes, or Abstinence dimi-  
rtishes, the abounding Superfluity : For as too great and immo-  
derate Evacuations render the Body weak and cold, and blunt  
the natural Faculties, so it is as certain, that the Retention of  
what ought to be eliminated and expell'd, depresses, clogs, and  
disturbs the Mind, and supplies Matter for Pains and Distem-  
pers to arise one out of another, which in Process of Time  
subvert the Strength, and dissolve the Fabric, Of the Body.  
*Actuarius de Spir. Anijn. Cap.* **I 6.**

; In all Fevers the Belly ought to be loose, unless Pus be eva-  
xuated, as it happens in Pleurisies, Peripneumonies, and Con-  
sumptions ; for in these Cases, the greater the Evacuations;  
**the** worfe is the State Of the Patient. *Actuarius, Meth. Med.  
Lib.* **3.** *Cast.* **IS.**

The Belly makes not salutary Excretions, when they are  
either too plentiful, or various and multiform. The Excretions  
.offend in Quantity, when they bear too great a Proportion to  
rhe Aliment received; and the Cause of this is either a medi-  
**cinal** Quality in the.Food, Or some internal Disorder. When  
it proceeds from the former, it is easily remedy'd by Alteration  
**.os** Diet ; hut when it is the Effect os some internal Affection,  
it must he either because the Body receives no Nourishment,  
.or the Intestines are irritated by some Humour. The Body  
ceases to he nourished, and falls into an Atrophy, ζἀτροφία]  
either On account of its Dryness, or the Obstruction of the  
Passages, by which the Aliment is distributed over the Body.  
Jn this Case then we are to use such Medicines as are distin-  
guish'd for their moistening Quality, in Conjunction with  
- those that attenuate, and open, and cleanse the first Passages.

But if some internal sharp Humour affect the Intestines, and  
still irritate them th the Expulsion of their Contents, we **are**directed to such Remedies as are best adapted to sweeten, the  
Humours, and blunt their Acrimony. *Actuarius, Meth. Myst.  
Lib. An Cap. 6.*

Excretions *of* the Belly, of the most approved sort, **are**soft, smooth, brown, or yellowish, and answering in Propor-  
tion to the Food received. When they tranigress or change  
in these respects, they indicate an Alteration in the Tempera-  
. mens, either of the whole Body, or of the Stomach and In\*  
. testines. If the Temperament change to cold, the excrements  
appear whiter, and more humid; if to Heat, they become of  
. a redder or yellower Hue ; if they fall short in Quantity, they  
are either dissipated by too much Exercise, or are diverted into  
the Urine: But if neither of these be the Cause of the Defect,  
it shews the Belly to be oppress'd with a Load os excrements,  
. and that it wants to he eased by a Suppository, or Clyster.  
. If the Excretions are more than in Proportion to what is taken  
in at .the Mouth, it indicates either, first, a less than usual  
Exercise and Motion of the Body, or an imperfect Distribu-  
tion of the Aliment; or, lastly, shews the Stomach and Inte-  
stines to he infested with an acrimonious and stimulating Hu-  
mour. . In this Case, while the natural Colours continue to  
. appear, there is no great Mischief to be apprehended ; but Ex-  
crements of divers Colours, bloody, or like Abrasions, or

voided with Pain, and a Tenesmus, portend more grievous  
Disorders. One thing here especially deserves our Considera-,  
tion, that in all evacuations, whether spontaneous, or pro-  
Cured by Art, if nothing he carry'd off, but whet Expediency  
requires. Nature bears it well, and is refresh'd thereby; but  
the contrary Management will he sure Io produce an answer-  
able Effect. *Actuarius de Spir. Anim. Cap.* I4i

When more Food is taken into the Stomach than can west  
be concocted. Plenty of liquid and whitish Excretions are  
made, and sometimes a sort of Looseness succeeds, during  
which some of the Contents of the Stools remain aS they were  
from the Beginning; others alter their Colour, either into a.  
better, which denotes Concoction, or into a yellow, accofn-  
pany’d with liquid and bilious Excretions. All this while the  
Body feels little or no Inconvenience ; for when the expulsive  
Faculty is irritated, and hastens to discharge itself os infesting  
Humours, it takes this Opportunity of a Looseness, to expel,  
besides Crudities, whatever is noxious : Wherefore we ought  
to be Very careful, left, while we inconsiderately labour to  
restrain the Violence of the Looseness, we put a Stop to the  
Current of a Humour which Nature endeavours to discharge.  
Further, it is to he observ'd, that sometimes the Humours  
conspire to bring on a Cholera-Morbus, and discharge them-  
selves sometimes both ways, fomethnes only downwards, by  
Excretions of an aqueous and bilious Matter, [ὑδατοχολα]  
which, if suffer'd to continue long without Help, bring on a  
Weakness and Lowness of Spirits, and even a Coldness and  
Syncope. The whitish, milky, and incoherent Contents of -

--.the Stoois, denote the great Weakness of the digestive and  
alterative Faculty, from too great a Refrigeration, as the  
brownish and yellow always proceed from a Redundancy of  
Bile, occasion'd by an immoderate Heat. Sometimes the Ex-  
crements are white and consistent, like those of Dogs, but not  
Often, nor in Abundance. The same thing happens in a  
Looseness, and is a Sign of the Obstruction of the biliary Duct  
that leads to the Stomach; whence the Urine generally becomes  
bilious, the Bile being diverted that way, and is also Very often  
discharg'd by Vomiting. But such Excretions are principally  
incident to these afflicted with the *Ύ*ellow-jaundice, because the  
Bile, which should colour them, is diverted to the Skirt.  
Moreover the yellow, with the brown and reddish, receive their  
Dye from yellow and red Bile, as the aeruginous, porraceous,  
and the Cabbage-colour'd, proceed from one kind or other of  
the same Humour. Black Excrements sometimes are from  
over-heated and extravasated Blood, and’ sometimes from a  
deleterious Bile. Sometimes the Stools appear of Various Co-  
lours, mix'd one among another, which is still worse than any  
before-mention’d, because it denotes the Violence and Strength  
Of the Humours, *i. '*

Now all those Humours which we have mention'd, if Void-  
ed freely, and without Pain, and on the critical Day, after  
Concoction, and the Patient finds Relief from their Expulsion,  
are accounted salutary Signs in all respects; but if they proceed  
from contrary Causes, a contrary Judgment is to be formed:  
For a Fainting and Lowness of Spirits,. Privation of Sense,  
and a Delirium, and sometimes sudden Death, are their At-  
tendants. ' "

With what has been said may he Connected , that Disorder  
of the Stomach called the Cceliac Passion, which is owing to  
the Intemperies of the Stomach. For when that Part happens  
to be affected with too much Heat or Cold, Foulness, or  
Moisture, and the Intemperies passes into the Habit, the Coe-  
liac Passion thence takes' its Original. In this Disorder, the  
Patient is thirsty, and somewhat feverish, has yellow arid  
brown Stools, and is refreshed by the Application of Coolers.  
Some are flow of Concoction, are seldom thirst}’, and have  
crude Stools. They who suffer from an Excess of Humidity,  
are rack’d with Pain, and Void nothing but a liquid and palish  
Excrement ; but such aS labour under this Disorder,'through  
excessive Dryness, have small, but colliquatiVe Excretions :  
These are more thirsty, and more difficult to cure, because  
' they are more spent and wasted under the Distemper, by the  
exhausting of their natural Moisture. The Vomiting and  
' Looseness together are very troublesome, and the Vitiousness  
os the Excretions are Matter of no finali Concern; but their  
' Quantity proves of the worst Consequence, because when inore  
is excreted, than can well he spared, the natural Heat exhales  
at the same time ; and the Body being exhausted and dry'd up  
by a too plentiful Evacuation, ceases to receive Nourishment. .  
On the other Side, in a frequent Desire of going to stool, coin-  
rnonly called a Tenesmus, in a Diarrhoea, and what is Vulgarly  
called an Hepatic Flux, or a Dysentery, or'Lientery, it is not  
only the (Quantity, but the Malignity, of the Matter excreted,  
that kills the Patient. For when the Bile becomes effervescent,  
and very acrimonious, and the Intestines subject to morbific  
Impressions,’ the bilious Humour corrodes and abrades them in  
its Passage; and if the Disorder he seated principally in the  
strait Intestine, it is called aEENESMUr, a Word that sig-  
nifies*stretching,* because the affected Part is on the Stretch,  
' and is perpetually urged to Excretion. In this continued and

violent Straining, where is nothing excreted hut some mucous,  
bloody, liquid, and viscous Contents, which wlll hardly come  
away ; so that by the repeated Labour of often going to stool,  
and rising from thence, the vehement Solicitation thereto, and  
the Tension of the Part, rather than by the Quantity evacu-  
ated, the Strength of the Patient is worn out.

i If theTntestines are infested with an acrimoninus Humour,  
it grates, and stimulates to Dejection, which Distemper is cal-  
led a Dysentery. Here the Part affectid is known by the Pain,  
which never leaves the Patiout. . If the Pain he felt below the  
Navel, the great Intestines are affectid ; if above, the Disorder  
lies in the sinall ones, in this Disease, if the Bile that comes  
away he not extremely bad, as in the portaceous, and the xru-  
ginous, (for the black in the Beginning is mortal) and if there  
he no great Fever, nor the Body full of putrid Humours, the  
Patient has not much to fear, especially if the Disease be seated  
below the Navel; but .if the Cafe be otherwise, and the most  
remarkable Symptoms of the worst kind, the Patient is in great  
Danger. When the Distemper lies in the strait Intestine, rhe  
Excrements of the Aliment, and the Abrasions os the affectid  
Part, are voided separately. But is the Disease be seated higher,  
quire Superfluities of the Food, and the Abrasions from the distem-  
per’d Part, come off mix’d together, and fo much the more, in  
proportion to the higher Situation of the Malady. When the  
Colour and Consistence of the Excrements come nearly to thofe  
of a sound State, when the Pains are alleviated, and what  
comes off from’ the corroded Parts is less in Quantity, and of a  
better kind, as being voided at longer Intervals, the Physician  
may reasonably hope, that his Patient is out of Danger : ' But  
the contrary shews, that the Disease is exasperated. V/hile  
the Distemper is moderate, the Abrasions are sew, and but  
lightly Singed with Blood ; and the Pains are remiss, with long  
Intervals. If the Disorder increases, the Stools are for the most .  
part bloody; but if it still rises to a greater Height, and **the**Intestines begin to be ulcerated, first. Blond comes away in  
Abundance, then carnous Abrasions, which *are* still larger as  
they grow worse, foetio, and of a Colour next to black. But  
the worst Symptom of all in this Case is, a Loathing of Food.  
Hence it is known, whether the Difease be of a malignant  
Nature, .or otherwise. .

ALientery commonly owes its Original to an inveterate  
Oiarrhcea, or Dysentery, into which one of these degenerates,  
and is the more grievous, as it finds the Patient already debili-  
.tated and exhausted. - The Nature of this Disease is known by  
its Name ;. for it levigates and lubricates the Intestines, fo that  
.they can by no means, the’ but for a short time, retain **the**.Food. This Cafe nearly resembles theirs who labour under **a**Subversion of the Stomach, fo that they cable retain whet they  
eat, but are forc’d to throw it up, in which Disorder, if **the**.Patient happen to he molested with acid Enrctstions, it **is a**good Sign, that the Stomach will come to itfelf, and resume **the**'Exercise of its Office. *Actuar. Meth. Med. Lib.* I. *Cap.* ao.  
. If the Food does not lie heavy upon the Stomachi nor incom-  
mode it by its acrid Qualifies; and if the Substance and Facul-  
.ties of the Stomach itself, and the Belly, be found and vigorous,  
the Work of Concoction is perform’d in a light and easy man-  
.ner, and none, or hut very flight, and no way troublesome,  
Eructstions attend. The Belly, which receives the Aliment  
after Concoction, hot feeling the least Oppression, aster it has

. assumed to itfelf the. humid Part, at some reasonable Distance  
.of Time, discharges itself of what is superfluous, without Pain,  
. and with no great matter of Trouble. Whet is thus excreted,  
is of a soft,. smooth, and flippery Contexture, and of a pale,  
**or at** least a yellowish. Colour, unless it has received another

. Tinctiue from the Aliments. But further it must he observ’d,  
that these Contents preserve some Agreement, both in Quantity  
and Quality, with the Food.. For if the Things received by the  
. Mouth, transgress the Bounds of Moderation in either of these  
. respects ; if the Organs appointed for the Preparation of Aliment  
. he subverted, or corrupted, by Meats of undue Temperament,  
. or bad Juice, many, and various are the Disorders that will  
. ensue. .....

An Oppression from too great a Quantity of Meat or Drink  
-is usually, succeeded by Vomitiog or a Looseness ; or, if it he  
, not carry’d off by Vomiting or Urine, it hinders Concoction,  
, and breeds Crudities. If the Fond he endu’d with some Qua-  
. lity much beyond Moderation, as with Heat for Instance, there  
arifes a bitiog or pricking Sensation, and Uneasiness in the Sto-  
. mach and intestines, Head-ach, with nidorous and uniavoury

Eructstions. If Cold he too predominant, Flatulencies are ex-  
cited, and four Eructstions, or such as indieate the Quality of  
the Fond , with aFhictiiation, and Pains inctie intestines about  
the Region of the Navel (στροφοι). All these Disorders are com-  
posed, and Matters set to Rights, by Vomiting, or a plentiful  
Stool, with a spare Diet on Meats of good Juice. *Actuarius,*

*. Mesh. Med. Lib.* I. *Cap.* 18.

The Belly happens to be bound, when the Excrements **are**, diverted another Way, or are otherwise disposed of. In this  
Cafe there ofuasty succeeds a greater Plenty of Urine and Sweat,

and more is digested and carried off by insensible Perspiration:  
While this lasts, no Inconvenience is felt since the Superfluities  
find a Vent, and no Damage, provided.they return to these pro-  
per Chanel: But when the Belly is costive, , and the Excrements  
sind no other Canals, or Ways, to dispose of themselves, vari-  
ous Pains, and much Uneasinefs afflicti the Pationt. For, in  
this Case, either the humid Part of the Fceces, that were first  
lodged, is exhaled, whence the rest .is hardened ; and the In-  
testines heing lined with a rough and viscous Phlegm, the natu-  
ral Pastage is by that means stopped ; or the expulsive Faculty  
languishes, and is too weak to perform its Office, either on ac-  
count of its being inflamed, or from a Blow received, or the  
Confluence of some Humours. The Consequences of this Dis-  
order are, an Aversion to Food, Pains in the Intestines, and  
moderate Eructstions’, which, at first, afford some Relles to  
the Patient. If the Disease contioue long, the lower Parts  
grow cold, and the superior more hot, the Heat contracting it-  
- self; then arise foetid and unsavoury Eructstions, which don’t  
afford the same Relief as at first, in the Progrefs os the Distem-  
per, the Fond is vomited up, mixed with the Humours, and all  
Communication between the upper and lower Passages is cur  
off, whence, as rhe last AS of the Tragedy, the Excrements  
are voided by the Mouth, under which Symptom the Cafe is  
reckoned desperate. This Disease is called the Iliac Passion,  
(οῦλἱὸς, *Lat. Convolvulus)* from a Word which signifies to *roll  
together,* or *twist* ; hecaufe the Orbs of the Intestines are rolled  
together, or twisted by it, from the Causes before related, .-  
' The Pains, Inflations, (εμπνευμάτώσεις) and wringing Sensa-  
tions, (στροφοι) which affeol the great intestine called the *Colon,*arife also from the forementioned Caufe ; or may he owing to  
the too frequent Use of cold and moist Eatables. For, by a  
cold Diet, Phlegm is accumulated in abundance, which is re-  
ceived into the Intestines, and especially into the Colon; be-  
cause its Form and Situation particularly dispose it for fiich Re-  
ception. This Phlegm being burdensome, στ on account of its  
Quantity, and of a noxious Quality, and not easily making its  
Way through the Intestine, by reason of its viscous Property,  
stretches the Part, to the great Pain and Misery of the Patient,  
who sometimes throws up his Food mixed with the Humours,  
while nothing passes through the Body hut with much Difficul-  
ty ; however, aster a copious Evacuation of Phlegm, by means  
of a Clyster, or some other Medicine, the Patient is relieved,  
and the Pain mitigated : But if the noxious Phlegm, being not  
purged off, should fix its Seat in the Hip or Bladder, a Sciatica  
or Dyfury are formed. .If the morbific Humours take their  
Course down towards the Feet, and affect them with their ill  
Qutallties, and having once taken Possession, and paved their  
Way, the Affection passes into the Habit, and the Pationt suf-  
fers on every Occasion.: The Humours, which are rendered in-  
capable of Expulsion by Purging, or Discussion of any kind,  
but discharge themselves upon the Hands and Feet, where they  
form the Gout in thofe Parts, are observed to be of a simple as  
well as a complicated Nature; hut the Humour which, above  
**all** others, is best adapted ito cause and maintain the Gout, is  
generated by a continued Coacervation of Crudities. For when  
Errors in Diet are every Day committed, and fresh Food is still  
thrown in upon Crudities, a crude Juice is,bred between them ;  
which not heing, either by Art or good Fortune, expelled by  
Vomiting, nor finding a olear Passage through the Belly, some-  
times lodges in the Colon, affecting the Part with those Pains  
which we call the Colic ; sometimes is thrown upon the Hip,  
and. caufes the Sciatica or on the Biadder, whence follows a  
Dysuty, or Difficulty of Urine ; or, in the last place, discharges

1 itself upon the Extremities, where it forms the Gout **in the**"Hands and Feet.. *Actuarius, Meth. Mede Lib. sc Cap.* 2I.

"When the Belly'is bound, either his binding Medicines or  
Diuretics, thete Obstacles being removed with small Assistance,  
it returns to its Duty. The Remedies, in this Case, are only**'a**\* Clyster or two, and'a mollifying or loosening Diet; but if-a

Constipation of the Belly succeeds an inflammation caused by-a  
Wound of tlre Intestines, the Cure is not so easy. It must,  
however, be attempted'by Emollients, and proper Dressings,  
I mean when the great Intestines are affectid; for some-  
times st happens to succeed, but a Wound in the small  
Intestines cuts off all Hopes of a Cure: If then any considera-  
ble Obstruction happens, or some Humour falis into the In-  
testines, whatever may be the Cause, the Belly is to he molli-  
fied by the daily Use of Clysters, which, in order to mitigate  
‘ the Inflammation, are to consist principally of Emollients ;

such as Oils of Chamomile and Lilies, and Fats of a Ken,  
Goose, and Swine; with Herbs of a molllrying Quality, well  
' and carefully helled ; for all such Medicines digest an Inflam-  
mation, relax the stretched Parts, and eafe the Pain. Tbe Dis-  
temper heing thus mitigated, we are to betake ourselves to Re-  
medies endued with more Acrimony, by which tbe Intestines  
heing irritated, might discharge themselves of the hardened  
Farces, together with any crude and pituitous Matters that  
might be mixed with them. The Passage being thus cleared,  
wh may afterwards administer some gentle Cathartics. -The

**4**

Diet may he Hens, Rock-fish, and Broths of Chich-pease ; and  
all Meats of a firm Consistence, and hard of Concoction, are to  
be forbidden: The Drink must be thin and cooling Wines.

If the intestines are affected with an Inflammation, from an  
Influx of Humours, especially of a hot Kind, we must begin  
with Bleeding, and end with Clysters: The Diet must he the  
same aS before, only a little more refrigerating, and less nourish-  
ing : The Medicines taken at the Mouth, are to he of fineParts,  
and of an incisive and emollient Quality: TO these. Stomachics  
are to be added, which, by restoring the Tone of the Stomach,  
may free it from the Necessity of lying unactive, and enable it  
to perform its Office to the Body. Fluctuations and Inflations  
are Affections of less Moment, but troublesome enough to the  
Patient; however,, they may he mitigated by injection of Cly-  
sters, and dry Fomentations with Millet or Bran. If the noxi-  
ous Flatus will not yield to these Remedies, a dry Cupping-  
glass is to be affixed to the grieved Part. Discutient Remedies  
also, composed of the Carminative Seeds, are of Service here ;  
and the Patient finds some speedy Relief from moderately heat-  
ing Food, if taken in small Quantities.. Bathing also, and mo-  
derate Walking, are esteemed beneficial.

When the great Intestine, called the *Colon,* is affected, many  
troublesome Symptoms attend the Disorder : in the Beginning  
.of this Distemper all Food is forbidden, except Broths made on  
Chich-pease and Rock-fish, and mixed with Oil of the finest  
Parts, and prepared with Anise, Fennel, Dill, or others of the  
like Kinds The Belly also is Io be loosened by infusions of  
Mercury and Beets, or Centaury and Wild Cucumber, or with,  
the Oils of Chamomile and Dill, and such-like. Those Anti-  
dotes also which go by the Name of *Colical,* are not. to be omit-  
ted. . When the Pain is remitted, you are to purge with Pilis  
of Colocynth and Aloes, or such others as you think most  
suitable to the Condition of the Sick ; and when the Disorder  
is over, let the Patient take some Chicken-broth, and after-  
wards go\* into the Bath. .

- If the noxious Humour takes its Course to the Bladder, or  
the Thigh, in the first Cose it causes a Dysury, and in the lat-  
-ter the Sciatica: This Disease must be treated with Infusions of  
more acrimonious Simples, and with heating and discufftve Plas-  
ters, and Cathartics, that properly purge such Humours: The  
Diet must incline to Heat; and Bathing must every Day he  
.Used, that the Humours may exhale.

If the Humour, by the Strength of the Parts, he driven out -  
as sar as the Feet, or thrown upon the Hands, there is formed  
what they call the Gout in the Feet or Hands;. and here we are  
to consider whether the Humour be simple or complicated. In .  
treating this Distemper, we are first to injoin Abstinence; the  
Belly is to he washed with Clysters, if it be needful; and Ce-  
rates of Oils and Fats are to he applied to the gained Parts. If  
the Gout he Violens, it will he convenient for the Patient to  
go into the Bath. And because the Humours are very subject  
±o a Conflux, and to renew their Excursions into the same Parts,  
they are to he cut short and restrained by a proper Diet ; and,  
the most predominant of them is to he carried off, or diminish’d  
by Purging, or corrected by suitable Food; and the Body is  
Io be plied with much Exercise and Bathing. All.Crudities are  
to he avoided, and Meats of had Juice; for winch End the Pa-  
iient ought to rise from Meat with .an Appetite, that the Con-  
coction might he the more perfect; and Deductions, which ge-  
nerate Crudities, restrained. *Actuarius, Meth. Med. Lib. An  
Cap.* 6.

. After these Quotations from *Actuarius,* and those under the  
Article *Alimenta,* I need not inform the Reader, *shnt. Actuarius*js an admirable Author, and that he has shewn great Judgment,  
Genius, and Knowledge of his Profession, in making his Col-  
lections.

ALYCE, ἀλήκή, from ἀλύω, to he anxious or uneasy. It  
signifies Anxiety, considered as a Symptom of a Fever, and is  
used by *Hippocrates* in much the *same* Sense asALYSMOS. See  
**ALYSMOS.**

ALYPUM, Ἅλυπον. A Plantcalledalso ALYPIA, orALY-  
ION, from a Negative, and λύπη. Pain, *Hcrb-terrible.* In a  
Memoir sent from *Montpellier* to the Royal Academy of  
Sciences in I7I2, Notice is taken of the Alypum of *Mentpesu*

*licr,* which is there said to be different from the Alypum of  
*Dioseorides.* But it should seem, by the Description os *Diosc  
coriaes* compared with that of more modern Authors, and the  
medicinal Virtues, that the antient and modern Alypum is .the  
same Plant. That the Reader may judge for himself, I shall  
insert the Accounts of it .from *Pliny, Dioseorides, Ray, Dale,*and the above-quoted Memoir.

**ALYPUM is** a Plant with a {lender Stalk and a soft Head,  
not unlike Beet, of im acrid and viscous Taste, and extremely  
biting and inflaming. Taken in Hydromel, with a little  
.Salt, it proves a Cathartic, The least Dose is two Drams,  
a moderate one four, and six the largest, in Cock-broth. *Pli-  
ny, Lib. 2J. Cap.* 4.

**ALYPUM is** a spriggy Plant, reddish, with flender Sprays,  
and fine Leaves, and a thin soft Flower. Its Root is like that  
of Beet, slender, and full of an acrid Juice. The Seed is like  
**\_ VoL.** L

that of Eptthymum. It grows in maritime Places, and, inl  
particular, very plentifully on the Sea Coasts of *Lybia* ; it is **to**he met with also in many other Places.

The Seed purges Black Bile downwards, heing administered  
with an equal Quantity of Epithymum, and .an Addition of Vi-  
negar and Salt; but it causes a flight Exulceration in the In-  
testines. *Dioseorides, Lib. An Cap.* I 80.

It is the fame with *Alypias,* and is administered in Aqua Mul-  
*sh P. AEgineta^Liis. J. Cap. An* The Dose is fix Scruples.  
*Actuar. Lip.* 5. *Gap.* 8. ’ ..

*Alypum,* Ossie. *Alypum, Hariba terribilis,* Mont. Ind.. 36.  
*Alypum Montis Cots,* Ger. 4O8. emac. 506. *Alypum. Montis  
Ceti, sive Herba terribilis Narbonensium,* Ran Hist. II. 1443.  
*Alypum Monstpeliensium,* Park. Theat. I 98. *Alypum Monfpelia-  
num, sive Frutex terribilis,* J. B. I. 598. *Frutex ' terribilis,  
Empetrum, Alypum Mons.peliensium,* Chain 48. *Thyrnelaafoeliis  
acatis. Capitula Succis.a, five Alypum Monsipelienjium,* C. B.  
Pin. 463. Jonsi Dendr. 235. *Globularias.ruticos.a, Myrtisolio  
tridentato,* Tourn. Inst. 467. *Elem. Bat.* 37I, HERB-TER-  
RIBLE. *Dale. - .. δ᾽ ’*

- It is a Shrub a Cubit or a Cubit and half high, divided into  
many flender woody Branches, coveted with a reddish, or dark- .  
purple-coloured Bark, and covered with Leaves nearly of the  
same Colour, and about the Size, but not the Shape of the com-  
mon Myrtie. For beginning from a Very narrow Bottom, they  
continually widen almost to the Extremity, where they are  
sometimes marked with one or two Dents, making an .obtuse  
Point. They are thick, solid, and of a bitterish Taste. The  
Flowers generally grow at the Ends of the Branches, and some-  
times hang in Bunches to the Middle. They are of a purple  
Colour, and consist of thin Scales. According to *Clusius,* the  
Flower-cups grow single, and close to the Tops of the Sprays,  
and consist of Scales, and are about the Size os the inferior  
Orb of the Flowers of Scabious, or Devil'S-bit, containing a  
hairy and lanuginous Flower os an azure Colour, inclining to  
white in the Middle, and wholly azure all round it. The Root  
is of a thick, hard,, black, and woody Substance. The whole  
Plant (says *Lobelsas* bitter, and has the unpleasant Taste of the  
Spurge Laurel, or. the Mezereon, and even a stronger, after six  
Years keeping.

- It grows plentifully on the South-side of the Mountain *Cetus  
in Frorninlac,* where It runs into the Sea ; and on many other  
Declivities of *Languedoc* and *Provence,* that face the Sea and  
the South. We have observed it to grow, in great Plenty, OU  
the Stony Hilis *dtioutBi.Chamas,* a Town in *Provence.*

It is a Very strong Cathartic, and purges Phlegm, Bile, **.and**watery Humours, with no less Violence than Spurge *(Tithymmaj  
lus)*; and is therefore to he used with Caution. *Rafis Hist.  
Lib.* 26. *Cap.* 8.

. It grows on Hilis, flowers in the Spring, and the Herb is .  
used. It is said to be a violent Purger. *Clusius* assures us, that'  
the Decoction has been given with great Success in the *Lucs Vi~  
nerefl. Dale.*

**ALYPUM.**

The' the Plant now called by that Name he quite different  
from what *Dioseorides* described under the same Appellation, as  
all who *have* written since him are agreed, I chose rather to  
keep its Name entire, and to make use of that of *John Baur  
bine,* than to give it anew one, and so, bymultiplyingNames,  
Io embroil Botany. -

*. Caspar Bauhine,* in his *Pinax,* calls it *Thyrnelaa Foliis acur  
tis. Capitulo Succis.a, five Alypum Mons.peliensium. Clusius* has  
described it by the Name of *Hippoglosseurn Valentinum* ; and M.  
*Tournes.ors,* in the sixth Section of his Institutions, has placed  
it under the Genus of *Globularia,* by the Name Os *Globularia  
fruticosa, myrti folio tridentato.* But its Characters are quite dif-  
ferent from those of the *Thymelaea,* or from any of the Species  
of *Hippcglojsurn,* or *Globularia,* as will appear by the follow.:  
ing Description.

The *Alypum* is a Shrub about a Cubit high ; its Root, which  
is covered with a blackish Bark, is about four or five inches  
long, and near an Inch thick at the Neck, shooting forth three  
or four thick Fibres. The Branches, which are covered with  
a thin Pellicle, of a hrown-red Colour, are flender and brittle.  
The Leaves are of different Figures, and placed disorderly,  
sometimes in Tufts, sometimes single, or in Conjunction with  
another small one at their Bosoms. Some of them pretty much  
resemble the Leaves of Myrrh; others, widening towards **the**Top, run out into three Points in the Shape os a Trident ;  
others again form but one Point. The largest are about an Inch  
long, and three or four lines broad, of a good Thickness, and  
of a bright Green. Each Branch bears a single Flower, seldom  
two, which are about an Inch in Diameter, and of a very fine  
Violet Colour. They consist of two half. Flowers, at whose  
Bottom arise a few small white Stamina, with little blackish  
Apices, which terminate in three Points, and are no more than  
about .three Lines long, and one Line broad. Each half Flower  
bears an Embryo, which, after the Flower is gone, becomes **a**.Seed, adorned with 2 kind of Tuft. The whole Flower is sun-

ported by the Calyx, consisting of Leaves, lying one upon  
another like Scales, and.no more than two or three Lines long  
and one broad.

*. Clusius* relates, that Empirics and Mountebanks, who strolled  
about in *Andalusia,* Used the Decoction of this Plant for the  
Venereal Disease, and boasted of their never-sailing Success.  
And we have Men of .this Character in our Parts, who use it as  
a Cathartic, instead of Senna. But it were to he wished, that  
their Avarice might not he attended with these fatal Conse-  
quences to which the violent Operation of. this Medicine  
. naturally .tends, and of. which the Name of *Hirb-terrible*ought to put them in mind.' *Mem. de Γ Acad. Roy. des Sei.*

' 17I2. ' . .

- By these Accounts of HERB-TERRIBLE, it should he the  
same as the αλυπον,.ΟΓ *Alypum* of *Dioscorides,* notwithstanding  
what the more modem Botanists have said. .

I find this Plant sometimes called White Turbith. ; ....

ALYSMOS, Awestes from ἀλύω, to he uneasy, or anxious.  
This Word is very frequently used by *Hippocrates,* to express  
that excessive Restlessness, and Anxiety, which many People  
feel in acute Disorders, , or otherwise, and which will not per-  
mit them to remain long in the same Posture, but obliges them  
to be perpetually tossing about, in order to find an easy Situa-  
tion-; which, however, is not readily to he met with. Everv  
onewho has seen or felt the Thing, cannot help understanding  
what the*Alys.mosis* bythis Description..

*Dur ecus* distinguishes the *Alys.mos,* into the ἀλυσμὸς ναυτιώδης,  
and the αλυσμός άι εμετος; the first is caused by a Sickness .at the  
Stomach, by something contained in.it which irritates; the se-  
cond by an utter Oppression of the vital Powers.

- But the ALYsMOs, or Restlessness and Anxiety, here spoken  
ef, may he reduced to four different Species, two of which are  
Symptoms of a Fever, and two frequently happen without any  
febrile Disorder. ... . . i .... l

\* These which happen without a Fever, are caused, ’.

I. By something acrimonious .contained in the Stomach,  
which irritates and stimulates the Nerves thereof, and conse-  
quentiy ail the Nerves which are Branches of the same large  
Nerves, from whence the Nerves of the Stomach proceed.  
Hence the Contraction of the Heart is rendered irregular, and  
therefore the Circulation of the Blood thro' the pulmonary Ar-  
teries and Veins, and also thro' the Aorta, must labour, and he  
carried on with some Degree of Difficulty; whence a perpetual  
Uneasiness and Restlessness , - . ,

*It is observable,* that any thing which .stimulates violently,  
arid offends any of the Contents of the Abdomen, may, in  
furne Degree, produce the same Effect. For a Sickness, and  
Inclination-to vomit, are universally Symptoms which arise,  
when, any of the Viscera, contained in the Abdomen, suffer  
an uneasy Sensation ; as is remarkable \*in the obvious Example  
Of the Gravel, or Stone, -in .the Kidneys, or Ureters. '  
r-When it proceeds from something acrimonious contained in  
the Stomach, the Cure consista in procuring its Discharge by  
Vomit, or other Evacuations; or in correcting the Acrimony  
by something of an opposite Quality; or in diluting plenti-  
fulsy. ’ ' .

ἐν- But when 4t is caused by any Affections of the Abdominal  
Viscera, the original Distemper must be removed hesore the  
Symptom can he expected to cease. . .

**« 2. The ALYSMOS** is frequently caused by Spasmodic Con-  
fractions of the Viscera, arising from too large Quantities of  
fermenting, fermented, or fermentable Substances, taken into  
the Stomach ; or from Hysterics.

For the Cure of that caused by fermenting Substances, see  
CHOLERA MORBUS; and Of that caused by Hysterics, see  
**HYSTERICA. . - - -**

But the most general Species of this Restlessness, and Anxie-  
ty, attended with perpetual Tossings, and frequent Sighs, are  
those which attend Fevers, and inflammatory Disorders. These  
are immediately caused, ..  
. I. By some Impediment to ‘the Blood's pasting out-of the  
Heart into the Aorta; bur more frequently from its difficult  
Circulation thro\* the Lungs.

v The Blood is prevented from-circulating freely-through the  
Aorta, when the Obstructions in the several Branches thereof  
are become almost universal. .

- It is impeded from circulating thro' the Lungs, either when  
the Branches of the Pulmonary Artery are too dry, or affected  
too much by Spasmodic Contractions, to permit the Blond to  
pass readily through them; or when the Blood is in such an in-  
flammatory or viscid State, aS to he incapable of circulating  
.through the Veffeis of rhe Lungs. . ...

- -These-are attended with great Oppression at the Breast, 4  
low Pulse, and Difficulty in Respiration.

-' .2; These Anxieties arise, when, .either from'a Viscidity of  
-the Blood, or a Stricture-of the Branches of the *Fena Porta,*.the Blood cannot pass freely through the Liver; hence that  
which is brought by the Coeliac and Mesenteric Arteries, must  
.stagnate, .and distend the adjacent Parts.

**; This IS. attended with-a great Weight and -Oppreffion at the**

Region os the Hypochondria ; which Parts the wiser Antients  
had much greater regard *to,* than their less sagacious Posterity.

It is of infinite Importance, both to the Physician and Pa-  
tient, to distinguish accurately the different Species of Anxiety  
above-mentioned, from each other ; and to remove their Causes  
immediately, if that is, by any Ways, practicable. These par-  
ticularly which accompany Fevers, require our utmost Atten-  
tion ; for, if suffered to remain, fatal polypose Concretions,  
Inflammations, and Gangrenes are soon excited, (and these near  
the Heart, provided the Couses reside in, or nearly affect, the  
Thorax) which are attended with intolerable Oppression and  
Restlessness. . . .

But if the Branches of the *Pena Porta,* or those adjacent to  
them, are principally affected, sudden Gangrenes of the Parts  
about the Hypochondria, or Putrefactions of the Liver, are al-  
most unavoidable, which terminate in a putrid Diarrhoea ; in  
which the Stools are extremely offensive, and have the Appear-  
ance of Blood and Water, and these seldom or never fail to  
terminate in Death. .

Hence the Reasons are evident, why this great Anxiety, and  
Restlessness, which *.Hippocrates* calls Ἀλυσμος, is, according to  
the Doctrine of that great Man, a satai Symptom, when it hap-  
pens in febrile and inflammatory Distempers ; but is loss dan,,  
gerous when caused only by Hysterics, .or the Irritations of somer  
thing offensive to the Stomach : And why, in almost every Dis-  
temper, it is the immediate Fore-runner os Death. .

*Boerhaave* lays down a Very rational Method of obviating the  
ill Consequences of these febrile Anxieties, by removing their  
immediate Causes. This, according to his Doctrine, is to he  
done by resolving and diluting the Mass of Blood, by relaying  
the Solids, and by moderating the too Violent Motion of the  
circulating Fluids. This End is to be attained by drinking plen-  
tifnlly, and almost continually, warm Decoctions of the fari-  
naceous Vegetables, rendered somewhat acid, and Very, slightly  
aromatic, with an Addition of Honey, or Nitre, or both.

Emollient, relaxing, and anodyne Cataplasms, Fomenta-  
tions, Epithems, and Plasters, applied to the Region priori-  
pally affected, are also of great Service, as they resolve and re-  
lax. '

Frequently repeated Clysters, prepared of emollient Ingres,  
dients, without any Addition of Cathartics, given in small Quan-  
tities, and retained long, are of excellent Use, aS they carry on  
the same salutary End. .

The Vapour of hot Water, in which emollient Ingredients  
haVe been boiled, received at the Mouth and Nostriis almost  
continually, is of much Importance ; especially when the Cire  
culation thro' the Lungs is impeded, as it contributes to the Re«.  
laxation os the Part, and Resolution of the Juices. i

ALYSSOIDES, a Plant thus named from εἴδος. *Ferns,* and  
ἄλυσσβν,. *Alysisum,* as being like in Form to the Aiyffam.

.. The Characters of this Plant, according to *Muller.*

*. It* hath a Flower in Form of a Cross, consisting of sour Ieaves,  
out of whose Flower-cup arises the Pointal, winch afterwards  
becomes an elliptical thick Fruit, divided into two Celis by an in-  
termediate Partition, which is parallel to the demi-elliptical lur-  
gid Valves, and filled with round flat Seeds, having Borders round  
them.

I do not find, that any Virtues are ascribed to this Plant.

*Boerhaave* mentions three Sorts of this Plant : i

.. I.. *Alysseides saxatile Creticum, folia angulato, florae vitsr  
laceo. Leucoium faxatile, folio viridi, store purpureo elegantes'*Cupani. Ind. I 37. *Alyssen Creticum, foliis angulatio, store  
njiolaceo,* T.Cor. I5. .. - . \

Rocky, Cretio AlyIsoides, with an angina red Leaf, and a  
violaceous Flower. Ἀ : 1

2. *Alyssoides incanum, foliis sinuatis,* T. 2ι8. *Leucoium  
incanum, siliquis rotundis,* C. B. Pin. .2oI. *Leucotum, eum sili.,  
.quis rotundis, flore luteo,* J. B. 2. o3 r. *Eruca peregrina,* CluL  
Hist.. 42I. Ic.'& Desis. .&Hish 134. *.Leucarum marinum Pa-  
tavinum,* Lob. Obs. I8o. *Leucarum incanum, siliquis tueair  
.dic subrotundis,* M.H. 2.’ .247. a, th.

Hoarv AlyIsoides, with sinuated Leaves. . - ' ~

*a. Alysisaides fruticosum, : leucoii folio viridi,* T. 2 IS. he . .  
Shrubby Alylsoides, with .a green .Stock-gilly-flower Leaf.

To these *Milder* adds a fourth, which is, the . \* . .  
*Alysseides-orientalis .annua, myagrt siatsfii folia,* **TourILCor.**Oriental annual Alyffoides, with a Myagrum Leaf. . .  
ALYSSUM, ἄλυιουαν, .Madwort, from α Negative, and  
ιχὑατα ; that particular Madness which is caused by the Bite of  
a mad Dog, and not.from άλπὸω, aS *Meller* derives it, nor  
from ἀλύω, according to *Lerncry.*

There is aSortof-Alyssum taken Notice of by *Diosc or ides,*another by *Pliny,* and a third by *Galen,* which are thought by  
Botanists to he different from each other.

The Alyssen of *Galen* is thought, by *Dale,* to he the *Mar-  
rubium album, foliis profunde incests, Flore ceeruleo css Morison,*(see MARRUBIUM! of which *Galen* speaks in thefe Terms :

Alysson is an Herb like Horehound, but has rougher and  
-more prickly round Heads on the Tops of its SmlkS. -It hears  
-a Flower-inclining to anazurc -or.shy-Muc. Colour. It ought

to be gathered in the Dcg-days, and dried and sifted that **the**Parts of Efficacy may not exhale. ’ \*

The Dole to a Person bit by a mad Dog, is η Cochlearium  
(tike of a Pint) in a Quarter of a Pint of Water and Mulsum,  
for forty Days together from the first Day ; at least for the first  
seven Days. *Galen de Antidotis, L. 2. C.* II.

It is of a moderately drying and digestive Quality, with  
something of Astringency, whence it clears the Skin from **the**Vitiligo and Sun-burns. *Galen de Simpli Med. Lib. ft. Drib.  
Med. Coll. Lib.* I*5. Cap.* I. *Paulus Acgineta, Lib.* 7. *Cap.* 3.

The Alyssum of *Pliny, Dale* takes to be the *yilollago vulga-  
tior* of *Pareiasen,* Bastard-madder, (fee MoLLUGo) of which  
*Pliny* speaks thus;

It differs from Madder *(Erythrodanumy* only in the Large-  
ncfs of the Leaves and Branches, and took its Name on account  
iof its preventing Madness from the Bite of a mad Dog, being  
drank in Vinegar, and Sound to the Place. What they say  
further of it is wonderful indced, that as soon as the wounded  
Person fees it, the Sanies of his Wound dries up. *Plin. Lib,*04. *Cap. 12.*

The Characters of Alyison, according to *Miller,* are.  
The Flowers consist of four Leaves, which are expanded in  
Form of a Cross: The Fruit is short and smooth, in. which  
are contained many roundish Seeds.

*Boerhaave, in his Index,* takes Notice of twenty different  
Sorts of Alyflon.

I. *Alyssen Creticum saxatile, foliis undulatis incanis,* T.

Cor. I5. ' . ' - v

The Alyflon of *Candia,* with hoary undulated Leaves, t - -  
: 2. *Alyssenfolio leucoii incana, store luteo. Thlaspi Aastriacum,  
leucoii folio incana, store luteo.* Bocc. H. Mauroc. I 7 I.

3. *Alyssen incanum luteum, serpilli folia, majus, T.* 2r7.  
*Thlaspi Alyjsen dictum campestre majus,* C. Β. Pin. IO7. Μ- H.  
2. 291. *Thlaspi minus quibufdam, aliis Alyjsen minus, J.* B. *2.*92.8. *Aiyffum minimum,* -Cius. H. j33. a.

Larger yellow hoary Madwort, with a Mother of Thyme Leaf.

*Clusturs* Figure is good , but he is mistaken in the Descrip-  
tion of theTlower, which is tetrapetalous, and not pentapeta-  
Jous, as he affirms: The Figure which *Label* and *Tabernaemon-  
tanus* have given of this Plant, under the Name of *Thlaspi Poly-  
grnatifolia,* is bad : I believe they have put, thro’ Inadverten-  
cy, *Pplygonati* for *Polygoni folio.* The last of these Authors has  
given a fecund Figure of it, which is much better, and which he  
Calls *Thlaspi minus Clspeaturn R,* The Disserence of these Figures  
has determined *C. Bauhine* to diyide this Plant into two Species,  
great and small; ΑΑτν/οΛ has'follow’d him in this Point. It is true  
that the Plant varies, according to the Place where it grows; but  
**we** must distinguish thejn no otherwise than as Varieties: For  
.the Seed of the smaller, sown in Gardens, produces *R* pretty  
Iarge Plant. *J. Bauhine* observes, that *Schwenofelfius* con-  
founds this Plant with the *Thlaspi angastifoliurn* of *Fuchjius,*which is the *Nasturtiumspfnestre Ofyridisfolio,* C.B. Pin. 105.  
*-Adartyrda Taurnefort.*

*4. Alyssen apianum, serpilli folia, minus,* T. 2I7. *Thlaspi  
Alyssen dictum, campestre minus,* C. Β. Pin. 1G7. M. H. a.  
-29I. a.

Lesser hoary Madwort, with a Mother of Thyme Least

This, in the Opinion of *Dale,* is the, Alysson Of *Diofcurides,***-of** which the inst-Inentioned Author gives the following Ac-  
count : - ; -

The Alysson is a small Shrub, somewhat rough, with round  
Leaves, near which grows the Fruit like double Bucklers,  
**which** contains a fiattish hind of Seed. It grows in Hilis, and  
in rugged Piaces. .

. .The Decoction, drank, cutes the Hiccups that are not at-  
tendant on a Fever. It has the seme Effects if held in the  
Hand, or sinelled to. Bruised with Honey, it cures Freckles,  
(φακοὑί) and Sun-burning (εφηίαα). Pounded and eaten with  
-Fond, it is thought to curethe Bite of a mad Dog. bung up  
in the Houfe it is said to be .a Preservative of Health, and an  
Amulet to Men and Beasts against Witchcraft. Besides it keeps  
-Off Distempers from Cattle, if tied about them in a red .Cloth.  
*Dioseorides, Lib.* 3. *Cap.* IO5.

This is but a Vatioty of the former.

-. 5, *Alyssen parvum, capitulisplabascs, fiasculis luteis. Thlaspi  
wnbellaturn Smyrnaum luteum.* Volk. a. *. . ν*

*6. Alyssem fruticofum incanum,* Τ. 217. *Thlaspi fruticofum  
incanum, C.* B. Pin. I08. *Thlaspi Machlinienfe incanum,* Lob.  
Ic.2i6.Clus. H. I32. *Thlaspi capsulis fublengis, incanum,***J.** Β. 2. 929. *Thlaspi incanum,stere alio, capsulis oblongis,* M.  
**\*H.** 2. 19a. *Thlaspi Alyssen, folio leucaii, latissimo aspero viridi,*Ind. I37.

. - Hoary Shrub Madwort.

*y. Alyssen fruticofum incanum,sure plena.*

8. *Alyssen halindfolia sempervirens, Ύ. usy. Thlaspihalimi  
folio fempervirens,* H. L. 594. Descr. 595. Ic.br  
- - The Alysson with Sea-pnrstane Leaves. .

9. *Asissest vulgare polygoni folia, caule nudo,* T. 217. *Buofa  
Pastaris mtnor, locule oblongo,* C. Β. Pin. jOg. *Bursa Pastoria  
minima, oblongisstliquis, verna,leculoablcmgo,* J..B.937. *Parony-*

*chia vulgaris,* **Dod: p.** *112. Bursa pastoris minor, locule oblongs,***Μ. H. 2. 305. - ’ ‘ .**

.. Common Whitlow Grass.

It is very common on Walls, and in dry Places, in the  
Spring. DI. *Dillenius* has observed *vary* well, that the Petals  
are bind, which is a singular Character in the Tribe to which  
ithelonas.

This Fiant appears to me very different from that which  
*Caesalpinus* calls *Hicmilis- quaedam herbula assents Buofa pasturis,  
foliolis Thymi rotundioribus candicantibus jubhirfutis, etc.* He  
describes it to grow common in *Sicily,* and about *Piombino.  
C. Bauhine* was in the wrong to refer it to this, the Leaves of  
which vary in their Incisures; but are always very different froth  
the Figure of thosis of Thyme. These Varieties are represented  
in the *Hist. Ludg.* The *Paronychia Alstne folio Lobelii Lugde*represents them with Incisures: The fame Leaves are cut in the  
-Figure of the *Myosetis parva Dalechampii Lugde* I 318. *ststar-  
tguls Toumefort.*

. IO. *Alyssen vulgare, polygquifolio, loculo rotunds.*

II. *Alyysenvulgare, polygonifolio trifida. Bursopastoris mi-  
nor, foliis trifidis, aliquando multifidis festorumpetalis bifidis, decu-  
bo oblongo,* Μ. H. 2. 306. *Bursa pajtoria minima, oblongis fsti.  
quis, verna, loculo Mango,* J. B. *ϊ.* =937.

I2. *Alyjsen fruticosum aculeatum,* T. 2I7. *Thlaspi fruti-  
cascum spinosam, C.* B.Pin. Io8. M.H. 2.291. *Leucoium spi- ’  
nofum,seue Thlaspi spinosum aliis,* J.B.2.93I. *Thiafpi fruti-  
catum spinofum Narbonense,* Lob.Ic.2I7. '

Prickly Shrub Madwort.

t - I3. *Alyssen sequium,foliis auriculacis acutis,* T. 2I7. *Mya-  
Sum sativum,* C.B. Pin. Iog. *Myagrum majus sen sativum,*[. H 2. 3I5. *Myagrum dictum camelino,* J. B. 2.892. *Myd-  
grumTurcicum,* J. B. *2. 893. Camelina fove myagrum,* Dod. p.  
532-

Corn Madwort, with auriculated sharp-pointed Leaves.

*Dodonaeus* is in the wrong to compare this Plant to the Mad-  
den The *Myagrum sativum* is no more like the Figure of the  
*Myagrum* I. *Tabem,* than like the *Myagrosenilis jiliqua roturi..  
da. Pin.* It’s not ill represented *inCamerarius, Fig. s.* though  
ill engraved by him under the Name of *Pseudo.Myagrum.* that  
Figure, being only a Copy from *Matthiolus,* has the Fruits very  
ill drawn, and Flowers pentapetalous ; which does not belong;  
to any of the crofs-like Flowers. *Martyrse. Tournefort.*

I4. *Alyssen segetum, foliis auriculatis acutis, fructu majori,*T. 2I7. *Follis est magis dissectis dentatis minoribus, fructu knge  
majore, tota planta humiliore.*

Corn Madwort, with auriculated sharp-pointed Leaves, and  
A larger Emit. ' l

I5. *Alyssen Siculumsupinum, leucoiifolio angusto, sure asta,  
edar e mellis. Thlaspi Siculum sapinum umbellatum, ‘ leucoii folia .  
angusto, stare aliis odore mellis, eu* H. Cath. H. Mauroc, I72.  
*Thlaspi Alyjsarn dictum., campestre minus, folio breviori,* Ind.  
I37. a. " ' . .

I6. *Alyssen montanum incanum luteupi, serpilli folia, maius.  
-Thlaspi montanum luteum,serpilli folia, majus,* **C.** Β. Pin. '007.  
M. H. 2. 292.

*y* I suppose this is the same that is mentioned in *Totpenoforro*History of Plants, by the Name of *Alyjsen perenne majstanuri  
incanum. .*

-This is a Plant whose Leaves are oblong and white, particu-  
ilarly underneath, rough to the Touch; its Stalks are about a  
Foot high, Ash-coloured, garnished with many Flowers, com-  
posed of four Leaves set cross-ways, of a fine fellow Colour r  
Τhe Flower issucceeded by a small flatyruit in Bunches divided  
length-ways into two Cells, frill of small round Seed ; its Root  
is long, woody, dividing, ’ and spreading itself very much : It  
grows in mountainous Pisces. ' .—0—

It is esteemed aperitive and proper against .the Bise.of a .mad  
Dog. *Lemery de Drogues. .*

Its Root is fibrous, white, five or six Inches lons, about two  
Lines thick : It usually sends forth three of four Stalks, lying  
on the Ground, seven or eight inched long, herd, woody, red-  
dish towards the Bottom, wreathed, divided from the very Bot-  
. tom into several small Branches, covered with a white Down,  
and .garnished with Leaves of the same Colour; then Surface is  
a llttio shagreened, and they are shaped something like Olive  
Leaves, according so *j. Bauhine s* but they are about five  
Lines long; theGround Leaves are much whiter than the rest,  
more serrated, and shorter. The Flowers grow at theExtre-  
mity of the Branches, in a kind of Head, and afterwards part  
upon a kind of Spike two or three inches long. Each.Fiower  
is composed of four yellow Petals, two Lines long, almost oval  
at rhe End; rhe Chives are very slender, charged with yellow  
Summits.: The Empalernent also confisis of sour narrow,  
pointed Leaves, a Line and a half long, and foon falling off r  
Out-of the Middle imses aflat, round Pointed, ending .in a  
pretry sine Point; it afterwards becomes a Fruit of the same  
Shape, about two Lines Diameter, raised in Form of a. litrle  
Boss, divided into Celis by a membranous Partition: There  
. are usually in each Cell two oval, flat, red Seeds, a Line long.

The Figure of the *Thlaspi montanum luteum, J..B.* represents

this Plant well enough, only'the Petals are too much cut; and  
besides, *Jo Bauhine* has not noted whether it he perennial or  
annual. Our Plant lasts several Years. That which *Nl.Mag-  
tsol* has called *Thlas.pi Alyssen dictum minus, capsules majoribus  
rotundis non fellatis,* is annual, and its Stalks are less crooked :  
Thus *J. Bauhingis* Figure suits it less, than it does that winch  
we just now described; and this Figure is much hetter than  
that which *Label* has given of it, under the Name of Thlas.pi  
*supinum luteum.* The Capsules of these Plants appear, only  
hecause the Leaves of .their Empalements fall off easily. *Mar-  
pesus Touirtefort.*

*sy. Alyssen Alpinum hirsutum luteum,* T. 217. *Sedum Al-  
pinum hirsutum luteum,* C. B. Pin. 284. *Sedum petraum mon-  
tanum,* Lob. Adv. 163. *Sedam minus,* I2. *Alpinum,* 6. Clus.  
H. 62. *Leucarum luteum aizoides montanum,* Col. 2. 62.

The yellow Alpine AJysson, with hairy Leaves.

IS. *sssessen argenteo folio, stosculis luteis. Thlas.pifolio ma-  
yorana Crasset. Hoc nomine misit Amplissimus Shcrard. Thlas.pi  
Creticum,majorana folio,supinum,store luteo* ,H.Maurocen. I 7 I.

Alysson with a Silver Leaf, and yellow Flowers. . .

io. *Ahessen folio augustisserno viride,stosculis albis spicatis con-  
ifer lam natis.*

20. *Alyfsen maritimum,* T. 2 I 7. *Theaspi Alyssen dictum ma-  
ritimum,* C. B. Pin. IO7. M. H. 2or. *Nasturtium vel Thlas.pi  
maritimum,* J. Β. 2. 927. *Thlajpi centunculi angusto folto,*Lob. Ic. 2I5.

All these Plants are endowed with a Very subtile, penetrating  
and diaphoretic Virtue, by which they expel Poison. The  
ninth and tenth are received, in Medicine, under the Title of  
Whitlow-grasses, and have the same Virtues as Scurvey-  
grass and Water-cresses. They spring up in *Winter,* and  
flower in *Junuary* and their Seeds also are used in Medi-  
cine, aS Emollients, from which they express an Oil. The  
thirteenth and fourteenth are also called the *German Ses.amums,*and the *Myagra of the Sheps.* Bruised and drank, to the Weight,  
of three Ounces, they are sudorific and stomachic, and a very  
good Remedy in cold Affections. *Boerhaave, Hist. Plant.*

ALZEGI, *(Atramentum)* Ink. *Rulandus.*

. ALZEMAFOR, *(Cynobriukia* Cinnabar. *Palandus.*

ALZILAT, *(Pondus trium Granorum)* a Weight of three  
Grains. *Rulandus.*

ALZIMAR, siedrnfrJ green. ' *Castellus* from *Rulandus.*ALZOFAR, *(AEs ustum)* burnt Copper. *Rulandus.*AMA, AME, or rather AMES, ἄμης, a Sort of-small Cake.

*Aretaeus* uses this Word to compare the Quantity of Hellebore  
to, which is sufficient for a Dose in strong Constitutions, when  
given in a Vertigo : His Words are μέγεθος ἄμης, by which it  
should he ἄμα, or *start,* making ἄμης in the Genitive Case. But  
this properly signifies a Sort of Scythed or Inshument, used by,  
Labourers: But *Aristophanes* uses ἄμητα in the Accusative Case,  
which *Suidas* explains, *a Sort of Cake made with Milk,* winch  
should seem to be the here that *Aretaeus* means ; and then it  
should be ἄμης.

AMALGAMA. This, in Chemistry, is a Substance pro-  
duced by an Incorporation of Mercury with a Metal: The  
Chymical Character is *A. A. A.* The best Methods of making  
an Amalgama, are thus specified by *Bocrhaave. .*

I. Melt some of the purest Lead in a clean Iron Ladle, and  
then put into it an equal Quantity of hot Mercury, and  
stir them about with an Iron Rod: Let them grow cold,  
and you will have a homogeneous Mass of a Silver Colour,  
which will he considerably hard, but by rubbing will grow  
softer and foster: Put this Mass into a Glass Mortar, rub  
it, and then add to it whet Quantity of Mercury you  
please, and it will be united to it, as Salt with Water.

2. An Amalgama of Tin is made exactly in the same man-  
net; and this .will also receive more Mercury. \*

3. Take a Solution of the best Copper in Aqua-fortis,' so  
much saturated with the Metal, that it will dissolve no  
more; dilute this, with twelve times as much clean Water:  
Into the Liquor, when hot, put Plates of polished Iton,  
and the Copper will he precipitated, to the Bottom, in the  
Form of a Powder, and the Iron will he dissolved : Pro-  
ceed in this manner till all the Copper is precipitated :  
Pour off the Liquor, and wash the precipitated Powder  
with hot Water, till it is perfectly insipid: Dry the Pow-  
der perfectly, put it inm a Glasa Mortar, and, by nibbing,  
incorporate with it an equal Weight of hot Mercury, and  
they will unite into Amalgama; which will also re-  
ceive a farther Addition of Mercury. An Amalgama  
os Copper, in any other manner, is very difficult to  
make.

4. Pure Silver, precipitated from Aqua-sortis, may, in the  
same manner, he made into an Amalgama^

5. Dissolve the purest Gold in Aqua-fortin, till it can take  
up no more; dilute the Solution with twelve times as

1 much pure Water ; put into it some poluhed Plates Of

Copper, and a Powder of Gold will he precipitated to the  
Bottom of the Vessel, and upon the Copper. Let it stand  
in Heat, till the Liquor will no longer he rendered turbid  
by an Addition of Copper ; shake the Plates, that all the  
Gold may fell to the Bottom ; pour off the Liquor, wash  
the precipitated Powder with Water, dry it, and then in a  
Glass Mortar reduce it to an Amalgama with Mercury.;  
and afterwards it will receive more Mercury, like the  
other Amalgamas. Or, take a Mixture of Gold and Sil-  
ver, coppel it with Lead, and, by means of a good assay-  
ing Aqua-fortis, separate the Silver ; then wash the black  
Powder of Gold that remains at the Bottom, dry it, and,  
whilst it is het, rub it with Mercury, and it wist present-  
ly be reduced to an Amalgama, which will receive more  
Mercury, as before. All Amalgama’s are white, from  
whatever Metal they are prepared.

REMARKS.

By these Methods an Amalgama may he made, without any  
Loss, from all Metals except Iron: There are also other  
Ways of doing it, but not without considerable Loss of  
Mercury, and Danger from the Fumes : Hence we see, that  
Mercury is the true solvent Fluid of Metals. These, when  
they are thus reduced to an Amalgama, may he mixed and '  
. confounded together, and lie concealed among each other.

This Solution of Metals by Mercury, I look upon to he the  
Foundation of Alchemy. . By these means, some cheating  
Sophisticators adulterate Mercury with Lead; but, by ex-  
haling a Grain or two of it, the Fraud is easily discovered.  
And thus, perhaps, the Coagulation of Mercury, ascribed  
by *Paracelsus* and *scan Helmont* to the fixing Fume of Lead,  
and a wonderful fixing metalline Spirit, is brought about:  
For if you melt some Lead, and when it is beginning to  
cool, but is not hardened, you make an Impression on the  
Surface with a Stick, and gently drop a little cold Mercury,  
in a short time it will acquire a solid Consistence: But does

’ not this happen from the hot Lead’s being received into the  
- Mercury, and *so amalgamated, and os* consequence forming .

a pretty hard Mass ? Certainly, if you take a littie of this  
- fixed Mercury, and, in a proper Vessel, expose It to the  
- Fire, you will find it so. This Art of making Amalgamas

has given Rise to a common Cheat ; for if you combine Gold  
or Silver with Mercury in this manner, by only adding Lead  
to them in the Fire, you may recover them again, and thus

- make a plausible Shew of producing these Metals : But only ,  
take a little os this Mercury, put it into an Iton Ladle, and  
set it on the Fife; and then the Mercury flying off, and  
leaving the Metal, will at once discover the Fraud. On  
these Principles depend the Art of Gilding with Gold and  
Silver.

*The Ablution of Metals by Mercury.*

Take an Amalgama, nib it in a Glass Mortar, the longer  
the hetter, and it will begin to grow black. Pour clean  
.Water upon it, and continue to rub it, and the Water .  
will grow black and turbid. Pour this out, add more Wa-  
ter, and rub again, and this will he changed as the former.

. Repeat this till the last Water, after rubbing, remains clear.  
You will then have a pure Amalgama, that looks like Sii-  
Ver. And here all Amalgamas, treated in this manner,  
make Water thus black, more or less, that of Gold how-  
ever least of all. The Powder that comes away, when it :is dried, is neither found to he Mercury nor Metal. The  
Amalgamas of other Metals will scarce ever, by thus  
washing, income perfectly clean, so as to communicate  
no more Blackness to the Water.

.REMARK.’

Hence .we learn, that pure Mercury, by bring mixed with Me-  
tals, becomes so united with them, that something which lay  
concealed in one or both of them, is by this means expelled.  
If minis manner you procure a large Quantity of this Pow-  
der from Gold and Silver, aS the Matter of both these Me-  
tals remains exactly the fame in Weight, without the least  
Addition or Diminution, the Powder must necessarily be pro-  
duced from the Mercury. , ».

There is something Very surprising in this Ablution of. Me-  
tals by Mercury, that theAmalgama should never cease to com-  
. municate this Blackness to Water. . .

AMALGAMATIO. *-Rulandus* defines Amalgamation a  
Calcination of Metals by Mercury.

AMAMELIS, άμαμηλάστ, a Fruit mentioned by *Hippocrates*in his first Book of the Diseases of Women, where he directs  
. them in a Sort of Emulsion he there advises for Women whose  
Milk is deficient. It is generally agreed, that the Amamelis *os  
Hippocrates* is the same as the EpimeliS (ἐπιμηλις) of *Diosco~  
rides,* which is the SMALL BASTARD MEDLAR.

There is another Kind of Medlar, which grows in *Italy.;*some call it *Epimclis,* other *Setanium,* The Tree IS like an

Apple-tree, only has smaller Leaves. It bears a round, 'efculent  
Fruit, with a large Eye, somewhat astringent, and flow in  
' ripening. *Dioscorides, Lib.* I. *Cap.* I70.

AMANDINUS LAPIS, a Gem os various Colours, which  
IS sahled by *Albcrtus Magnus* to resist and expel Poisons. *John.,  
son-caffis* it, by Mistake, *Amandicus.*

, AMANITA, ἀμανίτης, a Sort oPFungus, os which I meet  
no Account amongst the Antients, except in *Oribasius, Paulus  
.\_ AEgineta,* and *N. Myrepfus.*

*Os* the Class os Fungi, the Boleti helled in Water, aS they  
ought to he, become nearly of the Nature of. those Aliments  
which are void os Qualities. They afford'but a cold and phleg-  
rnatic Nutriment, and, if freely used, breed ill Juices. These,  
indeed, are the least hurtful of all the Fungi, and the next tn  
them are the *Amanitee-.* AS for the rest, it is safest to let them  
alone ; for many have been poisoned by'them. *Oribas. Mede  
Coll. Lib.* 2. *Cap.* 25. ’ j

*Amanita,* Fungi, and Tuhera, (Trubs or Truffles, *Dale)*being of a cold and humid Nature, generate a thick and Crude  
juice, and, upon that, agree with a hot and dry Constitution;  
*Actuar. de Spir. Anim. Cap.* 6. ' : '

Let those who are dangeroufly ill with eating *Amanita,* Bo-  
leti, or Fungi, eat heartily of fresh Radishes, drinking, between  
whiles, some moderately strong Wine, sweetened with a little  
Honey ; and let them try to vomit; or let them drink Nitre,  
or Rye finely powdered in Posca. *.Myrepfus de Propinn. Sect-.*38. *Cap.* I7I. r so . . -

*. Paulus AEgineta, D* I. *C.* 77. repeats what has been quoted  
from *Oribasius. ,*

I don’t know that it has heen determined what Sort of Fun-  
gi those were, which *Oribasius* calls Amanitae ; it seems pro-  
bable, that they took then Name from the Place where they  
were produced: But Amanita, as now understood, seems to  
signify much the same as *Fungus Terra.*

, The only Fungi, winch commonly enter into Fond amongst  
ns, are the common esculent Mushroom,, or Champignon,, and  
the Morille : The true Champignon is known by its external.  
Whiteness, and by heing of a palish Red within, when very  
young, and of a more saturatedRed as it grows larger and older.  
These are a delicious, but very hazardous Food ; for they will  
not agree with all Constitutions, nor always with the same Per-  
ion ; for many who have/ all their Lives, indulged themselves  
in eating Mushrooms, have, at last, been greatiy injured by a  
moderate Use of them: And it is remarkable, that some Sea-,  
fons produce Mushrooms much more unwholfome than those  
produced at other Times. *Claudius* the *Roman* Emperor, and  
*\* Charles* the sixth, the late Emperor of *Germany,* are both said  
to have lost their Lives by eating Mushrooms : AndT once was  
Witness of a Violent Disorder, which was brought upon a Gen-.  
tleman by eating Mushrooms, which had all the Appearances of  
being good in their Kind, which I had an Opportunity of know-  
ing; because I saw them before they were dressed, saw them  
cat, and was in the House with the Patient during his whole  
Ismess.

In the Morning, at Eleven O’Clock, he eat about a Dozen  
'Mushrooms of a moderate Size: That Day he eat heartily of  
Beans and Bacon, and some other Things; and at Night he  
fupped moderately as usual. The next Morning he complained  
. Ofa great Pain and Uneasiness about- four Inches below theNa-  
vel, and a disagreeable Aromatic Taste in his Mouth. ' The  
Pain continued all that Day, but moved gradually higher t The  
seat Day the Pain, and disagreeable Taste, were the fame, ex-  
cept that the Pain was got above the Navel; about Noon he fell  
into a Violent Diarrhoea, which lasted that Day, and the two  
next, with Very few Minuteslntermfssion. The Day after, his  
Pain was got to the Region of the Stomach, and gave him much  
Uneasiness; but immediately after drinking a large Draught Of  
Sherbet, he Vomited plentifully, and brought up the Mushrooms,  
without the Appearance of having been digested, or undergone  
the least Alteration in the Stomach, and with them the Beans,  
, Bacon, and whatever he had eat since the Mushrooms. After  
this he was Very easy, and recovered immediately.

I have heard, that Leeks are esteemed a Specific against the  
' Poison of Mushrooms; but I never have known it used, nor  
do I recollect my Authority. . -

*Demersis* Account of Mushrooms is as follows:

There are several Sorts of Mushrooms, which spring **up in a**short timeout of the Earth, in Meadows, amongst Shrubs, and  
**on** Dunghills. The best, and most safe for Mens Health, are  
those which grow up in one Night upon a Dung-bed, where  
Gardeners have found the Art to make them grow all the Year  
round; they ought to be white above, reddish underneath,  
pretty large, plump, tender, easy to be broke, and of an agree-  
able Taste and Smell. The Mushrooms that grow in Meadows  
**are also** Very good, as appears by these Lines: -

*---- Pratensibus optima fungis*

*Natura esi ; alus male creditur.*

Mushrooms are restorative, nourishing, and strengthening;  
they increase the seminal Fluid, Create an Appetite, and **have all**those Properties that are necessary to please the Palate»

. Mushrooms sometimes work Violently upwards and down-  
wards, cause the Palsy and Apoplexy, and often kill with a mac  
lignant Quality, which they suddenly impart to the Humours.  
Now-and-then those Of them winch are looked upon to he the  
best and safest, suffocate and hinder Respiration, if taken never  
so little to Excess. There are also some of them, according to  
the Account given by diVers Authors, which poison People,  
if they smell to them. *... s . . .*

All Mushrooms contain much Oil, arid essential Salt.

/ They agree at no time to any Age or Constitution, because  
they always do more Hurt than Good ; and if Use he made of  
them, it ought to he done with much Moderation ; and it is  
necessary you drink good Wine upon them;

**REMARKS;**

It's said, if yon steep Mushrooms in Water, and afterwards  
. pour that Water- upon the Ground, Mushrooms shall grow  
there; and this arises because the Water is filled with the Seed  
of Mushrooms, which afterwards are,-as it were, hatched in

’ the Earth ; or because that thss same Water hath dissolved  
some *of* the essential Salts of the Mushrooms, which serve

\* to dilate and rarisy the Seeds of other Mushrooms, which are

\* scattered on the Ground. i.'ss ’

It's said, that at *Naples* and *Rome* there are Rocks, and stony  
’ Places, upon which, if you throw hot Water, Mushrooms  
‘ ~ will grow at. any time. 'Tis probable,' this hot Water softens

the Seeds of the Mushrooms that are in such Places, and opens' .  
theirPores, so that these Seeds more abundantly receive the  
remote Juices that are proper to extend and make them  
grow. \* i Ἀ ’ ' ’

Mushrooms are a Sort of Victuals that you cannot he too can-.  
' tious Of. ' *Dioscorides* divides them into two Classes, one os  
which are Very dangerous, and may be reckoned of the Num-

\* her of Poisons; the other does no Harm: However,' we  
cannot but say, that these last, which are commonly made

’ ufe of, are sometimes pernicious; since we see, every Day,  
whole Families brought to their End by eating them; which  
gave *Pliny* occasion to exclaim against the Luxury of Man-  
kind, who, to . gratify their Appetites, Very often run the  
Ϊ. Risque of their Lives by eating Foods of that Kind. *Nero*' called Mushrooms βρῶμα θεῶν, that is, the Victuals of the  
Gods; because the Emperor *Claudius,* whom he succeeded,

‘ died with eating of Mushrooms, and was afterwards deified.  
There are two different Parts in a Mushroom, *viz.* the oily,  
and saline, which last are of an acrid, volatile. Very coagu-

' lating and malignant Nature: However, when .they are strict-  
. ly united with the others, they are not so dangerous; be-  
Ύ cause they are kept down and embaraffed; But when there

is not a strict Union between these two Parts, these Saits we  
have spoken, os, getting the Ascendant, produce many ill

. Effects. For Example ; the Mushrooms commonly used by

\* us, spring up out of the Earth in a little time; they are pre-  
fently to be gathered ; for if you let them lie by for some  
time, they become a deadly Poison; because their Salts,  
which, at first, were sufficiently bound up by their ropy -  
Parts,- insensibly free themselves from the Fetters that shac-

. kled them, and, resuming all their Force, cause the Fermen-  
tation that in wrought in the Mushrooms.

Hence we may conclude, that the more oily Parts the Mush-  
rooms have in them, the.less dangerous they are; and that  
those which grow upon Dung-beds cannot produce such bad  
Effects as the others; because that Bed imparts a great Quan-  
tity of sulphureous Principles to them.

Mushrooms may also be pernicious by their spongy Substance,  
which coming to be diffused and ratified by the Heat of the  
Body, presses the Midriff, and those Parts which serve for

” Respiration, and hinders the Ain to pass into the Lungs; and  
,’tis from thence that the best Mushrooms, being taken to  
Excess, sometimes suddenly suffocate.

When you eat Mushrooms, you ought to drink a good deal of .  
Wine; because this Liquor, by the Help of the Sulphurs  
abundantly contained therein, embaraffeS the Salts of the  
Mushrooms, and moderates their Operation. Honey is also  
accounted a Remedy against the ill Accidents caused by  
Mushrooms, and, upon this Occasion, operates in .the same  
manner aS Wine does.

. Here it's to be noted, that if the Mushrooms do not retain their  
natural Colour after they are washed, but turn either.blue,  
**red,** or black, they are Very dangerous. *Lemery on Foods.*

The Morille is a kind of Spring Mushroom, as large'as a Nut,  
Of an oblong, pyramidal, or oval Figure, shriveled, tender,  
porous, cavernous, or pierced with large Holes, somewhat  
resembling Honey-combs, of a whitish or yellowish Colour;  
sometimes its Colour is white, inclining a little to red; and  
sometimes it is blackish. '

The Morille contains a good deal of Oil, of Phlegm, and of  
volatile Salt, but Very little Earth. It grows in grassy moist  
Soils, in Woods, ‘ and at the Roots of Trees. It is delicious  
when used aS an Ingredient infiauceS; besides, 'tis of an in-

**. Vigo'rating, restorative Quality, and proper to excite Rn Ap-  
- petite.** *Lemery de Drogues.*

Vou are to chuse such as are tender, of the Bigness of a Nut,  
oval, or oblong, os a yellowish Colour, or whitish, and frill  
Of large Holes like Honey-combs. . ,

These Mushrooms create an Appetite, are of a strengthening  
and restorative Nature, and of great Use in Sauces.

The frequent Use of them heats much, and makes the Hit-  
moure sharp.

They agree, in Cold Weather, with those that are phlegmatic,  
and such in general whose Humours are gross, and have little  
Motion ; but Persons of a het and bilious Constitution ought  
to abstain from them. \*

The Use of this Sort of Mushroom is not attended with such  
bad Accidents as the other; and that, in all Likelihood, het.  
cause their Salts are less injurious and pestilential than those  
of the common Mushrooms ; or else, because they are more  
confined and embarasted by sulphureous Principles. *Lesnery  
an Foods.*

*Tournefort* takes Notice of Eighty-three different Sorts, of  
Ainanitae, which are as follows :

I. *Amanita campostrio, alba superne, inferne rubens,* Dillon.  
**Cat.** Giff. I77. *Fungus pileolo laio, et rotunda, livida,* C. B.  
**Pin.** 370. *Fungus campestris, albus superne, inferne rubens,***J.** B. 3. 824. *Fungi vulgatissimi esculenti,* Lob. Icon. 27i.  
CHAMPIGNON, or esculent Mushrooms, common in  
Pastures. ' ....

2. *Amanita Kremlinga alba,* Dillen. Cat. Giff. 178. - *Fun-  
gus pileolo lato orbiculari candicante,* C. B. Pin. 37O. *Fun-  
gus Syluarurn, esculentus candicans,* J. B. 3. 82S. Found with  
the former. . M. *Vaillant* has repeated this in *p.* finder the  
Name os *Fungus totus albus edulis.* The whimYsculent Mush-  
room. si' ' \

3. *Amanita verna, pileo rotundiores odorato et esculento.  
Fungi tierni, Mouceron dicti, odori et esculenti.* J. B. 2. 823.

4. *Amanita alba, pileo invcrsco. Fungi albi, pileolo inverse.*J. B. 3. 847. *Asa .*

5. *Amanita lutea perniciosa. Pungi lutei perniciosi, rfub  
Pinu habitantes.* **J.** B. 3. 832. \_

This is engraved in the *Element de Botanique,* Tab. 328.

**6.** *Amanita piperata alba, lacteo succo turgens,* Dillen. Cat.  
**Giff.** I79. *Fungus piperatus albus, lacteo succo turgens,* J. B.  
3. 825. *Fungi pileolo lato orbiculari candicante,.* C. B. Pin.  
370. THE PEPPER MUSHROOM.

Found by Dr. *Lister, in Marton-Woods,* under *Pinno-Moor,  
in Craven, Yorkjhire,* plentifully. *R. Syn. Ed.* 3. *p.* 4. I  
have found it near *Dulwich,* about the End of *October.*

7. *Amanita mayor, rubescent aut subs.ulva, pediculo brevi,.  
lamellis crebris albentibus,* Dillen. Cat. Giff. - i8I. *Fungus  
lignosus fasciatus,* Vaill. 6I.

Under Oaks in *Angust. R. Syn. Ed.* 3. *p.* 4.

The Stalk is about an Inch in Length, and as much in  
Thickness,, of a dirty, white' Colour, full and fleshy. The  
Head is about three Inches in Diameter, hollowed, reddish.  
With whitish Circles. The Gilis are set pretty close to each  
other, and are white, as is also the Flesh. It yields a glutinous  
and acrid Milk. *Vaill.*

8. *Amanita mayor lactescens,pileo ex albo purpurascente, larnel-  
lis crebris, caule brevi. Fungus lacteus maximus'infundibuli  
forma.* Vaill. 6I. . \* .

This resembles. Pretty much, the two preceding ones. The  
Edoes are, at first, turned down, but afterwards raise them-  
selves so as to form a kind os Funnel, from three to nine Inches  
in Diameter. The.Head, Flesh, and Gilis are white, with a  
little Wash os Purple. The Gilis are very close, and inter-  
mixed with shorter, and, aS it were, half Gists. The Stalk is  
about an Inch long, and from half an Inch to an Inch thick.  
The whole Plant abounds with a very acrid Milk. *Faill. -*' 9. *Amanita major lactescens, epileo subs.usco, lamellis fulvis,  
aaule brevi. Fungus lacteseens preegnantifsimus.* Vaill. 6I.

Its Head is stat, and a little hollowed at the Centre, two Or  
three inches in Diameter, of a Very dirty white Colour, in-  
clining to a Box Colour, unequally indented about the Edges  
with rounded Divisions. It is exceedingly full of acrid Milk.  
Fus/Z.

Io. *Amanita lactescens fulua. Fungus lactescens piperatus  
rufes.* Vaill. A2.

The Head, Gilis, and Stalk are of a reddish, or Copper Co-  
lour. It yields an acrid Milk. *Vaill.*

II. *Amanita major, pileosubsuseo, lamellis albis. Fungus pipe-,  
ratus non lactescens.* Vaill. 62.

The Flesh os this has an acrid Taste, but yields no Milk-

I 2. *.Acnanita fasticulosu purpurascent arborea,* Dillen. Cat.  
Giff. I80. *Fungus nostras pedicule brevi, in pileolum didymum  
abeunte,* Chnel. Reg. Vaill. 6.2. \*

The Head is of a bright and shirung Chestnut **Colour, the**Gills, yellowish, and the Edges turn down. *Faille*

13.\_*Amanita mayor palustris albida. Fungus albidus, infundfa  
huli forma, palustris.* Vaill. 62.

I4. *Amanita pileo.stavo vifcido, caule ruscscenir. Fungus gllum  
tdnesestavo limacino resplendens.* Vaill. 62.

. The Head is of a Conic Figure at first,-and afterwards ex-  
pands, so as to hecome two or three Inches in Diameter. *Vaill.*

*ip. Amanita mayor pileo griseo holoscriceo, lamellis carneis,  
caule albo. Fungus griseus holoserioeus, pileolo greneiator* Vaill.  
63. ... . . .

The Head is sometimes fiVe Inches in Diameter, turned up  
at the Edges like a Saucer. The Stalk is two or three Inches  
long, and about an Inch thick. *Faill.*

16. *Amanita citrini coloris,* Dillen. Cat. Giff I8I. *Fungus  
pileolo stramineo,* Vaill. 63.

. I7. *Amanita media iota alba. Fungus media magnitudinis,  
tatuyAlbus.* Vaill. 63.

The Stalk is from an Inch to three Inches in Height, soft,  
usually full, and sometimes fistulas, thicker at Top than at the  
Bottom, sometimes strait, and sometimes wreathed; feme- .  
times round,- and sometimes a little flat, with.a Furrow on each'  
Side, from one to three Lines thick. The Head is from sour  
to eighteen or twenty Lines in Diameter, cut at first into a  
Hemisphere or Cone, which afterwards growing flat, forms  
another Cone, inverted. The Gills are Very far distant from'  
each other, but the Spaces are filled with half and quarter Gills,  
proceeding from the Circumference. The whole Plant is milk-  
white, and a little shining. *Faill. \_ '*

IS. *Amanita pileo gilvo, lamellis, albis crebris, superne ad mar-  
gines apparentibus, caule albido. Fungus gilvus, ascargine ienuiso  
simo.* ' Vaill. 63. - -v - -

. I9. *Amanita pileo coniformi albo maculato.; Fungus .pileola  
conico-maculato.* Vaill. 63. ' .. \* .

.20. *Amanita plana orbiculata, aurea,* Dillen. Cat. Gissi I79;  
*Fungus planus orbiculatus aureus,* C. B. Pin. 37 I. *Fungi lutei  
magni dicti Juseran speciosi,* J. B. 3. 83i.

Found in .ctorTsey .Wood by Dr. *Dillenius, Syn. Stirp. Brit.  
fido J..#.* 2. . \* . Ἀ

2I. *Amanita purpurascens, pileo sursum repando, caule albo.  
Fungus margine per maturitatem sursum rependa.* Vaill. 64.

- 22. *Amanita orbicularis, pileo et lamellis fuscis,* Drllert. Cat.  
Giff. 184. *Fungus laete fusco colore.* Vaill. 64.

I have sound this near *Dulwich, in Octobcr.*

23. *Amanita pileo fusco, lamellis et caule albis. Fungus latae  
fusco colore, pediculo breviore.* Vaill 64.

. 24. *Amanita clypeiformis major. Fungi multi ex uno pede  
clypeiformes lutei et rubri, J.* Β. 3. 835. .. '

25. *Amanita clypiis.ormis minor. Fungus clypeisarmis minor,*C. B. Pin. 373. *Fungi parvi lutei et clypeiformes albi lethales,*J. B. 3.847...

26. *Amanita fasciculos.a viscida arborea mollis alba,* Dillen.  
Cat. Gist\*. I87. *Fungi albi lucentes ex uno principio plures ex  
radice arborum,* J\* Β. 3. 835.

27. *Arnantta fasiciculosu lutea dumetorum.* Cat. GIff. I86.  
*Fungi multi ex uno pede perniciosi,* J. B. 3. 835. I have  
counted above a Thousand of these from one Root. M. *Fail-,*lant has repeated this Amanita in p. 68. under the Name of '  
*Fungi plures ex uno pede, e prunorum radicibus enati.* Ran Hist.  
I. 99. App. 32. 8. *Fungus multiplex parvus luteus, pileolo mol-  
liter convexo,* Cimel. Reg. And again, in p. 7I. under the  
same Name, where the whole Descriptiondin also repeated.

28. *Amanita color e lacteo. Fungus colore lacteo.* VailL 64.

29. *Amanita piperata non lacteseens vifcida, pileo ex fusea  
rufescente, lamellis et caule albis. Fungus piperatus, non lacte-  
scens, coloris hrasilici.* Vaill. 65.

30. *Amanitaabtuse coni formis cincrea, aut-ex livido nigricans,  
utrinquestriata,* Dfllen. Cat. Gissi I82. *Fungus parvus, pedi-  
culo oblongo, galericulatusstriis lividis aut nigris.* Rasi Syn. Vaill.  
65. In Pastures on Dung, in *September* and *October,* Syn. Ed.

3. p. 8. . . ν Ἀ ' '

3I. *Amanita pileo albo, centro rufescente, lamellis carneis, caule  
albo. Fungus pileolo-albo, centro rusieseante.* Vaill. 65.

32. *Amanita parva, pileo viscoso, ex albido luteo, lamellis livi-  
dis, caule longo. Fungus capite hemisphaerico palltde lutescente,*Vaill. 6.5. It is common on Cow-dung and Horse-dung, in  
*September* and *Octobcr.* M. *Vaillant* seems to have repeated this  
*Fungus* in p..7I. under the Name of *Fungus parvus, pedicular  
oblango, pileolo hemisphaerico, ex albida subluteus.* Ran Syn.

33. *Amanita parva verna utrinquestriata fusea, pileo ubtufe  
coniformi, museo palustri ramose majori, foliis membranaceis acu-  
tis Fern, innascens,* Dillen. Cat. Gissi 184. *Fungus capitula'  
.conico pallide cineri lio, centro fusa.* Vaill. 65.

34. *Amanita tota alba. Fungus totus albus.* Vaill. 65.  
- 35. *Amanita tota grisea. Fungus totus griseus.* Vaill. *66.*

*36. Amanita fasciculos.a sordide carnea. Fungus multiplex  
sordide carneus.* Vaill. 66. .

37. *Amanita fasiciculosu buxea,* Dillen. Cat. Giff 187. Fh»-  
*gus nostras mulUplex, pileolo lato mammoso.* Vaill. 66.

38. *Amanita exigua, sunguinii coloris,* Dillen. Cat. Giff. 66.  
*Fungus parvus coccineus,* CimeL Reg. Vaill. 66.

.39- *Antonius exigua, pilea umbilicato nigre, lamellis nigulcan.  
iibus. Fungus minimus, totusfnigcr, umbilicatus.* Valli. 66. -- -  
. 4c. *Ananita minor umbilicata, tata rofa. Fungus mirior,  
totus rusus.* Vaill. 66. . ... . .

4I. *Amanita miner, fota citrine.. Fungus minar, citrino co-  
lore, pedunculo stavefcente.* Vaill. 66. ‘

42. *Amanita mittor, pileo villose fused, lamellis ex cinereo  
purpurascentibus, caule fuses. Fungus minor, pilei superficie  
sacculis fuseis, villofa.* Vaill. 67 i,

43. *Amanita parva, capitula conico, violacei dilutioris caleris.*Pistem Cat. Gilt ISI. *Fungus minor Amethystinus.* Vaill. 67 i  
. 44. *Amanita faseiculofa, eae fusco violacei coleris.* Dillen.  
Cat. Giss. I86. *Fungus major violaceus.* Vaill. 67i (. ..

45. *Amanita pileo incarnati coleris, lamellis albidis, caule  
albo, ad imum tuberose. Fungus dilute carneus, 'vel intardaturi .*VaiILtio. . S ;. ... . ... . ...

t 46. *Acrumiscs maser, pileo pallide violaceo, lamellis et caule  
candidis. : Fungus magnus albus, pileolo lato, prona parte for-  
dide cceruleo.* Vaill. 67. . : . ,

47. *Amanita pileo aurantii colaris, lamellis et caule lividis.*Hist. Plant. rar. Cent. I. Dec. 3. pi 3I.. *Fungus aurantii cale-  
ris, capitula in conum abeunte,* Inst. 559, Near *Fulborn in Carn.*

*. bridgejhire. . . ...... - ;*

This is of a red Orange Colour, and its Head is a perfeci  
Cone. . .. i .

4. 8. *Amanita pileo conico aurea viseido, lamellis pallide sta.  
vis, caule aureo. Fungus aureus, capitula in canum abeunti.*vaill. 67. „., ,fr ... .. ..

49. *Amanita eae livide albicans, pris intus 'cdnversts,* Dillen.  
Cat. Giss: 182. *Funguls calore castanea, margine per rnaturitar  
ion introrsum convoluto,* Vaill; 68.. ...

*io. Anianita minima, pileo et lamellis cinereis, cauleofuseo  
conico. Fungus minimus, pediculo conics.* Vaill. 68. - \_

51. *: Amariita pilet) clypeato rufesefnte, lamellis et caule cine-  
reis. Fungus clypeatus,* ast *medio protuberans.* Vaill. 681,

52. *Amariita parva, utrinquesudata, pilea coniformi, murini  
coleris, lamellis et pedicule albis,* Dillen. Cat. Gissi I83i, *Can-  
gus capituli mammose, centro papillari,* Vaill. 69. It is found  
In Pastures in Autumn. This seems to be the fame with whai  
. M. *Vaillant* has called, in/. 69. *Fungul pileolo candicante, la-  
mellis paucis, pedicule seusea splendente. . ..so ;*

*eft.. Amanita. exigua, incarnati caloris. Fimguli incarnati,  
colaris minuti, museo inndts.* Monte. Pugni. Tain sii Vaill. 69.  
... 54. *Amanita parva, utrinqs. suiata, pediculo tenui lumgr  
formo lento, pileola in medio fajiigiapi,* Dillen. CaI. Gissi I831  
In Pastures. , . , .... ' -

55. .άνὰηώιτ *ochroofeuca viseida, pilea slypeisarmi. scunguli  
quilerehamsgrneo pallida, pileolo et pediculo glutine abducto.* Vanlli  
Itio- , ς ., *- As. '*

56. *Amarita grisea viseida, pileo clypeifornei. Fungus qui*

*liore bomagenea griseo, pedicule glutine obducta..* Vaill. 69.

K 57. *Amanita arborea mollis, caloris exacte crocei,* Dilleij;  
Cat. Gissi I82. *Fungus pileolo croceo, splendoris participe.*Vaill. 69. On Trees and rotten Wood.

58. *Amanita viseida, pileo expanse serdide albo, lamellis cast.  
'Aides, caule selide. Fungus capite expanse, vifcofus.* Vaill. 70.,

59. *Amanita gtifoida, pileo primum conico, pastea plans. Fun.  
gus cano primum obtuse, pestea plano, pileolo et pediculci glatine  
obducto.* Vaill. 70.

When this is young, the Heed of it is usually of a dirty  
White, and the Top of a Box Colour; Sometimes it is of a  
dark Green, and sometimes of a Russes. The Stalk and Gllls  
of this last are of the fame Colour with the Head ; hut the  
Gills of the White and Green are usually of a Brimstone Co.  
lour, and sometimes washed with a little Green. The Stalk  
also is os a Brimstone Colour, with a Tinge of Verdegris to-  
wards the Top. *Vaill.*

60. *Amanita piles obtuse conifotmi, e cinereo fulve, lamellis  
albidis, caule lengo firma* τ*'striata gracili, castanei coloris.  
Fungus fimi equini, capitulo pileum Romanum restcreate.* Vaill.  
7I. ' It has been found in Woods in *England* by MI. *Dale.*

*61. Amanita pileo cinereo utrinq,striato, caule longa fistulose.  
Fungus capitulo mammose.* Vaill. 70.

62. *Amanita faseiculofa, pileo obtuse coniformi, utrinq.,striato  
pallide, lamellis nigris, caule alba ststulose. Fungus nastras  
multiplex, pedicule fistulose.* Vaill. 70. 'I have often found this  
about the latter End of Summer ; it foon rots ; and is perhaps  
the fame with that mentioned by DI. *Dillenius, (Synt* 7.) tm.  
der the Name of *Fungus parvus lethalis galericulatus.* Lob.

63. *Amanita faseiculofa, pileo ex lutes fusco, lamellis virenti,  
bus, caule pallida. Fungus media magultudinis, pileolo fupeme****e*** *rufo fornicante, lamellis subtus serdide virentibus,* Rhii Hist. 3.  
, I7. *Fungus luteus, pileola molliter convexo, lamellis viridibus,*Cmiel.Reg. Vaill. 7I. I found this on rotten Wondin the  
Apothecaries Garden at *Chelsea* in *October.*

64. *Amanita exigua candidissema, pileo umbilicato. Fungus  
minimus albus umbilicatus striatus.* Vaill. 7I.

65. *Amanita faseiculofa, pileo obtuse conico griseo, lamellis  
albis, caule grisea. Fungus multiplex obtuse conicus, colere gri-  
sea murina.* Vaill. 7 I.

**65.** *Amariita pileo viscose luteo,.* **HifL** Plant. Iar. Cent, **r.,**Dec.3. p. 31. I suspecti this to he the same with that which  
**M.** *Vaillant* describes under the Name of *Fungus glutinosus, cpe..  
lore aurantia,* p. 7a. The Plant, which I mean, is very com-  
mon in Pastures in Autumn.

. 67. *-Amanita avum reserens, humorem nigrum per maturita-  
tem effundens. Fungus Typhoides. An Fungus non veseurist* 7.  
Flor. Pruss. 89. *Ac Fungus albus ovum referens,* D. Doodir,  
Ran Hift. 3. aa. Vaill. 72. Cn a Moor betwixt *Rood-Lane  
2n0. SsmerJet-Bridgeior Hampsaire,Mer.Piti..* 1 have seen it  
in great Plenty at *Chesterton, in May.*

-. 68. *Amanita fasciculeso, avurn reforms, minor, humarem ni-  
grum per.maturitatem effundens. Fungus multiplex ovatus cine~  
reus minor'.* ..Vaill. 72.

.. 69. *Amanita orbicularis alba, lamellis et pediculo villests, oc  
veluti farina conspersu,* Dillen. Cat. Gissi 184. *An Fungus  
minor tenerrimus, surina respesuus, pileolo superne cinereo, la-  
mellis subtus teiiuistimis nigris.* Rail Syn. Vaill. In Pastures in  
*September* and *October. . . .... /*

70. *Ameniiia susea, pilea insundibuli-formi. Fungus folia-  
ceus vel iameliaius infundibuli forma, faseo-lividus.* Vaill. 73.  
., 7 I. *Amanita faseiculofa, piles fusco, lamellis et caule griseis.  
Fungus multiplex campanisarmis, colore fusco.* Vaill. 73.

.. 72. *Amanita foseiculojii, pilea et caule castanei coloris, lamel-  
lis ex serdide albo pallide rubentibus. Fungusmuhiplaaecampa.-  
niformis, colare castaneo.* \ Vaill. 7 3..

... 73. *Amanitafaseiculofa, pilea rufescent e, margine araneose,  
stamelscs crebris suseis, caule albo ststulose. Fungus capitulo  
'rnammose ruseseente.. su!.ssSi. ygi. '*

74. *Amanita faseiculofa,. pe leo ovata sulcato cinereo, lamellis  
crebris lividis, caule alls. Fungus mutipleu ovatus.* Vaill. 73.

75. *Amanita stcca et levis, poles magno plano orbiculari, pe-  
dicule longo, plerusnq-, bulbiformi,* Dillen. Cat. Gissi ISO. *Fun-  
gus pileolo loto, langissemB pediculo variegato,* C. B. Pin. 37 I.  
**Vaill.** 7ai . . -

?, Observed frequently in *England* by DI. *Lister* ; as in *Chester-  
tan-Close* near *Cambridge,* and in the Wools in *Lincolnseire* 5  
who also experienced it, in easing, to be more savoury than the  
Champignon.- A *Syn. Edi. 2. p.* 3.

- 76i *Amanita pileo lato rufeseente, micis fursuraceis asperse,  
Iamellis albis, castle tuberose. Fungus pileole cats, micis jurfuro..  
iceis asperse.* Vaill. 74..

.77. *Amanita pileo virescente, ex pila erumpens. Fungul  
phallcides anniilatus, -serdide vireseeus et patulus.* Cimcti Reg.  
-Vadl. 74.

78. *Amanita pslee lata albido, Iamellis candidis ex pila erum.,  
pins'. Fungus phallcides.* Vaill. 74.

79. *Amarita pedicule hilbiformi, pileo maculato,* DillerL Cat.  
Gist. I S4. *Fungus pediculo in bulbi formam excreseente.* C.B.  
-Rail Hist. I. 95. Vaill. 73.

**; So.** *Amariita pileo data purisceo, lamellis Abis. Fungus pilecla  
lato paniceo, lacteurn et diilcem seuccum fundens.* **C. B. Pin.**

37I. Vaill. 75. .-

8I. *Amanita pileo candido, tuberculis stava-suscis variegato,  
iamellis creberrimis- Furtgus colore candide,, tuberculis stava-  
fuseis elegaritiffime variegato.* Vaill. 75. ’

82. *Amanita pileo clypeato castaneo, centre rufo, circule for..  
Aide albo circumdato, iamellis creberrimis stavejcentibus. Fun.  
^gus centra marnrnsse rufo, circulo serdide albo circumdato.* Vaill.  
*estes*

83. *Amanita minima, piles aurantii coloris, lamellis ex alba  
rufescentibus. Fungus minimus aurantias mamillares.* Vaill. 76.  
*Martquisu Toumofsre.*

Something like the Mushroom is the Truffle, except that it  
never appears naturally above Ground. Of this there .are two  
Sorts, the first sometimes used in Medicine, (see BoLETUs)  
the second much used in Food.

The second is thus distinguished:

*Tubcra,* **Ossie. C.** B. 376. J. B. 3. 849. Cheb. 59I. Raii  
Hist. I. I IO. Synop. 2o. Sterb. 308. Tab: 32. A. Hist. Oxon.  
4. 638. *Tubero Matthioli,* El. Bot. 442. Toum. Inst. 565.  
*Tuhera terra.* Ger. I 385. Emac. I5S3. *Tubera terrae edibilia.*Park. I3I9. TRUFFLES on TRUBS.

MI. *Geoffrey* the younger heving given several curious Par-  
ticulars, relative to Mushrooms and Truffles, in the following  
Memoir, it will be of some Importance to insert it.

*Observations upon the Vegetation of Trusties.*

All Substances which appear to vegetate, may, generally  
speaking, be divided into two Clafles; such as have all the  
Characteristics of Plants, and such as want some of these Cha-  
raiteristics. Among’ thofe of the latter Kind, forne have no  
Appearance of Flowers, as the Fig-tree, whose nFlower is  
thought to be wrapt up in its Fruit: Others want the Appear-  
ance both of Flowers and Seeds; such as the most Part of Sea  
Plants, whore Seeds are suspecied to lie concealed in particular  
Vesicles, destined sot the Purpose: Others have only Leaves  
without Stalks, such as *Liver-vsort, Sea-lettice,* and *Naseoch;*Others have Stalks without Leaves, fuch as *slum Euphorbiam,* the

*Hiorse-toil,* the Sea-oak, .Corals, and' the most Part inf stony  
Plants. Lastly, others have scarce any Appearance of Plants,  
not having visibly either Leaves, Howers, or Seeds. Of this  
kind are most *Mujbroams,* Sponges, Monlles, and especially  
Truffles, which are likewife without Roots. Botanists have  
Duly ranked them among the Class of Plants, because, they  
are observed to grow and multiply, not doubting but they  
contained the essential, tho’ they were destitute of the ap-  
parent Parts of Plants; as Insects have the essential Parts  
of an Animal, tho’ their outward Form should have a differ-  
ent Appearance. Having made some Observations on the  
*Nasuch,* I was led to examine the *Trofste* also, which is still  
more singular, and, for ought .1 know, has, aS yet, had no...  
thing positive advanced concerning it: I shall therefore give an  
Account of the Observations I have made upon its Analysis,  
and the uncommon Manner of its Vegetation.

This Sort of Plant is only a fleshy Tubercle, covered with a  
hard Sort of Crust, rough, and somewhat regularly furrowed  
On its Surface, almost like the Cyprefs7nut. It does not rife  
above the Surface of the Earth, but lies concealed about half a  
Foot below in Great Numbers of them are found in the fame  
.Place, of different Sizes. Some of them are, now-and-then,  
found of a Pound Weight, or even a Pound and a Quarter :  
.These last are but rare, and *Pliny* only mentions their being of  
a Pound Weighs. ...

Certain it is, however, that some of them are very large:  
They grow in different Countries ., and, in *Plinsu* Time, the  
most valuable were, brought from *Africa..* They are now found  
*in Europe, in Brandenburgk,* and several other Parts of *Ger-  
many*; and are very common in *Italy, Provence, Dauphine,  
Languedoc, Anjou,* and *Perigcrt.* They grow also in *Burgun.  
. dy,* and forne of them are sound about *Paris ..* It is observed,  
that they are ordinarily found in Fields, that are uncultivated, of  
a reddish-coloured Earth, and sandy, but somewhat rich. They  
grow at the Feet, and under the Shades of Trees; sometimes  
about the Roots of Stones, and sometimes in clear Earth:  
Theis favourite Trees are, either the white or the green Oak ;  
as the *Elm* is that of the Morille. They begin to be sound  
when warm Weather first succeeds the cold, sooner or later,  
as the Season is more or less mild ; for they have sometimes  
been very, rare after hard Winters. At first they appear  
only like little round Pease, red without, and white within.  
.These Peofe grow larger by degrees., from that Taino they  
.begin to take out of the Ground what they commonly cull  
White Truffles: These are of themselves insipid, and Peo-  
**ple** dry them as an Ingredient for *Ragouts*; because they keep  
better when dried then marbled ones do. \*Tis a common Opi-  
.Dion, that Truffles, which have once been removed from their  
.Places, are never after capable of being nourished ; even when  
put into the same Earth from which they were originally taken:  
But if one leave them there for a certain Season, without dis-  
turbing them, they grow insensibly larger; their Bark becomes  
black, rough, and unequal, the’ they always retain their White-  
Hess within. Hitherto they have very llttle Smell or Taste, and  
can only be used in Ragouts. These are always called *the first  
White Trusties,* and are not to be made a different Species from  
*rhe marbled* or *black ones,* gathered in the End of Autumn, and  
even in Winter after the Frosts are begun ; for, in my Opinion,  
.they are only the fame, arrived at different Degrees of Maturity.  
**I** look upon the *White Truffle,* in its first Stato, as a Plant which  
is, at one and the fame tone, Root, Stalk, and Flower, whore  
*Parenchyma* swells every Way, and whose Parts are insensibly  
unfolded: in proportion as the Truffle swells, its Bark becomes  
. hard and furrowed in different Places, that so it may convey the  
more Nourishment to the grosser Mass : Then the Truffle  
changes its Colour, and, instead of white, it inseosibly becomes  
marbled with greyish Streaks; and that which was formerly  
white, now looks like a Congeries of finall Pipes, which spread  
themselves in the Heart of the Truffle, and terminate in the  
. Furrows of the Bark.

The greyish Substance, which is wrapt up amidst thefe Ca-  
nales, when viewed with a Microsoope, appears to he a trans-  
parent *Parenchyma,* composed of .Vessels or little Bladders: In  
the Middle of this Substance appear biack round Points, distincti  
from one another, which have all the Appearance of Seeds nou-  
rished in that Substance, whose Colour they have darkened, and  
in which there remains nothing white, except the Vessels and  
some Capsulae. I lock upon that white Substance as hollow  
Pipes, because I always fee them terminate in the Bark.

When the Truffles are arrived at this Degree of Maturity,  
; they are os a very good Smell and Taste : The Heat and Rains  
- ’ during the Month of *Auguli* forward their ripening very fast,  
which may possibly he the Reason why some Authors have raid,  
that Storms and Thunder fust produced them. The Truth is,  
good Truffles are not dug but from the Month *os October to the*End of *December*; and fometimes to the End of *February* and  
*Moirch,* when they are, even at that Time, marbled ; whereas  
those gathered from the Month of *April* till *July* and *August,  
use* only white. If People negiedt to gather the Truffles when  
**arrived** at their due Degree of Maturity, they rot; and **then**

**we may** observe the Re-production of the Truffle, hecaufe, af-  
ter forne time, we see feveral Bunches of other young Truffles  
filling up the Places of the rotten ones. These young Traffics  
are nourished till the first Colds come on ; and if the Frosts are  
not intenfe, they get over the Winter, and furnish us betimes  
with the white Spring Truffles.

The excessive Cold in the Year I7C9, is an additional Proof  
of what I advance, since Truffles were not sound till the Au-  
tumn of that Year ; the most forward ones, which should have  
appeared in the Spring, having perished by the Rigour of the  
Season ; whereas they were very common the foregoing Year:  
We obferve neither Hairs nor F ilaments of Roots at the Truf-  
fles, when taken out of theEarth, with which they are cover’d  
in such a manner as to leave the Traces of their Bark imprinted  
in it, without appearing to have any other Communication with  
is. They are fubjecti, like other Roots, to he eat into by  
Worms. The Worm which preys upon the Truffle, is white,  
small, and different from that which is batched by its Corrup-  
tion : Afterwards this Worm forms a kind of Bean, shut up in  
a very sicnder Covering of a white kind of Silk; from which,  
some time after, comes forth a bluish violet-coloured Fry,  
which makes its Way, from the Truffle, thro’the Furrows or  
Clefts observed in it. There Flies are infallible Signs,- that there  
are Truffles to be found near the Pisces where they are ob-  
served. -

If a dressed Truffle has been pierced by a Worm, it may **be**discovered by its being bitter to the Tasteand hy a lltde At-  
tention, one may observe the Place, where the Hole is, to he  
blacker than the rest, and that the Bitterness is caused by it,  
since the rest of the Truffle tastes well. Upon laying open the  
Place where the Hole, is, one may easily discover the Nest of  
the Worm, and a Space round it free fromMarbling, of a dif-  
ferent Colour from the rest of .the Truffle, and resembling that  
**of** rotten Wood. Upon viewing the Surfaces of Truffles with  
a Microfcope, I have found, that certain white Specks, which  
**I** saw there, were so many finall Insects, which prey’d upon  
them. - They follow the Furrows of the Bark, that they may  
the more commodiousiy suck their Nourishment. These In-  
sects are white, transparent, and of a round Figure, almost lite -  
Mites, They have only four Feet, a small Head, and creep  
pretty fast. These Insects are nourished by the nutritive Juice  
of the Truffle for I have found some os them lodged in the  
same Cell which hed formerly been inhabited by the Worn:  
They were become, the’transparent, of a Cossee-colour, like  
the Place where the Worm had nestled. It is to, be observed  
that the Earth which produces Trusses, bears no other Plants  
upon it; for the Truffle absorbs its nutritive Juice, or rather by  
its Smell destroys or prevents the springing of other Herbs.  
This Reason appears to me so much the more probable, because.. .  
the Earth, in which they grow, frnells perfectiy like them. The  
Peasants in some Parts receive Profits so considerable from the  
Sale of Truffles, as to render them very industrious in disco-  
vering the Grounds where they are, so that they are now be-  
come very skilful at it. They know the Extent of the Ground  
where the Truffles are, by its bearing nothing, and heing void  
*of* all Herbs: In the second Place, according to the Quality  
of the Earth, if the Ground abounds with Truffles, it is chapp’d  
in several Places. They also know it by its being more light  
than other Earth, by there, little bluish violet-coloured Flies **I**have mentioned, and by another Sort of Flies which are large,  
black, long, different from those produced from the Worm,  
but which are ingendered by the Corruption of the Truffle, and  
like those which are hatched in every other corrupted Matter.  
There is a Dexterity in digging Truffles witheut cutting them,  
especially if they are big. The Peasants have a kind of *Plant-  
ing Stick* for digging them. In other Parts they do not trouble  
themselves with searching for them, but have recourse to an-  
other Method mentioned by *Pliny,* and other Authors. Swine  
are known to be very greedy of Truffles ; they therefore make  
use of one of these Animais, which they train up to discover  
and dig them; but there is a Necessity for being very quick in  
taking the Truffles they find from them, and giving them some-  
thing in their stead, lest they should be discouraged, and give  
over a Pursuit from which they receive no Advantage: And in  
*’ Montserrat* they have Dogs trained up for this very Purpose. .

Thefe are, in general, the Observations I have made upon  
the Truffile, and its Origin. ’Tis now my Business to deter-  
mine the several Species of it.

MI. *Tsumofart* only admits of two, which he distinguishes by  
their Figure. The first is round, the Figure of which may be  
seen in his *Elements, of Botany,* and is the fame with that re-  
presented in *Mattbnolus,* and other Botanists : This is the Spe-  
cies which *Mentocelius,* in his *Pugillus rariorum Plantarum,*styles *Tubera subterranea testiculorum forma,* or. *The Subter-  
raneous Mujhroorn in the Form of Testicles.* This Truffle differs  
from others, both in its Figure, and its internal Colour; which,  
as‘this Author fays, is of a greenish Red, like the internal Co-  
lour of the Fua-basts in out Woods; but perhaps, if he had  
opened them at another Season, he would have found them ofa  
different Colour. He also compares them' to another certain

Substande, which changes Colour like them. *MdntzAius* dis-  
cover’d this Species in the Months of *August* and *September,* at  
which Season they are not perfectly ripe; he found them in a  
Province on the Frontiers of *Brandenburg.* According to this  
Account, we have as yet only two Species of Truffles, which  
differ in their external Appearance; and we ought not to look  
upon the Variety of internal Colours, or the different: Degrees  
of Bulk, as Characteristics, or Marks of different Species, since  
the Roots Or Stones they meet with in their Growth, may  
model them into different Forms. The Truffle then appears  
to me to he a Plant, and not a conglomerated Substance, or  
an Excrement of the Earth, as *Pliny* thought; and as a Proof  
of his Opinion, told a Story of the Governor of *Carth a gene,*who, upon biting a Truffle, sound a Piece of Brass Coin in his  
Teeth. But this Circumstance is no satisfactory Proof of his  
Assertion, since the Truffle, in its Growth, must by chance  
have inclosed this Coin, as we sometimes observe in certain  
Trees, Of whose Vegetation we are fully persuaded. I have  
Reason to think, that *Pliny* knew not well what to determine  
Concerning this Matter, since he afterwards telis, us, that no  
Truffles were found about *Metylene,* in the Wand of *Lefbos,*. only when the overflowing *of* the Rivers carried the Seeds of  
them from a Place called *Tooues,* in the main Land of *Asia,*where were Truffles in Abundance.' Perhaps we might he

. able to multiply Trusties, by trying different Means for  
that Purpose, since we plainly find, that they multiply in the  
Earth. This Reproduction would confirm my Opinion, that  
the Seeds are inclosed in the Heart of the Truffle, and that it  
is by this means, that the Colour of the Parenchyma is ob-  
scured. This Parenchyma is supported by Fibres, which run  
irregularly from. the Circumference to the Centre, and all in-  
tersected by white Pipes, winch form the Marbling of **the**Truffle. Sometimes these Pipes extend themfelves, and form  
’white Plates, composed of transparent little Bladders, which  
are flenderer than the rest; so that, when View'd Sideways, they  
form an even white Surface; and when observed perpendicular-  
ly, black Points may be observed scattered up and down them;  
If these Points are the Seeds of the Truffle, I should suspect,  
that the white Plates are, as it were, the Flowers of them, it  
heing Very probable, that the Flowers, together with the Seed,  
are included in the Truffle. Tho' the Fibres of the Truffle  
are Very flender, yet the Whole of them; taken together, make  
a considerable Resistance, when an Attempt is made to break  
them in a longitudinal Direction. The Fibres are more distinct-  
ly observed in a faded Truffle, than in a fresh one, because the  
plump Contexture being wither’d, allows their Bags to he the  
inore easily discovered, which, upon pressing them, yield their  
Contents; if, on the contrary, these Fibres are drawn in a lateral  
Direction, they easily separate into many fibrous *Lamina. .* AS A  
Proof, that these are real Fibres, the Place spoiled by theWorm,  
when View'd with a Microscope, appears like rotten Wood; so  
that they are in this State nothing more than Fibres or Laminae,  
without Juice, without Vesicles, and without Grains, which  
I take.to be the Seed. We find them, as it were, pierced like  
a Sieve in the Pisces, where these Substances should have been  
contained ; whence we may conjecture, that the Worms or  
Insect have extracted the nutritive Juice, since the Insects  
which I have found there, were of the same Colour with that  
Part os the Truffle where they made their Entrance. ’

: But to come to the Analysis of this Plant, I first endeavour-  
ed to discover whence its Smell proceeded ; and that I might  
not alter their Principles by the Action of the Fire, I inclosed

. some of them in a Glass Cucurbit, covered with its Top, in  
which! had suspended Sbreds of Paper, ting'd of a bluish Co-  
lour with the Tincture, of *Turnsole,* and others ting'd with the  
Juice of Violets. In less than twenty four Hours, these latter  
Shreds assum’d a beautiful Emerald Colour, whereas the Paper  
ting'd blue with the Turnsole, did not change its Colour. - This  
Experiment confirm’d me in the Opinion I had, that the Smell  
was no more than the infolding.and breaking forth of a *volatile  
'alcaline Salt,* mixed with some Quantity of Sulphur. It also  
proves the Analogy Of this Substance with Plants and Fruits,  
which only acquire a Smell by the Fermentation raised in them,  
and which ripens them. If this Fermentation becomes too  
strong, the Fruit rots, and yields a Seed perfectly ripe, as may  
he observ'd in Cucumbers, Gourds, and other *soft* Fruits. I  
find the same Circumstance to hold in the Truffle. It is «insi-  
pid till the Fermentation has drawn forth its Principles, and  
put them into such a Motion as is sufficient to render them per-  
ceptible by the Smell and Taste. This Vapour is in the Truffle  
impregnated with such a Quantity Of Volatile Salts, that they  
discover themselves from the Very Beginning of the Fermenta-  
tion; whereas in other Plants, Woad alone excepted, the uri-  
nous Principle does not discover itself but in the Putrefaction.  
This is what I have observed with regard to Wormwood, froth  
which I extracted an urinous Spirit, by allowing it to rot. The  
Smell of the Truffle is only agreeable in a certain Degree; for  
when there are many of them together, or when they are shut  
up close, they ferment to such a Degree, as to send forth a  
Smell like that of Mink; then they become mouldV and Viscid.

If Truffles are gathered in dry Weather, they keep much  
longer, especially if Care he taken to lay them at a Distance  
from one another, as People do other Fruits. I believe they  
might he preserved a considerable time in Oil, which would  
hinder the Fermentation, by blocking up the external Pores.  
The Country People pretend, that they are better after the  
first Frosts ; winch seems probable enough, fince the Cold sop-  
presses the Fermentation, and thereby qualifies them for heing  
preserved longer than otherways they would have been. Those  
who keep them, chuse for that Puspose either Sand or Earth,  
according as they stand in need of Moisture or Dryness.

To continue the Analysis, I got some Truffles, took off them  
Bark, cut them into Slices, and put them into Water, which  
became impregnated with the Smell of the Truffle; and was of a  
nasty greyish Colour. I pour'd some of this Tincture upon  
Syrup os Violets, which alter'd its Colour, and assum'd a  
greenish Cast ; I pour'd also some of it upon a Solution of cor-  
rosive Sublimate, which it at first darkened; and then insensibly  
produced a Precipitate of a dirty White -. At last, the Water  
and the Truffles became putrid, of a very ill Smell, and viscid.  
1 put into six Ounces of Spirit of Wine; three Ounces of  
Truffles, cut and clear'd from the earth like the former ; the  
Spirit extracted a red Tincture, which had exactly the Smell of  
the Truffle. This Tincture coagulated the White of an Egg,  
as Spirit of Wine uses to do, and produced a white Precipitate  
in corrosive Sublimate, because os the volatile Salt it contains.  
When I had suffered the Spirit of Wine to stand about two  
Months on the Truffles, its Smell was a littie alter'd, and ap-  
proached to that of a Quince. The Slices of Truffle, winch  
I took out os it, were dry and tough like a Horn; and immedi-  
ately after appear'd white; and cover'd, as it were, with an  
insipid saline Flower, which did not incorporate with the Spirit  
os Wine, as we daily observe, that Volatile Salts do not mix  
with Spirit of Wine, or at least, that Liquor can only he im-  
pregnated with a very inconsiderable Quantity of such Salts;  
This Tincture of Truffles and Spirit of Wine, thrown into  
limpid Water, gave some Marks of a sulphureous or resinous  
Quality, since it a littie disturb'd the Water. After having ob-  
served the Volatile Principles of the Truffles, by the Help of a  
simple Fermentation, I afterwards call'd in the Assistance of a  
Very mild Fire: For this Purpose I put twenty four Ounces of  
Truffles fresh, entire, and as thoroughly clear'd of their earth,  
as they could possibly he, into a Cucurbit placed in a Sand  
Bath. In three Days I extracted two Ounces seven Drams  
and one Scruple of a limpid Liquor, which smelled very agree-  
ably *os* the Truffle. This Liquor turn'd the Syrup of Violets  
green; but on mixing some of it with a Solution of corrofiVe  
Sublimate, both Liquors became milky, and assum'd the Colour  
of *Opal,* and then a white Precipitate was insensibly produced.  
In two Days and a half; I extracted five Ounces and six Drams  
of a Liquor, that was equally clear and fragrant, and which  
produced the same Effects as the former. In three Days more,  
I extracted three Ounces and a half more of a limpid Liquor,  
os a Smell somewhat empyreumatic, which considerably whiten-  
ed a Solution *os* corrosive Sublimate, and eVen produced & kind  
of white and pretty thick *Coagulum,* but did not alter **the***Turnsole* any more than the former Liquors, and fermented but  
very little with acid Spirits. In four other Days, I quite ex-  
hausted the Moisture of the Truffles, from which ί drew, in  
that time, twelve Drams of a Liquor, which had the same  
Smell with the former, and produced the same Effects. I then  
found the Truffles in the Cucurbit entirely dry, and weighing  
only nine Ounces and five Drams. I put them into a Retort  
placed in a reverberatory Furnace, and drew from them, by  
a mild Fire, three Drams of a Liquor tolerably clear, which  
turned red after some Days, and had a Volatile hind of Smell  
like that of Spirits, which have lost somewhat of their Strength.  
It turned the Syrup of Violets green, produced no Effect upon  
Turnsole, but coagulated, and even clotted a Solution of cor-  
rosive Sublimate. The second Liquor weigh'd three Drams,  
was of a milky Colour, and of a Smell like that of the Volatile  
Salts of Animals. The third Liquor weigh'd one Ounce six  
Drams, was very red, and mix'd with a little Oils These  
two last Liquors produced the same Changes as the former, in  
the Substances with which they were mixed.

The fourth Liquor weigh'd six Drams, was red, rich, thick,  
like Butter, and loaded with volatile Salt. This Oil did not  
change the Tincture of Turnsole.

There was about a Dram of volatile Salt in Crystals, loaded  
with Oil, and easily dissolv'd. The Caput Mortuum weigh'd  
four Ounces six Drams and thirty-six Grains. I calcin'd this  
Substance, and-after the Calcination perceiv'd, that it was load..  
ed with a great deal of Earth, which by the Force of the Fire  
had hecome red. I separated aS much of it aS I possibly could  
from the reft of the Mass, and procur’d of it an Ounce  
and two Drams; which amounts to the fame as if I had only  
analysed twenty two Ounces and six Drams of Truffles; *set.*that there only remain'd of rhe *Caput Mortuum,* after *ά* Sub-  
duction of the Earth, three Ounces four Drams and thirty-  
six Grains, After the Calcination of this Substance,- there only.

remain’d two Ounces and a Dram of white Cinders, from  
which I drew, by why of Lixivium, a Dram of fix’d alcaline  
Salt, mixed with Earth, and which produced a yellow Oker-  
colour’d Precipitate in a Solution of corrosive Sublimate. It  
turn’d the-Syrup of Violets into a saint-green Colour, and fer-  
men ted with Acids. This .Analysis proves, that the Smell of  
the Truffle depends only on the vast Quantity of volatile Salt,  
which it contains.

As to the Virtues ofTruffles, the common Opinion is, that  
they are hot: *Galen* however, according to *Matthiolus,* looks  
upon them as indifferent, and the Basis of all other Seasonings,  
and indeed it is to this Purpose, that they are used in all Ra-  
gouts. *Avicen* fpeaks of them in a manner quite different, and  
fays,- they ingender thick Humours more than any other Food;  
that they are of hard Digestion, heavy on the Stomach, and  
that when much used, they heve a Tendency to bring on an  
Apoplexy and Pally For my part, I believe there two Authors  
may be reconciled, if we consider two Qualities in the Truffle,  
which are capable of producing two different Effects : First,  
' they may prove hot of themfelves, by emittiog their volatile  
Salts in the Stomach, or by being mixed with Salt, Pepper and  
other Spices, which they drink up like a Sponge. In the second  
place, they may prove of hard Digestion, when eaten immo-  
derately by a Person of a weak Stomach, in which Cafe they  
produce bed Effects, stagnate and form themselves into a glareous  
Substance, which disorders the Stomach, which may be occa-  
stoned by the cold Quality ascrib’d to them by *Galen. As* a  
Proof, that the Truffle is of bard Digestion, it has this in  
common with other Fruits, that it grows haul in Spirit of  
Wine, and is with Difficulty dissolv’d in Water. .1 kept one  
fix Months in Water, without its being entirely rotten, the  
Bark still remaining, and not rotten, after all the rest. *Memoirs  
de st Acad. R. des Scien. Ac si* II.

. AMARA, Bitters. Of thefe there are many Sorts, especi-  
ally amongst Vegetables^ of which proper Notice is taken under  
the respective Articles as they occur, and under the Disorders  
in which they are useful. -Let it suffice to say in genend, that  
Bitters seem to exert their Efficacy, first, by bracing up the  
weaken’d and relax’d Fibres of the Organs of Digestion ; and,  
secondly, by supplying the Place of a languid and inert Blle.  
Hence, in Constitmions that require it. Bitters, by promoting  
the Digestion and Assimilation of the Aliment, mend the Blood  
and, Juices'; and by fortifying both the Solids and Fluids, enable  
them to perform the respective Offices, which are necessary to  
a State of Health.

., AMARACUS, Άμἀρακος, Sweet Marjoram.

. The Antients, in the Opinion of *Sabnajius,* understood by  
Amaracus, two different Plants ; the greater Amaracus, which  
’ is Sweet Marjoram ; and the lesser, which is Mansm.

But it has not been easy to determine, whether the Amaracus  
and Sampfucum were the same Plant, or different from each  
other, for Reasons which will be given in the Dissertation quoted  
. at the End of this Article from *Salrnajius.*

This Plant is thus distinguish’d:

ί AMARACUS *Majorana Sampsuchum,* Offic. *Mayoraria vust  
. garis,* C. B. Pmi 224. Raii Hist. I. 538. Tourn. Inst. I99.

Elem. Bot. I68. Boerh. Ind. A. I78. Rupp. FloI. Jen. I9o.  
*Aetajorana vulgaris aftiva.* Park. Theat. II. Hist. Oxon. 3.  
358. *Majorana maser,* or. Great Sweet Marjoram, *Ger.* 338.  
*Emac.* 664. *Maseraria rnajori folia et semine neta,* J. B. 3.  
24I. *Sampsuchum, Amaracus, Majorana,* Chub. 4I9. SWEET  
MARJORAM.

This Herb has many Branches, which creep on the Ground,  
with hairy round Leaves, and thin, like those of Calanainth,  
of a very fragrant Smell, and heating, and folded into the Shape  
.- of Crowns.

It was usual to make this Herb an ingredient in Acopas and  
Malagmas, on account of its warming Quality. *Diasccrides,*Lila 3. Cap. 47. si . ’ .

. The *Mascrana vulgaris,* &c. Sweet Marjoram, is a little  
shrubby Plant, that grows to the Height of eight, and even  
nine Inches, is thick set with lignous Branches, which are of  
a square Form for the most part, somewhat hairy, and reddish.  
The Leaves stand opposite, and are shaped like those of Ori-  
gniim, but of a much ssnaller Size, are covered with a heary

own, heve a fragrant Smell, and a fomewhat acrid, hitterish,  
aromatic, and grateful Taste. About the Tops of the Stem  
and Branches, at the Bottom of the Leaves, and consequently  
r from the Extremities of the little Sprays, shoot forth imbricated  
Ears, with hairy Leaves compared like Scales, from the Middle  
of which proceed small whitish gaping Flowers, with a quadri-  
fid Lip hanging down, under a Leaf, that stands upright.  
From tire Centre of this gaping Apertore, arises a whitish  
Style divided in two. The Seed is like that of the common  
Origanum, being small, round, arid of a dark-red Colour.

It is produced of Seed imported from *Narbomaj* or *Provence  
in France. Rati Hiist. Plant.*

*- Diccles* the Physician, and the *Sicilians,* called the same  
Plant *Amaracus,* which the *Egyptians* and *Syrians* named *Sam-  
psuchum.* It is propagated hath ways, that is, both by heed and

Slip. .It is more spirituous, and of a sweeter Odour, **than**those we heve mentioned [Origanum, Thymus,- Abrotanum,  
ίσο.]. It is as full of Seed as .Abrotanum. *Pliny, Lip. Ri.  
Cap.* It. '.....

The finest and most odoriferous Sampsuchum, or Amaracum,  
grows in *Cyprus.* With Vinegar and Salt it cures the Bite of  
a Scorpion, the Place heing anointed with is. The Application  
of it powerfully provokes'’ the Menses; it is of less Efficacy  
when drank. Min’d with Polenta, it restrains the Dcstuxion  
of Humours to the Eyes. The Decoction cures the Gripes,  
and provokes Urine, and is good for hydropical Persons. When  
it is dry, it excites Sneezing. There is an Oil made of it,  
called *Sampsuchinum,* or *Amaracinum,* which is warming and  
- mollifying to the Nerves and Uterus. The Leaves, apply’d  
with Honey, discuss Lividnefs and Swellings, arising from  
Blows or Contusions in the Face, and .are good sot Luxations,  
of apply’d to the Place with Wax. *Pliny, Lib. ai. Cap. 22.*

The best Sampsuchum grows in *Cyzicus* and *Cyprus..* Next to  
these for Gondness, is the *Egyptian.* The *Cpricenians* call is  
*Amaracus. .*

*Amaracus* is recommended by *Russeus Ephesius,* and *Oribajiusj*as a Purger of biack and pituitous Humours. The Dose is  
four Drams of the Powder in Honey or Oxymel. *Ruffi. Fragm.  
p.* I27. *Oribaf. Modi Coll. Lib.* 7. *Cap.* 27.

The Amaracus grows with us in Gardens, and flowers in  
*July* , the Herb and Seed are ufed. It is a Cephalic, and an  
Anti-hysteric; -and on that account is principally used in Dis-  
orders of the Head and ,Nerves, as well aS of the Uterus and  
Stomach. It provokes the Menses, used in a Pessary ; com-  
forts the Brain, and discusses the Flatulencies, that molest is.  
*Dale. ’ . ' "*

’Tis of sine Parts, digests, and attenuates. Taken any way,  
it helps cold Diseases of the Head and Brain. The Powder of  
the drain Herb, taken by way of Snuff, excites Sneezing, and  
draws out Phiegm, and strengthens the Head; the Juice of the  
Leaves, infused into the Nostrils, has the same Effeci. It cor-  
rects also the Defects of the Thorax, and is friendly to the .  
Stomach: Taken any manner of way, it relieves such as labour  
under Distempers of the Liver or Spleen; and helps Flatulencies,  
and other cold Diseases os the Uterus. Drank, it is a Diuretic,  
and purges watry Humours by Urine; and, chew’d or apply’d,  
is eases the Tooth-acb. It is an Ingredient in many Antidotes.

The Oil of it warms and strengthens the Nerves.

*.. Nicolas Chefneau,* M. D. of *Marseilles,* commends the fol-  
lowing Errhine, as often experienced by him in the Head-ach :

, Take of the Root of white Hellebore, half a Dram; **of the**Leaves of Sampsuchus, two Pugils; boil them in **six**Ounces of Water, to the Consumption of a thud Part.  
When you use is, sill your Mouth with Water, and put- -  
' ting fome of the Decoction, a little warm, in the Hollow  
of your Hand, draw it up your Nostrils, when the Pain  
is very violent, for it exasperates a flight one.

The Water of Majorana helps a Catarrh, if, instead of an  
Erthine, you fill your Mouth with Wine, or pure Water,  
and taking some of the Water of the Herb in the Hollow of  
your Hand, you stop one Nostril, and draw it up the other as  
far as the Root of the Nose, or the *Os Ethmaides.* If you  
don’t take this Method, the Errhine will not ascend to **the**aforesaid Place, but will he diverted and drawn back upon **the***Fauces, or Narium Foramina.*

This Errhine (fays *Simon Paulus} toy* Father used with the  
highest Reputation in the Case of Prince *lValeastein,* who was  
afflicced with a Rheum. . “

If the Sides of .the Nostrils *IPima Nariumy* or the Space  
hetween the Eyebrows, be anointed with the Balsam of Ma-  
jorana, it has a wonderful Effeol in ,a Catarrh, or rather **a**Rheum τ *Ceryscasc* The Nape of the Νeck, *(Nucha*) and the  
Temples, are usually anointed with the same Balsam, non only  
in the aforesaid Disorder, .but in other cold Distempers of the  
Head. These three Observations were communicated to Mr.  
*Bay* by DI. *E. Hiesse. i.sticiii durst. Plant,* j 1, , , : :. /

The Oil of Amaracus (ἡμαρακινρν) is thus prepar’d ;

The finest Amaracinum is made in *Cyzicum.* It is prepared  
of the Oleum Omphacinum and Oleum Balaninum inspissated  
with Xylobalsamum, the Jnncus Odoratus, and Calamus Aro-  
maticus, and sweetened with Amaracus, Costus, Arnomum,  
Spikenard, [νἀρδος) Carpobalsamum, and Myrrh, to which  
some add Cinnamon, who prepare it more sumptuously. In its  
Preparation they make use of a Quantity of Wine and Honey,  
which ferves as well for anointing the inside of the Vessels,  
as to macerate the powder’d Aromatics.

It heats, promotes Sleep, opens'the .Pores, [ἀναστοματικὸν]  
mollifies, kindles a Fervor, [πὑρωτιζον] .provokes Urine, is  
effectual in Putrefactions, [σήπας] and Fistulas, and in an Hy-  
drocele, after the Operation. It cleanses and takes away the  
crusty Scabs round the Edges of exasperated Ulcers. It helps.  
Difficulty of Urine, if the Patient be anointed with it about **the**Anus, and cures Inflammations of the.said Part, and rhe He-

InorTojds, is anointed in like manner. Apply'd to the Utenis,  
it provokes the Menses, and discusses any Hardness or oedema-  
tons Tumours which affect it; and, spread upon thin Woolen,  
and apply'd, is good for wounded Nerves and Muscles. *Di-  
ofcorides. Lib.* I . *Cap.* 68.

This is directed in a manner somewhat different by *P. AEgi-  
heia r*

Take of Elecampane, [ἐλένιον] ten Pounds ; Xylobalsamum,  
twenty Pounds ; CypenIs, eight Pounds; the Flowers of  
Juncus Odoratus, Aspalathus, [άσπαλ.άθκτ SaVine, each  
eight Pounds; Opoponax, Seeds of Amaracus, each two  
Pounds; of the finest Gil, [ἔλαιον πρώτςιοντ eighty Pints;  
fragrant Wine, five Pints; macerate them all in Wine,  
except the SaVine, and then boil them six Hours, but the  
SaVine only three. Some add three Ounces of SErugo, to  
e give it a Colour. *P. AEginet. Lib.* 7. *Cap.* 2ot

**The** Σαμψήχινον, **or** Oil of Sampsuchum, is thus prepared i

Take of SerpyHum, Cassis, Southernwood, Flowers of Si-  
symbrium, Myrtle-leaves, Sampsuchum, of each such a  
Quantity as you think sit, due regard heing had to their  
Strength, and bruise them all together: Then pour on  
them as much Oleum Omphacinum as shall be sufficient,  
without over-powering the Virtues of the things macera-  
*' ted* in it, and after four Days strain it: This done, take  
the like Quantity of fresh Ingredients, and macerate them  
in the same Oil, the same Length of Time, and then  
strain it; by which means the Oil will have the more  
Strength and Efficacy. Chuse your Sampsuchum *of* a  
black Colour, inclining to a Green, Very odoriferous, and  
.Of a moderately acrid Taste.

ῖ It is of a heating, attenuating, and acrid Quality, is good  
for the Occlusion or Distortion of the Uterus, and brings away  
the Menses, Birth, and After-birth, and relieves under Hyste-  
rics. It mitigates the Pains of the Inguina and Loins. It is  
best used with Honey, because by its Vehement Astringency  
**it** hardens the Places. It dispels Lassitudes from the Parts  
anointed with it, and is a Very useful Ingredient in Cataplasms.  
*Diosc or. Lib.* I. *Cap.* 58. . .

*Salmasius de Homonym. Hyl. Iatr\* Cap.* xiii. Of the Amara-  
. ons and Sampsuchus.

*♦ ‘ ‘.fa - ..’τι.*

Ἀμἄρακος, with the *Greets,* was not the Name of one Herb  
only : Some Writers, who are neither inconsiderable for Num-  
ber nor Authority, would have the Sampsuchus so called. It  
is strange, that *Dioseorides* should tell us, that the σαμψῦχος  
(so the Copies have it) was called by *scaeCyzicinians* and *Siciliant*and yet make the σαμψἁχινον and άμαράκινον Oint-  
ments two different things : But these Inconsistencies are custo-  
mary with *Dioseorides,* as I have observed.. *Hes.ychius* has it?Σαμψῦχος πλείστη, &c. " Sampsuchus grows Very plentifully  
*"in Egypt*; others call it *Amaracus.*" But see, in Answer to  
*this, Meleagcr,* one of great Antiquity, who, in that Poem,  
where he compares each Poet with his proper Flower, makes  
έναμψῦχος’ and ἀμἄρακος’ two distinct things: \*

Τῇ δ’ ἄμα καὶ σαμψῦχβν ἀφ’ ήδυπνοβιο Ἔιανίο,  
Καί γλυκήν Ἔρίννης παρθενόχρώτα κρόκον.

" There was present the *Sampsuchus* from *Rhianus,* famous  
" for its pleasant Air, and the sweet Virgin-colouPd *Saffrony*" Of *-Higrnna."* And a little after, . ' ’

I Ἐν *F as. dfoeiguriiov* like πολυστράτκ ἄνθος ἀοιδῶν,  
Φοίνιωάντε νέκην κύπρον άπέ Ἀιτιπατρου.

" And there came the *Amaracus,* the Flower sung by *Poly-  
stratus,* and the mournful *Phoenician Cypress,* wont at Fu-

" nerals, from *Anhpatcr. ” Galen* also, and *P. AEgineta,* treat  
of the Amaracus and Sampsuchus in different Chapters, which  
they would not have done, if Amaracus and Sampsuchus had  
been all One. They who are mov'd by the Authority of *Diof-  
esrides,* to think them the same, are not aware of what Stress  
ought to be laid upon it. Nor indeed do they apprehend, that  
. Tris Words, as they sound, are notlevell’d against the opposite

Opinion, winch holds .them to he distinct Species osJPiants,  
but rather, if you take them aright, tend, not a little, to sup-  
port it. " The *Sicilians* and *Cyzicinians,* he says, call that  
*^ Amaracus,* which others call *Sampsuchus.*This does not  
intake them to he the same : Himself plainly shews the contrary,  
when he makes the μείρατ σαμψήχινον and ἀμαραίκινον different  
Ointments. *Dioclet,* quoted by *Athenaus,* has ἀμαψμαξνν *° rtvce*σαμψῦχον καλῆσι. To confirm this hy an Example : .Some of  
**the** *Greeks* call τὸκρίνον. also λειριον, according to *Dioseorides*himself, and many more. Nor did this hinder others from  
calling Narcissus thy the same Name; and indeed more used  
Jthis Word λείριβν for Narcissus, than for the Lily» which the  
*Greeks* **Called κρίνον, But more than this may he find for Ama-**

Indus, which they would have to be *Greek,* but σαμψῦχος at?  
*Egyptian* and *Syriac* Word; *Pliny lens, Dioclet* the Phyfin  
cian, and the *Sicilians,* Called *Amaracus,* what *Egypt* and *Syria*named *Sampsuchum. So* that ἀμάρακον, it seems, is the *Greek, '*and σαμψῦχον, the *Syriac* Name for the same Herb. And in.»  
deed this latter Word plainly seems to be of a *Syrioc* or *Egypr  
tian* Turn; for Σάμψειρα is a City in *Egypt,* and Σπμψα a  
Village in *Arabia,* and Σαμψάῖοι another in *Judaa,*’a Province  
of *Syria,* which they interpret ήλιακοἰ, and σάμψα ἥλιον, whence  
also comes Βαίσαμψα on the *Arabian* Guls, which *Stephanas*interprets ρικον ήλιες, " the House of the Sun. " The Sun in  
*Hebrew,* 'tis well known, is called ttraw *Shemesu,* .which is  
the same in *Arabic.* There is Mention made of ἀμἄρακος in  
the Writings of *Theophrastus,* but none of σαμψῦχος. In vain  
therefore would they draw him over to the Party of those who  
have inform'd us, that Sampsuchum is the same as Amaracus;  
I don’t doubt but the Amaracus of the *Greeks* answered to the  
Sampsuchum os the *Egyptians* ; but the *Greeks* called some-  
thing else hesides the Sampsuchus by this very Name. The.  
*Cyzicinians,* who had the best, and the greatest Plenty os  
Sampsuchum growing in their Territories, called it άμἀρακος,  
and so did the *Sicilians.* But all the rest os *Greece* did not  
agree in that Name ; for some called άμἀρακος, *Parthenium,*os winch *Dioseorides* speaks; *viz.* Παρθένιον, at δε ἀμάρακον,  
όι δὲ λευκάνθεμον καὶ τοῦτο καλοῦσι (so I read it from a very an-  
tient Copy). *“ Parthenium,* some call it *Amaracus,* others,.  
*" Leucanthemus.”* Therefore *Pliny* is to be corrected in this  
Word, *Lib.* 2I. *Cap.* 30. *Parthenium alii Leucanthcn, alii  
Tamnacum vocant,* read *alii Leucanthemon, alii Amaracum vo-  
cant.* In the Index it is written *Parthenium, serve Leucanthes,  
sive Amaracus.* Λευκανθὲς is the same as λευκἀι θεμον. *Pliny* adds,  
*Celsus apud nos. Perdicium et Murartian.* He confounds,, as  
he uses to do, two Parthenia. The *Parthenium,* which was  
also called *Pcrdicium,* was different from the *Murarium,* which  
grew on the Walls. There is a ridiculous Mistake of *Plinsis*in what follows, *Flore albo, odore Mali, scapore amaroi* The  
*Greek,* from which he translated, reads thus; ἄνθη λευκὰκήκλῳ,  
τὸ δέ μἐσον μήλινον, όσμῇ ὑκόβρωμον. *Pliny* read μήλινβν ὸσμη,  
ήποβρωμον, and render’d it *Odore Mali,* which is most absurd.  
The *Greek* Author means, that the circling Leaves of the  
Flower were white, but the Middle of the Calyx yellow. . This  
sort of Parthenium grows not in the Hedges, or on the Walis, ‘  
hut the other, which is called ἐλξίνη. And this Helxine itself is  
homonymous to another Helxine named κιωάμπελος and  
ἀμερσίνη, which is a Species of Convolvulus. The Parthenium  
Helxine, or Murarium of *Celsius,* is now called *Parietaria.,*sPeUitory of the Wall] by a very antient Name. *Constantine*Called *Trajan, Herba Parietaria,* because his Name was in-  
scrib'd on many, public Buildings. *Ammianus* also calls in  
*Horba Parietaria.* The Authors of the *Hippidtrica, Cap.* 390.  
Σκόρδον Γαλλικὸν κατάκοψον, καὶ σιδηρῖτιν περδίκιον τὴν *foesa spas.,  
peurion* λεγομένην παβι-ταρίμν βοτάνην. Bruise *Gallican* Garlick,  
" and Sideritis Perdicium, called by the *Romans, Herba Farsu***Μ** *etaria.*" And *Cape* 496. Ral φύλλον βοτάνης σιδηρίηδος, **ἥν**Ἔωμαῖοι παριεταρίαν καλῆσι: And *Cap.* 562. καὶ προσάψαι βοτάι'ηρ  
σιδιίρῖτιν; ἥν.Ἔωμάιτει καλοῦσι παειεταρίαν. ζί And - the Herb  
" Sideritis, which the *Ramans* call *Parietaria. \*\** And io ip  
many other Places; Now because there are several Species  
*sas* Plants which hear the Name of *Siderites,* they would he  
.understood to mean what the *Romans* called *Parietaria. Paulus  
AEgineta* has,; ‘Ελξίνη, οι δὲ περδίκιον, οι δὲ παρθένιον, οι δἐ σιδη-  
^ῖτιν, οι δὲ ‘Ηράκλειαν, δύναμις δὲ αήτῆς ῥυπτική. " *Helxine, \_\_*called also *Pcrdicium, Parthenium, Sideritis,* andA&r*acleia ;*it is os an abstersive Quality.'' This was the same with  
**the** *Urceolaris* of the *Latins* so called, hecause they scoured thein  
JTrher JPotsi and Glasses with it. The Grkei Hippiatri [FarriersJ  
*Tesp. ttrors lsus sot* a broken Wind,  
" or a Cough.'' Βοτάρίιν, ἥν 'Ἕλληνες *feist oripiiusor, ‘Pfescdsoy ,*δὲ ουρκμλάρεμ *oroflosqure.* The Herb which the *Greeks* call  
*fr Perdicium,* and the *Romans, Urccolarii. gr* Also *Pelagonius^*ΙΒὸτάνης περδικίαδος, ἥν Ἕῳμαῖοι.ήρκιολάρεμ. κιαλουπό. . " The  
*Pcrdsicias,* winch, the *Romans* call *Urceolaris.*The modern  
*desiliant* call it *siitreda,* from the Use it is put to uts scouring  
os Glassies. An antient *Arabian* Author, y’tho added *Arabic*Nomenelaturas to a very old Copy of *Dseoscorides,* calls this  
Helxine, *Hasyis .silnapiagi,* that is, *Glassewort,* hecause it was  
lined to scour Glass Vessels. He adds, in the same Place, that,  
in was a Species of *Lebiebsiffizx.* is, of a *Convulvulus.* Thus he  
Confounded it with another Helxine, which climbs np whatever  
in near it.. But that it serv’d the antient *Greeks* for the same  
JJse, that is, scouring os Glass Ware, its Name shews us ;  
for they call'd it κλήβατικ, *Klubatis,* ὰπδ τί κλύζειν τάς βάτῥα,  
θΓ βατιακιάστ, " from rinsing the Bates or Batiakes," which  
feere a Tort of Drinking-glasses. There in a Mistake in *Apu”  
seius. Caps de Pordical.* of *Ukiolayna* for *Urceolaria. Plsu,  
Lib.lea. Cap. pri.* makes the Perdicium Helxine different from  
the Perdicium Urceolare, ‘e *Helxine,* fays he, is by some  
" called *Pcrdicium,* because the Partridges especially seed on  
" it; some call it *Siderism. others Parthenium.* ” To this he  
subjoins its medicinal Virtues. A little aster, aS sis he were

speaking of another Herb, he begins again thus: " Perdicium,  
" or Parthenium, (for it is the same as Sideritis) is called  
" among us, *Harba Urceolares,* by others, *Astertcum.* Its  
" Leaves are like those of Ocimum, only blacker ; it grows  
" on Walls, and Rooss os Houses. \*' He separated them also  
in the Index.- " Helxine XII. Perdicium, or Parthenium,  
" or Sideritis, winch is Urceolaris, or ATtereum XI." He  
transcribed those Accounts from two Authors, and therefore  
supposed they spoke of different things. For the Helxine of  
the *Greeks* is the same as Urceolaris, which was also called  
*Abstergum,* (for so it should he read in hath the foremention'd  
Places) because it was used in absterging or scouring of *Urcei,*“ small Vessels.” Helxine, in *Dioscorides,* which is she same  
as Parthenium, has Leaves like those of Mercury (λινοζώστει).  
Parthenium, which is the Urceolaris of *Pliny,* has Leaves like  
Ocimum. They are the same thing, for λινοζωστις, or Mer-  
cury, has Leaves also like those of Ocimum. But *Pliny lens,*that Helxine has Leaves, that bear a mix'd Resemblance of  
those of Plantane and Horehound. How so.? Why hecause he  
confounded the Helxine Sideritis with another Sideritis, the  
Heraclia, whose Leaves are of the Size of those of Hore-  
hound.

Parietaria, Urceolaris, Abstergumj-Perdicium, and the Herba  
Muralis os *Celsus,* are Synonyma of the fame Herb, which,  
with the *Greeks,* is that Helxine, whose different Names you  
find in *Dioscorides,* according to a very antient Copy, as fol-  
lows: Ἐλξίνη, *ot* δέ *crasureov,* ὁι δἐ σιδηρῖτιν, όι δέ ήραἹλβχν,  
όι δὲ υγιεγήν αγρίαν, ὁι δέ κλύβατ.ν, *ot* δε πολυώνυρρον καλοῦσι.  
Φύείαι επἰ θριγκοῖς καὶ τοίχοις. " Helxine, which goes by the Vari-  
" ouSNames of Parthenium, Sideritis, Heraclia, wild iiygieine,  
" Klybatis, and PolyonymuS; it grows on Walis *os* Towns or  
" Houses. " The Reason of its Name *Helxine* [from ἐλκω,  
*to drausp* is taken from its rough Seeds about the Stalk,  
**winch** stick to Clothes. *Pliny* expresses it, by lappaceous,  
JDock-like] Heads. " Seeds, says he, in lappaceous Heads,  
" which stick to Clothes, whence they would have it to be rail'd  
*" Helxine.*" He seems to call whatever implies a Faculty os  
drawing and sticking, *lappaceous. Dioscorides* has is, Σπέρματα  
τραχέα ἀντιλαμβανέμενα τῶν ιματίων, " rough Seeds, that  
" take hold os the Garments.’" ' - -

- Another Helxine, ελξίνη. Of a quite different Species, is so  
called, because to whatever it applies itself, it uses to climb up,  
and twist itself about it : Ἔλξίνη, όι δὲ άμερσίνέν, ὁι δέ *Riasdpla*Ηελβν, φύλλι» ἔχε\* ομοια κίισῳ, ἐλάπὸνα δἐ, καὶ κλώνια μακρὰ  
Ηεριπλεκομενα όπου *‘dv rdurpt.* " Helxine, by some called *Ha-  
" mersine,* by others *Cifsumpelus,*, has Leaves like the Ivy, but  
" less, winch twine themselves about every thing they meet  
with. " The *Greeks,* according to their usual Custom, trans-  
**fer** the Properties of one Helxine to another, without making  
any Difference. So the Parthenium Amaracum is quite diffe-  
rent from the Parthenium Helxine, or Murale, between which  
*Pliny,* according to this careless way, makes no Distinction.  
None then shall persuade me, that he had any Knowledge in  
Botany, who shew'd so much Ignorance in his Notions about  
an Herb so Very common aS *Parietaria.*

Well, but there are also two AmaracumS; one, otherwise  
called *Parthenium,* another also called *Sampsuchum,* which is  
either an *Egyptian* or *Syriac* Name. However I can hardly he-  
lieve, that *Galen* and *Paulus,* when they gave us distinct De-  
scriptions of the Amaracus and Sampsuchum, are to be under-  
'stood'of this Parthenium Amaracum; much less should I he  
able to. prove, that the Unguentum Amaracinum, which in  
*Dioscorides* is different from the Sampsuchinum, was usually  
made of this Parthenium Amaracum ; for it is an Herb of a  
Very rank Smell. Besides, when *Galen* speaks of the Prepara-  
tion os Amaracinum, heintimates as though he would he un-  
alerstoodof that Sort of Amaracum, which was produced to  
the greatest Perfection in *Cfoetens,* and was called by the *Egyp-  
tians,* in their own Tongue, σαμψουχος. But *Neophytus,* under  
the Name of *Amaracum,* has described the Parthenium of *Dsu  
ofcorides,* and ascribed m it the same Virtues, that *Galen* did  
to his Amaracum, which he separated from Sampsuchum. Ἀμα-  
ρακον, says he, ὁι δέ ἀνθεμέν, όι δἐ λευκατεθεμον, όι δἐ παρθένιον, ὁι  
δεχαμαίμηλον, ὁι δἐ ,χρυσοκαλλὸς, βι δἐ μαλάβαθρον, ὁι δὲ ἄνθος  
πεδινῥν\* Ρωμαιφι σῶλις ὁκούλουμ, *αι* δὲ μιλλιφίλιαμ, Ὄῆσκβι  
μαντάρ. " Amaracum is called by some, Ἀνθεμις, by others,  
*\*\* Laeucanthermes, Parthenium, Chamaimelum, Chryfoeallus, Ma-  
“ labathrurn,* and *Ground-stovier*; by the *Romans, Oculus Solis,  
fr Millefolia,* and by the *Tusians, Cantar* to which he sub-  
joins from *Galants* Amaracum, Γαληνὸς άμάρακον θερμὸν μὲνί τῆς  
τριτη; ταξεως,ξἡρὸνδἐ τῆςδοὑτερας. « Gsjhermakes Amaracum tn  
" be hot in the thud Degree, and day in the second. " But !  
have long since resolved with myself to give but little Credit  
to those *Greeks* of the lower Ages ; for believe me, who am  
pretty well acquainted with them, ch^ 2,-e not he trusted.  
Here this Writer has coupled together several Flowers of quite  
different Kinds, as if the Names of Plants Were their only  
Characteristics. .

Nor can we pay a jot the more Deference to the Opinion of  
very celebrated hiedico-Botantsts, τ **ιατραβ.τανισῶν] who would**

perfhade us, that the *Amaracus* of *Galen* and *Paulus* is not the  
*Sampsuchus* of *Dioscorides* and *Pliny,* but *Marum*; as if *Galert*had not made distinct Mention of Amaracus and Marum in the  
Composition of the Ointment *Hidychroum,* where he also tells  
us, that *Marum* is os a stronger Smell than *Amaracus. “* These

three, says he, are of disterent Kinds, according to *Galen i  
" vix.* Sampsuchus, Amaracus, and Marum.'' *Pliny* also. *Lib.*I 3. *Cap.* I. in express Terms, makes the Sampsuchinum Un-  
guentum to be quite different from the Amaracinum : " The  
\_" best Sampsuchinum, says he, is to be had in *Cyprus* and  
*" Mitylene,* where there is the most Sampsuchus.'\* A little  
after, in the same Chapter, he mentions Amaracinum separate-  
ly, as a distinct Thing, thus: " The Juices of each Plant  
" make the celebrated Ointments. The choicest of these  
" Heths is the Malabathrum ; next to this are the *Illyrian* Iris,  
" and the Amaracus of *Cyzicus. ”* You see, that the most  
Sampsuchus is in *Cyprus,* whence comes the Sampfuchinum;  
but the greatest Plenty os Amaracus is in *Cyzicus,* wlrence we  
base the Amaracinum. But I would beg Leave to observe here,  
that by Amaracus in this Place, is not meant Marum. For,  
in the same Chapter, Amaracus and Marum are both Ingre-  
dients together in some Compositions. *Telino Amaracum et  
Maron pariter adduntur.* . The Royal Ointment also, and very  
many more, contain both Amaracus and Marum.

' These inconsistencies are owing to the Heedleflness and In-  
advertency of Authors, who transcribing from different Places  
into their own Writings, took no Care, for the most part, to  
distinguish between things which ought to be separated; but,  
on the other hand, made Distinctions without Foundation, and  
supposed a Difference hetween things which ought to be ac-  
counted one and the same. There is no doubt, but that the  
Sampsuchus was of the same Species with the Amaracus, this  
under a *Greek,* the other under an *Egyptian* Name. But to  
this Difference of Names we ought, perhaps, to add another  
resulting from the Nature of the Soil For oftentimes the  
same Plant which grew in *Greece,* was of a different Habit and  
Figure from one growing in *Egypt or Syria,* as might he ob-  
served in the Cypress and LigustnIm, and not a few others.  
And so there might be also some Difference between the Sam-  
psuchuS and AmaracuS as to their Juices, arifing from their native  
Sod and Ain. *Columella* makes *Egypt* the Country of Sampsu-  
chus, and reckons it among exotic Herbs s \* - — - - si

*Nataqule yam veniant hilari Sampsucha Canopo. :. .*Come Sampsuchus from *Egypt’s* merry Land.

*Nicander* makes this only Difference between ἀμἀρακος and  
σαμψῆχος, that Amaracus grows in *Greece,* but the Sampsu-  
chus is an Exotic. Amongst Remedies, that are effectual  
against the Bites of Serpents, he reckons up Amaracus and  
Sampsuchus separately :

—.μἀλα T ἄν καὶ ἀμάρακος.ειη  
Χραισμήειν, πρασιῇς τε καὶ ἀνδήροισι χλοἀζων.

Let Amaracus, in particular, contribute its friendly Virtues,  
" the Herb that flourishes in Garden-plots and Terraces. "  
Here he plainly speaks of that Amaracus which was the usual  
Ornament of the Walks and Areas os Gardens.' So in another  
. Place, he distinguishes the medicinal Nasturtium froth the com-  
mon, in the following Words : - - -

-—ποτε φύλλον ἐναλδομενον πρςασιῆσι  
Καρδαμιδος, Μῆδον τε... - — - ’

se The Leaf of the Cardamis, that usually grows in Garden-  
" plots, and the *Median.* ” He calls it the common Cardamis,  
which was brought from *Medea.* This Place was never under-  
stood by antient nor modem Interpreters.

Amaracus then was proper to *Greece,* and, as *Nicander* telis  
us,- was. common in Gardens. But a little after, he places  
Sampsuchus, as though it were a different thing from AmaracuS,  
amongst Alexipharmacs:

οὐδὲ καὶ ἄάτης  
Καυλὲς ηνεμοἐντας, }δὲ *priequi* πολλὰ καὶ ἄνθη  
Σαμψήχες

" Nor (forget) the waving Boughs os the Elder-free, with  
*good* Store of the Branches and Flowers of the Sampsu-

" chum. " No Reason but this can be given, why he should  
distinguish them. That Sampsuchus was not of the Growth of  
*Greece,* the Name itself sufficiently shews.

; After this manner are Authors to he reconciled, who .some-  
times make AmaracuS the same with Sampsuchus, at other  
times suppose them different. Have we not the like Instance  
in Ligustrum ? which some would have to he the same with  
'the Cypress, others contradict it. We have asserted in another  
Place, that Cypress is the Eastern Ligustrum, and Ligustrum  
the common Cypress ; and yet there is no small Difference be-  
tween them both in Figure and Smell. . .1Γ- τ *s*

They who have describ'd the σκευαδιτα, [Preparation] of **the**Amaracinum Unguentum, as it is prepared .in *Cyzicus,* where  
the Name, άμαραιοος obtains, called it ἀμαρακινςν.. But they

who lest us in Writing the *Egyptian* way of Preparation os the  
same Ointment, called it σαμψήχιςον, because the Plant had  
the Name os σαμψοῦχος in *Egypt.* Others transcrib'd these  
different σκευασίας, " Preparations," into their Books under  
distinct Titles. That *Dioseorides* did so, is plain; though in  
another Place he had Owned, that ἀμιάρακος and πάμψυχος  
-were the same, and only differed in the Language. Hence  
*Galen,* and *Paulus,* who followed him, put them asunder, and  
enumerate them distinctly,, as if they were really different..

I wonder too, that *Galen* and *Dioseorides* both write, that  
Amaracus was usually added to the Amaracinum Unguentum.  
But *Theophrastus,* in his Commentary On Sinelis, affirms this  
Appellation os Amaracinum to be Pseudonymous (ψευδώνυμοί )  
because nothing of Amaracus used to enter that Composition :  
And 'tis observable, that Amaracus is the only fragrant Simple,  
that is lest out in all Ointments by *Myrepfusi* Τόδ' ἀμαραίκ.γον  
τὸ *teSnth' ior. riar βζ/]ί?ων escopealaV awsoaz&au* χωρὶς ἀμαραίκου,  
πὸτῳ δ’ ή χρϊἌαι μόνῳ τῶν ἀρωματῳν τῆς μυρεψάστ, οὐδ' σὸν ἐν  
μάρον. " Good Amaracinum is compounded of the best Aro-  
" matics, except Amaracus, which is the only thing of that  
" Kind, that neverenters the Composition of any one Oint-  
" ment. ’Αλλὰ ψευδώνυμος ή όπέζλιισις,‘ " the Appellation  
" is pseudonymous, " it is called Amaracinum, without a  
Mite os Amaracus in it. . ...

With this agree *SeisoiustS* Notes on the third rEneid. *" Arna-  
“ racus* was a Boy, that was the King's Ointment-bearer,  
" who happening to fall while he carry'd the Ointments, oc-  
" casioned the greater Fragrancy by their Confusion. " Hence  
the best Ointments came to be called *Amaracina.* The Ama-  
racinum then was so called from the Boy Amaracus, and not  
from the Herb of that Name, which had no Pisce in this Oint-  
ment.

*Theophrastus* informs us, that the Amaracinum was made of  
CostuS. Ἀπὸ ῥιζῶν δὲ τό τε εῖρὶνον καὶ νάρδινον, καὶ τὸ ἀμαραίκινον  
ἐκ τῆ κόστου\* τουτο γὰρ ὸνομάζουσι τήν ῥιζαν. " The Irinum and.  
" the Nardinum are made of Roots, and the Amaracinum of  
" CostuS ; for they call this a Root. " At this Rate indeed, the  
Unguentum Amaracinum must be different from the Sainpfu-  
chinum: But *Dioseorides* and *Galen* assure us, that the Ama-  
racus was as usually added to the Amaracinum, as the Sampsu-  
chus to the Sampsuchinum, in Defence of whose Assertion,  
the least that can be said is, that the Preparation of the Ama-  
racinum- in their Tithe, was different from what it was in the  
Days of *Theophrastus.* But whet shall we do with *Pliny,* who  
tells us, that the Ointment was made of Amaracus alone,  
without the Mixture of any other odoriferous Ingredient ? Why,  
we .will fay, that he was quite wrong ; and, no doubt, he drew  
this contrary Sense from these Words of *Theophrastus*; Viz.  
Τέτῳ δ' οῦ χρῆςθαι μόνῳ τῶν ἀρωμάτων τῆς μυρεψάστ οῦδ’ εἴς εν  
μύρον. He either read these Words wrong himself, or heard  
others read them so, as if they run thus: Τουτῳ δὲ χρῆιθαι μόνῳ  
τῶν άρωματων ᾶδε εἰς μύρον. " This Aromatic is used to  
" make up an Ointment by itself.'' But this same *Theophrastus,*who denies that Amaracus was used in the Composition of  
Amaracinum, assures us, that τὸ μάρον, " Marum, ” was an  
Ingredient in it: Τὸ δὲ *salenv* καὶ τὸ χρῶμα τὸ εἴς τὸ ἀμαρακινορ  
ἐμμιγνήμενον θερμαιτικὰ. " But the Marum, and the Cbroma,  
(Cyperus) which is an Ingredient in the Amaracinum, are  
healing; and the τὸ μάρον, and τὸ ἀμάρακον, feem to have the  
same Original, and the latter -derived from the former, μάρον,  
μάρακον, and άμάρακον; so that they are Species os the same  
Genus, as appears by the Name. As the last descended from  
the other by Preduction, so it declin'd, and became inferior  
to it in Goodnefs and Virtue. The Maron then is better and  
more fragrant than the Amaracum, as is acknowledged by

As for the Sampsuchus, or Amaracus, then, we are certain  
it is that aromatic Herb which we call *Majorana* (Sweet Mar-  
joram). The *Latins* of the lowest Ages so named it, by way  
of Difference, to distinguish it from the lesser Amaracus, which  
was called μάρον, " Marum." Nor are we to seek for any  
ether Difference between Amaracus and Maron; The more  
modern *Greeks* interpret σάμψυκος by *plaUUfisiVeL,* Majorana,  
which is the greater Amaracus, as Marum is the lesser. This  
latter is of a stronger and more fragrant Smell, according to  
*Galen,* and is really so. It is commonly called *Franca Majo-  
rana, " French* Marjoram. ” - But, perhaps, this is a Corrup-  
tion of the *Arabic* Name, of which by-and-by. It is also called  
*in Greek rtifyupri Jfobryon,* because it is covered with a Multi-  
tude of small Leaves, resembling those of βρύον, " Moss."  
*Dioseorides,* Μάρον, ἥ ἰσόβρχν (so it should he read). The  
inore modern *Greeks,* call It όριγανάστ; *Neophytus* Μάρον  
άστ δ’ οριγανίδα, πόα φρυγανώδης. " Marum, by some called

*Origanis,* is a shruhby Plant. " Calamintha also is by somt  
called *Origanis,* which Calaminth, we are told by *Diojcorides.*resembles Sampsuchus, at least, τῇ λεπτοφήλλει, " inThinnes  
\*\* of Leaves.'' The Scholiast on *Nicander* makes Sampsucha  
to resemble Hyssop. This Hyssop some interpret Casia, a  
*Neophytus,* who writes; that C( Hyflopus," wash)

The *Romans* called κασίολα, ce Casiola." Ἔωμαδοι *voscatro:,* ό

δὲ λιάτερ, «ι δε χασόςλα. " The *Romans* call Hysiop *Latcr, and  
Cf some Casiola. ”* Some have also expounded Sampsuchus in  
*Latin* by Casia. Glossie, σαμψῦχον. *Sampsuchum, Casia.* These.  
Herbs were scarce in antient Times, and not to be met with  
every-where. *Pliny* reckons Marum an exotic Shrub, of the  
Growth of *Lydia* and *Egypt»* but*Dioseorides,* that it was  
πόαν γνῶριμαν, " a noted Plant," which grew very plentifully  
*in Lydia.* It appears to be a noted Plant in *Asia,* the Country  
of *Dioseorides\** whose Ancestors were of *Anazarba.* It was so  
little known to the *Romans* in those Times, that *Pliny* makes  
it a large Shrub, worthy to he mentioned with the Cypress and  
Aspalathum. " *Egypt,* says he, produces also Maron, but nor  
"so good aS *Lydia.* It has larger and Various Leaves, hut the  
*" Lyaian* has short, very small, and fragrant Leaves. " I could  
Venture to lay any Wager, that this *Egyptian* Maron, with  
the larger and less fragrant Leaves, is the same with Sampfuchus,  
or the *Egyptian* Amaracus. For the Marum had short and  
minute Leaves, and more fragrant than those of the Sampsu-  
chus, which some also called Alarum. ι

Sampsuchus was Very plentiful in *Egypt*; whence the an- ν  
tient Critics have expounded Ναυκροίτίτην στεφανον in *Anacreon,* by  
Sampfuchus. *Athenceits,* Παμπόλλκς δέ όιδα λέγοντας ἐκ τῆς  
σαμψήχου’στεψανον βναι τήν ναυκροτίτηιν, πολὑ δέ τὸ. ἄνθος τοῦτο  
κατὰ τὴν Ἄιγυπτικ. " I know many who are of Opinion, that  
" the Garland of *Naucratis* was made of Sampfuchus, which  
" Herb growsvery plentifully in *EgyptT Dioseorides* says, that  
Marum grows in great Abundance about *Tralles* and *Magnesia,*which are Cities of *Lydia*; and *Theophrastus,* among the Flow-  
era used in Garlands, mentions the *Phrygian* Amaracus, which  
is the same with that of *Cyndcas. Galen* telis us, that he saw  
AinaracuS in *Italy,* but does not say so of Marum. - Therefore  
Marum, at that time, was found in fewer Places than Ama-  
racus. '

In a Very antient *Dioseorides* it is written,, that Sampsuchus  
was called in *Arabic, Marxangius,* but Marum, τὸ μάρον, .Afar-  
*tnarhanx.* In *Avisma* it is written *Marmarhaux* ; for it is'  
certain, that Marum is described by him under that Name, in  
*Chap.* 4651 of the *Latin* Edition. - An antient Interpreter reads  
it *Marmacor,* from the Transposition of a single Punctum, -  
διακρίίικὸν, "distinguishing Point." From this *Marscangius,*the *Barbarians* hammered out their *Majorana,* aS if they would  
say *Marxangiana.* In both the *Arabic* Words you may trace  
the Term μάρον. There is room for Conjecture, that different  
Spectes of Marum are signified 'by these two Words. In the  
preceding Chapter, ryfinsefla reckon’d' an Herb called *Marti,*among whose Species was found one named *Marmahuki. - Bel-  
lanensis,* in his Lexicon, remarked, that *Marmacor,* or *Mari  
mahauz,* was an Herb, which the comrnon People at *scanice*called *St: John's IPort,* and that its Seed was called the Seed  
of *Maru.* But *Marmahauz, in Avisma,* is the Term for the  
*Maron os* the *Greeks, 23* appears from the Description., But  
what is called *Maru* in that Author, of which *Marntahund is*a Species, is another tiling. *Alpagus* assures us, that it is The  
Herb St. John's Wort. *Leonicenas* pretends, that the *Bacchar*of the Antients is so. , called by the *Italians,* Whether -this  
be true, I cannot fay; but this is certain, that most of the  
Remedies, which *Auifena* relates of the *Almaru,* agree to the  
*Bacchar.* Of the Species of *Maricnr,* one, he fays, resembles  
an *OPs Tongue,* or.the Herb *Buglofs,* yea, is that very Herb.  
Nay in *Chap.* 436. where he treats of the Bugloss, he says,- in  
express Terms, that its Leaves are like those of the *Almarti.* In  
a Very antient Copy of *Dioseorides,* λιβαι'ωτι'ς, is interpreted  
*Bezer Almaru,* " the Seed of *Maru. so* Among the Species of  
Libanotis, *Dioseorides* reckons one, from *Theophrastus,* which  
has Leaves like the wild Lettuce. Θεόφραστος. δὲ ιστορεί' μετὰ  
τῆς? Αρείνὑίς. λιβανώτιδα,. θρίδακι μγρίφ. του πικρά όμοια φύλλα  
ἔχησαν, ῥίζαν δὲ βραχείαν φὑειθαι. ‘ι *Theophrastus* relates; that  
the libanotis grows with the common Erica, Heath; and has  
" Leaves like the wild bitter Lettuce, and a short Root:" The  
Place *as Theaphrastus* is in Book 9. *Chap.* I2. of the barren  
Libanotis: Ὁ δ’ ἄκαρπος ἔχβ τὸ φύλλον ὁμοςον θριδακίι ης τῆς  
πικρας, τραχύτερον δὲ καὶ λευκοτεραπ φοὐρτικ δὲ ὕπκπερ *^tgajae*πὸείστη. " The barren Sort has a Leaflike that of the -bitter  
" wild Lettuce, but rougher and winter, *etc:* In this there  
is a remarkable Corruption, which must be amended by the  
Authority of *Dioseorides,* who, it is plain, read this Passage in  
*Theophrastus* thus: φύεται δὲ οπου ἐρεικη πλείστη, ««it grows where  
" there is plenty of Heath.'\* This is whet *Dioscorides exe.*pressed, by laying, that this Libanotis did μετὰ τῆς έρείκης φουεςθαζ,  
grow with the Heath.\*Tisplain, that this is the Libanotis,  
winch *.Anisina* reckons among the Species of *Almaru.,* and likens-  
to an Ox’S Tongue. As to its having Leaves like' the-wild  
Lettuce,, the more modern *Greeks* say the same of their’Bugloss.  
*Neophytos:* Βίγλωωον φήλλα pise έχεῖ εξ η *odia, cmstsiai.  
fMi, daaait aeygicu* θρϊδακος, *πλάτος* δαώτήλων δυὸ ἤ ἔλμττέν.

i " The Bugloss has six or eight Leaves, a Span long,. like those  
i of the wild Lettuce, of the Breadth of two Fingers, or 'less.."  
» This Bugloss is different from that of the antient *Greeks,* whose  
’ Leaves are compar'd by *Dioseorides* to those of Mullein, 4λἀμῳ,  
I and is nearly the same with ours. The Leaf is less than the

Breadth of two Fingers. The *Creeks* of the latest Ages Call’d  
βίράγιον whet the Antients named βουγλωο,ον. The barbarous  
Nations call’d it *Barra go.*

From what has been said, it appears, that partly Baccharis,  
and partly Libanotis, were, by *Avisena,* comprehended under  
the Appellation of *Almaru.* In another Place, he puts Libanotis  
under the Tide of *Scegiar Mariam,* that is. *The Tree of Mary,*which, he fays, was also ceded *Buchur Muriem,* that is, *Thy-  
miama Maria.* This I would have to he understood of the  
Libanotis used in Garlands, which the *Latius* called *Rascnarinus;*but *Avisena* took it for the other, of which there are three  
Sorts; and they are mistaken who comprehend thefe under the  
Appellation of Rofemary, since there is but one Sort which  
goes by that Name, and ferves both for Garlands and Sussumi-.  
gallons, and was also used by the Antients in Ointments.

In an antient *Diofcorides,* Baccharis is spelt the same, almost  
Letter for Letter in *Arabic.* There is no mention of this, fo far  
as I know, in *Avisena.* But his Account of *Alrnaru* is taken  
partly from this, and partly from the *Libanotis,* which, ’us  
pretended, is the fame with what is commonly called *St. Jahn's  
Wort.* But this letter is a Name imposed on several Herbs in  
different Countries. The superstitious old Women, ’tis cer-  
tain, gather several Sorts, out of a religious Motive, on St.  
*John's* Eve. *Fuchjius* observes, that the *Hypericon* was called  
*St. John's Worrt,* by his Countrymen, the *Germans.* There is  
another Sort, which our Peasants call by that Name, and a  
third, which is honour’d by that Title in *Venice* and the *Fer-  
rarefe.*

AMARA-DULCIS, a Plant thus distinguish’d :.

*. Solantem lignosum Dulcamara,* Offic. *Solanum lignosum, seu  
/ Dulcamara,* Park. Theat. 350. Rail Hist. I. 672. Synop. 3.

265. Merc. Bot. I. 69. Phyt. Brit. II5. *'Solanum seandeus,  
seu Dulearnara,* C. B. Pin. I67. Toum. Inst. I49. Elern.  
Bot I 24. Boerhi Ind. A. a. 67. Dill. Cat. Gissi 82. Rupp.  
Flor. Jen. 36. Buxhi 306. *Amara-dulcis,* Ger. 279. Emac.  
350. *Dulcamara, feu Amara-dulcis,* Men Pin. 34. *Glycy-  
plaros, fove Amara-dulcis, J. B.* 2. I09. Chain II4. BIT-  
TER-SWEET. *Dale.*

It sendeth forth woody, brittle, slender Stalks, two or three,  
and sometimes five or six Feet long, which twine themfelves  
about the adjacent Hedges or Shrubs, or otherwise lie flat on  
the Ground. The Bark of the young Sprays is green, but  
that of the old ones and the Stalks is rougher, and of a whitish  
Or ash Colour on the Outside, but of a beautiful Green on the  
Inside. The Medulla, or Pith, is a fungous Substance. The  
Leaves stand alternately, refemble thofe of the Solanum Hor-  
tense, are of a dark Green, and sometimes furnish’d with two  
Lobes or Auricles at . their lower Part, and a Pedicle of about  
an Inch long.. The Flowers grow in small Umbellas, are foe-  
tid, but fine enough to the Eye, being of a cceruleo-purple Co-  
lour, and sometimes white, and divided into five narrow sharp-  
pointed Leaves, bending back outwards, in the Middle of  
which are yellow Chives forming an Umbella. Thefe are suc-  
ceeded by foft slimy Berries, fomev/hat long in Shape, of a  
scarlet Colour when ripe, of an unpleasant Taste, and full of  
sinall, fiat, whitish Kernels. It has a fibrous Root.

It delights in moist and watery Places, and therefore is often  
found about Pits and Ditches. It flowers in *June* and  
Testes

*Sebiscius* says, that the green Dulcainara bruifed, and apply’d  
in Form of a Cataplasm, mitigates Pains in Womens Breasts,  
mollifies their Hardness, and dissolves grumous Milk in-  
them.

It is said to provoke Urine, and to be successfully prescribed  
against the Dropsy-

Take (according to *Tragus's* Receipt)'a Pound of the Wood  
Of this Plant, cut it into Pieces as big as thofe you play  
with at Draughts, and put them with a Measure of White-  
wine into a new Pot, and stop it well with a Pot-lld,  
winch has a small Hole borhi in the Middle of it, and  
?" paste it all round with Water and Bran. Set the Pot over  
a stow Fire, and let it boil to the Consumption of above  
a third Parr, and ule the rest.

An ordinary Glass .of this Liquor taken in the Morning, an  
Hour before you rise, and just aS you are going to bed in the  
Evening, purges off the Yellow-jaundice, the’ never fo inve-  
terate, in a gentle manner, by Stool and Urine.

The Juice of it drank, is raid to he good for Ruptures, and  
, Bruises by Falls or Blows, being esteemed as effectiral in dis-  
solving concreted Blood any.where in the Vifcera, and healing  
the Parts that are hurt. It is held to he useful also in opening  
Obstructions of the Liver and Spleen. *Parkinsen* writes, that  
whenever be knew it presented, it work’d with sufficient  
Violence. And *Praevidius* nives the Decoction of the Wood  
of Dulcamara the first Place among the gentle and kindly  
Evacuants of Bile.

**The following Receipt is from Dr. *Halse .***

Take four Handfuls of the Leaves of Dulcamara shred,  
with four Ounces of Linseed finely pulverized : Boil them  
in Mush Wine of *Candy,* or in Hogs Fat, to the Con-,  
sistence of a Cataplasm, and apply it warm.

This Remedy, in the Space of one Night, distrusted a Tu-  
mour as big as a Man’s Head, and healed deplorable Contu-  
sions of the Mufcles. *Rail Hist. Plant.*

AMARANTHUS, a Plant thus distinguish’d :

*- Amaranthusestes amoris,* Ossic. *Amaranthus maximus,* C. Bs  
I20. Ran Hist. I. 2OI. Boerh. Ind. A. 2. 97. Tourn. Inst.  
234. *Amaranthus panicula sparsa.* Get. 254. Emac. 322.  
*Amaranthuspurpureus major, paniculis sparse*, Park.Parad. 37I.  
*Amaranthus paniculis procumbentibus, semine albo, seu Quinva,*Hist. Oxon. 2. 602. *Blitum maximumsese Amaranthus major,  
semine albo,* J. B. 2. 968. Chain .,04. FLOWER GEN-  
TLE. *Dide.* o τ

The Helichrysiis, which some call Chrysanthemos, others  
Amarantus, of which they make Garlands to adorn the Images  
of the Gods, has a greenish-white, strait, firm Stalk, with  
narrow Leaves, set at Distances, like thofe of Southernwood, X  
globous Head of the Colour of Gold, a round Umbella of dry  
Clusters of Flowers hanging downwards. It grows in rough  
and rugged Places.

The T°p, drank in Wine, is effectual in a Dysury, and  
against the Bites of Serpents, is gond for the Sciatica and Rup-  
tures, and provokes the Meofes. Drank" in Mulsum, it wastes  
Concretions of Bleed in the Belly or Bladder, Tne Weight  
of half a Dram, taken fasting in White-wine diluted, restrains  
Catarrhs. It is allo put among Clothes, to preserve them  
' from the Moths. *Diosecr. Lib.* 4. *Cape* 37.

*Pliny,* fpeaking of the Combat between Nature and Luxury  
in point of Colours, says, we are fairly outdone by the *Ama-  
rantus ..* This, says he, is rather a purple Spike than a Flower,  
and has no Smell. ’ What is to he admir’d in it is, that it loves  
to he\*crept, and fpnngs out again fairer, and with more Lustre.  
It blossoms in *August,* and lasts Dll Autumn ; and, what is  
strange, after it is cropt, and all the Flowers fallen off, if it he *i*water’d, it springs afresh, and bears Flowers for Winter Gar-  
-lands. Its Nature is wed express’d in its Name, Amarantus  
[from α Neg. and μαραινω, to .wither] , for it never withers.  
*Plin. Lib.* 2I. *Cop.* 8.

The *Amaranthus,* or Floramour, grows to he three or sour  
Feet high, with bigchanell’d Stalks spread into several Branches,  
bearing pretty large broad Leaves, ending in a long Point, of  
a light, green Colour, and frequently a llttle reddish : On the  
Tops of the Stalks grow long Spikes of deep, red, statninous  
Flowers, hanging downwards, which, if gather’d in time,  
keep their Colours a long while; among these Flowers grows  
the Seed, small, round, and fomcwhat flarrish, of a reddish-  
white Colour, and very shining. It is sown in Gardens, and  
flowers’ in *July* and *August,* perishing in the Winter. The  
Flowers only are used, and that but seldom.

They are cooling, drying, and moderately restringent; and  
from their Colour are suppos’d to he good to flop Bleeding and  
Fluxes of all kinds, in any Part of the Body. *Miller Bat.  
Off.. , . .*

It is cultivated in Gardena, and flowers in *August. Dale.*

It is mollifying and agglutinatiog, but it is not much made  
use of in Medicine. *Lemery de Drogues.*

AMARANTOIDES, *Glebe Amaranthus,* or *Everlasting  
Flower,* called by the *French L.Immortal.* It is deriv’d from  
Ἀμάρθνθος, *Amaranthus,* and οῦδος, Form or Shape.

*Amarantaides, lychncidis folia, capitulis purpureis,* T. 654.  
*Amaranths ajscnis, altera species, save store purpureo,* Brcyn.  
Cent. I. I Io. *Amarantso affinis, Indiae Orientalis,'sterilus  
glomeratis, Ocymoidis folio,* H. A. I. 85. *Gnaphalio affinis,  
tcymastri folio, sure ex purpuret violacea,* H. L. 294. *a  
Pragn.*

The Flowers ate sinall, and cut into four Segments, which  
are collected into fquamose Heads; from each of these Scales  
is produced a single Flower. The Ovary in the Bottom of the  
Flower becomes a roundish crooked Seed, which is contain’d in  
a thin Pellicule or Skin.

There are at present sour or five Varieties of this Plant, but  
none used, as I can find, in Physic.

The two best Sorts were originally imported from the *East-  
Indies,* the rest wc have received from *Barbados. Miller's .  
Dictionary.*

AMARELLA, a Name given by *Geseier* to the PoLY-  
GALA. See PoLYGALA.

AMATORIA Febris, the same as CHLoRosrs, which see.

*Castellus. - ’*

AMAToRIA Veneficia, the dame as PnILTRA, which  
fee. *Castellus. 1*

AMATORII Musculi, the Obliquus superior, or Trochle-  
aris, and Obliquus inferior, are sometimes thus call’d.  
*Cowper. \_ . \_*

**.. AMATZQUITL, *fsve Umede Papyracea Fliereneberi.***

**Its**

Ip? Substance is light, and not unlike that of the Fig-tree.  
Its Leaves resemble those of the Lemon-tree, but are hairy and  
more acuminated or pointed. Its Fruit are aS large as *Pontic*Nuts, divided into white Grains *os* the same Shape and Nature  
with those of a Fig. It grows in warm Countries, such as  
*Chietla. A.* Decoction of the Bark of its Roots is of consider-  
able Service in feverish Disorders. Its Leaves are only useful,  
by the agreeable Shade they form.

AMAUROSIS, αμαἀρωσις, is an Impediment of Vision,  
when the Patiens, without any manifest Fault in .the Eye, can  
discern, nothing at all. It is usually call'd a Gutta Serena.  
*Actuarius de Meth. Med. Lib.* 2. *Cap.* 7.

*Mr.* **de St. YVes,** *the famous* **French** *Oculist, distcttgpifbes the  
Gutta Screna into the perfect and imperfect.*

*The perfect* **GUTTA SERENA.**

The Disease, call'd Gutta Serena, is a total Blindness, pro-  
reeding from a Palsy in the principal Parts of'the immediate  
Organ of Vision.

- Whatever Part of the Body a Palsy attacks, it has different  
Degrees, which render it perfect or imperfect. The same may  
he said of a Gutta Serena, which entirely destroys the Sight,  
or at least leaves so little, that.it is of small Service to the  
Patients. . \* .

In order to give a clear Idea of this Disease, it shall be the  
Subject of two Chapters. In the first, I shall treat os that sort  
in which the Sight in entirely lost : And in the second, of that  
in which part of it remains.. -

There are several Causes which may produce a Gutta Serena:  
The first is a light Apoplexy, in which the Humour, instead of  
falling on the other Parts os the Body, is discharged on the  
Optic Nerves only, by which they are obstructed, and become.  
paralytic. . . . . ;

This Disease depends on other Causes, as when some other  
Humour is filtrated into the Nerves, or by lodging on them  
causes a Compression, which hinders their Action; so that,  
whether these Nerves be obstructed or compressed, either by  
Blood, Pus, or Phlegm, all these different Matters may pro-  
duce a Gutta Serena. If the Blood becomes too saline, it gra-  
dually causes this Disease by its Saltness, which decays and  
dries up the principal Organs of Vision ; and, if the Comparison  
may be admitted, as salted Meat grows dry. By this means  
the Sight entirely perishes. -

We often see a Gutta Serena succeed acute Fevers, when  
the Humour that caused them is removed to the Visual  
Nerves; a violent Fever, which has too much rarefy'd.the  
Blood in the Vessels adjacent to these Nerves, sometimes pro-  
duces the same Effect; when a Venereal Humour is discharged  
**on** the Visual Nerves, causing violent Pains, and the want of  
Sleep, a Gutta Serena often follows. '

This Disease commonly begins with Violent Pains in the  
Head ; and aS they decrease, the Disease increases. Several  
People, however, have been shuck blind at once, without any  
previous Pain; in others, the Pains accompany'd the Disease,  
which strengthened gradually, and their Sight diminished daily,  
till at length it totally perished. -

When a Gutta Serena comes without. Pain, and one Eye  
only is attacked,- nothing can he perceived by looking at  
both Eyes, whilst they are open ; but if the well Eye be shut,  
you may observe the Pupil of the distempered Eye dilate itself,  
tho\* exposed to the Light, and .it-will remain in that State, till  
*.-the* well Eye be opened again; then the Pupil of the diseased  
Eye contracts itself, in like manner as that os the good Eye,  
from which the distempered Eye borrows its Motion. By this  
Sign only5 we are assured there is no Sight in the distempered  
Eye. This Sign is peculiar to this Disease, and cannot he  
found in a Glaucoma, in which the Pupil continues always  
dilated. There is likewise another Spectes of *Gutta Screna,* in  
which the Pupil is always contracted, whether the good Eye he  
open or shut.

The Signs of a Gutta Serena are Visible ; for from the In-  
spection os the Eyes, we may see whether the Pupil he dilated  
**or** contracted.

As some Muscles of the Body are called Antagonists, because  
they perform opposite Motions, such as Flexion, Extension,  
*etc.* in the same manner, amongst the Motary Fibres of the  
Iris, some serve to dilate it, whilst others contract it; there-  
\* fore, when in a Gutta Serena the Pupil remains dilated, **the**Fibres, winch should contract it, are paralytic, in the particu-  
lar manner I have described : But if the Pupil he contracted,  
these Fibres, which should dilate it, are affected ; the Sight is  
equally lost in both these Cases.

A Gutta Serena has been hitherto deemed incurable. l ean,  
notwithstanding, produce many Experiments to the contrary.  
I have, for the most part, observed that Species to he incurable  
which succeeds an acute Fever, when its producive Humour  
has been discharged on the Visual Nerves. If this Humour  
. damages but one Eye, there is room to fear, lest the FeVer  
return in the Year, and the other Eye be affected in the same

manner. X have hitherto observed this Misfortune happento  
all those, whose Gutta Serena began by a light Inflammation,  
attended with Violent Pains in their Head on the Side of the  
disorder'd Eye. This Observation has induced me to think;  
though I never dare attempt it, that by extirpating the decayed  
Eye, one might prevent the good Eye from sailing into the  
same Misfortune. It would be a great Coinsort.to the Patient  
to shave his other Eye preserved from the Discharge of this  
destructive Humour, which for the most part happens a Year  
Or two after the Loss of the first Eye.

I have cured several of a Gutta Serena, when they were  
committed to my Care, in the Beginning. My Method is to  
bleed them in the Arm, in the Foot, and in the Neck, in  
Proportion to their Repletion ; afterwards I prescribe them an  
Emetic, to he taken once or twice in the interval of two  
Days.

All Remedies for a Palsy are likewise good in this Disease. -  
A Seaton or Blistering-piaster may he laid to the back Part of  
the Neck. I find the Caustic, too stow in in Operation, and  
1 the producive Humour of rho Gutta Serena has Time to’  
-thicken, and thus the Disease becomes incurable.

.Twelve Years since, a Country Curate, of the Diocese of  
*Paris,* dame to consult me, a sew Days after he had been  
attacked with a Gutta Serena in one eye. I gave him a Vo-  
mit the first Day, the next Day he was let Bleed in the Neck ;  
two Days after he took a second Vomit, upon which his Sight  
hegan to return, and was gradually restored, by holding his Eye  
Over the Steam os hot Spirit of Wine. ..

Besides the Gutta Serena, of which we have now'treated,  
there is another sort. It generally attacks Maids that are not  
regular, or Women with Child ; and Men are likewise subject  
to it, through a Suppression of the Hemorrhoidal Flux. Some  
Authors ascribe the Cause of this Disease to an excessive Disten-  
tion of the Vitreous Humour; and in order to prove their  
Assertion, they pretend the Globe os the diseas’d Eye is bigger  
than it should naturally be. I have tried all Means possible to  
discover, whether the Cause of this Disease was owing to the  
pretended Increase of Size in the said Humour; but I could  
never perceive the least Difference from it’s natural State.

Ί judge this Disease proceeds from some Humour that is  
thrown upon the Visual Nerves, by which they are compressed.  
The Symptoms seem to strengthen my Opinion ; for the Pati- .  
ents feel a Heaviness, attended with Pain more or less acute, in  
the back Part of the Globe of the Eye. This shews the Optic  
Nerves suffer by some Humour which is settied upon them,  
before they-enter into the Eye *i* Besides, this Species of Gutta  
Serena is more frequently cured than the preceding; for,  
without Doubt, it proceeds from a simple Compression of the  
Nerves, and not from the excessive Size of the Vitreous Hu-  
mour.

Remedies for this Species of Gutta Serena are. Bleeding in  
the Foot, and these Medicines that provoke the Menses in .Wo-  
men, and the Hemorrhoidal Flux in Men. To make a Deri-  
vation os the Humour from the Eyes, Wood-lice, Eye-bright,  
either in Substance or Infusion, and Viper-broths, will be of  
Service. ' '

We find Infants are not exempted from this Disease, since  
some are hern blind. At first, their Blindness does not appear ;  
but as they grow -up, it is perceived. I have cured several  
with an Ophthalmic Water. Some of these Children, at the  
Age *os two Years,* had no apparent Signs of Sight. It is  
to be observed, the Pupil of these Children, though it has  
no Movement, is no more dilated than in its natural State ;  
winch Observation shews this Disease is only a Numbness, or  
Weakness, in the principal Parts ofthe Organ of Vision.

*- Os. the imperfect* **GUTTA SERENA.**

I call a Gutta Serena imperfect, when the Patients continue  
.to see but imperfectly. It has different Degrees, according to  
the Number of Fibres which are attacked by the Palsy. Some-  
times it is only a sort of Numbness in these Fibres ; sometimes  
Only half an Object is seen, whilst the other half is not per-  
ceived, hecaufe only half the Eye can see, the other half being  
paralytic. Yon may easily find out the Degree os this Dis-  
ease, by desiring the Patient to shut his good Eye, and look  
into a Book with his other Eye; for then he sees only a cer-  
tain Part of the Page, whereas he can see the whole Page with  
his well Eye.

Sometimes the Fibres are quite emerg'd in the Humour  
which causes the Palsy; then the Patients can only perceive  
the Light, but not distinguish Objects. This Disease is often  
procured by what we call Vapours. I have frequently seen  
Women deprived of their Sight for the Space of hals an Hour,  
an Hour, and sometimes -fur two or three Days. This last  
Case is incident to Women, in their Delivery.

This Disease, has the same Causes with the perfect Gntta  
Serena, that Species which proceeds from Vapours excepted j  
but the Humour is in less Quantity, for which Reason the Eye  
is not so much injured, -

**A .**

I have seen Persons assisted with this Disease, from the Use  
of a Pomatum that had repelled a Tetter which was spread  
round their Eyes: They -recovered their Sight by the Help of  
Aperitive Broths, and Sudorifics, which expelled the Tetter:'  
Others have been attacked with this Disease, from a Cold they  
have taken in their Head, after a violent Heat.

- The Signs of an imperfect Gutio Serena are easily known.  
By examining the Eye, whether the Pupil he dilated or con-  
trailed, the Degree of Sight may be soon learned ; ’ for in either .  
of thefe Cafes, if the Iris has one Quarter of its Movement,  
' we judge that Quarter of the Sight remains , if it has helf its  
Movement, half of the Sight remains.

In the Cure of this Disease, after the general Remedies, and  
these prescribed in the perfeol Gutta Serena, Viper-broths, or  
the hot mineral Waters, should he drank, if the Disease seems  
to proceed from a viscous thick Humour, but if it is produced  
by a sharp thin Humour, the cold mineral Waters are to he  
preferred.

Let the Eye he held over the Steam of hot Spirit of Wine,  
or of Coffee, the Steam must pass thro’a Funnel. This must  
be repeated twice or thrice a Day.

I have cured several Persons afflioled with this Disease, by  
the Use of these Remedies. I shall only relate one Experiment,  
on account of its Singularity ; Eleven or twelve Years ago,  
a Canon Regular of *Aeheims* came to *Paris* to con stilt me. **I**perceived one of his Eyes was seised with an imperfecti Palsy;  
there was a Dilatation of the Pupil, which had but a Quarter of  
its contracting Movement. I was very much surprised when  
he told me, if he looked into a Book, his well Eye being shut,  
that he could see the persedi Representation of his diseased Eye.  
At first, I judged him to be hypochondriac; but in order to  
he satisfied of the Truth, I desired him to close his well Eye,  
and to look into a Book; then I asked him, Whet he could  
see in the Page ? He answered me, That he perceived rhe Lines  
Iike black Strokes, without distinguishing the Letters ; and  
that, in the Middle, he saw the Representation of his Eye. I  
asked him, when he assured me be law his Eye, of what Co-  
lour was the Iris, and the DifposiUon of certain Rays which  
cross it ? He answered me so justly, and described them so  
accurately, that I could not fee them better myfelfin his Eye.  
This young Canon was cured in thirty Days," by the Use of  
Purges, cooling Broths, and spirituous Applications to his Eye.  
He saw to read perfectiy well, and was rid of the salse Image  
of his Eye, which was.so uneasy to him before.

- Mr. *Petit,* of the Academy of Sciences, assured me, that **he**had seen the like Disease. *St. Tiles.*

But Amaurosis, ἀμαὐρωονς, in *Hippocrates,* does not seem  
to signify whet we east a Gutta Serena, but only a Dimness  
of Sight, or temporary Loss os it. Thus, in his first Book of  
Prognostics, he mentions Dimnefs of Sight (ὀμματῶν ἀμαὑρωονς)  
amongst the Signs of approaching Convulsions. And in this  
Sense it is generally to be taken in the above-mentioned Au-  
thor. " '

To whet has been, said on the Subjeci of the *Amauroses,* it  
will be proper to add-the Sentiments of *Hoffman.*

**’ . L**

That fort of Blindness which the Griols cull ἀμαὑρωσις. and  
the *Latins* **a GUTTA SERENA,** is a terrible Disorder. It is  
caused by an Interception of the Influx of the nervous Fluid  
into .the Optio Nerve, which occasions a Loss of Sight; the  
Eyes, in the mean time, remaining, to all Appearance, unaf.  
seeled ; for if, in this Case, you look of the outer Part of the  
Eye, Jif appears sound and entire; nor is there any Defect to  
be observed, either in its Coats or Humours, unless that the Pu-  
pil appears larger, black, and more dilated than' usual; it like-  
wise appears to be stiff and immoveable, when the Rays of  
Light strike upon it: But notwithstanding all this, the Faculty  
of Seeing is either quite destroyed, or there only remains a  
Power of distinguishing Light from Darkness.

**. ν . IL**

This Disease is therefore different from a Vertigo, in which  
the Patient imagines himself in a gyratory Motion, and conse-  
quently staggers; hut the Influx of the nervous Fluid is not  
osiite intercepted, but only impaired and diminished, arid that  
not always. The *Gutta Serena* is also different from a Cata-  
rail; for, in this fatter, the Crystalline Humour appears to be  
opake, and the Pupil, when exposed to a free Light, is con-  
tracled, but in dark Places dilated ., whereas in a *Gutia Serena,*.the Crystalline Humour appears pellucid thro’ the Pupil; and  
the Pupil itself, whether in.a light or in a dark Place, is neither  
contracied nor dilated, but remains immoveable.

**ΙΠ.**

‘ Nor are the Circumstances of this Disease always the fame ;  
for it forne tunes seizes the Patient fuddenly and unexpectedly,  
which is generally the Cafe when it proceeds from violent and  
external Causes; such as a Fall from any hicti or severe

Blows on the Head ; Instances of which may he sound in *Hilo  
dames, Cent. ζ. Obse* 8. and in *Acnaius Liesitanus, Cent.* 5.  
*Oof.* 64. At other times the Sight is gradually lost, which is  
generally the Fate of old People, who are affected with an He-  
miplegia, or Palsy, and of such as have the Misfortune to have  
weak and languid Constitutions. On other Occasions this Dis-  
ease is accompanied with Head-aches, Vertigoes, Drowsiness,  
Noise, and Singing of the Ears; And at other times it appears  
without any of these Symptoms, and only afflicts the Padent  
with Blindness. There is likewise a periodical *Gutta Screna,*which feeing the Patient suddenly, and lasting'for some Hours,  
goes oss, of its own Accord ; hut it. Returns are frequent:  
Phis is often the Caso with hypochondriac and hysteric Perlons,  
and with Women in Labour. The *Gutta Siorena* is divided into  
*Perfect* and *Imperfect* ; in the former, rrot onhi the Sight, but  
every rhe least Remains of Perception of Light, is destroyed ;  
in the latter. Light can he distinguished from Darkness-; to  
this Class seems to helong th- *Visas dimidiatus,* when the Pa-  
tient sees only half the Objeol, a particular Species of which is  
described by *Car. Sigisem. IVolffius,* (iri a Dissertation, *de Arnntr  
rose imperfocta, syocy. Trajectsy* where tl.e Patient could only  
sec the Feet, and under Pan of the Trunk of a ManS Body. .

IV. **' Ἕ ’**

As, in a *Gutter Serena,* the external Parts of the Eye seem to  
be free from all manner of Fault, we may reasonably conclude,  
that the Cause of the Disorder is to he sought for in the Optic  
Nerve, rather than in the Eye itself; and this may. be even  
demonstrated, by dissecting such People as, during their Lives,  
had been blind in this manner for, upon accurate Observation;  
we find, that their Optic Nerves were either too much exte-  
nuated, flaccid, and, by half, too little (of which *fee* - In-  
stances *inBonctus’s Sepulchretum Anatomicum, Lib.* I. *Sect.* Isi.  
Oasc 3. and 4.); or surrounded ami compressed by Blond,-extra-  
vasated from the Brain, as hath been observed by *Woepseerus de  
Apple\*. Hijl.e^.* or incompassed by a hard Tumour, such as  
*Bonetus, Lib.* I. *Sect.* I8. *Obse.* I. rakes Nonce of, about their  
Origin. *Pawius, Observat. Anatom.* 2. observed a Bladder  
full of a watery Humour upon the above-mentioned Nerves,  
near their Conjunction. *Platerus* found a globular Tumour  
near the Optic Nerves of a dead Person, who, when alive, bad  
laboured under a *Gutta Serena .,* and *Bonetus, Lib.* I. *Sect.* I8. -  
**Oasc** 5- sound the 'carotid Artery turgid with Blood,, at **the**Place where it enters the Orbit of the Eye.

**"V.**

Almost all the Authors, who have wrote upon this Subjecti  
have judged the *Gutta Serena* to proceed from the Optic Nerves  
being obstruoled by a thick Lymph, whereby the small Tubes,  
of which the Nerve is formed, being rendered impervious, **the**free Afflux of the nervous Flu id to the Retina, was, or course,  
either checked, or entirely intercepted; but iris not, as yet,  
Ϊroved by Anatomists, that Nerves consist of small Tubes, or  
'ipes, thro’ Which their contained Fluids circulate , neither is  
a thick and tenacious Lymph, but a Fluid, the most subtile of  
all others, and least likely to coagulate, circulated through the  
*Brain* and *Medulla oblongata.* That an Obstruction of the  
Nerves should arise from this Cause, is by no means credible;  
and much less can we suppofe, that an Obstruction es the Optic  
Nerves should happen from any Matter conveyed to them from  
the Brain. In all Cases of this Nature, there must be so strong  
**a** Compression of the Optic Nerves as to prevent all Influx of the  
nervous Fluid into them, and by that means induce a Paralysis:  
Hence it follows, that the immediate Caufe of *a. Gutta Serena,*is a Paralysis of rhe Optic Nerves. ’Tis now evident, from the  
Struolure of the Eye, that the Optic Nerve, as soon as it has  
entered the bony Orbit of the Eye, together with the Perio-  
steum, which lines its innet Side, and has disposed of the exter-  
nal Covering, which it receives from the *Dura Mater,* for the  
Formation of the *Tunica Cornea* ; I say, ’tis evident, from the  
Struolure of the,Eye, that after this, ,hy another Membrane,  
or Covering, which it receives from the *Pia Abater,* it *fotnsa*the *Tunica Uvea,* the *Procescsas Ciliares.,* and Pupil of the Eye,  
and that its medullary Substance constitutes that soft and pul-  
Sous Coat called the Retina. Besides, ’tis wall known, that the  
letina receives the Images of visible Objects, and conveys them  
thro’ the Optic Nerve to the common Sensory, where, by their  
means, the ldeas of Sight, or Vision, are excited; but ’tis  
equally plain, that, in orsicr to perceive external Objecti, .a  
certain Tension of the nervous Parts is necessary; which Ten-  
sion consists in a due Influx of the nervous Fluid ι not since, in  
**a** *Gutia Serena,* there is a Paralysis of the Optic Nerve, and  
consequently of the Retina, the Uvea, and *Procosssos Ciliares ;\**hence it main follow, that these Parrs are neither tense, nor  
transmit the Rays of Light, but the Pupil appears inlarged and  
dilated, by reason of the Relaxation of the *Processes Ciliares.*Nor is there, in this Case, any other Fault to he observed in  
the Eye, since the Morion of the Humours, and of the Musi,  
des, which serve to move the Eyes,. is regular and natural ς  
which may he owing to this additional Reason, that the Muf-

ales find Vessels, conveying the Juices, take their Origins not  
from the Optic Nerve, but from other Nerves, that are not  
affected. \_ ; . .

vi.

The Cause therefore winch, by compressing theOpticNentes,  
renders them paralytic, resides either about their Origin, that  
is, their *Thalami,* along which they run, or about those Parts  
os themselves winch enter the Orbits of the Eyes The Cause  
may also lie concealed in theOptic Nerve itself, and that too in  
the Blood-vessels, wrapt up in the very Middle of it; the Reali-  
ty of which Vessels, not only our later Anatomists, but even  
*INepfcr* himself, sL. *de Cicut. aquar, p. 12.’].)* heve demon-  
fixated. If thefe Vessels, which are so many Branches, as it  
were, .from the Carotids, or any of the rest of the Branches of  
the Carotids winch surround the Orbit, should happen to be  
stuffed with stagnant Blood, they press upon and distend the  
medullary Tubes of the Nerves ; and, at the same rime, hinder  
the Return of the Lymph thro’ the Veffeis which surround the  
Nerves. This seems to he the Cause os 4 periodical *Gutta  
Screna,* which ceases upon the Removal of the Stagnation of the  
Blood : It is, besides, very probable, that, in a spurious Arnau-  
Tofts, a Serum lodging itself within the Coats of the Eye, espe-  
cially within the *Tunica Cornea,* is to be looked on as theCause;  
in which Case, the Afflux os the nervous Fluid being too flow;  
a small Quantity of it only enters, which leaves no more of the  
Faculty of Seeing, than in sufficient to distinguish Light from  
Darkness.' . ...

squsasa ... Vn- ... . '

- The’ the Diseafe now under Consideration may afflict Per-  
sons of all Ages, and of every Sex, when Violent external Causes  
concur to its Production-; such as Blows on the Head, Con-  
cessions of the Brain, or any other Accident, that may occasion -  
a Stagnation of the Humours about the Optic Nerves; yet  
when it arises from internal Causes, it generally salis to the Lot  
of the Plethoric, the Phlegmatic, the Cachectic, and the Old,  
or os those who have a weak Head, and a frailSystem ofNerves,  
either thro’ preceding Excesses of Passion, long Grief, anxious  
Care, too much Watching and Application, unseasonable Stu-  
dying, reading small Print in a full Light, frequent Debauches ;  
and, in fine, by being long exposed to the Cold, or labouring  
under the Misfortune of an hereditary Weakness. This Diss  
- ease agrees with the other Disorders of the Brans, in this Cir-  
cumstance, that it is founded on the Want of a due Tone and  
Spring in the Parts of the Brain itself. '

VIII.

If we consider the secondary and more remote Causes of a  
*Gutta Serena,* they may be properly enough reduced to Reple-  
tion and Inanition. To the Class of Repletion belongs that  
*Gutta Serena,* which takes its Rise only from a Stagnation of  
Blood, more or less thick in those Nerves of the Brain which  
are contiguous to the Optic Nerve. This Species of the Dis-  
ease is not only sometimes transitory and periodical, but even  
admits of a Cure, when it happens not to be of a long standing.  
This Degree os the Disease is incident. *First,* to those who are  
of a very plethoric Habit of Body, upon their using too Violent  
Exercises, Baths that are too warm, or giving way to immo-  
derate Transports of Anger: A CASE of this Kind is to be  
found in *Consult. Med. Sect. Case* 42. *Secondly,* to Women  
that bear Children, either in the Birth itself, and then it is occa-  
. stoned by the Violent Constrictions of the lower Belly, throw-  
ing the Humours up to the Head with uncommon Force; or  
after the Birth, if it has been difficult, and especial!*y* is there has  
been any Defect in the *Lochial Evacuations.. Mauriceau,* in  
CENT. 5. *Obs.* 568. mentions a Case of this Kind, winch,  
he says, was soon cured by Bleeding : *It* is likewise to be ob-  
served, that the *Hemicrania,* or Megrim, winch succeeds Child-  
birth, most frequently terminates in Blindness. *Thirdly,* to  
Women who labour under a Suppression of their Menstrual  
Discharges, or any hysteric Disorder; a Case of which kind I  
have given in *Consult. Med. Sect. Case* 44. *Pechlinus* also.  
**Lib. I.** *Ohs.* 24. makes mention of a *Gutta Screna,* which, in  
Conjunction with a Head-ach, every Month afflicted a Patient  
who had her Menstrual Discharges defective. *Fourthly,* to those  
who labour under hypochondriacal or hysterical Disorders; and  
to those who are racked with Violent Spasms of the lower Belly,  
by which the Humours are forced up to the Head : Hence is  
that remarkable Case which is related of a *Gutta Screna,* which  
succeeded a Vehement Colic, accompanied with a Constipation  
of the Belly, which being cured by a Clyster, the *Gutta Serena*was forthwith removed.

- IX.

But as a *Gutta Screna,* which arises only from a Stagnation  
of Bleed, is transitory; so, on the other hand, if it continues  
long, or seizes phlegmatic Patients, or such as are of a bad  
Habit os Body, by letting fall its serous Part, as a Load, on the  
Nerves.: it renders the Disease long, and very often incurable :

It is therefore no unprecedented Thing, that a *Gutta Serena*should arise from a *Purple Pevcr,* the *Itch,. Ulcers,* or *Achors,*struck back into the Mass of Blood *(gride Act. BcroI Dec. y.  
Fol.6. P.* 28.); nor is it surprising, thatChildren who are weak-.  
ly, or abound with Humours; should he subject to it; especially,  
in Cases where the MeafleS have not come out well; or where  
the Intestines abound with Wornss. A *Gutta Screna* also hap-  
pens aster acute Diseases, malignant Fevers, the Small-pox, or a  
Phrenitis, the Humours selling, by Translation, upon the Optici  
Nerves. Sometimes Persons os a plethoric, or of a bad Habit  
of Body, become blind.by strong Purges or Vomits *(as Gulden-,  
klec, L.* I. *Episi.* 20. *P.* 498. has observed) : But Mercurials,  
un&ilsully administered to Bodies abounding with impureJuices,  
do, of all other Medicines, contribute the most effectually to  
the bringing on this Disorder, by occasioning an obstinate Stag-  
nation of the Lymph.

*%, so sic*

Thefe Causes belong to the Class of Repletion ; but under  
the Title *Inanition',* are comprehended all excessive and immo-  
derate Profusions or Dissipations of the vital Juices, which, as  
Experience teaches us, are frequently succeeded by a *Gutta Se-  
rena,* which more especially comes on after great Hemorrhages ;  
and a Blindness has-been particularly observed to follow a plen-  
tiful Vomiting of Bleed, too great a Quantity taken away by  
Bleeding from a Woman with Child, sand after taking a large  
Quantity from the Vein of the Forehead *(Bonetus, Lib.* I. *Sect.*I8. *Oby.* 2. *Apse.),* for while the vital Humour is drawing  
away, the Vessels, which are distributed thro’ the Brain, col-  
lapse, the Secretion of the nervous Fluid is diminished, and  
thence arise Vertigos, *Gullsi Serenas,* Faintings, and other  
Calamities : But what deserves our principal Attention, is, the  
remarkable'Consent which, in this Cafe, is found betwixt the  
Eyes and the genital Parts; since we observe, that Blindness in-  
frequently the Result of immoderate and ill-timed Embraces,  
of which Circumstance I have made frequent Mention, and re-  
lated a Case os this Nature, *Cons. Med. Cent.* 2. *Sect.* 3. *Cas.* 104.  
For the lymphatic seminal Fluid is much of the same Nature  
and Quality'with that-which is secreted in the Brain, and  
distributed through the Nerves; for which Reason the more  
liberal and copious the Excretion of the former is, the more  
scanty and deficient the Secretion of the latter must be: Hence '  
the Want of a due Tone in the nervous Parts, Weakness of  
Sight, and even Blindness itself, usually follow.

' '" : so . ‘ ' . . - :

- The *Gutta Serenastis,* a very terrible and a Very obstinate Dis-  
order ; and Tis'particularly to be observed, that if it is a perfect  
and inveterate one, or seizes old and worn-out Subjects, it is  
so far from admitting os a Cure, that the most terrible Trass os  
apoplectic and paralytic Disorders generally supervene. This  
Distemper, on the other hand, when os a short standing, when  
imperfect, or when its Cause is only seated in the Coats of the '  
Eye, sometimes admits of a Cure, especially in young and robust  
Patients. That Kind of *Gutla Serena* also, which is periodi-  
cal, and the Effect of a Stagnation of the Blood, yields to  
Medicines, and may be cured; but that Species of the Disease  
which is accompanied with paralytic Disorders, or other Dis-  
tempers of the Head, generally portends a Danger that can  
scarce be surmounted or avoided.

*The CURE. . .*

I.

The Cure of the *Gutta Screna* is very hard and difficult 5  
for this Reason, that the Force and Energy os Medicines can  
have but little Influence upon those Parts which lie, aS it were,  
remote, and hid within the Bones of the Skull: But this Cir-  
cumstance should not discourage the Physician from trying the  
Extent of his Art, and attempting the Cure by a Method  
accommodated and adapted to the Causes os the Disorder;  
This he may do by pursuing these two Intentions, that of dis-  
cussing the stagnant Humours, which compress the Nerves 5.  
and that of strengthening and invigorating the Parts affected.

Π. .

For obtaining the former, which is indeed the more difficult  
of these intentions, generous, and what we call *Herciilenn  
Medicines,* are to be called in to our Assistance. Thus, if a  
serous Humour, poured in upon the Brain, should . happen to  
stagnate there, which is commonly the Caso with Patients that  
are phlegmatic, cachectic, of bad. Habits, or who have had  
Pustles struck back into their Blood, and especially if rhe Dis-  
order he of a short Date, great Good may he expected from the  
actual Cautery applied to the back Parrs ns the Head, or the  
Nape of the Neck; in lieu os which a Seton may also be sub-  
stituted. These Remedies operate in a two-sold Manner;  
that is, partly by exciting Pain, sor thus they communicate a  
tremulous and vibratory Motion to the minutest Fibres of the  
Brain ; and partly by promoting the Afflux os the Humours to

the Parts where the Wound is made, to which they generally  
drain, they draw off the stagnated Juices from the Brain, and.  
Parts affected : And, indeed, if, in this Case, any Relief is to  
he expected, it is rather to be looked for from thefe Remedies,  
than from Vesicatories and Fontaneis.

ΙΠ.

But if this Malady takes its Rise from a Stagnation of the  
Blood, which is the Cafe with Perfons of plethoric Habits, of  
florid and ruddy Complexions, of full and strong Pulses, and  
of these who have any habitual Excretions of Blood retained ;  
**I** fay, in these Cases, we are to beware of the afore-mentioned  
Remedies, and must rather begirt the Cure by Bleeding. In this  
. Intention, it is very proper to take Blood from the Feet; but  
’tis still more useful and advantageous to open the Veins of the  
Forehead, and the temporal Arteries ; and, indeed. Nature her-  
self feems to heve pointed out this Method of Cum; for Exam-  
ples have sufficiently proved to tis, that blind Persons, who have  
received Wounds in the Forehead, which were followed by  
plentiful Hemorrhages, have, by that very. Means, recovered  
the Use of their Sight. Leeches may also he ufed at proper  
Seasons, and even applled to the *Anus,* in case anhemorrhoidal-  
Flux is stopn If an Hemorrhage from the Nose should be  
suppressed, a Probe may be thrust up them, in order to bring it  
on again, that fo a speedy and efficacious Vent may be given to  
the Blood.

X IV.

in a *Gutta Serena,* as well as all ether Disorders of the Eyes,  
it is of singular Use to keep the Belly loose, that so the stagnat-  
ing Humour in the Head may be drawn downwards r For this  
Purpofe, ths Medicines to be used should not be strong and  
violent Purgatives, but mild and gentle Laxatives, in Con-  
junction with Corroboratives, of which Kind are the *Balfamica-  
ecphalic* Pills. My balsamic Pilis may likewise prove useful, if  
made up with *Mercurius Dulcis,* and the *Extractum Panchyma-  
gogum* of *Crollius.* Nor are pretty sharp Clysters to be despised  
in this Case; nay, their Efficacy is very considerable, if Cose  
tiveness of the lower Belly should happen to accompany the  
Disease.

**V.**

When the Disorder is very inveterate, and founded on an  
obstinate Stagnation of the Lymph in those Vessels which fur-  
round the OpticNerves, then, after the Ufe of the Medicines  
already proposed, our only Hopes are placed in strong Difcu-  
Dents, especially when used internally ; os which Kind there  
are two, which heve the Advantage of all others; that *Sulphur  
of Antimony* correctsd in the Manner ordered by me, and Cin-  
nabar ; of these two the following Powder may be made; .

Take of native Cinnabar prepared, of Crabs-eyes, of pre-  
pared Arnher, each two Drams; of the volatile Salt of  
Amber, and of Hartshorn, each ten Grainsr Mix them  
up into a Powder, which divide into twelve Parts ; to each  
of which, three or four Grains of the Sulphur of Anti-  
mony may be added. /This Powder is to he taken every  
Evening, and next Morning an Infusion of Balm, Fennel-  
seed, and Valerian-root, is to he drank; and if the Dis-  
temper will not yield to there Medicines,; we are to have  
recourse to a gentle Salivation, by which I have, known  
some cured of an Amaurosis.

VI.

Along with the above-mentioned Remedies, external Dison-  
tients, nervous and balsamic Medicines, are to he ufed ; Qf  
this kind Sternutatories have a remarkably discutient Quality,  
and especially volatile Sal Ammoniac dried, and incorporated  
with Oil of Sage, Oil of Marjoram, and Balsam of *Peru,*snuffed up the Nose ; or, which is still more effectual, Extra#  
of Guaiacum Wood, in the Form of Resin, which remains  
after an Evaporation of the Decoction of that Wood, and was  
discovered by myself. Two or three Grains of this, taken up  
the Nose, excite a Sneezing, and powerfully draw the Phlegm  
from all Parts of rhe Head. - A Bag likewise, stuffed with Vale-  
rian-root. Fennel-seed, and Rose-flowers, and besprinkled with  
the Water called, by the *prench, LiEau d\*Arquebusade,* may  
be applied to the Eyes, or the Steam os the Iofufion, men-  
tioned in rhe preceding Paragraph, may he admitted into them.  
But-, of all other Medicines, my *Balsamum Vitae* is the most  
powerful, when Part of st jS rubbed on the Temples, and part  
of itdropt upon Sugar, ane swallowed down for, hy using jt  
in this manner, I heve often carried off this Sort of Blindners,  
which has not been of a long st-νnding

**I PRACTICAL CAUTIONs.**

Before Cauteries and Setons be nled, the gne- must be  
drained not only of its too great Quantity of Blood and  
Humours, but also of their Impurities ., ane the first Organs of  
Digestion must be cleared of all manner of Impurities: For  
which purpose-Bleeding, mild .Laxatives, Mgdicthes that

dilute and cleanse the Blond, are previoufiy to he used. The:  
same Caution ought to he ofed with regard to Sternutatories;,  
for if they should he admmistered before the Body and Hced are.  
sufficiently purged, they would .occasion a. violent Afflux of  
Humours to the Head but when the Body is duly prepared,  
they are of singular Advantage in the Beginnings of the Disease.

II. ’

Of corroborating Medicines, which are, at the fame tone,  
possest of a discutient Quality, my *Balsamum Vitae* is one of  
the most efficacious against a *Gutta Serena,* especially if it pro-  
ceeds from the falling of a serous Humour upon-the Optie  
Nerves of phlegmatic Patients; in which Case, I have known  
this Balsam applied, upon Linen Cloths, to the Head and Fore-  
head, about the Beginning of the Disease, entirely to remove  
the Blindness. But greater Caution is to he ufed in Bodies full  
of Blood, where the great Quantity and Congestion os Blood  
has brought on the Disorder for, in that Cafe, Temperance,  
and such Medicines as not only diminish the -Mass of Blood,  
but likewise check the Rapidity of its Motion, are most  
proper. .

III. ί - - J'

As to the Use of external Applications, every one must see,  
that they are plainly of no Moment, in a true and inveterate  
Amaurosis, because their Virtues cannot reach the Parts affects  
ed; hut when the Fault is not in the Optio Nerve itself, but  
rather in the Eye, and its Humours, or other Parts, then topical  
Applications are of considerable Importance ; the chief of which  
are, either a Fomentation of the- Decoction of Valerian-root,  
Cubebs, and Fennel-seed, made with. Water and Wine, and  
conveyed into the Eyes, hy means of a Funnel for that Purpose,  
or Cataplasms made after the following manner; . . .

Take of the Roots of Angelica, of Master-wort, and Vale-  
rian, each two Ounces ;. of the Herb Chervil, German  
Leopard’s-bane, of the. Flowers of Elder, Lavender, and  
Roses, each three Pugils, of the heeds *of* Fennel and Dill,  
each one Dram and an bass; cut and beat them to aPow-  
der, which boil in equal Quantities of Rose-water, and  
the Water called by the *French LiL.au AArquebuscade.*

IV.

Sometimes the Cure of an obstinate Amaurosis is most seafon-  
ably and -advantageousty attempted by Hainger and Abstinence,-which are principally conducive to this-Purpose, in impure and  
cacochymic Constitutions, and such as abound with Blood and  
Juices ; hut this Method -previoufiy requires the Patient to be  
gendy, but at the same time effectually, purged. Is a Cure is  
intended this way, the Patient must eat only a little boiled  
Bread, a little roasted Flesh, and Raisins ., he must carefully  
avoid all Wine and Ale, and drink: a Decoction of Sarsaparilla,  
Liquorice, Raisins, and Fennel-seed in which Course be must  
persist foil three or. more Weeks, as the State of rhe Disease  
shall require.

V.

There is great Hope of curing a *Gutta Serena,* which seizes  
young Giris and Children after the Small-pox, the Meastes, and  
other eruptive Disorders; for as the Years of Maturity ap-  
proach, and the Menstrual Disohatges begin to appear, it either  
quits the Patient of its own Accord, or is surprisingly lessened ;  
and at this Season there is particular Occasion for proper Means  
to assist and promote the Menstrual Discharge, a singular Exam-  
ple of which Case I heve given, *Sast. Tom.* 4. *P. j. Cap.* S.

**- - Casts** *stated, and Ansuers.*

A Man, thirty Years old, about six Years ago, exposed his  
Body to a sudden Cold, after he had been over-heated by hard  
Labour, and violent Exercise ; hence be felt a heavy Pain in his  
Hced, and happening, at the seme time, to get a Contusion of  
bis Right Eye, he perceived the Sight of it to be very weak;  
whilst at the fame nine no Fault or Deleft appeared externally  
He therefore had recourse to various Remedies, Vesicatories,  
Fontanels, Collyriums, and Purgatives, but all to no Purpofe.  
Before he had remained two Years in this Condition, be-was  
seined with the Itch, after which the Disorder was also con-  
vey’d to his other Eye ; the Sight of which was not only weak,  
but he also perceived Sparks and Atoms dancing before it, and  
sew every Object double with it. He was besides harassed with  
a prodigious Ringing of bis Ears, greatWeakness of the Stomach,  
Eructstions, and Flatulencies, Costivenefs, and spasmodic Pains  
in his Joints ; his Complexion was of a livid Colour, and - he  
still continued to live a sedentary Life, which called for a fre-  
quent Exercise of the Mind, and much Writing.

REFLECTIONS

This Indisposition deserves the Name of a beginning, and, as  
yet, imperfect *Gutta Serena,* and has its Seat in the Optio  
Nerve, and in the Brain ; for which Reason, no Fault appears

- externally. It arises from the cacochymical impurity of the  
Blood and Humours ; for daily Experience teaches us, that  
People of scorbutic, cacochymic, and cachectic Constitu-  
tions, are much subject to Disorders of the Eyes from an  
internal Cause, and that in them the Distemper is convey'd  
from one Hye to the other. The Itch *os* the Patient now  
under our Consideration, his bad Digestion, his Flatulencies,  
the Pains in his Joints, and the Singing of his Ears, all con-  
cur to prove the bad and corrupted State of his Fluids, which  
was originally brought on by-his sedentary Life, as well as

. the exposing of his Body, when hot, to a sudden Cold : By  
this means also, a Foundation was laid for the Weakness of  
his Sight ; for, in Consequenceof this, the repressedHumours  
stowed more plentifully to the fore Parts of the Brain, and  
his Right Eye happening to be contused. Obstinately crowded

- upon its Nerves, which were now weakened by the Contu-  
sion. It had heen easier to have removed this Disorder, in its  
Insaney, by proper Medicines ; but now it is become invete-  
rate, and has gained so much Ground, the Task-is altoge-

. ther difficult. But I am not of Opinion, that we are, for  
- this Reason, to lose our Courage, or give way to Despair

It is our Business, rather, first to attempt the rendering the  
. Juices mild and balsamic, and then to set about strengthen-  
ing and invigorating the nervous Parts which have been weak-  
ened. The former of these Intentions is answered by De-  
coctions of the Woods, antimonial Tinctures, absorbent and  
diaphoretic Powders, Purgatives made up of-the Gums, and  
- a proper Regimen, with regard to the Non-naturals. The  
latter is answered by Plasters, made with cephalic and aro-  
matic Oils, liquid Balsams, and resinous Gums, applied to  
the Forehead and Temples: Spirit of Wine also, strongly  
impregnated with Camphire, and mixed with; Essence of  
*- Peruvian* Balsam; and,.last-ofall, my *Balsamum Vitee,* are  
proper in this Case. If these Means, for a considerable time  
persisted in, do not answer the Intention , and if the Vital  
Juices are not, by them, rendered sufficiently sweet and hal-  
famic, it will not be amiss to raise a gentle Salivation, which  
- is most conveniently done by Preparations of Cinnabar, or

TEthiops Mineral: However, after sufficiently purging the  
: first Organs of Digestion by the Cephalic Pilis, or any other  
proper Purge, let the .Ethiops Mineral be given every Morn-  
ing, to the Extent of ten Drams, with half a Dram ofSugar,  
and two Drops of the Oil of *Tur Esth* Balm, for three or more  
Weeks, as Circumstances require ; and let the Patient have,  
for his Drink, a Decoction os *China* Root, with Raisins and  
Cinnamon; and use, at the same time, a proper Diet and  
. Regimen. By this Method I have known Persons happily  
. recovered, who, by violent Contusions of the Head, have  
been in imminent Danger of becoming blind, but yet not  
without the Use of Externals. ’

z \_ Casi II.

A Gin!, seven Years old, of a weak and tender Constitution,  
and of a livid unwholfome Complexion, which often assumed

\* a yellowish Cast, fell into a flight Fever, attended with a Pain  
of her Back and Head, and with a Vertigo when she stood up.  
On the third Day, after the Fever seized her, her Skin was all  
covered over with little red Eruptions; to prevent the farther  
spreading of which, temperating and gently expelling Medi-  
cines, together with a low Regimen, were prescribed. ~ Not-  
.withstanding which, these Eruptions sometimes disappeared ;  
upon which Occasion she complained of Shiverings, and some-.  
times broke out again, with an intense Heat of the Skin:  
Besides she complained, especially about the seventh Day, os an  
intolerable Pain in her Head and Eyes ; and when she was after-  
wards cured os this Disorder, she was, all on a ssudden, so  
effectually deprived of her Sighs, that she could see nothing at  
all: No Fault or Defect appeared externally in her Eyes, unless  
that the Pupil seemed to be a little larger, and more dilated, than  
usually. \* .

REFLECTION.

This Disease, which brought on the *Gutta Serena,* was the  
Purple Fever, a Disease much incident to Children, especially  
those of cachectic Constitutions, who, thro’ the Weakness  
of their Stomach, and the Want of Energy in the Bile, Con-  
tract a great deal of impure Serum ; for the Purple Fever is  
occasioned by an impure and acrid Serum, stagnating in the  
small glandular Ducts, which Serum is, by the severishCom-  
motion, protruded into the Habit. If the Quantity of this  
Serum is greater than it should-he, or if the Constitution is  
weak, or, which amounts to the same, if the Patient be  
destitute of such Motions as are necessary for expelling it,  
hence it happens, that a Taint is even communicated to the  
solid Parts by the corrupt Juices, which stagnate here and  
there, and Vellicate them. For this Reason we observe, that  
lingering Coughs, Consumptions, flow Fevers, Diarrhoeas,  
Head-achs and Megrims, not only accompany, but also suc-  
ceed this Disease. Hence 'tis pretty plain, that in the pre-  
sent Case, this Serum falling upon the Head, and especially

- On the Optic Nerves, brought on the *Gutta Serenati* the Cure  
- Of which consists chiefly in purging the Body of the cor-  
- rupted Mass of serous Humours,, which have received a

Taint from the Purple Fever, and in draining them from the  
Head. For which Intention, besides internal Purifiers of the  
Blond, diluting Decoctions, Diaphoretics, and Laxatives, I  
say besides these, Vesicatories. are of singular Service, pro-  
vided only they be applied betimes ; for by drawing the acrid  
Serum to the Skin or Surface of the Body, they rid the  
Head of it. Besides, we are to endeavour by mild and bal-  
samic Stomachics, to restore Strength, and a Vigorous di-  
- gestive Faculty, to the Stomach, that sh a generous Chyle,  
- and laudable Juices, may be generated.

C A s E IHt .

A Girl nine Years old, who during the whole Course of her  
Life had been troubled -with Defluxions of Rheum, Achors,  
and Tumours of the Glands of her Neck, her Nostrils heing  
sometimes extraordinarily dry, was seized with a Vertigo, and  
so great Pains in her Back, and Hypochondria, that a Vomit-  
ing and Head-ach coming on at the same time, she was oblig'd  
to keep her Bed. Growing better in a sew Days, she again  
expos'd herself to the open Air, winch was then very cold ;  
but relapsing, she was seiz'd with a prodigious Vertigo, a  
Swelling of her Face, and a flight Fever, attended with the  
Purples. Soon after, being heated by a strong Commotion of  
Mind, she fell into an epileptic Fit, during which her Teeth  
ground strongly upon each other, her Eyes were fixed and  
staring, her Senses lost, and her Pulse Vehement find unequal.  
About an Hour aster she had recover'd from this Paroxysm, she  
became quite blind, and amidst the exquisite and racking Pains of  
her Head, threw up, by a Vomit, a considerable Quantity of  
bilious Filth. By injecting a Clyster, and administering anti-  
spasmodic, absorbent, and diaphoretic Medicines, her Vomit-  
ings and Head-ach were render'd less, hut her Blindness re-  
mained the same for four Days; on every one of which the  
above-mentioned Paroxysms return'd. When her continual  
Watchings here hard upon her, and her Pains began again to  
rack her Vehemently, in the Evening a few Grains of the Pilulse  
de Cynogloffo were prescrib'd, upon which she had an easier  
Night than usual; and when next Morning, she took in an In- ι  
fusion, by way of Tea, a- little of the Oleum Cajaputi, her  
whole Body was cover’d with a plentiful Sweat; and the all on.  
a sudden recover'd her Sight: But an Hour after the Head-ach  
returning, she was seiz'd with a total Blindness; and next Day .  
all her Spasms and Pains being lessen'd, her Sweat return'd  
with so much Success, that the Patient by means of its long  
Continuance, was, in sixteen Days time, restored at once-to  
her Sight and Health. . - .

RETLE C T I O N.

I. This Cafe shews us what terrible Misphiess may he pro-  
duced by the acrid Serum protruded to the Skin in the Purple  
- Fever, when 'tis retain’d within the Body. It frequently  
happens, that it lies dormant in the Body for some time, and  
only by some accidental Cause begins to exercise its Tyranny,  
sh the present Case, two accidental Causes concurr'd, the  
Commotion of her Mind, and her being exposed to the  
Cold, by both which Violent Spasms were brought upon the  
nervous System ; and the Cold affecting the Skin, the noxious  
Humours were in too great a Quantity driven inwards, and  
. especially towards the Head.

2. The Blindness winch happen’d in this Case deserves to be  
call'd Spasmodic, since by Spasms of the external and lower  
Parts, the Humours, being driven forcibly upwards, affected  
not only the Membranes of the Brain, whence the Epilepsy  
proceeded, but likewise the nervous Membranes of the Eyes.  
Hence it happen'd, that plentiful Sweats coming on, the  
. acrid Serum was evacuated, the Spasms banish'd, and all the  
other Symptoms remov'd.

C A s E IV.

. An Infant, scarce yet a Quarter old, was seined with the  
Small-pox, which not suppurating, nor coming out aS if  
should have done,- disappear'd again in three Days time. Aster  
this, the State os his Health heing bad and inconstant, he was  
frequently troubled with Defluxions os Rheum, and before a  
Year was expir’d, a kind of Hardness appear'd in his Abdomen.  
For removing this Symptom, besides other Medicines, he had a  
Vomit given him twice in one Week, by which spontaneous  
Vomitings, and a Looseness os his Belly, were brought on, and  
continued sor ten Days. Then these Excretions ceasing, the  
Swelling of his Abdomen fell, but a great Weakness succeeded ;  
notwithstanding which a good Appetite, and a Habit of fleep-  
ing well, continued long. Last of all, he was seized with a  
total Loss of Sight, his Eyes remaining, to Appearance, with-  
out any Defect , his Body, tho’ sufficiently muscular for one of  
his Age, was yet so weak and languid, that when he was  
raised from his Bed, his Joints seem’d, as it were, to collapse  
and yield under- him; a Trembling frequently seiz'd -his Lest

Armi his Head fwellid, and it Was with great Difficulty he  
could speak. His Belly was sufficiently Ionin, and his Appetite  
good; but his Nostriis were continuallvdry, and frequent Sweats  
broke out upon him. \_ ' ' ' - '

REFLECTION.

The Cause os the Symptoms, which succeed the Small-pox,  
now at a Stand, is a *serous Plethora,* or a great Abundance  
:‘of thick and impure Serum and Lymph in the Body, which  
is no uncommon Case with most Infants. Hence Defluxions

. of Rheum on the Ears, Nostriis, Eyes, and Head, are not .  
more incident to Persons of any Age, than to infan ts and  
Children. In our. present Patient indeed, the stopping of  
the Small-pox laid the Foundation for the subsequent Train  
of Disorders, for the excrementitious Humours, which in  
- other Cares use to be thrown off by this Species of Exanthema,  
being retain’d in the Body, corrupted the serous and lym-  
phatic Juices; the Pussies not being duly thrust out, by  
reason, probably, of a natural Weakness of the Nerves:  
Hence arose the Catarrhs, and the Hardness of the Abdomen.  
And a Translation happening of the serous Matter to the  
Brain, and spinal Marrow, hence sprung paralytic Relaxa-  
tions of various Parts, as of the Eyes, the Tongue, and the

. Nerves, which go off to the Feet and Arms.

The Cure of this terrible Disorder consists almost wholly in  
’ the Use of internal Medicines, which must be calculated at  
is once to remove the Viscidity, and lessen the Quantity of the  
i Lynrph. I therefore think it advifeuble to proceed in the  
t following Method ; After purging the Body with a sufficient

Quantity of *Cornachinusts Powder,* let the Patient take every  
? Morning os the Powder made of well prepar’d Cinnabar,  
five Grains; Crabs-eyes, eight Grains; and of Mercurius  
. dulcis, helf a Grain. . After using this for six Days, let a

Laxative be again taken. And then, after taking the Pow-  
. der for six Days more, let the Laxative be repeated. Under  
- this Course, let the. Patient have for his Drink a Decoction.  
: of three Ounces of Sarsaparilla Root, of the Bark of Sassa-

fras Wood, three Drams ; of Salt of Tartar, half a Dram,  
boil’d in a close. Vessel with twelve Pints of Spring-water,  
which let him also drink instead of Tea. Let his Food also  
be attenuating, and let him eat no Flesh, but what is roasted,  
and *fine Wheat Bread,* and these too in a very final! Quan-  
tity. After this, for about eight Days, let his Body be put  
ss' into a Bath os common Water, Wheat-bran, and Pot-ash;.

. - aster which, let the Nape of his Neck, and his Os Sacrum,  
he anointed with Unguentum Nervinum.. Internally, let  
- him continue the Ufe *of* the above-mentioned Decoction;

and a little before his Meals, let bain, drink, in order to  
strengthen his Stomach, an Elixir made of the Essence of  
white Burnet, and red Gentian, each half an Ounce; Sweet  
Spirit of Nitre two Drams and Oil of Mace, Cedar, and  
Cinnamon, of each.six Drops. Externally, let him apply to  
his Nostriis the dry volatile Sal Ammoniac, impregnated  
- with the unadulterated Oil of Marjoram. I do not in the  
; least doubt, but the Consequences of mis Method will be  
very good. -

C A S' e V.

Α Boy twelve Years old, fubjmi for some Years past to Ca-  
tarrhs, Heaviness, and a Cough, a moist. Season and Northerly  
Winds coming on, was seized with a Fever, attended with a  
Catarrh, which on the ninth Day was followed with a grievous  
Pain of the Head and Eyes, and at last, a total Blindness. No  
Defect appear’d in his Eyes, unless that the Pupil contraoled  
itself, and the Boy could but just distinguish Light from Dark-  
ness } his Appetite was good, and his Stools were regular enough.  
Aster, therefore, he had laboured a whole Fortnight under this  
Difordcr, various kinds of Medicines being used to no Purpose,  
be was committed to my Care;. and I made ufe of nothing but  
my balsamic Pills to be takenonce a Week, and Linen Cloths  
soaked in my Balsam of Life, apply’d twice a Day to his Fore-  
head and Temples., by -which means, accompany’d with the  
Blessing of Heaven, he in a sew Weeks recovered his Sight  
entirely.

REFLECTION.

This Gutta Serena feems to be only a Bastard one, which arises  
. from a Deflexion of Serum surrounding the nervous Parts,  
- which ferve for the several Purposes of Sight and Vision ; for  
the Optio Nerve, inasmuch as ’tis contain’d in the Brain,  
is in ruch a Case almost free from all Hurt, and as yet brings  
a most subtil Fluid to the nervous Parts of the Fye, which  
being nevertheless compressed on all Sides by the serous Filth,  
become scarce fit for receiving the Rays of Light, and an-  
severing the Purpofes of Vision. Hence, we frequently ob-  
\_ serve, that Infants and Children, who are of too phiegmatic  
- Constitutions, or who are troubled with Defluxions of

Rheum, labour under inch Defects herb of Seeing and Hear-  
ing, in which Case we prescribe Medicines against the Ca-  
tarrh ; but since such Were in our prefent Case used to no

Purpofe, nothing remain’d for us to do, but by corrobo-  
- rating and nervous Medicines, such as my Balsam of Life is,  
. to difcuss the stagnating Juices, and strengthen the weaken’d

Parts. *Hiffinan, Vol.* 3. *Cap. 4.*

*Some Cases referred to in the preceding Dissertation.*

- C A s E L . " ς

A Man thirty, seven Years old, of a sanguine melancholic  
Constitution, had from his Infancy been addicted very much  
to study, and reading in the Night; but had apphed himfelf  
that way in an uncommon Degree, for the last two Years,  
having the Education of Youth committed to his Care: For  
then he study’d till late at Night, and rose again by four next  
Morning. As he took nothing till Dinner-time, except a Glass  
of burnt Wine, and as he used *very* little Drink at bis Meals,  
he was always inclinable to be costive. Having liv’d in this  
way for about two Years and an. half, upon a violent Fit of  
Anger, he was seiz’d first with a Head-ach, accompany’^ with  
a Sensation, which is usually call’d Formication.of After which  
he became suddenly blind,,.with,a Duiness of Hearing, faulter-  
ing in his Speech, and tensive. rPairis in his Right Leg and  
Arm. Baths for his Feet were immediately order’d., and a  
Vein was l open’d in the Left Foot, from which, as well as  
from that open’d in his Left Arm about a Fortnight before,  
no Blood was discharg’d :: Upon this. Scarification upon the  
Nape of his Neck, and the Crown of his Head, which he  
had formerly been accustom’d to, bur which had been omitted  
for the last two Years,- were- prescrib’d ; and for removing his  
Costiveness, emollient Clysters were injefted ; Then his Sight  
return’d in some Degree, so that he could see better by a lighted  
Candle than one sees by the Light of the Moon; however he  
could not as yer read, but still complain’d of small Clouds he-  
fore his Eyes. ) ; ; . u .

I being call’d to a Consultation, prescrib’d this Powder first  
of all: ... - \ . -r

Take of Native Cinnabar prepar’d, Crabs-eyes, and pre-  
par’d Amber, each two Drams; of volatile Salt of Am."  
ber, and Hartshorn, each ten Grains, and mix them up  
intoa Powder. . Let a Dram be taken for a Dose.

. Then I prescrib’d the following Pills;

Take of Mercutins dulcis, and of my Pilis, each one Dram;

.of the Extractum Panchyrnagogum of Crollius, . half a  
Dram *, of* Extract of Castor, four Grains .. Mix ., and  
out of each Scruple make twenty Pills.

The Patient took twenty of these Pills every Morning for  
three Days successively; then for five Days successively, in **the**Morning and ar Night be took the Powder: Then the Pilis  
for three Days more; .then again the Powder; and thus he  
us’d them alternately. -

I also ordered him the following Decoction:

Take of Valerian-root, one Ounce; Balm, one Handful;  
Fennel-seed, two Drams : Cut and bruise them together.  
This Powder is to be us’d like Tea.. The Patient is to '  
receive the Steam of it into his Eyes in the Morning; and  
after taking the Medicines prescrib’d, he is to drink eight  
or ten Cups os the Infusion itself.

I also prescribed him my Balsam of Life, and desired him to  
apply it to his Nostrils,-and anoint his Temples with is. *I* also  
order’d him to take eight Drops of it in the Morning, in the  
before-mentionid infusion. Lastly, he daily us’d Baths for his  
Feet, which reach’d as far as the Calis of his Legs, made with  
Wheat-bran and Chamomile-flowers , and by this Course duly  
persisted in, he in a few Weeks recover’d the perfect Use of his  
Sight.

REFLECTION.

Blindness which comes on suddenly, seems to be a Palsy, and  
is occasion’d principally by the Separation of the Serum  
from the Blood, and its Stagnation about the Thaiami of  
the Optic Nerves, the Compression of which hinders the  
free Influx of the Animal and Nervous Fluid into the  
Optic Nerves : Hence arises a Loss of Sight, the Structure  
of the Eye remaining at the fame time, to all Appearance,  
unaltered ; for outwardly no Fault or Blemish can he dis-  
covered in them. This Stagnation of the Serum proceeds  
principally from the Weakness os the Brain, and too great  
a Relaxation of its Fibres, which renders the Course of  
the Blood thro’ this Part somewhat more difficult .. The  
Blood, in Consequence os this, remaining as it wore pent  
up in the Vessels of the Brain, lets fall irs serous Parts,  
which being thrown together pretty plentifully in some  
Place at the lower Part of the Brain, compress sometimes  
one, and sometimes another. Pair of Nerves ; and either

deprave or quite destroy the. Functions of those Parts, to .  
which the said compress'd Nerves are branch'd out and  
extended. In the Cose now under our Consideration, too  
intense Application of Mind, frequent and too long pro-  
tracted Watchings, together with long and obstinate

.- Griess, had greatly weaken'd the Brain, and the Pairs of ‘  
Nerves arising from it; for such is the Nature and Ten-

. dency of these Things, that when they concur and meet  
together, they render the Patient subject to grievous  
.Head-achs, Melancholy, the Palsy, the Apoplexy, and  
: Drowsiness; to this End contributed alio the Thickness  
- and Impurity *of* his Blood, together with its Congestion  
i in' the Brain, all which Circumstances are to be ascrib'd  
i to his too great Abstemiousness in point of L)rink; this Use  
ι Of Wine in the Morning, the stubborn Costiveness of his

Belly, and his intermitting his usual Evacuations of Blood  
by Venesection or Scarification. We .need not therefore  
wonder, that in such a State of the Humours and Brain,  
the Blood being, by. the strong Commotion of Mind,  
thrown upon the Brain with an uncommon Force, and  
. remaining there, should \_ excite not only the heavy Pain  
\_ in this Head, and Blindness, but also the pungent and  
; dinting Pains in his Right Foot and Arm. But since the

Disorder was not inveterate; but as yet of a short standing,  
; we may easily conceive, that there still remain'd some Hopes  
- of restoring the Patient’s Sight, provided only proper Medi-  
\_ cines should be prescrib'd,-and duly and seasonably admi-  
nistred. , - -. -ί . - , ’ .. -

For answering which Intention, besides Venesection, Scarifi-  
.. cation, and Purgatives, those Medicines are most proper  
i which attenuate and difcuss the stagnating Humours, and  
i derive them from the Head, and upper Parts, to those that  
are lower, and less noble, and which invigorate, and restore  
. the whole System of weakened Nerves. But aS right mer-  
- curial Preparations, and especially those of the ainnabarine  
kind, duly and seasonably admirustred, are Very effectual for  
,. removing the stagnating Lymph, and putting it in a proper

Motion, even in the remotest Parts J and . as this Truth is  
sufficiently -confirm'd, from their Use in Venereal Cases ; I  
have, on this Account, us’d them, and that too with  
remarkable Success, in long and grievous Head-achs, Pal-  
sies, and Epilepsies, not only with an Intention to purge,  
. but’ also to promote a Diaphoresis, .which in the more easily  
brought about, by the Patient's drinking at the same time  
. warm Infusions impregnated with some Substance of a din-  
.. phoretic Quality. Having therefore remov'd the Causes,  
.and attenuated the Humours.stagnating about the Thalami os  
the Optic Nerves, nothing is more proper than to strengthen  
and corroborate the Brain, and-nervous System, by the Use of  
.. the richest Balsamics, as well externally aS internally, and to  
restore their pristine Tone, and Strength,Sto the relax’d and  
weaken’d Fibres ; for which Purposes my liquid Balsam is  
greatly to be commended. From the History, arid success-  
ful Cure os tins Disease, we may. infer, that Mercurials,  
and Preparations of Cinnabar, together .with the Use of Bal-  
.. samics, are-extremely efficacious for removing Bimdness; or  
- the *Gutta Serena,* when:not old and inveterate ; nor is it to

he doubted, but the like Practice would be attended with  
Success in other terrible Disorders of the Head and Brain,  
which proceed from the Extravasation and Stagnation os any  
Quantity of the serous Part os the Blood, provided only such  
Disorders are taken in time. *Hoffman, Consult. Med.  
Cent. s. Sect. i. Cas. Az.* uri ἐνψ - '..so

CASE IL

A certain Gentiewoman forty nine Years old, who had in  
her Constitution a Mixture of Choler and Melancholy, having  
liv’d sixteen Years without a Husband, and had always enjoy'd  
a perfect State of Health,. except from her Infancy, she was  
troubled with a small Difficulty of Breathing. This Gentle-  
woman, happening- to be expos'd, to Colds and Hardships, had  
her menstrual Evacuationa.ver.y- irregular, for the Space of two  
Years;I sometimes they were too copious, sometimes sup-  
press'd for three Months,-and during the last Year they ceas'd  
entirely. Upon this, being often troubled Vyith inflammations  
os her Eyes, she always found means to remove them, till in  
the Month of *December Visqus,* they return'd.1 with double  
Force, accompanied with pungent Pains, and sein'd first her  
Right, and then her Left Eye. Upon this, there ensued a kind  
of Dilatation of the Iris,-and a Dimness osqSight, winch by  
Degrees increas'd to such a Degree, that she became quite inca-  
pable *of* discerning any Object. Her Eyes indeed were free  
from Pain, but not altogether .without'Inflammation; and the  
crystalline Humour os the Right Eye appear’d whiter than in  
its natural State it ought to do; nor. was it as yet plain, whe-  
ther^ Cataract, or a Glaucoma, threaten'd the Patient. In  
the Lest Eye the Pupil only appear'd to be dilated, and the  
Humousa turbid. For removing these Symptoms, Various  
Means were used, fitch as Bleeding in the Feet, .aS well as in  
the Arms, Vesicatories, Fontanels in the Nape os her Neck,

and Antis, Baths for her Peet, Collyriurns, Bags or discutient  
Ingredients apply’d to her Eyes, Purgatives, Mercurials, Sudo-  
rifics. Millepedes, mix’d with native .Cinnabar, a nd. the Spa*w-*waters : But the Symptoms were so. far from being remov'd by  
these means; that they rather acquir'd hew Force, and render'd  
the Patient Very anxious and uneasy. . . .

so-so- R E M A RKS:

Is we look for the immediate Cause os this Disorder, *it* seems  
- to consist partly in a Corruption and Disturbance os the cry-  
-stalling and vitreous Humours of the Eye, which .are natu-  
. rally pellucid, which Corruption in occasion’d hy.an Afflux'  
. pfthiqk and impure Lymph, and partiy in the Optic Nerves  
heing hurt and injur’d ; for these, I mean the Optic .Nerves,  
being compress'd by the Load of impure and stagnating Hu-  
mours thrown upon them, onathat Very Account the Access  
of the nervous Fluid to the Retina is prevented; and the

. Sight being by this means destroy'd, a. Gutta Serena is  
brought on, of which.wd may be convinc’d' by the too great,  
and almost paralytic Dilatation of the Pupil and Iris. Since

. therefore these Symptoms .am'brought on by too great an  
- Afflux of Humours so the Head .and Eyes, and especially to  
those Parts that: are most contiguous to the Brain, which is

'. plain from their Redness, Pain, and Inflammation ;. and  
- since this Afflux was brought on, and is still encourag'd,  
- partiy by the ceasing of her menstrual Discharges, and partly

by her Commotion of Mind; and her being frequentiy expos'd  
. to Colds, great Care must, in the first Place, be taken to free  
. the Eyes of the Humours which stagnated in them, and to

prevent their flowing to the fame Parts for the future’ and  
.; then the nervous and membranous Parts of the Eye are to  
. be strengthen'd, and the natural Transparency Of its several  
. Humours restor'd.

This is no easy Task in this inveterate Disorder; at least, the  
. Means commonly proscrib’d in parallel Cases, such.as Setons, ’

Vesicatories, Fontanels, Mercurials, Collyriurns, Discussants,  
. Sudorifics, and Purgatives, will all be us'd to no' manner of

Purpose : But you ought not for this to lose all Hopes, nor  
: lay aside all Thoughts of recovering the Patient, especially  
. since I find, that such Medicines, aS both from Reason and  
.. Experience I have sound effectual in the like Cases, .have not

as yet been us’d. I would therefore advise, that the Patient  
. should have a continual Seton in her Neck, and that her

Belly should be kept open ; for which Purpose, two Ounces  
of Manna, inixt with one Ounce of Cream of Tartar, and  
taken twice every Week, will he Very proper. She must  
. also carefully abstain , from drinking any Wine or Ale, in-  
- stead os which she must use the following Decoction:

Take ofVipehs-grass, of Shavings of Hartshorn; and ofssar-  
saparilla, each fix Ounces; of Fennel-seed, and of the  
- stellated Aniseed, each three Drachms ; of Liquorice-root,  
one Ounce . Let these be cut, and heat together into a  
Powder, of which an Ounce and. an half is to be boiled in

; ..χ three Measures of Water, for Use. . - -

A Bag fill'd with Valerian-root, Fennel-seed, Rose-leaves, and  
- impregnated with the Water call'd *L’Eau dstArquebufade, is*τ to be apply'd : to her Eyes ;. and sometimes she is to snuff  
: the following Powder up.heTNostrils:

.. Take Of the dry. volatile Sal Ammoniac; one Ounce;  
t' Oil of Sage, Oil of Marjoram,.; and Balsam, of Peru,, each  
.... one Dram s Min for Use. - ...

She .will also probably receive considerable Advantage from  
. an Infusion, by way. of Tea, made of one Ounce of Vale-  
rian-root ; of the Herbs Balm, Betony, .Sage; and Basil,  
each a Handful 5 of Fennel-seed, and Cuhebs, each three  
Drams : The Steam of which is to the receMd into her  
Eyes every Morning; and ten Cups of the Infusion, but  
: less saturated, are to he drank. ' . . ; r ..’ .L’ss -

It will also - be worth the Patient’s while, to take a Dram and  
S ah half *os* the following Powder,, when she is going to  
bed i. - dtiot : : ,..4. . .. - ,

Take of Cinnabar duly prepared,, of Piony-root, of Crabs-  
: ἄκ- eyes, of diaphoretic Antimony, os. prepar'd Amber, each  
τ.two Drams ; and of my Sulphur os Antimony Corrected,  
cί one Scruple: Mix into a Powder. . .. .

Shur must persist in this Course for a Month, and every Night  
χ use a Bath for her Feet made of River-water and Wheat-  
τ .. bran ; but ss these things should not answer the Intention, I  
think, it advisable,..in order to excite a gentie Salivation, that  
. her Ankles and:Knees be twice a Week rubb'd with mer-

. curial .Ointment.. She must, also sit three. Quarters of an  
Hour every Day in River-water boil'd up with Wheat and

-. i ’ Barley-bran 5 luster: .which, she is. to. proceed again in the

: manner above directsd. From this Course, if as yet a Pose '  
sihility of restoring Health remains, I doubt not but the Pa-  
tient will find the desir’d Effects. *Huffman, Cansale. Med.*

*Cent.* I. *Sect.* I. *Case* 44.

*Celsos,* speaking of Venereal Commerce, nives this remarkable  
Advice: *Cavendum ne in secunda valetudine, adverfae perae-  
salia consumantur*; that is. We should he cautious of con-  
fuming wantonly in a State of Health, what should he out  
Support during Sickness.

As I am afraid there are many who do not attend to this Rule  
so much as would be convenient for -them, perhaps the fol-  
: lowing Case may he of some Importance to such as have  
not yet utterly destroy’d themfelves by an immoderate Put-  
- suit after Pleasure, : :

C A s ε IIL

*A Woaknese of Sight proceeding from an excejscve Effaston of the  
Seminal Matter.* - , : . i

A Youth of twenty five Years of Age, of a phlegmatico-  
sanguine Habit, and who, from his very Infancy, had a  
tender Constitution, and a pale Complexion, happen’d in the  
seventh Year os his Age to fall into an Atrophy, and to appear  
consumptive ; which Misfortune was, in all Probability, occa-  
ston’d by his beginning too soon to drink Wine: But getting  
rid of his Disease gradually, he began to grow apace ; and when  
about fifteen Years of Age, learnt of a wicked School-fellow,  
the execrable Trick of Mastupration, a Crime not to he men-  
tion’d, much less to be practis’d, in a Country where Virtue,  
Decency, or Politeness, have the least Regard paid them.  
He indulg’d himfelf in this vile and unmanly Practice very  
frequently, even almost daily, from the fifteenth to the twenty  
third Year of his Age, and applied himfelf at the same time to  
writing in a very stnall Charactsr; by which means he con-  
tracted such an excessive Weakness of his Head and Eyes,  
that these latter were frequently convuls’d during his preposte-  
rous Entertainment. About four Years ago, when he was  
wickedly employ’d in this manner, and bis Design upon the  
very Point of being executed, some Person or other unexpect-  
edly knock’d at bis Chamber-door ; which Accident put him  
in so much Confusion, that the ultimate Scene of his Diversion  
was left unaccomplish’d. Upon this, be immediately felt so  
exquisite a Pain, and so vehement a Tension in his Testicles,  
and Spennatio Vessels, that he could not walk without the  
utmost Difficulty. The Force of his Genius, and the Sight of  
his Eyes, seemed at the fame time to be diminished and im-  
paired. The’ he had- the Danger, with which bis execrable  
Practices threaten'd him, full in View, yet after the Pains of  
**his** Testicles were remov’d, .he was so much-infatuated, as to  
repeat his Crime, and begin afresh his former Course ; but he  
was soon after seiz’d with the like Pain in his Genitals, and  
especially in his Testicles, where the Pain was accompany’^  
with a very considerable Tcofron. By the Ufe of external and  
internal Medicines, for about half a Year, he also got this  
Distordet remov’d, but with forne Difficulty. Soon aster he  
was sein’d with a Swelling in thofe Vessels which go to. the  
Left Testicle. This Swelling appear’d larger than ordinary  
after his Meals, but was not accompany\*d with Pain, unless  
when by his Folly he brought a Stimulus on the Parts:; but  
tho’ it was void of Pain, it was attended with another unlucky  
Circumstance, for it remains with him to this very Day. To  
this was join’d, fo great a. Weakness of his Head and Eyes,  
that when be was about to read any thing, he teem’d to be  
drunk, and Hush’d with Wine. The Pupils of his Eyes were  
extremely dilated, his Eyes themselves rack’d with darting  
Pains, accompanied with forne Degree of Tension. His Eye-  
lids seemed as it were loaded and oppress’d with a kind of  
Weight r in the Morning they were conglutinated together,  
and water’d very much : But this was not all, for both Corners  
of his Eyes, besides the violent Pains with which they-were  
rack’d, were also clogg’d- and stuff’d with a whitish - kind  
of Matter. In this deplorable State he was obliged to give over  
Reading, and interrupt the Course of his Studies, for the Space  
of fix Weeks ; during which Time he only employed himfelf  
in Exercsses and Recreation, and in taking the Medicines  
which were judg’d proper for one in his Condition : By which  
. means he recover’d so far, as to be able to apply himself to his  
Studies, for two or three Hours a Day, which be can .still do ;  
but if at any time he should chance to protrad his Application,  
and lengthen out his Studies, beyond their stated ume,- he is  
immediately seiz’d with the above-mention’d Symptoms. Be-  
sides,. he was become fo lean, that his Body was little more  
than *i* Skeleton, and tho’ his Appetite was good, yet he was  
indispos’d after bis Meals,' and was affectsd with a kind of  
Drunkenness- But when he got a juster Sense of Things, and  
had, for almost the Space of two Years, abstain’d from his for-  
iner Practices, and from all Commerce with Women, he be-  
gan th he troubled with very frequent nocturnal Pollutions;- by  
which he sound his Body: gradually *more* and more weaken’d.

and bis Strength impair'd ; so that now whet seems principally  
to be regarded, is the Removal of this Imbecillity. ’

. ε - R- E M A KES.

We learn from this Account, that Venery, us’d either too  
- foon, or too much, not only impairs the Strength of the

Body in general, but also debilltates the noble Functions of  
the Brain and Eyes, to such a Degree, that the Loss be-  
comes almost irreparable. But what deferves our principal  
Attention in the present Cafe, is the particular Time at -  
which his Eyes more especially hegan to suffer from his con-  
- tioued, and almost daily,- preposterous Venery:- And indeed  
‘ I have bad an Opportunity of feeing a great many Cafes  
where Persons well advanc’d in Years have by immoderate  
Venery, not only brought upon their Eyes Redness, darting  
' Pains, accompanied with Tension, a heavy Sensation; as if. a

Weight was laid upon them, and a frequent shedding of  
Tears, bur likewise such a Weakness of Sight, that they  
were render’d incapable either to read or write; and I have  
sound, that in these very Cases, the Pupil was always dilated,  
- as it is in a Gutta Serena, by reason of the weaken’d or lost  
’ Tone of the muscular and nervous Fibres which surround it:

But why need I stop here ? since I myself knew two Cases,  
' in which a Gutta Serena itself was brought on by excessive  
" Venery, and a long Series of Grief. Hence it appears, how

?:eat and surprising a Consent there is between the Seminal  
arts, or rather the Spirituous Seminal Fluid itself, and the

- Fabric of the Eye, which is compos’d of the finest Mem-  
branes, Nerves, and Muscular Fibres, as well as the most  
clear and transparent Fluids. The Lymphatic Seminal Fluid  
is almost of the fame Nature and Quality with that Fluid  
which is secreted in the Brain; and distributed through all the  
Nerves of the Body; for which Reason, the more plentiful  
the Evacuation of the former is,- the more scanty and defec-  
tive the Secretion os the other in the Brain must os course

’ be. Hence also a Reason may he assign’d, why those Youths  
' who begin too early to taste the forbidden Joys of *Venus,*firstain a considerable Loss of Memory, and are render'd unfit  
for Study; and likewise why Persons farther advanced in

- Years, who are excessively addicted to Venereal Pleasures,  
lose their Strength, and bring on a premature Deatio-

But to return to out Cafes' We find also another observable Cir-  
cumstance in it, which is, that upon his leaving this mon-  
- strous Pradtice, the noctiirnal Pollutions appear’d, the Rea-  
- Ion of which is very plain ; for the more copiolis and fie-  
'quent the Afflux of the Humours, especially of the Seminal

Matter; has heen to the Organs destin’d for Generation,  
- either by the Force of Imagination, or otherwise ; I fay **the**more frequent and copious such an Afflux has been, the more  
the Spermatic Vessels are dilated and relaxed, and the Semi-  
- nal juice, for that very Reafim, flows into them -in a greater

Quantity, and fays a Foundation for those wanton Ideas, and  
Seminal Excretions, which even during Sleep-affeol People

. of a warm Imagination. - ' - *-o... yo*

As for what relates to the Cure of the Disorder now under our  
Consideration, I prescrib’d the following Method, as most  
proper to he pursired: -.:.tatced .: - -- - .... r . *- i*

First, let a Measure of Afies-milke mixed with **a** third Part  
*of the Selter* Waters, he taken every Morning: - '

And at Night I prescribed a Dram of the following Powder *r*

. Take of Hartshorn, philosophically prepar’d, and of Scuttle-  
hone, each half an Oaince j of Amber prepar’d i by the  
Instillation of Oil of Tartar per Deliquium, two Drams ς  
and of Cascarilla-bark, one Drain: Mia up into a Powder;  
to be taken in Black-cherry Water. ' - - -

Before, and during this Cure, and after it was completed, |  
prescrib’d a laxative Potion; in the following Form ; -

Take of the heft Rbuharb, one Dram; *of Manna,* one  
Ounce's of Nitre prepar’d with Antimony,, five Grains;  
Boll-and dissolve over a gentle Fire, in. six Ounces of  
*Sester*Water ; and to the strain’d Liquor add three Drops  
of the Oil of- Cedar;-Med for Use. *- 'so- i.*

Besides, I preserihed for the PatreritS ordinary Drink, this De.

coction/.u.) fed ....... -χἄκχ -:.. -

—. Take; of red and yellow handers, Chien-root, and Vipers-  
grafs, of each four Ounces-; of Succory-root, one Ounce ;  
of Cinnamon, half, an ' Ounce ; and of Mastjch, two  
Drams ; Mix together, and beat into, a Powder, os which  
two-Ounces, together with, a Handful of. small Raisins,  
are to hedheil’d for three Quarters of an Hour, in three

MeafureslonWater. - -

Besides, T ordered him to abstain from salt Aliment, and all:  
**aromatic** Substances, as also from all Liquors of a hot Qua-  
lity ; but prescrib'd him Broths made of Veal, Vipers-grass,  
and succory-roots ; and in the Morning injom’d' him to use

- an Infusion, by way Of Tea, made of the Herbs Mint and  
' Balm. At last the Cure heing completed, I order'd him for  
- some time longer to persist in the Use of the above-melon  
tion’d Decoction, and of rny balsamic Elixir for the Bowels;  
by which means I in fix Weeks freed the Patient from all  
the Symptoms of his Disorder, and restor'd him to his usual  
Health. . *Hoffman, Consult. Mede Cent-. 2.'. Sect.* 3.

*:Cas.* **104. '**

CASE IVY su squsu ς . . E

A Gentleman's Daughter, of Twelve Years os Age, *Catis-*plum'd of Lassitude, want of Appetite, Weakness, and darting  
Pains in her Legs and Arms ; her Colour at the same time was  
livid, and somewhat resembling that of Lead; Eight Days  
after this she was seiz'd with a Shivering,- which-was sue-  
needed by a scorching Heat, and an excessive Pain os her Head  
and Loins. The third Day after this the Meafles; which then  
happen'd to be epidemical, appear’d. She was at the same  
time troubled with a most uneasy Cough; and by reason of  
the continual Pain in her Head and Eyes, could neither steep,  
nor bear the now offensive Light: On the fifth Day the  
Eruptions disappear'd and vanish'd almost from all the Parts of  
her Body, but the Pain of her Head and Eyes remain'd ; and-  
she had been so costivefrom the. very Beginning of the Disease;  
thhe she had do Stool, except when procur'd by a Clyster.  
When the Disease seem’d to be thus upon the Decline, she  
was unexpectedly seiz'd with a prodigious Pain in her Bowels,  
a scorching Heat all over- her Body, Thirst, Weakness; and  
Difficulty. Of. Breathing, upon which the Red-purple Fever;\*  
complicated with white or miliary Eruptions, appear'd, and  
the Pain of her Eyes and Head remain'd obstinate.- The Red  
moval of these terrible Symptoms was attempted by such Me-  
dicines as were Judg’d proper to allay the Acrimony of the  
Humours, carry off the Spasms, and- promote - a gentle and  
natural Eruption : Her Head-ach gradually abating by this  
means, she recover'd, her Health. The Force of the Disease  
being conquer'd, she suffer'd a Diminution Os Sight, which  
gradually increasing, degenerated in a Month's time into-a  
*Gutia Serenay so* that she was now incapable of discerning any  
Object whatever, tho' her Eyes seem’d to be in every respect:  
entire,-except that, the Pupils.appear'd as large again as they  
were in their natural State. Many., approv’d Medicines-were  
prescrib'd for .carrying off this Disorder, but all -to no Purpose.  
But her menstrual Discharges heginning to appear about the  
fourteenth Year of her Age, her-Fryes again became capable  
of discerning a faint and. glimmering Light. - Upon this, I be-  
ing consulted, advis'd, that her menstrual Discharges should  
he assisted and promoted, by mild Balsamins,- that she should  
apply a-gentie Vesicatory for sometime, that her Eyes should  
he frequently anointed every Day with the Fat of Vipers, and  
that-a few Drops of my Balsam os Life should now-and-then  
he given her in her Aliment ; by which mean s her Sight was  
. not indeed totally recover’d, but yet so far- restor’d, as that  
in a certainAttitude and Position of her Eyes, she was able  
to discern Objects, tho' in a very, disadvantageous manner, for  
she only saw. half os them. : In every Other respect her Health  
was good :; and not long ago she entered into a married State. '

R E MAK K S.. Ess .si

In the Small-pox and Mealies, it is always a bad Prognostic,  
. when, the excessive Pain of the Head and Eyes, which usual-  
ly leaves the Patient upon the Eruption, continues through  
all the several Stages of the Distemper ; fur it generally leaves  
terrible Disorders of. the .Head behind it, and in the Case now

. mentioned left the. Patient afflicted with a *Gutta Serena*

. 'which Distemper is, indeed,.fur the most part incurable ,  
but in infants it may he discussed and carried off, and especially

. in young Girls of tender .Constitutions, upon the Appearance  
Of their Menstrual Evacuations, which alter the State of

. their Solids as well as their Fluids, especially jf .Art be brought  
in to assist the Efforts of Nature. *Hoflsenants Medic. Rational.  
Bysternat, Sect.* **i.** *Cap.* 8.- *Obseru.* **I.\_ -**

**/ feet ss .. CASE V. ;.. si***An Amaurosis, from a giobous Tumour in the Brain pressing the*

*Optic-Narves. .* . . . :i

*A Frenchman,* twenty-four Years of Age, was taken with a  
Pain in the Head ; a Fever soon followed, which being over,  
the Reliques of his Head-ach still remained, with Want of  
Sleep, and Weakness of the Head. - At length, his Vision in the  
Left Eye began to be darkened, and a Month alter in the Right  
Eye; and soon after he became quite blind, no Defect appear-  
ing in- his Eyes. Some time aster the poor Man was seized  
with Convulsions, which held him, with Intermissions, during  
the Winter: In the Spring they went off, and were succeeded  
by a Cough,'-hectic Fever, a Spitting of purulent Matter, and

Λ ζ \*. ' ’ - - ’ .ν ‘ -w- \* - *sue\**

a Phthisis, which, after long Molestation, brought him quite  
emaciated to the Grave. . : : ... - . **' τ-**

ί The Body being opened, we discovered the Defect in his  
Lungs, but when we came to open the Skull, and examine into  
the Causp of his Blindness, by inspecting into his Brain, we  
found it moistened throughout with a copious watery Humour,'  
and its Forepart, especially on the Left Side, swelled : When  
we had taken, off Part of it, there appeared a globous Sort of a  
Tumour, like a Glandale, or Struma, included within the Sulci  
stance *os the* Brain, yet separated from it, and contained in its  
proper hard Membrane, with capillary Veins dispersed through  
it. It was bigger than a Hen's Egg, uneven, and shaped like  
a Pine-nut; the inner Substance was white and smooth, resem-  
bling the White of. an Egg’ hardened by boiling: It was some-  
what prominent upwards, in form os an obtuse Cone, but  
wider at the Base,- by which it rested forwards on the Ventricle  
of theBrain, and pressed with its Weight, which was four-  
teen Drams, upon the Origin of the Optic Nerves, which were  
compressed by it/ We concluded this to - he the Cause of his  
Blindness, by intercepting the Passage of the Animal Spirits to  
the Eyes, since there was no visible Obstruction, or Defect,  
either in the Eyes, or Optic -Nerves, *Bonetus, Lib.* i. *Sect,* I8.  
*Obferv.* I. *"sop. . s'*

.. ἐν. .. - ./ ;) EASE VL.. :

*An Amaurosis, caused by a Vesicle pressing upon she Optic Nerve***s,1***: - - : . near the Place os. their crossing.*

Iri the Year I59o; I dissected . the Daughter of a Burgo-  
master of *Holland,* aged eighteen Years. She had laboured  
under a Diabetes for some Years before her.Death, and but a  
few Days before had been seized with this Sort of Blindness,  
in winch both Eyes appeared clear 7 nor was there any visible  
Defect either in the Membranes or Humours, .tho' the Patient  
could not so niuch as perceive the Light of a Candle, when,  
held near her Eyes- ; ’

IJpon opening, the Cranium, I discovered a remarkable Vest-  
cle, which pressed upon the Optic Nerves about the Place where  
they cross; Upon making an Incision in it, there issued about  
half a Pintos Vesp limpid aqueous Matter; for when the Kidneys,  
through Weakness, ..were incapable os attracting what was  
drank, there commenced, by an άνάῤῥωπος, a Regurgitation to  
the Head, by which the Vesicle was sorined. *Bonetus, Lib.* **I.***Sect. IS. Obse Pgr 'si δ᾽*

**..’ - / : C Α \_S E VII. .** *-...cscso..*

In *July* I622, the son of *ussu-Nicolas Blenuet,* a Peasant of  
the Village of *Bietzwyl,* in the Canton of *Saleure,.* by Name  
*John,* about eight Years of Age, fell from a Tree, and received  
three Wounds in his Head, at the Concourse and Connexion of  
the Lambdoidal with the other Suture, but without hurting „  
the Cranium. Immediately he vomited up his Food indigested;  
and lost his Speech and Senses to. such a Degree, that he was  
carried home for dead to his Father’s House; and remained in  
that Condition for forne Days, still vomiting whatever he .  
received. A Barber was sent for. from the neighbouring Town  
of *Biel,* who' only took care to heal the Wounds, not troubling  
himself about Universals ; however, he cicatrized them within  
three Weeks. Tor some time the Symptoms, as the Fever,  
the Nausea; and the Vomiting, were very grievous ; but when  
after some Days they had remitted, and the Patient was restored  
to his Senses, it was discovered, that he was stark-blind ; and  
on the twenty-seventh of *August,* the Father brought ins Boy to  
the,- imploring my Advice. His Eyes, as far as could he dis-  
cerned by outward Inspection, had no manner of Hurt; for  
which Reason I signified to the Father, that the Fault lay in the  
.Optic Nerves, which, from the Very great Concussion of the

Brain, and the Humours herein contained , were obstructed by  
some Viscid Matter; I advised hiin, after sufficient Purging,  
and Application, of Cupping-glasses, to apply a Seton to the  
*Nucha* (Nape os the Neck). The Man carried his Boy home,  
to consult withthis Wise and’Friends about it ; whether he will  
return, I know not; but, to speak freely, I have but little Hopes  
of his Sight: For I doubt not hut the Viscid Matter, confluent  
about the Optic Nerves, which should have been purged out of  
rhe Head, or drawn off to other Parts, in the Beginning, while  
it was yet in Motion, is, by this time, so concreted as to be  
incapable of being removed. *Hildanus, Cent. ζ.OfferV.* 8,  
P.W su 7' δ ' ‘ ' ' '

...'S .Case VIS. ’ ,S:

- In *December* T689, I attended a Woman who had been hap-  
pily enough delivered of a Child a Day and a half before; but  
had entirely lost her'Sight twelve Hours after her Delivery.  
This Woman was of a very full Habit of Body, and had very  
inconsiderable Evacuations during her Travail, aS her Midwife  
sold me, and her Purgations were at this time but inconsider-  
able; besides she had a very great Pain in her Head. Γ therefore’  
had her blooded inthe Foot, as soon as I saw her in thi&Condition.  
This so seasonable a Remedy, in that urgent Necessity, proved  
so beneficial, that the Brain being discharged of the Plethora,

'which was the Cause of that surprising Accident, the Woman,  
recovered her Sight the very next Day. She told me, that a.  
Month before she was brought to bed, she had laboured under  
some convulsive Motions, which probably rendered her more  
disposed to this last Accident, from which she was entirely deli-  
vered by this Blceding in the Foot. But thirteen Months after-  
wards. being again big with Child, I had her blooded thrice in  
the Arm, in the Time os her going with Child, and once while  
she was in Labour, by which Precautions she was entirely pre-  
served from the Return of that melancholy Accidens, and I  
happily delivered her, on the twelfth of *Octobcr* I 69 I, of a large  
Male Child, which came the natural Way. *.Mauriceau, Obse*568. - .

. AMAZONUM PASTILLUS, *The Amazons Trcch, is*thus prepared; -

- Take of the Sceds of Srnallage and Anise, each fix Drams;  
the Tops of Wormwood, four Drams; of Myrrh, Pep-  
per, Opium, Castor, each two DramsCinnamon, fix  
Drams ; make them into Troches, of which give a Dram  
... for the greatest Dose. *Galen* fays, that he used to leave  
. . out the Myrrh, and insteed thereof doubled the Quantity

of Pepper. ' .....

In Pains of the Stomach it is taken in a Quarter of a Pint  
of Wine diluted; for bilious Vomitiogs, in cold Water; to  
chore who throw.up their Fond, if they be thirsty, and have a  
Sensation of Heat about the Mouth of the Stomach, or were  
used to drink cold Water, when in Health, it is likewise pre-  
seribed in cold Water 5 if otherwise, in warm Water; for the  
Colic and Gripes, in a Decoction of Myrtle; and for a dis-  
order’d Spleen, in a Quarter of a Pint of Oxymel. *Attius  
Tetr.* 3. *Sernt.* I. *Cap.* II.

. AMBA, a Name for the Manga," Mango-tree. See  
Manga.

AMBAIBA. This is the *Ambdiba Braselienstbus* of MARG-  
GRAv. *Pisen. Pan Hist. -*

. This Tree is of a beautiful Height, almost perpendicular,  
and in general without Branches, which, in thofe that have  
them, grow only at the Top.

The outward Bark resembles that of a Fig-tree, and consists  
first of a thin ash-colouril Cuticle, under which lies a thick,  
clammy, green Bark. The Wood is white, like that of the  
Birch-tree, but soft, and easy to break. ’

The Trunk is of a moderate Thickness, and entirely hol-  
low front the Root to the Top; and this Cavity is divided, -or  
intersected throughout, at every half Finger’s Distance, by a  
tranfverfc Membrane, in the Middle of which is a round Hole,  
about the Bigness of a common Pea. It is of a Liver-colour,  
and red Ants are always found in it. Towards the Top grow  
**the** Leaves in a circular Order, as in the *AAamoeira* or *Papa-  
tree,* each on a thick Pedicle, two or three Foot long, of a  
Reddish-brown oh the Outside, and spongy within. The Leaf  
itself is broad, round,, and *of* the Bigness of a whole Sheet of  
Paper expanded, and sometimes larger, indented with nine or  
ten Laciniae or Jags, in. whose Centre stands the Pedicle, from  
which a reddish-brown Rib runs lengthways thro’ each of  
the Laciniae or Jags, and many prominent Veins obliquely.  
They are of a very deep Green on the Upperside, and of an  
Ash-colour underneath, and seem in the Whole, fomethingof  
the Colour of Blood mixed with Water, rough like the Leaves  
of the Fig-tree, and havean ash-coloured Line or Border round,  
the Edges *of* the Laciniae or Jags. The Cavity at the Top of  
theTree contains a white, fucculent, pinguiousPith, with which  
the Negroes are very successful in healing their Wounds.

: The Tree receives its Increase in this muainer : At the Top  
there is an oblong, foliaceous, hoary Capsule, which contains  
in it one Leaf, and two or three, or sour lesser Capsules:  
-When the outermost Capsule opens or unfolds itself, the Tree  
is augmented with a Leaf, and becomes sensibly higher. This  
Leaf, even when wrapt up in its Capsule, is of the Bigness of  
a Trencher ; and when the Capfule opens itself, is discovered  
beautifully .folded up, mid . upon its first Appearance, strikes  
the Eye of the Spectator very agreeably, being hoary and of  
a faint-green Colour at the Bottom, and at the Top red and  
shining like *Morocco* Leather, in the Centre: of the Leaf,  
where the Pedicle is inserted in rhe superior Surface, something  
like a reddish Star appears^ adorn’d with faint Streaks of Green  
and Yellow, and is probably the Centre of all the Nerves,  
which being shining and of a fainttyellthv Colour, are longitu-  
dinally distributed thro’ all the Jags. When the outerCapsule  
as open’d, the other lesser ones successively unfold themselves,  
and present us with Leaves of the same Kind.- .... .:

The Flowers corne forth on a short Pedicle from the upper  
.Part of the Trunk where the Leaves grow, and hang four or  
five in a Cluster like so many Sausages. They are of a cylin-  
drical Form, six, seven, or perhaps nine inches long, an Inch  
thick, hollow within, and their Cavities stuffed with Down ;  
they are soft, but towards their Surfaces have Kernels ofa  
brownish Colour; the Flowers falling off. the Kernels grow

somewhat larger, and may he eat, when the’Husks, In whicif.  
they are inclosed, are taken off with one’s Teeth. These  
Trees grow to great Height in a very short Time.-: '.

Without the Assistance of Flint and Steel,- the *Brastsmus*extrahi Fine from it in this manner vThey take the Fruit, or  
rather a Piece of rhe Root of this Tree dry id sufficiently *for*their intended Purpose ; in this they bore a-sinall Hole, into  
which they thrust a sharp-pointed Pieceinf hard Wood., and hy  
giving this a quick and rapid Motion, resembling that of a  
Piercer, whilst they bold the Fruit, er Picce-of the Root fix’d  
by their Fect, the Attrition of the Parts produces such a De-  
gree of Heat, as is sufficient to kindle any combustible Matter  
that is apply’d to it, fisch as dry Leaves of Trees, or Cotton.

It is rarely found in Woods; but is for the most part to bo  
met with in Fields, that have been formerly cultivated.

The fat Juice express’d from the Tops of this Tree, is of  
Use in the Cure of inveterate as well as recent Ulcers. Its  
Leaves, when fresh and tender, or the finer Part of its Bark,  
deterge the Part affectsd, and asswage its Pain. .

The Juice exprefs’d from its Buds, is of a cooling and astrin.  
gent Quality , and when mix’d in a proper Quantity with aMess of Gruel made ofa farinaceous Substance, which *tbnlndiaus*call *Tipioca,* stops such Fluxes of the Belly, as are occasion-  
ed hy a Redundance ofHumours preternaturally hot. It checks  
immoderate menstrual and seminal Discharges; and *Pise* asserts,  
that he has experimentally found it robe remarkably beneficial,  
apply’d by way of Cataplasin to the Navcis of Women, who  
laboured under immoderate menstrual Discharges aster Dell-  
very. *Rail Hast. Plant. . - . -* Ἄ- . - . -

AMBAITINGA. The *Ambaicinga* of *Pisa* and *Marggrave*has Branches of a reddish Colour ; its' Wood is *of* a pretty clofe  
Contexture, and its Leaves, towards their Tops, are of a bright,  
and, towards their lower Parts, of a .languid Green, and at the  
the fame tube Io rough, that some Substances may he polished  
with them instead of a File. This Tree contains’ an oily Li-  
quor of the fame Use and Efficacy with the Juice of- the *Am-  
baiba.* It bears a large but flender Fruit, about aHand’s-breadth  
in Length, and, when ripe, is sweet, and may he eaten. *Bail  
Hist. Plant. . -*

AMBALAM. This is the Name of an *Indian* Tree, call’d:  
also *Manga affines store parvo stellato, nucleo 'majore ofsco.*It is a high Tree, not stretching its Branches upwards, but  
spreading them out pretty far in a transverse Direction. It grows  
in sandy Solis. It has a Iong Root, from which many Fibres  
spring forth.. Its Trunk is so large as to fill the Arms of **a**Man- Tbe Wend of it is soft, and covered with a thick Bark.  
Its large Branches are of an ash, and its fmall ones of a green  
Colour, and hesprinkled with a Dew of a Sky-colour. Its Leaf  
consists of a double Pair of lesser Leaves, terminating with an  
odd Leaf. These lesser Leaves are of an oblong-round Form,  
their Length is almost the double of their Breadth, and they  
terminate in a small contracied Point. They are - of a close  
Contextore, soft, sinooth, and both their Sides shining, with  
a lively Green on the superior Part, but somewhat fainter under-  
neath. From the Middle-rib, the Nerves distribute themfelves  
in tranfverse, strait, and parallel Directions. Many Flowers  
sprout forth at. a rime, from the tender Twigs, that spring  
from the larger Branches. These Twigs, as well as the Leaves,  
are of a bitterish acid Taste, somewhat resembling the Taste  
of the Fruit produced by the Marigo-tree, Their Smell is like-'  
wise strong and acid. The Flowers arc fmall and white, have.:  
ing the Appearance of little Stars, consisting of five or six  
flender, but pointed Petals, which towards their Extremities are  
eontraoled'into'final! Points, anil are somewhat hard and shining.  
In the Middle *of* the Flower, is a.yellow little Heart, which  
is the Matter of the future Fruit, and is surrounded with ten,  
twelve, or more *Stamina,* according to the Number of the  
Petals. These *Stamina* are small, flender, white, and yellow at  
their Tops. From the very Middle of this little Heart five or  
six Points, or, small Styles, arise. When the Buds of the Flowers  
begin to shoot forth, the Tree is stript of its Leaves, and re-  
mains destitute of them all theTirae thcBud is flourishing, bur  
reassumes its Foliage when the Emit appears.

The Fruit hangs in Clusters from the T wigs and Stalks, which  
are long, thick, .pliant, bended, and of a yellowish Ash-colour.  
It is of an oblong-round Shape, hard, and resembling the Fruit  
of the *Mango.* It is of a lively-grcen Colour, when almost  
ripe ; then it becomes yellowish, and'is gratefully acid both to  
the Taste and.Smell. Its Pulp may be eaten, and contains in  
it a large hard Kernel, which almost ’ fills rhe whole Cavity of  
the Fruit, has its Surface wove over in Form of a Net,,’with a  
whitish kind of woody Nerves; and under this Nerds here-and-  
there soft, so that it will yield to .any sharp Instrument; bur  
’tis hard within. This Tree flourishes and bearsEruit twice **a**Year. . ’ .ς . . .

Its Root, us’d by way of Peflary, promotes the menstrual  
Discharge, when suppress’d. Its Bark, reduced to a Powder,  
and drank in acid Milk, is beneficial in *Dysenteries,* which In-  
tention is also answered by its juice mix’d with Rice, of which  
two Ingredients, that kind of Bread, commonly called by the

Natives *Apen,* is made. A Decoction of its Wood is given  
with Success in Gonorrhoeas; audits Fruit, pounded, and mix’d  
with the Juice of its Leaves, asswages Pains in the Ears, if put  
into them.

The *Cat-Ambolam* Io nearly resembles this Tree, that Bota-  
nists have scarce thought it worth their while to spend Time  
In enumerating the Particulars in which they differ: They ..  
only tell us, that the Leaves of the Cat-Ambalam are of a  
smaller Sine, and lofs oblong; that its Fruit is less oblong,  
somewhat rounder and smaller; that it has a bitterish acid Taste,  
and' is not produced in such Abundance as the former; for  
which Reason it is hot so much used in Foed.

Its medicinal Virtues are the sanie with these of the Amba-  
**lain.** *Riiii Hist. Plant.*

AMBAPAIA, the Niune of an *Indian* Tree, called also  
MAMOERA, which see.

AMBARE, *Arnbare Indica,* Gate. Acost. Trag. *Ambores,*. .Cast. *Arbor Indica, foliis juglandis, fructu nucis rnagultndine,***C.** B.

It is a large and thick Tree, growing in the *Indies*; its Leaves  
are as large as those of the Walnut, but *of* a clearer Green,  
- beautify’d with many Veins or Nerves; it hath small white  
Flowers; its Emit is as large as a Nut, green at first, having a  
strong Smell, and a rough Taste; but as it grows ripe, it ac-  
quires a yellow'Colour, an agreeable Smell, and a pleasant  
acidish Taste; it is full of a hard cartilaginous Pulp, interwoven  
with many little Veins; they season it with Vinegar and Salt.  
It creates an Appetite, and precipitates the Bile. *Fernery de  
Dregiiss. " . ”" s ‘ ’*

AMSARVALIS, this is the Flower of an Herb, which  
flourishes at a particular Season, when Processions are made thro\*  
the Fields. It seems to have received its Name from the *Latin*Word *Ambire,* Blancard. Lexic. The Author here means  
the Flower’of the Herb called *Poly gala,* or *Milkwort.* See  
POLYGALA.

” ΑΜΒΕ,νὰμβη. a ctiirurgical Instrument, taken Notice of  
by *Hippocrates* in bis Treatife *de Articulis,* Sects 6. Of this  
**I** have given a Figure from *Haester, Tab.* 3i, *Fig.* 4, 5.

This Machine consists of a Fulcrum A A, and a moveable  
Lever B C, .which is brought under the dislocated Shoulder,  
and fittedto it by Deligation with several Fillets, as you fee  
represented Fig. 5 . This done, the Extremity B of the Lever  
is warily and leisurely to be pressed downwards, which causes  
the other Extremity C -of the Lever to move upwards ; by  
which means the diflocated Arm will be extended, and its  
Head, which had flipped out of Joint, will be gently forced up  
into its natural Place. This Operation has been so frequently  
'successful, that the Machine acquir’d a great Name, and is to  
this Day called the *Arnbe of Hippocrates.* But the’ in those  
Cases where the diflocated Arm is protruded downwards, it has  
oftentimes been eminently successful, and may still he so ; yet  
when the Head of the Shoulder falis either on the Inside or  
Outside of the Scapula,, as is generally the Case; and since  
"this Machine only elevates strait upwards, it often fail’d of  
affording the Help required ; nay further, if the asorefaid Head  
should, by the Strength of the Mufcle, or the Violence of the  
Luxation, be protruded with uncommon Force to the hinder  
Part of the Scapula, it will not sufficiently extend, hut violent-  
ly compress the Head in its Motion against the lower Margin  
of the Pit of the Scapula, to the manifest Hindrance of its  
Restoration into its natural Place; and at the fame time may  
bruise, and occasion acute Pains, sorwhich Reason, to omit other  
Defects at present, it has long lain neglectsd by many, or  
rather wholly thrown aside. *Heister, P.i. L.* 3. *Cap.* 7. vi.

*Galen,* in his *Exegesis,* explains άμβη by οφρυώδης έπανάστασις,  
an Eminence like a Border; and fays, that the whole Machine  
takes that Name, because its Extremity runs out with an Edge  
like the tip or Brim of a Pot towards the interior Cavity,  
which, as well as the Edge or Border of any thing on the Top  
or Extremity, are signify in by the Word ἀμβη. *Ambe.*

Of ail the ways of restoring a Luxation of the Shoulder, the  
best is what follows: Let there be a Piece of Wood of the  
Breadth of four or five Fingers, and about two Fingers, or  
somewhat less, in Thickness, and two Cubits, or a little less,  
in Length, having one Extremity round, and very narrow and  
stender inthat Part. From the Top of the round Extremity,  
let there be a Lip [άμββ] a little prominent on one Part, which  
must not be towards the Ribs, but towards the Head of the  
Arm, under which being placed, it ofay be fitted to the Arm-  
pit close by the Ribs. The Top of the Piece ought also to  
have forne Linen, or soft Filleting, glued upon it, to render it  
more easy. Things heing thus prepared, the Head of the Piece  
must be intruded under the Armpit, between the Ribs and the  
Head of the Arm, as far inward as possible; after which the  
whole Armis to be extended on the Wool, and tied to it above  
the Cubit, at the Cubit, and at the Wrist, thet it may rest  
.thereon with the greatest Firmness. But we must principally  
endeavour to intrude the Head of the Piece as far as may be  
under the Armpit, and beyond the Head of the Arm. This

done, a final! Benin is to he sinnly tiod across two Posts, upon  
which Beam, the Arm; with the Wood to which it is fasten’d^  
insist he, laid in such a manner, that rhe Arm shall be on  
this Side, the Body on the other, and the Beam under the Arm-  
pit. Then the Arm with the Wood is ro be pressed down on  
one Side os the Beam, and the rest of rhe Bodv oh the other.  
The Beam is to he ty’d so high, that the Body may stand on  
Tiptoe.

This is by much the best way of setting the Shoulderfor the  
Operation is exactiy by way of Lever, provided the Wood  
enters beyond the Head of the Arm, the Librations on either  
Side are very just, and the Bones of the Arm inpersect Secu-  
rity. . Fresh Luxations are restored with, a Quickness beyond  
Imagination, and hardly give room for Extension; and as for  
inveterate ones, this is the only way to cure them, unless thro’.  
Length of Time, the Socket, that should receive the Head of  
the Bone, be filled with Flesh, and the Head of the Arm, by  
long Continuance under Luxation, has worn itself a Place!  
Yer I am apt to think, that an inveterate Luxation of the Arm  
will give way to this Operation ; for whet will the Power of  
the Lever not move ? the’ I don’t believe the Bone then restored  
would abide in its Place, but flip out again as usilal.

The same Effect, after a like Preparation, would be pro-  
duced by Depression over' a Ladder, and the *Thofsalicrn* Chair  
would ferve very well for a recent Luxation. The Piece of  
Wood must be prepared as before, and the Patient placed Side-  
ways in the Chair, and the Arm with the Wood stretched over-  
the Back of the Chain; then on one Side the Body' is depress’s,  
on the other the Arm. with the Wood ; .and the like may be  
effected over a folding Door, either of these Methods may be  
used as Occasion requires. *Hippocrati* περὶ ἀρβρων.

AMBELA, the Name used by the *Turks* and *Perstans,* for  
a Tree thus distinguished .

*Arbor exotica, fructa racernese, Charamais dicta,* C. B.  
*Charamei Acosta, folia ppri,* J. B. *Cbnramaei.* Purging cord  
Del’d Hasel-nuts. ’

There are two Kinds of this Tree, called *Charamei* by all  
the *Indians* generally ; but the *Perstans* and *Arabians, Arniela.*Theone is as great as the Medlar-tree, with Pear-tree pale great  
Leaves, and yellowish Fruit, somewhat like to Hasel 6r Fil-  
berd-nuts, ending in sundry Corners, of the Taste of four  
Grapes, yet more pleofant, which they pickle up as well ripe  
as unripe, and usually eat them with Salt. The other Kind is  
of the same Bigness, hut hath lesser Leaves than the Apple-tree,  
and a greater Frais, which the *Indians* use, being boiled with  
Saunders, and give the Decoction against Fevers. The Bark  
os the Root of the former Kind, which groweth by the Water-  
sides, is chiefly used (so aS it grow far from the. Sea) which  
yieldeth Milk, by taking four Fingers Length thereof, which  
being bruised with a Dram of Mustard-seed, they give to there  
thet are pursy and short-winded; for it purgeth mightily both  
upwards and downwards: But if a Super-purgation chance  
thereupon, they give one of the Fruits of Curambolas to help  
it, or else a Draught of the Vinegar of Canara (which is nothing  
else but the Decoction of Rice) set by fora Day, two or three,  
until it grow sour. The Fruit is familiarly eaten through all  
Parts, unripe as well as ripe, and pickled, or eaten with Salt  
and Vinegar to procure an Appetite, putting it to their Meat  
to give them a Relish, by reason of its Tartness. *Parkinsen’s  
Herbal, P.* 1638.

AMBERBOI, the *Turlstse* Name for the Cyanus Orientalis  
Odoratus. . *Sweet Sultan.*

Mr. *Vdillant,* in the Memoires of the Academy of Sciences  
for 17 IS. enumerates the following Sorts of Amherboi:

*Amherboi store purpureo odorato. Cyanus stsridus odoratus  
Turcicus, five Orientalis, major,* Pario. Theat. 48I. The  
Purple Sweet Sultan.

*Idem store incarnato odorato. Cyanusstoridus odoratus Tur..  
cicus,seve orientalis, major, flare incarnato.* H. L. Eat. & J. R.  
Herb. 446. Sweet Sultan, with a pale Flower.

*Idem disco candide, cum corona dilute Ianthina,* D. Lippi.

*Idem store albo. Cyanus fioridus odoratus Turcicus, seise orien-  
talis, major, store alba.* H. R. Par. The white Sweet Sultan.

*Idem stare luteo odorata. Cyanus fioridus odoratus Turcicus,  
five orientalis, maser, store luteo.* H. R. Par. The yellow Sweet  
Sultan.

*Amberbsi alterum, store purpureo, cum corona amplistima.  
Cyanus orientalis alter, stve Coastantir.ppolitanus, fistulose pur-  
pureo store.* H. R. Par. & J. so Herb. 446. *item. Cyanus  
peregrinus, ArnberbcistveErnberboi dictus.* Arnbros, IS7. & J. R.  
Herb. 446.

*Idem store candicante, cum corona amplistima. Cyanus orien-  
talis alter, seme Coastancinppolitanus stere ststulose candicante.*H. R. Par. '

*Idem store lutes, cum corona amplistima. Cyanus orientalis,  
store luteo stjlulose.* A. R. Pan 75.

*Idem sallis magis dissectis. Cyanus orientalis major, foliis  
magis dissectis, sure luteo, ex Aleppo.* Hist. Oxon. 3. I 3 5.

*Aniberbst erucae folio, majus. Jacea follis erucae lanugino-*sa. J. B. Heth. 4-4. *Jacea major exotica, ad foliorum  
margines fplaulis donata.* Plain. Tain 34. Fig. 3.

*Amberbci erucae salia, minus,* D, Lippi.

Monsieur *Lippi* found this last Sort betwixt *Alexandria* and  
*Rosetta.* There is a Figure of ir jn the Mernoires of the Royal  
- Academ, of Sciences forI7I9. with the following Description: -

The lesser Rocket-leav’d Amherboi has a single Root a little  
bent, two or three inches in Length, about the Thickness of  
two Lincs at the Neck, insensibly diminishing till it comes to  
end in a Thread, and from Space to Space shooting fojth capil-  
lary Fibres. The Bark is of a dirty White, covering a llgne-  
ous Substance of a whiter Colour.

From this Root arises a Stalk from nine to eleven Inches in  
Height, fending forth Branches at Intervals ; it is about two  
Lines thick at its Origin, lessening by Degrees to the Extrer  
rnities of the Branches and their Sprays, which have no more  
than a third, or a quarter of a Line in Tbickeess. ’ This  
Stalk is solid and substantial, os a pale-green Colour, stigbtly  
striated in its whole Length, ansi hespread with dirty white  
Hairs, the longest of which don’t exceed a Line. When cut,  
the Inside appears of a clearer Green, and whiter than the  
Bark.

r The Leaves of this Plant are of a muddy Green, decply  
enough colour’d above, hut paler under. They are almost flat,  
thin, without a Pedicle, disposed in alternate Order, and co-  
vered with whitish Hairs. The great Leaves adorn the Bottom  
and Middle of the 'Stalk, and the principal Branches; the  
smaller Leaves set off the rest. All the Branches, and smaller  
Boughs, proceed from the Bosom of a Leas. Among the great  
Leaves, which well enough refernble these of a kind of Rocket,  
some are three Inches or three inches and a half in Length,  
and an Inch, or fifteen Lines in Breadth, being very deeply  
jagged on each Side, some into four, others into five Lobes,  
from six to seven Lures in Length, and from three to four in  
Breadth, each indented also in several Places, a little rounded,  
and terminating in a yellowish-green, and, as it were, dry Point,  
which is very short, and not prickly. The two great Lohes,  
which jointly terminate each Leaf, are also indented like the  
others. The-wavy and indented Wings, which are observed  
' in Iorne Places of the Stem and the Branches, seem to belong  
to thefe Leaves, being nothing but Appendages to their Lobes.

' Most of the small Leaves keep well enough the Figure of the  
great ones, though their Lobes are not fo much indented.  
Among the Leaves, that adorn the Tops of the Branches and  
Sprays, some are from two to nine Lines in Length, and from  
bass a Line to a Line and half in Breadth ; some of them also  
have a single Indentment, others have none; but are entire,  
resembling the Leaves of Linaria (Toad-fiax).'

The main Rib of all thefe Leaves, as well as the Fibres,  
which it communicates to their Lobes, are of a whitish Green;  
they form Ridges above, and rounded Ribs underneath.

The Flowers have hardly any Smell, are of a gridelin Co-  
lour, and are surrounded with hermaphrodite Fleurets. The Stalk,  
Branches, and Sprays, produce no more than a single Flower  
at each Extremity, which is distant sometimes six Lines, some-  
times an Inch and half from the last Leaf.

The Diameter of each Flower is about nine Lines, *of* which  
the'Disk commonly takes off two Lines and an half, or  
three Lines. The Dilk consists of fifteen or eighteen regular  
and hermaphrodite Fleurets, three Lines long, standing out of  
the Calyx two thirds of a Line, which is nearly the Length of  
the Indentments of their Pavilion, and the half of their Depth ;  
the other haff, which is white, and their cylindrical Tube,  
which is about a Line and half long, and almost one fifth ofa-  
Line in Diameter, are sunk within the Calyx. The Pavilion ’  
is also cylindrical, cut with five equal jags, of a gridelin Hue,  
opens *very* little, and is no more than about half a Line in Dia-  
meter. she Extremities of the five Cuts, or jags, roll and  
curl up on the Imide. From the lower and inner Part of the  
.Pavllion, arise five Stamina, whose Apices unite in one cylin-  
ilrical striated Tube, a Line and half in Length, and a quarter  
of a Line in Thickness, sunk half a 'Line within the Mouth of  
the Pavilion: This last is white, but the rest, which appear  
above the Mouth, is of a purple Colour.

The Bottom of each Fleuret rests upon a white Ovary,  
about half a Line high, and a third of a Line thick, the Hced  
of which is adorned with an antique Crown, which is much  
about the seme Height. From the Head of the Ovary proceeds  
a capillary Trunk, which passing through the Fleuret, and the  
Tube, comes out at last from the latter about bass a Line, in-  
chiding its two Horns, which are of a gridelin Colour.

Ten or a dozen barren and irregular Fleurets, resting each on  
a falfc Bud, commonly form the CrOWn of thjs Flower. The  
Tube of each Fleuret is white, cylindrical, of the Length of  
two Lines, and above one fifth ofed Line in Diameter, wholly  
funk in the Calyx, and terminating in a Pavilion, from three  
and a half to sour Lines in Length, and tWO in Brcedth in he  
. Fore-part. This Pavilion is a sort of a Month, almost close.

whose upper Lip is regularly cloven on this Side the Origin of  
die Pavilion, into three Laciniae nearly equid, and sometimes  
into two. Tine lower Lip is entire, more'short, though in-  
considerably, than the upper, and a little wider than its Divi-  
sions.

The Placenta is cover’d with white Hairs, of the Length of  
two Lines, or two Lines and a half, amongst which theOvaries  
are lodged.

All these Parts are contained in a fcaly Calyx, shaped like **a**Pear, about four Lines in Length, and two and a half or  
three Lines in Diameter in its thickest Part, which is towards  
the Base. The Scales are oblong, entire, green on the Back,  
white on the Edges, covered with whitish Hairs, and termi-  
nating in a little dry Beak, about a Line in Length, and of  
the Colour of Wood, whose Basis is brown. These Scales  
shine like Silver, on the Side towards the Cavity of the Calyxl  
The largest are not above two Lines and a half in Length, from  
the Beak to the Unguis or Bottom, and almost a‘Line in  
Breadth, , , - . i.

The Ovaries, when throughly ripe, are ofa conic’Figure, of  
the Colour of Wood, hairy, chanelled according to their Length,  
which is no more than a Line, and not half *so* miich in Diameter  
at the Base, which supports an antique Crown. This. Crown  
is open a Line and half; its Rays are white, shining, unequal,  
the longest heing two thirds of a Line, and the shortest only  
a fourth Part. At the Point of the Ovary may be observed a  
small Cavity, in which was articulated a fistulous Nipple,  
whence proceeds an umbilical Cord, which affords Nutriment  
to the Seed contained in that Ovary. .... . ... ~

This Piant is annual, flowers in *June* and *July,* and yields  
ripe Seed at the Beginning of this last Month. '

Having chewed the Leaves, I found them at first of a dis-  
agreeable Taste, after which, they left somewhat of an acid  
Savour in the Mouth. .. .... ,

The Juice - of the Root, Leaves, and Flowers, turns blue  
Paper red. *Memcires de lAcad. Roy. des Scienc. siseg. -*

AMBIA *slstofiard.* Is a yellow liquid Bitumen, smelling  
like *Tdcarnahaca,* it flows from a Fountain situated .hear the  
*Indian* Sea. ' ..... \_

It is resolutive, strengthening, and lenitive j it cures Tetters,  
and the Itch ; theyalfo use it against cold Humours,; it has the  
fame Properties as the Gums Catarina, and Tacarnahaca.  
*Lemery de Drogues. - .*

AMBIDEXTER, ἀμφιδέξιος. It imports the being as  
strong, ready, and adroit, with the Left Hand, as with the  
Right, as if the Person had two Right Hands. This, *Hip-  
pocrates* pronounces, never happens to Women. *Aphsr. epla  
Sect.* 7. ' ." ’ . -

AMBLOSIS, ἀμβλωσις, a Miscarriage. See AsoRTUs./  
AMBLYOGMOS, ἀμβλυωγμος, from ἀμβλὑς, dull.' Dim-  
ness of Sight.

This Word is frequently made use of by *Hippocrates.* Thus  
in his Book of Prognostics, he takes Nonce of this Dimness of  
Sight, together with Coruscations of Light seeming to dart be-  
fore the Eyes, amongst the Symptoms of an approaching He-  
morrhage, in continual Fevers, and genuine Tertians. Again  
*(Praedict. L.* **I.** 18.) he mentions a Noise in the Ears, accom-  
pany’d with *Dimnefs of Sight,* and a Sense of Heaviness' at the  
Nose, as the immediate Forerunners of a violent Delirium in  
a burning Fever.

Sometimes this Author makes use of the WordascaAvaardr,  
Arnblyoftnos, to express the fame thing. *Galen* indeed explains  
ἀμβλυωσμὸς. a Miscarriage ; but *Foetius* thinks it a Mistake for  
ἀμβλωσμὸς, Amblosiaos, in which he seems to be right.

AMBLYOPIA, ἀμβλυωπία, from ἀμβλὑς, dull, and ώψ,  
' the Eye. In *Hippocrates* it signifies that Dimness of Sight  
which old’ People are most subject to, and in this Seofe it is  
ufed *Aph.* 3I. *Sect.* 3.

But *Paulus* and *Actuarius* **use** mis Word to express an  
Amaurosis, or Gutta Serena.

The ἀμβλυωπία, *is an Hiebetude, or Dulnese of Sight,* which  
has a manifest, but not visible Cause. For since neither the  
Tunics nor Humours of the Eyes appear to be alter’d, the  
Fault must necessarily lle in the Defedt or Interception of **the**visual Spirits, caused either by a preceding Preclusion or Ob-  
struction of the Nerve, that convey’d the Light, **or the**Brain being in part disorder’d; any of which Causes is suffici-  
ent to stop the Course of the Spirits: Whence the Eyes are  
in the fame State as Candles, which are full and complete in  
all the necessary Requisites, and want nothing but Light to  
illuminate them. *Actuarius de Meth. Med. Lib.* a. *Cap. y.*

AMBON, αμβων the Edge, or Margin of those Cavities  
or Sockets, into which the prominent Parts of Bones are in-  
serted in forne Sorts of Articulation, as in that of the Femur  
into the Acetabulum. *Castellus.*

AMBRA is the common Name which the *Italians and.  
French* have for *Succinum* or *Electrum. Ambra* also is the vulgar  
Word, which the fame People ufe, to signify what the *Arabians  
ccsssAmbar i* hut this is a thing fluite different from *Succinum.*

Therefore, though they would have the same Name to belong  
to them both, yet, for Distinction sake, they have of late  
called this latter Kind of Ambra, *Ambergrise* (Ambra grisea).

Whence this Term *Ambra,* used by uS for *Succinum,* is de-  
rived, I know not; for the *Arabians* call it *Karabe,* as you  
find it in an old *Latin-Arabic* Glossary, *Karabe Succinum.* A  
*Saracen* Lexicon in the *Vatican* has it, Κἀραβε, τὸ ἤλεκτραν.  
But there it is also written κέραμε, and in another κάραμε. *Avsu  
sena* assures us, that it is *Persian* Word, which signifies *an  
Attractor os. Straws,* so indeed it is in the *Latin* Tranflation t  
But *Avisma,* speaking in *Arabic,* does not say, that it is a *Per-  
sian* Word; and the *Arabic* Term in his Book is written  
*Kcrabe,* with *Kef,* not *Kaf,* aS it is in the old Glossary. He  
fays, that it attracts Straws, and Bits os rotten Wood, and  
thence took its Name in *Arabic, Kerabe,* which' signifies *an  
Attractor os.Strauss. . .. .*

The *Greeks,,* however, \*-tis certain, called Amber ρθρπαξ,  
*" Harpax,*on-the fame Account. *Pliny, Lib..* 37*Cap. -y.*says of Amber: " In *Syria* the Women make Whorles of it,.  
“ and -call it *Harpaga,* "Snatcher,” because it snatches to  
" itself Leaves, Straws, and Edges of Garments. "

That Amber is a Species of Bitumen, is generally agreed ;  
and *Car* too by the *Arabians* is reckoned among the Kinds of  
Bitumen.- *Alchar,* or *Alchir, vss Alpagus,* -is the Matter of a:  
natural Vein, 'fluid, .and like Pitch, which bubbles out of ther  
Earth, like Water- out of a Spring, in the Country of *Bagaded*and as soon as it gets above Ground, becomes thicker than liquid  
Pitch,- being condensed- by the cold Air; -the *Arabians* com-  
monly -call it *Char.* He plainly describes to; us some , liquid  
Bitumen, or Naphtha. - The fame Author, -under the Word  
*Kir,* or *Ear,* informs us, that it is something which is like.  
Pitch, that it flows -from Springs -in the Territories of *Bagaded,*and is the same aS *Chur,* or *Kur,* to winch Word he refers us.  
*Car, Qr Adkar-,*is -the *Naphtha,* which the Antients inform  
us, issued out of Springs in the Country about *Babylon,* after  
the manner.of liquid Bitumen. In *Arabic* it is called*Kar,* or  
*Alkar,* and is the very same with νάφθα, (Naphtha) and called:  
by the *Arabians* also *Nafthi* As-to- the Opinion of *Alpagus,*that *Kar io* the fame with. *Chur,* I don’t 'doubt hut it was  
commonly so pronounced. For aster the same manner they  
say *ujsuch* -instead^ of *asseach, aud'usuen* for *as.nan,* and so.of am  
infinite-Number-of others. But .under the Word *Chur,* to  
which he referred us for-a fuller Explication of *Ear,* he ex.-;  
pounds it, according to.the Opinion-of the *Arabian* Interpreters,  
to be the Sordes, that stick to the Walls of Bee-hives. . This  
*Kur* is quite a different thing from the *Kar,* which is a kind of  
liquid Bitumen, and is written otherwise; *vioo. Kaar,* with  
the middle Syllable *Ain,* not *Eliso* They call the προποχις,  
(Bee-glue) of the *Greeks,* and Wax itself, , by that Name,  
which may seem to be derived from Κηρὶς, or Καρὶς, " Ceros,  
" or Caros. ” *Belhcnensis,* at the same Passage, adds, that ac-  
cording to foine Writers; *Ear* is to be taken for Bdellium, in the  
fecond Conon of *Avisena,* in the Chapter of *Dadi,* where he  
says, that in its stead, there were put two thirds of a Pound of  
*Isur:* But in the *Arabic* you don’t read *Fur,* but *Lux,* or  
*Laux,* that is, *an Almonds,* instead of which, the Interpreter  
feems to have read *Kur,* which in that Place can signify nothing  
to the Purpose. 1 *Kur* as a *Furnace,* or *Fire-place,* and some  
rake it fora Hive-'; shut a Hive is called XouWrim,ithe0PlUral os  
which is *Kouvaraih*; from whence perhaps, the later *Greeks*have ufedilitdurtht, and Κύβερτον, (Kuberte, and Kuberton) for  
a Bee-hive. *Hes.ychius*.- Κὑψελον, Κυβερτον μελιατῶνγνο" -Capse-  
*" lus,* aHive-os Bees." But the Sordes which sticks to the  
Walls of Bee-hives, is not called *Kur,* but *Kar.*. .Some render  
it *JPax.* But. the Propolis, or Sordes of Bee-hives, is by *Andr  
sona* called *Almum,* of-which he makes t wo Sorts, the *Pure,*and the *Black.* The pure *Murn* is spoken of the waxen.Celli  
in winch the Bees stow their Honey ; and this is the true Wax.  
Hence an antient *Arabian* Author interprets the Κηράς of Di-  
*eseoridesty Alrnurn.* Others call Wax *Xernba,* which was the  
Name given by some to the *Propolis* of the *Greeks,* called by  
*Avisena, Almum alasuad,* " black Mum, " that is to say,  
*black Wax.* This is a Substance sound about the .Mouths of  
Bee-hives, and may be said-to be Κηροειδὴς, " somewhat like  
" Wax,rather than Κηρὶς, "Wax.” -

To resume our Discourse -on the *Farahs,* or *Succinum,* it  
has a great Agreement with Bitumen. *Serapion,* we know,  
speaking- the Opinion os some Authors, says, that the Bitumen  
Judaicum was called the *Karabe os. Sodom,* and was the Gum  
of-Funerals. This was the Asphaltum, or Pissasphaltum, which  
they used about the Bodies of the Deceased, and called *Mumia..*And because Carcases, especially those of the poorer Sort, were  
embalm'd with Bitumen, hence one Name came to serve both  
for the Bitumen and the Funerals, of which it was a principal  
Part of the Apparatus. *Strabo, Lib.* I6. Χρῶνται *F gulyuriprit-  
vosodeigulifoe-majbs rde ragiysucu rde ndapiiv.* " The *Egyptians*" use Asphaltus for embalming of the Dead. " The *Mumia* of  
*Avisena* is the Pissafphaltus.

: I was once of Opinion, that the Word *Mumia,* for a  
Funeral thus prepared, was a Corruption of the *Greek csucsua.*

" Amomia; ” for the Antients did, for the most part, etii-  
balm Carcases with Amomum. Hence we meet with *Trifle  
Amomum, “* mournful Amomum, " in *Statius;* and *Crajsii  
lutatus Amomis,* " bedawb’d with thick Amomum," in *Per-  
sius,* of the dead Body placed in order to bo carry'd forth ;  
and in *Ovid* we read *Os.su Pulucre Amomi condita,* fi Bones  
" seasoned with the Powder os Amomum." The old Scho-  
liast also, in a very antient Copy of *P. AEgineta,* at the Word .  
ἄμωμον, " Amomum, " remarks, that it is what the *Arabians*commonly call *Momia,* ο λέγεται μόμις. In *Myrensius*

μουμία, " Mumia," signifies the Sanies of a human Carcase.  
In his Antidote *Athanasia, ait Pa.* άνθρώπκ τεθνεῶτος- ἐν δἐ κέ-  
*xlumlat oras Ίταλόϊς pensita.. “* The Blood or Sanies *os* a dead  
" Person is called by the *Italians Mumia.*

But I have now another Notion of the Etymology of *Mumia.  
Mum* is a *Persian* Word, which signifies *lgrax. Avisena* distin-  
guishes between the *pure Mum,* and the *black Mum.* His *Al-  
mum alf as.,* is the pure bright Mum, and the *Almum alasuad,*is the black and dirty Mum; so he calls the Propolis of the  
*Greeks.* His old Expositor interprets it by the Sordes which  
suck to Bee-hives, or rather are the Foundation of the Work,  
and. the Rudiments of Wax. What is almost Wax, is called  
*Propolis,* and by *Anisina, Black Mum.* The κόμμωσις, (Com-  
molis) and πιπὸκηρος, " Pissocerus, " is a ruder and more un-  
finished Work. This latter is a kind of diluted Wax, with  
which the Bees overlay their Structures. The *Commosis* is the  
first Foundation -and Crust, which -is spread before all other  
things. *Plinestes* Words are-to be read thus, partly from the '  
Copies; *viz. Commosis crusta est prima, soporis amari, Pisso-  
ceros - supeream venit picantium modo, ceu dilutior cera e vitium  
populorumque mitiore commi.* " The first Crust is the Commosis,  
".-which is of a hitter Taste; over this comes the Pistoceros,  
" like a Layer of Pitch, being a more diluted kind of Wax,  
" which the Bees make of a milder Gum of Vines and Pop--lars.-" Κόμμωσις, (Commosis) is ἀπὸ τῆς κόμμεως, 6ί from  
c5 Commis..'' *Hes.ychius* interprets it διάχριστιν τοῦ σμήνιος, **the**"- smearing of the Hive." By *Aristotle* it is called κώνησις,  
(KonesiS) that is, Pication, (doing over with Pitch); **sor/.δοος^**or-κώνη, signifies liquid Pitch. *Dioscorides:* Πίωα ὑγραὶ, *nd Ivtos  
niavav* καλοῦσι, **5c** Liquid Pitch, which some call *Conus. ” QiffiCrs*name it κώνη,iC Cone, " by which -Name it went among the  
*Greek* Veterinarii, or Horse-physicians; aS in *Cap.* I 76. ἀσφάλτί,  
κώνης, .ἀμμανιακῆ; and *Cap.* 843. ἔξους -φυσίνμὲντος, κώνης πτίυί-  
νης, ἀμφότερα ὁμοίως συμβαλῶν χρῶ. ςζ Take Vinegar, of **the**

Refin of the Pine-free, and the liquid Pitch of the same,  
ff and apply them to Use and in many other Places. Hence  
the κωνίας όινος; " Wine stopped up with Pitch, " of *Hippol*εΓσρας,. which *Galen* expounds by πιωίτης. And hence **also**κωνῆσαι πίθον, " to pitch a Hogshead,'' and ἀκώνήῖον άγζεῖον,  
a Vessel not pitched."

.5 To.: go on, what *Avisena* calls *Black Murn,* is by other  
*Arabians* called *Car,* which some however interpret *Pijsias.phasu  
tus,* and *Bitumen,* as *Alpagus* observed. But it is written other-  
wise when it signifies Birumen, as thus, *Ear y* and for Wax,  
and Propolis, *Kaar.* With the same *Arabians, Lifer* is Bitu-  
men; but most think *Charabe* a Species of Bitumen, and **to**stow out of Springs in the same manner.

lin'Now. from this *Mum* aforesaid, I doubt not, but the Word  
*Mumia* is derived. For most Nations used Wax in embalming  
and .medicating Bodies for Interment, especially the *Babyloni-  
ans,* who in most things' had the same Customs with the Per-  
*starts. Strabo r* Θάπζουσι δ’ ἐν *μίλ/]/, Rngul* περιπλάσαντε2.  
-‘c They bury their dead Bodies in Honey, having first cover'd  
" them over with Wax." The same was practis'd in *Greece c*We read at least, that the like Treatment was once used to  
the dead Body of a *Greek* Man. *Cornelius Nepos,* of King  
*Agesilaus t Ibreum .Amici, quo* Spartam *flatilius perferre pojsiut,  
cera circumfoderunt, atque ita domum retulerunt.* ‘‘ There his  
An Friends, that they might the more convenientiy transport  
" his Body to *Sparta,* cover'd it all over with Wax, and so  
" brought it home.'' Moreover it was a customary thing  
*atfitffi.thc.Arabians,* to use indifferently the Names of all Things  
which served for the same Uses, and to put ohe Name for an-  
other.. Thus *Kiir an,* which properly signifies, the Pitch of a  
Cedar; .is by some interpreted Bitumen. Thus again, they  
made no Distinction In then Notions between the Fucus-mari-  
nus, the Scarlet-worm, and Madder. Aster the same manner  
Bitumen, because it was used by various Nations, as well as  
the other, .in seasoning their dead Bodies, had by them the Ap-  
pellation of *Mumia* .bestow'd on it, which is a Word derived  
from *Mum,* that is. Wax; so they took *Karabe,* which pro-  
perly .is *Succinum,* to signify also Bitumen. The *Karabe of  
Sodom,* in *Serapion,* is Bitumen, or Funeral-gum, as he calls it,  
**the** *Ahnumiai.*

. Some antient Authors affirm, that Amber works out of  
Springs, like Bitumen, the Truth of which is warranted by  
modern Discoveries, several Writers assuring-us, that Amber  
is gotten out of the *German* Sea; and that it rises from Springs  
in the Sea itself, aster the manner of Bitumen.

Bert of all the Opinions of Antiquity about Ainher, **the***Arabians* seem to approve of that alone, which, deriving its  
Authority from the Fable of *Phaeton,* makes it to he the Tears  
of the Biack Poplar. The Truth of this they every-where  
assert in their Wtitiogs. ’Tis certain, that the Black Poplar  
weeps a kind of Gum. *Pliny* fays, that the Bees make their'  
Pifcoceros, (pitchy Wax) which is a clearer sort of Wax, of  
the milder Gum of V ines and Poplars. *Diofcorides* calls this  
milder Gum of the Poplar ,Αιγειρου ῥνίτίνη, \*" the Resin of the  
“ Poplar.” Most of the Antients believed, that the Tears of  
the Black Poplar faffing into the *Po,* there concreted and made  
the Amber. *Diofcorides,* of the Black Poplars: ‘ΐστοροῦται δέ  
τὸ ἱξ αὐτῶν δἀκρυον κατά τὸν 'ΐϊρΰδανον πἡαμον καριχἱομἱεον  
πήγνὐται. καὶ γίνεται τὸ καλοὗμενον ηλεκτρον. " It is reported,  
" that theis Tears running into the River *Ps,* condense, and  
\*" become whet they call Amber.” All the Gum of the Pop-  
lar does not turn to Amber, but only that which falls into the  
Riner, and there concretes in, the Water, and acquires the  
Hardness, of a Stone, by virtue of the Cold. Whether the  
*Arabians* believed, that Amber was so generated, or confounded  
all the Gum of the Poplar and Amber together, they never  
fpeak of Amber, which they call *Karabe,* than as the Tear of  
the Poplar. The *Arabians* call the Poplar *Haur,* and some-  
times *Haur Rsemi,* that is, the *Roman Poplar.* The *Latin  
Avisena, Cap.* 34g. renders *Haurus, the Tear of the Poplar  
De Hauro,* id est. *Populi Lacryma.* He takes the Name of  
the Tree for the Tear; as, on the other hand.. *Cap.* 375. in,  
his Transtation, he makes *Karabe,* which is the Amber, or-  
Tear of the Poplar, to be the Poplar itself: *De Karabe, icljests  
Populo.* So also the Translator *cA Scrapion : Haur Rumi, id.  
est, Karabe.* So χαλβάνη (Chalbane) signifies as well the Gum,  
as the Shrub from whence it is produced ; and the same may  
be observ’d in other Particulars. si

. From the Premisses, I can hardly make a Doubt, but. that  
*this Haurus* was, by the barbarous People, first chang’d to  
*Iiabrus,* and afterwards corrupted into *Hambrus,* to signify  
Amber: So from the old Word *Abiga,* " Expeller,” which  
was the Name by which the *Latins* call’d the Charnaepitys of  
*tsu Greeks,* becaufe of its Efficacy, in expelling the Ecetus, the  
fame Barbarians coin’d their *Ajuga* ; but iatevAges, instead of  
*Aniga,* pronounced *Aviga.* An old Expositor of the *Arabian*Nouns has it. *Aurum Romanum, id est, Archirascs, cujus  
Gurnmi dicitur Kara ba.* Read, *id est, achiros,.os acchiros,*from ἀιγέςρος (Aigirus,-a Popiar). - . - -

. ’Tis certain, thut.the Name *Ambri,* for Succinum, (Amber)  
is not of *Greek* nor *Arabic* Original. /The *Arabians* call is *Ka-  
rabe,* the antient *Greeks,* ὴλελτρον; " Electsum,” the more  
modern βερενίκη, " Berenice.”. From this Berenice the Bar-  
barians . hammer’d opt their *Vernix,* which is their Tenn also  
for another kind of Gum ; for fo they mil’d the Gum of Ju-’  
niper, because, it was fo much like Amber. *-Avisena, Cap.* 293.  
says, the Karabe was like Sandarach, so they called the V er-  
nix. Some even made Karabe the fame with Sandarach, as  
*Serapion* assures us. *Cap.* 366. *De Karabe.* Hence the Bar-:  
harians, as I raid, call’d the Sandarach *Vernix,* which was the  
Name the inter Grodurofed for Electsum.. *Neophytus :* Βηρὐλ-  
λιος λίθος, ἰπος εστι σὴ. δινδρου. ἔστι δέ -τὸ Λεγομε,ον βερενίκη.

The Beryl Stone is the Juice of a Tree, or whet they call  
“ Berenice.” The fameAuthor, on theWordurA.fdur : Ἀλλοι  
δέ φαοεν οτι τῶν ἀιγειρών εστι κολλῶδες. "ι. Others fay it is the

Glue of the Poplar.” .......

Perhaps, besides the Similitude of the Gums, the near Affi-  
hity of the Names in *Arabic,* was a .Caufe of their being con-  
founded. For the Poplar is called *Raur,* whose Gum is the  
ίλεάτρον, Or βερενίκη ; and the Juniper is called *Harar,* and its  
Gum Sandarac. And yet,. which is strange, in the *Arabic  
Avisena,* we always read *Giauzi,* and not *Haur, for* a Poplar.  
*Ciauzi* indeed with him signifies simply a Wainut-tree ; but he  
always puts *Giauz Alrumi,* that is, the *Boman* Nut-tree, for  
the Poplar, . \ -

- The Gum, commonly called Vernix, is written in *Arabic  
Sandarus,* in *Avisena* with the Letter *Sin.* And in the Chap-  
ter of *Karabe* it is called *Alsandaruc,* which is also pronounced  
Sandarac ; for *Elist* and *Vau* are often chang’d one for another  
in *Arabic* and *Hebrew,* for which Reason the Translators always  
render it *Sandarac.* The Karabe, that is. Amber, and this  
Sandarac, are fo much alike, that they often exchange Names.  
*Avisena,* in the Chapter of *Caucamum,* writes the same things  
upon Sandarac, which he afterwards repeats almost *verbatim* of  
the Karahe, in his Account of *Lacca.* This, as I said before,  
is what the Barbarians called *Vernix,* by a Corruption from  
*'Berenice,* which with the later *Greeks* signifies Electsum.

But .the Sandarach, which is the Gnm of a Tree, agrees in  
nothing but Name with the metalline Sandarach, which the  
*Arabians* call *rarnig* ; rtor.are we to suppose, that the *Arabians*made that Name, which with them signifies the Gum of a  
Tree, out of the Name of the metalline Sandarach.

7 Tire Antients had another Sandarach, which was the Food  
of Bees, and gathered by them from the Juice of Trees, after  
the manner of Gums , of **which** *Pliny* speaks, *Bib.* 2. *Cap. J.*

**which** Passage is thus to be read : *Praeter hac convehitur Eri-  
thace, quam alii Sandaracham, alii Cerinthum vacant. Hila  
erit Apium, dum operantur. Cibus, qui faepe invenitur in Favo-  
rum Inanitatibus fepesitus, et ipse amori Soporis : Gignitur au-  
turn Rare verna, et Arborum Succo, Gumrniurn mode, Africi  
minor. Austri Flatu nigrior. Aquilonibus melior, et rubens, plu-  
rimus i» Graecis nucibus.* Menecrates *Florem ofsc dicit, sod  
nemo praeter eum.* “ Besides these, they convey thither Eri-  
“ th ace, which feme call Sandarach, others Cerinthus. This  
“ is what theBees feed on while they are arWork, heing often  
" found in the empty Spaces of the Combs, and is of a bitter,  
" Taste. It is generated of the Spring-due, and the Juice of  
‘‘ Trees, after the manner of Gums, it is diminish’d hy **the**“ South-west Wind, grows blacker with a South Wind, but  
*a* is meliorated and redden’d by a North Wind, and is very  
" plentiful on Almond-trees. *Menecrates* says it is a Flower,.  
“ but he is the only Person who fin's so.” This Sandarach rSfrom Gum, and is a sort of Glue. *Varro,* we know, observes,  
that the Matter with which the Bees glew together the Ex-  
tremities of their Combs, is called *Erithace,* and is a different.  
thing from the *Prppolis,* having the virtue of alluring the Bees.  
The *Greeks* expound ir by τροφη μελιττών, " rhe Food of the  
" Bees”; σανδαράχη. (Sandarache) is the same thing; and so;  
is κηρινβος, (Cerinthus) which is as much as to say Cerago (a  
waxlike Substance): *Hispchius;AissvsA,* ή λεγομέυη,εριθάκη-  
ἔστι δέτροφὴ. ῇν παρατίβενται έαὑτὄῖς ἀι μέλιεναι. "Γ Cerinthus;  
“.which is called Erithace, is the Fend which the Bees lay  
" aside for themselves.” *Menecrates* rather fancies it to he α  
Flower, and is follow’d in his Opinion by *Virgil,* who describes  
Cerinthe .as ,a Flower or Heth grateful and attractive to the  
Rees: . \_\_ . ./ ς . , *y l*e” *Trita Melisphylla, et Cerinthae ignobile Gramen.*

“ Bruised Melisphyllon, and the ignoble Heth Cerinthe.”  
And: *Pliny* himfelf, who here censures *Menecrates* on this  
Account,! elsewhere enumerates *Cerintha* among thefe Herbs  
and. Flowers which are grateful to the Bees 5 and *Lib.* 2 I.  
*Cap. sa.,* gives a Description of in *Theophrastus* likewise,.  
*Lila 6. Cap. st.*,. reckons κίίρινβον, (Cerinthum): among **the**Herbs used in Garlands *(Herbas coronariasy.* Nothing hinders  
from hestowing the seme Appellation on an Herb, and on  
*Cerago,* which, others call έρειθάκη. (Erithace). This latter is  
a gluey sort of Gum, with which the Bees conglutinate, the  
extreme. Borders of their Combs. , Of this speaks *Virgil,* **as**follows.

*' ' tenuia Cera*

*Spiramenta linunt. Fucoque et Floribus Oras*τ *Explent, collectumque haec ipsa ad Munera Gluten,*

*' Et Vises et Phrygia servant Pice lentius Ida.*

" They besmear the small Spiracles with Wax, and fill up the  
" Space between the Extremities of their Combs with Fucus  
“ and Flowers ; and keep in Store, conceded for these very  
" Purposes, a Glue more tenacious than Bird-lime, or the  
" Pitch of *Phrygian Idas’* That this Passage must he under-  
stood of the Erithace, we are taught by *Varro, Lib.* 3. where  
he thus speaks of Bees: *Extra Ostiurn Asuei obturant omnia,  
qua venit inter Favos Spiritus, quam iquidMsv appellant Graeci.*" Without the Door of the Hive they close up all where-ever  
“ the least Breath of Air can come hetween the Combs, with  
“ whet the *Greeks* cull εριβάκην.” With this *Erithace* they  
smear over and stop up the Spiramenta, that is, the small Holes  
by which the Air can come between the Combs. *Philargyrus*understands mis Place of the Poet, as concerning Propolis, and  
tikes the Fucus to be a kind of Wax, which the Bees use in-  
stead of Glue, and is palled *Prppolis.* But of the Propolis our  
Poet in the same Place thus sings v

*—- Et lentum de cortice Gluten  
Prima Favis ponunt Fundamenta, deinde tenaces*

7 *Suspendunt Ceras.*

“ They lay the first Foundations of their Combs with the  
" flimy Glue of a Bark, and afterwards ereol: their tenacious  
" waxen Structure.” *Servius; Graeci* προπολιν *vocant, duri-  
orem Cera, qua vix potest Ferro frangi, quam colligunt de  
Gummi 'Arborum.* - “ The *Greeks* call it Propolis; it is harder  
“ than Wax, and can scarce be broken with a Hammer. The  
" Bees gather it from the Gums of Trees.” The Sandarach,  
or Erithace, is also a Glue, and comes from the Gum of Trees,  
and the red is the. best. Thence, we may be sore, comes the  
*Sandaruc* of the *Arabians ;* for of Σανδαράχη, (Sandarache)  
they made *Sandaruc,* changing *a into u,* as they do in other  
Words. Thus of στοιχςἰδ'ος, they made Astuctiudos ., of the  
*Greek τύμ-ττανον,* they coined *Tarnbur,* for *Tambar,* for they  
commonly change » into *r,* and *p* into *b..* Thus they pro-  
nounce φιστουκ (Phistouk) for φιστἀκ, (Phistak) from the *Greek  
orsodKiot* (Pistacion).

Some will have this Sandarac of the Bees to he the *Vernix,*but they are wrong in their Etymology. The Vernix is the  
βερενίκη (Berenice) of the *Greeks,* by which Name they called  
Anin er,

Amber, *(Succinum)* or the Gum Of the Poplar. *Pliny,* we  
know, says, that the Bees gathered Piflbceros from the Gum of  
Poplars, hut the Erithace, or Sandarac, from the Gum of the  
Almond-tree. I suppose it is called Sandarac for no other  
Reason but its fandarachine Colour. *Pliny* says, it is black-  
en’d by a South Wind ; and perhaps this is the *black. Mum* of  
*Avisma,* by which Name he expressed the *Propolis* of *Diosc  
core des.* Bur they confound Things ; nor is it so strange,  
that there is a Permutation of Names in this Case. *Karabe,*aS I said, with the *Arabians,* signifies Amber, or the Gum of  
the Poplar; and they say it resembles the Sandarac, or Vernix,  
which is properly the Gum - os the Juniper. The Sandarac of  
the .Bees is from the Gum of the Almond-tree. In an Old  
Expositor *ess Arabic* Names, *Karabe* is noted to be the Gum  
of a Tree called the *Roman* Walnut-tree, τ The Author fol-  
lowed, the Reading which you every-where meet with in *Avi-  
sena,* of *Giaux* for *Hater..* ' But *Avisena* distinguishes that Tree  
from the Walnut-tree by the Adjective *Rumi* ; for he calls the  
Poplar, not the Walnut-tree, *Giaux. Alrumis,* tho' if it be  
render’d literally Word for Word, it signifies the *Iceman* Wal-  
nut-tree, which was the Name he used for the Poplar. Others  
call it *Haur,* and, with the Addition of a *Nun, -Hituron,* which  
is the Poplar.. -....s'

This *Hater* and *Hauron* the *Barbartans* corrupted into *Aorrum*and *Abrum,* and from thence, in a littie time; into *Ambrarn,* to  
signify the Tear of the Poplar, or Amher. -

‘ As for *Hambar, Dr-Ambar, is* it is a different Name, so it  
signifies another thing. The *Greeks* of the latter Ages, as.  
*Nicetas Choniates, Simeon Sethi,* and others, write Ἄμπαρ

' (Ampar). *Aetius* - also mentions it, and calls it ἄμπαρ (Ampar)  
in the antient Copies, not άμπρα, (Ampra) as it is in the  
Editions. We call both sorts *Arnbra,* but that which is not  
the *Succinum* we commonly distinguish by an Adjective signi-  
fying-the .Colour. i 1 .ti .'

- I-don't remember, that I have read *Ambra.* to mean Sueci-  
num in later *Grech* Authors, nor do the *Arabians* call it by  
that Name. For which Reason I can’t but suspect a Remark  
Of *Fuchsias, in Myrepsus,* on the Composition os the seventy-  
fourth Plaister, concerning the Difference of the *Arnbar* and  
*ndmbra, - in* these Words,."" *Ambaris, Exag.* 2. *Mosehi  
" Scrap.* 2. *Ambra, Exag.* 3." I don't find this Com-  
Position in the original *Greek,* and *Fuchsins* seems to have  
fallen upon a bad Copy, or not to have fully comprehended  
the Meaning of the Writing, which he had the Misfortune not  
to do in almost an infinite Number of Places. *Leo Africanus*telis us. That the Whale is called *Hambara* by the Inhabitants  
of *Fez* and *Morocco*; which perhaps gave Rise to a received  
Opinion among most of the *Greeks* and *Arabians,* that *Arnbar*was the Dung or Spawn of the Whale. Hence it is, that in  
the Medical Glosses *os* -the later *Creeks,* we every-where find  
it thus interpreted, Ἄμπαρ μυρεψικὸν κόπρος ἰχθήος, " the  
" odoriferous Amher is the Dung of a Fish ;" and φώκης  
ἀποδευμα, -" the Excrement of a Whale.'' The same way of  
Reasoning induced Multitudes to helieve, what many also  
wrote, that Frankincense grew on Mount *Libanus,* because  
the *Greeks* called Frankincense λίβανος, (Libanos) which is  
the Name of a Mountain in *Syria ;* and some even at this  
Time would fain persuade us, that this Mountain is at this  
Day called *Lebnon,* from the *Syriac* Word *Lbunto,* which sig-  
nifies Frankincense 5 whereas the *Syriac Lbunto* for Frankin-  
cense is plainly a Corruption of the *Greek* λιβαιιωτός (Libanotos).  
If Frankincense had been of the common Growth of *Syria,*the Antients had not differ’d so much about the Shape of that  
Tree, which was hardly known to them. 'Tis certain, thet  
it grows no-where at this Day hut *in Arabia -,* and *India* does  
not produce it, though the Antients make mention of *Indictn*Frankincense. Συρίας λιβάνου καπνὸς, " the Smoke of *Syrian*" Frankincense,” is mention'd in the *Baccha* of *Euripides,* but  
after the same manner as *.Malabathrum Syrium, Myrrha Syria,*and other things, which we-are well assured, were never of the  
Growth of *Syria.*

Antient and modern Authors are not agreed about the kinds  
**of** Ambar, nor about its Colours, Differences, and Marks of  
Goodness. The *Portuguese* Writers make three Species ; the  
*Porabar,* which is the white the *Puabar,* winch is white  
mix'd with black, or, the brown ; and the *Minabar,* or  
Black, which, they fay, is devour'd by the Whale : The first  
kind is the best, the second next, .and the third worst of all.  
*Simeon Sethi* describes the -best Sort as red and fat, the next in  
Goodness is the brown, and the worst Characteristic is that of  
the black, which is gather'd of the Whales that heve heen  
sucking at the Springs of Ambar. Καἰ τό μέν κρεῖττονν fays he,  
ἐστι' καὶ κιῥῥον καὶ λιπῶδες. ἀναδίδοὐται δέ ἐν τινι πολ« Σἀλαχήτ  
άστομαζομένου- τὸ δὲ ὑπόλευκον ἐν τινι παραλίῳ πολιχνίῳ τῆς  
-ευδαίμα’ος Ἀραβίας Σίχνη ἐνομαζομένῳ’ τὸ δὲ ὑποδεἐστερον καὶ  
. μέλαν συνάγεταιἐξἁχθήων άπογευσαμένων τῶν σου ἄμπαρ πηγῶν.  
.. " The best is the red find the sat, which is exported from a  
" City calIed *Silachet* ; the whitish comes from a little man-  
." time City of *Arabia Felix,* called *Sichne ;* and the poorest  
*An sort,* which is the black, is gathered from Fishes which

" have heen fasting of the Springs of Ambar.'' The best, he  
says, is brought from *Silacher,* a City of *India,* where it rises  
out of Springs^ *Avisma* also calls the highest-prized Ambar  
*Als.elehetti,* thet is, which comes from the City, or Country,  
*Salehet,* which is the Very same that the *Nubian* Geographer  
places in the ninth Parallel of the first Climate, calls *Selehet,*and makes an Isiand of *India.* This is *Simeon1 s* Σιλαχῆτ or  
Σελαχὴτ-, (Silachet or Selachet) for the *Greeks* commonly ex-  
press the *Arabic* He by X (Ch) ; aS Ταμαρχἐιτι (Tamarchenti)  
in the *Grarco-Arabic* Lexicons stand-every-where for *tamar  
Hindi.* What bears a lower Rate, but next to the best,  
*Simeon* telis us, springs up in a City of *Arabia Felix,* called  
Σιχνη *(Stchnc).* In other Copies I find it written Σήχρα.  
λεγσμένη, " called *Suchra”*; and some cite it, *a Senchri Feli-  
ces Arabia,* " from *Senchri in Arabia Felix”* I know not  
whether it be the Place which *Serapion* calis *Zing,* only he  
places it in the West, far enough from *Arabia Felix, viz. in  
Terris Zing in Occidente,* " in the Territories of *Zing* in the  
" West.'- He must not however he understood to mean  
*Africa*. or *Barbary,* but a maritime Tract of *Ethiopia,* where  
*Mos.amiique* lies, which abounds with *Ambar,* and is situate  
West of *India ;* now the *Arabians* call the *Ethiopians Zing.  
Simeon* calls the maritime City os *Arabia Felix Σίγχ»* (Sinche) ;  
the *Zengi in Alpagus* are the western *Ethiopians.* But *Serapion*differs from others in his Characteristics of the hest Ambar,.  
which, he says, is of a Sky-colour, and makes the white to be  
the cheapest and worst of all, tho' others prefer it to the rest.  
But, in Truth, there is no Ambar of a Iky-blue or azure Co-  
lour ; and it seems a Fault of the Tranflator. The *Arabic is  
ararac,* which they render sea-green, *spflaucus]* grey, *feeesius)*and azure, *-fearuleus) of* the Colour of the Firmament. Ac-  
cording to *Alpagus Zsarach* is the Colour of the Heavens ; how-  
ever it can have nothing to do here, when we talk about the  
Colours of Ambar: They also take notice, that it signifies  
changeable and pale. Hence comes *tcaracha, flalenes.s ,* and  
this is the true Signification of the Word in this Place. *Simeon*terms it ὑκόλευκον (hypoleucon); we commonly call it a grey  
or grizel. *Avisena* calls it *Alararac,* which his Tranflator  
rightiy renders *DsAsb-colottr. Avisena* gives the Preference to  
*Selehetican* Ambar, which has its Name from an Ifland of *India,*which *Garcias* wrongly supposes to he *Zeilan.* The second  
Place in. point of Goodness, he says, belongs to the Ambar  
*alearac,* that is, the Ash-colour'd. AS to the *Selehetican,*

. which is most esteemed, he does not tell us of what Colour it  
was, at least in the *Latin* Edition. And it is observed by  
*Alpagus,* in his Exposition of *Arabic* Names, that the *Arabian*Interpreters are ignorant of the kind of the Ambar Alfeleheti,  
as well as its Colour ; at which I can’t but wonder. If there  
were no more in the *Arabic* Copy, than in the *Latin* Version  
of it, yet it might easily he guess'd; from what others hays  
related, that the *Selehetican* Ambar, to which *Avisma* assigns  
the Preference, was white, since most set the highest Value  
upon Ambar of that Colour, tho' *Anisina* does not mention it.  
We might also conjecture, thet it was red, as well as *Simeon,*who makes the τὸκόῥῥον, " red," the most valuable. Noris  
*Avisma* against it; for he only assigns the third Place to the  
Citron-colour'd, which in *Arabic* he calis *Alas.as.ar,* that is,  
χαλκόχρίον. Copper-colour'd. The Citrine .is a very watery  
Colour, but the κίῤῥος (cirrhus) is ruddy or red. *Avisena,*among the Characteristics of the hest and choicest Ambar, does  
not only name *Selehetican,* winch was all that his Tranflator  
observ'd, but prefix’d two other Words expressing the Proper-,  
ties it ought to have, *viz. alaseiheb,* and *alkavi,* to which .he  
adds as a third *Alseleheti.* This last Epithet is taken from the  
Country, the two former signifying other Qualities which he-  
long to it. *Albavi* imports *firm* and *robust,* which I understand  
of that Ambar which is least friable, and most resists a Sepa-  
ration ; such is that which is endu'd with a sat sort of Viscidity.  
This is the λιπῶδες (lipodes) of*-Simeon,* which he sets down as  
a Mark of the most Valuable Ambat. *Garcias* commends that  
for the hest, which, pierced with a Needle, sheds out a good  
deal of an oily Liquor ; this is the λιπῶδες, " sat ; ", whet is  
easily broken cannot he such. I take *alaseiheb* for *ruddy,* ac-  
cording to the same *Simeon,* who calis it *Kipp^* (cirrhus). The  
Word is derived from *Seiheb,* which signifies a Flame or  
Lamp, and in the Alcoran is put for a Star. It might also be  
taken for *white,* as. it expresses the τὸ λαμπρὸν, " lucid,"  
which the *Greeks* also put for *white.* But. *Simeon* has hand-  
somely expressed *Avisenests* two Epithets of the best Ambar. by  
those other two, κίῤῥος καὶ λιπῶδες, " ruddy and sat.” Jf he  
took them from the *Arabians,* 'tis plain that he understood  
*alaseiheb* to signify *rutilus,* " ruddy." Among modern  
Writers, *Manardus* informs us, that in chufing the best Am-  
bar, we are to take such aS borders a little upon the red, and  
that the white is not so good. But I suppose he had this from  
*Simeon,* whose ὑπολευκον, whitish or .grey, λευκὸφαιον, (leuco-  
phaeon) he did not rightiy express thy *album,* .white,"  
This is the *azarac* of the *Arabians,* which properly signifies  
party-colour’d, or sprinkled with black and white, and is from  
the *Hebrew* ΌΊΙ, *Tsarac,* " to sprinkle.'' So the τὸ ποικιλιν.

*(various)* is by the *Greeks* called ῥαντόστ, ἀπὸ τοῦ ῥαίνειν *(sprinkled,  
from the Verb signifying to s.prinblefi* The *Latins fay sparsum,  
(sprinkled)* whence *Sparso arc* in the Comic Poet.- And in the  
Glosses: *Aspersus,* είδος ἰχθύος κά/αστίκτα *(the Aspersus is a  
hind of a spotted Pisoscy* and *sparsu Tempora, sparsum Caput*" sprinkled Temples, sprinkled Head,” denote τὸν μιξσπόλιον  
*(a Man whose Head is sprinkled with grey Hairs) ,* in which  
Sense also we read the Verb *zarac in Hisea :* They are mistaken,  
then, who render it azure or green.

*Scrapion* taken Notice of but two Kinds os Ambas, *viz.*that which his-Tranflator calls lky-colour, *fecalinus)* and the  
white, of which the first was the best. Perhaps the Word in  
*Arabic* for Sky-colour was *alaxiheb,* as it is in *Avisma,* and the  
'Old Translator rendered it *steselinum,* from the Colour of the  
Stars, or- *ccelinum,* as we have it. AS for the white, I doubt  
not hut it- was the same with what *Simeon* calis *Hypo leucum,;*(ὑπόλευκον). and *Aurisena azarac,* that is, an ashy white; for  
*Garcias* is. mistaken, when he writes, that the whitest Ambar is  
Condemned hy *Serapion,* who says simply *white,* not whitish,  
or inclining to white. „\* -

But we are, in a manner, forced to render the *Arabic* Word  
*alaxiheb* whim,, by the later Accounts os tbree different Species  
off Ambar, under as many different Names, *viz. Pcrambar,  
Puambar,* and *Penambar.* The first of these jo the white, and  
the bestOf all; the second is the ash-coloured, which is next  
in Goodness and Price; and the third Sort is the black, which  
is- the cheapest,, and worst os the three.

We meet *rtiaticandida Sidera,* and *candida Flamma,*" white  
" Stars, and white Flames," whenever we read the Poets; and  
this is literally true.. But *candens, “* shining, ’' for *candidus,.*" white," is also usual, and from thence *Candela, ὑ haumrde,  
(a Candle) takes* its Name. So also, in the *Greek, Kaplixpov.*{Sand, or*Jhinnig. is used for candidum. “* white,” as λαμπρὰ  
ειθῆς, *(a seining white Garments* and λαμπρείμονες *(Candidates}.*The *Arabic* Word signifies a Star, or Lamp, from whence comes  
the Term for a white Colour. They who understood it, as  
*Simeon* did, os a ruddy, *{rutilusp* presented us with an Ambar  
dressed up in Red, of which there is none extant at this Day,,  
from a Misunderstanding of the Word. ;

*, Brajsuvolus takes* the, yellow Amber, out of which Handles  
for Knives are made, for Succinum. Another learned Physi-  
cian, jn his Definitions, under the Word ήλεκτρον, *(Electrum)*cites *Scrapion,* where he treats of Ambar, as tho' there were no  
Difference between this Ambar and the Electrum, which they  
Call the Ambra of the Shops. *Scaligcr* also, in his Notes upon  
*Garcias,* does not scruple to call *Ambarum* by the Name os *Suc-  
cinunt*  . 'χ -

They are all of them most grofly mistaken : The two Am-  
bras , are both of a different Nature, and derive their Names  
from a different Original. In one thing they agree, *viz. in*that they are said to rise out of Springs aster the manner of Bitu-  
men. The Succinum also is of a fragrant Smell, and the white  
Sort extremely fragrant, according to *Pliny* ; for there is the  
white, the yellow, and the waxen: Yet, for all this, *tiae Am-  
barum* is a quite different thing from the *Ambra,* .which is called  
*Succinum.* Nor must we imagine, that *Avisma* and *Simeon  
Sethi,* when they mention the yellow or citron-coloured *AmMy  
rum,* confound it with ths common *Ambra.*

We have already shewn, that the Name *Ambarum,* to signify  
*Succinum* or *Electrum,* is not extant in any *Greek* or *Arabian*Author of considerable Antiquity. Moreover, all the Moderns,  
- who have given us Relations of Voyages to the new World,  
mention only three Sorts, and as many different Colours of  
Ambannn, or Ambar, which are, the white, the ash-colour’d,  
and the black; of these the white is the most valued, and the  
black the least esteemed. *Simeon Sethi,* instead of the white  
Ambar, makes the *nsosm. (ruddy,* or *gold-coloured)* to be the  
most precious; as to the rest, he agrees with the others; for  
his second Sort is the ὑκόλευζβν, *(whiiise)* and his third and last  
Sort is the μέλαν *(black). . Fcrdinand Lopez,* aS well as the rest,  
reckons three Sorts of Ainbar, but differs a little in their Names,  
of winch he gives an Explication. They are the *Ponahambar,*the *Coambar,* and the *Maniambar* ; the *Ponahambar* is the  
white, which is in highest Esteem; the Word signifies *Golden  
-Ambar,* and this Sort bears a greater Price than, the others, being  
very scarce, and gathered with much Difficulty : This is plain-  
ly the *Kipdur* ἄμπαρ *(the red Ampor)* os *Simeon,* and is called  
*Golden,* I suppose, not from the Colour, but the. Prine, as *Loper*clearly hints, and as in is. expressed in the Language os the  
Natives by *Ponambar* ; and perhaps this deceived *Simeon,* who  
might, understand *Golden* to- mean the Colour S Some call it  
*Porambar,* and interpret It of white Ambar ; So, again, what  
others, call *Puambar,* is by *Loper,* called *Coambar,.* which he  
interprets *Jisater-Ambdr* ; because, by its long and Violent Agi-  
tation onIheWaters, it has lost much of its Virtue; this is of  
-an Ash-colour: The third IS the *Maniamhar,* which signifies  
*Pise-Arr. bar*,. for it is devoured by Whales, and after some time  
brought up again by them, unconcocted, whence its Blackness  
is contracted: And this agrees also with sumiStf’s Opinion, who

says, that the-Fishes which drink of: the-Fotmtains of Amhar,  
cast it up again coloured black. 1 z..:' ά - . i

There is mention made of κάμαμπαρ*scCacornpar) in Myrepo*fesis Plaisters, *Compos.* 3'. ξυλαζόης, κἀκαμπαρ, ξυλράαλσἀμα,  
ξυλοκασίας, *etc. —t— of Lignum Aloes,, Cacarnpar, jsiylascals.a.-  
mum. Cassia Lignea, etc.* What Reason *Pushsius* had to trans-  
late *Cacarnpar, Betony, -* I cannot so much aS guesshut-how is  
it likely, that the Author would put *Betony* among exotic Aro-  
matics ? But I have observed Os *Fuchsias,* that he every-where:  
takes the Liberty *os changing* what he does, not understand ;  
which is a Practice scarce , tolerable , in a Man os Letters, but  
most unpardonable in a Physician, on account os the Mischiess.  
which usually result thence to the infirm Part of Mankind. .. I.  
am apt to suspect, that-we are to understand by it some kind of  
Ambar ; and perhaps it is what *Loper,* telis ua the Natives called  
*Coambar.* The *Greeks* seem to have pronounced, κἀκαμπμα,  
*(Cacarnpar)* infread oszaafe^ap, *(Caambar)* or*soapescap frCcsam^  
bars.* We must, however, acknowledge, .that καννὰμπαρις  
*(Nacamparis-)* is a Word that ofteur occurs in *Myraps.us,* with'  
an Interpretation that will hardly agree wish any Species os  
Ambar: For in his Antidote διὰ 'μαδπὸων, *(of quinces j Caps*37. he explains it.by δροσιρβόταΜΓ, *seDressebotanonj majRecscasap.*ἤ.'ος δοοομαότανον s *Caca tap ar* or *Drosubotanon')* ; and Cap. 79.  
in his Antidote against the Dysentery and €01ίο,.,γμρεύφυλλον,  
κἀκαμπαρ rjToi δροομ]ψτανον *(Carsuphesli, etc.)* In the Aaridom.  
*os Castor,* which is the twentieth in *Fuchsiurs* Edition, and  
the same with the above quoted, Ἀμα.,27. we read, in *Euche  
studs osaeuNatison, Lauriolae Campi, idlest. Betonica (as Libi-*reola os the Field, that is, Betony) rI He had as good have said  
nothing. The *Greek .*Teads, λαουρίολε, »τοι κάκαμπαρ, jjt« δρο-  
σιοβότανον *(Laureola,* or *Cacarnpar,, cssNrosiobotanans.* The  
Word *Laureola* wants to be explained in the *Greeks* Some take  
in for the Mezereon of the *Arabians,* which is something Very  
different froth Betony .. *Drosiobotanon* is, properly, the Herb os  
Dew; for Dew, in Vulgar *Greek,* is called δροσια *(Drosia).* I  
find, indeed, Betony so called and explained in medicinal  
Lexicons; and a very antient Copy;of *Dioseorides* informs us,  
that it was called, by rhe *Romany, scaapeatira, (Eoscmaryy .:.* The  
antient *Greeks* called it *s.Psochroirophar,:pecuristed*

*with Coldse,* because itjoveS to grow .in cold Places : Later Ages  
called it δροαιοβοτανον, *from Dew,* whence came - the *Latin*Name *Eofoearinus. e* But why she same later *Greeks* gave, it also  
the Name os *Cacampar, 1* know not ; and it seems to he an  
*Arabic* Word.. However, it does not appear worthy, of a Place  
among the Aromatics and Exotics in Plainer the third j and it  
stands there without any Exposition,;which *Myrepsus:* never  
omits ; for where-ever you read ζιάκαμπαρ *(Cacampar)* in him,  
you meet with its Explication adjoined, with an ἤτοι *fprinyesy  
sayoy (that is, Drosiobotanon).* ι . 'I .6 .

There is, in the same Author, another Word, which, is  
κίκεμπαρ, or κικἐμπαρις *(Cicempar.,* or *Cicemparissey* which is  
always mentioned among the Aromatics, aS in the firstrAnti-  
dote of *Castor y RaKasilrx, RtRsupecip^, \_* κιναμμάοις

*(os. Styrax Calamita,. Cicempar, and Cinarnon)* and so, - also,  
in his *Antidotus plenus Archeniicus, ' RatApedpla,* γαρεοφύλλιο, ξυλα-  
λόης, κικἐμπαρις *(Cinarnon, Cariophyllum, Xylaloes, Cicempar).*The same Author often uses ἄμπμρ for *Antbar.* The Question  
now is. Whet is meant by this *Cicempar? . - . \_*

As for *Puchsiw,* he always passed over what he did nor under-  
stand, with great Assurance t But, concerning the.Original of  
Ampar, *Simeon* speaks thus, Τὸ ἄμπαρἈν διαφυροιςβλήζει τόποις,  
καθάπερ πηγαἰ ελαίου τε καὶ *dasuAse sc Ampar gujkessout in fever al  
Places, like Springs of Oil, pr As.phaltus*J... The Passage

is commonly cited, πηγελβίου καὶ άσφάλτε. Hence a learned Au-  
thor took Occasion to augment ins Lexicon with, the Addition  
os the *Graco~barbarous* TermILiYYApicv, *(Pegelbiamd* Os. which  
he gives no Explication, and ’tis no Wonder he. did not. In  
some Copies I sound it written, καθάπερ πιττης, ἔλαίιο τε καὶ  
ἀσφάλτου *(lice Pitch, Oil, etc.su sishstCoreebs* often called liquid  
Bitumen by the Name of Oil ; .yet.I.don't doubt but the Place  
might be better read πείρελαίου τε καὶ άσφάλτου *(Pgrreleeurn and  
Afphaltus).* The inter *Greeks* called *Naphtha* by the Name of  
*Petreleeum,* of which there are Springs as of the *Asphaltus,*which: is a Sort of liquid Bitumen.’ ; . . ς . .

The *Nubian* Geographer is Of the same Opinion concerning  
Ambar, who says, that under the . seventh .Parallel, of the first  
Climate there lies a native Vein of Ambar, which bubbles up  
.from Springs in the Bottom of the Sea, as the Naphtha does in  
the Country of *Babylon*; and that they sometimes find Frag-  
ments of it a hundred Pound Weight, which is the Import of  
the *Arabic* Word KINTHAR,. from the *Latin Centarius* for  
*Centenarius. Garcias* relates, that they once found a Frag-  
ment that weighed tbree thousand Pounds.

The aforesaid Geographer calis the.Fountains, whence the  
Naphtha works out. *Hit,* and says it is a Place in the Territory  
of *Babylm.* Here, by the way, we may take Notice of a  
Mistake *osAviseria,* in translating *Dioseorides*.. The *Greek* Air-  
-thor defines Naphtha, Βαβυλῶνιου άσφάλτκ περίἵθημα, her χρώματι  
λευκόν *(a Pcreolationnsi*Babylonian*Afphaltus, ofa whice Colour)s*

He adds, that they find also a black Sort: Here *Avisena* makes  
strange interpolations, for want of taking the true Seine of his  
Author. The white 'Naphtha, he says, is a Spectes com-  
"monly known, but the. black .is the *Babylonian,* or some

\*C other Sort ofiPitch, passed through a Strainer.'1 But the  
Meaning of the *Greek* Author *4s, that* the Naphtha is a *Baby-  
lonian* liquid Bitumen, -melted down in a manner, and strained  
through the secret Canals of the Earth, and flowing out of  
Fountains/Wells, or Caverns. *-Avisena* himself expressed the  
feme thing, when he said, that the black Naphtha was *Sasua  
orlbor debabelivageirohe*; which theTranflator rightly rendered,  
*a Percolation*; oTBabylonran, *and other Sorts of Pitch.* But this  
cannot he the Meaning *os Dioseorides,* who, by περιηθημα  
ἀσφἀλτου,-simplyintended liquid Bitumen ; aS Things which are  
squeezed and passed through a Strainer, become the more liquid;  
for nothing goes-through hut the most liquid Part, the thick  
and soeculent remaining behind.. This the *Greek* Author affirm'd  
as well os the black as the white. Besides, it is to be observed,  
that *Dioseorides* did not -say διἄθημα, *fDiathemap* but περιήθημα  
*sePcriethemasi* Things which arefrmply transmitted through,  
are laid διὑθεῖς&αι (Ὠιρίνθείμψρὶ) but πεειηθήεθαι *[Periethii-  
sthaso* is-another Thing.. That whole Country was bituminous;  
he would therefore indicate, that this Bitumen was dispersed all  
around that Territory, in a loose and indeterminate manner,  
and strained through the Vein’s os the Earth; and in some cer-  
Iain Places was liquefied, and did bubble and work out ; and  
this was the Naphtha. Thus we. are to suppose, aS I may say,  
a Periethema, *(a straining all around}* or Vent-holes all over  
the Country fin this *Babylonian* Bitumen. '

« But *Avisena* thought, that the white Naphtha proceededfrom  
a natural Vein, but the black was the *Babylonian,* or some other  
'kind of Pitch,-defoecated by passing through a Strainer: Whereas  
*Dioseorides* spoke this peculiarly os the white Kind, that it was  
in Periethema of the Asphaltiis, and particularly Of the *Baby-  
lonian.* - The *Greeks* called this Sort os Bitumen ἔλαιονΜηδείας  
*(Oil os.* Medea). *Socion,* on Fountains, says, Τὸ δὲ 'κατὰ τὸν  
ίΞουοιανὸν ὓδωρ στασἰν! εῖνμι Μηδεί'ας, καὶ πεφαρμἀρρεται χαυστικοις  
'φαρμάκοις,-σῥεῖμὲν ἐν., πηγής- τινος; *(They fay,. that about* Susiana  
*sis the Water, .of* Medea, *which is medicated with caustic and  
inflammable Drugs.; itstows out of a Springs.* He lays is is called  
*Sana (Aphtha)* ; and so it is read in the Epitome os *Strabo,*comprised in *Constantine de Imperio,* viz. πηγαἰ ἄφθας *(Springs  
psiAphthas. ...* ......... ... χ

. Most of the Antients were of Opinion, that there are Springs  
in the Bottom of the Sea, like those of Naphtha, . which throw  
up Ambar; and this, as it is the most common, is also the most  
Probable Opinion, and best accounts for those Fragments os the  
Shells of Oysters, and Other testaceous Fish, which are so often  
Jound inclosed in it, having stuck to it before .iss Humour was  
condensed, just after the same manner that you see Ants, and  
other Reptiles, in Succinum, which were caught and detained  
by the tenacious Humour before it was congealed ; Tor this also  
is found to rise out of Springs, as well as the Naphtha, Bitu-  
men, and Ambar. And so much , for the Difference hetween  
*Ambar* and *Ambra,* which does not consist in Names, (for we  
call them both *Ascribraf* but in the Things themselves, winch  
both differ in their Natures, and derive their common Name  
from different Originals. *Salmasius de Homonymis Hyles Ia-  
trical. Cap.* I0I.

*Of* **AMBERGRIS E. —** *Ambra Griseas-*

*SNQ* see, by the preceding Dissertation, that, with respect to  
Ambergrise, aS it has also happened in most other things, the  
Antients have made few Mistakes, but whet have htatn adopted  
hy the Moderns; and broached with an Ain of discovering some-  
thing new, with very little Variation. Thus Ambergrise is, in  
an Account from *Batavia,* printed in the *Philosophical Trans-  
actions,* said to be the Preduct os a certain unknown Tree,  
froth whose Roots it flows into the Sea. In another Dissertation  
it is said to be the Combs ofaSea insect, somewhat like a Bee.  
Nor is the Supposition of its being produced by a Whale so  
modern aS the Author of the following Memoin seems to ima-  
gine. ’ - -- , si ' ' .= - :-- - - ’

It is now found out, that this Ambergrise is an Animal Pro-  
duction, and bred in the Body of the *Sperma-Ceti* Whale,  
analogous to what is found in some Animals of the Land, as the  
Mulk-hog, or *Taiacu,* the Mush-deer, the Bezoar-sheep, and  
some amphibious Animals, as the Musquash, *etc.* ’who have  
these Valuable Scent in a particular *Cystis,* or Bag. ' I am apt to  
think, that winch first gave Occasion to the Notion os *Amber-  
grise* being the Production of the Whale, was, because it was  
found in considerable Quantities on the Shores of the *Summcr-  
Isiands,* and among the *Bahama’s,* where the dead Whales are  
frequently wrecked and broke up with the Sea, and the Amber-  
grise sound floating, or on the Shore; hut here again, the Inge-  
nious, until very lately, were at a Loss, and divided in Opinion;  
for though they agreed it to come from the Whale, yet some  
took it to he the true and proper *Semen,* being found only in the  
Bull, at the Root of *the Penis,* near the Testicles; others again  
thought it was. the Ordure or Excrement of the Whale.

. The best and most exact Account of Ambergrise,-that I have  
been able to procure, I very lately received from one Alr. .ifrestess,  
now.an Inhabitant of *Poston in New'England,* who.used the  
Whale Fishery for ten or . twelve Years together, and was one  
’of the first that went out a-fishingsther this *Sporma-Ccti* Whales,  
about the Year I 670, 'arid then began to' discover the Amber-  
‘grise ; 'and being a sober ingenious Man, what he says may safe-  
ly be depended on ; though, for Sdlrstanee, J have had it froth .  
several of the Whale-men. EE . ' -

His Relation, which, wastaken *a.* sew Days since 'froth his  
own Mouth, is as follows: . ...... ' 1

The Ambergrise isSound only in the *Spornia-Ceti* Whales, *e*and consists os Balis,' or globular Bodies, os Various Sires, from  
about three Inches to twelve Inches Diameter, and will weigh  
\* from a Pound and' an half to twenty-two Pounds, ly ing loose  
in a large oval Bag, or Bladder, of three or four Foot long, and  
two or three Foor deep and wide, almost in the Form of anOx’s  
’Bladder, only the Ends more acute, or like a Blacksinithss  
long Bellows ? with asspout running tapering into and through  
'the Length of the *Penis,* 'and*A* Duct, or Canal,’ opening into  
' the other End os the Bag, and coming from towards-the Kid-  
Tieys ; this Bag lies just oyer the Testicles, which are above 'a  
Foot long, and. is placed lengthways at 'the Root of the *Penis,*above four or five Foot.below the Navel, and three or foutFoot  
Above the *Anus.* .This Bag, or Bladder, is almost full os a deep  
orange-coloured Liquor, not quite so thick as Oil, and smell-  
.ing strong, or rather stronger of the fame Scent with the Balls  
of Ambergrise, which float and swim loose in it ; the Inside of  
the Bag is very deeply tinged with the same Colour as the Liquor,  
which may also be found in the Canal os the *Penis*; the Balls  
seem to he pretty, hard, while the Whale is. alive, inasmuch as  
there are many times sound, upon opening the Bag, large eon-  
"cave Shells, of the same Substance and Consistence, . that 'have  
scaled off from them, and the Balls themselves seem to he com-  
'posed of several distinct Coats, inclosing one another, something '  
like the Coats os an Onion. *' ' ‘ l 'so - =*

As to the Number os Balis, Mr. *Atkins* never sound above  
Tour in a Bag, and in the Bag, where he found one that weigh’d  
' twenty-one Pounds, which was the largest he ever saw, there  
Eras no' other. ' Y' S

He further says, that to on *e Sperma-Ceii* Whale that has any  
jos these Balis, there are two that have nothing but the deep  
orange-coloured Liquor, aforesaid, in their Bags. This Ram  
*mark* confirms what, another Whale-man told me. That the  
Ambergrise was found only in such *Sperma-Ceti* Whales as are  
old and well-grown. It is the general Opinion of the Whale-  
inch, that the Ambergrise is produced only by tho Male, or  
\_ the Bull *Sperma-Ceti* Whale. AS to this Particular, Mr. *AtHns*TayE, he never saw, nor certainly heard os, a *Spernusu Ceti* Fe-  
male'taken in his Life, the Cows of that Species of Whales  
'being much more timorous than the Males, and almost impossi-  
ble to be come at, unless when haply found afleep on theWater,  
Tor detained by their Calves. This is certain, the Boats can  
’ never come near them, when they are awake, they are so Very  
ishy.and fearful. ' . / . j\_ '. . . "

Mr. *Aikiars* Method os getting the Amhergrise out of the  
Whale, was thus ; after the Fish is killed, he turns the Belly  
'upwards, and sixes a Tackle to the *Penis,* then cuts a Hole  
round the Root of the *Penis,* thro' the Rim of the’Belly, till  
he comes to the Entrails, and then searching for the Duct or  
Canal at the further End of the Bag, he ties it pretty near to  
"the Bag, and cuts the Duct off beyond it; upon which he draws  
forth *the Penis* by the Tackle, and' the Ambergrise Bag entirely  
follows it, and comesolean and whole Out os the Belly, ss  
’ : The Rev. Mr. *Prince as Boston,* who took the preceding  
'Relation from Mr. *Atkias,* apprehends the Bag aforesaid to be  
the urinary Bladder,' and the Ambergrise Bali to be a certain  
Concretion, formed out os the greasy odoriferous Substance of  
the Liquor aforesaid contained within it. As for my own Part,  
1 darn not pretend to give any Opinion upon the Point, but  
content myself with relating Matter of Fact. *Phil. Trans.*

This Account embroils the Origin of Amhergrise Very much ;  
for it makes it nearly certain, that Ambergrise, or something  
Very like it, is an Animal Substance ; and yet, by the best jin-  
quirieS that have been made, it appears; that Ambergrise must  
belong to the Mineral Kingdom, which the following Observa-  
xions from *Hoffrnan* put beyond Dispute.

The Origin of *Amber gorse* is a Point that has been long  
debated amongst Physicians and Naturalists, some maintaining  
it to be the Product of the Animal, others os the Vegetable  
’Creation. ' ' \_ ‘ 'si I

Some assert that it is the Dung os soine Oriental Bird ; and  
as a demonstrative Proof os their Opinion, shew the ClawS and  
Fragments Of the Beaks of Birds, that are often sound inclosed  
within its Substance, which, being committed to the Fire, emit  
. the Odour of an empyreurnatic Volatile Salt, which Sort of Smell  
is almost peculiar to Bodies that derive their Origin from the  
Animal Kingdom. ' . z

Others, on the contrary, attempt to prove, that *Ambergrise*is a kind of Honey, winch is made by the Bees in the'Rocks by

the Sea-side ; and heing afterwards attenuated and digested by  
the Heat of the Sun, becomes a Substance of that Fragsancy as  
we find it.

But these Errors may he soon detected hy plain chvrnical  
Experiments ; for all Dung of Animals, and Honey too, admit  
os a Solution in aqueous Menstruums ; but obstinately resist the  
most highly rectified Spirit of Wine.

Some of the Moderns have thought it to be a peculiar kind of  
.Resin, or Tear, distilled from some Tree, as yet unknown to  
us, in the *Eastern* Parts of the World, and afterwards trans-  
serr’d to the Sea, where, acquiring a more perfect Digestion by  
'the Heat of the Sun, and by the Sea Salt, it constitutes a refin-  
sous'Bedy of that Nature. ' . ἐν'

But, besides many other Reasons, what directly thwarts and  
overthrows this Opinion, is, that all resinous Bodies of Vegeta-  
hles will admit of an easy Solution and Extraction, in the high-  
ly rectified phlogistic Spirit of Wine ; whereas the contrary is  
true of Ambergrise, which is very difficult to be dissolved in  
such a Spirit. Besides; it is-observed, that inflammable Bedies,  
produced from the Earth, as Amher, Bitumen Judaicum, and  
Sea Coal, are also difficult of Solution, and are by no means  
readily united with a very spirituous Liquor. .

These things considered, we agree in Opinion with those  
who hold, that *Ambergrise* is to he reckoned among the Species  
of Bitumens, and owes its Rise to the Earth, out of whose  
Bowels it is torn, and washed away by the Violence of the  
- Waves, and carried into the Sea; for it is found in greatest  
Quantities in the Sea about the Ifland of *Madagascar,* where  
'the subterranean Parts are believed to he pregnant with that  
kind of Bitumen.

Since it is so difficult, aS we have-chserved, to make a Solu-  
tion os Ambergrise, for this Reason we have never yet met with  
any genuine Solution os it in the Shops ; *for* it is generally pre-  
pared with Mush, or Oil of Cinnamon, or Oil *os* Roses, or  
even with Civet; by which means we are, indeed, furnished  
with an Essence of a very grateful Smell, which also has .its Vise  
tues and Use; yet participates but little of the Ambergrise,  
which remains in a manner untouchedFor these Reasons we  
think ourselves obliged to lay down some Characters of the  
.genuine Essence of Ambergrise, as follows: .

*First,* It ought to he prepared only of Ambergrise, and not  
\* mired with the Solution of any other thing.

*'Secondly,' It* must undergo an almost entire Solution by the  
Menstruum. δ᾽ .'

*Thirdly,* If this Essence be dropped into an aqueous Liquor, it  
will, of necessity, turn milky, after the manner of all Oils and  
Resins that have been dissolved.

Now it is prepared in the following manner : Let theTpirit  
of Roses, perfectly dephlegmated, be, not only once, but  
twice at least, drawn off from Salt of Tartar, which is burnt  
and calcined in a Vehement Fine. By this means there is pro-  
duced a Spirit, which, by its penetrating Quality, enters into  
the inmost Substance of the Ambergrise, and so separates and  
resolves its oleous Contexture.

. This Solution, or Essence, of Amhergrise, is deservedly placed  
at the Head of strengthening Remedies, and such as corrobo-  
rate the debilitated System of the Nerves ; and, of consequence,  
has the Preference os all such Medicines aS are appropriated to  
Distempers which proceed from a Decay of Strength in the ner-  
vous Parts. For it does not so fill the Head with Vapours, or  
, excite Commotions and Agitations in a weak Body, as does the  
common Preparation of Ambergrise, which is made with a  
Mixture of Mink or Civet, whose Fragrancy is found, by Ex-  
perience, to be of such a Nature as to incommode weak Per-  
sons of both Sexes, who ‘are subject to spasmodic Affections.  
*Hoffman. Observat. Physuo-Chym. Lib.* I. *Cap.* 18.

This has the Appearance of being, by much, the best Pre-  
paration of Ambergrise I have met with, and is Very likely to  
the possessed of the Virtues winch the illustrious Author attri-  
chutes to it. "

. .-'It is observable, that.aS Ambergrise and Amber have much  
the same Original, and are both remarkable for their friendly  
Influences upon the Nerves, it is possible they may he nearly  
allied to each other. ' *s . ..*

Ambergrise is tbuS distinguished:

**AMBRA-GRisEA,** Ossio. Mer. Pin.2I9. Park. Theat. 1566.  
Sibb. Phalam. 42. *Ambra,* Aldrov. Muf. Metal. 43O. Worm.  
Musi 33. *Succinum griseum, Ambra-gorscea vulgo,* Charh Foff.  
I5. *Arnbra-grisiea, s.eu ex albo grisea,* Dougl. Ind. 6. *Ambra-  
grisea,* Mons. Exot. 12. *Ambra cinerea,* Ind. Med. 7. AM-  
BERGRISE. Hasp. . 1

It is a solid, sebaceous, or fat Substance, not ponderous, of  
an Ash-colour, Variegated like Marble, and marked often with  
white Specks. ......

There are two Kinds of Ambergrise, the Ash-colonr and  
Black. The first is to be preferred, when cleared of all Filth,  
with a strong Smell, and light, and which, being pricked with  
a hot Needle, drops a fat odorous Juice. The Black is less  
esteemed, as being mixed with Earth or Mud, or adulterated,  
according to some. "

The Glehes of Ambergrise are sometimes found fo bin, aS  
to weigh above two hundred Pounds. It is gathered ingreat  
.Quantities about the *Molucea* Islands, in the *Indian* Sea, and  
is frequently found on the Shores, both .in the *East-Indies,* and  
*in Africa.* Pieces os itare likewise met with on the Northern  
Coasts of *England, Scotland, Norway,- uses Ireland,* being  
thrown ashore by the Tide. . so .....se ..so- so . .~.s,

Amhergrise melts by Fire into a gold-colosusd or yeliow  
Refin. . . . . αίἈ χ .. ;:Ἀ-π so.

In distilling Ambergrise; we get first an insipid, then an acid  
Liquor or Spirit, and a yellow Oil os a most penetrating Smell,  
with a small Portion of acid Volatile Salt, like Salt os Amber,  
a black, shining, bituminous Matter remaining in .the Retort.  
From whence it is plain, that Ambergrise consists os fine Vo-  
latile Parts, intangled in other thicker Parts, both . saline and  
bituminous. ; \ ss —"c

This Drug is very much used by Confectioners and Perfumers,  
in giving a fine Smell to their Preparations ; and is recommen-  
ed by Physicians aS proper to raise the drooping Spirits, to sup-  
ply the Defect thereof, and to accelerate their Motions. Hence  
it is both a cephalic and cordial Medicine,: enlivens .the Senses,  
and is very effectual in Paintings, and all other Affections .of  
the Head and Nerves. It is thought to be very instrumental  
in prolonging Life, and in producing such effects, as are ne-  
cessary for Generation. This Opinion prevail,,chiefly among  
the eastern Nations. sisqu.se ' sc so sc-.... ; .

It is used both outwardly and inwardly. The Dose, in  
Substance, is from one to four Grains, taken in a. poached Egg,  
or in a Glass of Wine with Sugar and Spices. . The Tincture,  
.'extracted with Spirit of Wine, is given from one to ten Drops.  
This Tincture is either simple or compound. The simple  
Tincture is made by only dissolving the Ambergrise in Spirit of  
Wine, and then separating the Solution from the Foeces. The  
compound Tincture is Very fragrant, and is prepared in this  
maimer: δ᾽ δ᾽ E '. . ' ' E/. '

. Take Amhergrise and Sugar-candy, of each two Drams,

Musk, twelve Grains;. Civet,, two Grains; Spirit of  
Wine, four Ounces : Digest them in a Glass Vessel for  
some Days, and then decant the Liquor, and keep it for  
.Use, JThe Dose is from One Drop to eight or ten, taken  
*in Spanish* Wine, Cinamon-water, or any other Liquor.

*Riucrius* commends Ambergrise aS a Strengthener of the  
Stomach, and as a Specific in the *Fames Canina* ; and he likewise  
.orders it in hypochondriacal Melancholy, after Purging, and a  
due Use of diluting Liquors, for reviving the native Heat, and  
-exhilarating the Spirits, It is however to be observed, that all  
Perfumes, and strong Smelis, are hurtful to hysterical Women,  
and those in Child-bed; and the same thing is remarked in many  
hypochondriacal Men; for at this time, few People can bear  
Perfumes, or strong fragrant Smells ; and for that Reason, the  
: Compositions used by former Physicians, in which Ambergrise  
’was an Ingredient, either alone, or joined with Mu ik, are now  
almost quite laid aside. Sweet Smells, though offensive to  
hysterical Women, are, nevertheless, of great Service to them,  
applied by way of Fumigation to the Uterus. Ambergrise is  
an Ingredient in the *Pulvis Diamhra* Of *Mesue,* the *Pulvis  
Aromaticus Roscius* of *Gabriel,* the *Ρulvis LatisicansQs Nico-  
laus Prapositus,* the *Pulvis contra Postern,* or *Bezoarticus,* of  
*Renaudaus gulu* the *ElectuariumDias.atyrion* of *Charas,* in the  
*Tabellae Magnanimitatis,* and *Apoplectic Balsam* of that Author,  
and in'the *Confectio Allcermes* and *Hyacinthi,* when they are  
.complete; for in these Compositions, both the Ambergrise and  
Mush, are osten ordered to be left out. *Geoffroy.*

Ambergrise in sometimes counterfeited by mixing a little  
Music and Civet, with Storax, Labdanum, and Aloes Wood.

And sometimes it is adulterated, by mixing with it some of  
-the above-mentioned Perfumes; and a great deal of Bullis Blood  
'dried. - - - - - .......

*Of* **AMBER,** *prepcrly so called.'*

The Accounts we find of the Origin of Amber in the Me.  
moires and History of the Royal Academy of Sciences, are  
thus: -

CFis commonly believ’d, that the yellow Amber, found in  
.the Sea of *Dantndc,* [the *Baltic* Sea] is the Gum of some Trees,  
that grow on the Shores of that Sea, from which it salis into  
the Water. But M. *Tournes.om* has a Letter from *Aix,* with  
an Account, that yellow Amher is found in the Clefts of the  
most naked and barren Rocks in *Provence.* This gives US  
Reason to believe, that this Gum is not a Vegetable, but a  
Mineral; and that the Amber of the Sea of *Dantzic* does not  
fell from Trees, but in carried thither by the Torrents. *Histoire  
de ΤAcad. Roy. des Scienc. i joo.*

M. *Galland,* of the Academy of Inscriptions, confirms **the**foregoing Account. For he found yellow Amher at *Marseilles,*on the Sea-shore, in a Pisce where nothing of a Tree grows, and  
where the Sea is bounded by nothing but Very steep Rocks,  
which are dash'd upon the Sea in foul Weather. This yellow  
Amber then must have been loosen'd from the Clefts of these  
Rocks, ’ and so have sallen into the Sea. *Ibid.* **1703.**

The Marquis of *Bonnasc,* the *French* Envoy extraordinary to  
the King of *Sweden,* having seen, in a Piece of Ground near  
.fithetim, belonging to Μ. *Grata,* Post-master General of  
*Prussia,* some sessile .yellow Amber, os the same Nature with  
what is found on the Sea-shore, began to considerit more at-  
tentively than before,’ and to question whether it were formed  
os the Froth of the Sea, as it was commonly thought. The  
Cardinal Primate *us Paland,* who was with him, had the same  
Curiosity, and told him, it would he good to know the Opi-  
nion os theAcademy of Sciences upon the Matter. M. *de Bonnac*wrote to *Paris,* and immediately the Academy took rare to  
collect all the Discoveries, that had been made in the Affair;  
and after they had done all that lay in their Power, sent the  
Result of it in the following Memoire.

: . t. *Memoire concerning yellow Amber.*

*As* the finest yellow Amber; and in the greatest Quantities,  
.'comesfrom the'two *Prussia's,* the Academy Royal of Sciences  
shay possibly be less acquainted with the Subject than they who  
do them the Honour to consult cheat. They will, however,  
communicate what they know, and add thereto somtatReflec-  
. lions; They won't trouble themselves with what Authors have  
written about it, suppofing it to be well known, and that it is  
not a Compilation which is requested of them.

Messi *Cajsini* and *Maralds,* having in I700. traVell'd into  
the Southern Provinces of *France,* in order to employ them-  
selves about the Prolongation of the Meridian of *Paris,* disco-  
vered some Mines of Jet, and a kind of yellow Amber, in a  
Mountain of *Languedoc,* called *Bugarach,* distant from the Sea  
twenty-seven \_ thousand six hundred. Toises, [about two and  
thirty Miles] and separated from it by other very high .Moun-  
tains. Some takeJet, as. well as yellow Amber, to he a Species  
of Succinum. : The Inhabitants of *Bugarach* use their yellow  
Amber to burn in .their Lamps,.. It is pretty like a Resin, and  
not so hard as that.of *Prussia.,* Near the Mines of *Bugarach,*are Springs of Salt-water,, which form a little River. We are  
very credibly, assured, that yellow Amber is also found in *Sicily*on the Sea-shores, along the Coasts os *Agrigentum, Catanta,*. and *Ledeata*; and in the Ifle of *Corsica,* and also at *Bologna*in *Italy,* about *Ancona,* and in *Umbria,* in the open Fields, and  
al a great Distance from the Sea.

' :: This,'consider’d with what the Marquis has written, that he  
has seen himself taken up, on the Grounds ofM. *Grata,* which  
are separated from the Sea by great Woods and Heights, Am-  
ber in all respects like that winch is found on the Sea-shore,  
feems decisive in the Case, and a sufficient Reason to conclude,  
that this Substance is always produced by the Earth.

' Besides this, we see small Animals inclosed in Amber, and  
these are always terrestrial Animals, as Flies, Ants, *etc.*

' . However to he better assured, it might be proper to examine,  
whether the terrestrial Amber have all the Characters and Per-'  
section of the Amber found on the Sea-shore; for it might not .  
he impossible, that'the Sea, by its Salt, might give a finishing;  
Stroke in the Formation of this Matter, and lend it the last  
Degree of Concoction, ' - ’ \* ’

Suppofing then, that Amber was always produced thy thejEarth, the Question is. Whether it be a Vegetable or a mineral  
Substance. ' \* ' .

' We never heard it said, thatin *Prussia* there are any Trees  
from which Succinum distils in form of a Resin, or something'  
like it. And yet it feems more natural, that Ants and Flies,  
which are sometimes seen in it, and are a certain Sign, that it  
was once liquid, should be inclosed in a Resin, that distils from  
aTree, than in a Mineral formed in the Earth.1 To solve this  
Difficulty, we must suppose, that Succinum, like Petroleum,  
trickles from a Rock, or at least, that the Ajnber in which  
these little Animals are envelop'd, has continued liquid for some  
time upon the Surface of the Earth. S

Whether, we believe Amber to be a Vegetable or a Mineral,  
we .have none to attest, that ever they saw it liquid, or so  
much .as foft.. It must however have been in that State, and  
even exposed to Sight, at the time when these littie Animals  
were caught in it. - - ’ .

The Analysis of this Compound by the Chymists of theAca-  
demy, does nor entirely determine to what Kind it belongs.  
They always find a very small Quantity of aqueous Liquor,  
which fmelis like Amher when'tis rubbed, a good deal *os* acid  
volatile Salt, and the like of Oil, which is partly white like the  
Water, partly red, and-partly very black, according to the  
Degrees of Fire given it in the Distillation; ; The Caput Mor-  
tuum is light, spongy, black and shining, .which being calcin’d  
in an open Fine, goes away almost entirely inSmoke, without  
affording any fixed Salt. .- \‘

The only Difference in the Various Kinds of Amber is, that  
the most transparent, or the whitest, afforded more Oil, and  
Volatile Salt, and a less Caput Mortuum, than the muddy or  
black ; but these' last never afforded any fixed Salt, tho’ they  
left more os a Caput Mortuum.

The Oil of Amber smells like a bituminous Oil, which feems  
to shew, that Amber is a Bitumen; but there are Resins which

have the same Smell, and some, as Benzoin, which yield an  
acid volatile Salt; but we know of none from whence we can,  
at the same time, obtain a fixed Salt, and an Oil of a hitumi-  
nous Odour. Hence the Academy is inclined to helieve, ' that  
Amber is a Bitumen, and consequently a Mineral.

It appears from what hers been said, how sar the Academy  
.. stands in need of Information, before they can presume to de-  
termine more precisely in all that respects Amber. It will he  
proper to know in particular,

1. Whether there be any Salt-water, or Vitriolic Water, near  
the Places where they take up Amber.

2. Whether it be usually envelop'd or mixed with any. Earth,  
or particular.Substance. . ’ . ..

3. If there be any Marks to distinguish the particular Places  
in the Earth, where the Amber is to be sound.

4. Whether the fossile Amber be any way different from  
what is taken up on the Sea-shore.

5. Whether they gather white from the Earth as well as  
yellow ; and, whether it be the Air, or the Heat of the Sun,  
. that changes the Yellow into Black.

6. Whether black’and yellow Amber are ever both found in  
the same Place, " si

’]. Whether we can be certain of what we are told by *James  
Hartman,* in his Account.of the Amber of *Prussia,* and by  
*Bartholinus* concerning that of *Denmark,* that it is found under  
a kind of foliated Earth, Tine the Barks of Trees, and is ac-  
company’d with a fort of fossile Wood, in which, however,  
neither Pith nor Fibres, Joint nor Bud, can he distinguished.  
*Histpire de 1'Acad.* Roy. *des Science.* L7O5. . -

But the following Observations on Amber from *Hoffman,* a  
Physician who had Very good Opportunities of examining the  
Subject,, put the Origin of Amher beyond Dispute. Ἄ ὑ

The Earth, that rich Storehouse of Nature, contains in its  
Bowels not only Metals, Minerals, Stones, Earths and Saits  
of Various Kinds, but also cherishes within its Bosom Bodies  
os a sulphureous, fat, unctuous, and tenacious Substance,,  
which pass under the general Name of *Bitumen. . , .*

. The Nature of Bitumen does no way belong to the common  
and mineral Sulphur ; for this will by no means be resolved  
into Oil or Spirit, by. Distillation; but Bitumens distilled in a  
Glass Vessel afford Oil and Spirit, besides an exhausted and  
sluggish Earth. Even the Vapour, as well aS the Smell, emitted  
by mineral Sulphur, are manifestly unlike the Exhalations from  
bituminous Bodies. .si

The principal Distinction os Bitumens is into the noble and  
ignoble Kinds, and both these are either dry or fluid. Within τ  
the Class os. the noble Kind, are comprehended *Ambergrise,*and *Succinum,* or Amber ; among those os the other Kind, are.  
Stone-coal, Pit-coal, Terra Ampelitis, and Asphaltum, which  
however are Very different from one another, both in Con-  
sistence and Goodness. To tins Class also belong Naphtha  
and Petroleum, which are a fluid Substance, by which Pro-  
perty they are distinguish'd from the rest, which form a  
solid Mass. .

AS to Amber in particular, it is. produced plentifully in  
*Prussia,* which is famous for being the proper and native Coun-  
try of it. Though this Bitumen be generated in the Earth,  
there is plenty of it found in the *Baltic* Sea, by the Shore of  
*Sudwic,* where it swims on the Water, and is carry'd along  
by the Waves, whence it is taken up in Nets. The Places most  
remarkable for Amber, are the Villages of *Fifch-hausen, Grojse  
ducstcen, Wernichen,* and *Palynontet.* Nor even is this Amber  
produced from the Sea, but, in tempestuous Agitations of the  
Waters, is washed out of the Bowels of the Earth by the  
Waves, and at last thrown towards the Shores. Very properly  
then may this bituminous Body be reckon’d in the Class of  
Minerals; for it.is a Preduct of the Earth, and is contained  
within its proper Veins, as well as Pit-coal, or other Minerals.

The Courses of these Veins were discovered some Years ago,  
by OrderosKing *Frederic,* in the following manner: In digging,  
they first met with Sand, which being removed,. the next thing  
that offer'd,'was a Stratum of white Clay; digging under this,  
they opened.a ligneous Stratum, that seem'd to be compacted  
of old Wood, which, however, could beset on Flame. Un-  
der the Bottom os this Stratum, in most Parts, they sound Ore  
os Vitriol, which being exposed to the open Air, shot forth in  
Flowers of Vitriol, free from the least Tincture of Copper, and  
like those which proceed from the *Hessian* Iron Ore.

’ At last digging still deeper, they came upon a Stratum of  
Sand, which proved very fortunate; for out os this, in several  
Places, with convenient Instruments, they extracted Abundance  
os choice Amber. For it is a thing worthy Observation, that  
Sand is usually the Matrix of Amber ; so that where they find a  
great Bed of Sand in the Bosom of tho Earth, they are not  
without Hopes os meeting with Amher. Aster the same man-  
ner do they get it out os the Saud in the Marquisate, near  
*Kussrin -,* and in the Territories os *Stolpen* and *Dantxic,* it is  
also found in Lumps.

Hence appears the Falsity os the old Fable, which would have  
us believe, that Ainbcr is the Resin os Trees, which distils from

'their . Bark into the See, and is there digested by the Hess -of  
the Sun into a Body of that Kind.

\* The Manner inwinch this Bitumen is generated, seems to be  
this: From that bituminous fossile Wood, which we just now  
mentioned, by the Accession of the subterranean Heat, there '  
distils an Oil much like Naphtha or Petroleum, which in pene-  
trating the subjacent Strata, passes through the Vitriol Ores,  
where by mixing with its Acid, it is coagulated into a Substance  
of a resinous Form. The Reasonableness of this Opinion will  
appear from the following Considerations:

\* L That Am her at its first Growth was liquid, may he  
proved from its being often seen Conglobated by Naturo Itself  
into a round Form.

2. \_ Sometimes Insects of Various Kinds stick and am included  
in Pieces of Amber, which they could never havo been, if rhe  
Matter, in which they areoircumVolved, had n0t heen liquid. "  
; 3. We may conclude, that Amber is a Concretion of an  
Oil much like Petroleum, because Oil of Amber comes near  
to Petroleum, both in Smell and Virtue, and both os them  
are equally difficult to be dissolved by the most rectisy'd Spirit.

4. *Charlton,* a Very sagacious Observer of Nature, in hig  
Treatise of Fossils, affirms. Pieces of this Bitumen have heen  
frequently found, which have held Naphtha and Petroleum in-  
eluded within them.

5. The acid Salt of Amber is of a very fined Nature, and  
not inferior in Virtue to the Acid of Vitriol.

6. What will afford great Light in this Affifis, is that physi-  
cal Experiment, in which it is observed, that ch distilled Olis,  
scarce one excepted, and amongst them aromatic Oils, being  
mixed with Oil Of Vitriol, or pretty strong Aqua-fortis, con-  
densate into a resiniform Mass, which, held to the Pine, is  
readily set on Flame. \*

.7. Besides, fossile Woods and Coals, by Distillation and  
Rectification, yield an Oil, very like Oil of Amber and Petro-  
leum.

' 8. Lastly, the Very Disposition of the Strata, which we Haye  
related, is a good Proof in this Matter. The first of these is  
ligneous, the second vitriolic, and the last composed of Sand,  
at the Bottom of which lies the Ambes, scattered hero and  
there in Bits. ' '

' There is most Plenty of Amber along the Shore of the *Suds  
wic* Sea, especially when a tempestuous North Wind blows ;  
fur it seems probable, that the Sea penetrating by some secret  
Passages into those subterranean Places where the Amber iS  
nourished, by violent dashing and breaking against them, sepa-  
rate from time to time Pieces of this Bitumen, and carry  
. them away with it.

' Amber is of various Colours; the best is reckon’d the pellu-  
cid, quite free from Spots, and which bears the highest Price.  
For this the *Chinese* give its Weight in Gold, and make them  
Idols of it after an elegant and master-like Manner. I lately  
saw a convex bunting Speculum, made of this pellucid Amber,  
in the manner of one made of Glass, which the Landgrave of  
*Hesse* keeps in his Cabinet of Curiosities. Next to the pellu-  
cid is the white, after that the yellow, and lastly, the browns,  
which is the .worst Amber of all. No less various are the  
Prices; for the larger and purer, so much the dearer are the  
Pieces ; and the more pellucid they are, the more are they  
Valued. ’ ’ .

They talk much of a black Sort of Amber, which yet is  
no-where to be met with, and so is only believed upon common’  
Report. Instead of this, they sell a black and solid Fossile,  
which is a kind of Asphaltum, and dug out of the Coal-mines'  
in *England,* and made into several Utensils for the Use of the  
Inhabitants. . -

If Amber be pulverized, and mixed with an equal Quantity  
os Sand, it will afford by a Sand Distillation, in a Glass Re-  
tort, an extraordinary Quantity of Oil, insomuch that at  
least six Ounces of Oil may be had out of one Pound. If the  
Fire be augmented to an intense Degree, towards the End of  
the Operation, a Salt of an acid Taste will be lest in the Neck  
of the Retort, which being separated from the Oil, and again  
sublimated, is what we commonly call the Volatile Salt of Am-  
her, tho’ it bo not of a remarkabsy Volatile Nature, since it  
cannot be raised but by a vehement Fire. Perhaps it obtained  
that Name from its Subrilty, which it has in common with the  
Volatile Salt distilled from rhe Parts of Animals, by augmenting  
the Fire, after the Oil has been exhausted.

. .It is observable of this Oil. of Amher, that it does not *so*intimately unite with the most rectisy’d Spirit, as do other  
distilled Oiis, fince it is never entirely dissolved, but only  
some of the more subtil Parts of the Oil pass off into Spirit,  
wh ich is a Sign of its bring mixed with a good deal os mum-  
laginous Substance, which after a gentle Evaporation, and stirring  
with a Stick in an open Vessel over rhe Coals, presents itself in  
View. Is Oil os Amber be mixed with Water, and distilled  
over again in an Asembic, it becomes much more penetrating;  
and being made into a Plsister with other Ingredients, has been  
more than once, by our own Experience, found efficacious in  
discussing hard and inveterate Tumours of the Glands, What

remains in the Vessel after Distillation, is a crude and. much,  
laginous Mass. ' . Ἀ'. χ.

*. We* ought to say something tooths the Solution of Anther:  
Indeed I could wish, that we knew a Method, which some boast  
os, to reduce small Pieces of it by Melting, to a bulky Mass,  
without destroying its Contexture. But fince I have Reason to  
doubt, whether there be any such Method of Preparation, I  
shall here endeavour to explain what we know by Experiment,  
with respect to this Solution.

In the first place. Amber is almost totally diflolved by a  
strong Lixivium boiled with it. This Lixivium is prepared of  
the caustic Salt of Regulus of Antimony, which is made by  
melting two Parts of Nitre with one Part of Regulus of Anti-  
mony, in a Crucible over a strong Fire. This Salt mixed with  
Amber in equal Quantities, by a moderate Decoction in a suf-  
ficient Quantity os Water, almost entirely dissolves it. and,  
what is worth Observation, the Lixivium, winch was- before  
of a very caustic Savour, loses much os its Acrimony, and  
becomes more temperate; the Reason of which perhaps nyay  
be, that the lixivious Salt is broken and tamed hy the Acid  
lodged within the Amher, which, being by this means reduced  
to a Liquor, becomes an excellent Medicine in Obstructions of  
the Viscera, and for Promoting Excretions of all'Kinds,-and  
consequently sor chronic Disorders. . YἈ" - '. . i "

Some Notice must also be taken of the Solution of Amber  
sor mechanical Purposes, that is, for preparing a-most excel-  
ent Vernish, which the Artificers make a great Secret *cjf.*

They take one Pound of powder'd Amber, which they melt .  
in a proper unglaz'd earthen Vessel over aDhareoalTire,  
and pour it, whilst fluid, upon an Iron Plate;-then’ they  
powder ft again when concreted, and afterwards dissolve  
it entirely in an unglaz'd earthen Vessel, adding to it fust  
Linseed Oil, prepar'd and boil'd with Litharge, and aster-  
. ( wards Spirit os Turpentine. With this they incrust Ves-

sels of Wood and of Metals, and afterwards polish them,  
bring first carefully and artfully dried. .-suss din

- From this Process it readily occurs, that Amber; contains  
much aqueous and mucilaginous Humidity, of which jt must  
be depriv'd by Liquesaction; and after this, the Linseed Oil  
and Spirit of Turpentine find an easy Ingress into the' Gum.-’  
resinous Mixture remaining. Nor is a subtil dish'fl’d' Oil alone  
adapted to diflolVe the Amber, without' being, temper’d with  
an express'd Oil, which evidently shews, that the Substance of  
Amber, besides its resinous Particles, has some which are.mu-.  
cilaginous. ' / ” ' *' susisisc i'-*

Lastly, I cannot excuse myself from relating a Very curious  
Experiment, which I some Years ago made with Amher. ς **Γ**put some powder'd Amber in a Glass Vessel, and pour’d upon  
it twice the Weight of Oil of Almonds; I then placed the  
Glass in one of *Papiurs* Digestors accurately made, which was  
one third full of Water, and placed on its Cover Very exactly,,  
and Then put under it a moderate Fire for above an Hour; I  
took the Veffel out, when it was cool, and found the Amher  
dissolved into a gelatinous, pellucid Mass, with a small Quan-  
tity of fluid Oil upon it. '..si

By this Experiment we discover clearly, that express'd Oils  
can do a great deal towards dissolving the firm Texture which  
we find in Amber ; and this is principally brought about, when  
the Elasticity of the included Air is increased, and the Corpus-  
cles of Oil are violently forced into the smallest Pores of **the**Ambes, by the Heat of *Papiurs* Machine. *Hossenan Observat.  
Physico-Cbym. L.* 2. *Obs.* 23.

Many great Virtues are ascribed to Amber, especially when  
taken inwardly, in a cold State os the Brain, and in Catarrhs,  
in the Head-ach, fleepy and convulsive Disorders, *in* a Sup-  
pression of the Menses, hysterical and hypochondriacal Affec-  
tions, in a Gonorrhoea, Fluor Albus, and Hemorrhages. The  
Dose is from a Semple to a Dram, in a poached Egg, or any  
other proper Vehicle. ..si.

Take, sor Instance, of Amber finely powdered, or reduced '  
to an Alcohol on a Porphyry, Conserve of red Roses, and  
Rosemary Flowers, of each half a Dram ; Syrup of Stce-  
chas, a sufficient Quantity for a Bolus; to be taken in  
the Morning, to check the Flux of Rheum, and blunt.  
its Acrimony in Colds in the Heads, Catarrhs,, and Run-  
ning at the Nose.

Take prepared Amber, Camphire, and Dragon’s-blood, off  
each a Dram; Syrup of dry'd Roses, a sufficient Qpan-  
tity to make an Opiate; of which, the Quantity of **a -**Dram is to he taken every Morning, in a Gonorrhoea,  
aster due Preparation of the Body. - : -

Take prepared Amber, and prepared Millepedes, of each  
two Drams ; Myrrh, half a Dram; Conferve of the  
Flowers of white Dead-nettle, one Ounce and half;  
Syrup of common Yarrow, a sufficient Quantity for an  
Opiate ; to he taken in the Quantity of two Drams twice  
a Day in the Fluor Albus. -

... , -.

**Take of prepared** Amber, a Scruple; - Sperma.cetf, and  
Terra Japonica, of each fifteen Grains ; Syrup of Ground-  
ivy, or of Diacodium, a sufficient Quantity to make a  
'5 .' Bolus, in a Spitting of Blond, or an habitual Cough, pro-  
ceeding from an acrid Phlegm.

‘ Take of Amber, half a Dram; Castor and Myrrh, of each  
twelve Grains ; Saffron, six Grains; Conferve of Worm-

' wood, or Extracti of Rue, a sufficient Quantity to make  
a Bolus, in hysterical Suffocations, and in a Suppression  
of the Menfes.

Externally, Amber is used as a Fumigation, in Cataplasms,  
and Cucuphse, in Disorders of the Head or Brami The  
Fumes of it, received at the Mouth, are often found success-:  
rul in beginning Quinsies,, a Falling-down of the Uvula, or  
Swelling of the Tonsils from a Catarrh.

PREPARArIoNS of AMBER.

.' The Preparations of Amber are, first, prepared Amber,  
properly so called, which consists in reducing it to an impel-  
spable Powder upon the Porphyry; and cedis Powder is much  
preferable to the Magistery of ArnheI. Secondly, theTinolure  
-of Amber, with tartariz’d Spirit of Wine, which may be taken  
from a sew Drops to a Dram. With this Tindture is made  
.the volatile oily fuccinated Saltby mining equal Parts thereof,  
And of the common volatile oily Salt, and then digesting them  
in a gentle Heat. This new-Tinctirre is cordial and diaphoretic,  
and of surprising Efficacy in sleepy Affections,: Catarrhs, hy-  
sterical Disorders, Palpitation of the Heart, Fainting; Ob-  
structions of the Menses, and Palsies. The Dose is from a  
sew Drops to a Dram, in Tea, Wine, or any other convenient  
Liquor. '1 - x .

Externally, the Sutures, of 'the Cranium, the Nares and  
Temples, are anointed with it,’ in Catarrhs; the Scrobiculum  
Cordis, in Paintings and Palpitations ; and the umbilical Re-  
gion, in hysterical Affections. *Geoffrey.*

ςολϋΛ'νί:1 *Hiofsenan’s* TINCTURE of AMBER.

The fragrant Oil of Amber, which is very agreeable and  
friendly to Nature, and endued with a strengthening and bal-  
samic Virtue, is so firmly and closely united and connected with  
Its terrestrial and acid Parts, as it is a subterraneous Resin, that  
it cannot, without great Difficulty, be separated from them.  
We have need then of a Key to open thofe Cloisters, in, which  
the sulphureous Parts are confin’d, and to release them from  
these heterogeneous Corpuscles with which they are fetter’d  
And the most convenient Instrument for this Purpose is an  
alcaline Salt strongly calcin’d.

Mix therefore, very exactly. Salt of Tartar, with an equal  
Portion of choice Anther reduced to a very sine Powder, and  
pour thereon a sufficient Quantity of Spirit, to the Height of  
four Fingers above it. After a previous Digestion, let a Distilla-  
tion be made out of a Glass Cucurbit with a Sand Heat, and  
there will he drawn off a Spirit impregnated with the most  
subtle and fragrant Oil of Amber, which, though it he in itself  
endued with an extraordinary strengthening Virtue, will yet  
serve to much better Purposes, by contributing towards fur-  
nisuing us with an excellent Tincture.

The transparent Amber is to he chofen hefore that which is  
brown, or dark-colour’d, as consisting of a foster sulphureous  
Matter, set this he brussed and levigated in a Mortar to a  
very fine Powder.; into which, heing placed on a Marble Stone,  
drop Oil of Tartar per deliquium, and mix them very carefully  
till they come to a Paste, which must he dry’d gentry This  
done, pour thereon a sufficient Quantity of the Spirit prepared  
as above, and then digest them in a Glass Vessel, or Vial close  
stopp’d with a gentle Heat.

By this means we obtain the most generous and efficacious  
Essence of Amber; a Remedy highly to he valu’d, were it  
only on account of its most grateful Taste and Smell.

, The most convehient way of taking it is hy instilling some  
Drops of it into Sugar, or tiorup of Pinks, or of the acid Juice  
of Citrons. The Morning is the usual time when Persons take  
it, for corroborating the Stomach, Head, and a weak nervous  
System, drinking afterwards feme Cups of warm Liquor, as  
Coffee or Chocolate; it may also be taken at Dinner in sweet  
Wine. It provokes the Menses, bur restrains the Fluor Albus,  
and is an excellent Medicine in rheumatic Disorders.

It is remarkable, that this Essence dropp’d into Water, is  
not precipitated like other Essences or Solutions of Oils and  
Resins, and, that a sew Drops of it, instill’d into a large Quan-:  
tity of Water, impregnate the Whole with the grateful Odour  
of Amber; which is a strong Proof, that a Medicine of this  
Nature, which so amply diffuses itself through the least Cor-  
pufcles of Water, is of very sine Parts, and by Consequence  
can make its Way into the very innermost Fluids and Solids  
of cut Bodies , so that a small Dose may be expedited to pro-  
duce a considerable Effects *Hallman. Obsorvat. Phystca-Chymi*

*~ Somewhat dijforent from this, is* Boerhaave^ *Tincturi of Amber.*

Reduce the best transparent yellow Amber to fine Powder,  
in order to increase its Surface*, grind* this Powder in a Glass  
Mortar, with the alcaline Oil of Tartar *per deliquiam,* the  
longer the better, thet it may become a thin, well-wrought  
Paste, put st into an urinal Glass, dry ft in a warm Furnace,  
and resolve it in the open Air for several times*., for* it is hard  
to bepenetrated. At length the Mauer heing well dried, put  
it into a toll Bolt-head, with a very long and fiender Neck ;  
pour pure Alcohol thereon, to the Height of three Inches above  
it; shake them together, and simmer them on the Furnace for  
some Hours, as may thus he comrnodioufly done. The Tincture  
will hecome red, and when cool, and grown olear by standing,  
should be carefully decanted from its Faeces, into a clean Glass',  
kept clofe stopped. In other respects procced as before, till  
.almost the whole Body of the Amber the taken up- in the  
Tinctirre. This may also be prepared in the fame manner by  
the means of Alcohol alone, without Aleali, theugh to b'etmi  
Advantage with-it.

- - - - - ; si R E M A R K S. ,

Hence nie see, that Alcalis have a Tower of gaining Entrance  
forAIcohol, into a Bory brittle like Glass, whose wonder-  
ful, resinous, and particular Nature, no one has hitherto par-  
ticularly explained ; but in the Composition thereof, a fossile  
Acid, and a Petroleum, or something like them, stem to  
concur; whence it is difficult to dissolve. Its Tindinrd,  
however, is neither acid, alcaline, nor olly, but holds the  
whole. Substance *of* the Amber dissolved. It is of a bitterish  
aromatic Taste, wonderfully refreshing, having a perfectly  
restorative Fragrance, and fame Degree of Stypticity. When  
well made, it in the Winter-time grows thick, and depo-  
sits a kind of mealy or somewhat resinous Substance,  
which shews bow richly impregnated it was with the dissolved  
Amber , but when warm Weather returns, it again grows  
clear, and takes up the Powder it had let fall. If one half  
of the Alcohol he drawn off from this Tindture, the re:.

- maining thick Part deposits a kind of powdered Amber',  
which, being conceded separate, is of a higniy aromatio Taste,  
and Odour. It is very surprising, thet this Substance should  
be fo equally, and almost totally, dissolved in Alcohol, with-  
out any observable Separation of its Principles ; yet at the  
same time acquire such noble medicinal Virtues, as were not  
before found inthe entire Amber ; especially, as by Distil-  
lation it is divided into such different Parts, each of them of  
a different Virtue and Nature, as we find by its Analysis.

And hence again we fee, by a manifest Example, that chymp.  
cal Productions may differ ificredlbly, as they are obtained or  
prepared with a different Menstruum, or in a different  
Manner. - And hence alfo we see how very different Princi-

\*5 ples may lie concealed in a certain Compound, without  
giving any Sign of their being there, or of manifesting their  
own Natute; and this, though the Compound he very sub-  
tllly divided, either by Trituration, or a Menstruum. And  
hence again it appears, how much a simple Division, made  
by a Menstruum, without any Extraction of the Principles;  
may produce new Virtues.

This Tincture has an incredible Efficacy in all those Distempers,  
which procced from too great a Mobility of the immediate  
Instruments of the human Affections, Spirits, and nervous

7 System; and particularly from a Relaxation of the Parts,  
- through Weakness: And hence it proves of wonderful Ser-  
vice in hypochondriacal, hysterical, languid, cold, watery  
Cafes, and Convulsions often proceeding from them. So  
that Mr. *Boyle* and *Hilstlumt* have for this Reason placed it  
among the noblest Anti-spasmodics, and Anti-epileptics',  
’ when the Disorder prccceds from those Causes. The Dose is  
from ten to eighty Drops, three times a Day, in *Spapisa  
or Canary Wine.*

*The Aietbsd of making 'the Oil, vistaiite Calf, and Spirit of*— ' - 1 ψ-.*Amber.*

Take inf coarse Amber in sine Powder, one Pound ; of  
Tobacco-pipes, Bricks, Sand, or Bole, also in fine Pow-  
der, three Pounds; mix them well, and with the Mix.:  
ture .fill a Retort half full, set it in a Sand Furnace, fit  
to a Receiver, (not luted) make to it a Fire of rhe first  
Degree for one Hout, increase it to the second, and so  
keep it two Hours; then to the third, in which keep it  
four Hours. In the fust Degree, some of the acid Water,  
*.- j* we. call Spirit, with a little of. the finest Oil, will distil:

In the second, the Spirit and Oll will continue dropping,  
and some of its .volatile Salt will rife into the Neck of the  
Retort. The third will elevate more Salt, with a grosser  
Oil ; and if the Fire he inlarced to the fourth Degree, in  
will raise a thick Balsam. ~As the Salt riles into the  
Neck of the Retort, it ought to he scraped out with N  
. clean flat Stick, and put upon brown. Paper to suck up

the Oil: The Salt by this means will he white; and if  
it he desired more sine, it may he dissolved, filtred.and  
evaporated, and it will leave a very white Soft. When  
the Distillation is over, and all cool, reparate the Oil and  
Spirit by a Funnel, or other separating Glass. If the Oil  
is defin’d to he rectify’d, it may he put into a long-bodied  
Retort, and placed in Sand, and by gradually raising the  
Fire to the second Degree, there will distil a fine yellow,  
'and olear Oil: But if a pure white and ethereal Oil he  
desired, it must be put into a Cucurbit, with three times  
the Quantity of Water to that of Oil (with which the  
Vessel must not he quite half full) ; and then sit on the  
Head and Receiver, and gradually bring the Fire to the  
second Degree, or so as to make the Oil and Water hub-  
hie; and there will distil a pure ethereal Oil, which must  
be separated as before. Separate the Water from the Oil  
that is lefr in the Retort; and because it will be impreg-  
nated with some Salt, put it into the Receiver, into which  
. was made the first Distillation, and shake it well to rince  
out the Salt. Then pour all into a Cucurbit, fit to it a  
Head and Receiver, give a gentle Fire to evaporate the  
Water, till the Drops fall a little acid; then let it cool,

. and put to it the Spirit, which, separated in the first Distil-  
. lation, rectify them together, and there will be a Spirit of  
Amber.

We have included three Medicines in one Process, because  
they so naturally arise out os the same. The rectify’d Oil is  
sometimes internally prescribed in nervous Cares, joined with  
Spirit of Sel Ammoniac, or of Lavender, or other Liquors,  
from five to sifreen Drops. The thicker Oil is most ufed ex-  
ternally in fixed rheumatic Pains and Aches, as allo to paralytic  
Limbs; butfome commend it inwardly in old Gleets, and say  
it answers even when the hest Turpentine Balsams fail. The  
Spirit is used much to the fame Purpose, both internally anil  
externally, from ten Drops to one Dram in any convenient  
Vehicle, inwardly; and outwardly, rubbed in by itself, or  
miked with other suitable Liquors. But the volatlle Salt is the  
main Part, and fo much in ofe, that the other are of little  
Value with respecti to it; the Demand for this being vastly  
greater than for the other, in proportion to what every pro-  
cess necessarily produces of each. This is a most admirable  
cephalic Detergent It extremely attenuates, cuts and pene-  
frates into the most remote and minute Recesses, where-  
by the whole nervous System is, as it were, new fcoutid.  
Its chief Tendency in Secretion, and whet it carries along with  
it, is by Urine. In the convulsive Deliriums of Fevers it is  
mightily prefcrihed, and is reckoned not inferior to any thing  
' in fuch Intentions; because, besides its peculiar Efficacy upon  
the Nerves, it also conduces much with Alexipharmacs to pro-  
rnote a Diaphoresis : In all chronic Cafes likewise, as Epilep-  
sies, Palsies, and the like, it is scarce ever left out of Prescrip-  
tion : The Dose is usually from three Grains to fifteen. This  
Salt has further one ufeful property, which seems attended to  
but by sew, and that is, quickening the Operation of forne  
Cathartics, especially of the aloetic and resinous Kind. A few  
. Grains, with any of the milder officinal Pills, as Rush, and  
the like, will make them brisker by much in Operation, and  
yet rather milder; and this it seems to do, by dividing rhe  
Parts of these Medicines so readily in the Stomach, that they  
begin to exert themselves sooner than they otherwise would.

dine great Consumption of this Medicine, in Comparison to  
what the Amber produces of it, and the Price, upon that ac-  
count, it bears, is fo tempting to the Avarice of the present  
degenerate Race of Chymists,. that it is most abominably adul-  
terated ; and therefore not to be trusted to from any Hands,  
but those who make it for their own Use. Some of these, once  
otherwise inspired Philosophers, sophisticate it with Sal Am-  
mohiac, with Nitre, some with Cream of Tartar, and others,  
with Salt of Coral.

The first of these Cheats may be discovered by a strong uri-  
nous Scent, if it he rubhid with Salt of Tartar; the second by  
its nitrous Taste ; the third by Solution in clear Water: For  
the Salt of Amher will much sooner dissolve than the Tartar,  
and therefore manifestly leave that behind to View, and the  
last is discoverable by trying it upon a red-hot Iron; for the  
genuine Salt will fly away, rhe Vinegar, which rhe Coral had  
absorb’d, will be destroy’d, and nothing but an insipid Earth  
he lefr upon the Iron.

This Salt much best fits the Forms os Boles, Pills or Eleilu-  
- aries for taking; because In Juleps and Draughts, in which  
sometimes it is inadvertently order’d, it is extremely nauseous;  
**the** genuine Salt'having a mixed Relish of Salt and Sulphur,  
which in a .liquid Form lies so naked to the Palate, that it often  
urges the Parient to reject it by -Vomit immediately aster  
taking. *Quincofs Dispensat.*

Many Chemists endeavour to recommend their Salt of Am-  
ber, by its extraordinary Whiteness, "and this is generally a Sign  
of its being adulterated; hut, if genuine, it is much the worse  
for being depriv’d of all its Oil, which makes it look brown.

The volatile Salt is diuretic, and esteemed a Specific in hy-  
sterical, convulsive, and spasmodic Complaints, taken from  
ten Grains to half a Dram ., and with that is prepared the the-  
cinated Liquor of Hartshorn of *Michael,* very much recom-  
mended in the epileptic Fits of Children. This Liquor is made  
by dissolving as much Salt of Hartshorn and Salt of Amher in  
Spirit of Hartshorn, as the Menstruum will take up. The  
Oil is useful in hysterical, cephalic, and nervous Complaints,  
taken inwardly, from two to twenty Drops. Externally, it is  
used in the Gout, Palsy, and Catarrhs, by rubbing it into the  
Part affected ; with it is prepared the fuccinated Balsam of Sub  
pbur ; and it is an Ingredient in the *Emplastrum Magneticum* of  
*Angelas Sala.*

Amber is an Ingredient in the *Trochisci de Carabe,* in *Crate's  
Pilulae de Succino,* in *Gharus’s* Stomach Plainer; and in his  
diapheretic and styptic Plaisters. *Geoffrey.*

*Succini potestates,* powers of Amber:

Take Oil of Amher, one Ounce volatile Sal Ammoniac,  
half an Ounce; grind the Oil and Salt well together.in a  
little Mortar ;. pour to them Spirit of Wine tartatized,  
balsa Pound; and put them asterwardSinto a Bolt-head-;  
invert a llttle Glass to make it fit for Circulation. Lute  
well the Joint, and put.it in wannsSand, to stand in  
- Digestion for sour or five Days, shaking it two or three  
tones every Day, in which time the Spirit of Wine will  
have imbibed the Oil and Salt ; set it by, and-when it.is  
. conl, put it in a Phial well stopp’d, for Use. . - r  
-This has the Virtues of the Oil, and is fitter, for Prescrip-  
tion internally, because it better mixes with any Vehicle for  
the Conveniency of taking. Its Dose is from ten Drops to  
thirty or forty. *Quinceyso Dispensat.*

Boerhaave^ *Analysts of Amber. . -*

Take - a capacious Glass Retort, with its Neck cut off, so  
as to leave an Orifice two inches wide or more ; put into it  
Pieces of common Amber, well cleansed from Sand, Dust, or ~  
other Fouiness, so that it may fist two thirds of the Cavity.  
Apply a large Receiver, and lute theJrrnctirre with the common  
Luting; distil in a Sand Furnace, with a Degree of Heat .a .  
little greater than that of hosting Water; thus there will come  
over a copious, thin, limpid Oil; Continue this Degree of  
Heat, so-long as any Oil comes over, and keep it separate.  
Then apply the Receiver again, and cautiousty raise the Fire,  
till a second Oil begins to rife, which will be yellow, large in  
Quantity, and still transparent ι Proceed patiently with the  
fame Degree of Heat, so long as this Oil comes over, which  
it continues to do for a considerable time ; but for the Elegance  
of the Operation, this also might be kept separate. Now,  
again, raise the File gradually, till a white, saline, woolly  
Matter appears in the Receiver, but particularly in the Neck ;  
then gradually raise this Fire a little, and continue it increasing,  
till no more of this Matter comes over; but the Fire must not '  
be increased too quick, otherwise the volatile Salt would mix  
with the gross Oil, that should follow after, and thus be in a  
great measure lost therein. It is best to remove the Receiver,  
take out the Productions, and keep them separate; hut during  
rhe whole time, that this volatile Salt funs, a red Oil also  
comes over, still almost transparent. The Fire being now in-  
creased to the utmost, there comes over a gross, viscous, fat  
Oil, thick like Turpentine. When this is risen, if a Fire of  
Suppression he given, the whole black Matter now hecomes  
flatulent, rises into the Neck os the Retort;'and thus come,  
into the Receiver, in form of a bard, black Mass; so that if  
the Neck of the Retort is not left wide, it will be thus blocked  
up, and the Glass be buist in a dangerous manner, with a loud  
Noise, and soften a firing of the Matter But if, before the  
Fire of Suppression was used, a large Quantity of Sand were  
thrown upon this last Remainder, it will divide the Matter, and  
cause it to come over, without Danger, in a black and dry  
Form. There remains at the Bottom of the Retort, a very  
sinall Quantity of brittle Foeces, of source any Significance, fo  
that the whole is volatile. If the Operation be carefully per-  
formed, so many different Productions are obtained, which  
may be purified by a new Distillation, and he rendered thin and  
limpid; but the volatile Salt, collectsd by itself, is perfectly  
acid. And this is the only Method, that! know, whereby a  
true Acidus obtained in a solid saline Form ; for we have no  
instance thereof in any other vegetable, animal, or fossile  
Substance.; Tartar indeed is acid, hut as it is scarcely dissolvable  
in Water, does not deferve the Name of a Salt. Oil of Vitriol,  
brought to an extreme Degree of Purity, shoots, in Winter-.  
nine, into transparent solid Crystals, but immediately dissolves  
again, and appears fluid as soon as the Cold is a little dimi-  
nished ; but the Salt of Amher long continues the seme.

REMARKS,

Amher thus appears to be a very particular Bodj’; its Oil re-  
sembles the fossile Oils *of* Petroleum, Naphtha, and the like;

hisi the Remainder, aster the first or second is come over,  
nearly resembles Jet. and the acid Salt feerns somewhat vitri-  
olic. But the seme thing,concreced, wonderfully differs from  
those Parts,, into which Chymistry resolves it. Who would  
think, thet Amber, itsTowder, its liquid Solution in Alcohol,  
the Powder precipitated from its Tincture with Water after  
.Distillation, and then washed; the Oils, Salt, and Colo-  
phony after Distillation, proceeded from the same Matter ?  
. Who could know the proper Virtues of each, and who, by  
joining them together again, could recompose Amber ? The  
Oils, being purified by a repeated Distillation, heve a sharp,  
balsamic, excising, diaphoretic, diuretic, emmenagogic, and  
anti-hysteric Virtue, and when externally used, by way of Li-  
niment, are very serviceable in restoring contracted, weak;  
paralytio, torpid Limbs: The volatile Salt is gratefully acid,  
balsamic, unctirous, penetrating, preservative, and stimula-  
ting to the Nerves and Spirits, being a true, volatile, acid,  
Oily Salt, and therefore a capital Anti-hysteric and Diuretic;  
especially, if purified by a second Distillation. *B'oerhaavrs  
Chymistry.*

There is a Drug very different from those above-mentioned:,  
. which is culled *Liquid-Ambar.* It is thus distinguish’d:  
Y LIQUID-AMBAR, *lessee. Cluse Exot.* 302. *J Oof. Dendr.* 353.

*. ~ De Lacs Ind. Occide* 222. *C. B. Pin.* 502. *Park. Theat.*-1509. *Raii durst.* 2. I 848. *Liquideambar resina arboris*

*Ocoselt dicta, foliis hederae, odere Styracis liquidae,* J. Β. *i.*

-323. *Liquid-ambant arbor-seue Styracifera, acerisfolio, fructu  
iribuleide,* (i. e.) *pericarpla orbiculari ex quarnplurimis apicibus  
coagmentato semen recondens,* Pluk. Almag. 224. Phytog. Tab.  
42. *Xochiocotzo Qudhuitl, seu arbor Liquideambarurn Indicum,*Hern. 96. *Styrax acerisfolio.* Rail Hist. 2. I848. *Styracem  
'fundens, vel Styrax arbor Virginiana, aceris folio,* Breyn. Prod.  
'2. 84. *Platanus arbor Virginiana, aceris folio,potius Platanus*

*Virginiana Styracem fundans,* Ejufd. 2. I799. *Platanus Vir-  
giniana Styracem fundens,* Herm. Par. Bat. Prod. 366. *Acer  
Virginiarum oderatum, Hessn.* Cat. Hort. Lugd. Bat. 64I;  
LIQUID AMBER. . / . .

It grows in *Virginia,' Naw-Spain,* and other Places of the  
*Woeji-lndies.* The Part used is the Resin, which is a fat liquid  
Substance, of the Consistence of *Venice* Turpentine, yellow  
inclining to red, of an acrimonious Taste, aromatio and fra-  
grant. .. . ... ' ; '

It heats and moistens, resolves and opens Obstructions, and  
is an Emollient and RipeneI. Its principal Use is in Ob-  
structions and Hardness of the Womb, in herd Tumours, *etc.*in-Sustinnigations, and the like. . . .

*Hernandez,* fays, thet this Balsain distils from a Tree, either  
spontaneously, or from a Wound. Some break up the Branches  
into frnall Bits, and, boiling them, skim off the Oil that rises  
on the Liquor, which they sell for the true Balsam.; and this  
Liquoris thought by some to be the. liquid Storax commonly  
sold by the Apothecaries and Druggists.

AMBROSIA. The Ambrosia, which fome call Botrys, others  
the Artemisian Botrys, is a small Shrub, three Spans high, very  
much branched, with small Leaves at the Bottom of its Stem,  
like those of Rue, and its Sprays thick set with frnall Seeds,  
like little Clusters, which never flower. The Piant has a vi-  
nous and grateful Smell. The Root is slender, and two Spans in-.  
Length. In *Cappadocia* they weave it into Garlands. ; .

It has the Virtue of restraining and repelling the Courfe of  
the Humours from any Part; and, used in a Cataplasm, is a  
good Astringent in the like Case. *Diofcarides', Lib.* 3. *Cap.  
no. . - - : Vi - \* \*τ.\*Τ

The Ambrosia os the later *Latins-* is different from the Am-  
-brosia of Antiquity, as *Strabus* himself acknowledges in those

Verses of .his *Hortulus: ;*

*Haud procul Ambroseam, vulgo quam diceremss est,.  
Erigitur, laudata quidem s sed an ista sit illa.  
Cujus in antiquis celeberrima mentio libris, -  
Fit dubium kx multis. .* 6.

" Not far off is erected Ambrosia, as ’tis commouly called,  
"" an Herb of good Value; but whether it be the fame with  
"" the Ambrosia fo much celebrated in antient Books, is doubt-  
“ ful on many accounts.” -.d

*Pliny* fays, that Ambrosia is a Name of no fixed Signification,  
but applicable to more Plants than one. Some called the Botrys  
*(Oak of* Jerusalem) by this Name. *Dioseorides* reckons. Am-  
brosia among the στεφανωματικἀ *(Coronarian* ) Plants; and  
writes, that the *Cappadocians* ofed it to make themselves Gar-  
lands; κάταπλέκεται δέ εν Καππαδοκίοε στεφάνοις *(in* Cappadocia  
*they weave it into Garlandey: Bat Flicauder* telis us, that the  
Appellation of *Coronary Ambroses* was by some bestowed on the  
Lily, thus: - . -

*"si xpcsa,* λείρια δ’ἀλλοι έπιφθέτγοντσι ἀοιδών,  
Όι δέ καὶ ἀμβροσίην.

,. Lilies, which some of our Poets call *Liria,* and others  
*“Arndaastade*

*Athenaeus* himself puts the fame Interpretation upon ἀιιβοοσία,  
*lAmbresiay* in the^ historical Commentaries of *Carystius,* thus.  
Καἰ αμβροσίαν δε ανβος τι αναγρώφες ΐβαρὐστιος εν ιστορικοὴς ὑπο.  
μνημαον γράφων πτως. Ο Νικανδρος φησιν εξ ἀνδριἀ:τ,ς.τηί κεφαλἱ-ί.  
Ἀλεξάνδρκ τὴν καλουμένην ἀμβοοσίἀν *pla&oi* εν KS (Carystius, *ist '  
his historical Commentaries, manes Asnbrascia tb at a Sort of  
Flower, when he writes, ibat* Nicander *affirms, that vehat they  
call Ambresia grows out of the Statue of* Alexander’s *Hiead in the  
Istand of* Coos). The Coronarian Ambrosia of *Hiiornder,* in  
the *Georgics,* is a Llly ; but I don’t know whether wc ought to  
understand the fore-mentioned Passage as relating to throfarne  
Flower. - . . -

- The greater House-leek; or Sempervivum, is also called  
Ambrosia, as *Diofcarides* assures os in the following Words,  
which, on tho Authority of a very antient- Manuscript, are  
thus to be read, rejecting all othar homonymous Terms, which  
- are certainly spurious: Αείξωον *saeja 'daapisaeas* διά τό άει&αλὸς  
τῶν φύλλων. ἐν δέ βύφθαλμον; ἐν δέ ξωόφύαλμόν, *Il Anfyodiior  
seaesaeas (The great Sempervivum is se called because its Leaves  
are always green ; same call it Buphtbnlmus, seme Acophthalmus -,  
and others Acnbrosta). Salmastus de Hamtmyrn. Hist. Tatro Cap.*62.- ... . ’ .

The modern Ambrosia is thus distinguished .

AbrERosIA, Ossic. GeI. 950. Emac. Iro8. Raii Hist. I.  
I64. Chain 376. *Ambrosea hortenses.* Park. 88. *Ambrosea hor.  
feasts lanuginosa.* Hist. Oxon. 3. 4. *Ambrosea maritima,* C. B.  
I38. Tourn. Inst. 4.38. Boerh; Ind. A. 2. I02. *Ambrosea qui-  
buspiam,* J. B. 3..290. *Ambresiafoliis Absinthii 'odoratis, humi-  
lior,* Herm. Hors. L. Bat. 32. OAK OF CAPPADO-  
CIA. . . ... .. . . .. . -

- It is a Plant which puts forth a single Stalk about a Foot high,  
dividing itself into many Branches, in form of a little Shrub r  
Its Leaves are cut like those of Wormwood, and are whitish»  
its Flowers are ranged along the Branches , every one of them  
is a Sort of Nosegay, consisting of many yellowish Florets;  
which produce no Seed ; the Emit grows upon the same Foot-  
stalks as the Flowers, but separately ; and every one of them -  
contains an oblong blackish Seed: Its Root is as long as one’s  
Hand, woody and small. All the Plant yields a sweet Smell,  
and an aromatic Taste, a little bitter, but agreeable. They  
cultivate this Plant in Gardens ., it contains a great deal of ex-  
alted Oil, and but little Salt and Phlegm.

-- It revives the Heart and Brain; it stops Fluxions, it resolves  
and fortifies; it is prescribed internally and externally. *Leme-  
ry de Drogues. .*

The Herb is in Use, which is of a repelling and restrin-  
gent Quality, *Hi Or.* It has an astringent Virtue, says *Galen.*It is a Plant-of a very fragrant Scent, hot and aromatic. *Boerh.  
Hisii. Plant.* 569. - . . -

. - The Shortness of the Description *Dioseorides* has left US of  
Ambrosia, has given no small Occasion for Dispute and Control  
verfy among Authors. *Naicander,* as is observed above, takes  
it for a Species of Lily; *C'ardus,* for Southernwood. *Taber-  
naemmtanus,* for Mugwort; *Matthiolus,* for a kind ofNasturri-  
cum; *C. Bauhine,* and his Followers, with whom wo agree,  
to the Plant above-mentioned. *N. B.* The Catalogue prefix’d  
to the *London Difp.enfatsry,* does not distinguish Ambrosia from  
the Botrys; but makes them both Synonymies of the same Plane.  
*Da le '. ‘ . - - - .*

Ambrosia, with the Antictits, was called τὸ τῶν θεῶν βρῶμα  
f*the Food of the Gode) ,* either Because Mortals did not eat of  
*it, -or* by eating became immortal, its extraordinary Fragranry  
recommending it to the Gods themselves. *Raii Hist.*

. / Besides the corrimon Sort described by *Lemery, Ray,* in his  
Appendix, mentions a second Sort from *Harman. Car. Lugde  
Bat.* which he distinguishes by the Denomination of,

*Ambresia splits Artemista inodoris, elatior,* anil gives it the  
following Description:

It shoots up with Stalks, three or four Feet high; bearing  
Leaves less than there of the common Sort; and nearly refem-  
bling the Leaves of Mugwort, deeply jagged, .green on the  
upper Part, but pale on the lower; and of nd sensible Smell.  
The Flowers on the Tops of the Spikes, or Ears, appear very  
small, are greenish on the Outside, but blackish within . 2nd  
are, every one, succeeded by a single striated Seed, very like  
thet of the common Sort. It is propagated by Seed sent from  
*Venice. Rail Hist. Append.*

.ε' Another Plant also called Ambrosia is the following, which  
happens to be an ingredient in Mrs. *Stevens's,* Remedy for theStone.

AMBRoSIA CAMPESTRIS, Ossic. *Ambresia campestris repens,*C. B. Pin. I38. *Coronopus Ruellii,* Ger. 346. Ernac. 427.  
Mer. Pin. 30. Raii Hist; I. 843. *Corinspus recta vel repens  
Ruellii,* Park. Theat. 502. *Coronopus splvestris, five Nastur-  
cium verrucariurn,* Cod. Med. AI; *Coronatus Ruellii. seu Na-*

*sturtiumvorrucesum,* J. B. 2. 9I9. Rupp. Flor. Jen.: 67.  
*Coronopus Ruellii, Cornu cervi alterum, vulgi,* Merc. Bot. I. 31.  
Phut. Brit. 3I. *Nasturtium verrucosum, Coronopus Ruellii,*Chain 29O. *Nasturtium vcrrucofum, capsula.bivalvi, as.perd,  
seu hirsuta.* Hist. Oxon. 2. 3O2. *Nasturtiumfylvestre, capsulis  
cristatis,* Toum. Inst. 2I4. Elem. Bot. I83. Boerh. Ind. *A..*

I 2. *Nasturtium supinum, capsulis verrucosis.* Ran Meth. A.  
98. Synop. 3. 304. Dill. Cat. Gish 162. *Nasturtio assents  
snonos.permos, capsula verrucosa,* Pluk. Almag. 262. SWINES  
CRESSES. *Dale. .*

*Ruellensts* Buckthorn, or Swines-creffes, hath many small  
and weak straggling Branches, trailing here and there upon the  
Ground, set'with many small cut or jagged Leaves. The  
Flowers grow, among .the Leaves, in small rough Clusters, of  
a whitish Colour; which being past, there come in its place  
littie broad and.stat Pouches, in which the Seed as contained.  
The Root is white, thready, and in Taste like the Garden-  
cresses. *Qerard. ... .*

AMBULATIO, Walking. Reckoned by *Celsius*

among  
other Exercises which are serviceable in an Imbecility os the  
Stomach, inch as reading withan audible Voice, Exercises at  
Arms, or with the Ball, and Running. Concerning Walking,  
he says it is better when diversify'd by ascending and descending,  
than in a smooth and even Plain, because it stirs the Body more,  
except it he Very weak. It is better also to walk in the open  
Air, than underPiazzas; and better in the Sun, if the Head  
will bear it, than in the Shade ; better in the Shade of Walis  
and green Hedges, than under a flindy Roos; and, lastly, better  
strait forward, or in a right Line, than winding about. *Celsius,  
Lib.* I. *Cap.* 2. Elsewhere *(.Lib.* 6. *Cap.* 6.) herecommelKlo  
much Walking in Dimness of the Sight. -

It is generally said, that Riding cis a more healthful exercise  
than Walking, winch appears to me an Assertion a little too  
general. Tor Walking is much more effectual in promoting an  
Increase of muscular Strength, and in imparting to the Fibres  
a due Elasticity, than Riding. But where any of the Viscera  
are muchObstructed, and a Patient is too weak; to support suffi-  
cient walking Exercise, there Riding may be more beneficial.  
Upon the Whole, it may he said, that Walking is best for the  
Preservation os Health, but Riding for the Cure of Chronical  
Distempers ;, for in those that are acute, neither is advisable.

AMBULO. This is the Name of a Disease, which has the  
Epithets, *Flatulentus* and *Furiosus* bestowed upon it. Tt in  
likewise called *Flatus furiosus.* It is an Inflation or Distention,  
attended with Pain, and variously periodical. It takes its'Rise  
from subtile Vapours, forcibly shooting themselves up and down  
through the Various Parts of the Body, as it is described and pro-  
posed, in a particular Case, by *D. D. fob. Michael, Prase.  
CUnso. Special. Case* 19.' *Castellus.*

AMBULON, called by *Ray,* in his History of Plants, the  
*Ambulon os Scaliger.* This is the Name of a Tree growing in  
the Ifland *Aruchit,* the Bark of which sends forth a Fruit resem-  
bring Sugar, and of the Bulk of a Coriander-seed. *Rail Hist.  
Plant. ’*

AMBUSTA, Burns. These require Remedies that are  
’ detersive, in a moderate Degree, without a manifest heating or  
Cooling Quality. For this Reason, Earth of Chios, white  
Lumberstone, Earth of Candy, and any Sort of sight Earth,  
moistened with Vinegar, not Very acrid, or Water, and applied  
ι to the affected Part,.are Very proper Medicines, and prevent  
the Eruption of Pustules. A whole raw Egg, immediately  
applied, is also Very good in such a Case ; for it moderately  
refrigerates, and dries without Mordacity. ' Anoint also the  
Place with Ink, *(it is not known what Sori of sink the Ayatior  
-means)* or Frankincense, diluted with Winter, or spread it oyer  
with helled Lentiis bruised, or bitter Vetches. \_.:

For Burnings by hot Water, -before Blisters arise, wash them  
with the Water of pickled Olives, and apply the Olives .them-  
.selves, bruised, with Polenta ; or anoint the Place with pin-  
Incus Alum pounded with Vinegar, or wish Bullis Gall infused  
in much Water; or wash it with Lye, Garum, or Brine; or  
anoint the same with the Roots of Lily, Hyacinth, or Narcissus,  
bruised with Oil os Roses, and reduced to a strigmentitioiis  
Consistence.

*Marcellus* has left us the following Prescription for inch  
Cases:.

Dip a Woollen Rag in Honey, and, covering it with Bar-  
ley, burn it ; then, with eight Drams of the Ashes, mix  
four Drams of Ceruss, eight Drams of Butter, of Wax,  
Fat of a Goat, and Oil of Rosas, each sixteen Drams.  
But if ths Blisters aye risen, apply Sumach, and Polenta  
bruised; or Qttick-llme, mixed with Cerate, and tied up  
in Linen. If the Part, he ulcerated, cover st with bruised  
Leeks, or apply Purflane bruised with Polenta; or burn  
Pigeons Dung, wrapped in Linen, and use the Ashes  
diluted with Oil; this is an admirable Remedy. The Bark  
of the Pine or. Fin Trees, dried Maidenhair, and burnt  
Myrtle-leaves, 'pulverized, are good to strew οη che Place.

Either of thefe is proper also, in Composition with Co-  
rate. .

The following are good Remedies:

. Take of the dried Root of Alkanet, pulverized, four Ounces,  
white Wax nine Onces, Oil of Roses eighteen Otmces ;  
. mix them. Or, prepare Ceruss, with a moderate Quan-  
tity of Stags Marrow. *P. Algineta, Lib. An Cap.* II.

A Cerate for Burnings and Erysipelas is prepared of four  
Ounces *of* white Wax, three Ounces of Oil of Roses, and four  
Ounces of Pellitory of the Wall. After the Inflammation is  
gone, or, if it continues long, hefore the Part becomes livid,  
apply a Cataplasm of crude Barley-meal. If the Place be turn'd  
livid, let it be scarified, and the Cataplasm the longer used,  
and the Part washed with fresh Water, and sometimes with  
Sea Water, and Brine; and these may he sometimes mixed  
with the Cataplasm. *Idem, Lib.* 4. *Cap.* 2I.

Whenever this Misfortune happens make no Delay, but. take  
the first Earth that comes to Hand, and apply -it moistened with  
Water, and afterwards wash the Place with warm Posea;  
then take Werdigrise, and Spuma Argenti, of each an equal  
Quantity, bruised, with Wine and Oil, .and anoint the Part  
with a.Feather, not touching it with your Hand, hut laying  
over it a Piece ofrfine Linen Cloth. If Blisters arise, break  
them in the Beginning ; but if they have been suffered to har-  
den, break them, and apply a Cerate. For this Purpose, the  
following Pastil, may. be prepared, and. reserved for Use on Oc-  
casion : . '

'Take of Alum . four Drams, Frankincense two Drams ;  
bruise them, and make them up with Water into Pastils a  
*C)s,* take os white Lumberstone two Ounces, Bark of  
Frankincense, burnt Misy, each six Drams ; make them  
up as the foregoing, and use them both .with Posca. If  
Blisters, arise, apply Sumach and Polenta,. bruifed in Vine-  
gar, or Hog’s. Gall boiled; or anoint the Place, every Day  
with the Juice of Henbane, and the Blisters will , wither  
- away. If.the Part he . excoriated, and ulcerated, apply  
the Leaves, of Beet, hoiled.in Wine and bruised, , or instil  
.the juice of Peet into; liquidCerate of. Oil. oseRoses, as  
.much;as \_in.will imbibe: The .just .Proportinns are, three  
Parts of Oil to one of Wax, and as much Juice as is. suffi-  
cient. - Usethis, and you .will admire.the Effects.

. ' The following speedily cicatrizes .the Sore:

Take of.CenIss, Spuma Argenti, Barley burnt and bruised,  
each one Ounce; Wax four Ounces, Oil of Roses, or  
Oil of Myrtle, nine Ounces ; mix the Barley with the  
liquid Cerate, and add thereto the Spuma Argenti, and  
'Ceruss, bruised in a Mortar with Wine. *Aetius, T.etrab.  
An Senn: 2. Cap.sm. .*

*To make Hair grow on the burnt Place, - -*

Roast Fig-leaves in an earthen Pot, and apply them with  
Cerate, in the .manner of a Plaister. *Actuar.de Meth.  
Med. Lib. 6c Capo* 8. ...

" It may not be thought improper, that we account Burns, or  
-Ambustion, a kind of Inflammation; for not only the same  
Signs and Symptoms, but generally .the.sameEvents, attend on  
both. We call that H urt which the Body receives, either from  
Fire itself, or froth Bodies pot in a violent Heat and Efferves,  
cence by the Fire, *Ambustion, Ustiern,* or *Adnstiony* so that  
among the Causes of Ambusti on, we are to reckon not only  
Fire itself, thus every heated Body, as wed hard Bodies, for  
Instance, glowing Coals, hot Iron, or other Metals, heated  
and liquified by rhe Fire, as Gunpowder, and fervid Liquids,  
such as hot Water,. Peer, . Wine, Oil, Spirit of Wine, and the  
like. ' ’ si ’ si .si . .

As soon, then, as any thing of this Nature is applied to the  
Body, there follows of necessity a Corrugation and Rupture of  
the Fibres and’littie Veins, with an Effusion of the Blond find  
Humours into the adjacent Parts, where they stagnate and cord.  
rupt. But as Amhustions, -caused by solid Bodies, -are almost  
constantly more grievous than what are received ’.from -Liquids;  
so the Mischief .is .universally proportioned to the Degree of  
Vehemence *of* the Combustion, Just as st as in all Inflamma-  
tionS. *s*

*Now* Burns may, notimproperiy, he divided :into.four Kinds:  
The .first and least seems so he, when the Part .affected feels a  
Pain attended with Heat and Redness, and succeeded in a short  
time by a Pustule. The next Degree is, when, after .Ant-  
hustion, there Is an immediate Eruption of Pustules, with a  
grievous Pain. The third Degree is, when the Skin and sub-  
jacent Fat are burnt in such a manner, that they presentlysturn  
to a Crust. The. last is, when the Ambustion in so vehement,  
that it penetrates and destroys almost every thing before it, to  
the Very Bone. The third Degree resembles a Gangrene, the

last a Sphacelus: Whence it also appears, that Ambustions  
Very much resemble Inflammations, and are known, in their  
respective Degrees, by nearly the same Signs.

The Event of Ambustions depends partly on the Degree,  
partly on the Use and Excellency of the Part affected. For the  
' more grievous the Ambustion, or the more noble the suffering  
Part, the more is the Danger to be apprehended. Therefore it  
is thought a lighter Evil, if the Hand or a Finger contract a  
Pustule from a Scald by Fine, than if the Eye be thus affected,,  
tho' in a siighter manner; for so tender and noble a Part of the  
Body can hardly bear Ambustion, without Danger of losing the  
Sight. We are, besides, to estimate the Mischief by the Inve-  
teracy and Extent of theAmbustion; for the deeper the Fire  
has penetrated the Body, or any Part of it, or the wider its  
Compass, the greater is the Evil to he accounted. Thus when  
the whole Body has, tho’ but flightly, felt the Flame of a Fire,  
**or** of Gunpowder, or boiling Liquor, it is a Very bad Misfor-  
tune ; for the miserable Patients being unable to fit, or lie, or  
steep, by reason of their most acute and intolerable Pains, a  
Weakness must necessarily come on, with a febrile Disorder,  
'succeeded at last by a Sphacelus, which terminates in Death;  
and this so fatal an Event is rather to be expected in Infants  
than Adults ; for the first are destitute of Strength and Patience,  
-as well as Sagacity to chuse the most commodious Situation.  
Moreover, the deeper the Ambustion reaches, the more threat-  
ening is the Danger.' Ambustions of the Face are Very much to  
be dreaded, not only on account of Deformity by Eschars, but  
principally as they often cause the Eyelids to grow together. If  
the Neck happens to be burnt, the Patient is almost sure to  
Come off wry-necked, without convenient Assistance. As to -  
Other Ambustions, it will be easy to pass a Judgment on them  
From whet has been said, after throughly considering the Nature  
.of the affected Parts. -

As an Ambustion is not unlike an Inflammation, with respect  
.to Degrees, so the Method of Cure in both is much the same.  
When there happens a flight Ambustion,-or one of the first  
Degree, the most proper Medicines, on all accounts, are Re-  
solvents; of which there .are two Kinds principally to be  
Observed, the *astringent,* and the *emollient.* Mild Astringents  
are. Spirit of Wine, either the-common Sort, if good, or  
rectified, or also camphorated; let the Part affected be im-  
merged in this Spirit, or be carefully fomented with linen  
Cloths, wet therein. This is much recommended by *Sydenham.*

Of almost-the same Efficacy are Vinegar lithargirised, and  
.Brine of .pickled Cabbage, .or Oxycras hosted with Salt, and  
used warin in the same manner as Spirit *of* Wine, before  
directed. Oil of Turpentine also is to be had in Readiness,  
.with which the Part is to he timely and frequently anointed. In  
short, it would not be improper, in such a Case, to hold the  
'burnt Part, suppose a Hand, or a Finger, to the Flame of **a**Candle, or to the Fine, and to keep it aS near,, and as long, as  
the Pain can be suffered ; or alternately to present and remove  
.it, till the Sense of-the Pain and Heat he remitted. For by  
this means not only the stagnating Blood, by the mere Vehe-  
imence of the Fire, is reduced to its .former State, but also  
Pustules, and other grievous Symptoms, are Very seasonably  
prevented.; and so the first Degree of Ambustion is, for the  
.most part, with no great Difficulty, healed ; especially if the  
Medicines above advised are, at the same time, applied.

Contrary almost to this, but equally proper and efficacious, is  
jhe Method of Cure by *Emollients.* By this means whatever is  
contracted, or corrugated, among'the smaller'Veins and Fibres,  
is mollified, and consequently the natural and free Circulation  
of the Blood through the same is-restored, and thereby those  
grievous Symptoms, which might otherwise, have happened, are  
prevented. Water of a moderate Degree of Heat, and accom-  
modated to .the Sensation of the afflicted Part, is of no small  
Service in this Case, by dipping a folded Linen Cloth therein,  
' and applying it to the Place, and now-and-then moistening it  
afresh, till the Sensation os the Heat and Pain wears off by De-  
grees; but this warm Water uses to be more effectual when  
boiled with Marsh-mallows, or Mallows, or Mullein, Linseed,  
Fenugreek, Seeds os Quinces, and other such emollientMedi-  
cines. After this, some of the most proper emollient Cata-  
plasms, winch are either prepared with the before-mentioned  
Herbs, or made up of any Other -common Pulp, are to be pro-  
vided, and frequently applied as hot as the Patient can bear-;  
for most Pulps have a mollifying Virtue. Besides these, there  
are emollient Oils (σ) of known and sufficient Virtue; such as  
Oil of Linseed, Oil Of sweet Almonds, of.Olwes, of white  
Lilies, of Henbane, and others of the like Rind. These are  
spread upon Linen, and so applied; or by frequentiy anointing  
here Place by means os a Feather, when they grow dry. And,  
lastly, we must not omit taking Notice of *Mynsicbfs* Ointment  
for Am bussions, whitih is an excellent Lenitive, and prepared  
Of the Oil of Olives, or Linseed, mixed with the White of an  
Egg, and applied in the same maimer as the rest; the Muci-  
lage of Quinces is very good also in this Case. But it is to be  
Observ’d, once for all, with respect to theMedicineshitherto pre-

scribed, that they are of little or no Service, unless frequently '  
renewed : And is the Burn happens to be in the Face, it will  
be convenient, to wear a Sort of Linen Mask, well fitted, for  
the more commodious Application and Retention of the Medi-  
cines upon the Part, and to keep it always moist. If the Mis-  
fortune happens in the Neck, to prevent aWryoess, you must  
have recourse, by way of Precaution, to a peculiar Sort of  
Bandage, called by the Surgeons:FAscIA DivIDENs. See  
**FASCIA.**

In the second Degree of Ambustion, which is attended with  
a Blister, it seems improper to open the Vesicles, or cut the  
Skin already lacerated, because of the vehement Pain to which  
it usually puts the Patient.. But the best way, in these Cases,  
for the most part, is, with all the Hasse poflible, to apply one  
or other os the before-mentioned Medicines, which of them  
comes first to Hand, as warm Water, burnt Wine, or-Spirit os  
Wine, and to be Very frequentiy renewing of- the same. For  
by this means not only the . Heat and the.Pain are mitigated,  
but the Skin, tho’ separated from the Cuticula, or Scarf-shin,  
is preserved almost without any Blemish. - If the Pain'continues,  
lenitive Remedies are to be used: Here the most celebrated To-  
pics are Oil of Linseed, *Mynsichgis* Ointment for.Ambustions,  
Unguentum Nutritum, Ointment os Litharge, or Diapompho- '  
lyx ; with these you must very often anoint the Place, Or spread  
them on Linen, and bind them to the .Part affected. As the  
Pain and Heat gradually decrease, some proper Piaster/as that  
of red Lead, ought to be applied, in order to smooth the Skin,  
and restore the Cuticula. Jf this second' Degree of Ambustion  
bedmore intense than ordinary, and affects a great Part of the  
Body, it will be necessary forthwith to take away some Blood,  
in proportion to the Measure of the Ambustion, even till the  
Patient faints, in order to prevent Exulcerations, Deformities  
by Seams, and perhaps a Gangrene ; aster which a strong -Ca-  
thartic must he administered. Outward Topics are Inch as have  
heen already prescribed : For Infants, where Bleeding is not so  
convenient. Purging must be iterated, for the sake of Revul-  
sion. AS. to the rest, a Very strict Regimen os Diet is to he  
-observed in Ambustions, as well as in other painful or danger-  
ous Wounds and Inflammations ; wherefore the thinnest and  
smallest Drinks, and sorbile Liquors, are highly proper in such,  
a Case; for whatever is heating, or taken to Intemperance, has  
Very pernicious Effects, aS it increases the Pain and Heat. The  
celebrated *Digby* thought nothing more effectual in asswaging  
the Heat arising from Ambustion, than Spirit of Salt, taken to  
the Quantity of ten or fifteen Drops, either alone, or instilled  
in some Liquor. All these Things being readily and carefully  
provided and administered, aS before directed, it is surprising .  
with what Success the affected Parts are comforted, cherished,  
and restored, and all the mischievous and threatening Conse-  
quences avoided. . . ’ . *-ἐν..-' sii*

*As to* the thud Degree of Ambustion, in which a Crust or  
Eschar immediately overspreads the burnt Part, it can hardly,  
or rather not at all, he cured without a Suppuration. 'If the  
Misfortune happens to the Face, our principal Care and Con-  
cern should he to preserve that Part from unseemly Blemishes  
remaining after the Cure. In this Circumstance, therefore, we  
are to avoid almost all Kinds of Ointments and Plaisters, how-  
-ever they come recommended as the surest Secrets, and the  
most powerful Medicines for Athbustions. For it is tohe sear’d,  
that, while they dry the Wound more than is requisite, they '  
Thould contract the Skin and Fibres, and by that means induce  
a Very deforming, or, at least, an unseemly Eschar. Where-  
fore there in nothing for which we should be more careful, than,  
with all the Speed we can, to remove that corrupt Crust, and  
- the Matter included under it;hut how to effect this,/in the

most commodious way, is a difficult Point to hit. -To tear  
them off by Violence with the-Hands,: or cut shem'away, in  
far from being beneficial to the poor Patient: But if there he  
-any Remedies at'all, which are qualified to work a happy Cure  
upon an Ambustion, there are none, within the'Coinpass of -  
my Observation, that.are more proper.for the Purpose than such  
as are composed of Emollients. Whatever therefore -os ithls  
kind, among those we have-advised, can soonest be-got ready,  
is to be spread upon folded Linen, and applied hot to the Place,  
and Very often renewed, till the hard Crust, loosening by De-  
grees, he at length severed from the quick Flesh. Is any thing  
be separated, and lie loose, it must he removed and taken off  
thy the Volsella, as often as the Place is dressed, which mthst hie  
Two or three times a Day, and the remaining Part os the Crust  
must be anointed with Butter: Fomentations also are, upon no  
Account, to he omitted. This Part of the Cure takes up two,  
and sometimes three or four Days. 'All the Crust heing resolv’d  
in the manner prescribed, our next Care is to cleanse and ag-  
glutinate the Wound. The first Intention is answered bysome  
mild digestive Ointment, together with Honey of Roses ; and  
the agglutinative Part is performed by the Ointment of- Dia-  
pompholyx, or os -Litharge, or the -Emplastrum ad Ambusta,  
which are the most common and celebrated Medicines for this  
Purpose. -But if any Plaisters, or Ointments, are applied upon

*fa)* Pliny, *Lib.* 23. *Cap.* 4 *recommends Oil of Myrtle for Ambustions.*

poetty hard Crusts, it is very much to he feared,' that, by reason  
of the Constriction- os the adjacent Parrs, .and an Exasperation  
occasioned by the Acrimony of the Matter, or Sanies, some  
considerable and deforming Eschar will remain. However, if  
any Person shall undertake the Cure aster this Method, which is  
the common way of Surgeons, he ought to he advised, that,  
except the Crust shall sell off the second or third Day, he is to  
make frequent incssions in it, js in Gangrenes, in order to let  
out the Matter that lies under it . and, after Bleeding and Purg-  
ing, which are necessary in the first Place, the Fomentations,  
before recommended, are to he carefully used, in order to mol-  
Illy and totally resolve the Crust.' An exabr Regimen of Diet  
is sound-to be more necefiary inthis than in the former Method  
of Cure. To restore the Skin to its pristine State, there is no  
Remedy to be compared with frequently fomenting the Part

-affectsd, as it grows well, with the Steam of hot Water. If  
the Restoration of the Skin goes on but stowly, it will not be  
amiss to promote the same by the Application of Wax, and the  
Oil of Eggs.

As to the fourth, which is the highest and most desperate De-  
gree of Combustion, where the Burning has penetrated to such  
a Depth as to corrupt and mortify all before it, almost to the  
very Bone, all Remedies are vain and useless ., and there is no  
'way left to assist the Patient, but by speedily cutring off the  
affected Limb, as is done in n Sphacelus. *Ha'ester, Lib.* 4.  
*-Cap.* I5. . -

The following Methed of curing Burns is recommended in  
the *Philosophical Transactions. .*

I can affirm, that in all Burnings, by Fire or otherwise, and  
the Pains occasioned thereby, I have not yet met with any bet-  
-ter and surer Medicine than this following;

.. Take Spirit of Earth-worms, with rectified Spirit of Wine,  
twelve Ounces, mixed with two Ounces of Camphire.

No sooner is a Bandage, or Compress, dipped into this Spirit,  
. applied to the affected Part, but it will give instant Relief, and  
so effectually check the inflammation, that it will creep no far-  
ther: But the Application of it must be continued till the Pain  
is quite gone, and the Ulcer, if there hath been any, is dried  
up. If the Exulceration is got deeper, and the Wound must  
-be kept open, two Ounces of Camphire, dissolved in Oil of SI.  
Jobn’s-wort, mixed with a Pound of the common Unguentum  
Cerussae, applied according to Art, will quickly and effedtually  
-heal it, as I have often experienced.

There are, in the *History of the Royal Academy of Sciences,*two remarkable Instances of Cures performed by accidental  
' Burns, -which must not he omitted.

*- Of Cures performed by Burning.*

. ' . C A S Ε I.

Some violent Pains of the Head have been suddenly and un-  
expectedly cured. A Lady of thirty-five Years of Age, and of  
. a good Constitution, laboured under a continual Head-ach, and  
-was seized with severer Taroxyfms, which returned regularly  
once in eight or ten Days, and lasted ten or twelve Hours with  
- such Violence, that she sometimes appeared stupid, and some-  
times furious. The Seat of her Pain was principally in her  
-Forehead, and her Eyes, which were now become very red  
-and sparkling. Her grand *Paroxysms* were accompanied with a  
*Nausea,* and terminated by vomiting up a viscid Matter, white,  
soft, anil insipid, which, in the very Conclusion of the Fit,  
. was followed by a green, but very bitter Water. During the  
Paroxysms she could eat nothing, but had a very good Appetite  
at other times; and had not lost her natural good Plight of  
Body, notwithstanding the long Continuance of her Indispo-  
sition. .

MI. *Hamberg,* in vain,, prescribed a vast Quantity of Medi-  
cines for three Years successively. Opium was the only one  
which could, for a few Hours, relieve her ordinary Head-acti;  
but her Paroxysms were entirely Proof against its Virtues.

One.Night, when the felt a Fit coming upon her, and was  
going to Bed, she had an Inclination, before she lay down,  
-to fee whether her Eyes were much inflamed or nos. Accord-  
ingly :as she was looking at herself in a little Pocket Looking-  
’.glass,’ the Flame of a Wax-candle, which stood by her, setFire  
toller Night Head-dress, which was made of pretty thick  
Cloth; being all alone,.and not.adverting to what had hap-  
pened,. diet in burnt all her Forehead, and a Part of the  
Crown of her Head, before she could call People to extinguish  
.it. Mr. *Hamberg,* who was forthwith called, ordered some  
' Bloodto be instantly taken from her, and treated the Bum in  
' the ordinary manner, the Pain of which ceased in a sew Hours r  
, But the Paroxysm, which was expedited, did not seize her ; even  
*i* the ordinary Pain of her Head disappeared almost from that very  
. Moment, without the Help of jury other Medicine than the  
Burning ; -and ever since that Accident happened, which is now  
about sour Years, the Lady has enjoy’d a nerfeol State of  
Health. ’'

C a s Ε IL

A Physician of *Bruges* lias communicated *to* Mr. *Hamherg  
z* Cafe of the like Nature, of which he himself was a Witness.  
A Woman who, for many Years, had her Legs and Thighs  
extraordinarily swelled, and very painful, sound Ease by rub-  
bing them with Brandy before a Fire, every Night and Morn-  
ing : One Evening the Fire accidentally catched the Brandy,  
with which she hed rubbed the Parts affected, and burnt her  
very superficially ; upon which she applied some Ointment to  
the Burn, and all the Waters, which distended her Legs and  
Thighs, discharging themselves by Urine in the Night-time,  
the Swelling returned no more. ’Tis great Pity that *Chance*should not more frequently aol the Part of a Physician *(and I  
may add, still a greater, that Physicians mill not attend to the  
Lessens taught them by Chance).* Accident has, undoubtedly,  
taught this Sort of Remedy to many barbarous Nations, who  
use it with Success ; and, perhaps, the rather, that being severe,  
-it affords them an Opportunity of shewing their Courage. Mr.  
*Hamberg,* who was born in the Island of *Java,* says, he remem-  
bers that when the *Javans* were affliisted with a certain Colic,  
or painful Flux of theBelly, which ordinarily proved mortal, they  
.used sometimes to cure themselves by burning the Soles of their  
Feet with hot Irons. If they have a *Panaris,* which is a Species of  
-Paronychia, a Disease incident to the Fingers,' they cure thenr-  
selves by foaking the Finger astsctsd in hosting Water several  
nines, and letting it remain in the Water for an Instant only at  
each Immersion ; and Mr. *Hamberg* himself, following in some  
Cafes the Customs of his native Country, cured himself of a  
*Panaris* in this very manner, in the Relations of Travellers,  
we have Accounts of a great many Maladies which the Savages  
cure by Burning; and, without going so far, we ourselves apply  
this Remedy to Horses, Hounds, and Birds of Prey, *etc.* But  
it must be owned, our Delicacy will not allow us to use it on  
ourselves, which is perhaps the Reason why we labour under  
lasting Disorders, which, by this means, might become very  
short. . .. : .

The Delicacy of the *Europeans* could not long permit them  
to use that kind of DowN, brought by the *Spaniards* from *Ame-  
rica,* which cured rhe GoUT when burnt on the Part assessed.,  
MI. *Hamberg,* nevertheless, saw a Burgess of *Amsterdam,* who,  
by the Use of this Medicine, freed himfelf of a Fit of the Gout  
in seven or eight Days, which used to last two or three Months,  
and the Returns of bis Paroxyfms were rendered less frequent.

Mr. *Hamberg* thinks, that Burns may perform Cures in three  
different manners ; either by putting the peccant Humours into a  
quicker Motion, which makes them fly off through new Roads ;  
or by rendering them more fluid, which, in Effecti, is the same  
with the former ; or, thirdly and lastly, by destroying a Part of  
' the Canals which bring the Humours, in too great Abundance,  
to -the Part affected. *Hist, de st Academia Royalc 'des Sciences,  
An.* I708. ’ . ' ’i '

AMEDANUS. The Alnus vulgaris is thus called by  
*Creseentius.*

AMELANCHIER, a Name for a fort of Bilberry, call’d  
by *Parkinsen, Vitis Idaea tertia Cluses* THE FRENCH  
HONEY SWEET WHORTS. See VAccINIUM.

AMELLUS: This is the Name of an Heth which takes its  
Name from the River *Melia in France,* on the Banks of which  
it grows in great Plenty.

*Virgil* numbers mis amongst the Plants which are very agree-  
able to Bees. *Georg.* 4.

*Eft etiarn estes in Iratis, 'cui nomen Amelia  
Fecere agricolae, facilis quaerentibus herbat  
-Namque uno ingentem Io [lit de sospite selvaxt ' -*

*Aureus ipse : Sed in follis, quiasiplarirna cirarne  
Funduntur, viola sublucet plirplira nigrae.*

*Saepe Destm nexis ornatae- torquibus arae. 'su:Asper in ore sapor : Toasts in vallibus illum - : .  
Past lares, et curva legunt prppo sturnina Mellae.*

*Hiujus aderrato radices incoque. Baccha, - . - . ...*

*:Pabulaque in foribus plenis appone capistris.*

Some Botanists fay, it is the *Caltha Palustris.-* Others, -that  
'it is aSpecies of theCoNYzA, or of the ASTER MONTANUs.

According to *Dale,* it should be the *Aster Atticus. .*

AMELPODI, a Name given to four different Trees, which  
grow in the *Indies. - ' --*

The first is .the *Amelpodi,* H. Μ. or *Arbor Indica suasros,  
storibus urnbellatis tetrapetalis. ' '*

The Root of this is esteem’d by the Inhabitants of *Cande-  
nate* where it grows, to be an Antidote against the Bites of Ser-  
pents, if worn about them.

The second is the *Belutta Amelpodi,* or *Fruteoe Indicus  
Ar.iis.uoi, foliis. binis adverses, fiaribus pentapetalis candidis,  
unguibus lassis.*

- The Root of. this, bruis’d, and taken with Water, is good  
against the Bites of Serpents; -and- is esteem’d a gone Topic in  
the Gout.

The third in the *Sseuanna Acnelpedi, or Frutex Indicus Pen-  
tapetalos, gemind Sacca, Calyce excepta. . : : . .*

, The Root of this is recommended against the Bites of Ser-  
pents and Scorpions. 'J , . i *--c.'.e.*

The fourth is the *Karetta Acnelpedi,* or *Baccisera Indica estes  
ribas umhellatis, Fructu rotunda tricoces. . i*

. A Decoction of the Leaves of this Tree are esteem’d a Re-  
medy for the Colic. , ...so.:ii I ..no\*. . ... :

Tine Root, if only worn in, a Purse, is said to he an Antidote  
against the Bites of Serpents. .. i χ.ἄκιο .. uri-

From the .Leaves and Roots hell’d in Oil of Olives, a Lmi-  
. ment is prepar’d, which .is said to be excellent for resolving  
large Tumours. *Pali Hiist. Plant. in: .cr.*

AMENE, common Sals. *Ruiandus. i*

. AMENENOS, ἀμενενος, from, α Negative, and μένος.  
Strength, weak, seebIe. .It is frequently usin by *Hippocrates.*in this Sense.

.. AMENTIA, Madness. See MANIA and DELIRIUM, -d  
, AMENTUM, Scissile Alum.. Fodandus. - i ; n:-v  
\_.AMERI,. Indigo. See ANIL. .X i

AMETHODICUM, Irnmethodical. *Blancard.* .eIcsd  
AMETHYSTA PHARMACA, αμὲννστα, φἀρμακα, from,  
a Negative, ζηδμέδυ, Wine. Medicines which either-pre-  
.vent, or take away, the inebriating Effectsof Wine.*-Carden,  
de Cempasctione Pharrn, i.t.* ...... 'SO — δ- - LItia

AMETHYSTUS,, a precious Stone, thus distinguish’d : ΐ  
*Amethystus,* Ossic. Kentm. jo. Boeu 162. Charlt. Foss  
35. Worm. 99. De Laet. 24. Aldrov. Mils. Metast. 966.  
Schwa 262. Calc. Musi I89. Geoff. Praelecti. S4. ε Mont.  
Excuses- THE AMETHYST.print in *.Hast*

It is a precious Stone, of a violet Colour, which arises from  
a Mixture of red and azure, and it is found in *India, Arabia,  
Armenia. Dale.* - min

. A hard, beautiful, shining, transparent, precious Stone, of .  
which there are several Species.; IomeSre white, others red,  
others of a violet Colour:. It comes from.the *Indies.* ’Tis  
pretended, that it prevents Drunkenness, heing worn on the  
Finger, or bruised and drank in Powder, hut.this Virtue is  
Only imaginary. However, hence it receives its Name. See  
**AMETHYSTA. - .**

It is good to stop a Looseness, and to absorb the acid Parti-  
cles when too much abounding in the Stomach, which Virtue  
it has in common with other alcaline Substances. :n:

*Geofscroy* adds, that the Cbymists have endeavoured to extraol:  
Tinctsres from thefe coloured Gems; but it is not certain  
whether ever they succeeded 5 .or if they did, whet the Use of  
there Tinctures is. *Geoffrey.*

AMETRIA, ἀμετρἰα, among the *Greek* Physicians, was  
ufed in the same Senfe with the *Latin* Words *Immoderantia,*and *Immoderatio.* It is in general.a Receding in any Degree  
from a due Temperament. *Galen.*

AMIA, ‘the Name of a Fish, reckon’d by *Aetius* among  
inch as are of a hard Flesh. *Aetius, Tetr.* I. *Serra.* 2.

*Pliny* fays, it grows so fast, thet you may perceive it every  
Day. *Nat. Hist. Lib.* 9. *Cap.* I 3.

- -AMIANTUS

Ossie. Boer. 382. Goli, de Lap. si 6. Aldroy. Musi  
Metall. 657. *Amianthus,* worm. 55. Calc. Musi 286.  
Schred. 346. Charlt. Fossi 23. *Lapis Amiantus,* . Martin  
I387. Laet. II8. *Amianthus, five Aseefius,* Ind. Med. 8.  
EARTH-FLAX. *Dale.*

The Amiantus Lapis is, generated in *Cyprus,* and- is a Stone  
like Scissile Alum. As it may he drawn into Threads fit to he  
woven, they work it into Cloth, only fit for Show, which,  
cast into the Fine, takes indeed the Flame ; but instead of be-  
ing consumed, comes out the puter and brighter. *Dioscorides,  
Lib.* 5. *Cap.* I56.

It is ufed as an Ingredient in Psilothra, [Medicines to take  
off Hair]*\ Paul. Acginet. Lib.* 6.. *Cap.* 3. Ami *Myrepsus*makes it enter the Coinposition of his Citron-ointment *for*Blemishes of the Skin. *Sect.* 3. *De Unguentis, Cap.* 42.

Iris believed to he effectual against all manner of Witch-  
croft, especially such as proceeds from Women. *Schroder in  
Dale.*

*Pliny* says it has a particular Prevalence against the Sorceries  
of Magicians. *Lib.* 36. *Cap.* I 9.

It is alfo faid to resist Poisons, and to cute the Itch.

*The Nature of the Amianthus will appear from the sallowing  
Dissertations, collected in the Abridgment of the Philosophica,  
Transactions. - -am am.. amss*

z Signior *Marco Antonis Castagna,* Superintendant ofsomt  
Mines in *Italy,* hath lighted, in one of them, upon a greai  
Quantity of that lannginous Stone called *Amianthus,* which hi  
knows so to prepare, as to render it like either to a very whin  
Skin, or to a very white Paper, both which resist the moi  
violent Fire. The Skin was covered with kindled Coals  
whence it took Flame ; but being taken out, after it. had beer  
left there a while, the fiery Colour presently disappeared, ant

is became cold and white again as. before; the Fire, it seems,  
passing only through, without wasting or altering any thing  
of it ; whereas some of the hardest and folidest Metals, as Iron  
and Copper, reduced to very thin Plates, and kept as long in  
the Fine as thin Substance was, would castficales. Again,  
this Skin, being made as thin as Paper, doth not only yield that  
antient and so much admired *Amianthus,* hut' is also perse&er  
than that which comes from *Cyprus,* and not .inferior to that  
which sometimes,, though but seldom, comes out of *China.*This Paper was also try’d in the Fire, and there at remain’d  
likewise without anv visible Detriment, or without the least  
Change of its first Whiteness, Fineness, or Softness; Of the  
same Matter this Artist hath wrought a Wick, never to he  
consumed, as-leng as ’tis fed, rror altering its Quality After the  
Aliment is wasted away. .. . inre

The *Lapis Amianthus,* or *L.inum FojstleAseestinuri,* is found  
in no finali Quantity in *LianceFairymgtirrnuri,* in the Northern  
Part *cst Anglesey's.* where it runs in Veins through a thick Stone;  
in Hardness, and Colour not: unlike.; Flint.. There Veins ard  
generally a Quarter -of an inch deep, which is the Length of  
*tha.Amianthus',* and is seldom longer, but often shorter. It is  
composted of a lanugineus Matter, exactly resembling thet of  
pappmis Plants4. but so closely ccmipaol, thet till you draw a  
Pin, or any such. sharp thing,- crofs -the Grain of it, ' it appears  
only a shining Stone, there being not the least Filament of Lint  
tolbe perceived in it. In its natural Form, fome of it looks  
whitish, and some straw-coloured, hut all shiningbut if  
pounded in a Mortar, the'Brightness disappears, and the Whole  
becomes whitish.; *eNate’,* that above and beneath the 'Veins  
thermis a very thin *Septum* of terrene Matter, betwixt the *Ami-  
anthus* and the Stone whereto it adheres. I put a finall Quan-  
tity of ;the Lint in-the Fire, which grow-red-hot; but tho’ it  
remained there a’Quarter of an. Hour, I could not perceive  
that it was any thing consumed I twisted alfo seme of it in  
the Form ofa Wick, and dipping it in Oil, it gave as good a  
Flame as other Wicks, till the Oil was consumed, the Wick  
remaining ofthe fame Proportion as at first. Being .satisfied it  
was incombustible, I pounded some Quantity of it in a stone  
Mortar, till it became a downy Substance; then I sifted it thro\*  
a sine Scarce, by which means the terrene Parts (being reduced  
to a Powder) came thro’ the Scarce, the *Linum* remaining. I  
then brought.it to a Paper-mill, and putting it in Water, in a  
Vessel just capacious enough to make Paper with such a Quantity,  
I stirred it . pretty, much, and desired the Workmen to proceed  
with it in their ufual Method of making Paper, with their  
Writiog-paper Mould, only to stir it about ever before they  
put their Mould in, considering it as a far more ponderous  
Substance than that they used; and that consequently, if not  
immediately taken up after it was agitated, it would subside.  
Paper thus made of it, proved hut very coarse, and too apt to  
tear. But this being the first Trial, I have some reason to he.  
sieve it may be much improved.

I here fend you the Account of the *incombustible Linen-cloth,*which I received from one *Cones,* a natural *Chinese,* resident  
in the City of *Batavia,* in the North-east Parts of *India,* who  
by means of *Keayarcar Siikradana,* (likewise a *Chinese,* and  
formerly chief Customer to the old *Saltan os Bantam)* did;  
after several Years Diligence, procure from a great *Mandarine  
in Eanguin,* (a Province of *China)* near tines Quarters of a  
Yaid of the faid Cloth j and declared, that he was credibly in-,  
formed, that the Princes of *Tartary,* and others adjoining to  
them, did use it in burning their Dead ; and that it was said,  
and believed by them, to be made os the under Part of the  
Root of a Tree growing in the Province *of Sutdn,* and was  
fuppofed, in like manner, to be made of the *Tedda-irees in  
India* , and that of the upper Part of the said Root hear the  
Surface of the Ground, was made a finer Sort, which; in three.  
or four times burning, I have feen diminish almost half. They  
report alfo, that out of the said Tree there distils a Liquor,  
which not consuming, is used with a Wick made of the same  
Materials with the Clothe, to bum in their Temples to  
Posterity.

A Handkerchief, or Pattern of this *incombustible Linen,*which was shewn the *Royal Society,* was a Foot long, and jnst  
haff a Foot broad. . ’ f

There were two Proofs of its resisting Fire given at *Lindon,*one before some of the Members of the *Ragul Society* privately,  
*Aug.* 20. I684. when Oil was permitted to be poured on in  
whilst red hot, to enforce the Violence of the Firo. Before it  
was put into the Fire this first Trial, it weighed one Ounce  
six Drams sixteen Grains ; and lost in the Burning two  
Drams five Grains. .

The second Experiment of it was pub1 re before the *Society,  
November 12.* following, when it weighed (as appears by the  
Journal of the Society) before it was pat into the Fine, one  
Ounce three JDranIs eighteen OTains; .Being put into a clsar  
CharcoaJ-firej it was permitted to continue red-hot in it for  
I several Minutes .. When taken out, though red-hot, it did not  
consume a Piece of white Paper, on which it was laid. It w8S

presently cool; -and upon weighing it again, was found to have  
lost one Dram six Grains.

*December* 3. Mr. *Arthur Early,* one of, the Fallows of the  
Royal Society, presented them with a Piece of this linen, in  
the Name of Mr. *Waite.* At the same time,, the same Mr-  
*Baily* presented Dr. *Plat* with another Piece of it, which  
being brought to *Oxford,* the Experiment was again repeated  
on is, *December* 16. it being put into a strong Charcoal-fire, .  
in the *Natural History School, Sa.* a full Meeting Of the *Philpin  
sophical Society* of that *University* ; where after it had continued  
red-hot for some considerable' Time, it was taken forth again  
little altered when cold, saving .that it seemed a littie whiter  
and cleaner than before. .. - .\*/. "

This kind os Linen-cloth was esteemed by the Antients,  
though then rnore common, and perhaps hetter.known, than,  
’tis yet.amongst us, equally precious with the best of Pearls.

-Nor is it now of mean Value even in the Country: where  
made, a *China Covet* (that is a Piece twenty-three Inches and  
three Quarters long) being worth eighty *Tale,* .that is thirty-,  
six Pounds thirteen Shillings and Four-pence., 2

The Reality of such a Being has been doubted or deny'd by  
very good Authors ; who, though they owned such a Mineral  
**aS** *Amianthus,* out of the woolly Part whereof this sort os Linen  
was always antiently said to he made, yet questioned the PossiY  
bility os its having been actually done. *But Pliny* says *ex..,*prefly, sand I dare believe him in any thing he sspeakS of his  
own Knowledge) that he himself had seen Napkins thereof,  
which, being taken soul from the Board, at a great Feast, were  
cast into .the Fire; by which means they were better scoured,-  
and looked fairer and cleaner than if they had been wash'd in  
Water. . .. ; .. j

. And besides the Testimony of several curious Persons in all  
Ages, we have now seen a Piece of this Linen pass the fiery  
Trial both at *London* and *Oxford.* ,4- S. : *-..j.:*

. This lanuginous Mineral is. oalled from its strange Qualities,  
sometimes *Amianthus, quod in Ignem injectus non pliatislcu* **; the**Fire being so her from defiling is, that it rather gives-it *u.*Lustre. ' ...

It is called *AfiestOs.* And, \_

*. Salamandra* ; in *Englisu, Salamander's Wocidur* T suppose  
from the *Thryalides,* or *Candle-wicks,* said to he antiently  
made ofit, which heing put into Lamps of inconsumable Oil,  
would never waste, or go out .; which I take to he the true  
Reason of the imposition of these Names upon it, whether  
there ever were any such Lamps or not.

From a pungent Quality, *Agricola* says, it has on the  
Tongue without ^stringency, it is called *Alumen,* having the  
distinguishing Epithet *Plumeum* added to it, taken from its  
downy Filaments, to discriminate it from all the rest of the  
*Alums. This is however a Mistake ; for the Alumen Plumeum  
is a vcry disserent thing.*

From the light-grey Colour of its lanuginous Parts it is  
called by some *Polia* ; by others *Consoides;* and, from its  
Likeness to the thoary Fibres of some sort of Matweed,  
*Spartapolia.* . ί

From the Capacity it has os heing spun into Thread, it is  
also called *Linurn,* with some distinguishing epithet taken either  
from Sts Quality, such aS *Asiestinum,* or *Vivum* ; or from the  
Place where found in general or particular: It heing called in  
general *Linum Fofsile*; in *Englisu, Earth-flax;* and in parti-  
cular, *Linum Indicum, Creticum, Cypricum,* and *Carpasium,*or *Carystium.* But beside the Places that have given these Epi-  
thets to it, it is also sound in *Tartary,* at *Namur* in the *Low-  
Countries,* at *Eissield* in *Thuringia,* amongst the Mines in the  
old *Noricum,* somewhere in *Egypt,* and in the Mountaim of  
*.. Arcadia*.; also at *Puteoli,* and lately in some other Mines in  
*Italy ,* and it has been yet latelier met with in a small Ifland,  
and belonging to *William Robinson,* Esq; called *Inis Molro-  
niad,* that is, the Ifland of *Sea-Calves,* in the Parish of *Llan.o  
Fairing Hornwy in Anglesea Wales.*

It is commonly by the *Lithographers* reckoned among Stones;  
but I rather should judge it a *Torra Lapidos.a,* or middle Sub-  
stance between a Stone and an Earth. But whether the one  
or the other, it is made of a Mixture (I guess) os some Salt or  
other, a pure Earth without Sulphur,' coagulated in the Win-  
ter, and hardened to Perfection by the Heats in Summer;  
which Salt *Johannes Hesseus* proves by a very cogent Argument  
to he *Alumen Liqtcidum,* describing it, as *Matthiolus* also  
does,, to be os a whitish lacteoua Substance, somewhat inclin-  
ing to yellow, that sweats out of che Earth, and smelis like  
rotten Cheese; whereof having gathered a Quantity at *Puteoli,*together with the other Species of *Alum,* and kept it a while by  
him, when he came to look on it again, he sound it to have  
lost the Smell, and a great Part of it changed into *Alumen Plu-  
me urn,* the saline Part, I suppose, shooting into Threads, and  
the pure Earth uniting them, as sound in rhe Places where-  
ever generated, whether sweating from the Earth, as *Pliny*and *Matthtolus* would have it, or percolated through Rocks,  
as we find it in *lgrales,* the Veins of it there running through a  
Rock of Stone; in Hastiness and Colour not unlike Hint, and

yet seems to. he made of such *Ahern,* ,as that Of *John Hijsus* at  
*Puteoli* was, some of it being straw-coloured, as if it still  
retained the Yellowness that his. liquid *Bitumen* was said to  
have, which is a Colour not given to it by any Author, most  
of it heing said to he white, or Cineritious, some of it red, find  
some of an iron Colour, as *Agriccda* telis us; and I have some  
of the *Cyprianfoe* me,, sent from *Aleppo,* by Dr. *Robert Haati.  
ington,* whereof some is of a light-blue or pearl Colour, and  
some ofit has a Cast of Sea-green, r “. . ’." ...

But however the whole mineral Substances sound at several  
Places may differ in Colour, yet I do not find but the woolly  
Part os them all . seems to be much the same, *viz.* of a white  
silver Colour, the Threads very fine and flender, yet very pon-  
derous, the smallest Particles of them thoroughly wet, sinking  
in Water, - as I *also* sound a very flender Thrum of the *incom-  
bustible Linen* given me by Mr. *Daily,* which *Nir. IPaice*brought from *India,* would also do ; which renders it very pro.,  
bable, that it. is not a Vegetable, but a mineral Substance, *not-*withstanding the Informations *us Conco* and *Iseayarear Sukra-  
dana,* mentioned in Mr. *Waiters* Letter; I say, rerIder it pike,  
bable, there being several Woods, such as *Box, Ped Wood,  
Persian Wood,* &c.that will fink in Water.

*Marcus Paulus Venatus* acquaints us, that it is found *\D T.ar:  
tarysm.* in a certainMountain, in the Province of *Chinchinthalas,*and made into Cloth, aS he was informed, by one *Cursuar, dt  
Turk,* who was Superintendant of the Mines in that Country,  
after, this manner: The lanuginous Mineral, or *Amianthus,*heing first dried in the Sun,, is next pounded in a brass Mortar,  
and the earthyPart separated from the woolly, which is after-  
wards washed from all Filth whatever, that may stick to it;  
so, heing thus purged, is spun into Thread like other Wool,  
and after wove into Cloth, which, if foul or spotted, they  
cleanse, he fays, by throwing it. into the Fire for an Hour's  
time, whence it' will come forth unhurt, as white as Snow r  
Which Very .Method (aS *Strabo* describes it) seems also to have  
heen used in ordering the *Cretan Amianthus*; only with this  
Addition, that after it was pounded, and the earthy Part shook  
from the woolly, he says it was comhed, and so does *Agricola,*which argues there was some of a greater Length than any I  
have yet seen.

Of this Linens, as *Pliny* informs us. Shrouds were antiently  
used.at the Royal Obsequies, to wrap up the Corps in, so that  
the Ashes of their Bodies might he preserved distinct from those  
of the Wood, which made the Funeral Pile: And the Princes  
of *Tartary, as Iseayarear Sukradana* -was credibly informed,  
(and I have it well confirm'd from other Hands) do use such  
at this Day for burning their Dead. It must he acknowledg'd,  
it must diminish every time it undergoes the Violence of the  
Fire; yet this hinders not, but it may and will do that Ser-  
Vice divers times hefore it he render’d altogether useless. Some  
of the Antients are said to have made themselves Cloaths os it,  
particularly the *Brackmans* amongst the *Indians.* The WickS-  
for the perpetual Lamps of the Antients were also made os  
this Substance ; and we are told, that *Septella,* Canon of *Mi.,  
lan,* had Thread, Ropes, Net-works, and Paper, of it. *Marce  
Antonia Castagna,* who lately found this Mineral somewhere in  
*Italy,* knows how to prepare and render it tractable and soft,  
which he can thicken, and make thin,. to what Degree he  
pleaseth, and maketh it thereby like either to a very white  
Skin, or a Very white Paper. We have also made Paper of our  
*Weljh Amianthus* lately here at *Oxford,* which will both bear-  
Fire and Ink well enough, the ink only turning red by the  
Violence of the Fine.

Signior *Campani,* after some Account of the Name of the  
*Afbostus* Stone, mentions sour Sorts, of which he has Speci-  
mens in his *Museum.* The first sent from *Corsica* or *Corfu,*long, of a woody Form, of half a Palm Length and more, of a  
whitish Colour, something inclining to a reddish. The second  
of a silverish lead Colour, softer, and shorter about three  
Inches, this was from *Sostri di Ponente in Liguria.* The  
third (which is the worst of all) is like Scales or *Laminae,* one  
upon another, (aS he represents it like an Onion) of a blackish  
Earth-colour, with some white, black, and dark-red Veins  
interspersed, scarce two Parts of an Inch *Roman* long, there-  
fore fitter for making of Paper, than spinning or weaving. The  
fourth Sort, given him by Signior *Eoccone,* found- in the *Pyre..  
naans,* some whereof were a *Raman* Palm long ; its Filaments,  
tho\* longer, were yet thicker and rougher: He says also. That  
he heard of another sort in the *Folaterranean Mountains.* Next  
he tells us. He kept it for three Weeks in a Glass-house Fine,  
but found it unaltered ; but it would not preserve a Stick wrapt  
in it from the Fire; whence he concludes the *Amianthus* loses  
nothing in the Fire, hecause it does not burn nor flame ; but  
in the handling it wastes, though not much, as he found by an  
exact Balance. Lastly, He proceeds to shew the manner of  
spinning it, winch he tried thus : First he laid the Stone in  
Water (jf warm the better) for some time to soak ; then it is  
opened and divided with the Hands, that the earthy Parts may  
fall our of it, which are whitish like-Chalk, and hold the  
thready Parts together , this makes the Water thick and milky ;

this is repeated six or seven times with fresh Water, where if  
is again opened and squeezed, till all the heterogeneous Parts  
are washed out, and then the flax-like Parts are collected, and  
hid in a Sieve to dry.

Of his four Sorts of *Amiantus,* he found that from *Corsica*best, heing inng and soft ; and the *Cyprian* worst; where, by  
the way, he doubts whether his. was of the best Sort, since  
the *Cyprian* was commended by *PanciroUus,* and others winch  
he quotes. Bur to come more close to the way of spinning it,  
he first shews a Method discovered to him, .winch was thus :  
liny *sht Amiantus,* cleansed as before; between two Cards,:  
such as they card Wool with; where let it he gently .carded,  
and then clapt up in between the Cards last upon a Table or  
Bench; taken small Reel, made with a littie Hook at the  
End, and a Part Io turn it by,. so.that it may easily he turned  
round ; this Reel is to he wound over with fine Thread; then  
haying a small Vestel of Oil ready, with which the Fore-finger  
and Thumb are constantly to he kept wet, both to preserve  
the Skin front the corrosive Quality of the Stone, and render  
the Filaments thereof more soft and plyant: Thus by twisting'  
the Thread upon the Reel about; with the *Asoestus* hanging out  
of the Cards, some of it will be worked up together with it 5  
by little and little, this Thread may with Care he woven into  
a coarse Sort of.Cloth;; . and thy putting .in into the Fire, the  
Thread and Oil will , he burnt away, and.the incombustible  
Cloth remain. . But finding this way of uniting the Stone with  
the Thread very tedious, instead of the. Thread he put some  
Flax upon a Distaff ; and by taking three or four Filaments  
of the *Asoestus,* and mixing them with the Flax, .he found they  
might easily he twisted together ; and the Thread thus made  
much more durable and strong; so that there is no Need of  
carding, which rather breaks the Filaments, than does any  
good: Open only, and separate the Filaments, after washing,  
upon a Table, and take them up with the Flax, which is suf-  
ficient. As to the making of Paper, he fays, in the washing  
the Stone, there will remain several short Pieces in the Bottom; ]  
.of the Water ; and of these, after the common Method, Paper  
may he made.. He concludes with the best way of preserving  
the Cloth, or any other thing made of the Stone,, when made ;  
for by reason of its exceeding Dryness, it is very apt to break  
and waste; this is by keeping it always well oiled, which is  
the only Preservation for it ; and when the Cloth is put in the  
Fine, the Oil burns off, and the Cloth comes out white and  
purified. *.... ri'.A .*

In the Ground of *Francis Gordon* os *Actundore,* in the Shire  
*of Ahcrdeen,* near the *Highlands,* on the Side of a Hill of a  
Heath-kind of Ground, somewhat inclining to what we call  
Moss, in a very small Brook, and hard by it, in the Bounds of  
tan or twelve Yards, I found a great many of these Stones,  
some a Foot in Length, which appeared plainly like Wood ; hut  
because I could not perceive any Foot-steps of Word there-  
about, neither could any of them be found, except in that very  
Spot of Ground, I could not he persuaded they were petrified  
Wood. Then I went to cut up the Ground about the Place  
with my Knife, where I found likewise some Pieces of the  
Stone; and,, very near the Superfine, I got several Pieces os a  
fibrous Matter, which my Knife could not cut; this I imme-  
diately judged to be an incombustible Matter, as it proved aster-  
wards, when I tried it by the Fine. And, because I thought It  
had been always esteemed certain Filaments that came off the  
*Lapis Arnianthos,* I resolved to observe more narrowly the Pro-  
duction of. it.

. When I found forne Pieces of the Stone very hard in the  
Middle, and the fibrous Matter on the Out-sides and Enas, I  
.was inclined to believe, that the Flax camo from the Stone ;  
but . then finding several Pieces of the Flax so condensed and  
pressed together, that, at first, they appeared to be hard Stones;  
hut heing a littie wet, the Filaments were easily parted from one  
another ; many more I got, some less, and fume moro, con-  
densed into the Nature Of a Stone; and all of it, both chat  
which was condensed together, and what was not, was lying  
about an Inch within the Ground, parallel with the Surface,  
so interwoven with the Fibres of the Roots of the Grafs, that  
it seemed to me much more probable to helieve, that the Jim  
turned into the Stone,, than' the Stone into the Lint; especially  
seeing most Part of the Stones appeared so tender and brittle on  
the Outside, that it's hard .to helieve how they could turn into  
that tough Substance of Flax. - The Stones are of different  
Sorts; some are white, the Colour of the Lint, and of a very  
soft Substance, so that they may .be easily out with a Knife  
without blunting it; others are much mixt with a whitish  
Talc ; but most of them are of a greyish Colour, and very  
hard.

As *for* the Production of the Flas, I think it's hard to deter-  
. mine in this Place ; because the greatest Quantity I found osit,  
was lying, aS I said before, about an Inch at most within the  
Ground, parallel with the Superfine, interwoven with the  
Roots of the Grass, without any Root *of* itself, but alike at  
both Ends, as if it were cut with a Knife. The Ground  
wherein it is sound is of a greyish Colour, about one Inch or

two think; under which there is a black Earth, for a Foot in  
Depth: So that I could find nothing, in the Places where most  
of it was got, that I could rationally conclude to produce it.  
But in some other Spots I found muchof a talkish Sand, and  
some. Pieces of Flax hear to it; as also.Pieces of the Stone  
much whiter than the rest, and very like Talc; which would.  
incline one to believe, that it was produced of it: Yet there  
being no Appearance of any Talc in the other Places, wherel  
most, of it was found, I can scarce conclude any thing about  
the Production of iti V...

But whatever way it is produced; though I haves not exa-  
mined whet has been writ and said of .that *Linum,* by many,  
yet it seems to me, by whet *Pliny, Aldrovandus,* and *Olaus  
IFormius* write concerning is, that this which I found'in *Scot-  
land,* is not inferior to any they speak of; .for, generally, they' -  
make it very short; whereas some of this. I sound five, six,  
seven, and some-eight Inches long. /: τι - τ *j* Xlsstio A  
: As for the making os it into Cloth; they all conclude it very-  
hard,: which I confess is .true:; yet it may be seen, by the Expe-  
riment I have shewn, in making Yarn of it, that Cloth may  
he made of it also; for the Difficulty is: much greater, .in one -.  
than the other. ’.l - t ςῖ*: 'set .et*

A singular kind of Stone:was dug out os a Quarry in. the,  
Highlands os *Scotland,* which, aster the Rubbish, which lies  
not very deep,: is done away, lies horizontally in a Bed endued  
with parallel Fibres, with few Interstices, soft at the Beginnings  
and easy to be smoothed and polished without any Tool, but '  
rather with Sand, or another hard Stone of a bluish Colour,,  
which afterwards hardens fo, that .it resists the Injuries of.the  
Ain, or Prejudice of Fire. When first the Quartierbegan **to**dig it, he was at a mighty loss; for endeavouring to cut **and**raise it, aster the ordinary manner, with Wedges, and other  
usual Instruments, it broke and crumbled all to Pieces :. Bul.  
afterwards observing more narrowly the Duct of its Fibres, **so**to speak, he endeavoured to cut it with Spades lengthwise ; **and**by this means he procured Stones as big aS he had a mind, which  
smoothed -very easily along the Tract of their Fibres; but when  
cut transverse, no Means nor Methods could render them smooth,  
but their Surface remain’d unequal as the Extremities os a Piece  
of Word. Althe', aS I said, this Quarry has but few Inter-  
stices, yet in those it has the true *Asoestos,* of a whitish silver  
Surface, consisting of several *Fasciculi* with parallel Fibres, like  
to those *of* the muscular Fibres of salted Beef, easily separable  
from each other, pure white, till it becomes so small as the  
finest Flax, .and so ductile, that it may he spun into the finest  
Thread, whereof it were easy to make theincomhustibleCloth,  
so sainous for Shrines among the Antient?. In other Places of  
those Interstices, was likewise to be observed a reddish Substance,  
near to the Colour os *Sanguis Draconis y* hut whether fibrous  
or not, I cannot inform you, since the Gentieman could not  
shew me any of it ; but added, he believed it might be good  
for Dying. I got a small Parcel of the *Assesses* from him, and  
he told me, if he had known its Value, he could have preserved  
some Pounds of it. I am ready to think the second Kind was  
fibrous too, which might make a very beautiful Cloth, heing  
striped with the other. This whole Quarry may he said Io he  
*Asicflos* of different Colours, the bluish heing of a much coarser,  
and the white and red of a finer Grain. *Phil. Trans. Abr.*

*Vel.S. ’-*

AMICULUM, this was a kind of Covering used by the  
Boys for concealing their *Pudenda,* when going through their  
Exercises naked in the *Gymnasium, or* Place appointed for that  
Purpose, *Rhodius Dissert, de Acia.* It is also used in the same  
Sense with the Word AMNIOS, which see.

AMIDUM, the same as AMYLUM, which see.

AMINAEUM VINUM, Wine of *Arninae,* called afterwards  
*Falernum, in Italy.* Polenta, prepared of roasted Barley, and  
drank in austere *Aminaan* Wine, is said by *AEiius,* to dry the  
Belly. *Totr. i.-Serm.* I.

Among Wines, the *Aminaan* claims the Preference, on ac-  
count-of its Strength, and the Spirits and Generosity it ac-  
quires by Age. *Pliny Nat. Hist. Lib.* I4. *Cap.* 2.

*'Columella* says, the- *Aminaean* Vines were the most antient,  
that is, the first taken Notice of; and the *Italians* were pro-  
bably first acquainted with these Vines; for *Italy* did not origi-  
nally produce Vines; the Inhabitants were therefore obliged to  
transplant them from the Country of the *Amrninei,* a People of  
*Thessaly.* According to *Macrobius,* the Falernum was antiently  
called *Aminaan* Wine; but it should rather seem, that the  
Falernum was of the Vintage of a particular Place ; and that  
the *Aminaan* Wine was that made from the *Aminaan* Grape,  
in wherever Part of *Italy* it was produced; though the Faler\* ’  
num seems to have been made from this Sort of Grape, which  
the Soil of that Place might probably agree with better than  
any other, in Confirmation that the *Aminaan* Wine was not  
the Produce of any particular Pisce, but a Wine made of a par\*  
ticular Sort of Grape, it must he remark’d, that *Galen* takes  
Notice of *Aminaan* Wine, which was produced in *Naples, in  
Sicily.,* and in *Tuscany.*

- It .was- the Character: of ..the *Aminaan* Wine, that' itwas,  
when new, austere, acid, and rough, but. that it improv’d pro-  
digiousiy by Age; for, when old, it. was. remarkable for: its  
Spint,„Strength, and Generosity and consequentis,it. was  
-then: excellent . in. Imbecilities of .the Stomach, aS . *Galen* oh-,  
serves.t.s-sir : se-... d...: ........ .. .' ......

*:Virgil* distinguishes Ihe..dinin,nutr Wine, from the*Palcrrtum,.*inrthefecond *Georgic.*\ r.n Tin-.-.

— V... α . . . « ..., » I . . -. - . .. -. *a Λ. i . a ... . . ...* \_ - -s.i - L , . a

*te Carmine dicam,* i . ..

*-s-rsjEheetlenE Neccellis ideo contende Falernis. t \_*

*soisosSunt etiam Amminece Vites, firmissima Vina..* j ... . ι

-SThisisort. of Wine - and Grape, were by-most of *ism. Latin*Writers called *Amminecae* and *Amminium,* aS-in *Virgil,* not *Anti-  
nesr.kiabAmineBum.su...* ιὄχ’.ς sc.

AMIN.EUM ACETUM. *Rulandus,* and his Transcriber  
*Jubnsijrscsdexu* to'thinkthis'White-wine Vinegar; but it should  
witheEbe.Vinegar. made.ch the Wine described above, or strong  
Vinegar in general.. ᾶλς,' ,-i ἐν s . χ .i

-AMINIA, the Name hy ,which the,Natives of *Brasil* call  
the *Hylon Brasilianurn os J. B.* and winch the *Portuguese* call  
Ah Go DoN- ' *Margraor.* .It is a-Species of Cotton-tree.) Λ  
epAMMAsi.See HA MM A. .. .. .... u-.—im iH

a AMMI; Bishops-weed, of which there are . two Sorts, the.  
Modern;, and. the Antient.. The Modern, is thus distinguish'd: v  
*z..Amrtiscvulgare,* .Offict Ger. 88I. Emac. IO36. Ran Hist. I.;  
455.1 *z Ammi vulgatius*, Park. T heat. O I 2..*... Ammi may us,* C. B.r  
Pin.II.59i Tourn. .Inst.. 3O4. rElem. Bos, 254. Boerh. Ind.; A.  
57 *Ammi vulgare may us alatioribus foliati, semine minus odorajo,*JcB.. 3. 27. Hist. Oxon.. 3. 295. *:Amsu. Amrti, Antium et  
Acnrniurn,.* Chain /283. durOMMON BISHOPS-WEED.  
*Dale:. . A...* . ii. ... .. .. *-I* l . . i ss Ἀ-  
εί: This Plant grows about two Or three Foot high, with ishait,;  
round, ohanell'd Stalks, on which grow long-wingedDeayes,  
encompassing the Stalk at Bottom, composed of three smaller  
Divisions, *of* long, narrow, crenated; *Pinnae* ; on the Tops .of  
the Stalks grow pretty large Umbels of small white Flowers,  
consisting of five Leaves apiece, whereof two . or three are  
usually bigger than the rests The. Seed, is small, about the.Big-.  
ness of Parfley-seed, of a hot fragrant Taste. It: grows not  
wild with us, chough *Parkinson* affirms, that it grew wild about  
*Gyeenhith, in Kent*; hut. it has been found .by nobcdy.fince  
his. Days: In the. warmer. Countries it is common, enough,  
fiowering in the Summer, and dying after, it has.perfected .its  
Seedsiwhich is theonly. Part of the Plant in Use.. . .

\ The Seeds .of Bishops-weed are of a drying warming Nature,  
good to expel Wind from the Stomach and .Intestines, and pre-  
vent the Colic; they are diuretic, provoke Urine and the Menses.  
*MildurBar. Off. - .so. ........ :.sc i .. .. - ,*

. It is cultivated in Gardens, .and flowers in *"June.* and. *fuse.*The Seeds, are small, striated, less than those os Parstey, of a  
hght.Red inclining to.an Ash-colour; of a bitterish, acrid Taste,  
and os a fragrant Smell; they are fold in our Shops instead of  
those os the *true Bifhops-aveecl.* It is one of.'the sour lesser hot  
Seeds. *Dale.* ’. "ῖ ί

. The Ammi of *Dioscorides,* .and the antient Authors, .is thus  
distinguished:. Ἀ .. . ... . ... ..... . ....

*Ammi vaunts* Ossie. *Ammi Crrticum,* Ger. 88I. Emac.  
I036. Park. Theat. 912. *' Ammi alterum, semine apii,.* C. B.  
Pm. I.59. μ *Ammi odore origani,* J. B. 3. 27. Rail Hist. I. 455'.  
HishOxon.3. 295. Chain 3S5. TRUE BISHOPS-WEED.  
*Dale.*  . Λ . -

Ammi is by some called *Ethiopian Cammin,* by others  
*Royal Cummin*; but some tell us, that *Ethiopian* Cummin is of  
a different Nature from that os Ammi. . The Seed of this Herb  
is well known to he much less than Cummin-seed, and *of* the  
Taste os Origanum. Chuse what is clean, and free fromBran, ν  
. It is os a heating, caustic, and drying Quality. Drank in  
Wine, it cures Gripings of the Intestines, Difficulty of Urine,  
and .the Bites of venomous Creatures ; it also provokes the  
Menses.' It as mixed with Vesicatories of Cantharides, in order  
-se to prevent the Strangury. Apply'd in a Cataplasm with Honey,  
it takes off the livid Marks, os Blows in the. Face. Drank, or  
the Skin anointed- with it, it causes a pale Colour. Used in a  
Suffnmigation with.dry'd Raisins, or Rofin, it purges the  
.. U terns. *Dioscorides, Lib.* 3. *Cap. foe. .*

*Pliny* says the same, and adds, that *Hippocrates* called it  
*Papal Cunanin,* because het thought the best grew in *Egypt.*The *Alexandrians*. used it in their Bread, and in Sawces. It  
affwages Inflammations of the Eyes. Mixed with Linseed, and  
the Quantity of two Drams drank in Wine, it cures the Sting  
ef a Scorpion ;.at.d taken with.an equal Quantity of Myrrh, is  
particularly serviceable against .the Bite of the Cerastes.. They  
fay the Smell of it, at the tfine.of Coition, promotes Conception.  
*Nat. Hist. Lib-* 20. *Cap.* I5t .

t This is rarely Io he met .with in . the Shops, the former sup-  
plying its Place : It used formerly to he brought from *Turkey;*the Plant winch bear? it is smaller, the Leaves narrower, and  
more divided; it hears Umhels of white Flowers, and Seed

somewhat likeThe Cofninon, buti sese; of a more-pleasant, and  
aromatic Small and Taste, somewhat like *Origanum,* and is.  
esteem'd .to have greater. Virtue .and. Efficacy than the former;  
*Miller. Bot. Off. rso^ st* .ό : ’

t. It is. brought' from *Alexandria* in *Egypt.* The Seeds are  
small, striated, less than those of Parfley, of a Yellow inclining.  
m Red, of an acrid aromatic Taste, and of a fragrant SmelL-  
It is seldom or never sound in our.Shops.:. It.is Incisive, Ape-?  
rient, and a Drier ; is effectual in Pains of.the Colon .and Ute-  
rus, Inflation, of the Stomach, and Obstructions -of, the Urine  
and Menses. *Dale.* .. . τ- ς' ν i . 1 ινύ. ; τ'

. These Seeds afford a great deal ths essentialsOil, and Volatile  
Salt.- t l. rsi\* ci1.T -- ι ,.. o Γ. ’ .

They, are Anti-hysteric. Carminative, .and Cephalic; resist  
Poison, and are one of the.sour.leffer het.Seeds.t *Lemery des  
Drogues.* i '. ; : . . :.. ι *s--.\.r:r -so* r- *Vit ..*

**- AMMION, ardpoovs .Cinnabat. See CINNABAR; at.d MI-  
NIUM. :** o; *s.-gi , s ..:r. cl-- . ’’*

t. AMMITES, *five* s AMMONITES; is a- sandy Stone,,  
winch is found in differentuSi2es ;;sor there are? some aS large  
as a Nut, some as big as.Ptios; some The Size) of Vetches,-  
and others of the Seeds of Poppy br.Millet. s These.little Stones  
resemble the eggs or Spawn of Fish , Tome are-ca]led C:Mtiory--.  
*tes,* and others *Meconitess.* . Those which areias thigr as a Pea,,  
are called by some *Mineral Eezoar,* because they are formed  
in Shells, *.οτ* little *Lamina;^,* like the Bezoars and . they are of  
the same shining.Colour, or a„little, redder; they are found  
upon the Mountains near *Born, in Svvitsccrland. so* i'-: .

They are soon, resolved into .Sand,. Of which they consist:  
They are called. *Ammites, feoar. stapes,* SandLj *Demcry. des.  
Drogues, .* i ' . *soi* : 6. :: ncent .'

AMMOCHOSIA, ἀμμοχένσἰα, a kind of Remedy for dry-,  
ing the Body, which, sort that Purpose, must be laid upon  
the Sand, which musthe-heaped upon it.:. The sand ought to  
he Very hot, and of the SeaS.if it.can’he had; for River-sand,  
is ,more humid. ἐν ψ; ;..;ἄκ.ίνὰ ... i itd. r . ; r

.. But Salt is more efficacious -for the same Purpose .than Sand,,  
and better for the.Patient to. lie down in, with.some thin Sub--,  
stance spread under him. But the Salt must he no .less, than  
three Palms in Depth; Tor otherwise its Virtue .would easily he  
dispersed. . I. .'. - , ' I .. Ἄ - : ;j scso- *o iso:*

- It has also the same Effects as ήλιωσις, INSoIAITON, which  
fee. ... .. 6 . . i.O e

*Oribasius,* Lib. Io. Cap. 8. *Coli Medo* telis us, that this  
Fomentation with Saud is accommodated to such-as labour un~  
der the Colic, Asthma, Gout, Cachexy, Dropsy, and all  
those who are afflicted with chronical Distempers; and that all,  
except Infants, are fit Subjects os this Fomentations He says  
further, that it ought .to be administer'd in the hottest Days os  
the Summer, atfiun-rismg, on the Shore, in the most fervent  
Sand, which has deep Pits funk in it, where the Patient-may roll  
himself, and lie with his Head covered from the Sun-beams, a  
Covering hefore his Eyes, and a Sponge, dipp’d in cold Water,  
held to ins Face.: . : ί ς .

*Altius* also, mentions this; ἀμμαχωσία.: *Trtrat..* I. *Serm. 2s  
Cap.* 9. aS does *Celsius, Lib..2. Cap.* 2I. for the Cure of a  
Dropsy. *Dioscorides,, Lib.* 5- *Cap.* I67. says, that the Sand  
on the Sea-shore, heated with the Sun, dries the Bodies of those  
who are hydropical, if they are covered with it, all but the  
Head. *Z- ' - } . ; - . : -* i

*- Galen* made use of this, αμμοχῳσςα, for the Wife of *Boethus,*labouring under a Fluor Albus, as he writes. *Lib. de Pracogs  
ad Posthumum. .* And *Pliny, Lib.* 22. *Cap.* 25. telis us, that  
*Sextus Pompeius* used the same kind of Remedy for the Gout\*  
" He stood, says he, above his Knees in Wheat ; and his Feet  
" being thus dried, he found himself wonderfully relieved; from  
" which time he used no other Remedy." :

*Hen. Stephanas,* instead of ἀμμοχωσία, reads ἀμμοχυσία. it  
is also called ψάμμισμός. *Dorreeusi - \_ ‘*

AMMOCHRYSOS, ἀμμόχρὓσος, from ἄμμος. Sand, and  
χρυσός. Gold. . .. . ' . ἐν ‘... .

AMMOCHRYSUS, is a Stone/sometimes hard, but which  
generally crumbles betwixt the Fingers like Sand ; its-Colour is  
sometimes red, sometimes yellow,' intermixed with Spangles of  
Talc, the Colour of Gold ; so that it seems to be mixed with  
Gold in Powder.. This Stone is . sound in *Bohemia,* and in  
many other Places. It is onlyused to put on Writing. *Lemery  
des Drogues.* ... . t::: σ .

AMMOCHRYSOS is also a Name given to a kind of  
Mud of a golden Colour, found in the Chanel of certain warm  
mineral Waters, in *Friseland. Castellus. . z*

AMMODITES, a Venomons.Serpent, a Cubit in Length,  
which is its utmost Size, being never described larger. It is  
of a sandy Colour, and marked all over the Body with black  
Spots; its Tail Ἀ extremely hard, and divined in the Upper  
Part. Some give it the Name *os Cenchria,* that is, *.Millety,*because its Tail is hard like Millet.. It has wider Jaws than  
the Viper, and though it resembles that Reptile in many other  
respects, is easily distinguished by the Colour ; sor the Viper is  
yellowish.

The Bite of the Arnmodytes is "generally followed byspcedy  
- Death;. but if this does not happen. Blood comes from the  
Wound, and the .Part swells. Soon aster Sanies works out;  
which is succeeded by Heaviness of the Head,, and Swooning.  
Where the Symptoms are most favourable, the Patient does not  
live above three Days, the’ there are Instances of some who  
have survived till the seventh Day. The Bite of the Female  
causes the quicker Death. -

Help, in fircti a Cafe, is to be sought, first, front the common  
Remedies, as Cupping and Scarifying the Places all about the  
Wound; Constriction of the Parts above it, and laying open  
the Wound with the Knife. Proper Medicines are. Mint  
drank in Hydromel; Castor, Cassia, and the Juice of Mug-  
wort, taken in Water. Theriaca also is to be-taken, and ap-  
plied to the Hurt; drawing Plaisters are to be ufed j and after  
these, such. Cataplasms as are proper -for the Cure of eating  
nnd spreading Ulcers. *Actius,. Tetr. e,.. Serm. C Cap. 2^.*'. AMMONIA CUM, ἀμμωνιακὸν. Ammoniac. - . :

*. Thy Arabians* call the .Chrysocolla, *Lexac Aldeheb,* which  
signifies the same as the *Greek yyioror-oKKa.,* that is, a Ferrumi-  
nation [Soldering] of Gold. - They gave this Name also to  
Gum Ammoniac, as *Avisena,* on the Word *Affac,* assures us ;  
the Reafon he shews for it is, because Books and Papers are  
gilt with it; for it gives a.gold Colour to Books and Papers oh  
which it is laid, or is useful in the gilding or laying on of Gold  
upon the same. This is vivifene’s Sentiment; the Gum itself,  
or Drop, of. Ammoniac, he calls *Affac,* or *Accac. Alpagus*observes, that among the vulgar *Arabians* it- goes by the Name  
*of CJsac*; and indeed, an antient *Arabian* Botanist, *in* an old  
*Diofcorides,* renders the Tree of Ammoniac *Seg jar Aluysac,*that is, the Tree *Alusseac.. In Serapion, Ra'xaech.* is read, by  
Corruption,, for *Haxach* i .the *Spaniards* call it *Aguaxaque.*

*Avisuia* calls the Tree *Altarthub,* or *Aliarthut*; the *Greeks*fay it is called *Agofyllis* ; καλεἰται δε *alum* ολ-ος ο θάμνος ἀγα.  
συλλίς, "" the. whole Shrub that bears it is called *Agapillis. ”  
Diofcorides. Pliny,* tho’ by Mistake, fays it is called *Metopium.*Some other of. its .Names in *Jsteophytus,* are κριύβεος, and ήλίου  
στραφος, the first of which is an Epithet of *Jupiter Ammon,* to  
whom they gave the Name of κ&οκέριτος, “ Ram-horned ; ”  
and the Reason of its other Appellation, he fays, was because,  
its Tear.was much exposed to the Influence of the Sun; We  
commonly call it *Arrnordac,* instead of *Ammoniac.* Some learned  
Physicians have doubted, whether we heve the true Ammoniac  
of the Antients, and not without Reafon ; for our Ammoniac  
has not the Characters by which the Antients describe theirs *t*and ’tis certain, that Kind of it which they call 6ρστνὰμα, or  
βραυστὸν, " such as is in Lumps or Fragments, ” is scarce to be  
met with in our Days. The Reafon of the Name was, .be-  
caufe it was .broken after the manner of dry Sorts of Gums,  
whose Parts did not consist of a tenacious. Glue. *Dioscorides,*amongst its Characters, would have it to bs " like grumous Bits of  
Frankincense;’λιβανώτίζονιαοις.χόνδροις, which *Seraplam* erro-  
neously understands with respeAto. Smell; .It was pure and  
dense; without Sordes; , and of, a yellow Colour; *Diofcorides  
fays, alyyrf,* “ of a good Colour.” They, called another Sort  
-of it φὑρομα, or φυρα/ίν, “ mixed of blended;” because it was  
set and resinous, easy to he made into a Mass; and full of Impuri-  
ties from Earth or Sand. sThisis what we now commonly meet  
with in the Shops, and the *Greeks* had no other in the Time of  
*Naophytus,* -who accommodating the Words of *Dioscarides to*the Age in which he lived, makes two Kinds of one, speaking  
- thus, Έγκείϊέονδέ τὸ ἔυχρκν καὶ ᾶξυλον, λιβανίζον τὄις χονδροις,

καθαρίν καὶ πυκνὸν, μηδεμίανίἔχονῥυπαείαν' " Chute what is *of*a good Colour, without Chips, *etc.* ” This is the θροουστὸν

Ἀμμωνιακὸν, iC the brittle Ammoniacurn,’’ of the Antients.  
He immediately adds, καὶ τὸ .ῥητινίξον, τοῦ οσμη σφοδρο'ν, πικρίν  
δέ τη γεὑσει\* καλεῖται δέ .τὸ τοιοῦτον έρυμάτώδες. " and the  
\*' resinous, of a strong Smell, and a bitter Taste; this Sort is  
“ called the *tractileP -* He thought that the Ammoniacurn of his  
Times, because it wastesinous., and of a vsscous, ropy Fatness,  
was the fame as that of *Diofcorides,* which he would heve to be  
λιβανίξον τοῖς χονδροις, “ in Lumps like Frankincense: 7 bur  
this is far from being truefor it is one thing to be ῥὑτινώδες,  
\*" resinousand.another thing to be λιβανωδ’ες," like Frank-  
\*" incense. ” This is dry and brittle, the former fat and juicy.  
Such Bodies as have a Ropiness,, and can be drawn out llke  
Pitch or Birdlime, may be called έρυμάτώδη, " tradtile; ” but  
the θραυστἀ, “ the brittle,” are properly such as, being broken,  
are shivered into fmall Bits and Fragments, and cannot be drawn  
into Threads. Thus he made one of two very different flings ;  
and, on the contrary, made a Distinction where was no Diffe-  
rence ; for he immediately subjoins' λιδώδες « γεώδες φὑρομα,  
"" the Mixed iras Earth or Stones in it. ” The Ammoniacurn  
of *Diofcorides,* which, be fays, is called φύραμα, is the fame  
with the fat and resinous, which, on account of its Viscosity,  
may he easily worked up into a Mais, *Pliny* has it, *Genera  
ejus duo,* Theauston *masculi Thuris fimilitudlum, quod maxime  
prcbatur ; alterum plague ac resinosam, quod* Phyrama *appellant.*“ There are two Kinds of it, the *Thrrnestess,* [brittle] which  
\*\* IK like Male Franlrinrpnse\* : onst mmsl. αι.,1ιιιπὸ - rLe. ηττιμόΓ *ci* fiat

“ and resinous Substance, which they call *Psmrama,* [a Mike  
"" tureJ” The Tear, which is of a pinguious Ropiness like  
Eosin, heing too liquid to suck to the Tree, falls to the Ground,  
and there gathers Filth, by taking hold of Bits of Woods, and  
Sand, and incorporating with them into one Mans. This is the  
λιδώδες, " stony, ’’ and γεώδες, " earthy,” Ammoniacurn of  
*Diofcorides,* and the fat and resinous Ammoniacurn of *Pluri,*which is called *Phyrama.* What concretes on the Tree, llke  
Frankincense, is not only dry, but pure, and free from Filth.  
*Neophytus,* who \_faw no other Drop of Ammoniacurn used' in  
his Trine, more than what we see now, thought the liquid and  
the resinous were the same with the concrete, and again separated  
the .viscous and fat from the resinous, which was a Complica-  
tion of Absurdities. The *Greeks* universally call it Ἀμ.μ.ωνιακὸν  
βυμίαίια. " Ammoniac Perstnne,' ” because it serv’d them for  
that Use, tho’ it he os a strong and rank Scent. *Diofcorides*fays; καστοείζον τη ,ὀφμῇ, " smelling like Castor *Naophyturi*τοῦ *laiso* σφοδρίν, μ of a strong Smell. ” *Galen'uris* it has κοείου  
όσμὴςν "the Smell of Coriander. ” But I think it shoal'd be  
read καστοείου, " of Castor,” instead of which they wrote'by  
way os Compendium, κοείου. " of Coriander.*Pliny,* amongst  
Odours and Spices, reckons Ammordachm, -with the Juncus,  
and Calamus Aromaticus, and sweet-scented Moss. Bur Sis  
no more strange; that this Gum should have a Place among  
sweet Odoiirs appointed for Perfumes, than that ‘ Galbanum .  
should be reckoned among the Spices, thatcornposed the sacer-  
dotal Perfume, *Excel, iorx.* 3I. which consisted of Stacie, arof  
matre Onyche; and Frankincense; In *Hebrew* it 'is' called -  
Π32?Π, *Cheibena,* whence comes the *Greek yestespsirir.* Galba-  
num was also an Ingredient in Ointments, and especially in  
the Ointment of Almonds used among the *Egyptians,* which for  
that Reason was called μετώπιον, "Metopium,” a Name sot  
Galbanum.' Of the Ointment of Almonds, the *Greeks* thus  
write: Ἀιγὐπτιοι τοῦτο τὸ ἔλαιον έξευριικότες μοτώπιον ἀὑτὸ προσ\_  
ηγὄρευσαν, ὄτι χαλβάοην λαμβάνει, τὸ δέ φὐτὸν.εξ ου *gulijizi ή  
"Xuaurivn xecneiasu* μἑτώπιον. -μ *Tiha Egyptians,* who invented  
" this Oil, called it *-Metopium,* because it contained Golba-  
"" num; for the Plant whence Galbanum is generated is so  
" called. ” Now the Scent of Galbanum is not much different  
from that of Ammoniac, if it be true, as *Diofcorides* fays, that  
Galbanum ufes to be adulterated with Rosin, husked Beans,  
and: Ammoniac: So that *Pliny* changed Names, when he said,  
that the Tree of Ammoniac was called *Metopium,* which, ac-  
cording to others,' is a Name for Galbanum. Some will have  
the Tree, that sweats Ammoniac, to be an Herb. The Au-  
thor of *Actrcarius* upon *Diofcorides* has it, Πόα εστιν, ὸθεν Ἀμμω-  
νιακὸν ῆςμίαμ,α. ςς It is an Heth which produces the Ammoniac  
ec Perfume. ” This is rashly offering Violence to the Wordsof  
*Diofcorides. Serapion,* quoting *Dioseccri'des* by Name, - and  
feerning to speak his very Words, relates, that they make an  
Incision'in the Root of this Plant, and so fextraol: the Tear ;  
where stis plain he took it for an Heth. *Pliny* calls it a *Tree,*and fays; that the Tear distils from it after the manner of Ro-  
sin ; by which be must mean, that it stows fpontaneousty.  
*Diofcorides* calls it; δένδρον ναρθηκοἱιδές, " a ferulacioiisTree,”’  
and δἀμνος, “ a Shrub nor indeed do Frankincense - and  
Myrrh distil from greatTrees. There is no mention of a Root  
in a very antient Copy, tho’ the Editions have it thus : Καλεῖται  
δέ ὄλος ο ὸάμνος σὑν τῆ ῥίξ» Ἀγασυλλίς, "" tho whole Shrub,  
"withitsRoot, is called *AgafyllisP* There is no need of a Root  
here, and no such thing is authorized by this excellent -Manu-  
script. And stis downright false, that Ammoniac sweats from  
the wounded Root of an Herb, as *Serapion* maintains. Authors  
of the greatest Antiquity declare, -that it flowed spontaneoufiy.

In the medicinal Lexicons of the *Greeks,* I find γομφίτην and  
γομφιτον. [Compactor er Fastener] to signify this Ammoniac  
sweet Gum, in the fame Sense perhaps with *iioriArabic* Appel-  
lation,' *Letcac Astdeheb,* which, according to *Avisena,* belongs  
to Ammoniac, and is properly that, by which Gold sticks' to  
Gold. Now γομφῶσαι. is " to compact,” and γὄμφοι σὑν-  
δεσμοι, " Goniphi are the Ligaments, ’’ by which Wood ad-  
heres to Wood. Wooden Pegs were alio called by this Name  
*[Gomphigi* The Glossaries, or Lexicons, have it,- γομφίτηι, ’  
Λιβύκον Βυμίαμα, " Gomphites is the *Libyan* fweet Gum, ’\*  
and γομφιτον τὸ βυμίαμα, ‘(ι Gomphitcn- signifies the sweet  
"c Gum. ” ' " ‘ t t \ -

*Nicander,* in bis AlexIphannacs, puis Ἀμμώνιον. [Anm-.o-  
ninm] for Ammoniacurn, in the following Verses;

- — έν q έπαρκές

. Θἀλπἱ.βαλών χὑτρωἈμμώνιον.

‘" Throw into the Pot a sufficient Quantity of Ammonium,.  
"" and let it heat. ” It is corruptly read σκαμμί.γιον. [beam-  
monium] and wrongly understood to be Scarnmony, that is,  
the juice of Scarnmony, but this the fame Author Allide he-  
sore called δἀκρυ. κάμονος, " the Tear of Ksmon,. [Seam--  
many]';

.- —τὸ τε δάκρυ νεοβδἀλτοισ κδοωνος.

“ and the fresh-expressed Tear of Scarnmony..” .Κααωνος is

pot for σκἀμωνος, as μἀραγδος for σμἀρογδος, [Maragdus  
for Smaragdus]. The Juice is σκἀμωνιον, " Scamoninm, ” the-  
Herb σκαμωνία, " Scarnonia. ” Therefore Ἀμμώνιον, [Ammo-  
nium] and Σκαμμώνιον, [Scammoniumj are two different  
things.

Sal Ammoniac, άλας Ἀμμωνιακὸν, took its Name from the  
same Place. The *Greeks,* especially the more modern ones, in  
their medicinal Lexicons, are very much divided in their Opi-  
nions upon this Subject. The *Saracenic* Glossary of *Ephodius*renders *she Arable* μίλχ, [Milch] hy Ammoniacum. Μίλχ,  
τὸ Ἀμμωνιακὸν ἀλας, '"Milch is Sal Ammoniac.” *Milh* is an  
*Arabic* Word, which signifies Salt. The *Greeks* change the  
*Arabic* Aspiration into a stronger, and express it by their χ, *ch.*Thus they fay, ἀλχἀννα, " alchanna, ” for alhanna, *etc.*

Some there are who seem to have appropriated the common  
Appellation of *Salt, e.Ap* έξοχὴς, “ by way of Eminence, ”  
to Ammoniac ; of which the old Interpreter of *Avisena* gives  
a Hint, by thus expressing his Title: *Of Sal Ammoniac, that  
is, of Salt. In the Arabic ’tis Naxader,* a Word that has its  
- proper Meaning, and is remote from all Signification of Salt.

Of all Kinds of Salt, *Dioseorides* approves of the Fossile [Rock-  
salt] as of most Efficacy, and among the Fossile, of Sul Ammo-  
niac ; to that ’tis no wonder it took the proper Name of *Salt*on account of its Excellency. Others of the more modern  
*Greeks* coll it ἀλας τζαπαβικὸν, " that is, fossitious Salt;”  
for πζμαα [tzapa] and σζάπιον [tzapiurn] signify with them  
an Instrument to dig with, τὸ ὄρὑγιον, [Orygium] *, with the  
Latins, Sappa,* which is a Word we yet retain; and hence  
comes the Verb *Sappare,* “ to fap.” *Nicomedes,* the latro--  
sophist, in his Lexicon, has: 'Ἀλαςἐνυάτὀν τὸ γαγΐραινόσ.  
’Ἀλας Ἀμμωνιακὸν τὸ τζαπαειάὸν. Ἀλας Καππαδοκικὸν τὸ Ἀρ-  
μένιον. *’’A.Kaes -raergulloy* τὸ *QajAosicy.* " The fossitious Salt is  
" the same as the Gan grin urn, Sal Ammoniac is the Tzapari.  
\*" cum, the *Cappadocian* Salt is the fame as the *Armenian,* and  
" the halt for seasoning is the Sea-salt,” You see he distrn--  
guishes the fossitious Salt from the tzaparicum, such as he makes  
Ammoniac to be; tho\* *Diofcorides* makes Ammoniacum to  
be a Species of fossitious Salt; and, to speak the Truth, the  
Tzapa of the *Greeks* is not properly an Instrument with which  
they dig the Earth, but fitch as they cut Stones with in Quar-  
ries. Sal Ammoniac, we are told by *Serapion,* is pulled out of  
hard and transparent Stones ; for which Reason there is need  
of a Sappa, [a sort of Pick-ax) to get it out, and to cut it,  
which Instrument the old *Latins* called *TJpupa,* because it has  
a sharp End like the Beak of a Lapwing. The Glossaries have  
it, *Upupa, oesiyiw* [Orygium]. A very celebrated Physician,  
and well exercised in these Studies, rejects the Opinion of *Se-..  
rapion,* principally, on account of his making Ammoniac de-  
rive its Name from the Sands out of which it is digged, heing  
concreted into Crusts and Laminae. The Absurdity of this  
Opinion may be evinced several ways : First, no coosiderate  
Person would derive Ammoniacum, ἀπὸ τὑ άμμου, “ from  
" Arnmos,” [the Sand] but ἀπὸ τάἈμμωιος, "from Am-  
" mon, ” for the fame Reason as Gum Ammoniac, which  
cannot be thought to takes its Name from Sand, tho3 *Pliny* be  
niso of that Opininn. ’Ἀμμων, " *Ammon,* ” himfelf indeed,:  
took his Appellation from the Sands; but *Regia 'tsuporusccne*rook its Name from *Ammon,* who had a very famous Ora-,  
cle in thole Parts; and whatever was discovered therein  
worthy Observation, was called Ἀμμωνιακὸν, « Ammonia-  
", cum. ’’ *Pliny* tells us, that the Ammoniac was dug out  
of large Caverns. *Levissemus intra specus saes,.ia Lucent  
univer fam prolatus incredibili Pondere ingravescit.* " Though  
" it he very sight within its own Caverns, it. increases in  
" Weight after a surprising manner when it is produced, in  
« open Light.” And he gives us his Opinion why it wascalled-  
Animoniacum : *Nam et Cyrenaici Tractus nobilitantur Ammo-  
niaco, et Apse, quia sub Arenis inveniatur, appellato.* " The  
*" Cyrenean* Territories are celebrated for producing Sal. Am-  
" moniac, fo called, because it may be found under the Sands.”  
Α ridiculous Reasons No, it has its Name from being sound  
in the Ammoniac Region, εν τῇ κατ’ Ἀμμωνα Αιβὑην “ in.  
*“ Libya,* about *Ammon, ”* which was a Part os the. Country  
of *Carene.* Nay, sometimes, not only the inland parts, but  
nil *Libya* come under this Denomination. *Tsurssotepbanus e  
'Αμμωήα* νϊ μεσογοςος Ἄιβὑη, zj .ἀοῦτει δέ πᾶσα 15 Λιβὑη ουτως ἐκα-  
λοῦτο ἀπὸ Ἀμμωνος, " *Ammonia* is midland *Libya,,* and some-  
" times the whole Country of *Libya* is so called from *Ammon so*We may conclude then, that sial Ammoniac has its Name  
from the Country *Ammonia,* and not from the Sand; for then  
it would he called ἀμμικὸς or αμμίτης, " ammicus or ammites.”  
*Plins,* in the seme Place, tells us*Qus Exemplo, poseea inter.  
Aegyptum et Araplarn, etiam seualentibus Locis, coeptus est in-  
veniri detractis Arenis, qualiter et per Astricae Jitientia usique ad  
Ammlumis Oraculam.* " In which manner they began, afterwards.  
“ to. discover it in-the Deserts between *Egypt olum Arabia,* by.  
" removing the Sands, as they do also in the dry and barren  
" Parrs of *Africa,* as far as rhe Oracle of *Ammonsu* ’Tis cer-  
tain, that in the Country of *Amman,* where the Soil was all  
sandy, the Caverns, that were dug undea the Sands, yielded

Sal Ammoniac; but in other Places, where was tin Sand, if  
was probably dug out of the Earth, or even from Hills. *Pliny,  
Lib.* 31. *Cap. η. Effoditur et e Terra, set palam est Humore  
densato in Cappadocia. Ibi quidem caeditur Lapidum specula..  
riuin made. Pandus magnum Glebis, quas* Micas *vulgus appel-  
lat.* “ It is dug out of the Earth in *Cappadocia,* as it is well  
" known, heing a condensed Humour. They cut it after rhe  
“ manner of the Lapis Specularis. The Lumps, which they  
" call *Alica,* are very ponderous. ” You will say the *Cap-  
padocian* is not of the fame Kind with the *Arnrnmian.* I anfwer,  
both are reduced under the Kind ορυκτών ἀλῶν, " of fossile  
“ Salts, ” which is *Plinsu* Opinion. *Dioseorides* makes three  
Kinds of Salt, τὸ ὀρυκτὸν, τὸ θαλάονιον, καὶ τὸ λιμναῖον, " tho  
.“ fossile, [Rock-salt] the Sea-fait, and what comes out of  
“ Marshes. ” But this last may be included under the Deno-  
mination of Sea-salt. He comprehendis Sal Ammoniac under  
the fossile Kind, the’ it he in some refpects a proper Kind os  
itfelf, and of a peculiar Nature, according to the Diversity os  
Sun and Soil. Observe the Words of *Dioseorides:* Τῶν δέ ἀλών  
ένἱργέστἱρον *An! are* τὸ ἰρυκτον. τουτου δέ κοινώς *Ans* τὸ ἀλιθον χ)  
λευκὸν καὶ διαφανες, πυκνὄν τε καὶ σμαλὸν τοῦ συγκείσει. ιδίως δς  
τὸ Ἀμμωνιαμόν τοῦ γένβ, έυχιστὸν δέ, καὶ έυθοῦας τάς διαφὑσοα  
ἔχον. " Qi Salts, the fostile is of the greatest Virtue, and  
" of this Kind, in general, what is free from Stones, white

and pellucid, and of a denfe and equable Substance ., inpar-  
" ticular, that Sort of it called *Ammoniac,* which is easy to  
" cleave, and has strait Fissures, ” Amongst the proper Cha-  
rndters of the heft fossile Salt, it is requir’d, that it be white  
and pellucid. Sul Ammoniac had both these. . *Pliny* says Of  
Sal Ammoniac : *Similis est colore Alumine quod Schist on vocant,  
longis Glebis, neque perlucidus, ingratis siapore, sed Medicinae  
utilis.* It is like the *seistile* Alum in Colour, and is in long

Pieces, not pellucid, has an unsavoury Taste, but is useful  
" in Medicine. ” As to its not being pellucid, I question,  
whether he is to be credited. *Diofcorides* makes Whitenefs and  
Transparency two Properties of the heft sessile Salt, and seems  
to afcribe them both, to Ammoniac. And *Pliny* himfelf, **a**little after, says, that the *perspicuous,* [perfpicuumj that is,  
the pellucid, is the most valued : *.Probatur quarnrnaxime per-  
spicuus, rectis. Scissesris.* " The most perspicuous, with strait  
" Scissores, is in Esteem.” By *perspicucus,* we understand the  
τὸ διαφανες. " Pellucidness, ” as when we say, *perspicuus da.  
nis, perspicuum Vitrum, '.e* a perspicuous Stream, a perspicuous  
" Glass. ” Thus the Glossaries: *Perspicuum, sun.aaais,snurpri.*" Perfpicuous, that is, diaphanous, pellucid.” Whatever trans-  
mits the Image, and can be seen through, as was the way of  
speaking among the Antients, is perspicuous; *so* that *Pliny*contradicts himfelf. He dressed up bis Account from several  
Authors; in one he found, that Ammoniac was like *fcissele*Alum in Colour; thesis white indeed, tho’ not pellucid, not  
appears divided into Fragments like grey Hairs. Hence-he  
imagin’d, that in was in long Pieces, but not pellucid. In  
another Author he read, that τὸ διαφανες, " the diaphanous,”  
-was most valued; this he here renders *perspicuous,* which is  
the same as *pellucid.*

*Avisena* gives us three Characters of the hest Sal .Ammoniac,  
which are, τὸἔυχιστον. " Readiness to cleave, τὸ διαφανες,  
" Pellucidness, ” and a Colour like Crystal; which last is fo:  
render’d by the Translator, from the *Arabic Albeluri: Et me-  
lior ex eo, qui. eft us Borax, clarus, crystallinus,* ‘o The best  
“ of it is like Borax, dear, crystalline. ” There is nothing’  
of *Bora-:* in the *Arabic,* which is the Word the *Barbarians* ufe  
for *Chrysocolla,* a Substance which has no Relation or Simili-  
tude to Sal Ammoniac.

In the *Arabic* Edition, there are three Epithets’ which *Avisena*gives to the best Sal Ammoniac. The first answers to the  
*Greek* ἔυχιστον. easy to be divided ; the second is the Word by  
which *Avisena* always transtates the διαυγὴς. diaphanous, of  
*Diofcorides,* the third is Albeluri, which the Interpreter trans-  
lates *Crystallinum,* with hetter Reason than others interpret  
*the Arabic* Belur, *Beryl.*

But they were led into this Opinion by the mere Sound of  
the Wced, as the’ *Belur vfzg* made out of *Beryl,* by a Traof-  
position of Letters; but the Ufe of the Word shews the con-  
trary. The best Beryis are of a pure sea-green Colour. The  
Chrysoherylli are another Sort, of a glittering Brightness, that  
has a Cast of the Colour of Gold. Bilur, in *Arabic,* must  
signify *a. white Gem .,* for the Ammoniac λευκὸν- ami διαφανες,  
‘i *white* and *pellucid,”* is compared to a- *bilurine* Colour;  
yet it cannotthe *crgulal-ylum* no fuch thing is generated in *sudia-,*het the *Nubian* Geographer writes, that *Bilur* is found in  
many Places of *India*; for Instance, in *Sarandib,* an Isiand of  
*India,* under the eighth Parallel of the third Climate, where  
he fays, they find ths hest and largest *Albilur. s* am not for  
rendering this Word *Beryl,* as a learned Transistor has done,  
for the Reasons above-mentioned. I rather incline to the Opi-  
nion of those who interpret the *Hebrew* tmnw *Soham* by  
*Albilur,* which almost all the Interpreters take to he the Onyx  
Gem, that takes its Name from its Whiteness, resembling that  
of a human Nail,- though it is said to be of several. Colours. ‘

There is a sort of Marble also, which goes under that NaineFor the same Reason. *Paulus Sibentiarius:*

Ὄσια est ον'υξ *driw.\* Ateusydsinsilt PAldaaes  
"CApifercev eedripea, . ' '*

U Such [Rays] as the Onyx, precious in its Paleness, emitted  
" front its splendid Bodv."

**An** antient *Arabic* Version renders βήρυλλον " Beryl,” in  
the Apocalypse *Bilur.* Certainly if *Bflur* be a Beryl, it must  
be understood os that kind os Beryl, which, is one os the last  
enumerated Stones, and said to be like Crystal. It can be no  
other than a crystalline and white Gem, that goes by this Name  
among the *Arabians*; for that kind of Salt which is commonly  
called *Sal Gem,* is said, by *Avisena,* to be like *Albilur.* Tis  
.certain that this was white and pellucid, for which reason the  
*Barbarians* called it *Salcrn Gemma,* the Salt of the Gem,\*’  
whereas they should rather have called it *Salem, gemmeum, "* a  
" Gem-like Salt; " so *gemmeus Miles, "* a Gem-like Man/\*  
in the Play os Chess, *in Martial,* is put *sor vitreus, "* one of  
" Glass,” which Poet often calls Glass by the Name of Gem,  
**on** account of its Brightness and Transparency. . The Word  
for Sal Gem in the *Arabic* Text; according to the Tranflator of  
*Avisena,* is *Darani*; in which Term I see nothing that answers  
to the Notion of Sal Gem. Does it not come from the *Hebrew*. Tn *Dar,* which signifies a *Parian* Stone, and white Marble ?

Indeed this fossile Salt, which they call Sal Gem, is of a Marble-  
like Whiteness and Splendor. In *Myrepsus* you find σαλτζἐμε  
*(Saltxerne)* for the *Latin Sal Gemma. - " ' ' A*

In an antient *Arabic* Glossary I find *Callafiicus,* which I read  
*Chalasticus,* ό χαλαστικός. We know what the Physicians mean  
by *Chalastica,* which are such Medicines aS have Ἀ mollifying,  
relaxing; discussing, digesting, and resolving Virtue. *Avisena,*in that Place, seems to enumerate and distinguish the Kinds of  
Salts by their proper. Virtues and Faculties, rather than from  
any other Difference in Nature, or Place of Growth. The first  
he mentions has an ashringent Virtue, such aS is in Nitre: An-  
other, he says, (as he is rendered hy the Tranflator) is of a  
thin brittle Contexture; and a third excavated ; these I don't  
understand, tho' he uses the same Word *excavated* for a kind of  
Salt throughout the Chapter. *Alpagus,* in his Lexicon; inter-  
prets it *Imperial Salt c* What it is I can’t fay. Perhaps it should  
*he an Arabic* Word which implies a Faculty of seizing and car-  
Tying off, , from a Verb of the same Import with the *Hibrew-***slssin** *Hbatapb,* which signifies to snatch and carry away hy  
Force. By this, perhaps, he understands τήν σμηκτικἰιν δύναμιν,  
" the abstersive Virtue, " winch exerts itself in Currying  
**off,** hy deterging and absterging. An antient *Arabian* Inter-  
preter renders the. λίθος μοἰΛβδοβδής, *Lapis Plumbarios os  
Dioscorides,* by a Word which leaves us in doubt whether he  
meant a Salt of an azure Colour, or the *Armenian* Colour,  
which he had somewhere read was reckoned, by the *Greeks,*among the Kinds *os* Salt. Indeed *'Losirnus Panopolitanus,* by  
**his** ἄλατος κυανοὐἈρμενιαιῦ, ‘4 of an *Armenian* azure Salt,'' seems  
**to** speak of a fort os Paint of that Colour So *Serapionsiisfortiis  
ns,* that Chrysocolla was a kind of Salt. There are also purple  
Salts, and yellow Salts: Let us suppose then, that *Avisma* calls  
The azure Salt by this Name ; yet I cannot be dissatisfied with  
my Conjecture, that, the Place should he read by a Word im-  
plying the σμηκτικύ δύναμις, " abstersive Faculty?\* Whet im-  
mediately precedes confirms me in it; for what the Tranflator  
tenders *rare ana brittle,* I would have interpreted *biting,* from  
**a Veth** which signifies to *bite* and *corrode-. Pliny* says of Salt .  
*in medendo vcro mordens, adurens, repurgant, extenuans, dissesi  
evens :* " In Medicine it is of a biting, caustic, cleansing, atte-  
" nuating, and dissolvingCaiality."

*Avis.ena* next mentions another kind of Salt; which he Calls  
*Darani,* Or *Dr ant.* The Author of the old *Laiino-Arabic*Dictionary, renders it χαλαστικόν, " relaxing ; „ Therefore  
*Avis.ena* gives this Name to a Salt that is endued with an emol-  
Kent and dissolving Virtue, which *Dioscorides* calls διαχυτικῆ  
δύναμις, " a dissolving Power ; " *Pliny, desselvens, ea* dissoiv-  
" ing;„ such especially is the fossile Sals, or Sal .Gem.; *sor*the bitterest is most effectual in dissolving, which is the Opinion  
*of Avisena* himself He goes on to tell us, that there is another  
Sort, winch he calis *Naphthi:* By this is understood Naphtic Salt,  
which takes its Name from *Naphta,* a kind of liquid Bitumen ;  
the same, they say, which *Galen* calis *Sodornitic* Salt. I question  
whether they are in the right ; and we are to examine if the  
Words may not bear another Sense. Perhaps the Author  
intended that Jkind of Salt which *Dioscorides* calis ἐσχαρωτικὸς,  
" escharotic ;" *Pliny, adurens,* -" caustic.” The *Arabians*also call by the Name .of *Nas.ta,* a Vesicle, Bladder, or Tuber-  
cle, from the *Greek* ἄφθα, *-cc Aphtha*;" which is explain'd  
τὰ ἐν στόμὲντι έλκν, and φθοὴν, " Ulcerations in the Mouth." 'Tis  
Certain that *tiaeGreeks* put *Aphtha* sor Bitumen ; as in *Const an-  
tius de Imperio, orayuri dogisque* άναδτδοῦσαι, " *-Springs* yielding  
" Aphtha.” This a learned Gentleman renders Springs which  
Cause Ulcerations ; whereas it. means Springs running with  
liquid Bitumen, or Naphtha. So then *Aphtha* is Put for *Naph-*

*tha ‘* And the *Arabians,* oh the contrary, pur - *Naphtha* for  
*Aphtha,* which signifies the Vesicle, or Bladder, of an Ulceri  
Hence *Sal Naphthi, h ip^apfoltitbi,* " escharotic," which by its  
caustic Quality raises UIcers and Aphthae on the Skin, and ind  
duces Eschars; *Avis.ena* observes nearly the same Order with  
*Dioscorides,* in assigning proper Qualities to the different Kinds  
of Salt*: suvvapeiv* δὲ ἔχουσιν οι προειρημένβι ἄλες πβλὑχρηστβν, στυπτι-  
κήν τε καὶ σμηὰτικὴν, καὶ άποκαθαῥτιρὶἈ καὶ διαχυτιὰήν. ετι δὲ  
ματασταλτικὸν, καὶ ἰχνώτικῆν, καὶ Λσχαρωτικῆν, τῳ μαλλον καὶ ώτον  
διαφέρα,τες. ce The fore-inentioned Salte have many useful etna-  
" lities, being indued with an astringent, abstersive,- cathartic,  
" and discuffive Virtue ; together with a Power of repressing,  
" attenuating, and raising an Eschar, being more or less effica-  
" cions according to their different Kinds." The escharotic  
Salt, then, os *Diosmrides,* is the *Naphthi* of *Auisenar,* render'd  
literally *Festeatory.*. Tho' the modern Physicians call those  
scorching Medicines Vesicatories, which they will have to be  
os a milder Kind than EscharoticS and Caustics ; yet *tsta Grcehs*often confound them, and call those Topics,' which raise Vest-  
cles on the Skin, and induce a Crust over the scorched Part, by  
the general Name of Caustics and Escharotics. 'Tis certain  
that there is to be found a Salt indued with a Faculty of scorch-  
ing the Skin, causing an Itching, and raising Pustules. *Strabo*calls such Salts Κνησμώδεις ἄλας, " Itching Salts,'' some of  
which Kind, he says, are to be found in a certain Lake of  
*Atrepatenfe* a Province of *Medea,* which burns the very Clothes  
that are washed in it; Λίμνην δέ έχβ τήν Σπαῦτα, ἐν ῆ ἄλες  
ἐπανθοῦντες *rtigifailcu' d.csi* δὲ κνησμώδείς καὶ ἐπαλγεῖς. ἔλαιον δέ τῆ  
πάθους ἄκος, ὓδωρ δἐ γλυκὑ τοῖς ματαπνρωθεἴοτν *Ipedliotc, sc* τις κατ’  
ἄγνοιαν βἀψβεν εις ἀμτὴν πλύσεως χάριν’ " It has a Lake called  
*Ci Spauta,* in which are Salt Springs, which concrete. These  
" Salts raise a troublesome Sort of Itching,’ which is cured by  
" Oil. The Water burns Clothes that are inadvertently  
." plunged in It, in order .to he washed in which Case they  
" have recourse to fresh Water." *Strabo, Lib:* II. That Salt  
must needs be very scorching and escharotic, or, at least, as the  
Physicians speak, *vesicatory.* Vesicatories are properly such  
Topics as do not only raise a Redness, but Ulceration of the  
Skin, with Vesicles and Pustules, in *Arabic,* aS I said, call'd  
*Naphthi.* The *Arabians* commonly insert an *N* in the Middle  
Of Words; but to this Word, which is taken from the *Greek,*they have prefixed it, saying *Naphtha* for *Aphtha. Avisena*says that Sal Naphthi is black, which is the Colour of Gun-  
powder, in a *Greek* Epigram called *Ethiopian* Powder, which is  
.nearly the Name commonly given to Napbthic Salt. *Avis.ena*informs us,, that it is *os* that Colour on account os the Naphthi-  
city which is in it; He Calls it, *ffi Arabics Naphthia,* by which **I**understand s Faculty of burning, and raffing a Blister: Thus,  
in the same Author, *Nitrosia* is Nitrosity , and there are other  
Words of a like Turn. He fays, that it contracts this black  
Colour from its fiery and adust Nature; and that it loses this .  
Quality when it is burnt, and returns to the Nature of Sal Gem.  
Indeed all Salts, when burnt, lose their Acrimony, and rather  
acquire a diaphoretic Quality, which in accounted a principal  
Property of Sal G.ern: Ὁιδἐ κεκαυμένοι διαφορῦσι μᾶλλον. Salts,

ie. when burnt, are the.more diaphoretic.'' *Paulus AEgineta^  
Avisena',* in the same Place, adds, that the *Indian* Salt was  
black, not on account of its Naphthicity, like theNaphthic  
Balt, but in its proper. Substance. 'Tis doubtful what Sort he  
.here Calis the *Indian Salt:* The antient *Greeks* called them  
Sugar *Indian Salt,* because .they found it in Canes, concreted  
after the manner of Salt. The same Author, *Lib.* 4. *Cap. Of  
dhe .Roughness of the Tongue, in feueridh Patients,* mentions a  
Salt which was brought from *India ’,* this appears to be the  
Sugar of the Antients; nor is it strange, that *Avisena* should  
reckon this,among the other Rinds of Salt, tho' it he of a very  
different Natute; for thus, under the Head *De Atramentis,*

Of Inks," he speaks of the *Indian* Colours, because the  
*Greeks* called them μέλανἹνδικὸν, " *Indian* Ink.'' . Most of  
our later Writers seem to understand the Passage of *Avisena,*where he treats os the Differences of Salt, and, among the rest, ‘  
mentions *Indian* Salt, to he meant *of* this Sait. For *Brassevo-  
lus* writes; that the Sugar of the Antients, which themselves  
inform us was a kind of Salt found upon Canes, was notjm-  
ported to us at this Time ; but that the Sugar commonry called  
*Danduln,* " Engarr-candy,'' .supplied its Place; and that the  
Druggists commonly used, instead of it, I know not what Sort  
**of** Drug, which was black on the Outside ; because, it seems,  
the *Indian* Salt of *Avisma,* as he informs us, was black. But  
this very thing is .the clearest Proof, that the *Indian* Salt, os  
which *Avis.ena* treats in that Chapter, is different from that *In..  
.diansiXt* which he mentions in another Place, on the Authority  
Of theAntients, and is no other than Sugar: For that *Indian*Salt has the Colour of common Salt, aS *Avis.ena* himselsi in .his  
' Chapter *De Asperitate Lingua,* exprefly says. And the *Greeks*also tell!us, “λλστὸ Ἰνδικὸς χροιά μὲν καὶ συστάσβ ψμοιος τῳ κοινῳ  
ἀλι, γεήσβ δέ μελιτώδηστ Ας The *Indian* Salt, sor Colour and  
’" Substance, is like the common Sait, but talles like Honey."  
But the common Salt is not black, hut rather white. *Pliny*also telis us, that Sugar (which is the *Indian* Salt .of the An-

Bents) was white, and concreted after the manner of Gums.  
Therefore *Avisena,* in his Chapter of the Kinds of Salt, must  
be understood to mean the true *Indian* Salt, not the Sugar of  
the Antients, which was, ’tis true, a hind of Salt, for Sugar is’  
white, but this Salt of *Avisena* biack. *Mnfue* alfo mentions’  
this Salt, and telis us, that the Naphthic and *Indian* Salts are  
to he preferred before all others. *' Strabo, Lib.* 5: relates, from  
*CUtarchus,* that in *India* there are Quarries of native Salt,'  
where the Salt grows again, like Stones, in many Pisces.  
Speaking of the remarkable Things of the Ifland of *Ilva, Teri*δέ παράδοξον ή νῆς'ος ἔχειν καὶ τά ορὑγμἀτα άναπληρουι&αι πάλιν  
τω χρίνω τἀ μϊταλλἱυδέντα, καθάπἱρ τὴς πλάταμώνάς φαον τῆς ἐν  
*"Pisat* καὶ Τὴν ένΠαρ» πέτραν τὴν μἀρμαρον, καὶ τίς ἐν’Ινδὄῖς ἀλας,  
ῆς φνοτ Κλοῦταρχος- “ There is one Thing very remarkable in  
«" thisilstand, which is, thet the Pits which are digged are fill’d  
" up again in time, as they fay the Canals are in *Rhodes,* and  
" the Marble Quarries of πόνον, or these of Salt in *India,* as  
*" Clitarchus* relates.” *Pliny* writes, thet the same Sort of  
Salt is found in *Oromenus,* a Mountain of *India,* which he  
seems to take from *Clitarchus : Sunt et Mantec native Salisqui  
Jndus Oromenus, in quo Lapicidinarum mode caeditur renaseens .,  
snasaseue Regum Vectigal ex eo est quam ex Auro atque Marga-  
ritis.* There are alfo Mountains of native Salt, like *Orome-  
menus* in *India,* where they cut it like Stones out of Quar-  
" ties, and it grows again ; and it yields a greater Revenue to  
" their Kings than Gold and Pearls,”' But, perhaps, the  
*Arabians* called this Salt *Indian,* not from the Country, but the  
Colour; as they fay *Indian* Myrobalans, because that Sort is  
black ; and *Indicum Colarem,* τὸ μέλαν, " Ink, *Indian* Colour.’’  
However,' there are two homonymous Kinds of *Indian* Salt of  
a different Nature; namely, the Sugar of the Antionts, which  
is the *Indian* Salt of the *Greeks*; and the *Indian* Salt of the  
*Arabians. . . -*

To return to Sal-Ammoniac ; the *Barbarians* put *Arrnmiac*for it, as they do Gum *Armoniac* for *Ammoniac. -* Hence *Pan-  
dectarius* calls mis Salt *Armoniac,* as if it came from *Armenia.*I don’t doubt thet they dig Salt in *Armenia,* but then it is dif-  
ferent from Ammoniac. At present wc don’t know what  
Sal Ammoniac is : Some conjecture that it is made of Camels  
Urine, concreted by Art. This seems probable to a very  
learned Man, because, as he says, it is imported at *Venice* from  
the *Eastern* Countries, where are innumerable Herds of Carneis:  
This deferves to be laughed at; true Ammoniac comes rather  
from the/fascir7r than the *Eastern* Parts of the World ; for they  
dig it *in Ammonia,* a Country of *Cyrenean Africa.* It is of the  
same Kind, indeed, as Rock-salt, and Sal Gem; but is supi.  
pored to heve a peculiar Property from the Nature of the Place.  
Sal. Gem is as white and transparent as Sal Ammoniac. *Hero-  
dotus* fays, there are Mountains or Hills of Salt beyond the  
Country of *Ammonia,* whence they dig Salt, *Lib.* 4. Μἱτἀ δέ  
’Αμμωνίας, διἀ τῆς ὸφρὐης τῆς ψάμμου δι’ ἀλλέων δέκα ἡμερέων  
. άδου, κολωνος τε ἀλός ἐστιν ομοιος τω Αμμωνίπ " Ten Days Jour:.

" ney beyond *Ammonia,* upon the Edge of the Sands, runs a  
" Ridge of Hilis of Salt, which is like the Ammoniac.’’’  
Hence it appears, that Sal Ammoniac does not take its Name  
from the Sand, butfrom the Country *Ammonia. Serapion* tells  
us, that it is extracted from hard and clear Stones; which Ex:,  
'pression has been criticized by a very learned Physician, though  
without Reason ; when he informs us, in the fame Place, that  
it is imported from the Country of *Corafan* ; this must not he  
accounted the true Sal Ammoniac, which can only be brought  
from the Country of *Ammonia,* where it is produced, and  
whence it takes its Narne. The *Corafan* Salt is of the fame  
Kind, but not the fame with Ammoniac. He tells ns, in the

. fame Place, that it is *of* several Colours, as black, white, and  
party-coloured; but the antient *Greeks* describe an Ammoniac

. of but one Colour, which is white, and pellucid like Crystal;  
and in this they are followed by *Avisena,* who reckons but one  
kind of Ammoniac; of which Kind, and of this perhaps the  
blackest, is whet the *Arabians* called *Milch hendi, Indian* Salt.  
*Salrnastus de Hamonym. Hyl. Iatr..Cap.* III.

*Of* GUM AMMONIAC *(or* HAMMoNIAcUNt).

AMMoNiAcUM (Gum Ammoniac) is the Juice of a feru-  
laceous Plant, (νἀρθειξ) which grows in that Part of *Libya*which lies about *Cyrene.* The whole Shrub and Root together  
are called Agafyllis. ’’

Cbufe whet is of a good Colour, free from Chips and Gravel,  
in small Lumps llke Frankincense, pure and dense, clean from  
Dross, smelling like Castor, and of a bitter Taste. This fort  
is called *Thraujma* (Lump or Fragment) 5 but that which is  
mixed with Earth or Stones, *Psaerama* (Miscellany). It is  
generated in *Libya,* near the Temple of *Ammon,* being the  
'joiceof a serulaceous Tree. .

It has a mollifying, drawing, heating Quality, difcussive of  
Hardnesses and Swellings. Being drank, it loosens the Belly,  
and brings away the Fcctus. A Dram of it, taken in Vinegar,  
wastes the Spleen, and helps the Gout and Sciatica. It gives  
Relief alfo in the Asthma, Streightnefs of Breath, (ὀρθοπνοςκοῖς)  
Epilepsy, and Humidity of the Thorax, if made thro an Ecleg-

ina with Honey, or taken in the Juice of Ptisan. It expels  
bloody Urine, absterges white Specks in the Eyes, Γτἀ εν ἰφίέαινύ  
μὄες λευκώματα) and takes off the Roughness of the Skin.  
Levigated in Vinegar, and applied, it mollifies the Hardness of  
the Liver and Spleen. . Applied in a Cataplasm with Honey,- or  
mixed with Pitch, it dissolves Tophi generated ahout’the joints.  
Mixed with Vinegar, Nitre, and *Cyprine* Oil, fostanAcopon,  
and the assecied Parts anointed therewith, it relieves those who  
labour under Lassitudes, or the Sciatica. *Dioseorides, -Lib.* I.  
*Cap.* 98. *. - i - .; . ior s*

*Pliny* gives much the fame Account of it as *Dioseorides.*

In that Partins *Africa* which borders on *Ethiopia,* amongst  
the Sands, distils the Tear of Hammoniac, taking its Name  
from the Oracle of *Hammon,* near which grows the Tree called  
*urietapion,* whence It stows in mariner of a Gum or Resin.  
There are two kinds of this Hammoniac, one called *Thraaston,*like Male Frankincense, which ‘is most valued ., the other is fat  
and resinous, and named *Phyrama.* It is-adulterated with Sand,-  
as if it were contraoled in its Growth ;. for which reason, that  
which is in the smallest and purest Lumps bears the highest Price,'  
which is forty Afles (about three Shillings) the Pound. *Pliny,  
Nat. Hest'. Lib. 12. Cap.* 23. . ... : ἐν ...

Hammoniac mollifies, heats, discusses, dissolves, Mined in  
Collyriums it clears the Sighs, and takes off the Itching,  
Specks, and Albugines of the Eyes, easeth the Tooth-ache  
especially if burns. - Drank, it is good for the Asthma, Pleu-  
risy, Infirmities of the Lungs, Bladder, bloody Urine, Spleen,'  
and Sciatica; and, prepared with an equal Quantity of Pitch,  
or Wax,, and Oil of Rofes, is a proper Medicine for the joints  
and the.Gout Applied with Honey, it ripens Pani,. draws out  
Corns, and mollifies Hardnesses. Prepared with Vinegar and  
*Cyprian* Wax, lor Oil of Roses, it is very successfully applied to  
the Spleen ; and with Vinegar, Oil, and a little Nitre, is esse.,  
ctiral in Lassitudes, the Parts being throughly anointed there-  
*with. Idem, Lib.* 24. *Cap.* 6. ἐν „ ;

*- Directions for the Management of Gum Ammoniac in Plaisters.*

Ammoniac is put in when the Boiling is half over,. If the  
Plainer is prepared for bleeding Wounds, the Ammoniac is to  
be macerated in Wine or Vinegar. If it be a soft Plainer, such  
as is prepared for ‘ the Anus, levigate the Gum in Water, and  
add it to the other Ingredients, after they are boiled. *Oribastus  
from Antyllus, Synop. 'Lib. 2. Cap.* 61.

Ammoniac is to be added in the midst of the Bolling, and  
if it can be pounded and sifted, put in the finest Powder., if  
not, let it be macerated in some Liquor, as Wine and Vine-  
gar, is it be to make a Pleister for bleeding Wounds , if for  
Strumas or Fistulas, with Vinegar only; if it be for a soft  
Pleister, such as is prepared for the Anus, let it be in Water,  
and poured, to the rest when they are cooled, to prevent an  
Effervescence, and then boll them again together. *Actius,  
Tetr.* 4. *Scrm. 2. Cap.* 25.

Gum Ammoniac is thus, distinguished amongst the Modems  
gi' AmMomacum, Ossic. C. B. Pin. 494. Raii Hist. 2. 18.44.

ChomeL Plant. Ufu. I82. Math. 2. 803. *Ammoniacum,* Mill.  
But. Ossie. 3o. *Gusnmi Ammoniacum,* Schrod. 4. I 84. *Gum  
Ammoniacum,* Rank. Theas. I544. Ger. 898. Emac. 1056. '  
*Dale. ' - . ' ' ' " -*

AMMONIACUM is so called, because the Plant which  
produced it, was supposed to grow about the Temple of *Jupi-  
ter Amman in Libya.* It is a Gum brought to us from *Turkey*and' *India,* and is thought to he got from a Species os *Ferula,*there being osten Seeds and Pieces of a ferulaceous Plant found  
amongst is. The best is that which is in llttle Lumps, yellow-  
rsh on the Outside,' and white within, apt to clog together, free  
from Dross,, and easily dissoluble/

' This Gum is opening, attenuating and cleansing, good to  
clear the Lungs of visiss.Phlegm and Stuffings; and therefore  
of great Service in Asthmas, and Shortness of Breath ; as also  
in nervous, hysteric, and hypochondriac Disorders ; outward-  
ly applied, it is suppurating, ripening, and dissolving, and good  
for herd Swellings, and serophulous Tumors. Officinal Prepa-  
rations from it, are *Pilulae de Ammoniaco magistrales,* and *Em-  
plastrum ex Ammoriiaco. Miller Bot. Off.*

This Gum contains Plenty of essential or volatile Oil, some  
Phlegm and Earth;

It resolves, digests, and is aperitive , proper for Hardness of  
the Spleen, Liver, and Mesentery ; opens Obstructions, pro-  
vokes the Menses, and is used both internally and externally.  
*Lemcry de Drogues. '*

*' Geoffrey* adds it as a good Emmenagogue, when given from  
a Scruple to half a Dram; and is very proper to he mixed with  
Preparations of Steel, and Flowers of *Sal Ammoniac,* in Pills or  
’Boles. *Geostsaoy. '*

*Preparations of Gum Ammoniac.*

*Pilula de Ammoriiaco Magistrales:* Magisterial Pills of.  
Ammoniacum. .

Take of Gum Ammoniacum, prepared with the Vinegar of  
Squills, two'Ounces ; of Succouinc Aloes, one Ounce and

ah half; of Myrrh, Mastich, and Beniamin, each half an  
Ounce ; of Saffron, and Salt Of Wormwood, each two  
Drams ; of Syrup of Wormwood, a sufficient Quantity  
.to inake them into a Mass for Pilis.

, These were not received into any of the Difpenfatories of  
the College before, but feem to be taken from the *Auguseane  
Dispensatory,* where they are ascrib'd to *Quercstan* for their  
Author; the Variation here from that is very little. *Twelfer*orders so much Vinegar to be ufed in the Dissolution of the  
Gums, as not to want any Syrup to bring it to a due Con-  
sistence. \ He also greatly blames the Lixivial Salt in this Com-  
position, not only as foreign to the Intention of the Whole,  
hist becaufe it ’ spoils its due Consistence for Pilis, by taking  
away its Tenacity, and making it crumble, as all fuch Salts  
-will do, to adhesive Substances. This Composition is given by  
*Scrader,'* much in the- fame manner as it is continued here!

*' Emplastrum ex Arrmpriucci.* The Ammo niacum Pleister.

Take of the strained. Gum Aminoniacum, six Ounces ; of  
yellow Wax, and Resin, each five Ounces ;t of the sim-  
ple Melllot Plainer, Ointment of Marshmallows, of the  
Oils. of Rays and Orrice, and Venice Turpentine, each  
one Ounce and an half; of Goofe-fat, one Ounce ; ..of  
Sal Ammoniac, of Btiopy-root, and the Root of Orrice,"  
each bass an Ounce ; of Galbanum, and Bdellium, cacti  
two Grains : Let them boil together, fo as to make into  
a Pleister. ... .. .. ... . ....

, This hath paised through all the Editions of the *Candin Dif-  
penseatory,* without any great Alterations. It requires 'a good  
deal of Card ansi Skill to compound it well. -ΑΙ1 the things  
capable of melting should be so managed together mid strained,  
and the other things sifted in, in sine Powder. But this is hot  
much used, and but rarely made. τι

*. Lac Ammoniacum.* Milk,of Gum Ammoniac.

Take of the purest Gum Ammoniac, three Drains : Dit  
' solve it in the Ounces of Hyssop-brater cold, in a coid

**Moitat. - - --** st ἐν iainSitioof I' her.

**A** Spoonful of this is to be taken frequently in Difficulties of  
Breathing.- *Bates.- ' - — -----* , v ' - .i. *re.sri* t v.3

Somewhat different from this -is the *Lac Ammoniacum,* or  
*ErgulestesAmmardaca,* Ammoniac Milk, or Emulsion of *Quincy.*

Take-sine Gum Ammoniac,, three Drains : -.Dissolve in  
distill’d Vinegar, bass an Ounce '; Rhenish Wine, two  
Ounces ; and Hvssopawater, four Ounces : Strain it for  
: Umi. son τπαρ

The Dose of this is a Spoonful thine or four times a Day,  
according to the Exigency of Symptoms. It not only expecto-  
rates anil relieves the Breath that, way, but is also good in the  
Asthma Siccum, or Spasmodic Asthma, where common Pectis  
rais avail nothing;- as it has peculiar Influences upon the Nerves  
themselves. . ' : ‘ r —ς

*Oso 'Sal Ammoniac, from the Memiires of the Academy 'of  
.Science's.- “ '/*

There is not a Drug more common than Sal Ammoniac,  
and it is pretty surprising, that we do not exactly know.from'  
what Parts it comes, nor after what Manner it is made. For-  
merly we had it hy the Way of *Venice,* which made it be-  
liev’d, that it came from thence, but now we know the con-  
trary. It comes from the *Levant,* and probably a great Part of  
it *itom. Egypt*but we do not know from whet Province of  
*the Levant,* 'nor..from what- Part of durapi. so..: ?

Every Chymist knows, that it is an urinous Volatile Salt pene-  
trated by an Acid, and he knows how to imitate it. For this  
there are different Processes, of which M. *Geoffrey* the younger  
has given a particular Account. ’Tis usual to put one Part of  
common Salt to five Parts of Urine , most add thereto half a  
Part of Soon Mr. *Lemery,* and the fate Mr: *Hamberg,* put  
no Soot. This Mixture heing put in a Vessel, there is subli-  
med-a -white, - rarefy’d, farinaceous Substance, - of a loose and  
brittle Contexture, which is the Sal Ammoniac. The Mat-  
ter which rises by Sublimation under that Form, they call  
Flowers. But M. *Lemery* affects, that this is not the Way of  
making Sal Ammoniac in the Places from whence it comes. ;

It is form’d into round flat Cakes larger than an ordinary  
Piate, and three or four Fingers chick, consisting of Crystals  
like Columns, which are dispos’d in the Direction of its Thick-  
ness.- This Figure and Disposition are manifestly those of a  
saline Matter infus’d in Water, and after Evaporation crystal-  
lined, and remaining at the Bottom of the Vessel, where it  
assumes its Figure, which is directly contrary to Sublima-  
tion. Besides, the Sal Ammoniac which we make is not dis.  
Dos’d to take the Fisure of the Vessel into which it is **elevated.**

because it is in farinaceous Flowers, which have very little Co-  
hesion ; whereas the Cakes which-are sent to ns are very hard  
and compact. In short, if Sal Ammoniac were made in the  
*Levant* as it is made here-in our Furnaces, a vast Quantity of  
Salt, of urinous Matters,, of Wood, Coais, Utensils, and  
Workmen,, would be necessary, and.all this,,added to the  
Charge of transporting it, would make this Commodity,' which  
is dispersed over all *Europe,* very dear, whereas it is sold at amoderate Price. For this last Reason M. *Lemery* believes,  
that Sal Ammoniac is made in the *Levant* with as little Labour  
and Cost, as Salt in our Salt-marshes, which is as much as to  
say, that it is made by a simple Evaporation preceded by some  
Lotions, which ferve to purify the Matter. It is possible,  
that there may- he v Mines of Sal Ammoniac, as-well as Sal-  
Gem; and there is found some Sol Ammoniac form’d-in  
Mount *Vesuvius,* ' If: there are Earths naturally impregnated  
with common Salt; and at the fame time well water’d with the  
Urine of Animais, and the Heat of-thesiun be very great, it  
is easy to conceive, .that the Fermentation caused by the. fer-  
vent Heat will unite the Acid of the common Salt with the  
urinous Salt, and ‘ so produce . Sal -Ammoniac. That of the  
Antients was probably formed Aster this manner in *Libya* and  
*Arabia.:* But thofe Places are not frequented enough at pre-  
sent; so that .there is no Care taken to colled: the Sal Ammo-  
niac. It. was always certain,, .that several Earths, and old  
Plaister, have afforded Signs of Sal Ammoniac ; and so .much  
the more as these Earths were more smoaky, and the Plaister  
the older. Tis true there is but little Salt-to be got out of  
them, but there is a great Difference betwixt our Sun and that  
of *Egypt.* Perhaps -too it is necessary, that the Earth, which  
yields plenty of.Sal Ammoniac, should be barren, and incapable  
of producing any- Plants which might attract that Salt for their  
Nourishment. This last Thought gave Occasion to-a Notion  
*AM. Lemery* for masting this Salt common in any Country ;  
which is, that it . may be extracted from Plants: Some Plants  
in these Parts are, without all Question, full of it; others are  
replete with Vitriol or Saltpetre, and, in a Word,, with all the  
Kinds of concrete Salts. . , . .

ι Whatever Truth there may be in these different Conjectures,  
’tis very certain, that in those Places whence we have the Sal  
Ammoniac’, the Materials of which it is made must bo very  
plentiful; and it is more then probable, that if it he made by  
Art, the Operation is very simple and easy. *Hist, de st Acad.  
.Pay. des Scient.* 1716/ ’ -

. Of all lchown Substances there.is not one, in my Opinion,  
that affords fo . much volatile Salt in a Body as Sal Ammoniac.  
They mix this Salt with Salt of Tartar, or with Lime, and  
distilling them with a moderate Fire, extract thence,. as every  
one .knows,, the Spirin aind the volatile Salt ; for the Lime, or  
the Sale of Tartar,, demining the acid Part of the Sal Ammo-  
Diac, -give Room for. the volatile Part to disengage itself, and  
to be .sublimed. Fifteen Ounces of Sal Ammoniac, mixed  
with twenty Ounces of Salt of Tartar, afford ten Ounces of  
volatile Salt, which are .two thirds of,the Sal Ammoniac ana-  
lysed ; besides which, they extract three Ounces and an half  
of Spirit. The Caput Mortuum weighs twenty Ounces and  
an half, "that is, half an,Ounce more than'the Salt of Tartar  
which was used. Hence it appears very probable, that the  
three Ounces and half of the Spirit of Sal Ammoniac .proceed  
partly from the Phlegm in the Salt of Tartar, which Phlegm  
dissolves as much as possible the volatile Salt of the Sal Ammo-  
niac united with a very penetrating Sulphur ; for it is not pro-  
bable, that fifteen Ounces of Sal Ammoniac analysed contain  
but half an Ounce of Acid. TheSalt of Tartar always retains  
a great deal of Phlegm. How dry foever it appears, it grows  
very humid; and if it be placed over the Fine in an iron Kettle,  
in order to be dry’d anew, and ufed quite hot as it comes off  
the Fire, before, the Air has penetrated it, the volatile Spirit of  
the Sal Ammoniac can scarcely be disengag’d. *M. Tcsumefort,  
Mem. de l’Acad. Pay. des Scion.* 1700.

. Spirit of Wine pouted on Spirit of Sal Ammoniac, or Spirit  
os Silk, immediately produces a very considerable saline Con.  
action, which in the letter is manifestly separated into thick  
Concretions- of Salt; but in the. Spirit of Sal Ammoniac the  
volatile Salt is extremely divided, so that it is somewhat dissid  
cult, at first Sight, to know whether it be a saline or sulphur-  
ous Mass.: This gave Occasion to narne it *Ojsu Helmontii* j  
but ’tis soon prov’d to be all saline, for it entirely dissolves by  
an Affusion of Water. It seems manifestly to discover itself by  
the intolerable Smell, r- *M. Tournofort, Memajres de st Acad.  
Cajal, des Sciences,* I 700.

Of all Salts Sal Ammoniac most intensely cools rhe Water  
in which it is dissolved, whofe Coldness equals that of Water  
ready to freeze. And once indeed it happen’d, while I was  
dissolving a considerable Quantity of this Salt in Water, that  
some Drops fell out of the Matrass in which I made the Disso-  
lution, and froze, fo that the Straw on which the glafs Vessel  
was placed, being wet, stuck to it for some time; This was im  
the Summer, when the Weather was pretty hot.

Tile great Coldness of the Solution of Sal Ammoniac does  
hot proceed from the Difficulty of diflolving it, for it is dis-  
folved with more Ease than other Salt; and Sea-salt, whore  
Solution is difficult, and very flow, least of all cools hs Dis-  
solvent. It seems, on the contrary, as if the Readiness of the  
Dissolution were the Cause of that exceeding Cold.

Sal Ammoniac is known to consist of a sea Salt, and an uri-  
nous Salt, one very eary, the other very difficult to be dis-  
solved .S . *s - -uri„ ;r.*

Among.cold Solutions may be reckon’d the Experiment  
inade by the.' late M. *Hamberg* before the Company, which  
serves to prove, that the Coldness of Sal Ammoniac is perfortrdd  
as follows; .. . v. - - -

. They, take a Pound of corrosive Sublimate, and a Pound of  
Sal Ammoniac ; they pulverize them apart, and then mix the  
two Powders very carefully *s* offer this they put this Mixture  
in a Matrass, and pour upon it three Pints of distilled Vine-  
gar. After well stirring it, the Mixture becomes so exceeding  
cold, , that you can. hardly bold the Vessel in your Hands for  
any considerable time in Summer. When M. *Hamberg* made  
a great Quantity of this Mixture, it was sometimes, frozen.

. We fee in this Experiment a greater Cold produc’d than by  
a Distillation of Sal Ammoniac in common. Water; this. Ex-,  
cess of Cold is caused by the corrosive Sublimate, which by it-  
self is not at all, or very little, dissoluble in distilled Vinegar.  
Hence it happens, that the fluid Parts of the distilled Vinegar  
having readily penetrated the Parts of the. Sel Ammoniac, and  
having already lost much .of their Motina, coining afterwards  
to engage in the Pores of a Body which they cannot dissolve  
for want of sufficient Action, soon lose that: litde. Activity  
which theyhad left, and fix themselves, if not all, at least the  
greater Part of them ; and this. Inaction of the Liquid excites  
excessive Coldness. , .‘,χ

If on a Mixture of sour Ounces of Oil of Vitriol, and one  
Ounce of Sal Ammoniac, you cast a Spoonful of common  
Water, at the time when the Fermentation is. at its Height,  
and the Cold the. greatest, and the Thermometer descends  
quickest, the Fermentation ceases, and. the Cold very speedily  
changes to a very considerable Heat, which considerably raises  
the Liquid in the Thermometer. *M. Geoffrey, Mem. de  
l’Acade Iety. des Sciences,* I7oo.

M. *Lemery* had a. Salt taken from Mount *Vesuvius,*which they call natural Sal Ammoniac. It was of a compact  
Substance, pretty ponderous, and very white, the. Irt  
side crystalline - it would not aitraol much Humidity from the  
Air, bad no Smell, was *of an* acrid faline Taste, and very like  
that of Sal Ammoniac. He made several-Experiments with it;  
among the rest, he mix’d it with three nines as much Spirit of  
Nitre, and made an Aqua Regia of it, exactly like whet is  
made of the common Sal Ammoniac. He sound it to have  
several Effects of Sal Ammoniac, and. also of Sea-falt.. He  
supposes that his Salt of *Vesuvius* is no other than a fossile Salt,  
'which is dillolv’d by the Sea, and sublimed to the Top of the  
Mountain by subterraneous Fires. *Hiest. de st Acad. Pty. des  
Scienc.* I 7 05.

*A Memoire addrcfrd to the Academy concerning Sal Ammoniac,  
: and by M.* Lemere, *Consul at* Grand Cairo, June 24.

1719.

Concerning Sal Ammoniac, I shall observe, I. The Mat-  
ter. 2. The Vessels that contain it. 3. The Disposition of  
the Furnaces. 4. The Manner of working. And, 5. the  
Quantity and Use of that Salt.

. I. The Matter is pure Soot, and nothing else ; but such a  
Soot as is swept from Chimnies wherethey burn Turfs of the  
Dang of Animals fed with Straw, which is the common Fuel  
in this Country, where they have no Wood. These Turfs,  
which are impregnated with alcaline and urinous Salts, corn.  
municate to the Soot certain Properties which it could not be  
expected to receive from the Smoke of Wood and Coal, and  
yet are absolutely necessary for the Production *of* Sal Am-  
moniac.

2. The Vessels which contain the Matter are exactiy of the  
Figure of Bombs. They are great round glass Bottles, a Foot  
and half in Diameter, with a Neck two Fingers in Height:  
They case over these Bottles with a fat Earth, and fill them  
- with Soot to four Fingers stunt of their Neck, which continues  
void and open. They contain each about forty Pounds of  
Soot, which at the End of the Operation yield fix Pounds of  
Sal Ammoniac. Soot of an extraordinary Quality affords above  
six Pounds ; what is worst, affords hest,

3- The Furnaces are built like our common Ovens, except  
that their Vaults open with four Clefts m a Row lengthwise j  
upon each Cleft are sout Bottles, which are placed in such a  
manner, that the Bottom of the Bottle being sunk in, and  
exposed to the Action of its Flame, only the Neck of the Bot-  
tle remains exposed to the Air ς the reft of the Cleft is stopped  
tip, and well cemented. .Every Furnace then copra mi sixteen

Bottles; and every great-Laboratory consists of eight Furnaces,  
disposed in two Rooms, so that it employs at otioe a hundred  
and twenty-eight Bottles.

’ 4. In each Eurnace, for three Days and Nights together,  
there is kept up a confiant Fire made of the Dung of Animals  
mix’d with Straw. The first Day the grofs Phlegm of the  
Soot exhales in a thick Fume by the open Neck of the Bottle.  
The second, the acid and alcaline Salts, being sublimed, asso-  
ciate towards the Top of the Bottle, where they touch the  
Necti, and, uniting, coagniate. The third Day the Coagulation  
continues, depurates, and is perfected, in' the mean time the  
Master makes a little Hole in the Side of each Bottle, a little  
below the Neck, to see if the Matter he bak’d enough, and if  
there be nothing more to be sublimed Aster he has made his  
Observations, he stops the Hole carefully with the set Earth,  
arid opens it from time to time. At last, when the Work in  
brought to the Point at which it, ought to stand, he takes  
away the Fire, breaks the Bottles, shakes off the Ashes from  
the Bottomland takes the round, white, 'and transparent  
Mass, of the Thickness of three or four Fingers, that adheres  
to the Neck, which is what they-' call Sal Ammoniac:11 ' : -  
- 3. 4n two Towns *of Delta,-*Ἀear- one another, a League  
from the City of *Iidunseure,* there are twenty-five great Labo-  
ratories, and some stnall ones, which make every Year fifteen  
hundred or two thousand Quintals [Hundreds} of Sal Ammo-  
niac. In all *Egypt* besides there are but three Laboratories  
more, two of which are also in *Delta,* and one in *Grand  
Carrs,* which the mot produce above twenty or thirty Quintals  
of this Salt. . -

. Sal Ammoniac is principally used by Whiteners of copper  
Vessels, Goldfiniths, Casters of leaden Shot for Game, and is  
a noted Drug with the Chymists and Physicians.- Father.  
*Second,* a. Missionary, and an Eye-witness, says they add a lithe  
Sea-salt and Urine of Beasts. *Mem. Ael? Acad. Rapides Sclumquioi*

The Plague at *-Marseilles* having interrupted - assComifierde  
to the *Levant,* obliged us to have the Drugs we wanted from  
*Holland,* among which,.was the *Jndian* Sal Ammoniac, im-  
ported by the *Dutch East-India* Company. This Sort is made  
in,'the Figure of a Sugar-loaf,, with the Top’cut-off,'She  
largest os these Loaves are nine Inches in jinainetertat the Base,  
and three Inches and a Quarter at the Top, and eleven Inches  
and an half in Height. They arc not one folid Mass, but hol-  
low on, the Inside towards the Base, mid this Gayity' forms a  
Cone seven inches and an half in Diameter,, and,about five  
Inches and an half-in Height. *or. so-. "... ...*

It appears by. the Largeness os these Loaves, compared with  
those of *Egypt,* that they work up this Salt in much greater  
Masses in the *Indies's* for these last weigh fourteen or fifteen  
Pounds, whereas the others weigh but four or five.;

..Theis Consistence is. nearly the some, which,shews, that  
they are produc’d by a Sublimation not much different; and  
indeed the Difference lies only in the Figure which they take  
from the subliming Vessel.’ The *Indian* Loaf is made in the  
Shape of a Cone, and, it appears to he adapted to the Vessel  
which contains the Matter, both, at. Top and by the Sides,  
There is asso Reason to,helieve, that this Salt,is fubllm’d after  
this Form,. as the most commodious, for. fo heavy a Mass.  
We find, in subliming Sal Ammoniac in our Retorts, that  
it rises in the fame manner along, the Neck, and there disposes  
itself in the Form of a Cone. ........

From the Manner in which J conceive these Vessels are ad-  
justed, it is easy to imagine how- it is possible to work a Quan-  
tity of Matter in them sufficient to afford fourteen or fifteen  
Pounds.of sublimed Salt; for one might sill the Retort, several  
times during the Sublimation, by an Aperture , made on Pur-  
pose at the Top, as it is incur tubulated .Retorts.

to The Loaves of Sal Ammoniac made in. *Egypt* owe. them  
Smallness rd their being ffiblimid to the very Top of the Vessel'  
that contains the Matter, which is of a Capacity too much  
limited. 2 The fame also, gives them .the Figure of a Cup turn'd  
upside down, for that, is the Shape of the Ball or Bomb in  
which they are sublimed., i, ... . ..

Another Advantage that arises from the Figure of theZwhlon  
Sal Ammoniac is, that its Superficiesis cleaner,. andifreer from  
Impurities, hecaufe all: the fuliginous Vapours, which rife dur-  
ing the Operation, .have a.freer Passage to the Top of the Cone,  
and are readily separated by cutting off that Top. when, the  
Loaves are formed. . i. - . . .. -. -

Around the Circle which terminates, the Loaves, are.’ the  
Marks of five or fix Holes .which were made during the. Opee  
ration, by way of Precaution, to afford means for. the. Salt, in  
subliming, -to arrive at the Top, and there solidly to. condense,  
by letting out the rarefy’d Air and Fullginosiries,. which might  
hinder the Sublimation. ..........

The Vessels in which this Salt is strblim’d are. of Glass for  
I have sound Bits of it sticking on the Surface, of the. Loaves,  
as I have observ'd them also on the common Sal Ammoniac.

The outer Surface of the *Indian* Sal Ammoniac consists of a  
solid Crust, five or six Lines thick in die strongest.Part, and

insensibly - diminishing .to aff Inch and an half from the Base,  
where it unites with that which immediately encompasses the  
Hollow of the Loaf. Both the internal and external Crusta  
are composed of Laminae.,, which , are transparent, horizontal,  
and lie very close one upon another. . The interior is the most  
transparent, as. being most. exposed to the Action of the Fire,  
which confounds two or three Laminae together; but in pro-  
portion aS these Laminae are distant from the Crust, they lose  
of their Transparency, and 'tis easy to observe the Number of  
Strata which constitute the Body of the Loaf. .

ρα? One Inay readily know by. the Gradation of these Strata after  
what manner they are formed, and united together by the  
Sublimation.. The. first .whinh.arise stick, to the Sides of the  
Vessel, where they are harden'd by the Heat: of the Reverhe-  
ratory which covers the subliming Vesselthey afterwards close  
aim thicken by the. Accession and Union. of saline Laminin.  
Aster this manner is formed the crystalline Crust which covers  
the wholeLoaf on the Outside. . ... - -

**. The** saline Mass, which is elevated in a great Quantity by  
**the** Violchce. of the Fire, disposes itself all around this. Crust

' like Needles; these are much obstructed in their closing and  
Condensingthy the Thickness of. the Mass, which heing consi-  
derably augmented covers the intermediate Laminae froth the  
Action of the Fire. At last the Point of the Cone is clos'd  
by the Quantity Of Matter which subtimes Very bristly ; so  
that , the Eno then acts with .Vigour on the last Strata that were  
elevated,: and; presses and hardens them extremely. And this  
is what forms, the interior Crust, and the void Space about the  
Centre os the sublim'd Cone. This Space takes also the Fi-  
gure. of a Cone, because the Fine drives the Matter with its  
utmost. Porce upwards, and disperses it on all Parts towards the  
Sides Of the Vestel. As it is thinner, and lies closer towards  
the Base, a Cavity is form’d, which lessens continually as it  
rises towards’the Top, where it ends ima Point,, hecauselthe  
PartS could be remov'd no farther. ’ . j

. If you hut a Loaf of Sal Ammoniac in Quarters, you inay  
reckon between the interior and exterior Crusts no less than  
- seven or eight Strata of different Degrees of Density. . .

*.. .As.* she. greatest Thickness .is, towards the Top of the Loaf,  
there is Reason .for,making. Holes, at.I.spid, in order to. clear  
that Part, which would otherwise be filled too soon.

7 To shake'a Comparison between the *Indian ' .Egyptian*Sal  
Ammoniac, it appears, thatthey are of the sarne.Composition;  
and as to. them Qualities, and the Uses to which they are’ap-  
ply'd, there can be no great Difference between them..

. .That of the *Indies* has the Advantage of being pretty clean  
from Impurities on: the Surface, and having only its Top os  
worse Alloy than the rest;! so that upon the whole Mass there  
must be less, waste than in the *Egyptian:* Loaves, which are  
charged with more Impurities in .proportion to their Bigness. ...  
r Having been already particular on the Composition of this  
Salt, I shall now .speak .os its Decomposition, and first give  
my Observations, on the manner of taking from it the  
Volatile, urinous Salt, so well known, by the.Name of *Englifi)  
Salt. ;*

-. f’Tis the same Sait which is. the Basis of the. Sal Volatile  
Oleosum of *Silvius,* and therefore was always known to the  
Chymista. .It was not cah’d *Englssh* Safe because the *Englisib*were the Inventors of it; het only because, they made rhe Use  
of it more frequent, and,.asI may say; brought it into Fashion.  
Indeed its penetrating, tho5 not disagreeable. Smell; hesides,  
its. heing corrected by. different Perfumes, extracted from odo-  
riferous Plants, whence it took their Names, as tho' *it* really  
proceeded froth them; its dry Form, which render'd it the  
fitter to be carry’d in the Pocket in little Bottles; withits Use  
in Vapours and Paintings, brought it in Vogue among the  
*French,* who are Lovers of Novelties, and especially of what  
comes from foreign Countries. ’ ‘ .

In I7OO. M. *Tournefort* published in theMemoirea of this  
Academy, that it was possible from fifteen Ounces of Sal Am-  
moniac to extract ten Otinees os volatile Salt, besides three  
Ounces of.Spirits ; but I have found by working on the same  
Salt, that.it contains a much greater Quantity, which I have  
sound means to disclose, and-to sublime in the Form os a Sals,  
hard, thick, and transparent ; in Fact, I extract from one  
Pound of Sal Ammoniac above thirteen. Ounces of volatile  
Salt in a dry Form, that is, above Three-fourths; whereas  
M. *Tournefort* from fifteen Ounces did not extract above Two-  
thirds, winch yet is more than any Chymist didhefore him.

It passes for certain Matter of Fact, that Salt of Tartar and  
Sal Ammoniac, mixed together, emit an urinous Smell; het. if  
you take cure first to dry them well, there will neither urinous  
itor volatileYVapour exhale from them. The Humidity of the  
Air is enough to moisten the Salt of Tartar, and-make It fit  
**to** act upon the Sal Ammoniac, which it is then known, to do  
by its Smell. If you take caro then to secure this Mixture  
under Covert from the Moisture of the Ain, you may keep it  
fifteen Days in a Vessel well stopped, and yer no urinous Spi-  
rit shall fly .off from it; so that to extract the volatile Salt of

a good Dryness from Sal Ammoniac, you must avoid aS much  
as possible too much Humidity. -

. M. *Lemery* was in the Right to say, that Spirit of Wine was  
so far from dissolving the volatile Salt, that it .contributed  
much to its Preservation, uthereas Water did nothing bur  
resolve it into Spirit.; I don’t say, that in order m extract  
the volatile Sait dry aS it ought to he, we must absolutely reject  
every Kind of Humidity ; for then., we should obtain nothing  
hut simple Flowers, which dan never make a solid Mass,  
- The Method in which I best succeeded was as follows: First,  
I took Sal Ammoniac the most , purify'd, and pulverized very  
fine then I took sortie alcahne Salt, as Salt os Tartar, Saltos  
Ashes os old Leas os Wine burnt, .or some other like ft,  
which have been puresy'd by Calcination, .Lixiyiation, and  
Evaporation; after this I calcined it again, in order to take  
away its Huinidity as much -00 possible s then I pulverized it,  
and pass'd It hot through a Sieve. I took care likewise to dry  
the Sal AIiimoniac very, well, even .till it smoak’d. I then  
weighed Part os it, ;and .threetithes as 'much os alcaline Salt,  
-while it is yet hot: In thin State the two Salas can perfectly  
Inix without discovering any Volatility ; they are put into the  
Retort, which is stopped verycarefully, and there left twenty-  
sour Hours, without, any Emanation froth them,, like what  
usually proceeds from a Mixture of Sal Ammoniac with Salt os  
Tartar., I pour into the Retort,- for.-every Pound of Sal Am-  
shoniac, two Ounces and an half' os Spirit os Wine, taking  
care immediately to stop up the Retort VeryTlofely, to retain  
the Volatile Salts, which are sure to fly off, as soon aS the Hu-  
midity, which the Spirit Os Wine brings with it, diffuses itself  
among the Salts! . ..Ἄ. ..f; .. .. . . . I .” .. . -.

*e* It is adviseable leave, the Whole in a sort of Digestion,

tho’ in the Cold, and to stir the Salts in the Retort, in order  
to make way for the Spirit of Wine to diffuse itself, to pene-  
trate, as much aS possible, the saline Parts, and to excite a sort  
of Fermentation." Aster twelve Hours os Digestion, I unstop  
the Retort, and adapt to it two Receivers, the first of which  
has an Aperture at each End, in .order to preserve a Commu-  
nication between the Retort and the. second Receiver . The  
Joints are well luted; and while the Lute dries there is an  
additional Tithe *for* Digestion.’ Then you put Fire by Degrees,  
in order to make a Very, gentie Sublimation by the Heat of the  
Reverberatory. At first there exhales a little *of* the Spirit in  
Vapours, which; it almost: immediately condenses against the  
Surface of the first Receiver ; whar panes into the second re-  
mains liquid, and at last all the first Receiver, hecomes fur-  
nished with volatile Salt, which sticks firmly twits' Surface in  
Form of a Crust, and is more or less thick in proportion to  
the Quantity of Salt which is sublimed.

. When no .more domes off, the Vessels are unlisted, and a  
Separation is made of the Liquor contained in the last Re-  
ceiver, and that which may perhaps remain in the first, , The  
Whole together gives back very nearly as much Spirit of Wine '  
as was used. All the Volatile Salt takes a dry Form, yery solid;  
except a small Portion of it, which appears like Snow, because  
found in the Receiver mix’d wish Spirit of Wine: There  
remains yet some volatile Salt in this Spirit ; for after some.  
Days it deposits the fame in the Form of Needles, as it hap-  
pens in Crystallizations of Salts under the common Operations'.  
And if this Liquor be again emptied in another Bottin, it wist  
in Length of Time deposit still more Salt like solid Crystals' of  
different Figures ; but the firstare very fine, .

-. This Salt, aS well as other Volatile Salts, is capable of Recti-  
fication. The most convenient Method for all Sorts of vo-  
latile Salts is,tn rectify them in the fame fort of glass Vessel,  
set in Balneo Mariae, where the Heat is Very gentle and equal ;  
and, on that account, preferable to a Sand-heats

- In making this Rectification,, it will he proper to mix with  
this Salt those essential Oils, with winch we would have-st  
perfumed, because by this Method none are communicated hut  
the most subtil and most fragrant Parts.

The Method I have described is also the most proper to de-  
termine, Io the greatest Nearness, how much of the volatile is  
contained in Sal Ammoniac, and the Portion of acid Salt, by  
which this Volatile is retained. This will now appear, by  
comparing the Matter which I used, with the Product of my  
Operation. .... ... . : Ἄ

.I took three Pounds of alcaline Salt, one Pound os Sal Am.-  
rnornac, and two. Ounces and a half of Spirit os Wine j the  
Whose made together a Mass of four Pounds two Ounces and  
a half.

- From this ! extracted, in a dry Form, thirteen Ounces and  
three Drams of Volatile Salt, and one Ounce five Drams and a  
half of Spirit, besides one Ounce and half a Dram imbib’d in  
the Papers, thet I put about tho Joints 0f the Vessel, This  
makes in. all sixteen Ounces one Dram of volatile Salt-, from  
which must he deducted two Ounces and 2 half, of Spirit of  
Wine, which I used, and there will remain thirteen Ounces  
five Drams of Volatile Matter, which one Pound of Sal Am-  
moniac yielded by my Operation,

. The Caput Morsuum,, winch remained in the Retort, weigh-  
ed three Pounds one Ounce, tho' I had used but three Pounds  
os alcaline Salt for a Medium ; hence I had Reason to con-  
clude, that? this Ounce of Overplus, was-the Weight os acid  
Salt contained in a Pound of Sal Ammoniac, and which sepa-  
rated from it, in order to unite with a fixed alcaline Salt.' Now  
the sixteen Ounces one Drain of volatile Substance, found  
in the Receivers, with the three Pounds one Ounce, that re.,  
mained in the Retort, make but four Pounds one Ounce and  
one Dram ; and all the Matter which I used, weighed four  
Pounds two Ounces and a half. -ss i -

Here then I fall one Ounce three Drams short of myWeight.  
A Waste which must needs arise from the volatile Matter that  
evaporated, the Loss of which I could not prevent with all my  
Precautions, -- - ' - ... ' - - ; ... ..

Adding -this one Ounce three Drams, to the thirteen O unces  
five Drams of Volatile Salt, found aS well in a dry Form as other-  
wise, the Sum is fifteen Ounces of Volatile Salt sublimed by  
my Operation. I may then conclude,- that in one Pound of  
Sal Ammoniac there are fifteen Ounces of Volatile Salt, uni-  
ted and incorporated by Sublimation, and only one Ounce of  
acid Sea-salt. This great Quantity of volatile Matter contain-  
ed in Sal Ammoniac, will perhaps appear a. Paradox in Chy-  
InistrI.y  *τ*

~M. *Tournefort,*[ who went farther than others, extracted, as  
I observed, from fifteen Ounces of Sal Ammoniac, but ten  
Ounces of Salt, and three Ounces of Spirit, - winch could scarce  
contain above six Drams of Volatile Salt. But besides his' not  
extracting as much volatile Salt as he might have done by his  
own Method, for want of using, a sufficient Quantity of Me-  
dium, he took uro Account of what Volatile Matter might be  
losttn the Operation. ... X . 2:\*..- i

It might be objected, that this extraordinary Quantity of  
volatile Salt which I extract from Sal Ammoniac, was not ab-  
solutely contained in it, and that it might possibly proceed from  
the alcaline Salt, which served as a Medium,; and was paItiy  
volatilized in the Operation. .. τ ..- ... .-. ί /i  
‘ But since it is impossible to extract the Ammoniac Volatile  
Salt, without an alcaline Medium, must Only whet is extract-  
ed by other Methods, tho’ in less Quantities, pass for *rLCSal  
volatile* of Ammoniac?' .

- Besides, by verifying my Weights, in which I used the ut-  
most Exactness, I found in the Retort the Weight of the Al-  
Cali, which I used for a Medium, and one Ounce, over and  
above for the acid Salt, which might be contained in the Am-  
moniac. There is no Appearance then, that the alcaline  
Medium was. volatilized, because in that Case I should have  
found the Weight diminished in the Residuum. I cannot think  
then; that any one will say, that this Diminution was supply'd  
by the acid Salt of the Ammoniac,, whichOught to he sup-  
posed more than an Ounce to the Pound, since M. *Toums-  
fort,* who in his Operation extracted much less volatile Mat-  
ter, sound the Weight of the acid Salt to be but half an Ounce,  
which certainly is not enough for fifteen Ounces of Sal Am-  
moniac, as he was well convinced ; accordingly I obtained al-  
most twice as much from the fame Quantity. 'It is half a  
Dram of acid Salt for-an Ounce, and by the Observations  
which I have made, it does not appear, that any more can he  
separated. . '

- For . Proof hereof, the Calcination of my Mixture of Salt  
os Tartar with Sal -Ammoniac, afforded me precisely the very  
Proportion of the same acid Salt, as I had found after Subli-  
mation, as you shall see by whet follows:

- That I might take all manner of Precautions, I chose two  
Crucibles exactly alike, in each of which I put three Drams  
of Salt of Tartar, with one Dram of Sal Ammoniac, such as  
-I had used in my Sublimation, and a proportionable Quantity of  
Spirit os Wine. I urg’d them with an open Fire, in order to  
force from them their Volatile Salt. Upon weighing the Resi-  
duum, I found it, both in this and the other Crucible, aug-  
mented exactly three Grains.

On the other hand, I had put in a third Crucible fix Drams  
of the same Salt of Tartar by itself; and.after giving them  
the fame Calcination as I did to the others, for it was done at  
**the** same Time, and by the same Fine, I found the Residuum  
diminished just three Grains, that is, a Grain and half for  
three Drams. : ’

But in the Calcination before-mentioned, of the Mixture of  
Salt of Tartar wish Sal Ammoniac, instead of diminishing a  
Grain and a half, I found it augmented by three Grains ;  
therefore the Residuum of this Calcination is, in reality, aug-  
mented in Weight sour Grains and a half.

. Now these four Grains and a. half can be no other than the  
**-W**eight of the acid Salt contained in the Body of. rhe Sal Am-  
moniac, Of which it made exactly the sixteenth Part. I can  
- allure you, that Sal Ammoniac is a Compound of such a Na-  
ture, that of sixteen Parts there is hUt one detained in the  
Medium, and the other fifteen consist of Volatiles as I had  
already proved by my Sublimation. \*

. I took bnt d small Quantity of Matter for Calcination, teat.  
I might have the Weight more exact; and the Residuum of  
this Operation agrees, you see, to the utmost Nicety, with  
the Weight produced by the Residuum of the Sublimation of. a  
considerable Mass.\* - ι . *- ' . ' r.*

so This Augmentation ofWeight in the Intermedium:proceeds  
from a Portion of the Acid of the: Sea-salt contained in the  
Sal-Ammoniac, since from the Residuum of this Calcination;  
we extract by. Lotion a crystallized Salt of a cubic Figure,  
which is a Shape peculiar to the Crystals of Sea-salt, .. .οῦ  
~ If any one now should object, that this Sea Acid, which  
was mixed with the Ammoniac, might itself, in part, be Vola-  
tized, I shall appeal to my Observations, which assure me,  
that in analysing Sal Ammoniac, everything becomes volatile,  
except a sixteenth Part, which is retained by the Medium-  
*Me Geoffrey, Cadet, Mem., de. PAcad. ROy. des . Science  
Vsusisa ' ἄκ.λ-'. .-s'. .... su* -Ἀ.λεἴ .i .' f..

These are the Accounts we have of rhe Origins of the "  
different Species Of Sal Ammoniac. But it in scarcely credible,  
that .so prodigious a Quantity of" Soos, -as to make fifteen hun-  
dred or two thousand Quintais a Year, can be furnished byono  
Country, especially *Egypt,* which is a Very warim Country;  
and where they only use Fires for culinary *'Uses,* and at their  
Bagnios. ... : prise . ... - s - ’

We must therefore surely conclude, that the *Egyptians,vffi0*make Sal Ammoniac, have had .the Address to keeptheir Mam  
thod of doing it a Secret from *tteDuropeans .ffiRvsis* that they  
make use of some other ingredients besides Soohert: . . ' - \

Very gooff Sal Ammoniac is certainly to he made; without  
any Soot at all.. For I am well informed; that at the Sal Am-  
moniac Works, carried on some Years ago at *Newcastle,* the  
Rule for making it was thus :. st. - ;j ; /. .-- 5 . / *Asa*

L. Take of the. Bittern, .that is, the Liquor which drains from  
common Salt whilst making, one Gallon ; -and osoUrine,  
-y ~ three Gallons ; let them stand together forty-eight Hours  
i ... tofcrment,. and subside; then draw off the Hear Liquor,  
and evaporate in leaden Vessels to Crystallization.: Sub-  
lime these Crystals, when.:dry;:in proper Vessels, and a  
very good Sal Ammoniac will be produced. ι.-? V : . ‘ ’

- I ain farther informed, that from one hundred Weight of  
Salt made from the Bittern, commonly sold .under the. Name  
os *Epsom* Salt, and three Hogsheads of Urine, fisty-six Pounds  
of Sal Ammoniac may be procured.' t .

From all these Accounts of. Sal Ammoniac, it appears to  
be a neutral Salt, consisting of a volatile alcaline Sals, and an  
Acid. The Native seems to be thus generated r When Ca-  
mels, or other Animals, deposit them Urine in the barren  
Sands of *Africa,* the Heat of the Sun, during the Day, makes  
all the Humidity evaporate; in the Night, the Acid of the  
Air is attracted by the alcaline urinous Salt, till iris perfectly  
neutraliz'd, and forms the antient Sal Ammoniac, or Sal Cy-  
reniacus, which would be wasted in Vegetation, if the Soil  
was not utterly barren.

In Imitation of this, all the different Sorts of Sal Ammoniac  
are made, by uniting an urinous Salt with some fort of Acid.

But it must be remark'd, thatSal Ammoniac is a very different  
Substance from most of. the Preparations made from it; for as  
alcaline Salts are mixed with the crude Sal Ammoniac, they  
absorb the Acid, which renders the Sal Ammoniac neutral;  
and then the volatile urinous Salts, sot free from the Acid,  
rise in Distillation. ' . '. .-  
*- Boerhaave1*s Character of Sal Ammoniac is, that it preserves  
all animal Substances from Putrefaction, and its Brine pene-  
trates into the most intimate Parts, and is the noblest Aperient,  
Attenuant, Resolvent, Stimulant, Errhine, .Sternutatory, Dia-  
phoretic. Sudorific, Antiseptic, and Diuretic. .. :

*Processes upon Sal Ammoniac from* Boerhaave. *Sal Ammoniac is  
neither Acid nor Alcaline.*

Into a clean Glass put some very pure *Sal Ammoniac,* dis-  
solved in three times its Weight of the purest Water, and fil-  
tred till it becomes a limpid Brine, and heat it to an hundred  
Degrees. Into different Portions of this, pour successively  
Vinegar, Spirit os Nitre, and Spirit of Sea-salt, and there will  
not appear the least Sign of Effervescence,- nor does the Liquor  
grow turbid. \_ In the *Sal* μξυνη?ο«πὸ, therefore, there is no *Al.,  
call.* Upon pouring in Oil of Vitriol indeed, .there, arises some  
Fume, and some degree of Motion; hut this is owing.to an-  
other Property os it, which will he more conveniently explain’d  
hereafter ; for whilst the Oil of Vitriol lays hold os rhe latent  
Alcali of the Salt, It renders the acid Spirit of the Sea-salt  
Volatile. Upon the same Brine, ip another Vessel, pour a  
fix'd Alcali, and there no Effervescence will be excited; hut  
there immediately arises from it a Very penetrating, volatile, al-.  
caline Smell. This Salt, therefore, is neither alcaline nor acid.

**R** em **A R K-.**

*Sal Ammoniac* agrees with the Sale of our Humours, hecause it  
causes no Effervescence, either with an Acid, or an Alcali,  
tho’ upon the Effusion of a fixed Alcali; it presently gives  
out its volatile alealine Part, with a very pungent Smell.  
Nor does this Salt ant in the human Body, of any-where  
esse, with an acid or alealine Virtue, but with .the more pe-  
netrating one of common Salt; That this is the Case, appears  
by all its Effects. but by .this in particular, that if *Sal Am-  
- maniac* is mixed either with Spirit of Nitre, or *Aqua fortis,*it will communicate to it a Power of dissolving Gold, or  
convert it into *Aqua Regia,* which nothing can effect but  
Fountain-salt, *Sal Gem,* and Sea-salt i In this respect, there-  
fore, it is a semi-volatile Sea-fain . - -

*Cal Ammoniac -sublimed into Flumaers.*

Take some *Sal Ammoniac,* reduce st to Powder, dry It, and  
put a Pound of it into a Cucurbit made of *'Histian* Earth,.  
and almost of a cylindrical Figure. Fix on a very largo  
Head, and clofe the Joints with Clay and Sand work’d  
together in equal Quantities. Place them in a Sand Fsir-  
nace in sirch a manner, that the Beak of the Alembic  
may decline a little downwards, that is any Water should  
come off first, it may run out of the Head into a Bottle.  
applied to the Beaks Let the Cucurbit be covered with  
Sand, almost to the lowest Limb of the Neck os the Head,  
and let there he raised under it a.Heat os a hundred and  
fifty Degrees, to be continued till all the Moisture is di-  
stilled into the Bottle. Then changingthe Bottle, gradu-  
ally increase the Fire till the Alembic begins to be clouded  
with a white snowy Substance, and keep it up: in that  
Degree, without suffering it to diminish, for the Space of  
eight or ten Hours. Icedall grow held, remove the Sand,  
and take out the Cucurbit and Alembic very gently, lest  
the Salt in the Alembic should be shaken out. Lay the  
Cucurbit in an horizontal Position upon a Table i with a  
Knife take the Lute dean off; wipe off flic Sand, Dust,  
and Lute from the Cucurbit and Alembic j and then whilst  
they continue in this Situation, very gently draw off the  
Alembic, and it will he full of a fine, lights sublimed;  
showy Salt, of which tain there will be a good deal upon  
the upper Rim of the Cucurbit. All this Silt bring re-  
moved, and put into a very dry, clean, hot Glass, with  
si wide Mouth, yon will find about the upper Part of the  
Cucurbit, a white; thick; denre, compaof Crust, of the  
fame Salt, but which did not ascend into the Cavity of  
the Head, but stopp’d and fix’d here. Take this off with  
the sharp Edge of a Knife, and put it into a Bottle as be-  
fore.' Then very gesttly turn the Cucurbit upside down

-- \_. Over a clean Paper, and there will fell out a pretty deal of-  
the first white Flowers, which dropped off in moving the  
Vessels, and which, if they are persectiy pure, may he  
added to the former. At the Bottom of the. Cucurbit;  
there will then appear a sew black, sallne *Faces,* which  
may be shook out, but are of no great Use, yielding only

. a bitter, black, foeculent Matteo When the first Part  
is pure by itlelf, it is called the true Flowers of *Sal Am-  
moniac,* the *Aquila alba Philosophorum,* and the *Aquila  
Ganymedem in caelum Juris rapiens in sublime.* The-other  
Salt, which was at the upper Part of the Cucurbit, goes by  
the Name of *Sublim’d,* or *Rectified Sal Ammmiat.* If  
the Flowers, or sublim’d Salt, are dissolved in Water,  
they excite Cold, like the Salt itself. If you dissolve them,  
heat the Solution, and mix Acids with it, there is no  
Effervescence produced, except upon pouring in Oil of  
Vitriol. Nor does it cause any Effervescence with a fix’d  
Alcali, but immediately emits such a Vapour, as is de-  
scribed above. If you repeat this Sublimation of *Sal Arne.  
mcniac,* it gradually rises with more and more Difficulty,  
till at last it becomes almost fixed, tho’ it still retains its for-  
mer Qualities. ,

REMARK.

Here we heve a Salt of the Nature of Sea-salt, but ferni-vola-  
tile; for it is not fo volatile as to rife with the Heat of  
boiling Water, nor yet so fixed aS Sea-salt. When it is  
thus purified, it lores that Clearness which appeared, in  
some measure, in the common *Sal Ammoniac.* By Subli-  
mation, it does not acquire an alealine Quality, in which  
Particular, it differs from Salt of Urine; hut it remains just  
as it was, only of a more beautiful Colour. It has this  
wonderful Property, that whilst it thus rises dry in a close  
Vessel, it carries up with it almost all fossile, vegetable, and  
animal Substances ; and by this Sublimation, surprisingly at-  
tenuates them. Hence it is called the *Pistillum Chemico-  
rum,* as the seme Attenuation can scarcely be accomplished  
by any other means. And if these are sublimed with *Sal  
Ammoniac,* a considerable Number of times, they at last  
become fixed with it, and thus often give Rife to **the**

finest Medicines, as *Paracelsus* found in Colcothar, rendered  
very pure by Water, and then rubbed with Sulphur, and  
-sublimed with this Sals. ' Ἀ mi

*Sal Ammoniac with Quick-lime, yields a stay Spirit.*

Take forne very dry Flowers of *Sal Armajoniac,* piit them  
into a clean hot glass Cucurbit, and poiir upon’them an  
equal. Quantity of Lime reduced io Powder, as inniedi-  
tioufly as possible; ih a dry; hot, iron Mortar, taking  
care that rhe Flowers are / well . covered with the Lame.  
At the same time have by you a clean dry Alembic,' pro-  
perly fitted for this Purpose, so that the sine exhaling Cor-

- puscles may be .mimed lately confined j for the very Mo-  
ment, that these two Bodies come to touch one another,  
though they were at Rest,-and inodorous before, there in-  
stantly 'arises a Vapour from them, than which-perhaps  
there is hot one more acrid. Or violent in Nature, fix-  
ing on the Alembic then, and lining it close, distil this  
Mixture, with a gentle Sand Heat, into a Bottle, applied  
to the Beak of the Alembic, and you will by this means  
have a very final! Quantity of a Liquor the most volatile  
and acrid of any yet known, though not alcalihe. If you

.. then increafe your Fire to a considerable Degree, the *Sal  
Ammoniac prist* not he sublim’d; but by means of the Lime,  
the whole Mixture will become fixed ; and if it should be  
afterwards put into a Crucible, and urg’d with the strong-  
est Fire, it will not leave the Vestel, and become volatile:  
But when it comes to be cold , if it happens to be broken  
in the Dark, whilst it continues dry, it will emit a Light  
like Phosphorus.

Dissolve some pure powder’d Sal Ammoniac in triple its  
iWeight of Water, then take Quick-lime, triple the  
Weight of the Sal .Ammoniac;; put it into a large, glass  
Cucurbit a little heated, and pour upon it the .Brine of  
the Sal Aminoniac, and clap.on your Alembic, and lute it  
as expeditioufly as possible with a thick Lute, made of Lin-  
seed-flower; and apply a very large Receiver: to be - luted  
with the fame. There :will suddenly be excited a Heat,  
AEstuation, and most violent Ebullition, diffusing an in-  
coercible Spirit; which, would burst the Vessels, unless  
the Lutea little gave way;, for the *Impetus A* it is so  
great, that it hifi’es and blows, like a Wind through the  
Lute, dispersing a.Smell all round., and at the fame time  
a Liquor in great Plenty, and withsurprising Speed,, di-  
stils into the Receiver. When this spontaneous Heat, of  
the . Mixture-is abated; let the Vessels . he .luted closer,  
raise a. little Fire under them, and gradually distil to a  
Dryness. Let the Spirit thus produced be stopped up very  
close in a Bottle; and kept under its proper Title. , In  
the Bottom there will Iemamia new and surprising kind os  
Body, which being dried with a strong Fire, appears api  
most of a glassy Nature, but gradually .puffs, up in the  
Air, tho’st does not dissolve. like *Sal Ammoniac,* but is  
resolv’d into sandy Grains!

R E M A R k.

' . . 4 . .1. . -i. . *.. l*

Here is .another Instance of an Agreement betwixt, the proper

Salt of the human Body, and *Sal Ammoniac* ; you see a Li-  
quor produced from dry inodorous Bodies, that affects the  
Organs of Smelling, more than any thing esse; you obferve  
alfo the Generation of Spirits, which are vastly, and, as, it  
were, spontaneousiy active, in the greatest Degree of Cold;  
and here you have: a Spirit not alealine, but extremely -acrid,  
and next to Fire .in. Acrimony,.. It must he confess’d how--  
ever, that if this Spirit, as it exhales through the Ain, meets  
with a volatile Spirit of Nitre, they will ih Conjunction pro-  
duce white Fumes. This Process also furnishes us with anew *Species* of Phosphorus., and here you see a Fixation,  
in some measure, of *Sal Ammoniac,*

*Sal Ammoniac, distilsd with a faded Alcali, yields alcedine Spirits,  
and a volatile alealine Salt.*

Take of the driest Flowers, of *SalArninoniac,* ten Ounces .  
place them in a glass Retort, mix therewith of the purest  
dry Salt of Tartar, reduced to a fine Powder, three  
Ounces; and shake .them well tomix them perfectly;  
I rnrnediately there will arise a very acrid, alealine Vapour,  
for which Reafonyou niuft immediately .apply a largo clean  
Receiver. Place the Retort in a Sand Furnace, mid gra-  
dually raise the Fire to the greatest Degree-. .There will  
be soblimed a very pure, white, simple, volatile, alealine  
Salt, which being impatient of Rest, will sty Oss as foonas exposed to the Air, and make its way out of Vessels,  
through almost eyery thing they are stopped with, except  
Glass. With all Acids, it causes a most violent Effer..  
vefcence, and combines with them into a neutral Salt of  
a particular Kind, according to the Nature and Origin of  
the Acid: This Silt, on account of it, prodigious Puga-

*-city,* can scarcely he manag’d or restrain’d ; *heris* it easy  
- -to take it out of-the Receiver in a solid Form. - At the

Bottom *of the* Retort will remain a fix'd. Salt, which.can-  
not be sublim'd with the greatest Degree of Fine.

**.Or,** To ten Ounces of the Flowers, add three Ounces of  
Salt of Tartar; pour thereon. nine Ounces of Water,  
. shake them, and distil them immediately through various

Degrees of Heat, into a Receiver, accurately luted on to  
the Retort. Immediately a fine moistVapour will ascend,  
-which, will be quickly congealed on the concave Surface  
of the Receiver, into a solid Salt, and will proceed in ’  
this manner every Moment. When the principal Part os  
the Salt is thus come over, it will begin. to be dissolved.  
by a Liquor less volatile, and more watery, than the former  
Salt. Then remove the Receiver, and applying another,  
tirgd the remaining Salt in the Bottom with a stronger  
Fire, till it becomes quite dry. This done, take the Li-  
quor, and put it jntosthe former Receiver, and shake it till  
the Salt, is attenuated, and almost dissolved ; then put them  
intota clean glass Vial, which stop very, close with a glass  
. Stopple. By this means yon will have. a Salt at the Bot-  
tom, and a Liquor at the Top, which, is a true, most  
saturated, volatile,. alcaline Spirit;: But is there remains  
no solid alcaline Salt at Bottom, it is a Sign that the Spirit  
jo not very much saturated, but watery, and in a great  
many Experiments will not answer. At the Bottom of  
the Retort will be left a fixed Salt.

**: "I** REMAR Kam

The *Sal Ammoniac,* as soon as it comes in Contact with the  
fixed Alcali in This Operation, is, from. the. Dispositi on Of  
: its own Nature, and. the Assistance of the Fire, divided into  
' two Parts, perfectly distinct, though both ssaline; One of  
which'constitutes a very acrid, alcaline, igneous, volatile  
. Salt, which is the purest that can be prepared by Art, and at  
the same time the most simple, and therefore reckoned the

\* Standard of Volatile Alcalis ; under which the other Kinds  
. may be reduced, and accordingly distinguished. The true  
' Volatile alcaline Spirit of *Sal Ammoniac,* therefore, is a Water  
: containing in it as much of the purest alcaline Salt as it is  
- capable of dissolving. To this too, as their Head, maybe  
: referrsd all other volatile alcaline Spirits. -No other volatile  
alcaline Salts or Spirits are so pure and simple as these, being

- all tainted with an Oil, on which account they act in a very  
different manner. But, in this Property, *Sal Amnioniac*

\* agrees with the Salt of Urine ; for that Salt and Spirit cause  
a sudden and violent Effervescence with air Acids. If a  
Vessel, containing this Salt or Spirit, is left open, and another  
set by it, full of strong acid Spirit of Nitre, there is present-  
ly excited in the Air a pretty considerable Effervescence,  
- arising from the Concurrence os the Volatile Alcali, and Acid,  
' exhaling from the Vessels. If this Salt is applied to the Skin,  
t and so covered with a Pitch Plaister, that it cannot fly off, as  
soon as ever it comes to be heated, it causes an intolerable  
Pain, and produces the highest Inflammation, with a black  
Gangrene of the Part, so that no Poison acts with more  
Violence.1 Do those Physicians, therefore, act wisely in

\* recommending this Salt or Spirit to be attracted, by full and  
-: free Smelling, to the olfactory Nerves, the *Membrana Pitui-*

*' iaria* of the Nose, and the extremely tender V elides of the  
Lungs ? A topical Inflammation and Corrosion seem, in  
such Cases, much to be feared. Both this Salt and Spirit

- become still more acrid and fiery, if they are sublimed again  
from a fresh, pure, dry Alcali- *Boerhaavds Chymistry.*

. The dry Salt of this Process, is what we usually call

*Sal Ammoniacurn Volatile :* Volatile Sal Ammoniac..

Some, instead of Salt , of Tartar, put Lime; and others  
Chalk- or common Whiting. It is used for Pocket Smell-  
ing Bottles; but *Boerhaave,* as we see, with the greatest  
Appearance of Reason, condemns the Custom of smelling to  
these Salts, as highly pernicious. Some put Aromatics into  
the Retort, which gives it a more agreeable Smell. It is pre-  
scribed in malignant Fevers as a Sudorific, in the Form of a  
Bole, with other convenient Ingredients ; for it is not sit for  
Powders, its Volatility soon wasting it: In Pills it will ferment,  
and it does so in Boles; but there it does not destroy the Form  
and Conveniency os taking. The Dose is from five Grains to

Ich. u.

. Ten or twelve Grains of this Salt will saturate half an Ounce  
of distill’d Vinegar; which, with some simple and compound  
Water, and a little Syrup, make a Draught not disagreeable,  
and very useful in Fevers. - -

- The first Process, directed by the College to be made with  
.Sal Ammoniac, is the

*Flores Salis Amrnoniaci :* Flowers of Sal Ammoniac.

' Equal Quantifies of Sal Ammoniac, and common Salt, are  
E . " \* .

decrepitated together, and then sublimed. into Flowers, which  
are very volatile. . ’ "sc " "

. The Dose is fromisix io sixteen Grains. .. , .... .

. The *Flores Salis Arnmoniace -Mar'iiaies,* schalyheated Flowers  
of Sal Ammoniac) are to.be made thus.r : T ss .

*: ‘ - - - As . . L -st. ' .* νμ ’ i, LEE. / h.I L’.ss

Take of Sal Ammoniac, one Pounds of theFilingsOf Steel,  
ten Ounces : Let them be rubbed together,; and distilled  
in a Resort with A large Neck, in a reverberatory Fire  
- raised by degrees. Wher.: the Vessel da coltio sv/eep out the  
sublimed Flowers, and keep them-sin aifrfettle for Use.  
The Dose is from six to sixteen Grains.; inummco ? .

*. sc': "'.'ss's -* i r-.durr. :I .572 jv'e'-  
- These, thrown into *French* Brandy, or common . Proof Spi-  
rit, make the *Tinctura Martis Mynstchti,.* as mow directed, by  
the College; and the *Ens Veneris* is much the same thing,  
being usually Colcothar and. Sal Ammoniac:, 'sublimed toge-  
ther. . . ... ... . *. e - .*

The *Spiriiars Salis Amrnoniaci, ce* Spirit of hafAininoniae,”  
is thus made ss ‘ ss’T '' . ’δ᾽.; ' " .6sesseso Ἕὓ

\_ Take of Salt of Tartar, and. Sal Ammoniac, each three  
Pounds: Powder these separately, find'when they are  
mixed, put them into’a large Coourbi't,pohring upon them

- six or. eight Pints os Water) Then distil in’ a ssand-heat,  
and the pure Spirit will conte over, with a .gentle Fire. If  
this Spirit he rectified in an higher Cucurbit, a' most sine  
volatile Salt will sublime into the Receiver. The Dose is  
from ten to sixty Drops, stasisi si si 7 ‘ ' ' V IT

This, is-also directed Variotss ways, but none easier and’het-  
ter than this : It is also made the Basts os many other medicated  
Spirits, described at large by'sonte Writers, tho' thoheos them  
thought worth Insertion here, because quite out os *Use.sc i*

Some, to add .a greater Qprokhess of Scent, 'useDime for  
Salt of Tartar, which in external Applications, particularly to  
the Nose in Swoonings, .may be preferable to the:other.; hut  
in internal Uses cannot be so good. The latter may he known  
from the fonher, \_by its leaving upon the Vessel,' in which it is  
kept, .a white Coati Some (it is said) make It likewise, for  
Cheapness sake, with Brine, Urine, and Lime; and adding,  
thereto a small Portion of a foetid Oil, which cornea over in the  
making *ffie. Spirtius Cornu Corset per so,* they fell it for'genuine  
Spirit of Hartshorn. ‘.. 'sietsi .. '. so - ....

. The Aqua Regia, with which so many Experiments are  
made, particularly in dissolving Gold, is from Sai Ammoniac  
and Nitre together; tho' it is most expeditionfly made, by  
digesting,.:in a.Sand-heat, *Sal-Ammoniac* in Spirit *os-Nitre, or*the double Aquassortis, till itthe .dissolved ; hnt-if hath To litrie  
Concern dn Medicine, aa pot to require any ssarther Notice  
here....si. *‘. s', .si"'-.so''..* ”ῖ-. si etsi ;

ί But the most celebrated Medicine now in the Shops, from  
this Foundation, is sue ' " "sese ' " ' si' " —, ..

*Spiritus Salis Volatilis Oleosus.:* The oily Spirit Of volatile-Salt,  
- generally called Sal Volatile:, ss.-. . :

Which is thus prepared:

Take of Cinnamon two Ounces; of Mace half an Ounce ;  
of Cloves one Dram ; of Citron-peel one Ounce and an  
half; of Sal Ammoniac, and Salt of Tartar, each four  
Ouncesof'Spirit of Wine twelve Ounces: Mix and

- distil in a.Sand-heat. The Dose is from ten to a hundred  
Drops, or more.

This is now become one of the most common Medicines of  
the Kind, its Invention is not older than *Sylvius de la Bos,*to whom it is-ascribed. But though Sal Ammoniac, and a lixi-  
via! Salt, are -the principal Ingredients, yet the Aromatics are so  
much Varied at Pleasure, that very sew make it alike : How-  
ever, ?now st Standard is given by proper Authority, it ought to  
be kept to ; that a Physician may know what to trust to, when  
he prescribes it.

But one great Rule, in 2 Composition of this intention,  
seems not to be duty attended, to; and that is, in Choice of Aro-  
maths, which should be. not only fragrant, but light and Vola-  
tile in theinrnatural Production ; so that such things as the *Ma-  
rum Syriacum,* Marjoram, Thyme, and the like, seem more  
suitable Ingredients than Cloves or Mace, whose Oils arc too  
heavy,: gross, and. adhesive, th .rise so conveniently with the  
Sal’Ammoniac. The Goodness of this Medicine is judged by  
its Fragrancy and Quickness of Scent, and Softness to’theTaste ;  
for these Properties arise from the Goodness of the Aromatics,  
and the volatile Salts being covered with them; whereas when  
they are not good,: or not in a sufficient Quantity, the Com-  
position will be urinous, and Very disagreeably pungent to the  
Taste. Tn malting this Medicine with a flow and easy Heat,  
'a great deal of Salt will harden to the Top of the Receiver,  
winch may be, scraped eff, and preserved for Smelling-bottles,  
or any internal Ulas, where Medicines os such Properties are

Humours contained in them ? Or,- what better Way can there  
be to discover the Nature of the Humours, than by *a* diligent  
Examination into the Figures, the Vessels, and Connexion of  
the Membranes? . .. ' - - .. ἐν ’ ἐν...

The Membranes are very different in various Animals, in  
Number, Figure, and Situation. , In some there, are three, in  
others four, and in an Egg we can reckon six; fpr after we  
have opened the. outer Membrane, which adheres to rhe Shell  
at the blunt End of the Egg, we find another of .the fame  
Colour and Consistence,'which subtends the Cavity, and.very  
streightly embraces the Egg: I doubted a long time whether this  
latter Membrane was a new one; or a Duplicature of the first ;  
but, at last, I found it was a new one, and might.he separated  
throughout the whole Compass of rhe Egg. This then being  
cautioufly removed, there immediately appears the .Membrane  
of the thinner Albumen, conspicuous’for its Veins and Arteries,  
if inspected forne Days after Incubation. This Liquor being  
let out, we meet with the Membrane of the Colliquamientum,  
or Amnios of the Chick, in which the Chick swims. After  
this come the .thicker Albumen, and, the Vitellus, invested with  
their peculiar Membranes; these are under the Chick, in the  
Bottom of the Egg. ; . ,

In cotyledoniferous Animals; which may more properly he  
called glanduliferous, there are three Membranes; and fo there  
are in Sows and Marcs : The same Number are in placentife-  
rous Females, and, among the rest, in Woman. All there  
hat's only two Humours, which gave Occasion to the great  
*Harvey* to mistake, in asserting, that the Allantois was no-  
where to be sound. For my own Part, after I heve taken oft  
the Chorion, which immediately contains no Humour, but  
ferves for the Distribution of the Vessels, and for supporting  
and strengthening the other Membranes, I immediately find .  
what, may very truly be called an Allantois; and I have often  
taken it from the rectus of Cows, Deer, Swine, and Sheep;  
and blowing it up like a Gut, have hung it up in *my* Chamber;  
to be seen and handled at Pleasure. It was therefore owing, to  
the Imperfection of human Nature, that so great a Man should  
labour to banish out of all Belief, and the Nature of Things, a  
Membrane that was viewed, described, and delineated by so  
many Anatomists. As for *Everhard,* besides his being prejne  
diced by the Authority of *Harvey,* he had the Misfortune to be  
concerned with none but thofe little Animals called Coneys ;  
in which, tho’ there are four Membranes, as will by-and-by  
appear, yet they do not readily offer themfelves to Sight, except  
to those who, from beholding the like in larger Creatures,  
know where to look for them.

In. Dogs, Cats, Coneys, and perhaps other placentiferous  
Creatures, there are four Membranes, and three Humours ;  
for I have always hitherto observed, that the Number of Mem-  
branes exceeds that of Humours.

- s In our Account of . these Matters, we shell begin with Sheep  
and Oxemi.aridofheh glanduliferous Creatures, as well because  
the Art itself took its Origin from them, as appears by the  
Writingsof the Antients; and thence theNames were transferred  
to other Animals, by too strained a Catachresis, as because they  
are most easily procured, and especially near Shambles, always  
ready for Inspection; .

in these Animals then, we first meet with the Chorion;  
which, when you have separated the red fleshy Caruncles from  
the uterine Glandules, appears all over variegated with these  
Caruncles as with fo many Rofes. Besides, a great Part of the  
Umbilical Vessels spread themfelves over it, and are continued to  
the before-mentioned Caruncles. These Vessels alfo scatter  
Plenty of Capillaries throughout the Chorion, which probably  
imbibe the Humour, at least secondarily, and for the proper  
Use of the Chorion ; that is, to maintain its Softness and Hu-  
midity, without which it would adhere to the Uterus; For  
tho’ in Cows and Ewes, those little Placentas are copiously  
distributed all over the Membrane, yet, in Does, there are com-  
monly but ten ; that is, five in each Wing, which are situated  
in the lower and narrower Part of it; tho’ there are consi-  
derable. Branches of Veins and Arteries, which proceed as far  
as the opposite Region os Conception, where, by their Stru-  
olure. Situation, and Magnitude, they feem to imbibe a Hu-  
mour. And, in Sows, the Chorion does the Office of the Pia-  
centulle before-mentioned, during the whole time of Gesta-  
tion ; for there appears no other way of conveying nutritious  
Juice to the Foetus. In Mares also, during the first Month,  
this Membrane is single, and ferves for the aforesaid Uses., but  
in Process of Time, it considerably thickens; and forms fleshy  
Caruncles of the Size of a small Pea,- but these, at last, run  
together, and are conjoined in such a manner, that the whole  
Chorion feems to have degenerated into a very broad Placenta,  
interwoven with Missions of Vessels, which send forth innume-  
rable Capillaries to the internal Membrane of the Uterus, which  
however remains single. In a Woman also this Membrane is,  
at first, without a Placenta, which yet soon grows, and con-  
nects the Conception to the Womb; When rhe Placenta is  
grown, the Chorion itself is best, discovered by slightly wound-  
ing it with the Hand near the Placenta, and then pulling it off

required ; it is both much less caustic, and more cardisc, than  
the volatile Salt of Hartshorn, which is commonly directed.- -  
The Spirit of Sal Ammoniac is now but little used internal-  
ly, because the Gratefulness of the Sal Volatile Oleosum gains  
it the Preference ; and this is commonly Ordered with Spirit of  
Lavender, or of Castor; to be dofed out by Drops into ordinary  
Liquors: And when this is sent in Draughts or Juleps to a Pa-  
tient, a very necessary Camion is to be observed, which is, not  
to order, it in Company with'any red Syrups or Tinctures; ’  
because it changes them into a very unsightly green Colour.

These Things are sometimes externally directed in Embroca-  
tions ; they suit allo well enough in unctuous Substances, pro-  
vided too much Warmth is not given them before they are used ,  
because that will exhale them ; and this way they give a more  
penetrating Qualiry to Compositions, and' agree well with warm  
Lhfcutients, and such things as are commonly prescribed in  
Pleuritic and such-llkc Affections. *Lurion.Dispensatory. Quine  
cofs Prelections. -* :/7i' ’v”1 ''

The *Spiritus Salis Ammoniaci fuccinatusuri1.* Spirit of Sal Am-  
" moniac, with Amber,” is made sevemi Ways.su  
, Either digest a Pound of-Spirie of Sal Ammoniac with ah  
Ounce of Amber ; or, 1''' ...

*I - ..... 'll. .i.* . ἐν i v. - - *so. - '-l.se-.* ιιῖ. /

' - Take Sal Ammoniac, and Amber, each five Ounces; Salt  
Of Tartar, six' Ounces ; Spirit of .Wine, and Spring-  
water, each eight Ounces. ' : -- - ' '

. - This is reckoned to he cephalic, and exceedingly well suited  
to all nervous-indispositions ; but it is something unpleasant. Its  
Dose is- from ten Drops to forty. - “

AMMQNIS CORNU, *Arnmnds.* Horn. A Tossile of an  
Ash-colour, sound in the Shape of a Ram’s Horn, *Rulandus*enumerates fifteen Sorts of it.

AMMONITRUM, άμμονιτρον, from άμμ.ος. Sand, and  
νίτρον, Nitre, that is, in' *Plinses* Sense, the likivions Salt of a  
burnt Vegetable! *Pliny. .. .. ' '*

This is a Mass compounded of Sandi and a fixed alcalin’e  
Salt, for making Glass: The Moderns call it *Frit. -*AMMONIUS, a Stirgeon furnanced *.Lithotomus,* from his  
inventing a. way to cut the Stone; when it was too big to be  
extracied without Danger of A Rupture of the Neck of the  
Bladder... His-Method was to grapple the Stone, with a Hook,  
so firmly as to hold it fast, that it might not roll back ; then  
he took a Steel Instrument, of a moderate.Thickness, slender,  
hut blaint in its Fore-part ; and bringing the Stone to bear in a  
right Posture, cleft it with a Stroke of his Instrument, being  
very cautious of wounding the Bladder) either by the Instru-  
merit or splintered Stone. *Celsos, Lib.se Cap. As.*

AMMONII COLLYRIUM, otherwise called COLEY-  
RIUM HygiDivm. . : .

Take of Cadrriia, washed, sixteen Drams .; Cerufs, washed  
a like Quantity ; Castor, six Drams - *Indian* Nard, four  
Drains; Stibium, washed, forty Drams; burnt Copper,  
washed, fifteen Drams; Roses, twenty Drams ; Squama  
AEns burns, five Drams j Aloes, six Drams; Cassia, four  
Drams , Myrrh, six Drams ; *Indian* Thorn, three Drams ;  
the Lapis Schistus; sour Drams and- a half; Saffron, six  
Drams; Lead, bumf and washed, eight Drams and a  
half; Opium, threeDrams; Acacia, forty Drams i Gum  
Arabic, forty Drams: . Make them up with Water; It is  
one of the most celebrated Remedies.

It is proper to be used in the Beginning of a Cataraci, or Inr  
flammation, and for all kinds of Exulcerations and Purulen-  
cies of the Eyes ; for a *Coascesia* and *Chemajis* (soe the Words).,  
sor a Distocatron of the Bulb of the Eye; for an inveterate  
Myoreshalon, (a growing of the Tunica nvea over the Sight)  
and Staphyloma (see the Word) it deterges, incarnates, and  
heals an Unguis (a Collection of Pus in rhe Black of the Eye;  
in the Figure of a Man’s Nail). It is an excellent Promoter of  
Sleep to filch Persons as, through Pain of tho Hced or Eyes, or  
some other Cause, want that Benefit, supplying the Place of a  
Paregoric Medicine. It may he ufed with an Egg, or with  
Milk, or Water, and made thinner or thicker, as the Patient  
is more or less delicate of Sensation. *Aecius, Tetr.* 2. *Serm.* 4.  
*Cap.* I I3.

AMNA ALcALIzATA, in the Phrafe of *Paracelsus, is*Water which runs through Lime-stone, and is consequently  
impregnated with some of its Particles. *Paracelsus de Tartaro  
Tractatus C.2.*

*Rulandus* calls it AMNIs ALcALIsATUs.

AMNIOS. The internal Membrane which surrounds the  
Foeths. It will be impossible to form a competent Idea of the  
Amnios, without knowing at the fame time the Nature of the  
other Membranes, and then contained Fluids: For, as *Need-  
ham* observes, these Subjects are so olosely connected, that it  
would be difficult to treat of them separately ; For who could  
give an Account of the Membranes, or discourse of their Uses,  
with any manner of Accuracy, if he were not to describe the

with the Fingers ; it will appear thick, soft, and interspersed  
with small Veins.; but all the larger Vessels end in the Placentas.  
The Case is the same in ConeyE; in DogS and Cats the Foeths  
is divided in the Middle, as it were with a Girdle, in such a  
manner that we must look for the Chorion on both Sides of It,  
as tho' it were double.

The Use of the Chorion is easily understood, froth what has  
been said : It sustains the umbilical Vessels, and the Caruncles  
aforesaid, in glanduliferous Animals ; and both in these, as well  
as others who are without Glandules, imbibes a nutritious Juice,  
in these immediately, in the other secondarily. But in the pla-  
icentiferous./ almost all the greater Vessels direct their Course to  
the Placenta, and only some minute Vessels disperse themselves  
in this Membrane ; so that the alimentary Liquor it may possi-  
bly receive; seems only sufficient for its Own Moistening and  
Nourishnieht. However, the Chorion, both in these and  
other sorts of Animals, includes within Its Compass all the  
other Membranes, as well as the Humours, and the Foetus  
itself, and defends them; but contains no Liquor of its own  
within its Cavity.

In stripping off this Membrane, you are to be very cautious,  
that you do not wound the subjacent Membranes. The safest  
way is to take hold of one of the Caruncles with your Hand,  
and, lifting it up, cut a small'Hole in the adjacent Chorion,  
large enough to receive two Fingers; then, laying aside your  
Knife, tear it gently by degrees with your Fingers; carefully  
observing, all the while, whether any thing of a Duplicature, or  
a very fine whitish Membrane, offers itself, tho' in an obscure  
.manner, to your Sight; for is there does, it is the Allantois,  
which it highly concerns you to preserve entire: But when yon  
have proceeded a little farther, it will appear turgid with its  
own Humour, and render the Operation more easy; but if  
any Liquor should happen to run out, you may be sure, that  
there is a Rupture, either of this Membrane, or the Amnios.  
The Chorion being thus skilfully taken off, the Allantois is, at  
the same time, in a manner, separated from the Amnios, which  
may easily be perfected whenever you please, if you have  
divided them aS sar as the Cord; but there it is to be left alone  
with its Urine, till the Amnios and Foetus being opened, you  
may have Access to the Bladder.

The Amnios is interspersed with Vessels, almost in the same  
manner as the Chorion, and receives all the umbilical Branches,  
which do not pass into the Chorion. This being opened, shews  
you the Liquor in which the Foetus swims ; winch our famous  
*Harvey* proved to he absolutely nutritious, both from its Taste  
and Consistence, and from its being the same as is found in the  
Ventricle of an Embryo. This Membrane is often over-run  
with pinguiouS Concretions, which seem to be gathered from  
the Liquor within-it; and, in a Cow, the Cord of the.Embryo  
near its Root swells with a sort of glandulous Asperities. This  
is meant of Females with Cotyledons; aS for the placentiferous,  
there is another Method of Dissection, of which by-and-by.

We are now come to the Foetus; and upon opening the Ab-  
domen, we may take aView of the Umbilical Vessels. Here  
we shall only take Occasion to observe, that the Bladder, being  
wounded, discharges the same Liquor, in every respect, as is  
contained in the Allantois; and you may, at pleasure, force this  
Liquor, by Pressure, from the Allantois into the Bladder; or  
by sitting a Pipe to the Bladder, blow into the Allantois ; nay,  
even before the Foetus is opened, if you raise the Membrane a  
little, and squeeze it in your Hand, it will emit the Humour  
through the Bladder and the Penis; which is enough to prove  
the Communication between them.

The Allantois deserves a particular Notice, as well because  
its Existence has been hitherto controverted, as for its remark-  
able Variety in different Animals. For in the glanduliferous  
Kinds, as Ewes, Cows, Does, it grows to the End of the Cord,  
and seems to be a sort of an Elongation and Dilatation of the  
Urachus, of the Figure of a Gut, and reaching, on both Sides,  
to the Extremities of the Uterus within the Chorion, and fill-  
ing the Cornua. In Sows, which are multiparous, and have  
an Egg appointed for each Foetus, this Membrane reaches to  
the Extremities of that Egg, and, on both Sides, is shaped like  
a Gut ; whence it took its Name *Allantois, or Allantoides.*

In Mares the Cafe is somewhat different; for this Membrane, .  
in them, is every-where connected with the Chorion, and con-  
tains, within itself, the whole Foetus with the Amnios: It  
shews plain Marks of an Urachus, which seems rather to pro-  
ceed from the Amnios, and to be a sort of Duplicature of it,  
folded outward, as far as the Bladder; to winch it will easily  
transmit a Breath, or the Point of a Bodkin. You must look  
for its Perforation in the Cord, which twisting itself to a remark-  
able Degree, is. Part of it, dispersed oyer the Amnios; the rest,  
united, passes through this Cavity, and is, ar last, inserted in  
the Chorion, and there divided into innumerable little Branches,  
by which the Chorion is so increased in Thickness, that it seems  
to deserve the Name of a Placenta. In this Animal also, as well  
as in glanduliferous Kinds, the frequent Concretions which  
swim in the Liquor of this Membrane, are worth Observation,  
which seem, at first Sight, to be Fas, or little Bits os Ftesh ;

but; pulled abroad with the Fingers, are dilated into a sort os  
membranaceous Substance, and seem to be Coagulations os a kind  
of soft and glutinous Urine. .. . . - X / ' r '

We proceed now to placentiferous Animals, in whom the  
urinary Membrane is of quite another Figure. In these Kinds .  
then, the urinary Membrane varies, according to the Animal:  
sh a Woman it surrounds the whole Foetus, almost after she  
same manner as in a Mare, growing every-where to the Cho-  
rion : Jn Dogs and Cats it is the samebut its Duplicature,  
near the Divarication of the Cord, constitutes a Cavity between  
it and the Girdle, which is designed sor. the fourth Membrane.  
Indeed, I judge A Mare to be a middle sort of Animal, between  
placentiferous and glanduliferous Animals ; she agrees with the  
former, in that the Urine quite, surrounds the Foetus, and the'  
there he no Placenta in the Beginning, yet, in Process os Time,  
there grows one to such Dimensions as to embrace the. whole  
Foetus : And, indeed, that thick Chorion almost deserves the  
Name of Placenta, barely on account of the Veins, winch are  
dispersed over its Substance in as .plentiful *a.* manner aS in the  
human Placenta. To this I add, that there in nothing which  
answers to it on the Part of the Dam, as is usual in the glandu-  
liferous Kinds. However, this it has in common with those of  
ruminating Creatures, namely, to be connected to the Uterus  
by carneous Ligaments; and that this Thickness is not consi-  
derable before the sixth Month.’'. But this, by this way. The  
Allantois in Coneys is of another Figure, that is to say, pyrami-  
dal, and has a Placenta for a Base ; whence it grows narrower  
by degrees, till it comes , to the first Parting of the Umbilical  
Vessels, where it ends in the Urach us; for the larger Membrane,  
in'which the Amnios swims, does not seem to be the urinary,  
as we shall see by-and by. - si. :

It may be inquired, concerning this Membrane described in  
placentiferous Animals, whether it he really, urinary, since the  
Perforation of the Urachus is. less manifest in them, than in the  
glanduliferous Kinds. And as to the human Conception, I  
freely own, that I could never discover the least Sign of such a  
Canal in the Cord, by-any transserse or oblique Section, or tor-  
turing it a thousand Ways. But the very same things happen  
in a Dog, where, tho' I could by no means find out the Duct,  
I was convinced, tliat there was a Passage, by freqnentiy trans-  
mitting Wind through the same. I . confess, tliat I could never  
obtain a human Foetus inclosed in the Uterus, the' I have disc  
sected the Secundines very srequentiy, and not a few Embryo's,  
where I don't, in the least, doubt but blowing would have suc-  
ceeded as well as in the others. - For I look upon, as Demon-  
stration, that Argument of *Spigelius,* which asserts, that Man  
must needs be furnished with an Urachus and Allaiitois, for this  
Reason, namely, that he is tinder an equal Necessity with other  
Animals, of having a Repository for his Urine; this cannot he  
otherwise than true, as to all Animals provided with a Bladder.-

But *CourvcKUs* has invented a pretty subtie Distinction, and  
imagines, that the Allantois belongs only to such Animals as  
have a large *Intestinum Caecum,* because of the Compression of  
their Bladder, which he supposes insufficient to contain its Li-  
quor, the Space being taken up by the Largeness of the *Caecum  
Intestinum* ; but in other Animals, where that Intestine is but  
small, there is no need of any such Membrane.

Now, I would advise *Courvaus* to look upon the Allantois .  
once more, and to measure the Quantity of Liquor contained  
in it,, where he may see whether the *Intestinum Cascum,* even  
in Subjects where it is largest, be of Capacity sufficient to con-  
tain such a Collection of Waters. 'Tis certain, that the Allan-  
tois, os a Cow, at the End of Gestation, contains some Gallons  
os Urine. Let him view the Bladder, either the human or  
that of a Dog, and consider well with himself, whether it he  
more distended in these than in other Animals: His Eyes will  
convince him of the contrary. Therefore if there be any Col-  
lection of Urine during the Time os Gestation, it is necessary’,  
that there should be another Reservoir sor it; and yet, in a  
Bitch, not only the Ccecum is very small, but the Colon is  
wanting, that the Bladder may have still farther room.to swell,  
and does not require an auxiliary Membrane to discharge Part of  
its Office : But fince we meet with an urinary Membrane, not  
only in these, but in other Animals, which have a large Coecum,  
and a Colon, we have no Reason to believe, that their Pre-  
sence or Absence has any influence towards causing any Altera-  
tion in theStructure, either of the Bladder or Allantois. Other  
Arguments may be drawn from the Liquor itself, winch shall be .  
reserved for another Place.

To conclude this Head, I shall add, that it is peculiar to this  
Membrane to have neither Vein nor Artery, that is visible, in  
its Substance: This I lay down as its Characteristic ; sor these  
Vessels disperse themselves either into the Amnios or the Cho- -  
rion, having nothing to do with this Membrane, or at least are  
inserted into the Placenta, or Glandules : And in a Mare, tho'  
some Thousands of Vessels, both great and small, are seen creep-  
ing towards the Chorion, and imprint their Traces on it, not a  
single Branch can we discern to be directed to the Allantois, or  
there to end ; but whatever it contains, is acquired from the  
Bladder. And tho’ in the Foetus of a Cow, it is here and there

. interspersed with a sew Capillaries near the Urachus and the  
Cord, this does not always happen, .nor do they ever proceed  
the Breadth of three Fingers, but vanish in a very short Space,  
The great *Harvey* writes, that this Liquor belongs to the Cho-  
rion, and is, at first, a hundred times the Quantity of the Liquor  
of theAmnios, but decreases by degrees. But I cannot forbear  
declaring, that I have observed the quite contrary, and know  
that this Liquor, which belongs to the Allantois, and not at all  
to the Chorion, increases every Day, and acquires a more and  
more urinous Colour, Smell, and Taste, to the very End of  
Gestation; at which time the Liquor of the Amnios, as he  
Confesses, is almost consumed.

The Use of this Membrane is evident from the Premises,  
namely, that it is a Reservoir for the Urine; nor can It be of  
. any other Service in an Embryo. But if any one be solicitous  
about the Nutriment of the Allantois, because I just now said,  
that it was destitute of Veins and Arteries, he must understand,  
that this is an Accident common to it, with many other Parts;  
for the same may be said of the outer Membrane os the Uterus,  
as well as of the like Membranes os the Intestines, the Sto-  
mach, and (Esophagus ; as alsio of the Pleura, and the proper  
Integuments of the Muscles ; which, tho' they, have no con-  
spicuous Veins, must be supposed to be furnished with Canals,  
reaching from the very Orifices of the Veins, since, when they  
are inflamed in Diseases, the Blood-veffeis manifestly shew  
themselves ; as, for Example, in a Pleurisy and Ophthalmy ;  
and these Vessels furnish Nutriment enough for that peculiar  
Part, being not appointed for any public Office, distinct from  
the same. -.

Having finished the Description of the Allantois, it will he  
proper to .take some Notice of another Membrane, which  
resembles it in Figure, but is appointed for a Very different Use;  
You meet with it in Dogs and Cats, situated under the Girdle,  
near the Divarication of the Umbilical Cord, where the Vessels  
begin to separate, and to take then Course towards the Pla-  
centa : It stretches itself out in Length in a sort of Cavity,  
formed by other Membranes meeting there for that very Pur-  
pose, and is tied, or in a manner buttoned, to them at its Ex-  
tremities, by4 Very white cartilaginous Ligament. As to its  
other Parts, it no-where closely adheres to the Sides of its Cavi-  
ty, but hangs almost loose. In the Beginning of Gestation it is  
large, and soil of Humour, containing more than all the rest of  
the Membranes taken together. It is Very plentifully furnished  
with Veins and Arteries ; bus, in Process of Time, it decreases  
by degrees, tili, being exhausted of all its Moisture, it becomes  
so exactly like the littie Membrane in the Brain, called the Cho-  
Toides, as to pass upon the Unwary for the same, when taken  
Out. The Humour here reserved has nothing of Urine, but is  
something Very noble, which is spent upon the Foetus in the  
first Weeks, by means of peculiar Vesseis: And this is observa-  
ble of the Dog-kind, and many others, to whom Nature has  
added a Membrane for Services of the like Kind, tho' it he not  
always of the same Figure. For,

In a Coney this Membrane is large, and surrounds the whole  
Foetus, almost in the same manner aS the urinary Membrane in  
a Bitch ; and, at last, forms a Cavity under the Placenta, which  
seems appointed for the Urine. 'Tis almost in the Form of a  
Half-moon, and, being inflated, resembles the human Kidney,  
both in Shape and Size : It is variegated with Vessels, which, if  
accurately traced, will be found not to meet in a Collection at  
the Placenta, but to descend to the Cord; and from thence,  
perforating the Abdomen, to proceed to the Mesentery.

But there is a Question, of no less Difficulty than the former,  
concerning the Ingress of the Humour into this Membrane,  
which coinciding with another like Difficulty, usually started  
about the Amnios, we stall treat of them both together.

Our Account os the Amnios has been almost anticipated in  
our Discourse on the Allantois, and needs no other Description  
than saying, that it belongs to ail, aS well oviparous as Vivi-  
parous Animals, and is always supplied with Vessels from the  
UmbilicalS; the Liquor it contains is nutritious, and sucked by  
the Embryo, as was said before. It remains only to inquire by  
what means it is convey'd thither, as into a Reservoir, in order  
to supply the future Necessities os the Foetus ; a Controversy  
sufficiently perplexed, and which *Harvey, as Courvaus* writes,  
quite neglected ; either because-he saw too much Difficulty in  
, it, or none at all. *Courvaus* himself, and *Everhard,* account  
Jor.it by a Filtration through the Pores of the Membranes, and  
tell us, there is a Transudation of the Humour, first into the  
Chorion, and from thence into the Aminos. But these learned  
Men should have considered, that there is not the least Humour  
to he found between the Chorion and Amnios ; but whatever  
there is of liquid in these Parts,as all contained in the Allantois;  
and if there should be any Filtration from thence, through the  
Membrane of the Amnios, it is but reasonable, that there should  
be first a Collection of the same within the Chorion. This  
Argument is Very well urged by *lVharton de Gland,* to  
which I will subjoin another, that shall amount to a plain De-  
monstration, as follows : In a Foetus of the Horse-kind, the  
Urinary Membrane is every-where firmly connected to the Cho-

rion, , and even contains in itself the whole Foetus, with the  
Amnios, so that the Amnios swims in the Urine. I prove it  
to be Urine by the Smell, Colour, Taste, and its Communica-  
tion with the Bladder by the Urachus. . The Cose is the lame  
with respect to Dogs and Cats. Now I would ash of *Courvarus '*and *Everhard,* whether the nutritious Liquor must pass through  
the Urine, and so be mixed with it. If they will not grant this,  
there is scarce any other way but by the Umbilical Cord ; for  
in the Instance alledged, all other ways of Filtration are ex-  
eluded. .......

. But as to the Umbilical Cord, it is doubted, whether this  
Humour be convey'd through its Veins into the Blood of the  
Embryo, and afterwards, deposited by the Arteries in the Am-  
nios ; or, whether it descends by. the Jelly-like Substance of  
the Cord, and distils through the minute Papillae, or Asperities,  
into the Amnios. *lVharton* is for the latter way, which, indeed,  
seems Very probable to one who considers the Foetuffes of the  
Cow-kind, in winch there is a copious and thick Jelly, and  
whose. Cord is turgid, with a kind of glandulous Asperities, in  
that Part which swims in the Liquor of the Amnios ; so that  
one might readily conjecture, that this Cclliquamentum was  
squeez'd from these Glands. But when I consult comparative  
Anatomy, and examine the Structure of this Cord in other .-  
Animals, I am persuaded the thing is quite otherwise. For in  
the placentiserous Kinds, there is no such Plenty of Jelly grow-  
ing to the Cord, which, in Man, is thin, and runs out in  
Length, and must be judged very unfit , for any such Use, by  
every one that sees it. In oviparous Kinds there is no Cord at  
Siall,. but Vessels which spread over different Parts of the Foetus,  
and enter it; some near the Anus, others near the Liver, and  
the usual Place of the Umbilicus: Nor do they ever gather into  
a Cord ; but when the Time approaches for Exclusion of the  
Chick, the Left Artery, and Hepatic Vein, perishing, the rest  
of the Arteries,- with the Mesenteric Vein, and the intestinal  
Duct, are taken into the Abdomen, to supply the Vitellus:  
Now that the Colliquamentum of the Chick, with its Mem-  
brane, answers to the Amnios of Viviparous Animals, is not at  
all doubted; so that we may reasonably conclude, that they have  
hut one and the same way of receiving the Humour-

It will, therefore, be proper for us to inquire, in what man-  
ner the Liquor enters the Cicatricula in an Egg, and extends  
the fine little Mentbrane by degrees, till, at length, it becomes  
capable not only of a good large Foetus, but also of a consi-  
derable Quantity of Liquor.

. Whoever Views this Cicatricula in the Egg, hefore Incuba-  
tion, will perceive it very minute, and suspended in the Mem-  
brane of the Vitellus ; yet this so small a Tenement entertains  
an Embryo, and becomes every Day more spacious, till an  
entire Animal arises thence, and shews itself After two Days  
Incubation, as *Harvey* observed it, there will appear in it large  
conspicuous Circles, as big as the Nail of the fourth Finger:  
Within these Circles, aS the fame Author assures us, is con-  
tained a Liquor,’ extremely clear and refulgent, purer than any  
crystalline Humour, and appearing to he included within its  
own Very fine Membrane, like a Part of the Albumen melted  
and clarified. He calls it, by a Very significant Name, *Colli-  
quamentum.* It increases continually ; and on the fourth Day.  
presents you with the Phaenomenon of a purplish Border, with  
a small Line of a Illood-colour, - which is continued to the  
*Punctum saliens,* situated in the Centre. The latter Augmen-  
tations are the most conspicuous; bur the manner how it  
increases, is a profound Secret.

Whoever believes it done by Transudation, would do well to  
consider, besides the Arguments which are brought against this  
Opinion, from Viviparous Animals, and which prove, that there  
is.an Analogy between the Motions of their respective Liquors ;  
I say, besides these Arguments, he would do well to consider,  
how carefully kind and indulgent Nature has provided for the  
Secretion of these Humours ; and hew circumspectly and wari-  
ly she has, every-where, wrapt them up in fit and proper Coats:  
So that if, at any time, a Transudation was to happen, it must  
be made, not thro’ a single Coat, but the Humour must break  
out from its Inclofures, and make its way into the Interstices  
of two Membranes ; and then, at last, enter the Pores of  
another Covering. But who eVer saw any Liquor between these  
Interstices ? Or, to whet Purpose did Nature use so much Care  
.and Caution in separating these Humours ? Would it not, at  
least, have been sufficient, that they should have been separated  
by single Coats, thro' which they might have easily afterwards  
pass'd ? Besides, Twould have the Abettors of this Opinion to  
consider, that when Nature allows an Ingress into a Mem-  
brane, thro’ Pores of this Kind, she does not permit the Egress  
thro' the same Pores; so that the Humour which entered one  
way, must go out by another, and pass forward to another  
.Membrane, which would render the thing void and ineffectual:  
The Ducts, all this while, which lead from Membrane to Mem-  
brane, are not as yet conspicuous; nor are there sufficient  
Reasons suggested for suspecting them ; ’tis therefore incumbent  
upon us to cast about, and look out for some more rational and  
satisfactory HvoothesiS.

Vshat my own Sentiments are, I th-st now inform the  
Reader: That minute Animalcule, which I imagine is generated  
in the first Cooformation of the Egg, and lodged in the'Cica-  
tricula, contains a spirituous Liquor in its Vessels. This Li-  
quor is precisely the same with that which *Glijscni* fo often  
distinguishes by the Name of *Spiritus Vitalis,* or the vital Spirit.  
This Liquor, upon the Approach of Heat, takes up more Space  
than it did before, and so pastes off through the Extremities os  
the Vessels ; and whatever Part either of the White or the Yolk  
it falis upon, it colliquates and melts it. By this means the  
Part on which it falis, is render’d so fluid, that it is easily in-  
corporated with the above-mentioned Spirit, and together with  
it received into the Mouths of the Veins, which are not as yet  
red, and so pastes to the Foetus in greater Abundance than is  
requisite, either to nourish its Body, or to saturate the Blood,  
by which I mean the fore-mentioned Liquor. The Blond being  
thus impregnated with this Spirit, deposits it in the Arteries,  
.which are inserted into the Coat of the Colliquamentum, after  
the same manner as the Arteries are inserted into the *Amnios of*viviparous Animals; so that the Coat os the Colliquamentum  
is not only distended with this Juice, but deposits and lays up  
within itself the far greater Part of it as proper Store for the  
Foetus. These things appear very plainly in an Egg, and un-:  
less there be some Foundation for a different Set of Occur-  
rences in viviparous Animals, I fee no Reston why they should  
not likewise happen in them. It is not at the same time to be  
deny’d, but this Hypothesis stands chargeable with many Diffi-  
culties, and lies open to some considerable Objections ; two os  
the principal of which I shall only consider, since I imagine the--  
rest so nearly link’d to them, that they must stand or fell ac-  
cording to their Fate.

The first concerns the Mixture of the nutritious Juice with  
the Blood, which yet must be separated from it, and afterwards  
received into the Stomach, in order to be reunited with the  
Blood.

The other Objection respects that *elective* Motion of the Li-  
osior, which carries it to make its Ingress by the Vessels di-  
sperfedinthe Albumen and Vitellus, butitsEgrefs he those which  
are distributed over ths Membrane of the Colliquamentum.

To the first it may be answer’d. That the very seme Juice  
which serves for Nutriment in the Foetus, was once intimately  
united with the Mother’s Blond at least, after it had undergone  
the first Concoction in her Stomach ; which granted, I don’t  
see whet inconvenience will follow, if it should pass from the  
Mother’s Blood into that of the Foetus, and there leave what-  
ever is fit to be immediately converted into Blood, without  
any farther Concoction or Fermentation. The rest may. be  
reposited within the Amnios, as' Matter for future Nutrition,  
to make its Passage through the Stomach, and there to he di-  
gested. This will appear the more probable, if we consider,  
that here is no Retrogradation of Nature, or Degeneration of  
Blood into a chylous Matter, but a Transition of alimentary  
, Liquor for the Support of an Animal; which is no more than  
what happens in the Mother, both with respeil to the Humours  
Of the Uterus, and the Matter which forms the Milk.

To the second Objection P answer, Thet such elective Mo-  
tions are found every-where in the animal (Economy, with  
regard to the Distribution of Aliments as well as Excrements.  
So Milk always flows to the Breasts, the Humour we speak of,  
to the Uterus, Bile to’the Liver, Serum to the Kidneys. The  
Reasons for this similar Attraction, I am incapable of giving,  
but believe they are to be reduced to Pulsion; but it is suffici-  
ent for out present Purpose, thet such a Monon there certainly  
is, whatever be the Cause.

From whet has been raid, we may draw a Solution of an-  
other Question, which has been lately started, concerning the  
Use of the fourth Membrane belonging to the Dog-kind. The  
Answer is, That the Liquor there collectid is deposited in that  
Place, as in a Reservoir for the Use of the Foetus.

So much for the Membranes and Ducts. We shall add a  
few Words concerning the Humours.

All the Humours, let them be as many as they will, or in  
whatever Animal sound, are nutritious, except only the Li-  
' quor of the Allantois, A great Part of viviparous-Fishes emit  
an Egg of only one Colour, and including, as far as can be dis-  
cern’d in so minute a Body, only one Humour. But the Me-  
thod of Nature in their Generation, I confess, is unknown to  
me. But there are some Fishes which lay an Egg of two Co-  
lours, and consisting of a single Albumen and Vitellus; as the  
Ray. The Eggs of Birds, for the most part, include within  
their Shells three nutritious Substances, conspicuous to the Eye,  
for the Use of the Chick, that is to say, a Vitellus, and a  
double Albumen inclosed in Membranes. But after Incuba-  
tion, "we meet with a fourth, formed from a Colliquation of  
the others , and, by *Harvey,* very properly called *Colliquamen-  
tum.* I say nothing of the Chalaza, which is not properly a  
Humour: much less are the Seed of the Cock,-or the Prin-  
ciple of the Chick, to be fo accounted, hut only Props to the  
. Vitellus, which is suspended-in the Centre of the Egg. But  
the Colliquamentum, though it appears to Sight as imit were

transfer^d thither from someinther Place, most certainly owed  
its Original to the Liquor contained in the Cicatricula. I don’t  
here inquire, whether this be the Liquor which forms the  
Chick, or rather the Blood of the Chick already formed ; .but  
we knew, that from hence are extended Vessels, which being  
affixed to the other Parts, especially the Albumina, attracti the  
attenuated Humour, and refund it into the common Recepta-  
ole, in the manner just now explained. So the tender Embryo  
goes on wasting his Provisions, till the Albumina being con-  
sumed, the Vitellus comes to he included in the Abdomen of  
the Chick, just before its Exclusion; and from thence by a  
peculiar Dud! is carried inmi the Intestines', where it supplies  
the want of Breasts to those little Creatures, and affords them  
all their Nourishment till the twentieth Day.

\ In viviparous Animals there are sometimes two, 'sometimes '  
three Humours. The first is immediately received from the-Pla-  
cents into the Veins, and forthwith goes torheUfe of the Foe-  
tus. The others are alfo received into the Veins, hut are after-  
wards distributed by the Arteries into the Cavities of peculiar  
Membranes. In glandhliferous. Animals, as also in the Swine,’ -  
and the human Species, there is but oneHumour, which is lodged  
in the Amnios: That this Liquor is nutritious, has been proved  
from its being the same as is sound in the Stomach. It is thin at'  
*first,* but in Length of Time grows remarkably thick, especially"  
in the larger Kinds. Besides, there is found in all os them an  
Urine in the Allantois, of which I have given an' Account.

Besides these, there is in Dogs, Cats, and Coneys, and per-  
haps in some other Kinds, a third nutritious Liquor. I have  
already described the Membranes in which it is included, and  
now come to fpeak of the Thing itself; Indeed the admirable  
Variety in which Nature sports, surpasses our Understanding,  
nor can I find out a probable Reason why *a* third nutritious  
Liquor should be more necessary for thefe Animals than for  
others. Rumination affords no Help in this Controversy, for  
a Horse is as much destitute of it as ruminating Creatures ;  
nor is eating of Flesh to he regarded, for a Coney has it,  
while the Swine and the human Kind are without it, if Man  
is really to be accounted'among carnivorous Animals, which is  
to be doubted ; for tho’ aster the Deluge he obtained a Licence  
for eating of Flesh, he seems naturally constituted for living  
upon the Fruits of Vegetables, as appears from sacred History,-  
and the Strufture of the human Body., He has neither Teeth  
nor Nails like those of voracious Animals, nor any thing else  
in common with them. ' And as for the Swine, tho’ he loves'  
well enough to feed on Flesh, yet he is naturally more intent  
on turning up of Roots, and consuming *of* Fruits. But what  
shall we fay of the Coney, a Creature that feeds on Grafs and  
Herbs ? I know not, for my part; and yet it might. be sug-  
gested, that the Male Coney would almost constantly devour  
the young ones, if the Dam did mot hide .them; and, in  
reallty, if the Coney be compared with the Rat or Mouse,  
both of them carnivorous, there will be sound no great Dissi-  
militude as to their Membranes and Placentae. But this is  
merely' problematio, and too flight a Foundation for an Hypo-  
thesis. However it may be fafely affirmed of there Animals,  
that they are next akin to oviparous ones, in which an Artery  
and Vein proceed from the Mefentery, and are appropriated to  
a particular Humour. But there is this Difference, namely,  
thet the Vitellus, to which these Vessels belong, is consumed  
in the last Place, whereas, on the contrary, this Liquor in  
Dogs, *etc.* is the first that passes into Nutriment; and though  
it he copious in the Beginning of Gestation, yet before the  
Birth it is all gone, and not a Drop of it left in the Mem-  
brane. Hence, upon aright Computation, we shall find, that  
these Vessels answer to thofe of the Vitellus, and the Humour  
contained in them to the thinner Albumen; for the first Hu-  
mour serves for Nutriment to the Embryo, and to increase and  
strengthen its tender Stamina, till it becomes more sum, and  
able to digest a thicker Juice.

However this he, we shall proceed in our Discourse on this  
and the other nutritious Liquor, and say somewhat also con-  
cerning the Urine. ; This last is known to be separated thro’  
the Kidneys and the Bladder. The others proceed also from  
the Blond, and very much resemble its Serum. And yet they  
are fo far remote from the Nature of the sanguineous Serum,  
that being held over the Fire in a Spoon, they will not coagu-  
late, as the other constantly does. Nor will even the Colli-  
quamentum os the Egg itself concrete by this means, though  
constituted of Juices evidently liable to Coagulation: So much  
do the Humours differ from themselves, when consider’d be-  
fore and after Digestions, Percolations, and other Ways of  
Nature’s Cooking. All these Liquors, in Distillation, afford a  
soft, smooth Water, very like distilled Milk; and this Proper-  
2 belongs to the Liquor of the Allantois as well as the rest j

r as yet it remains in the mild State of the Serum of Blood,  
not having its Salts exasperated and exalted, nor betraying any  
Marks *of* a tartareous or saline Quality 5 even the veryNurfes  
observe, that the first Urine of lnfants is not in the least salt.  
But in the larger Kinds of Animals, while I was passing this  
Juice throueh an Alembic, there seem’d to me to appear a  
sinosi

*f*

small Quantity os volatile Salt in the Head. Coagulations at-  
tempted by Acids, succeed varioufly according to the Variety  
of the Humours. The Liquor os the Amnios of the Neat-  
kind, aster a Decoction os Alum injected, exhibited but sew,  
-Coagulations, and those Very tender, but os a remarkable  
Whiteness. The Juice' of the Allantois only became turbid  
like Urine; Spirit os Vitriol and Vinegar had less Effect on both  
os them, than Alum. v -

ι There are also spontaneous Concretions in the last Months,  
which are sound in both the Humours, but larger and more  
frequent in the urinary Membranewhich was the very thing  
that formerly suggested to me an Ocoaftom for reckoning this  
Juice among the nutritious ones, as tho' it did nor pass from  
the Bladder to the Allantois, hut from the Allantois to the  
Bladder, and from thence through the Penis'into, the Amnios,  
But after long, and various Contemplations on its Colour, Con-  
sistence, Smell, andTaste, in different Animals, I am convinced,  
that it is nothing but Urine, in all *of them.* - But it seems to  
the consequent from the Nature of Concretions,; that the Urine  
of sound Persons brings off with it some of the. nutritious  
-Juice, which the famous *Willis* very ingenioufly conjectures  
to be the Matter of the Hypostasis. This is done much more  
Uopioufly in an Embryo, where the. Blood is full of fuch Cor-  
puscles, and consequently sends off more with the Urine,  
which, after long Maceration in.the Urine, concrete, and repre-  
sent such a sort of Substance. .

This more frequently happens in the Urine than in the Li-  
-qnor of the Amnios, because this latter undergoes continual  
Alterations, Part *of* it being still consumed by the Foetus, and  
'the rest mixed with new,, so that the whole Juice is renewed  
in a short Space of Time; whence it appears, that it does not  
stay long enough to form Concretions: μ . ς

But even here are also found adipout Coagulations, which,  
for the most part, adhere to the Membrane itself. Urine, on  
the contrary, tho' it has sewer Particles of this Kind, which  
are the Matter of the solid Parts, yet it preserves them from  
their first Entrance to the Birth, and by a continued Con-  
coction at length condenses them.

Nor are these Membranes the Receptacles only of. Liquors,  
but contain also a good Quantity of Air. This is abundantly  
evident to those who are accustomed to dissect these Parts,  
and frequently lift those soft Membranes with their Hand,  
whilst not at all distended, and find considerable Cavities be-  
tween them and the Humours they contain, which must not  
be supposed to be a mere Vacuum; Besides, the Crying of the  
Child declares the Presence of the uterine Air, without which  
:it seems impossible for a Sound to be excited. Indeed I could  
hardly be persuaded of the Truth of these Cryings, before I  
had the following Relation-from .a Very noble Lady in *Cheshire.*This illustrious Person-sitting with her Husband, the Chaplain,  
and other Company, in her Parlour, after Supper felt a strange  
.Commotion in her Belly, which shook her. Cloaths to such a  
Degree, that it was perceived by the Attendants.. She was  
with Child, and in the eighth Month of her Term. On a  
sudden a Voice was heard; but whence it should proceed,  
-Laying no Suspicions of the Unborn, they were at a Loss to  
conjecture. Soon after, the Lady was seized with a second  
.Disorder, and a visible Concussion of her Belly and her Cloaths,  
'and a Cry was heard aS if it proceeded from thence. While  
the Company stood wondering, and talking to one another  
about this strange Event ; the same was. renew'd the third  
time with all its Circumstances, and the Crying heard so plain,  
that the People, who were now Very attentive, could no longer  
-doubt whence it should proceed.. The young Lady, who was  
fo audible in the Womb, is now living, and in a good State of  
Health. I could not but believe a matter of Fact so well at-  
tested, nor avoid publishing is, especially since it isos so great  
Moment in the present Controversy. Granting this to be true  
then, I know not how to account for it, without admitting  
Air to -swim on the Liquors within the Membranes, when  
they were raised by the Head of the leaping Foetus, and sepa-  
rated from the Superficies of the Humour;

But why should we account the Crying of the Child in the  
IJterus'a -Prodigy, when we so frequently hear the Chick piep-  
ing in the. Egg; as well before the Shell is broken, as after-  
wards, the Membranes still remaining entire ? *Needham de for..  
matoFceiu.*

*- Monroe* in the *Edinburgh* Medical Essays,. has a long Disser-  
tation of the Nutrition of the Foetus, wherein he endeavours  
to prove, that none of the Liquor of the AMNIos enters -the  
.Stomach of the Foetus for its Nutrition.

*From, ihe Memoirs and History of the Royal Academy of  
Sciences.*

The Amnios is a Very fine; transparent, and soft Membrane,  
of an uneven Surface on the Outside, but (leek and smooth on  
The Inside. It incloses the Infant, the NaVelstring, and the  
Waters, is one of the Membranes that covers the Placenta,  
and ends at the Navelstring, near the Place where the Vessels  
separate. *Memoores de sc dead. Roy. des Sctejtc.* 1714.

With regard: to the Waters inclosed in the Amnios, it is im-  
possible for the Child to suck them in for want of Respiration;  
besides, they are too clear, and too like Urine, to serve for its  
Nourishment. They are of Usein preventing the Weight os  
the Child, and the Inequalities os its Body from bearing, hard  
on the Neck of the Uterus, in its Situation in .the. Uterus.  
They defend the Child from receiving Hurt when it moves,  
and also prevent it from adhering to the -Amnios. *Ibidi,*

Some experienced Anatomists have -taken great Pains, , tho\*  
to little Purpose, and stretched their Imaginations to discover  
by what ways the Liquor of the Amnios is conveyed over the  
urinary Membrane. . ...

. .. Mt *Taifory* had recourse to a new Expedienti He supposes,  
that.the Cavity, of the Amnios was full at the very Beginning  
of the Formation, when as yet the Foetus had no Urine to  
transmit to the urinary Membrane. . .. Ἄ. dur

The Amnios being full, and the Foetus grown stronger, the  
urinary Membrane begins to sill in its Turn; and .the Amnios  
receives no fresh Supply, but keeps what lit has in Reserve, dis-  
pensing by little and little what is necessary for the Nourish;  
ment of the Child till the Time of its Birth.. An Observation  
which confirms this Conjecture, sis, that the Amnios is less full,  
and .the . urinary Membrane fuller, in, proportion to the Ad-  
vancement of the Foetus. If this be not a Contrivance of  
Nature, it is. mysterious and sine enough to deserve it should  
he so. *Hist, deistAcad. Roy. des Scienc. i6gg. .*

- Over the middle Membrane comes the Amnios, which ad-  
heres to it in all: its Extent, and in so close a manner,' as to  
require some Pains to separate them. This makes me believe,  
that .there is no such thing as Urine, between the two Mem-  
branes, as some Authors have imagin'd ; for if there were any  
Urine, which is dissipated at the Birth,, there could be no such  
Adhesion between these .two Membranes. The Cavity form’d  
by the Amnios contains a Liquor, in which is the Fcetus with  
its Cord ; so that the Amnios does not immediately inclose the  
Child, as some have asserted. *M. Rouhadic in Mem. de sc Acad..  
Pay. des Science jiyfr. .*

AMNIS. See AMNX. v .

. AMO IE, ἀμοιή. *Galen* explains this *moderate.* But Hise-  
*ihius* says, that αμοιος, amongst the *Sicilians,* signified *bad.*

AMOLYNTON, ἀμολυντον, from α Negative, and μολήνῳ,  
io pollute, or make dirty. *Coelius Aurelianus, Acut. Lib. 2.  
Cap.* informs us, that this Name is given ‘to a topical Ap-  
plication,, which, if handled, .will not defile the Fingers. .  
- AM0ML *famaica* Pepper is thus called by *Dutch. .*

AMOMIS, a Fruit somewhat like the AMOMUM. It is  
called also PSEUDAMOMUM. See AMOMUM.

AMOMUM. The’ *Dioseorides* has been very particular in  
his Account of the Amomum, the Moderns have not only  
been'much perplexed in determining what the true AMoMUM  
was, but are not certain,, that any such thing as the Amomum  
Of .the Antients is now existing, or, at least, known to us,

, The Account which *Dfoscortdes* gives of it, is thus :  
Amomum is a small Shrub,, that nows twisting its woody  
Stem into the Form of a Bunch of Grapes. It bears a small  
Flower, like that of the Leucoium, and Leaves like those of  
Bryony. *Armenian* is esteem’d the best Sort, which is of a  
Colour.inclining to. Gold, of a yellowish Substance, and re-  
markably fragrant. The *Median* is weaker, as growing in flat  
and watry Places. This is a large Sort, of a greenish Colour,  
soft to the Touch, of a fibrous Substance, and smells like Ori-  
ganum. What comes from *Pontus* is of a yellowish Colour,  
short, and not difficult to break, clustered like a Bunch of  
Grapes, full of Fruit,, and very odoriferous.

Chuse what is new, and white or reddish, not the close and  
connected, but what is of a loose and diffused Substance, full  
of Seed, and like final! Clusters of Grapes, ponderous, ex-  
tremely fragrant, free from Worms or Mouldiness, acrid, and  
biting upon the Tongue, of one simple Colour, not parti-,  
coloured...

. It is of a heating, drying, astringent, hypnotic and anodyne  
. Quality, is apply so in manner of a Cataplasm to the Forehead.

It ripens and discusses Inflammations and Melicerides. Used in  
a Cataplasm with Ocimum; it helps those who are stung with  
.Scorpions. It is good for gouty People, and helps and miti-  
gates Inflammations, in the Eyes,- and also in the Bowels, if  
taken with drysd Raifins. It is of Service in Womens infirmi-  
ties, used either as a Pessary,.' or by way os Ju session. The  
Decoction of it is Very proper to be drank by inch as labour  
under Infirmities of the Liver, or Kidneys, or the Gout. It  
is also an Ingredient in Antidotes, and the most costly Oint-  
’men Is. ,

-« Some have got a way of adulterating Amomum with what  
they call *Amomis,* which is a Plant, that refembles Amomum,  
but has no Smell, and bears no Fruit. This grows *iD Armer,  
nia,* and produces a Flower like Origanum.

In chasing such Kinds os Simples as this, be sure to avoid  
Pieces or Fragments, but take the whole Plants as they spring  
from one Root, entire with ail them Branches. *Dioseorides,*Lib. I. *Cap.* 14.

From *Plinfs* Account of the AMOMUM, we dan only inter,  
that the Berry-bearing Ever-green, winch commonly goes by  
the Name of *Amomum Plinii,* is neither the true Amomum, nor  
the Plant which *Pliny* alludes to ; and that PZherdid not know  
himself, what the Amomum really was.

The GrapeofAmomum, hesays, isinUse,which grows on the  
*Indian* wild Vine, or, as others have imagined, on a Myrtle-  
like Shrub, an Hand's Breadth in Height. It is gathered with  
**the** Root, and packed up in small Parcels in a gentle manner,  
being extremely brittle. The most valuable is, what has Leaves  
nearest resembling those of the Pomegranate-tree, not wrinkled,  
and of a russet Colour. The next in Goodness is, the pale-  
coloured ; the herbaceous is worse, and the white worst os all,  
which Colour it aifo takes with Age. it grows in that Part of  
*Armenia,* which is called *Otene,* and in *Medea,* and in *Pontus.*They adulterate it with Pomegranate-leaves, and liquid Gum,  
io make it stick together, and roll itself up in the Form of a  
Cluster of Grapes. :

There is also what is called *Amends,* which is less Veiny, but  
harder, and less fragrant ; whence it appears to he another thing,  
or to be gathered hefore it is ripe. *Pliny, Lib.* 12. *Cap.* I 3.

Amomum is endued with the same Virtues aS the AcoruS ;  
only the Acorus is drier, and the Amomum the better Di-  
gestive. ' *Ortibas. Med. Coll. Lib. 15. Cap.* I.

*Salmasius* has, with a great deal os Learning, endeavoured to  
shew the Difficulty of knowing whet the true AMOMUM of  
the Antients was; and to prove, that none of the different  
Plants winch have been taken for it, was the antient AMO-  
MUM. ,

. Concerning Amomum, says he, there is much Dispute; for it is  
hot only doubted what it is, but whether ithe really existing; for  
the old Plant of that Name, which we are satiniy'd was for-  
merly in Being, has been eagerly search'd after by our modern  
learned Botanists, but not found. In so doubtful a Case, it is  
however certain, that the true Amomum is not what is sold  
.under that Name mine Shops. I should much wonder, that  
an Aromatic, so noted and celebrated in former Times, should  
he now out *of Knowledge,* did not. I find, that several others  
-of the spicy Kind, winch were formerly of equal Use and  
Esteem with Amomum, lie conceal’d at present under the  
same Obscurity. It is much easier to tell whet it is not, than  
-what it is ; for the latter is out of .our Power, since nothing  
in our Times appears any-where winch we can call Amomum,  
whatever may be pretended.to the contrary, *fulius Scaliger,*in his Notes upon *Theophrastus,* confidently affirms it to he  
what they commonly call the *Rose of focicho,* whose Want of  
Fragrancy must be imputed to the Nature of the Place where  
it grows. Many, hefore and since his Time, who were of  
the same Opinion, have been exploded by others; for, he sides  
other disagreeing Characters, this *Rose of Jericho* is tough and  
flexible; but the Amomum, as *Pliny* assures us, is extremely  
brittle. Hence there were two Sorts *of* it sold at the Spicery-  
shops; one whole, or in the Cluster, the other crumbled into  
small Bits and Dust. And they bore a different Price ; for, as  
the same Author affirms, the Price of the former was sixty  
Denarii, of the other but forty-nine. *Andromachus* the elder,  
. in the Composition of the *Thcriaca,* calls it Βοτρὑοεν ἄμωμον,  
‘"the clustered Amomum,'' in this Verse, which I read  
thus: .

Καἰστύρακος,μήουπὸἰδὲ βοτρυοεντος ἀμιάμα\*

" And of Styrax, and Meum, and Amomum in Clusters; "  
and *so Dame crates,* in many Places of his Iambics, aS he is quoted  
by *Galen,* has βότρυος τ’ ἀμώμου, that is. *Uva Amomi,* the  
" Grape-like Cluster of Amomum." So in the Author of the  
Poem upon the Phoenix:

*—— Uvamque procul spirantis Amomi,*

- The Grape of the Amomum diffusing distant Odours."

The Words of *Pliny* are to be read. *Amomi Uva in Usu, ex  
'Indica Vite labrusca-, nt alii existimavere. Frutice botruoso.*

The Grape of the Amomum is in Use; it comes from the  
*" Indian* wild Vine, or, aS others imagine, from a Cluster-  
" bearing Shrub.'' But none eVer said, that Amomum was  
the Grape of the wild Vine, or was of the Kind of the *Indian*Vine. *Dioscorides* indeed says, that it had Leaves like Bryony,  
That is, the white Vine ; but none ever heard or read, that it  
was the Grape of a Vine. What they call the Grape in Amo-  
\* mum, is nothing but the littie Branches of the Shrub, twisted  
and interwoven in the Figure of a Cluster os Grapes, and, aS  
*Dioscorides,* Βότρυς ἐκ ξύλου ἀντεμπεπλεγμὲννος εαυτῳ, " a  
" wooden Classes, complicated and rolled up within itself "  
'Such exactly is the Shrub of the *Rnso of siericha,* winch is  
actually botryous, or shaped clusterwise, the stender Branches  
'being twisted up .in Folds one against another, in manner of a  
Bunch of Grapes. But, for ch rhar, tho *Rasa of J eriche is*not Amomum ; it should rather be ή άμωμάστ, "the Amomis,''  
which was harder than Amomum, had no Smell, and, accord-  
ing to *Dioscorides,* was used in adulterating Amomum; to  
which *Pliny* adds, that it was not so full of Veins as Amomum,

but harder; and *Dioscorides* makes it have a Flower like Ori-  
ganum. Nor indeed is the Flower of the *Jortiho* Rose much  
unlike it in Figure; but then the Rosie of *Jericho* has a Seed,  
whereas the Amomis, according to *Dioscorides,* has none.  
*Pliny* gives the Amomum the Leaf of the Pomegranate-tree;  
*Nuam maxime laudatur Punice rnali Foliis similes* p- They set  
" the highest Value, says he, on what has Leaves like the  
ii Pomegranate-tree.” Why does he reckon this among the  
good Properties of the best Amomum, is Nature gave it fitch a  
Leas ? All the *Greeks* tell us it had a Leaflike Bryony : *Isidore,*one of them, says, *Flore albo velati Violee, Foliis similibus  
Bryonia.* " It has a white Flower like the Violet, but Leaves  
" like Bryony.''

*Pliny* was deceiv'd by his own Eats; *for when his* Anagnostes  
[Reader] happen’d to be reading κάλλιστον ἐστιν Ἀρμἐνιονχρύσιζον  
.τῇ χρῥα, " the best is the *Armenian,* which is of a gold Co-  
" lour,'' he wrongly sancy’d, that he heard ομοιον or παρα-  
ιπλήσιον τῇ ῥῥα, " like, or much resembling the Pomegranate-  
." tree." Hence he came to render it. *Laudatur quam maxime  
Punici rnali. Follis simile. ί 1 The* most valued, *etc.”* Hesays  
nothing of the golden Colour of the Leaf; which is an Argu-  
ment, that the .Words sounded in his Ears like ἰσαζον or ιπέζον  
τη ρῥα, *[isuzon* or *ilsuson teroa]* " resembling the Pomegranate-  
" tree," instead of χρήοϊζον τῇ χρῥα, *[clorysixon te chroa]* " of  
-" a Colour like Gold." Of this I don't in the least doubt.

It is a long time since the genuine Amoinum began to be  
miffed. The *-Arabians* write nothing about it but what they  
.transcribe Word for Word from the *Greeks.* They call it *Ha-  
mama,* a Word plainly deflected from Ἄμωμον, " Amomum.”  
*Serapion,* in the Description of Amomum, quotes no *Arabian*Authors, but only *Dioscorides,* whose Words he transcribes ;  
and *Avisena* says no more of it than is in *Dioscorides.* But as  
to that Passage in *Dioscorides,* where he fays, that Amomum  
has a small Flower ως λευκοιου, " like the Leucorum ; the  
*Arabians* seem to have follow'd another Reading, or not to  
have understood what was the λευκοῖον, " JLeucoiuin." Tlie  
Tran flator of *Serapion* gives us a monstrous Version , wi thout -  
any Explication : *Habet. Florem parvum, similem Flori Planta:  
docta LocadanP* It has a small Flower, like the Flower of the  
" Plant called *Locadan” Cremonensis,* the Tranflator of  
*Avisena,* seems to have follow’d another aS bad a Copy, when  
he renders, *Et habet Florem similem Flori Indo. Bellunensis* in-  
deed made a Correction of it in the Margin, by *similem alba  
Violae* ; but this he took rather from *Dioscorides,* than from  
any *Arabian* Author ; for the *Arabic* Words of *Avisena* found  
nothing like it, but, according to the Edition at *Rome, use to*be render'd, *Et ei Folium magnum Hared*; " And it has the great  
" Leaf of Hared," the *Arabic* Word signifying not a Flower,  
.but a Leaf; and is soon after taken in that Sense, where the  
Leaf of Amomum is compar’d to those of the Vitis Alba;  
*Avisena* fays nothing of the Flower of Amomum in that Place,  
nor *iB Hared* the Name of any Flower or Herb that I know of;  
but comes from a Verb that signifies to *delate* and *extend,*whence *hared* is *broad* and *extended.* Wherefore I suppose, that  
*Avisena* says, that the Leaf os Amomum is great and broad,'  
and like the Leaves of the white Vine; for that is the plain  
.Meaning of the Passage in the original *Arabic,,* which ought to  
.be thus render'd. Word forWord, *Et ei Folium magnum, latum,  
ei in similitudinem Foliis Vitis albes, ci* And it has a Leas, *et est\**There is no mention here os a Flower, for this'was omitted by  
*Avisena.* I wonder therefore whence the Tranflator could fish  
Out his *Indian* Flower, to be compar'd with the Flower of  
Amomum. Besides, there is not the least Syllable said in the  
*Arabic os* the white Violet,, which the *Arabians* call *Cheiri.*The Tranflator of *Scrapion* also renders the Word *iiamama,*deriv'd from Amomum, by *Pes Columbinus, “* Doves Foot,”  
. which some were so fond os, that they did not scruple to  
affirm, that the Amomum of the Antients was the fame with  
the Herb commonly called *Pes Columbinus.* This, among the  
rest, was the Opinion of *Garcias,* a Man Very little shill'd in  
*-Arabic,* tho' he conversed all his Life-time with *Arabians.* He  
telis us, that he was informed by a certain *few* Apothecary.  
that Amomum was called in the *Arabian* Tongue *Harnama y*.but this Word signifies, when interpreted,. no other, than Pes  
- Columbinus ; nothing can bo more wrong. A Dove, 'tis true,  
.is called in *Arabic Hamam,* but Amomum has nothing to. do  
with a DoVe, or Dove's Foot. *Garcias* adds an Argument to  
-confirm his interpretation, which is, that he was presented  
with a ^Branch of Amomum by the *Persian* and *Turlcifit* Physi-  
-cians, who-officiated about the King *Nizarnoxa,* which to the  
Lise resembled the Pes Columbinus ; and besides exactly agreed  
with the Description of Amomum, which is in *Dioscorides.*Mere Fables l and all that is said about the Pes Columbinus no  
more than Trifling, and nothing to the Purpose. I am at a  
-Loss, I confess, to imagine how the vulgar Herbalists came to  
hammer out this Word. *I* have heard, indeed, that so they  
call a Species of the Geranium, which has the Leaf of the Mal-  
low. But the Herb th which *tiae Arabians* give this Name is  
quite another thing ; for they bestow it on the περιστέριον, or  
-περιρι» ερεῶν of the *Greeks.* Thin is called by them *rigidalha-  
mam.*

*mam,* that is, *sue Foot of Doves,* hecause of the *Greek* Name  
*Periflcrion,* εκηϊτάς περιστερὰς ήδέως ἐνδιάτριβεινἐνἀυτῇ,." from  
" the Doves delighting to be much about it." Hence it came  
to he call’d by the *Arabians Doves Foot. Apuleius Pfeudony-  
rnus* also cash it *Columbina,* " Columbine,” and says it is  
pleasant Feed for Doves. Indeed an *Arabian* Botanist renders  
the τὸ περιστἐριον, [Peristerium] in an old *Dioscorides,* by *rhai  
alhamam,* that is, *the Food of Doves.* There is mention made  
.of this Herb in *Avisma, Lib.* I I. which he imagines to be also  
called, *rhai alabil,* that is, *the Food of Camels.* An old Inter-  
preter renders it *Chasse,* for what Reason I know not. *Anisina*himself, I am sure, lays it is an Herb, that has Seeds like Grains  
os Myrtle : He uses the *Arabian* Word *baxis,* which signifies  
*Chasse, Stubble, qt Hay.* However this Herb is not absolutely  
to he called *Palea,* " Chaff.; " sor the Word in *Arabic* signi-  
fies any Herb. Whether, it be ths Peristerium of the *Greeks,* I  
know not. It has a Virtue ofmitigating Ulcers -that are suhe  
ject to spread, is apply'd with Vinegar ; but more properly it  
is not the same.. There is another Herb, which, among the  
same *Arabians,* .is called the *Pabulum Cameli,* or *Pastus Ca-  
meli,* the Food of the *Camel.” Garcias* writes, that the  
Junctts Odoratus is so called. *Scaliger* on that Passage observes,  
that it is named in *Arabic halas.algernaii* ; but I sancy he rather  
imagin'd that it was so from the Words of *Garcias,* than read  
the same in the Writings of the *Arabians.* The same *Garcias*informs us, that this Juncus was called by the same *Arabians  
Palea,* " Chaff," or simply *the Herb, in Arabic sialaf* AS  
for the Peristerium, the *Arabian* Herbalist is in the wrong to  
make, it the same with that Herb which *Anisina* points out to  
he the Food of *Doves,* or os Camels ; for this is the *Perbenaca,*p- Vervaln,"'of the *Latins so* and is called *Cosumbaria,* and also  
*Columbina,* ςς. Dovewort,’'.by the *Latins* os later Ages. The  
*Arabians* also said *harnama,,* and a Very good *Graco-Arabic*Glossary has χάμαμα, περιστερεῶό, " Chamama, Peristereum.?'  
This Paragogic Form is to be found in many other Words; aS  
*Curcum,* Sauron, *Curcuma,* Turmeric, a Saffron-colour-'d Root ;  
*Selach,* the Bark, *Selicha,* ὑ συρ/γγἰς κασία, " Cassia cover'd  
" with the Bark.'' So *Harnama* is the Herb *Columbaria,* not a  
Dove, as is generally thought by the Learned. This Noun dif-  
fers not in Pronunciation from *Harnama,* which signifies Amo-  
mum, but Very much in the mariner of Writing ; for this latter  
is written with an *Elis,* in: the last Syllable, but the other with  
a *He* marked with two Points, which carries the Force of *Th.*Hence then proceeded the Mistake of those.who by Amomum  
Understood to be meant *Pes Columbinus. , ...*

In the same *Greeco-Arabic* Lexicon or Glossary, you may  
read various Expositions of Amomum, which are a full Con-

i firmation of its being unknown eVen at that Time. , Ἄμωμον »  
ῥίζα σίν πεὑταφύλλου. " Amoinum is the Root *of* the Cinque-  
" foil." Also Ἄμωμον ετερον Ἄδικον, οι κλάδοι σίν κιναμώμου.  
" Another Kind os Amomum is the *Indian,* which is the  
" Branches of the Cinamon-tree.'' This is an old Interpre-  
ration ; for *Avienus Festus* understood τὸ κινάμαμαν, " Cina-  
" mon,'' in *Dionysius Periegetes,* to signify Amomum.

*Ales amica Deo largum congessit Arnornum.*

The Bird heloved by the God piled up a large Quantity of  
" Amomum.'' The *Greek* Poet has it, .... ‘ \*

^Ηλθον φύλλα φέροντες ἀκηρασίῶν κιναμώμων.

" They came bringing Leaves of pure and unmixed Cinamon.'\*  
*HosechiUs,* in his Lexicon, observes, that ἄμωμον, " Amomum,  
" fignisy'd also Frankincense." Ἄμωμον εν ταῖς ὁνομασίαις o  
λιβανωτος. " Amomum, in the Lexicons, is Frankincense.''  
The same Author expounds κινάμωμθν, " Cinamon," by τὸν  
Λιβανωτὸν, τὸ λιβάνιον, two Words signifying Frankincense.

Some are of Opinion, that the Amomum of the Shops is the  
Seed of an Herb, which in the editions of *Dioscorides* is called  
by Mistake Σίσων, [SIseofJ instead of *Stray, which* is the Word  
in all the antient Copies. - Σἰνων σπερμἀτιον εστίν εν 2υρίῳ γενώ-  
μενον. " Sinon is a small Seed that grows in *Syria”* The  
Glosses latrics on this Passage say Συνων ειδος ἀρωματικὸν,  
ἐοικὸς ἀνίσῳ. “ Sinon is a Species of Aromatic like Anise.'\*

*Lucan, Lib.* IO. joins Cinamon with Amomum; and in **so**doing, confutes those who make Amomum to be tho same with  
Cinamon.

*Cinnamon infundunt, quod nondum evanuit Aura,  
Advecturnssiue recens vici nat Mejsis Amomum.*

' ." They infuse Cinamon Unexhausted of its Odours, and  
" Amomum fresh gather'd, and brought from the neigh-  
" bouring Harvest. " Whet, was it gather'd in fuch Plen-  
**ty, as** to deserve the Name of a Harvest? Or does he al-  
lude ψο the etymology of Amomum, as tho' it took its Name  
ἀπὸσίνἀμἄν, *a metendo,* " from reaping ? " Neither of these  
Conjectures, to me, seems probable r But it was usual with the  
. Poets thus to speak when they talked of Spices, as *Quaeticquid  
metunt Arabes beneolentibus Arvis,* " All that the *Arabians*" reap from their fragrant Fields." And in *Propertius, odo-  
rata Cultor Arabi Segetis,* " the *Arabian* CultiVater of the

" scented Crop.'’ For they take their Spices to he: their  
Harvest ; whence *Pliny* says, that the *Arabian* Fruits consist **of**Spices, and even calls the gathering in of their Frankincense a  
Harvest, *Lib.* I2. *Cap.* I4a where speaking of Frankincense  
he says, *Mali semel Anno silebat - minore Occasione vendends':*" They used to reap it once a Year, when there was less **Op-**" portunity of selling it.” And hy-and-by he calls it *Vinde-  
miam,* "a Vintage.” The same Author says os Cardamom,  
*Metitur et eodem modo in Arabia,* " They reap it after the **same**fc manner in *Arabia. \* Meleager* of the J uncus Odoratus:. '

—Ἐυώδη σχοῖνον ἀμησάμενος.

" Having reap'd the fragrant Rush." But this is by-the-by.'  
To return, ..

*Virgil* seems to have taken Amomum for a Grape, and. **the**Fruit of the Vine, in this Verse r

*—fcrat et Rubus afper Amomum. .si*

iC And let the prickly Bramble produce Amomum." The  
Bramble bears its Fruit in Clusters, and the Poet would have  
the Bramble for Its Fruit produce Amomum. 'Tis. plain, that  
he intended the Amomum should be taken for a real Grape  
and Fruit; but it in a Shrub, which, by the Implication and  
Convolution of its small Branches represents the Figure os a  
Cluster of Grapes, and is gather'd with its Root. .In another -  
Place he calis it *Afsiyrium Amomum. Servius* in one Pisce calin  
is a Flower, in another an Herb of a most pleasant Scent. . By  
*Ajserian* the Poet means *Median. Pliny* says, that it grows  
in a Part of *Armenia* called *Otene,* and in *Media,* and in *Pon-  
tus.* Ώτηνἤ, " Otene," is that Part os *Armenia* which lies  
about the River *Cyrus.* What grew formerly in so many.  
Places, IS now no-where but in Name.

*Theophrastus* says. That Amomum, in the Opinion of some,  
was also brought out of *India : To* δέ καρδάμωμον καὶ ἄμωμον *it  
gulv Ιχ.* Μηδίας, *ot Ai ill Jy/ων* καὶ ταῦτα καὶ τὴν νἀρδον. (i Car--  
" damom and Amomum, some say, are brought out of *Mediae*" others affirm, that we thave both these and Nard from the  
*" Indians." Ovid,* like a Poet, fays, that the Bird Phoenix  
lives on dry Amomum ; therefore it must be a Native *os Arabia*or *India.* , But *Dioscorides*, makes no mention of the *Indian*Amomum, nor does any other of the An tients hesides. *Diosco-  
rides,* among other Characters by which the *Pontic* Amomum  
is distinguished from the rest, describes it as *is* δύσθραυστον,  
" not difficult to be broken." Therefore the other Sorts of  
Amomum are δήσθραυστςί, " difficultly broken." This, is  
directly contradictory to *Pliny,* who says, that it is *protinus  
fragile,* " Very soon broken ; " for which Reason it is gently  
and leisurely made up with the Hands, , that it might not be  
broken; for the Passage must he read thus: *Carpiturque cum  
Radice, manu paulatim levitcr componitur protinus fragile.*\*e It is gather'd, with the Root, *etcst* Mention is also there  
made of the *friatum Amomum,* the crumbled Amomum,''  
which also was Valuable. It was so brittle, it seems, as to be  
crumbled. But *Dioscorides writes* of the *Pontic* Amomum, .  
Τὸ δὲ Ποντικὸν ήποκιῤῥον, οὐ μῳκρὸν, «δὲ δύσθραυστον, *fisuurisus,*πλῆρες καρπῆ. ." The *Pontic* is reddish, not long, brittle,  
" cluster’d, full of Fruit." Wherefore the two former Sorts,  
the *Median* and *Armenian,* are δήσθραυστα, not brittie/'  
*Quid* speaks of the Powder of Amomum,

*et Amomi pulvcre conde,*

" and lay him in Powder of Amomum." But the Question  
is, whether this Powder was made of Amomum by pounding or  
crumbling. Cassia and Cinamon were also pulverized, but  
by means of pounding only, not by crumbling *[prita tanturn,  
nons.riatasp*

Amomum was fold by the Colour-sellers not only in the  
Grape, but, as it appears, also in Powder. And perhaps  
*Pliny* imagin'd, that this Powder was the Produce of the  
crumbling of Amomum, from whence he conjectur'd, that it  
was Very brittie, or rather friable. *Dioscorides* does not say so  
much as this eVen of the *Pontic :* . He says that it was not  
δύσθραυστον, " hard to break ; " but it does not follow, that it  
was easily friable, because it was not difficult to he broken.  
Many things which are brittle, are not friable. The ἔυθραυστον,  
" easy to break,” of the *Greeks* is different from their ἔυθρυπτον,  
" easy to crumble." Γ have no Faith in *Pliny,* being certain,  
from an infinite Number of Places hesides, that he is not to be  
depended upon for one single Matter. From a preconceived  
salse Opinion, that the Leaves of Amomum were like those  
of the Pomegranate-tree, he says, in the fame Passage, that it  
was used to be adulterated with Pomegranate-leaves, and liquid  
Gum, that it might stick together, and roll itself up in the  
Form of a Bunch of Grapes. According to this Opinion,  
Amomum might be no more than a Parcel of Leaves conglo-  
bated and convolv'd, or rolled up. Yet *Dioscorides* has no-  
thing about the Leaves, and 'twas the Shrub itself, not the  
Leaves, that composed the Cluster, βότρυς ἐκ ξύλωνν " the  
‘‘ Cluster consists of the woody Substance/' And as *Avisena*fays, speaking of this feme Amoinum, *hunlcud min chixeb.*

**" the** Cluster or Bunch is of Wood.'' So that this Cluster  
consisted os the small ligneous Branches roll'd up within them-  
selves. ...

On the fame Authority depends **the** Assertion in **the** same  
Place, that the Cardamom was like the Amomum, both in the  
Name, and in the Shrub. He might as well have said, that  
the Cinamon too was like Amomum. For as to the Name,  
Cinamon *\Cinnamomumy* is as much like Amomum as is  
Cardamom, but neither is the Shrub of Cardamom at all like  
that Of Amomum. Indeed if., the Smell answer’d, and the  
Shape of the Leaves, there would be nothing wanting in the  
*Jerusalem* Rose to make it pass for the true Amomum, .The  
Shrub is about a Hand’s Breadth in Length, shoots forth several  
Branches from its Root, which are reflected and conglobated'in  
filch a manner as to represent a Cluster, which incloses a Multi-  
tude Of Seeds, as in a Spike, that .stick to thefmali Branches or  
Sprays, like Grapes .in a .Cluster... *Isidore* savs. *Amomum Frutex  
est in Syria et Armenia nascens b'otrofum Semen reddens sibi con-  
nexum.* ." Amoinum isa Shrub ‘ that grows in *Syria-* and  
*" Armenia,* and bears a Seed connected-in manner os ^Cluster  
" Of Grapes." I- have two of these Roses pow by me; which  
heing compared with the Description of Amomnm; seem, to  
me, to represent it in a lively manner. '-Tis certain, that of  
all the Things obtruded upon us for Amortiuni; there is nothing  
that agrees better withit. As to the Smell, it. might be an-  
swerlu,’ that this is a Quality which'depends on the native Soil;  
So the common Oenanthe, and the Attic itself, have no Smell;  
'tis only the- *Cyprian* Oenanthe, os which they make the Un-  
guentum Oenanthinum, that carries-a Fragrancy. Yet the  
Country of *Pontus,* which is colder than .juu/ind, produces the  
most -fragrant Amomum,- καὶ τη ἐσμῆ .πλιίἠτεάέν, and that  
" strikes the Sense os Smelling.7' But this perhaps tis not to  
he regarded ; for the *Median Amornuntgi* tho' the Country -he  
hotter, yet; because it grows in Fields, and watery Places," rd  
of Jefs Virtue and Fragrancy, »as *Dioseorides* informs us As to  
the Leaf's not answering the Description;‘ the Fault perhaps  
might he in-the first Reporters. How many things do we find  
related in antient Authors, which are now discover’d To he  
false! For Instance, the Malabathrum, according to *Diosco-  
rides,* isaLeaf that floats on Pools, and standing Water, like  
an aquatic Plant. We have observ'd inore such Mistakes  
elsewhere. . ; ...νύ . 1 - .. '

It would he Folly to affirm the Rose of *Jericho* to be Arno-  
mum, especially since there are so many things that -might in-  
duce us to believe the contrary. Those Antients would not  
have been at the Trouble to searchin *Armenia, Medea,* and  
*Pontus,* for a Plant which every modern Traveller brings home,  
with him from *Judaea.* They would, at least; have inform'd  
us, that it grew also in *Judaea,* but without Smell. *Theo-  
phrastus* brings it from *India. Isidore* writes, that it is found in  
*Syria,* but none of the Antients agree with him. *Avisma* has  
*Egyptian* instead *os -Pontic* Amomum, by a Mistake of the  
Transiator; for what he-renders, *EdnsiSpccies Egyptlaca, “And*" there is the *Egyptian* Species,’' in the *Arabic* is no more  
than, *Et Species alia est,* " and there is another Kind." - It is  
not improbable, that this Rose was seen by the Antients, and  
described for the Amomum. It would be Amomis; but that it  
has Seed, which Amomis wants, according to *Dioscorider. so'::*

In so great a Variety of'Opinions, one knows not bowed  
determine, nor where to. fix. *Pliny,* telis us, that Amomum  
is extremely brittle and friable : *Dioseorides,* that it is soft to  
the Touch. The former gives it the Leaves of the Pomegra-  
nate-tree, the other those of Bryony. *Salmasius, De Homed  
nym. Hyl. lair. Caps* 91. .

The most probable-Account, however, of the true *Amomum, ‘*is that given by *Ρ. G. Gamelsi,* as follows, from the *Philoso-  
phical Transactions. . : s'-*

After Iliad seen the cluster'd Bunch of Flowers of the *Topics,*which some call *Birao,* others *Caropi,* and tasted the Kernels of  
the Grape, or the oblong Seed:, and eompar'd-them with **the**Descriptions which the Botanists give ns oPAinoinum; T be-  
came of Opinion, that the *Tugus* was the genuine Amomuin *os  
Dioscoridess.--* -d - - \* -

Thisssamus is. a Plant, sometimes above a Cubit high, with  
Leaves like the Plant *'.T.agbac, or 'Bagdngboiig.de,* except that  
its under Part is cover'd with a delicate Down; .find that it  
is more fibrous, longer, and fragrant.' At the Root of the  
Plant, or Body of the Stalk, from, the very Middle or Heart os  
a foliaceous Stem, sprouts forth a Parcel of floriferous and gra-  
niferous Leaves, an Hand's Breadth and half in Length, in the  
Figure of a Cluster of Grapes, having some Resemblance to the  
Pistil or Bunch of Flowers of the *Amomcmtum,* adorn'd with  
very red small Flowers, which are succeeded, by Grapes, that  
run out in Length with a Neck, as tho3 they were the Reliques  
os the Tube of the Flower, and are inclosed in a thin sweet  
Rind, whence they are mostly, together with the Seed, or  
Kernels, devour5d by the Mice and the Birds, so as that it can  
be had only in very small Quantities. Thet it was not com-  
inon in former Ages, nor grew in every Country, *Virgil seems*

**0 . ' . . i . ♦**

to insinuate, by his promising, that *AJspriumvulgo nascetur Arti  
mum, “* the *Assyrian* Amomum shall grow every-where.”

These Grapes commonly contain five or six reddish, oblong.  
Unequal, aromatic, fragrant Kernels, or Stones; less acrid  
than Amhyong, or the Cubebs of the Shops. Some of the  
*Indian* young Women use to thread them, sometimes by them-  
selves, and sometimes intermixed with Pearls and Coral, and so  
make them serve for *Caropi,* that is; Bracelets and Necklaces.  
Others make these Kinds os Ornament' of these Kernels, and  
the Seeds of *Bolmusei,* by them called *Maricom,* or'of the  
Arundo Lithosperinos, which they call *Tight,* or of thwCanna  
Florida, which is their *Ticasticas,* or of the Pi sum Coccineum  
by them called *Saga-,* and also of the Seeds of *Amarttontum,  
Eadiang, Rnd Calanus. '* Put they wear the Kernels of the  
Tugus.about their Neck on acootint-of their Fragranoy ; be-  
sides, they are found by Experience *to* preserve from Infection  
he'corrupt Airs and -th heal -the Sting of the Scolopendria, [a  
venomous Insect] if chew’d sand apply'd to the grieved Place.  
The Root' is1 like the Root *sis T.agbde,* or *Calamus odoratus,*being insipid,; and white in the inner Substance; buti wrapt-up  
inoepaceous [Onion-like] Coats of a very red Colour, and  
endu'd withssoine Fragrancy. I had an Account, by a Letter  
from *Poroligam,* that this Plant bore another Fruit- on the Tops  
of the Stalks, which had no Smell; but this I never law. The  
*Indians* of *Indostan* assured me of the same, but I fancy they  
mistook the *Totcbac [Tagbac]* for the *Tugus. - )*

It grows in *Porsungarn znsi Paranasp fri Sardar* the .chief of  
the other Iflands, and *ip.Loyiessi* And I don't doubt but it may  
he also found in *Latior,* especially at *Silanium,* in the deep  
Places worn-by the-Tcrrents.’".' ' - 'r -‘ to sir si

*1 /N. Bsc* The young .and tender Bods of theFlowery of the  
*Tugus* -have- shine'Resemblance to the Pseudc-Amomum of  
*Garcias,* which expresses a DOvessssoot. But that nothing  
may he wanting to clearmp the Matter, I have fent-with these  
Advices the Figure of the Plant? Some will object; I know,  
and say, that a Chestnut is better'like an Egg, than the Leaves of  
the *Tugus* are like those of the Pomegranate-tree, which I freely  
allow. But all that *Dioseorides* -and *Pliny* have related os the  
Amomum, I think, should be understood Only of the flori-  
serous Cluster- os the *Tugus,'trspaeu* turgid with Seed; because  
the entire Plant, itself was unknown to them. For this Thyr-.  
fas of the *Tugus* will he sound to be the little Shrub [the  
θαμνίσκος, "Thamniscus," *sA Dioseorides]* about an Handls  
Breadth in Height. ; to consist of reddish-coloured Wood, or a  
ligneous Sort of Substance, that its Leaves and Flowers are  
like those of the Pomegranate ; -that it rolls itself up in the Form  
of a Cluster- of Grapes, or, as *Barth. Morula* translates the  
Expression of *Dioscoridics,* has a Fruit like *Botruon ,* is full of  
Seed like small Grapes, contained under a carnoils Tegument ;  
is very fragrant, of an acrid Taste, and os an astringent, heat-  
ing, and drying Quality, with other Charactere of.'the true  
Amomum, besides the-Resemblance of the PeS Columbinus.  
It grows in *Turcontania,* a-Province of *Arnlenicsc* as Josil  
*Bolero Penes:* writes. *Philos. Transact. . ------*

There are three different Plants to which the. Moderns have  
affix'd the Name os AMOMUM. The first is the

*Amomutns* Ossie. *'Sision,* Mor. Umb. her. ' *Siscn Disco-,  
ridis.* Hist. Oxon. 3. .283. *Sison vulgare flue Amonium Gprir  
manicum.* Park. Tlieat, 9I4. *Sfson sivA officinarum Amomum,  
J.* Β. 3. I Q7. Mer. Pin. I I 3. Bot. Monsh. 242. Rail Hist.  
I. 443. ’ *Sison Cordi,* Merc. Bot. 69. Phyt. Brit. I I 4. *Siscon,  
Sinon, Sinnansesive officinarum Amomum,* Chain 39S- *Sison  
quid' Amomum'offiocinii nostris,* C. B. Pin; *Slumuroma-  
iicuni, Ssts.on osiicsm.rum,* Tourn. Inst. 308. Boerh. Ind. *Ast  
ζη.* Rail Syrjop..3s 2ii. Dill. Cat. Giff I39; *Petrosclinum  
MacedrticUm FUclJsii,* Ger. 864. Emac. IQI6.. . BASTARD  
STONE-PARSLEY. *Dalegi si '' -scscsi"' ''*

: The lower Leaves of this *Amomum* are long and‘pinnated,,  
or having small Leaves growing opposite to ope another on a  
common long Stalk, being about an Inch long, and hot above  
half the-Breadth, broader at the Base, and ending-sharper-  
pointed, out in on the Edges,‘having a srngle Leaf at the End  
of the Foot-stalk. They are of a bright-green Colour. The  
Stalk arises to the Height of two\* or- three Feet, finely chanelPd,  
and divided into several Branches, On which grow' the like  
Leaves, but much less and finer; on the Tops grow small  
Umbels of. white five-leav'd Flowers, producing little striated  
Seed, about the Bigness of Par fie)'- seed, . of a pleasant,, hot,  
spicy Smell and Taste, something like a Nutmeg. st grows inr  
Ditches and Banks, and moist Places, flowering in‘Sunimer i  
its Seed, which is theonly Part used, heing ripe in *Augnst.' ..*

The Seed is hot and dry, attenuating, and good to open  
Obstructions, to cleanse the Reins of Gravel; it is diuretic,  
and promotes the *Menstrua,* and is esteemed to be *Alenipharf  
mic,* and aS such is put into. *Thociaca Andromachi* for a *SuccAn.  
daneurn* to the true *Amomum. Miller, Bot. Oflsi.*

The second is the

**AMOMUM,** Ossie. Comm.' Flor. Mal. 14. Plant. Usu. 88.  
Barr. Icon. 57I.. Obs. I393. 27. *Amomum vcrum.* Ger.

Emat. 1548. Ran Hist. 2. I697. *Amomum genuinum,* Parin  
Theat. I567.’ *Amomum racemosum,* C.B. Pin. 4I3» Jons.D.  
*Amomum novum Cardamomi vulgaris facie, sive Indicus racemus,*J. Β. 2. I95. Chab. I27. *Elettari, 1.* Hort. Mal. u. 9.  
*Tab. 3.* TRUE AMOMUM. *- Dale. -*

This Fruit is an Ingredient in the *Theriaca,.* and is some-  
times mixed with strong-Purgatives, to qualify them a littie.  
Each Fruit is divided Into three Colis, and is of a Very pungent  
Taste: Iris brought *stutRatiC Philippine* Elands, and is reckon'd;  
darminatiVe, alexipharinin, stomachic, *etc-." Geofsiroy. ' .\*1*

. .It is incisive, and digestingin-resists Poison; it disperses  
Windry Jo-shengthens the Stomach; it Creates Appetite and  
Strength"s ’ and it provokes the Mensest- *Lerners. de Drogues r ‘ ’*. - The Ainomuin winch imreckoned amongst, thedieinal Drugs,'  
and which-is iniprincipal Ingredi ent in the *Venice*Treacle; grows'  
on a Tree which hears the lanioNanie1 with itself, the Leaver  
crfswhich- are long,? strait, -aridJoI.a' pale-green’ Colour.; and  
its Flowers resemble-those ‘of ilherwhite Stock-gilljhyflower: Igni  
Fruit is pretty'like the *Mus.cassinaGrRqui:* in 'Corotir,' Bulk, and’  
Shape ; but-itis nottinite ftsjull ofGraitis,'imd Jsssess-juicysi1Its Pods, - which- -have-no Remeses, - are crowdess-stogether; and  
glued, as it were, on 4.IengrNfen/e, which theyssurround to.the-  
Very Top, and. which serves1 asj ^Support to them u In the inner  
Side of these : Pods are found -Purple-Coloured' Grains, of -an  
almost square Figure, distinct;^d-tdvered-with (lender whiter:  
Membranes. The Taste of these Grains in sharp and acrid, and2their SIneli-exfrernely pieroing and aromatie. so

*i* Thelneweft Amoinum- js always the hest' Y if ought to have1its-Pods rounds of a whitish flaxen Colour, weighty, and weli-  
filled:- -That, on the. othenhand,' -thePods of .whi ch are black ,  
and shrivelled- -are Very littlessor not at all; esteemed.

A great many People confound the. Amomum with the  
greater Cardamoms, tho' they do not resemble each other in  
.onedingle Cirounistanc-ess *Sastjary Dictionairegule Gomrncrce.*

The third is called, . .v.'i '..e' U0 .1 \ ..’

' AMoMHM PLINIi, Ossie. Ger. 289. Einae.- 36Τ. *Solanum  
fruticoscns heccifcrum, -C. BriPinc* I 66. Rail Hist.\* T. 673.'  
Tourn. Inst. I49. Elemi BoteI24; Boerh. TilthA. 2. 67st  
Rupp. -Florr Jen. 37; *' Fruftc'osuestAmcricanum.so dictum Amo-'  
inum -Plinii,* Parle. Thesti- 35 2Ἀ *Amtnnuny P linis, sett Pseudo-  
capsicum,* einsd. -Parad.643T.’- *-Stryrhnodendrce, foe* B. 3.- 6I4.  
*Apollinaris Solani species ex Apennino* 7 *Siyychnodendros, Solaniim  
arborescent,* Chain 523δ TREE NIGHT-fSHADE. *Dale.tx*

Its medicinal Virtues are esteemed to beimuchche same as  
the *rtiatiiuOnSOLATcttfoesi Night-sea de,* which-feess - \-

AMONGABRIELsi according to *-Rulmtdees,* AMO GAT  
RRIE L according to *Juhnson, is Cinnabar.ss - -* . t

AMON GE ABA. This is the Name by which'Pse calls a  
kind os Grass winch grows three, four, or fiye.Fout high, from  
Roofe consisting of -final!-Filaments, much asterishe manner of  
a Reeds' The Leaves are about a Foot long, beautifully twisted,  
green, almost os the Figure of the Leaves ofthe larger Nut-hear-  
ing Palm,- and a considerable Numher of them on one Stalk.  
The Stalk at the Top bears an Ear a Foot and. ah half long, likeT  
in Bulk-and Shape, to the Ear-ofthe *Melium,* or *WildPanic:. ,*

It is-of an emollient Nature, either internally*- or* externally'  
applied : It supplies the Place *os* Mallows, and- is beneficial ifr  
4TENEsMUs, used by way of Fomentation?’ -si', ί 5.

AMOR, Love. It is -no Wonder .that Love has been  
esteemed ^Distemper, as it is productive of many. ^Disorders,  
especially Madness, as *Caelius Aurelianus* observes-*so try* judiciz.  
oufly ; for as Madness is generally caused by thinking too much-  
**os** one thing, nothing is more likely than Love to fix the Attend  
tion upon one Object. ? ' :

Besides Madness, Love may, and certainly does, produce  
every Distemper which arises from a too great-Laxity or Stric--  
ture of the Animal Fibres : For Anger, Envy, and Jealousy,  
the usual Attendants on Love, brace up the Fibres, and render  
them too tense and rigid.. Again, Joy, - Complacency, Fear;  
and Grief, relax .the fame Fibres , enervate the Solids, and im-  
pair the Actions, whether Animal; Vital, or Rational.

; The Seeds of Love are, no doubt, planted' in the Constitu-  
tion of every Man; and of every Woman;-’for Purposes condim  
cive to the designs of the Creator, and extremely beneficial to  
the. Creature. For, besides the great End of supplying the  
World with People, Love - incites Mankind to Action ; and  
perhaps the little Difficulties with which it is attended, stimu-  
late the Mind, and, in Consequence thereof, the Body : Inso-  
much, that if the Desire, implanted in each Sex, of being agree-  
able to the other, was removed, perhaps no other great Incite-'  
ment to Action would remain, except- HungerSo that what  
*Virgil* says of Agriculture, is applicable to Love:

*— Paler ipse eolendi*

*Haudsiacilem esse Fiam voluit,, primus.que per Artem  
Movit agros,.* Curis acuens Mortalia Corda,

**\* . Nee** torpere gravi pastus sua Regna Veterno. ’

Upon the Whole, if it was not for Love, Mankind would  
soon degenerate into Brutality ; and it Only becomes criminal.

or pCTnicious,' when so excessive aS not to be guided and directed  
to a proper Object, and with Moderation, by Reason.

)’ It is no absurd thing to reckon Love among the Affections os'  
the Brain, since it is a kind of Solicitude; and Solicitude is an  
Affection of the Mind, when Reason is employed in a tiresome  
Mothe or Pursuit. . . ; '

Love is, attended' with the following Symptoms : The Eyes  
are hollow, and weep not, but appear as if they were replete  
with Pleasure. The Eyelids often .twinkle ; and tho' ths other  
Parts of the Body maintain their Plumpness, the Eyes’of Per-;  
sons in Love are contracted and funk.- There is no Pulse pecui  
liar to Lovers, as some have thought, but if is like that of the  
Careful and Solicitous. When the Remembrance of the belov’d  
Object is excited,- either by the Nearing or Sight, and especially  
is-it oe sodden, .the Spirits are dll ih Confusion, and the Pulse  
changes, and neither beats equal Time, nor with equal Forcer  
Some ore sad and wakeful ; others, ; who are not conscious of  
theifAssection, pine-away in Slotlrand Slovenliness, and a low  
Diet. ‘But the wiser’ Sort; w hem theyfind themselves tn Love,  
divert-their Thoughts, and relieve themselves by. going to the'  
Baths, 'drinkingsof-Wihe, Gestation; entersaining Sights, and  
pleasant Conversationi Some Lovers ought to be terrified; for-they'who are Always at’Leisure to indulge their amorous  
Thoughts, will hardly get rid of that troublesome Passion. It  
would also-he Very proper to enter into a Controversy, or  
commence a Suit-against fuch a Pesson in Love, which may’  
affect that State of Life, or War of Business which he has  
chosen; for all Meaiisfmuff be tried to divert his Cares and  
Pursuits into another Chanel. *-AE-smets Lib.* 3. *Cap.* 17.'  
*Qribas. Synap. Lib.* 8. *Cap. ifer' : .*

t This Method of’curing a Person -hr Lowe, hy'stirringurp a  
Law-suit against him,-is‘likely enough so have its Effects 7 but.  
I: should doubt whether a Cure os this Sort would be consistent'  
wiihcheold-Maxini,\*;which requires ithto he performed *tuto,:  
cito, etyueunde,* . τ . -?

Dr. *James Forrard* published a Treatise of Lore, as a Dis-  
temper, which was printed at *Oxford, A*640. \_ . ; " .

**AMORIS** POMA, Ossic. Ger. 275. Emac.346. *Poma mayo...  
ra amoris, friectu ritbro.* Park. Pa rad.- 37 9. *Solarum pomiferum,  
fructu rotundo striato rnalU,* C. B. Pin..167. Raii .Hist. 1. 675.' '  
Hist. Oxon. 3. 52O. *Masta aurea, odore sentidc, quibusdam Lyco...  
parsicofs,* J. B. '3. 620’. *Mala aureas* Chab. 525. *Lycopersicon.  
Galeni,* TourrvJnsh I50. Elem.B0t. T25. Boerh. Ind.Ax. 2.'  
69. R-Upp. Flor. Jess 37. LOVE APPLES. *. Dale. ’*

AMORIS POMUM. This is a Species of *Solanum,* hear-  
ingmany large winged Leaves, divided into several Segments,"  
of a yellowish-green Colour; the Stalk is branched into many"  
Divisions, on which, at the setting on of the Leaves, grow  
the Flowers, several together, each consisting of a single Flower,  
divided into five Paras like a Star, of a yellow Colour, with a\*  
deeper *Umbo* in the Middle. Each Flower is follow’d by a round -Fruit as big again as a Cherry; green at first, and of a yellow  
Red when full ripe ; in which are contained a great many flat  
whitish Seeds, in a juicy Pulp. It is fown in Gardens, and  
flowers in *July ,* the Fruit is-ripe *in September,* and perishes  
with the first Frosts, .δ᾽.

- Tn *Isuly* they eat these Love-apples with Oil and Vinegar,  
as Cucuinbesa are eaten here 7 hut they are seldom eaten with  
us, being of the Nature of the other*' Solanums* ; and therefore  
only used outwardly, in cooling and moistening Applications, in  
Inflainniatinns, and Erysipelas ; and its Juice especially is Com-  
mended in hot Deductions *os Fseeum* upon the Eyes. It is but'  
seldom used. *Moller Bar. Off.* ' Ἀ

- AMORGE, ἀμοργη, the Foeces Or Recreinent of Oil;  
See AMURCA. . ", I' ’ “ .

AMPANA. - This is the Name in the *Hirtus Malabaricus*for the *Palma Carcis.era, Folio flabellis.orrti. Mas. T.lie Pontum  
!. guese* call it *Palmeiro Bravo Macho.*

l-AMPAR; Amber is sometimes thus called.

- - AMPeLION, άμπέλιίν. Vines Leaves, or Tendrilin

*- 'Hippocrates* recommends these bruised, and mixed with’  
\_ Honey, and made up, with Wool, into the Form-of a Pessary, ‘  
. inorder to promote the Menstrual Discharges; or the finch in.

*De Natura Muliebri,* and *de Morbis Mulierum, Li s. .*

AMPELIS, a. Bird described by *Aide ovandus,* and said to. be delicate Food. - I take, it to be *faeBeccasice. '*

' -AMPELITES TERRA, a Sort of black Earth; thus  
distinguishedegi- -- \

TERRA AMPteLITRs, Ossic. Worm. *Ampeliiis terra five  
. Pharmacies,* Ind. Med. '8. 3I. Agricoh 5Q5, Aldrov. Musti.

Metal. 26oz“ *Terra Ampelfrcs siusuPharmacitis, qua Medici  
- utimlur,* Kentm. 3. *Lapis -Arnpilitis Galeno,* Cherlt. Iiossi

14. *Lapis cbsidianus.* Men Pin. 2i7s- *Carbos* Theoph. *Strti- '  
num nigrum,* Swenckseld Cat. Fosh *^4. Terra Ampelicisor*Cale. Musi 128. Gaebal. 28. CANNAL COAL: *Dale.*

I believe Cannal Coal will nor dissolve when Oil is poured  
' upon-it; which is one of the Characteristics that *Dioseorides*gives to the TERRA. A MP el IT is : This, therefore, seems dis-  
’ ferent froth what we usually call CANNAL COAL.

**The** Terra Ampelitis, by some called Pharmacitis, is found  
in *Seleucia,* a City of *Syria.* Chuse whet is black, resembling  
small *{Oribasius* reads μακραις, long) Pitch-tree Coals, that  
will cleave, in some measure, into thin Bits, and shines alike in  
every Part; thet, moreover, being levigated, will readdy dis-  
solve upon the Affusion of a little Oil. The white, cinericiouS,  
and whet can’t he liquefied, is to be rejected.

It has a diseussive and refrigerating Virtue; is an Ingredient  
in Cosmetics for the Eyelids, (καλλι^λἐφαρα) and to colour the  
Hair. It is alfo used to anoint the Vines, at the time of their  
Budding, in order to kill the Worms which breed in them.  
*Diofcorides, Lib. 5. Cap.* I8I.

The Terra Ampelitis is more medicinal, drying, and digest-  
we, has more of a biting, and less of a mitigating Quality, than  
the Terra Chia, Samia, or Selinusia. *Oribasius, Med. Coll.  
Lib.* 15. *Cap.* I.

The Ampelitis Terra is also called Pharmacitis, because it is  
more medicinal than the other Earths ; and because the Coun-  
**try** Farmers, when the Spring comes, dilute it with Water,  
and so rub it about the Roots of those Vines which have pent  
forth Buds, that no noxious littie Animals might approach to  
touch them. It sufficiently shews its medicinal Virtue in kill-  
ing the Cnipes (Worms) which infest the Vines. No miti-  
gating or lenitive, but a drying Quality belongs to it; for which  
Reason it is an usual Ingredient in drying and diseussive Com-  
positions. *Aetius, Tetr.* I. *Serm.* 2. *Cap.* 9.

To supply the Want os Terra Ampelitis, you are directed to  
take a little more titan half the Quantity of Brutinn Pitch, by  
*Marcellus Empiricus, Cap.* 7.

**AMPELITIS** *five Pharmacitis,* is a Very bituminous Earth,,  
as black as Jet; it is divided into Scales, and is easily reduced  
into Powder; it is taken from a Quarry near *Alanson*; there are  
two Sorts of it, one of them tender, the other herd; when  
growing old, it pulverizes of itself, and they get from it some  
Saltpetre. . '

It is proper to kill Worms, being applied to the Belly; it dyes  
the Hair black.

Some call it Earth of Vine, because, heing in the Vineyards,  
it kilis the Worms winch creep up the Vines. *Lemery de  
Drogues.*

AMPELOPRASON. See **ALLIUM.**

AMPELOS, ἄμπελος, is Bryony, according to *Oribasius,  
Med. Collect. L.* IT.

AMPHARISTEROS, ἀμφαριστεράστ. It signifies the Reverse  
to AMBIDEXTER, that is, having two Left Hands; which  
means heing clumsy, or having a perfect Use of neither. FigU-  
ratiVely, it imports *unlucky,* unfortunate.

AMPHEMERINOS, άμφημερινὸς πυρετος, a Quotidian Fe-  
ver ; that is, a Fever which brings on a Paroxysm, or Fit,  
every Day. It is derived sromdurei, a *Greek* Preposition, which  
imports a kind of Revolution, and ημεραν a Day.

AMPHIBLESTROIDES, from ἀμφίβληστρον, a Net. The  
same aS RETIFORMIS, which see.

AMPHIBRANCHIA, ἀμφιβράγχια, from ἀμφί, *about,* and  
βράγχια. properly the Gilis of Fishes; but sometimes taken  
for the Fauces. The Parts about the Tonsils.

AMPHICAUSTIS, ἀμφίκαυστις. This imports a Sort of  
wild or mountain Barley; and, in some Writers, it signifies the  
PUDENDUM MULIEBRE ; but I don't know that it is used in  
this Sense by any medicinal Author.

AMPHIDEON, ἀμφίδεον, the Orifice of the Uterus, call'd  
the *Os Tinca.*

AMPHIDEXIOS, ἀμφιδέξιος, **the** same as **AMBIO Ex-  
TER.**

AMPHIMETRION, ἀμφιμήτριον σημεῖον. *Galen* in his  
Exegesis, says *Hippocrates,* in his second Book of Epidemics,  
means by this a Sign which manifests the Condition of the  
Ijterns. But the Word is neither to be found there, nor in  
any other Part of *Hippocrates. Foesius* thinks that the Word  
ἀμφίδμητον, in the sixth Book of Epidemics, *Sect.* 8. *Aph.* 38.  
should he ἀμφιμήτβιον, and that *Galen* alludes to tills Pas.  
sage.

AMPHIPLEX, ἀμφιπλῆξ, according to *Ruffus Ephesius,*is the Part situated betwixt the Scrotum, Anus, and internal \_  
Part of the Thighs.

AMPHIPNEUMA, ἀμφἰπνευμα, from ἀμφί» about, or  
around, and πνευμα. Breath. It signifies an extreme Diffi-  
culty os breathing, in *Hippocrates, Epidem. L.* 4.

AMPHIPOLOS, ἀμφίποΛος, a Maid-servant. This Word  
has no other Right Io a Place in a Medicinal Dictionary,  
\* but that it is used by *Hippocrates* Epidem. *Lib.* 5. But the  
Case he relates in this Place is very remarkable. The Servant  
of *Dyscris in Larissa,* whilst young, felt extreme Pain in  
Coition, but at other times was very easy. She was never  
with Child. When she was about sixty, she ufed to he seized  
with excessive Pains, like those of Labour, aster Noon. One  
Day, having eaten in the Morning a large Quantity of Leeks,

**she** was seined with more severe Pains than usual; and upon  
Examination, she felt something rough at the Orifice os .the  
Womb; soon after this she sainted, and, during her Fit,  
another Woman took from her a rough Stone, as large as the  
Spondyle of a Distaff After this she was well, and continued’  
so ever after. . . :

AMPHISBAENA, a venomous Serpent. The Amphishaena  
and Scytala resemble one another; for they are not shaped with  
a thick Body, tapering into a flender Tall, but are of equal  
Thickness throughout their whole Length; so that a Spectator  
is puzzled to find at what End the Head or Tall are situated.  
The Amphishama differs from theScytals, in that it moves with  
either end forward, whence it takes its Name [ἀμφί either way,,  
and βαένω togoJ. *Galen* says,. the Amphishaena is an Animal  
with two Heads. They say, is a big-helly'd Woman steps across  
this Serpent, she salis in Labour and miscarries. ... ...

The Bites of these Creatures.are hardly perceptible, and  
much like the Punctures of Flies*[y* wherefore they are not mor-’  
tal, but cause an Inflammation like whet arises from the Sting  
of a Bee or Wash, tho' in a more intense Degree ; so that  
what is good for the Stings of. these insects, will he Of *Service  
here. AEtius, Tetr.* 4. *Scrrn. y. Cap. pestes ... - -ἐν-*

.. The Colour of the Amphishaena is a shining White, distin-  
guish'd with reddish Spots; its Cheeks are .so large, that they)  
conceal his Eyes; and this Circumstance hath madejt said, that  
it is blind. r ;si ....

It is sound in the Ifle of *Lemnos ',* its Bite is dangerous, and;  
requires the same Remedies aS that of the Viper. It contains a  
great deal of Volatile .Salt and Oil. Its Flesh, LiVer, and Heart,  
are proper to excite Sweat, to take away had Humours by  
Transpiration, and are a good Antidote against Poison. Ze-  
*mery des Drogues.*

AMPHISMILA, ἀμφισμζλη, front ἀμφί, on each Side, and  
σμιλη, an Incision Knife. A dissecting Knife, with an Edge  
on each Side. *Castellus stum Galen.*

AMPHISPHALSIS, ἀμφίσφαλσις, from ἀμφί, and σφἀλλω,  
to wander. *Foesius* translates this by the Words, *Obcrratio,  
Circumductio, Circumactio, Circumagatio.* This Word, I be-  
lieve is peculiar to *Hippocrates. He uses* it in his Book de Ar-  
*ticulis,* to express a Circumaction, or turning of the Leg, in  
order to replace the Head of the *Femur,* when flipp'd out Of  
the *Acetabulum.* .s.

AMPHITANE, the same as CHRYSocoLLA, which see..

*Castellus* from *Fallopius. ’ : »*

AMPHODONTA, *tiscatiIlumla,* from ἀμφί, on both Sides,  
and όδὴς, a Tooth. This Word is used by *Hippocrates* in his  
Treatise *de Arte,* as an'Epithet of Animals, to express these  
having a Row of Teeth in both Jaws.' -

AMPHORA, is a *Roman* Measure sor Liquids. It is ori-  
ginally a *Greek* Word ἀμφιφορεὑς, Iliad. 23. Odyssi 9. by a  
Syncope, ἀμφορεὑστ it is so called from the two Ansae or Handles  
for Carriage. It is the twentieth Part of the Culeus. It con-  
tinned seven Gallons one Pint *Englijh* Measure. *Arbuthnot of  
Antient Measures.*

AMPLEXATIO, or *Basiatio.* The Alchymists call thus a  
kind of Uninn betwixt their Philosophical Mercury, which they  
call the *White Female,* and by which they mean Regulus of  
Antimony, and the *Raed Hitstand,* by which they mean Gold.  
This Embracing some of them express in Terms, not Very  
decent.

AMPOTIS, ἄμπάτις. It signifies properly the Recess or.  
Ebb of the Tide. But *Hippocrates,* who was of *Cos,* one of  
the *Grecian* Iflands, and must have had many Opportunities of  
observing the Tides, Very elegantly applies this Word to the  
Recess of Humours, from the Circumference Of the Body, to  
the internal Parts. ..

AMPULLA, a Vestel of an indeterminate Capacity, and a  
particular Form; for it must have a Belly like a Bottle, J ug, or  
Crewet, in order to he an Ampulla.

In Chymistry, any Vesieis are called *Ampullae,* which have .  
large Bellies, as Cucurbits, Boltheads, and Receivers.

*. Hildanus* calis the first Appearances of the Heart, Liver, and  
Brain, in a Foetus after Conception, *Ampullae from* their Shape.

AMPULLASCENS. The Alveus Ampullaseens is the  
most tumid Part of *Pec quests* Ducts, which convey the Chyle  
from its Receptacle, to the Subclavian Vein.

AMPUTATIO, Amputation.

*Celsius,* who lived more than an Age hefore *Galen,* is the first  
Author who gives us a Description of .Amputation; and thed  
his Surgery he, aS is said, taken from *Hippocrates* and *Asclepi-  
ades,* he quotes neither of them with respect to that Opera-  
tion. '

*Hippocrates* treats of a Gangrene and a Sphacelus ; what is  
putresy’d, he says \*, must he cut off, but he does not describe  
the Amputation *of* a Member. *Asclepiades* lived an Age hefore  
Christ § ; we have nothing of him concerning this Affair, and  
do not know whether he ever performed the Operation. AS

\* De Artical. 4. Observ. I7. de Moth. Volg. Idb. a. Sect. 7. Epidem. Lib. 7.

*§ Daniel Le Clerc,* in his History of Physic, Edit, i ya 3. p. 392. says, that this Physician was in great Reputation at Roiee, during the  
life of *Mithridates,* that is to say, about the Middle of the thirtyointh Century. much

ifiuch might be said of *Herophilus* and *Erafestratus,* who acred  
as Surgeons f. We find then no Description of this Operation  
before *Celsas*; however, we cannot doubt, but it was per-  
formed before his Time, and that .even the Manner of it was  
described in forne Authors, whose Works are losti In all Pro-  
bability, the Operation was never performed in those Times,  
nor ever since, till the fifteenth Century, but on occasion of an  
Arm or a Leg affected by a Sphacelusi It seems to have been  
done but very seldom, because the Pationts were always in im-  
minent Danger of their Lives, *ot,* according to *Celsas* ]], died,  
for the most part, of an Hemorrhage, under the Opera-  
tion. ' . .

We are not to wonder at this; for *'Celsas* made no Ligature  
above the Place of Amputation, to compress the Vessels, and  
prevent an Hemorrhage ; at least, he does not mention it in  
the Description of his Operation, which is as follows. *Lib.* 7.  
*Cop.* 23. “ An Incision is to be made with the Knife in the  
" Flesh, between the sound and the corrupt Part, as far as the -  
" Bone, in such a manner as not to do it against a Joins, and  
" rather to cut off a found Part than leave any thing unsoundi  
" When you come to the Bone, the found Flesh is to be drawn  
" heck, and the Bone is to be cut upon quite round it, that  
ci it may be perfectiy bare (of the Periosteum). This done;  
" the Bone itself is robe amputated with the Saw, as near as  
" is possible to the found Flesh ; then the Fane of the Bone,  
"" which was exasperated by the Saw, is th he smoothed, and  
\*" the Skin is to be brought over it; in order to which, and  
"c that it may the better cover it oh every Side, it ought to be  
" lax. Where the Skin cannot reach, the Place must be  
" covered with Lint, and a Sponge dipt in Vinegar must be  
"" bound upon it.' The Ciire must afterwards be managed as  
" a Wound in which a large Suppuration is to be prevented.”

In this Description we see no Means to prevent an Hemord  
rhage; and this is the very Reason why the Pationts often dy’d  
by the Loss of Blood under the Operation. But; what is surd  
prising, we find no Method for seat Purpose, in any Author  
who has described that Opera non, till the sixteenth Century i  
*Paulus Atgineta, Acstsenna, Guida de Cauliaco,* say not a Word,  
of it. This last, who lived about the Middle of the fourteenth  
Century, made two Ligatures, one above, and the other be-  
low the Place of Amputation ; het he does not fay, that he  
made them to prevent an Hemorrhage, or ro much as to take  
away the Sense of Feeling from the Pars. Wo ofay well ima-  
gine, that he did it only to keep down the Flesh tight and firm,'  
that the incision with the Knife might be made with the greater  
Ease and Smoothness. We know not whether*' Vafalius* used a  
Ligature to stop an Hemorrhage or not; because we do not  
well comprehend his Description.

*Bartholomceus Maggius,* who wrote about the Middle os the  
sixteenth Century, and whose Works are collefted by *Gefnerl*made a Ligature upon the sound Part, above the corrupted.  
They drew this Ligature very tight, to deprive thePart, in some  
measure, of Feeling ; but there is not a Word said throughout  
the Whole, concerning Means to prevent an Hemorrhage during  
the Operation. He says, that *Celfus* made a Ligature above  
the corrupted Part; but *Celfus* has not describ’d his Operation  
in the same manner that *Maggius* reports it ; and you fee, by  
the Quotation above, that he says nothing of that Ligature.  
*Botallus,* Physician to *Charles* IX. says, that in his Time they  
made three Ligatures; one, doubtless, to takeaway the Feeling,  
tho’ he does not exprelly say so, and the two others above and  
below the Place of Amputation; but not a Word is said of the  
Means to prevent an Hemorrhage.

*Pare,* Surgeon to *Charles* IX. tells us, that when we are  
determined to make an Amputation, wc must draw the Skin  
and Muscles towards the found Part, and make a Ligature just  
. above the Place that is to be cut, with a strong and thin Fillet,  
which, he fays, serves, first, with the Help of the Assistants,  
to keep up the Skin and Mufcles in a raised Posture; secondly,  
it prevents an Hemorrhage ; thirdly, it takes away the Sense  
of Feeling from the Part. This is the first Author, that! find,  
who talks clearly of the Manner of preventiog an Hemorrhage  
during the Operation.

*Pigrat, Fabricius ab Aquapendente, Hildanus,* and all the  
Surgeons who came after him, put bis Method in Practice.  
Ts true, this Ligature did not constantly and totally suppress  
an Hemorrhage; "for the Vessels bled more or lefs in Spite  
thereof, which was an Inconvenience, that sometimes endan-  
gered the Life of the Patient.

The Sieur *Morel,* a Native of *Franche Comte,* who was a Sur-  
geon in the Army, and a very ingenious Person, discovered a  
surer Method of stopping rhe Blood. In I674. he invented the  
Tourniquet, as it is now used, by means whereof, the Operator  
has it in his Power, either wholly to stop the Blood', or let

it run more or less, as he thinks fit to compress the Part It  
takes away the Senfe of Feeling,fo that the Patients seel none  
of thofe acute Pains when the Flesh is cut, and the Ligature  
of the Vessels is perform’d, which-makes them support that  
cruel Operation with the more Patience; an Advantage to be  
reap’d but in an imperfect manner from the Method of *Pare.*

One Defeci of the Tourniquet, ’tis said, is, that it pinches  
the Skin, and causes very acute Pains. This is true, when the  
Surgeon has not the Addrefs to accommodate it in a right man-  
mer; but with a little Care ansi Attention, and placing a Piece  
of Paste-board at the Side of the Stiok, that Accident is  
avoided. . . -

Another DefeS imputed to the Tourniquet is, that, tho’ it  
prevents an Hemorrhage after the Operation, we dare not leave ,  
it oh the Part, because it entirely suppresses the Circulation  
of the Blood below the-Place where it is apply id, by which  
means that Part is in Danger of a Mortification. Monsieur  
*Morel* did not pretend to make any other Use of bis Tourni-  
quet,-than as a sure means for preventing an Hemorrhage  
during the Operation, and till he bad securedthe Patient from  
fuch an Accident by the Ligature of the Vessels, which none  
had ever been able to do before. Besides,. it is very rare, to fee  
an Hemorrhage break out afresh, when the Ligature is made  
according to the manner, of which we shall speak in the Course  
of this Memoir, after we have taken a View of the Methods  
formerly used in cutting the Flesh. -

Neither *Hippocrates* nor *Galen,* as I said, heve given us any  
Description of Amputation; it would be in vain then to search  
in thefe Authors for the Manner in which they cut the Flesh,  
or how they stopp’d the Blood in the Vessels. They have only  
lest us, in general, their Method of stopping Hemorrhagesbut  
have not told us a Word, in particular, of the Means of stop-  
ping the Blood in an Amputation.

I heve been furprifed not to find the Operation of Amputa-  
tion in *Galen,* who describes the Operations of Surgery in so  
dear a manner. He wrote of a Gangrene and Sphacelus \* ;  
he says, after *Hippocrates,* that the corrupt 'and putrid Flesh  
must be cut away but fays no more of in It appears how-  
ever, that this Operation was practised at *Fame* in his Time;  
for *Celfus,* who was a *Roman,* and lived about a hundred Years  
before *Galen,* has described it, and practised it himself, or saw  
It -done by others.- *Galen* cites neither Physician nor Surgeon  
who performed that Operation: He ought, at least, to have  
cited *Celfus,* who must have been in great Reputation for Sur-  
gery ; but I do hot so much as find the Name of *Celfus* in any.  
Place of *Galen's* Works.

We have inserted, in the Beginning of this Discourse, the  
Description which *Celsos* has given of the Operation. We  
. heve fecn, that he cuts theElesh to the *very* Bone, and does it  
in the quick, rather than in the mortified Part. He saws off the  
Bene, and brings the Skin osier the Stump, and no doubt over  
the Mouths of the Vessels, tho’ he does not fay so. But bow  
can that Skin be brought to cover Hie Bone and the Vessels ?  
We don’t find, that he takes-the Precaution to draw up the  
Skin and the Flesh above the Part, unless we are willing to fuo-  
pose; that he would be so understood. Besides, it does not ap-  
pear, that he form’d a Label of Skin, as some Surgeons did at  
the End of the last Century ; the thing is so remarkable, he  
would not have fail’d to fpeak of it. He cut very near the  
mortify’d Flesh, *inter sanam viciatamque Partem,* which was not  
the way to facilitate his leaving a Label of Skin. He did not  
pass a Thread across the Flesh, and into the Skin, as it has  
been the Practice since his Time, in order to keep down the  
Skintight upon the amputated Part. And yet it is plain by  
the Description, that he intended the Skin should cover the  
Bone, and reunite with that and the Flesh ; and in order that  
this might be done with the greater Facility, he lest the Skin  
to bang loose ; but this could not be effected without drawing  
up and raffing that Skin above the Amputation. But he does  
not fay so much , his Word5 are only thefe , *Supraque indu-  
cenda Cutis, quae sub ejufrnodi curatione laxa ejse debet.* He  
took care to clear the Face of the Bone from those Asperities  
which the Teeth of the Saw might heve produced on it, and  
which require Exfoliation; and, in the last place, he applies  
an Astringent to the Vessels, but mentions nothing of a Cau-  
tery, or Ligature of the Vessels. Such a Proceeding would be  
contrary to his Design, which, in all Probability, was to close  
up the Orifices of the Vessels, with the Skin and the Flesh  
brought down dong with it ; and by that means to prevent an  
Hemorrhage, and unite them all together. He thought it susti-  
cient to put stome Tow or Lint to the Part where the Skin  
could not reach, and over all to apply a Sponge dipt in Vinegar.  
By this Method he avoided a Suppuration, and healed up the  
Wound with great Expedition. This is exactiy the Method

f Mem. Acad. An. 172;. p. rr.

II Lib. 7. cap. 2 j. *Sed id quoque cum scmmo Periculo fit; Kam supe in ipfi Opere, vel Profufione Sanguinis, vel Anima Dejectione moriuntur.*“ But this too is not performed but with the utmost Danger j for the Patients often die under the Operation, either of an Hemorrhage, or

Fainting." \*

\* Lib. a. ad Glauc. cap. 9. In Lib. Hippocr, de Fruit. Comment, u. De Meth: Med. llb. 2. cap. 9. .

*of Verdian and Sabourin,* one a *Dutchman,* and the other of  
*Geneva,* who, towards the End of the last Century, did heth  
at one time set up the Practice of this Operation, with leaving  
a Part of the Skin and Flesh in Form of a Label, for the more  
easy covering of the Bone and the Mouths of rhe Vessels,  
which they call’d the Operation of Amputation with a Label  
*[sc Operation de l’Amputation a Lambeau\. By* this way they  
au.oided a Suppuration, and also shertened the Cure of the  
Wound;

It were to he wish’d, that *Celsus* bad explain’d himself more  
clearly on the Means he ustd to keep the Skin loose. We  
find in our Times, that whatever Endeavours are used to draw  
back the Skin and Flesh before they are cut, we are not able to  
bring back the Shin over the Bone after the Amputation, at  
least, not to keep it there with any manner of Facility ., which  
obliged several celebrated Surgeons to retain the Skin and Flesh  
upon the Wound, by means of a Thread pasted acrost them.  
We shall take Notice of this, when we come to speak of those  
Surgeons, who have described this Operation at the End of the  
sixteenth and in the seventeenth Centuries.

It appears, from all that I have just now said, that there are  
abundance of Obscurities in the Description of *Celjius’s* Opera-  
tion.

*Paulas Aigineta,* who, according to Dn *Freind,* llved in the  
seventh Century, is the .first, that! can find, who, since *Cel-  
sus,* has described this Operation, *Lib.* 6. *Cap.* 84. He does  
not want Obscurity any more than *Celsus,* and ’tis not easy to  
discover whether he cuts in the sound or sphacelated Part. He  
relates the Manner in which *Leonidas* perform’d that Opera-  
tion, and says, that before sawing the Bone, it was necessary  
to put a Linen Cloth, or broad Fillet upon the Part that was  
cut, to hinder the Saw from touching it, and so putting the  
Patient to Pain; which shews, in some manner, that he cut  
in the quick Part., and to stop the Hemorrhage, he feared the  
Orifices of the Vessels,.with an actual Cautery.

*Avisenna,* who lived in the twelfth Century, advises cutting  
in the Sphacelus, to avoid an Hemorrhage, and to apply heated  
Irons to the mortify’d Pars, that is lest under the found.

*Guida de Cauhaco* cut the Flesh between two Ligatures, and,  
after the Example of *Paulus,* applyἈ a Linen, or broad Fillet  
. upon the cut Part, to defend it from the Saw: He then sew’d  
off the Bone, and cautericed the Flesh with hot Itons, or hell-  
ing Oil.

*Vesalius,* who wrote in the sixteenth Century, has given a  
Description of this Operation, in a manner which is a llttle  
confused. He speaks of a Ligature, but \*tis impossible to disco-  
. ver bow or for what Purposes he used it. Jt appears, that he cut  
the Flesh with a hot Knife; bat we can only guess whether it  
were in the quick or in the dead Part. At last he applies hot  
Irons to the large Vessels, and to the Flesh, which be cauterizes  
till the Pauent feels the Pain. This makes it conjectured,  
that he cut in the mortify’d Part, and that the Vessels did not  
bleed afterwards; then he cauterized the Fore-part of the  
Bone, to make it exfoliate the more readlly.

*Bartholemaeus Maggius,* Cotemporary with *Vesalius,* cut the  
corrupted Part, and separated it from the found ., and after he  
had sawed off the Bone, applied hot Irons to the Vessels, and  
the Flesh that was half corrupted, or dipp’d the Member in  
helling Oil, alone, or mix’d with Sulphur, till it penetrated  
to the quick, and this was very near the Method of *Guide de  
Cauliaco.*

*Botallus* relates the Operation in the same Manner as *Mag-  
gius,* only makes no mention of the boiling Oss But this Gen-  
tletnan found it took up too much Time to perform the Ope-  
ration this way; and besides, in bis Opinion, it put the Pa-  
tient to too much Pain in sawing of the Bone, from which it  
was impossible to take off all the Flesh that stuck to it, but  
‘that some would be mangled with the Saw, especially when there  
were two Bones to be fawed. He contrived therefore a Me-  
thod to cut off a Limb with one Stroke ; a Method, be fays,  
the forest, easiest, and quickest, that can be imagin’d. For  
this Purpose he made use of two large Knives, like Butchers  
Cleavers, one of which was fastened in a Block of Wood, and  
rsiaced between two wooden Posts ; the other was fixed in a  
Piece of Wood, that ssided up and down hetween the Posts by  
means of Grooves, aster the manner of the Machine used for  
driving Piles. The Member was placed between the Posts upon  
the under Cleaver, and the Piece *of Wool,* which was raised  
aloft, and charged with kead to make it the more ponderous,  
heing let fall, the Limb was out off in an Instant, by the Meeting  
of the two Knives, with very flight Pain to the Patient. A  
Cautery was immediately applied to the Vessels, and the He-  
morrhage was very inconsiderable.

This Method has been censured on account of the Contusion  
**which** the. Flesh suffered; but principally for fractiiring the  
Bones, which broke into several Splinters, and rendered the  
Cure difficult. It was for this last Reason, I suppose, chiefly.

that this Practice was not at all followed. *Botallus* cites one  
MI. *Jaques,* furnamed *Begins,* a Surgeon, who practised this  
Operation with Success. *Hildanus* strongly opposed this. Me-  
thod.

*. Pare,* Cotemporary with *Botallus,* cut the Flesh in the quick  
with a crooked Knife, and made use of a broad Fillet, cut  
in two, like *P. Acgineta* and *Guide de Cauliaco,* to raise and  
cover the Flesh, and defend it from the Saw. He then cut  
with an Incision-knife, a llttle crooked, the Flesh between the  
two Bones, when an Amputation was to be made os the Leg.  
After this he saw’d off the Bones, and then took held of the  
Vessels with the Forceps, called the *Cro-uSs-bill,* stretch’d them  
out, and ty’d them up with a double Thread together with the.  
Flesh, if any happen’d to he in the way. He then *took* off  
the Fillet, that bound the Limb above the Amputation, and,-  
passing a Needle and Thread through the Lips of the Wound,  
making sour Holes crosswise, he drew over the Bones the Skin  
and Mufcles that were cut, tho’ only so far as till they were  
extended to the fame Length as before the Amputation, not  
drawing the Threads too dose. If the Ligature of any. Vessel  
unloosed. *Pare* did not trouble himself to search for it with the  
CrowS-bill, for fo he would never have found it; but, without  
tying up the Member with a new Ligature, -ordered it to he  
grasp’d by a strong Man, who press’d hard on the Part where,  
the Course of the Vesseis lay ; then be took a square Needle well  
edg’d, four Inches long, and threaded with a good Thread  
three or sour times doubled, and passed it into the Flesh at bass  
a Finger’s Breadth from the-Orifice of the Vessel, and above it ;  
then, carrying it round the Vessel, he repass’dit below the same,  
and drew it out an Inch from where it enter’d. Between the  
two Ends of the Thread, he placed a small Bolster, and upon  
this he made a Ligature. After this, he apply’d Astringents  
to the Wound, and dressed it on the fourth Day.

*Pare* makes us observe, that in an Amputation os the Leg,  
he caufes the Member to be held bended, beeause after the  
Section of the Bone, it must he extended, that the Vesseis,  
which are to be ty’d, may the better appear. He fays, he is the  
first who found out this Expedient. I could never conceive  
how it should produce the Esseol which he ascribes to it: For  
as the Vesseis are united with the Flesh which surrounds them,  
they stretch or contrait together with it by the same Springs.  
*Pare,* however, made Discoveries of greater Importance;  
for he was the first who practised Ligatures of the Vessels in  
Amputation; and notwithstanding the Fury *os Gourmelen* against  
them, this Method has been found very serviceable, and has  
been followed.

I sind yet more new Inventions of *Pare e,* he does not in-  
deed claim them for his own; but I have met with them no-  
where else. One is, that he is the first who introduced the  
Use of the crooked Knife for cutting the Flesh. It does not  
appear, that *Maggius,* who wrote but a little time before *Pare,*used it; he says nothing of it in his Description. I would not  
however pretend to he fure, that it was never made use of be-  
fore *Pare,* there is a Place in *Botallus* which may make us suf-  
pect the contrary. In the Description he gives of the Manner  
of operating in his Time, he uses only the Word *Cultres \**in the Ablative Case, without saying whether the Knife was  
crooked or not , but his Commentator *Van Horne* fays. *Cultrum  
intelligit iastar corniculata Luna soleatam,* " He means such a  
“ Knife as is falcated like the horned Moon.” *Botallus* makes  
use of the Term *Novacula*; but *Hildanus,* who used a crooked  
Knife, calls it also *Novacula.*

The other new invention, or Improvement, which I have  
observed in *Pare’s* Description, is, that be cuts the Flesh be-  
tween the two Bones of the Leg; for this Purpose he made use  
ofan Incision-knife a little crooked. It is not certain, that *Parc*was the Author of these two last inventions ; he would not  
have sail’d, it is probable, to have valued himfelf on their  
account, as well as the preceding, since they were of great  
Service, and have been constantly used since that Time.

There is still another thing, which I don’t find in any before  
him, and which he does nor ascribe to himself any more than %the two last; it is thiss Aster he had ty’d the Vessels, he  
brought the Skin and Flesh over the Bone, and held them  
there, by running two Threads crossing-one another over the  
Lips of the Wound. This Expedient was doubtless practised  
in his Time, hut it was os no UVe, and even impracticable on  
some Occasions. It was of no Service, first, when the Flesh  
was cut in the mortify’d Part, because rhe putrid Skin and  
Flesh would not hear Perforations of the Needle, hut must  
easily break away. Secondly, they who cut in the quick, and  
applied hot Itons over all the Surface of the Amputation, could  
make no use of it, becaufe of the Crust formed there, and  
hecaufe the half-roasted Flesh would easily break out: And even  
they who made no use of Fire at all, found themselves oblig’d  
to disuse it, hecaufe, when the Threads wore drawn tight, it  
caused much Pain, and excited an Inflammation in the Part,

\* De Vuln. sdop. cap. aa. *Duplici none Chirurgica Acs, darn fas eft. amputare folet. nempe Serra et Cultro.* « The Surgeon’s Art is  
“ exercised in Amputation, when the Case requires it, two ways, that is, with a saw or a Knise. ’’ “

which obliged them to cut the Threads sooner then they in-  
tended. It could do no Service, if the Threads were not drawn  
somewhat close , and Bandage alone was sufficient to answer  
the Intention proposed by this Method.

*Daniel Sennertus* has described Amputation after the same.  
Manner as *Pare.*

*:: Pigray* differs not from *Parc,* but in that he fays, when he  
could not easily take hold of the Vessels with the Crow’s- bill,  
his Manner was to cauterize them with an actsal Cautery.

*Guillemeau* is of the fame Opinion; but hesides, he makes  
a Ligature of the Vessels aster a particular Manner. He pierces  
the Skin above the Amputation with a goodNeedle and Thread,  
which he carnes above and beyond the Vessel, and brings it out  
under the Skin a Fingeris Breadth from where it entered, and  
by this means takes in the Vessel and the Flesh, which he binds  
tight by tying the two Ends of the Thread upon a small Bol-  
ster, put there to hinder the Thread from cutting the Skin.  
This Method does not appear to have bean followed by any  
but *Dionis,* who too has made some Alteration in in.

*. Fabricius ab Aquapendente,* who wrote in the Beginning of the  
seventeenth Century, cut the Flesh an inch within the Sphacelus,  
after the Manner of *Avisenna* and *Vesalius,* By this Method,  
he said, he avoided the Hemorrhage and the Pain. Afterwards  
he apply’d Fire to the Place till the Patient felt the Heat, and  
a Crust was formed upon the Mouths of the Vessels.

. The Practice of this Method has at last been quite abandon’d,  
because it is fubjech to several Inconveniencies. The first is, that  
whatever Precautions you take to bum away all the mortify’d  
Part which is lest under the quick, ’tis to be feared there will  
remain enough to produce a Corruption in the found Part. A  
second Inconvenience is, that the sphacelated and cauterized  
Part being separated from the quick by Suppuration, there re-  
mains a long Stomp of a Bone, that sticks out, and very much  
retards the Cure of the Wound, which is not easily consoli-  
dated.

*Marcus Aurelius Severinus* gives the fame Description os the  
Operation as *Pare,* but differs from him, in that be makes no  
Ligature of the Vessels, but only brings the Skin over the  
Wound. He covers the Vesseis, and remins the Skin over  
them, by passing rhe threaded Needles across. The Inconveni-  
encies of this Method heve been made to appear.

*- Gulielmus Fabricius Hildanus,* aster tying the Limb very tight,  
to suspend the Circulation of the Blond, binds it down to a Bench  
with a Fillet, and draws over it a fort of a leather Sleeve, which  
may be closed at the End like a Purfe. He then cuts the Flesh  
in the quick home to the Bone, either with a Razor, or a  
crooked two-edged Knife; he lays the Bone bare of the Peri-  
osteum, and when there are. two Bones, he cuts the Flesh be-  
tween them with an Incision-knife bent a little crooked ; after  
which, he envelopes the cut Flesh by drawing the Strings of the  
Sleeve, and by that means pulls it back, and raises it; he lays  
the Bone bare, and prevents the Blond that comes out of the  
Vessels from covering the Place where he is to apply the Saw.  
Then he saws off the Bone, and, taking off theSleeve and Fillets,  
applies an actiral Cautery to the Vessels, till there is a Crust  
form’d for stopping of the Blood.

Whet is pecullar in *Hildanus* is, first, the making use of a  
. Bench, to which he binds the Member that is to be amputated.  
But this appear’d to be very useless, and might, possibly, be  
troublesome ; which was the Reafon, that he was not follow’d  
in this Particular, in the second place, he uses a sort of Sleeve  
of Leather, which is also more troublesome than useful, since a.  
wide Linen Fillet, cut in two at one End, would with greater  
Ease and Readiness answer the Purpose. *Hildanus* alfo some-  
times made use of a red-hot Knife to cat the Flesh, and of an  
actual Cautery for stopping the Hemorrhage from the Vesicis,  
especially when the Member was sphacelated. But, according  
to him, a Ligature would be sufficient, if the Pationt were young,  
robust, and plethoric, in which Cafe he makes his Ligature like  
*Pare.* He is wrong in quoting *Celsos, Galen,* and *Avisenna,  
for* the Ligature of Vessels in Amputation ; for they never used  
any but for Vessels that were opened by Wounds, as I ob-  
served before.

*Hildanus* brings the Skin and the Flesh, as far as possible,  
over the Bone, without keeping them there by a Thread passed  
through the Skin and Flesh crosswise, which he disapproves for  
the Reafons above-mentioned.

*- Vigier,* who published his chirurgica! Works about the Middle  
of the Century, made an Amputation, after the fame Manner,  
and with the same Precautions, as *Pigray. . Barbette* did the  
same; he wrote a llttle later than *Vigier.*

*Nack* clofely followed their Steps: He is the first who speaks  
**of** the Tourniquet, which Mr. *Morel* invented for preventing  
the Hemorrhage ; but he found the Ligature so painful, that he  
chose rather to make use of an adtual Cautery. In this Point  
he is mistaken; for a Ligature of the Vesseis well made is lefs  
painfol, and surer, then an a&ual Cautery. *Nack* advises us to  
ufe a fort of Mushroom, which he calls *Papist,* and we *Puff-  
balls,* which is commonly used in *Germany* and *Holland* for stop-  
ping of Hemorrhages.

*Charrierre, John-Baptist Verduc,* and *Dicnis,* heve done  
nothing but copy precessing Authors in their Descriptions of Am-  
putation. But *Dionis* gives us two new ways of stopping the  
Blond by a Ligature of the Vessels. In the first, he ties up the  
Vessels with a Ncedle and waxed Thread, and makes ufe of a  
*Valet a Patin,* [Nippers with a Ring] with which be takeshold  
of the Vessel, and pulls it out from the Flesh; be winds the  
Thread about the Vessel, and after passing the Needle through  
the Extremity of the Vestel, ties the Thread, and fastens it in  
such a manner as not to be thrown off by the Pulsation of the  
Artery. In the second Method, he takes two Needles threaded  
in like manner with waxed Thread; with one of them he  
pierces the Flesh above the Vessel, and heving passed it through  
the Flesh and Shin, he draws it out two Fingers Breadth above  
the Amputation. With the other Needle he enters the Flesh  
and Skin below the Vessel, and pulls it out half a Finger’s  
Breadth from where rhe other Needle came forth; he then lays  
between them a little Bolster, on which he ties the two Threads  
with a Knot, and so closes the Vessel. This second way differs  
not from what *Guillemeau* speake of, except in that the letter  
tiles but one Needle. \_ ....

The *Valet a. Patin* is a sort of Nippers, invented about the  
Middle of the last Century, and not much used at present.  
M. *Garangeot,* Master Surgeon at Paris, glees a Description of  
it with a Figure. When that Instrument began to be used,  
there went over it a Thread with a hiding Knot. They  
drew out the Artery with the *Valet a Pat in,* and ty’d it with  
the Thread in a Knot, that could not stide. This Invention  
was subject to two Inconveniencies: First, If the Thread was  
drawn a little too tight, to prevent its flipping, it would cut  
by. degrees the Artery, which being ty’d at its Extremity,  
would separate too soon, and he followed by a new Hemorrhage,  
more dangerous than the former. Secondly, If the Ligature  
was made a little too loofe, the continual Pulsation of the food  
would by degrees push the Thread to the Extremity of the  
Vessel, where it would slip off. *Disniswzs* willing to remedy  
this Defect bypassing a Thread through the Vestel, in the way  
that he first proposed, but this was too troublesome a Method ,  
to be followed, and his second was more so, and besides put  
the Patient to greater Pain. At present, they tie the Arteries  
after the Manner of *Pure,* which is the most simple Method, and  
followed by all good Artists. They pass the Needle, as I raid  
before, through the Flesh which surrounds the Artery, and  
fasten the two Ends of the Thread with a Knot upon a small  
Linen Polster. *Dionis* tells us also, that he could stop the  
Blond with a Button of Vitriol, which was practised and re-  
commended by several Surgeons of the last Century.

*Cyprus* Vitriol, which is what is used to cauterize the Ori-  
fices of the opened Arteries, and raises a good Eschar on the  
Place, does not so readily stop the Blood as an actual Cautery  
and Ligature. It must liquefy, in order to insinuate into the  
Pores of the Flesh; fo that this Remedy works but flowly.  
The Blond would soon break through the Barrier oppofed to it,  
if we did not take great Precaution. They who used this Me-  
thod, laid graduated Compresses on the Button os Vitriol, and  
other long Compresses on the Course of the Vesseis, in strch a  
manner, that by the Help of a pretty tight Bandage, the Flesh  
might he compress’d upon the Volin.

A Servant must he\* sure to attend, in order to keep his Hand  
continually upon the Stump. We ought indeed to take the  
same Precautions in all other Methods or Amputation ; but this,  
in particular, requires the most careful Attention.

As to the rest, we must avoid making ufe of strong Suppura-  
tives, for fear of making the Eschar separate too foon, and fall  
off before the Mouths of the Vessels are entirely closed, and  
quite stopp’d im.

Here it will not be foreign to my Purpose, to explain the  
Action of Esctiarotics. I shall give you my Conjectures about  
the Matter, which is full *os* Difficulties, as well as many others.  
X am always for running mis Hazard of exposing my Sentiments,  
because it will doubtless engage fome able Naturalists to examine  
them with Attention, and perhaps propose Inch as are. more  
probable, which will be received with Pleasure.

We make use of two sort of Cauteries or Caustics in general,  
which are, the *actual* and the *potential Cautery.* The 'aolual  
Cautery is Fine, and all burning Bodies, as heated Iron, very  
hot Water and Oils, *etc.* When these are apply’d to any Part,  
their Heat penetrates the Flesh, where the Air is included in  
the circulating Liquids. This Air is rarefy’d and expanded to  
an extraordinary Degree by the great Heat. This violent Ex-  
pansion separates and disunites all the Parts in which tbe Air is  
contained, and fo destroys their Structure. Tne expanded Air  
easily escapes through the Pores 2nd interstices of the Flesh,  
whose Contextore it has thus destroy’d ; and carries with it, at  
the same time, all the aqueous Particles contained therein; which  
is the Caure of the drying up of the cauterized Part, and the  
forming of a Crust upon it.

Melted Lead, melted Sulphur, and very hot Oils, **which**some make use of, aci after the fame Manner.

I make three Sorts os *potential* Cauteries, according to the  
Parts on which they act. The first act only on the Flesh un-  
covered os its Skin, the second on the Skin and the Flesh, and  
the third only on the Skin.

The Cauteries of the first Sort are *Cyprus* Vitriol, Arsenic,  
the Sublimate Corrosive, *etc.* These make no Eschar but in the  
Flesh, and make none at all when apply'd upon the Skin. Cy-  
*prus* Vitriol is what is commonly used to cauterize the Velsels,  
because Arsenic, and the Sublimate Corrosive, act too flowly,  
tho' otherwise they make a good Eschar. These Salts absorb  
the Humidity which dissolves them, by means of which they  
are introduced into the integral and extremely sensible Parts of  
which the Flesh is composed. The Blood, which circulates in  
those Parts, continually supplies them with new Humidity,  
which probably unites with the saline Particles in proportion  
aS they arrive, which occasions these Particles to penetrate more  
and more into the Flesh, where they still find new Humidity,  
which gathers about them; hence the Pores, which contain them,  
must be considerably inlarged, and the solid Particles, which  
compose the Partitions he tween them, are obliged to give way,  
and separate; by which means the Texture of the Fibres, which!  
compose the V effels and the Flesh, is quite subverted, and forms  
a Substance winch is no longer Flesh, nor capable of receiving  
Nourishment.

The potential Cauteries of the second Sort are of several  
Kinds; some of them are liquid, others solid. The liquid  
caurerize the Skin and the Flesh, at the Instant they are apply'd;  
such are Oil of Vitriol, Spirit of Nitre, Aqua.Regia; their  
Action is Very quick. Spirit of Salt, and Spirit of Vitriol, cau-  
terize hut (lowly, and are seldom used alone, but in Con-  
junction with some metallic or saline Particles. Butter of An-  
timony, Butter of Arsenic, the Oil or Liquor of Mercury,  
which proceeds from the Washings ofTurbith Mineral, are more  
frequentsy used.

Solid Caustics are either metallic or saline. The metallic are  
*Lapis infernalis,* made with Silver or Copper, dissolved in Spirit  
os Nitre, or Aqua-fortis.

Saline Caustics are in common Use, and properly called *Cau-  
teries.* They are made of Lime and Ashes of Tartar, *etc.*They prepare them also from the Lye of rhe Soap-houses,  
winch is composed of Kali, Qttick-lime, and Copperas, *etc.*But these are not so good Cauteries as the preceding.

These Caustics burn and cauterize ine Skin and Flesh, and  
produce an Eschar, without causing any great Pain.

. in order to explain the Action os these Caustics, you must  
observe, that generally, all BedieS which have endur'd a strong  
Fire, are Caustics. Some of these lose that Causticity in  
cooling ; such are all actual Cauteries. Others preserve their  
Causticity in cooling, which is the Case *of* potential Cauteries.

Caustics of the third Sort act ppon the Skin. These are im-  
properly called *Eseharotics,* for they make no Eschar ; it does  
not so much as appear, that they act upon the Epidermis, which  
remains whole and entire. I would not place them in this  
Rank, did they not work Very nearly the same Effects aS are  
produced by Very hot Bodies, which remain but a very fnort  
time on any Part. - They produce nothing but Vesicles on the  
Skin, and for that Reason have the Name of *Vejicatories.*

In the Number os VeficatorieS are rank'd,  
- Cantharides, which are of most frequent Use.

The Ranunculus TuherosuS major, *J. B.*

The Flammula Ranunculus, *Dod.*

The Flammula, *Dod. pempt. .*

The Flammula altera, *Dod.*

The Flammula JoVis Surrecta, of *Ger..*

*Fabricius ab Aquapendente* chose rather to make use of this  
Herb than Cantharides, because it occasions no Disorder in the  
Bladder, as Cantharides sometimes do, in his Opinion. For  
my part, I never smew any ill Accident happen from the Use  
of them, tho' T have ordered their Application a Vast Number  
**os** times.

They also use Very often the Root of Thymehea [Flax-  
spurge]. *Petit in the Memoirs of the Royal Academy of Sciences  
\*73\*- ..*

Having given the History of Amputation, I shall proceed to\*  
specify the Operations requir’d for the Amputation of particular  
Parts, as now practised, from *Horsier.*

*Amputation ofsupernumerary Fingcrs.*

Children are sometimes hern with supernumerary Fingers,  
which are generally mis-shapen, and inconveniently placed.  
These Fingers are not all of the same Nature. Some have  
Bones and Nails others want them, and appear to be nothing  
but cantons Excrescences. If any of these are troublesome, or  
deform the Hand, they ought to be cut off. If there are no  
Bones in them, the Kruse is most convenient ; but if there are  
Bones, a strong Pair of Sheers will better do the Bufineis, thy  
taking off all together. Sometimes more than one of theso  
Fingers are sound upon the Hands of Insants, who are mo in-  
firm and tender to bear immediately the Repetition of such an

Operation, and the Pain attending it. In titis Cose ft is sasest;  
after the Excision of one Finger, to allow so long an Interval;  
that the Wound shall be entirely heal'd before you proceed to  
amputate the other. The Flux of Bloed is easily stopp’d with  
Lint and Compresses, either dry, or wet with Spirits of Wine,  
and the Wound is readily healed with a Vuinerary Balsam, aS  
other Wounds. It will not he foreign to. the Purpose to men-  
tion here, in sew Words, a Cafe os this Kind, which I myself  
was concerned in. An Infant about three Months -old had a  
very long preternatural Finger growing to the Thumb, (See  
Τσίν. 33. *Lig.* so.) 2nd hafl z strong Bone in it ; but instead of  
a Nail at the End, a Substance like a Cock's Spur protruded;  
I made an Incision quite round the integuments, and then, with  
a Pair of Sheers took off the Bone; this done, I stopp'd the  
Bleeding with Lint, and Compresses wetted with Spirits of  
Wine, and dress'd the Wound with a Vulnerary Balsam, winch  
soon heal'd it. I could here produce many Instances os Cures  
os this Kind, which I have performed both in the Hands and  
Feet; but one Case is sufficient, .as the others are much of the  
same Kind, and the same Method of Cute was observed in all.

*Amputation of the. Fingers.*

The Fingers require Amputation, when they are so lacerated  
or bruised by Bullets, or other hard Bodies, that they cannot  
he restored to their former State ; or are totally mortified ; or  
being indurated, or affected with a Caries, or Cancer, cannot  
be cur'd by other Treatment.

But Surgeons should be very careful not to cut off any  
bruised or fractur'd Fingers, whilst there remain any Hopes of  
saving them: Therefore if the Fingers are Only moderately  
broken, or gangren'd, let some spirituous and resolving Fo-  
mentation be judicioufly apply'd, in order to prevent their far-  
ther Corruption; and Jet the Fragments of the Bones he care-  
fully replac'd, and treated in the manner directed for Fractures, ι

Is any Parts of the Fingers are so much fractur’d aS to be  
almost entirely divided from the rest of the Hand, in this Case  
they may immediatory he separated from it with the Knife or  
Sheers. The same Rule is to he observ'd when a Finger is  
totally mortified ; for a Delay, at such a Juncture, would he  
attended with great Danger.

But is a Finger should be cut, by a sharp Instrument, almost  
off, if the Wound is fresh, however bad, it will be then better  
to replace it in its former Situation, than wholly to divide it ;  
and even if the Part is quite divided from the Hand, provided  
the Wound is oblique, it will be prudent to fix it in its proper  
Situation, and to try by Degrees to unite it: For it is better to  
attempt a Union of the Parts this way, tho' your Labour may  
sometimes be in vain, than rashly to destroy all Hopes, by cut-  
ting off the Finger, which perhaps might have been sav'd.

*Holster* gives an Instance of a Butcher's Wise, who entirely  
cut off a Finger, by an oblique Wound, with a Cleaver; **she**immediately replac'd it, and secur'd it with Bandage, and it  
united without farther Applications. . .'

Amputation os the Fingers is perform'd three ways :  
First, With the sharp Forceps, or, which is preferable, espe-.  
cially in Children, with a strong Pair of Sheers.

Or, secondly, with the Chisel and Mallet, by which the  
Part is Very readily cut off at one Blow (See *Tab.* 33. *Fig.* **I** 7.):  
This Operation I have performed several times in cancerated  
and cariated Fingers; and also when the Bone has been cor-,  
rupted. *Roonhuysen,* in a Spina Ventosa, alsio has done the  
same upon a scirrhous great Toe with Success, wherever some  
People may think to the contrary.

Or, thirdly, a mortified Finger is to he taken off with **a**Knife at the Joint, leaving Skin enough to cover the End of  
the Bone. This Method os Amputating is preferable to both  
the other, as the Work is done without any Danger of splin  
tering the Bones, and thereby causing another Caries. By  
this Method I have srequentiy cut off the Fingers, Thumbs,  
and Toes, even of old and decrepit People, where the Bones  
have been wholly carious, at their Articulations with the meta-  
carpal or metatarsal Bones, and have made a perfect Cure.  
However incommodious this way of Amputating may seem to  
. some, who imagine the Skin will not grow over the Cartilage  
without a great deal of Difficulty, is at all, yet I have never  
found it so. But this Inconvenience may be avoided, by not  
only drawing back strongly the Skin hefore you make the Inci-  
sion, but by taking off with a Knife the Cartilage at the End  
of the metacarpal or metatarsal Bones ; sor by so doing, they  
will more easily unite and grow together. The Finger heing  
out off, the Wound must be dress'd with Lint, and bound up  
with Compress and Roller. If the Patient is full of Blood, let  
a few Ounces run from the Wound before you bind it up ; for  
after this there will be littie Danger of a fresh Hemorrhage,  
and indeed I never remember one to have happen’d after it. If  
two Joints of the same Finger are mortified with Part of the  
third, it will then he better to cut away with a Chisel the cor-  
rupted Part only, than by a more painful Incssion to divide **the**

' Whole with a Knife from the metacarpal Bone. But if a Mor-  
tification has seiz'd the whole Finger, or Toe, it must he am-  
. putated in the Joint, leaving a sufficient Portion of the Skin;

*Of the Amputation of the Hands, Arint, and Humerus.*

Amongst chirurgical Operations the Amputation of the Arms  
and Feet appears the most cruel and terrible, and this not  
without Reason ; notwithstanding, in some Coses, it is sound  
necessary for the Preservation of the Patient’S Life. For when  
a Mortification has. seiz'd upon the whole Member, and de-  
stroys even the Muscles; or when both Bones and Muscles are  
corrupted; after a Fracture ; or when an incurable Caries, or  
Spina Ventosa, affects the Member; or .when the Brachial,  
Or especially the large Crural Artery, is so much wounded, that  
the Blood cannot be stopt: In these Cases you will scarcely be  
able to save the Patient's Life without taking off the Limb;  
nor will that always do it. Lastly, it must he perform'd in  
Limbs, especially the Hands, when render'd monstrous, by a  
Spina Ventosa, or any other Couse, especially if they are very  
painful. *Marcus Aurelius Severinus,* in his Treatise *de Abf-  
cejsibus, Bidloo,* in his *Exercitationes, and Ruysoh,* give some  
Coses of this Kind. In the mean time let me serioufly admo-  
nish the Surgeons, never to undertake an Amputation of this  
Kind rashly, and without the Counsel and Assistance of other  
prudent Physicians and Surgeons, lest perhaps they should  
afterwards he accus'd of Cruelty, Rashness, or Imprudence.

But that it may appear more plain how Operations of this  
- Sort must be perform'd, it will not be amiss to treat them in a  
regular Order. I will therefore hegin with the Hand.

. The Hand may be amputated at one Blow, as was formerly  
practised, by placing a strong and sharp Chisel near the Wrist,  
and with a heavy Mallet driving it through.’ But this way of  
Amputating is not only very hazardous, but also Very pernicious.  
For there is always Danger, lest the Bones of the Wrist or  
.Cubit, by the Violence os the Blow, should he shivered or  
- broken, and the Patient thereby expos'd to Very great Inconve-  
niencies. . s,

*.Fabricius Hildanusis* of the same Opinion, and says farther,  
it is an Operation too violent and Cruel, and consequently sin-  
.heseeming a rational Surgeon. -

The modern Surgeons therefore act very reasonably in  
substituting the Knife and Saw in the Place of the Mallet and  
. Chisel. But here great Care must he taken, that the Saw be  
not apply'd to the Carpus or Metacarpus ; for should the Liga-  
ments, and those little Bones, he lacerated and divided with  
the Saw, a great deal of Pain and Danger would arise. It is  
, better therefore; according to the present Method, that the  
-Hand be amputated with the Knife and Saw, apply'd to the  
.Bones of the Cubit, in the manner I shall descrihe; and at the  
same time it will appear how we are to proceed in amputating  
the Arm, or Cubit, and the Humerus. *Heister, however,  
. thinks, that the Hand may be amputated at the Articulation with  
the Cubit, with the Enise only, thd he has never made the Ex-  
periment. \_ ,.*

In cutting off the Hand, or Arm, whether on account of a  
Mortification,, incurable Caries, or any other Couse, two  
things seem principally necessary to he regarded. ' The first is  
the Place where the Operation must be performed, which is at  
least a Finger's Breadth, or two, above the dead or corrupted  
Part, but never upon the sphacelated or corrupted Part. More-  
.over an Amputation of a large Limb must not he performed in  
.the Joint, on account, of the extreme Thinness os the Flesh  
in those Parts, which cannot, in the Opinion os Surgeons,  
cover the Bones, and heal over them ; from whence a Caries  
may arise, with many other Inconveniencies.

Notwithstanding, is a sufficient Portion os Skin. on both  
Bides be saved, .1 imagine the Wound may be heal'd in the  
same manner as it is in a Finger cut off at the Joint.

The Place for Amputation heing determin’d, that the Ope-  
ration may succeed the hetter, it is necessary, in the next Place,  
that the Instruments and Apparatus, both for the Amputation,  
and Dressing afterwards, should be ready beforehand, and placed  
regularly in two Dishes, or on two proper Tables, but not  
f-in the Patient’s Sight, lest he should be terrified by seeing  
them, ‘ ἐν .

' But lest-any one should be unacquainted with the Instruments  
and Apparatus necessary in this Operation, it will bo worth  
while to. enumerate them all in this Place.- We will hegin  
with the Torcular or Ligature, with the Turn-stick, call’d by the  
*French* Tourniquet. There are Various ways, of making it,  
hut this is the readiest. ... Ἀ

. Take a Fillet, about an Inch broad, and a Yard and a Quar-  
ter long; then provide a cylindrical Piece of Wend,, or Stick,  
of about a Finger's Length ; and then a Fillet roll'd up two  
Fingers thick, and four long; longer Clothe or Compresses  
must also be provided to encompass the Limb, which must  
he three or four Fingers broad, over winch the Fillet is to  
he apply'd ; and lastly, a Piece os Pastboard, or thick Leather,  
about four Fingers square.

The Method of using the Torcular or Tourruqiset is thus:  
Let the Fillet roll'd up he plac'd lengthways upon the large  
Artery of the Limb, the Situation of which is known from the  
Anatomy of the Part,.and, upon this let Compresses he plac'd  
transverfly, *so as to encompass* the Limb like a Ring ; then  
wind the long Fillet twice round these, but loosely, so that the  
Hand may easily pass betwixt it and the Limb, and then fasten  
it with a Knot ; then upon the Side of the Limb, opposite to  
she roll'd Fillet, place the Pastboard or Leather under the long  
Fillet, upon which let the Fillet be twisted with, the Stick, till  
.the Circulation is wholly stopt;. the Stick must he .held fast.  
Jest it should give way before thn-Limb is amputated, and the  
.Profusion of Blood stopp’d, either by astringent Medicines, by  
Ligature, the actual Couterv, or by any other Art whatever ;  
which being performed, the Torchlar may he loosed, and en-  
tirely remov’d. Seo the lung Fillet, with the cylindrical Stick,  
*Tab.* 24. *Fig.* 2. . and the Manner *of* placing it. *Tab.* 24.  
*Pig.* I. KLN. . ... \_

Mr. *Petit,.* a .celebrated Surgeon at *Paris,* has invented an-  
other Sort of Torcular, which is called by his Name, and is  
preferable to the other, as its Pressure. continues without any  
Assistance; whereas, when the common Torcular is us'd, an  
Assistant in oblig'd to hold and manage it . And again, because  
if Necessity requires, it may remain upon the Limb; aS long  
aS may he judged proper, without Impediment, to the Circu-  
lation of the Blond in the affected Part; whereas by the com-  
mon Torcular the Blood is wholly intercepted, insomuch that  
in a little time it must be taken off again. These at e Advann  
tages in Haemorrhages from Wounds, or otherwise, where the  
Torcular is sometimes us'd ; but Disadvantages in Amputations,  
where the Circulation ought to be stopp’d in the whole Limb  
for some time. / . ' . . - I I

I have endeavour'd to alter and improve *Petits,* Torcular.  
See *Tab.* 26. *Fig.* 6. where. A A denote, the superior Part,  
B B the inferior, and C the Screw, all represented in their pro-  
per Size, and made of some strong and durable Wood. To-  
wards the Extremity at D are inserted two lesser Screws, made  
of Iron, to which a strong silken Fillet is to be fix'd, whicli  
must be as wide aS the Torcular, and twenty Inches long, that  
it may she hetter reach round the larger Memhers; the other  
End is to he fix'd to the small Hooks represented at Ε ; in the  
Extremities F F, F F, both Parts, both above and below,  
are a little excavated, that the Fillets may rest the firmer in  
them,-and may not he so easily mov’d, or flip quite out. At  
the Letter G is on .iron Plate, to render the Machine stronger,  
lest it should give way to the Force apply'd to it. Thus when  
an Artery is to be compress'd, either on account of an He-  
morrhage from.a Wound, orTo prevent one during.Amputation,  
the Inferior Partspf the Torcular B B, cover’d with a good  
many Folds of Cloth, is laid on that Side of the Memher which  
.is opposite to the Artery ; the Fillet is lightly wrapt about the  
Member, and the Ends of it are fixed to .the Hooks E ; then  
by means os the Screw C, the Cords are drawn to such a De-  
gree os Tension, as is necessary for stopping the Blood, and  
.are allowed to remain in that Degree of Tension upon the Part  
as long as the Surgeon shall think propers : i

*Garengeot* describ'd and delineated another Torcular os tlie  
same Nature, invented by that celebrated Surgeon *Mor and,*which indeed agrees with the former in many Particulars, but  
differs from them' principally in this, that instead.of a simpin  
Screw, *Morand,*. for the sake of-a quicker Action, made his  
with a compound one, and had it made of Iron.;. so that in his,  
one Turning of the Screw wound up tlie Cords more, and com-  
press'd the Artery hetter,. than two or more Turnings of the  
Screw in other Torculars. But *Garengeot* makes some Objee  
ctions against this Machine, and prefers that of *Petit* to it.

Some Years ago, when I was call'd Io *Berlin,* .to attend in  
certain General Officer of the *Prussian* Army, Lihere. saw a Spe-  
cies of the same Torcular, made of Iron,r very heavy, and.much  
resembling that of *Morand,* but alter'd in some Particulars, bv  
whose Directions I know not. As I have not as yet seen st  
delineated, I have given a Representation of it in *Plate* 26.  
*Fig.* 7. A.is the. inferior Plate, with many little Holes to-  
wards its Circumference, that so aTmall Cushion,- or Foldings  
of Cloth, may the. more conveniently he Tut under it, and  
sew’d to it. But an excavated or. hollow'd-Eminence, for  
receiving the Screw. . C is the upper Plate. D the Hollow in  
the upper Plate sor receiving, the Screw.. E E the Extremities  
of the upper Plate, one of which; is furnish'd with Hooks, the  
other with Hooks, and a sort of Bow, so that the Fillet de-,  
sign'd for embracing the Member -may not flip. F is a Sort of  
Ring, incircling the. CaViry of the "Screw in the upper. Plate.  
G -is a square or cubic Part, hollow'd in Form of a Screw, fit-  
ted for she Reception of the small Screw Η, and contrived in  
such a matures, that the large Screw I K, which would other-  
wise easily yield arid flip out, may be the more conveniently,  
fixed and retained in the Cavity L). . L is an iron Cylinder,  
firmly fixed in the inferior Plate, but free .in the upper, tliat so  
the upper Plate may be made to approach the under at Pleasure,

hgain recede from it at Discretion, for stretching the Fillet, and  
compressing the Artery, and keep the upper Plate in the same  
Posture with the under, that so it may not be distorted or  
driven awry, and the Action of the Machine by -that means  
prevented. \*

For preventing this Inconvenience, I took care to have a  
Torcular made of Copper in another manner, a Representation  
of which may he seen in *Plate sap. Fig.* I. where the superior  
.Lamina is much shorter than the inferior, and has a Fillet  
fix'd at one of its Extremities, which, heing wrapt about the  
Member, is to he fasten'd to the Hooks in the other Extre-  
mity ; and the Fillet passes thro' the Holes os the inferior La-  
mina, and by that means keeps them in a perpendicular Situ-  
ation, and prevents moving any way when the Screw is turn'd.  
A Surgeon may make Choice of any one of these he pleases;  
they all answer the Find, only some do the Business much  
fooner than others; but in this Case, the Surgeon may pro-  
ceed upon that common and well-known Maxim, *Satcito,si fat  
ime ;* the Operation is soon enough, if it is wall enough per-  
, form'd.

The first Part then of the Apparatus for Amputation, is the  
Tourniquet.

The second is a smooth Fillet of Linen, near an Inch in  
Breadth, and about half an Ell long.

The third is a sinall Knife for dividing the Skin, Os which  
see a Figure, *Tab.* 34. *Fig.* I.

The fourth is a great crooked Knife for dividing the Flesh.  
See *Tab.* 34. *Fig.* 2.

The fifth is a small douhle-edg'd Knife, for the separating  
the Flesh between the Radius and Uina, *Tab.* 34. *Fig.* 3.

- The sixth, a linen Cloth, about three Spans long, and six  
Fingers broad, flit lengthways half thro'. See *Tab.* 23.  
*Fig. Vi.*

The seventh, a good Saw for divining the Bones. - See  
*Tab.* 34. *Fig. An*

The eighth, a Pain of Forceps to lay held of the Arteries,  
see *Tab.* 34. *Fig. 5.* and 6.

The ninth, a crooked Needle, with a strong Thread.

The tenth. Vitriol Buttons, wrapt up in Lint or Cotton.

The eleventh, little four-square Compresses. *Plate* 23,  
Fig.. 2I.

The twelfth, great Plenty of Lint.

The thirteenth, a Powder for stopping the Blond ; but as *it*often causes Inflammations, and prevents Suppuration, Spirits  
ofWine, or Oil ofTurpentine, is hetter. However, we easily  
do without any Astringents at all.

The fourteenth, a large and round Compress of Tow, or a  
great Piece of the Crepitus Lupi, or Puff Ball, sor covering the  
Test of the Cloths and Compresses.

The fifteenth, a CalPS or Hog'S Bladder, or instead of it,  
either a large sticking Plainer, in the Shape of the *Maltese*Cross, *(seCT.ab.* 23. Fry. I 5.) for covering the Trunk with  
the preceding Apparatus; or three Plaisters about two Spans  
Iong, and three Fingers broad.

The sixteenth, a Cloth in the Shape Of a *Maltese* Cross, but  
larger than the Plainer.

. The seventeenth, a thick four-square Cloth for covering the  
End of the Stump.

The eighteenth, three Compresses two Spans long, and two  
Inches wide. '

The nineteenth, a Roller five Elis long, and three Fingers  
broad, for binding up the Limb.

Lastly, Wine, and other internal Medicines, as well as  
external, sor raising the Spirits of the Sick, when inclin'd to  
faint. . ‘ ‘ ......

It remains next, to shew the proper Situation Of the.Patient,  
rthe Surgeon, and his Assistants, when the Operation is to he  
perform'd. The Patient then must he plac'd in a low Chain,  
and set almost in the Middle of the Room, that free Access  
may he had to him all round, and that the Assistants may be  
plac’d more commodioufly about him. -

The Surgeon himself must stand in the Middle, hetween the  
Patient's Feet; but the Assistants, six of which at least ought  
.io he present, must help the Surgeon in this Manner : One of  
them should stand hehind the Patient, and hold his Body ; an-  
other, standing at the Patient's Side, should clash the upper  
Part of the Arm which is to he amputated, near the Elbow;  
a third should hold the Hand a *fourth* should assist at the Side  
with the Instruments, so that when they are wanted by the  
Surgeon, they may he given commodioufly ; the fifth must  
deliver the Dressings in regular Orderand the sixth must he  
ready to give the Patient a Cordial, and to do such other things  
as the Surgeon may perhaps direct.

. After that, the Surgeon, who ought to have a Towel hefore  
him, in order to wipe his Hands, if it should be necessary,  
must moderately twist the Torcular about the Arm to he am-  
putated, in the manner, and at the Place represented. *Tab.* 24.  
*Fig. i. K. For by* sio doing» not only a too great Flux of  
Blood from the great Artery of the Arm is prevented, but the  
Nerves also heing moderately Compress'd, the Patient seeis the

less Pain front the Operation. But lest the Torcular should  
give way, the Stick ought to her held carefully by the Assistant  
who stands behind the Patient’s Back; but if the other Toren-  
lars are us'd, they stand of themfelves, without any Assistance;  
Then the Servant, who holds the upper Part of the Arm, must  
draw the Skin hack aS much as possible, whilst the Surgeon  
himself binds the Fillet; about half an Ell long, and an Inch  
broad, several times about the Part where the Operation is to  
he performed, the End of which is to be sew'd last ; this is to  
ferve hsm, not only as a Guide for the more regular Division  
of the Flesh with the Knife, but to keep the Flesh so firm,  
that it might not give way to the Knifes Some do the same  
with a leathern Thong and Buckle. ’ But before we proceed  
any farther, the Patient ought to be comforted, not only with  
Words, but with Wine, or some other spirituous linquor, lest  
he should sink under the Operation.

These things being done, the Operation must be hasten'd,  
in which the Surgeon's first .Business is, to place the Arm in a  
strait Line, which heing held by two Assistants, he is then to  
make an Incision with the lesser Knife through the Skin all  
round ; which heing perform'd, the Assistant who holds the  
upper Part of the Ann, must draw the divided Skin back as  
much as he can; then near the Edges of it, either with the  
fame Knife, which here will do Very well, or with the largo  
crooked Knife, the whole Flesh must he divided all round the  
Bones. By this Method of Amputating, the Bones are much  
sooner and easier cover'd, and the Healing of the Wound much  
forwarded. This being perform'd, the Flesh hetween the *Ulna*and *Radius* must be divided with a small two-edg'd sharp Knife,  
and the *Periosteum* from the Bones must he scrap'd off, where  
the Saw is to be apply'd, lest being tore by the Teeth, violent  
Pains and Inflammation should he excited; then the Assistants  
holding the Arm, should strongly draw back the divided Flesh,’  
that the Bones may appear the more fairly in View, in  
order to be sew'd off. And that the Flesh may the hetter be  
drawn back in the upper Part Of the Wound, and the Bones cut  
off Very high, it-is convenient to apply a Cloth flit in the Mid-  
dle, in such manner, that the Bones only should come through ;  
and that the whole Parts of the Cloth resting upon the Flesh,  
may, by being drawn back by the Assistant who holds the  
upper Part of the Arm, draw back the Flesh also along with it:  
For in Cases of this Kind, the Bone must always be cut off as  
near as possible to the Flesh which is drawn back, that, as we  
said before, the Bones may he sooner cover'd, and the Wound  
much sooner heal'd. But the Surgeon ought so to apply the  
Saw, that both the Bones may drop together. For the Danger  
is, that if they should not he cut equally alike, either one or  
the other on. which the Saw presses alone, not heing strong  
enough, would be split, and thereby the Patient would he ex-  
pos'd to many InconVeniencies in the Cure. In the Beginning,  
the Saw ought to be-moved lightly ; afterwards, when it is well  
fix'd in the Bones, it must he moved a little faster, but care-  
fully. And lest it should by any Chance he stopt in its Motion,  
or squeez'd between the Bones, the Assistant holding the upper  
Part of the Arm should raise it a littie, whilst he who holds  
the lower Part depresses it,, so as to make way for the Saw,  
for about a Minute or two; in which time the Hand, and part  
Of the Arm, will he entirely taken off.

- The Hand and Arm being now amputated, the Surgeon's  
immediate Care must be to suppress the Haemorrhage from the  
divided Arteries; and aster that to dress, and bind- up, the  
remaining Stump . That the Mouths, therefore, os the Arteries  
may the more easily be found, let the Assistant, who holds the  
Torcular, loosen it gently, by untwisting the Stick a little ;  
or if the Torcular is of the'other Kind, the fame is done by  
turning back the Screw; for the Blond bursting out, aS from a  
Siphon, will directly shew the Mouths of the Arteries. If the  
Patient is full of Blood, it will he much the hest to keep the  
Torcular loose a littie, and let the Blond run gently into the  
Vessel underneath ; but if he is Very weak, and has but little  
Blood, the Torcular ought then to be twisted again immediate-  
ly, aS soon aS the Orifices of the Arteries are discovered. And  
*is the* lower Arm is cut off near the Hand, it will not be Very  
necessary to tie the Arteries there; for as the Arteries in these  
Parts are small, the Blood is easily stopp'd, .by applying to the  
Apertures os rhe larger Bits of Vitriol, with a great deal of  
loose Lint, or shuare Compresses. Chabert *is of Opinion, that  
Vitriol is unnecessary ; because Lint, with Compresses, andprefer  
Bandage, will be susisicient to step the Haemorrhages And this,  
fays* Heister, *I havefound true, especially whore the Patient has  
not been over-robnsi, and full of Blood. - Others esteem acrid  
and caustic Applicatioris wry pernicious, or, at least, uncertain  
Remedies; because ,vvhen the Eschar made by them drops esse, there  
is great Danger of the Haemorrhage being rennestd.* But to the  
Bones and Flesh, Doffiis made of loose dry Lint, or Rags, are to-  
be applied, and said on thick . Upon the Dossils a large.Piece of  
the *Crepitus Lupi* must he laid, either with or without a large Bol-  
star of Tow; and the Whole must be firmly secured, either by a  
wet Bladder, or large Plainer, in the Form *of* rhe *Maltese* Cross,\*  
brought over the Stump. Instead of this Lroe Plainer, two

.small ones ih the Form of a Cross, or three in the Form os a  
Star, may be applied with better Effect ; with which the Skin  
inay be drawn down, that the Wound may he the sooner cover’d  
by it, and healed: Upon the Plaistets a large Compress, in the  
Form of the *Maltese* Cross, is to he placed, in such a man-  
ner, that its extreme Parts may be held, and turned round the  
Arm, by an Assistant: Then a thick four-square Compress,  
and over it three long thin Compresses, are to be applied, in  
the Form of a Star, in such manner, that their extreme Parts  
’should be brought up the Arm, and fixed there: Lastly, the  
.Whole is to be secured by proper Bandage: See FASCIA.

It was customary amongst a great many of the antient, as  
well aS modern Surgeons, to stop the Flux of Blood from am-  
putated Members, by burning the Arteries with a Cautery, or  
hot Irons; but this Practice the Surgeons of our Age forbid,  
.as heing not only uneasy and terrible to the Patients, but at  
.the best dubious, and often dangerous, especially in an Ampu-  
tation of the Thigh or Arm. For, almost always, after the  
. third Day, the Crust made with the hot Irons loosens, and  
causes a fresh Haemorrhage: But *if* any ope has an Inclination  
to use them, they may be applied in the lower Arm, or Leg;  
.not altogether without Advantage; but it is hetter to follow  
.the Method described before, and not to burn, unless in case  
.Of Necessity. But if, as modern Surgeons advise, you should  
he willing to tie the wounded Arteries,-either in the Arm or  
Leg, which, nevertheless, is scarcely necessary in the lower  
.Arm, they must he laid hold of, and held with the Crow's-bill,  
*Forceps, (see T.ab.* 24; *Fig.* 4. *add Tab.* 34. *Fig. 5. and saf*or any other convenient Instrument, and tied by means of a  
crooked Needle, and strong waxed Thread, past round them.

When the Humerus requires to be amputated, the Operation  
is almost she same as in the Arm, except that the Brachial  
Arteries, of which there is sometimes only one, sometimes  
two, and sometimes three, are always to be held with a conve-  
nient Forceps, and tied, by means of a crooked Needle and  
strong Thread. Cauteries and Astringent? are here of no Sese  
Vice: The extreme Parts os the great Arteries heing tied, the  
Torcular must he loosened a little; and if any small Arteries  
bleed, they may he secured in the same manner. There are  
some Surgeons, who, with a somewhat less Needle, pass the  
Thread through the End of the Artery itself, whilst held by the  
Forceps, hefore they tie the Knot; for by doing so, they ima-  
gine the Ligature to be the stronger, and that it will not easily  
give way. Others, instead of the Forceps, use a Very crooked  
Needle, threaded with a strong waxed Thread ; this . they pass  
.twice thro' the Flesh, almost round the Orifices Of the Arte-  
ries, and then tying the.Thread, they inclose the Arteries; toge-  
ther with a Portion of the Flesh, in order to secure the Stitch  
:from breaking out. But nevertheless, is I am not deceived, it  
.is better that the Arteries should be held by. the Forceps, and  
afterwards tied, as is said above : For otherwise there would be  
.some Danger, lest either the Tbread should miss the Branch of  
the Artery, or the Artery flip from under it again.

*Our Surgeons differ in their Opinions from* Heister, *in. this  
respect. ...*

The Dressing of the Stump being finished, it remains, that a  
little Wine, or some cordial Potion, is to be given to the Pa-  
tient ; who must then be laid upon the Bed, -and the Stump of  
she amputated. Arm mush be placed in the Hand of an Assistant,  
and held some Hours. For,.by this means, the Dressings and Ban-  
dage adhere more firmly,; and the Haemorrhage ceases sooner,  
and with more Certainty. Then the Torcular may. be loosen'd  
by degrees, as much as may be thought necessary for carrying  
on the Circulation in the Part: And upon this, if no more  
Blood bursts out,, it is then a Sign the Operation is well per-  
formed. The Patient therefore must be injoined to rest, and,  
.instead *of* Potions, should take sometimes a strengthening and  
anodyne Emulsion ; by which Sleep, being procured, the Pains  
may vanish by degrees, and his lost Strength he restored.. The  
next Day the Torcular may he either a littie more loosened, or  
even wholly taken away; and the strictest Regimen must be  
directed. „ And if Powders, and small temperating Potions, he  
ordered, and, if the Patient be Very hot, he loses some Blood;  
these will contribute to prevent Accidents ;\_ but where there is  
no Heat, nor Fulness of Blood, it. Is unnecessary to bleed, aS  
it weakens the Sick, who is already much reduced.; But if a  
fresh Flux of Bleed should happen, which cannot. be stopp'd,  
either by the Application os the Hand to the Stump, or by bind-  
ing a thick Cloth upon it, somewhat tighter, with a fresh Roller,  
which is generally sufficient; the Method is .to apply the Torcu-  
lar again, .and having loosed the Bandage, let the Arteries be  
tied up afresh; or, if they.cannot be. laid hold Os, the actual  
Cautery must be used ; or it may be stopp'd with.a large Quan-  
tity of loose Lint, the Wound being again accurately bound  
up, and the Stump gently compressed, till the Bleeding ceases. ..  
. But the.first Bandage ought never to he taken off hefore the  
third or fourth Day, unless, great Pain, Inflammation, Loss os  
Bloed, or some such Accident, should happen, that the Orifices  
Of the divided Arteries may be the more firmly and surely closed.  
Neither will it be amiss for a. Servant to attend by the Patient’s

Bed for eight Days; who shou ld he Very-watchful, that be may  
apply the Torcular immediately, if the Blood should chance so  
burst out again; and, in the mean time, he should take care, to  
send for the Surgeon to make a fresh Bandage. If all. things  
proceed successfully, as often aS the Wound is dress’d, every  
thing should he taken off separately and gently ; but whet is  
next to the Wound must not he touched, much less violently  
pull'd off, lest a fresh Haemorrhage should.ensue: For it is bet-  
ter to leave them for some time upon the Wound, and. at every  
Dressing to soften them with warm Wine, or Spirits *of* Wine,  
till a Suppuration being made, they loosen or fall off os their  
own Accord ; after which, it will be sufficient to dress but every -  
other Day, or once a Day, unless the Suppuration be Very greats  
especially in Summer-time, and then it may require twice.

- At every Dressing one Caution is carefully to be observed,  
which is, that the Wound is, first, of all, to he gently cleansed  
with Lint, and fresh Pledgets of Lint must then be applied,  
the undermost of which, or that which is next to the.Wound,  
must have seine digestive Ointment spread upon it ; hut'tin  
proper to apply all the rest dry: Over the Dressings of Lint,  
three, four, or fix Pieces of Plaister, about aToot long, and  
an Inch broad, spread with Diapaima Plaister, that of *Andreas  
a Cruce,* or some other of a glutinous Consistence, are to be  
applied in the Form of a Star: Last os all, a thick square Com-  
press of Linen, and three long narrow ones disposed over it, in  
the Form of a Star, are applied over the PlaisterS. The Applica-  
tion of Bandage being continued in this manner for about fifteen  
Days, so great a Quantity of Lint, or so many Compresses, are  
no longer requisite, fince the Danger of an Haemorrhage is then  
oyer. The Surgeon, in the mean time, must proceed in the .  
Cure of the Wound by a digestive Ointment, or Vulnerary Bal-  
sam, laying upon it only a small Quantity of Lint, and Plaisters,  
with some Compresses over all; and, last of all, dry lint is used  
with a Plainer upon it; and the Wound itself is, by this means,  
dried and agglutinated, in the fame manner, as other Wounds:  
But this Agglutination almost always requires two Months  
before it is perfected. 'TiS here necessary to give Surgeons a \  
short, but necessary Caution, which in, that they never apply  
the first Bandages, especially in case of an amputated Humerus  
or Thigh, till the Torcular is applied, in order to check the  
Motion of the Blood, and prevent an Haemorrhage; or at least  
.when the Operation is performed in the Arm, till the Artery is  
strongly compress’d by the Thumb of an Assistant.

**7** When, after the Amputation, a pretty Violent Motion, or  
Fervour of the Blood ensues, which is generally the Cose with  
sound robust Bedies, and such as abound in Juices, 'tis necessary  
to let Blood Very plentifully, and prescribe temperating and  
refrigerating Medicines together with a Very strict and exact  
Regimen. If this should be neglected, 'tis to he dreaded, lest a  
Very terrible Fever, commonly called the Vulnerary Fever, or a  
Sphacelus, or some other Disorder of that Nature, should  
destroy the Patient. . .

**AMPUTATION** *of the* **FEET** *and* **LEGS.**

- When the antient Surgeons intended to amputate a Foot that  
was corrupted in the Tarsus, or Metatarsus, that is to say, in  
any Part that lay below the Tibia, they used a Chisel of a large  
.Size, and a Mallet made for the Purpose : They sometimes also  
.made use of a Pair of Very large, strong, and sharp Sheers, with  
which they cut off the corrupted Part; and then applying pro-  
per Bandage to the Wound, healed it with balsamic Medicines.  
This Operation is sully described by *Scultetus,* who had often  
seen it performed. But aS this Method of going to work was Very  
painful in itself, and likely to lay a Foundation for future Danger,  
thy the Collision of the Bones, and the Laceration of the Nerves  
.and Tendons, the more modern Surgeons, for Very good Rea-  
Tons, chose with a Knife to divide the Bones of the Toes from  
those Of the Metatarsus.; and, in like manner, those of the  
Metatarsus from those of the Tarsus; and when the Corrup-  
tion happens to reach a little higher, they even Venture to divide  
she first Bones of the Tarsus from the remaining and posterior  
Bones, where they are joined to each other; after which they  
proceed, as the AntientS did, to agglutinate the Wound; for,  
by this means, the Patient is able to walk better upon the  
remaining Part of his Foot, than on a Wooden Leg or Foot.  
.But hecause many have, in this Case, dreaded the Difficulty of  
Agglutination, or the Impossibility of again covering these  
Bones; or because they have, perhaps, known thin Operation  
to be Very troublesome in itself, they have therefore rather chose  
to cut, thro’ the Tibia itself, and that not towards its lower  
Extremity, but in its upper Part, about sou finches below the  
*Patella*; for tho\* by this means a sound as well as a large Por-i  
tion of the *Patella* is cut off, yes, by following this Method,  
the Deformity of the Foos, and the Difficulty of walking, are  
more effectually prevented ; for since ηο one can either stand  
Or walk well upon a long Stump, and since an artificial Foot,  
or/other Support, cannot be cornmodioufly fixed to it, it is  
much more convenient to Cut the Tibia in its upper Part, and  
that four. Inches below the Rotula; since if the Incision .was

made higher, its Flexor Mofcles might he hurt by that means;  
and he this Method the Deformity of the Part is concealed, and  
a way paved *for* adapting and accommodating to the Knees  
artificial Legs,- either of Wood orSiker. I am not ignorant,  
that there are, even in our own Days, fome Surgeons who  
think with *Solingen, Vcrdain,* and *Dionis,* that the corrupted  
Part is only to he taken off; but I see no Reason why, in this  
Cafe, we should pay any Veneration to their Authority, or be  
sway’d by their Judgment; for hefides that in the inferior Part  
of the Tibia, that is, under the Calf of the Leg, it is very dif-  
ficult to fix any artificial Foot or Support; if an artificial Leg  
is fastened to the Knee, and the remaining Stump is bent back-  
wards, it causes not only a great Deformity, but a considerable  
Inconvenience in Walking.

- With respect to the Apparatus, Manner of Operation, and  
' ' Bandage, nearly the same Rules must be observed, as in Ampu-  
tations of the Arm. There are, however, some Cautions  
necessary to be regarded, which relate particularly to Amputa-  
tions of the Leg. As first, the Patient may either fit in a  
Chair, or lie upon a Bed, or on a Table, fo that the Feet may  
be stretched out.-' Secondly, the Hairs about the Part, which is  
to be amputated, must be shaved off, lest the Pleisters afterwards  
should suck to them,-and cause great Pain when taken off.  
Thirdly, after Amputation the Arteries in the Legs are very  
difficultly closed, without. the actual Cautery, or tying their  
Orifices by means of a crooked Neetlle and Thread ; *for* altho’  
they appear not very large, yet, without thefe Assistances, they  
almost always, after dressing up, bleed for some time, especially  
is the Crural Artery is not, at the same time, well compress’d  
with narrow Compresses, and the Fillet, Fourthly, before the  
Operation, it is necessary, that either the common Torcular  
with a Stick, or the new one with a Screw, should be fixed  
above the Knee, fo that the Fillet, roll’d up in the Form of a  
Cylinder, may lie under the Ham, and compress the Artery  
there descending, as is express’d *Tab.* 35. *Fig.* 4. D. Tho’, to me,.  
it seems much better that the Artery should he compressed by a  
-Torcular, placed at the upper Part of the Thigh, especially if  
the Leg is to he cut off near the Knee; for fo the Bandage,  
After Amputation, may be made more commodioufly than when  
the Torcular is appsied so near the Knee. *See Table* 24. *Fig.* I.

-L. M.

*’ Petr. Adrian Verduin, u* celebrated Surgeon, formerly at *Am-  
sterdam,* and my Friend when living;, acquaints the World with  
a new Method of amputating the Legs, different from the  
other, in a particular Treatise wrote’ in *Dutch, German, French,*and *Catin,* tho’ he was not the Inventor of it. There are  
many who ascribe the Glory of the Invention of this Operation  
to *Sabourin,* a *Geneva* Surgeon, as the History of the Royal  
Acedemy of Sciences, *Garengest,* and others. This Man is  
said to have performed it at *Geneva,* and after at *Paris* also, at  
the fame time *-Vcrdain* did it at *Amsterdam.* However, long  
hefore this time, I find this Operation was known, performed,  
and described by some *English* Surgeons, *Lowdham* and *Young,*as may he feen in a little Book intituled. *The triumphant Cha-  
riot of Turpentine ; or, Ac Account of the many admirable Vir-  
tues of Oleum Terebinthina, particularly in JVounds and Haemor-  
rhages, a new Way of Amputation, and speedier curing Stumps,*London, I 679. *Koenerding,* Surgeon to the great Hofpital at  
*.Amsterdam,* and my Friend also, mentions it in a Book wrote  
in *Low Dutch,* intituled, *A Treatise of the Gangrene and Spha-  
celus, and of the old and new Method of amputating the Legs,*Amsterdam, I 698. who allo performed this new Operation  
-twice, in the fame Year that *Verdain* did is. The Whole of  
this new Method amounts to this That the Calf of the Leg is  
to be divided with the Knife, represented *Tab.* 34. *Fig.* 3. at  
the Tendo Achillis, arid then cur upwards again, according to  
the Length of it, and separated from the Bones to the Place  
where they are to he taken off with the Saw (see *Tab. 35.  
Fig.* 5. 6. 7.). Then the Flesh of the Calf hanging down, miiut,  
he an Assistant, he drawn upwards with a Cloth to the Ham,  
*Fig.* 6. A. Afterwards the Skin on the sore Part of the Leg,  
and the Flesh between the Bones, must he divided, as in the  
common way, with a proper Knife, as those represented *Tab.*'34. A?, t. and 3. and the Limb must he taken off with rhe  
Saw, as is raid atiove. The Cass, first clean’d with a Sponge  
moistened with Spirits of Wine, must be brought down to the  
Stump, and fpread oyer it like a Pledget; and if there should he  
too rnoch, or it should be unequal, it must be cut off, and the  
Remainder must he fecured by adhesive Pleisters, or even with  
a Stitch or two. Lastly, Compresses,- with the wet Bladder  
and Bandage, must be made nfe of, as is before directed in  
genend Amputations; or the Dressings may he secured by a  
particolar Machine of Leather, desenbed by *Verduin* and *Garen-  
geot,* with Buckles and Straps, which are to he fixed upon the  
Stump of the Leg ; mean time, the Trunk of the Leg must  
he comprefs’d by the Hand of an Assistant some Hours, till the  
Danger of an Haemorrhage is over ; and, at the fame time, the  
Torcular with a Screw, represented *Tab.* 26. *Fig.* 6. or that  
delineated *Tab.* 27. *Fig. i.-* is to he applied for the seme Pur-  
pose. From this Method the before-mentioned Anthers ima-

gine many Advantages accrue to the Patient. For; first, the  
Flesh, by compressing the Arteries, stops the Haemorrhage with-  
out astringent Applications, the actual Cauter}., or tying up  
the Arteries; Secondly, a Caries cannot easily heppen, rhe  
Bones being immediately covered again with the Flesh, but  
which often is the Consequence *os* the other Methods, and  
exceedingly protracts the Cure. Thirdly, by the Use of Vul-  
nerary Balsams, in the succeeding Dressings, the Flesh and  
Stump will unite together, and the Cure will thereby be much  
accelerated. And, fourthly, the Flesh lying upon the divided  
Bones, like a Pillow, will be extremely commodious to the  
Patients in Walking, especially as there is no Necessity to bend  
the remaining Stomp backwards, as is generally done in the  
common Methods: But a hollow Machine may he made of a  
light Wood, so that the Patient may walk, in seme degree, as  
with a natural Leg. This Flesh, every time the Bandages are  
loosed, must be held and press’d close, by an Assistant, to the  
Bones, lest it should fall from them, and retard their Union.  
*.Vardain* lias explained all these things more sully in his Treatise  
above-mentioned, and has represented them in a great Number  
*of* Copper-plates.

But tho’ not only *Verduin,* but other Surgeons also, have suc-  
cessfully performed this Operation many times, yet there are  
very few who approve of it, or who have endeavoured to intro-  
duces t into Practice instead of the other Methods. For, besides  
that neither the *Englise, Verduin,* nor *Koenerding,* ever used it  
afterwards, and *Sabourinrs* Patient at *Paris* died. Instances are  
not wanting at *Amsterdam,* where, during the Cure, and even  
after the Part has been quite healed, fome sharp Fragments of  
the Bones protuberated, and, by pricking the tender Parts, heve  
'caused intolerable Pain, and many other Disorders; not to  
mention, that *Sabourinds* Patient lost more Blood than is usual  
in the other way of Amputating, and other Inconveniencies  
which often succeed this Operation; and on which Account  
*Koenerding* prefeud the old Method before it, as he declares  
freely in his Book. But, however this may he, ’tis certain  
*Garengeot,* a modern *French* Surgeon, to whom the Writings  
*of Young* and *Koenerding* feem to be unknown, praifes this  
Operation, and makes no Question but to bring it into Practice  
again. For there have been Men in *Prance,* as he reports,  
who heve been fo well cured by this Method, as not only to  
walk commodiousiy, but also to dance very readily; but if we  
would hope for such good Success, the Patient must be health-  
ful, and the Causes, which require the Amputation, external.

Lastly, it is to be remarked, that this Operation is not con-  
fined wholly to the Leg; as many imagine, hut it also may he  
performed in the Arm, by leaving Part of the Flesh and Skin  
for covering the Bones after the Limb is taken off, and which  
may he done with Success; as may be feen not only in *Tcungis*and *Koenerdingis* Treatises, hut also in *RuysePs Epest. Problem.*I 4. *de nova Artuum decurtandarum Methodo*; where he accurate-  
ly describes an Operation of this Sort, performed by *Verduin*and *Bcrtell,* the Son-in-law of *Vcrdain,* himself and others being  
prefcnt. .

**. AMPUTATION** *of the* **FEMUR.**

Whenever the Leg is corrupted as far as the Knee, or Thigh,  
or the inferior Part of the Thigh itself is assessed with a Caries,  
Sphacelus, or incurable Frmiure, or the Crural Artery is much  
injured, the Thigh itself must generally he-arnputatcd. The  
Danger and Hazard attending this Operation can scarcely be  
express’d, especially when it is performed in the superior Part of  
the Femur For, besides that a violent Hemorrhage is some-  
times caused by a Division of the great Arteries, the Strength of  
the Patient is so perpetually wasted by the constant Discharge of  
too great a Quantity of Matter, from so large a Wound, that  
the Patient frequently sinks under the Cure. .Therefore, when-  
ever the Thigh is to he cut off, the Surgeons ought, by all  
means, to take care, that it is done, if possible, in the smallest  
Part, about three Fingers Breadth from the Knee, and that as  
much of the Flesh and Skin issaved as possible; for by fo doing,  
this violent Operation will be supported the better, and the  
Cute will he completed with more Lafe and Safety.

- The Fillet roll’d up in Form of a Cylinder must, by means  
either of rhe common Torcular, or one of there with a Screw,  
comprefs the Crural Artery, by being placed upon the highest  
and inward Part of the Thigh, that is, where the Head ot the  
Vastus Internus Mu sole, and the Triceps, meet; see *Tab.* 24.  
*Fog.* I. L. M. for there is the greatest Danger otherwise, lest,  
as it often happened before the Torcular was invented, a very  
large Hemorrhage, from that great Artery, should suddenly  
destroy the Padent, even during the Operation.

- With respeol to the Amputation of the Thigh, very little is  
to be raid here, the fame Method heing to be observed as in cut-  
ting off the Arms or Legs. But this, however, must be parti-  
cularly taken Notice of, that, in the first Place, the Hains are  
to he shaved off the Part, secondly, that as soon as the Skin,  
with the Fat, is divided all round with rhe lesser Knife, *Tab.*34. *FlS.* r. they to be drawn upwards as much as is oossible,  
hefore the Mofdes, or Flesh, are divided. Afterwards there

Muscles, near the upper Edges of the divided Skin, a little  
higher than the first Incision, must he cut through all round to  
the Bone, either with the same smaller Knife, or that repre-  
sensed *Tab.* 43. *Fig.* 7. or with the large crooked Rinse, *Tab.*-3.4. *Fig. 2.* By this means, as was before observed, after the  
Bone is saw’d ossa the Trunk os the Bone will be the sooner  
covered with the Flesh, and Integuments that are lest, a Caries  
will he prevented, and the Cure of the Wound much accele-  
rated. But if this Method is not carefully observed, but **the**.Muscles are divined, together with the Skin at the same time,  
as is sometimes done, these strong Muscles, heing cut through,  
contract so much upwards, as I have often seen, that the Thigh  
Bone, aster the second or third Dressing, has stood out beyond  
:the Flesh two or three Fingers Breadth, like a Stick: In which  
.Case a long time is required for the Flesh to grow, and extend  
itself, so aS to cover the Stump, which ainne is sufficient to  
debilitate the Patient, and give him much Uneafiness. Add to  
Ibis, that the Wound cannot he expected to heal before the  
.Trunk of the Bone is covered.

r Then, as to an Hemorrhage, hecause of the remarkable  
Largeness of the Artery, it can scarcely be stopp'd other-  
/wise then by Ligature, which is therefore ordered here to he  
Alone with the greatest-Care, the Artery being first taken hold  
of by the Forceps, or Tenacula, *scab.* 3.4. *Fig.* 5. or 6. and  
tied well with a strong Thread pass’d round it. *If mere Arte-  
ries* bleed, is they are large, they must be tied, but if small, there  
.is no Occasion, aS Dossils os Lint, or a Bit of Vitriol, Very  
often do the Business. -.The Bandage is the same as we men-  
tioned above-in an Amputation .os the Arm ; only there should  
he greater Plenty of Lint and Puff-ball, a larger Bladder, and  
also larger Compressas and Plaisters; and lastly, longer and  
Broader Rollers are here necessary, and the Crural Artery must  
be compress’d the whole Length of the Thigh, with a narrow  
and thick Bolster, and a particular Roller,.er the Torcular itself,  
*Nab. ati. Pig.* 6. or *Tab. pri. Fig.* I. is to be kept on for some  
dime. Then, the Patient being put to Bed, it is proper to  
.place a Pillow under the Thigh, by which it may be well ele-  
vated, that the Force os the Blood, against the Mouths of the  
Arteries, in the elevated Limb,r may be more gentle; for this  
.contributes much to the preventing an Hemorrhage. Then  
-The Stump must be compress'd for a considerable time, with the  
Hand of im Assistant, and every thing else must he done as is  
directed in the Cure of an amputated Humerus. .

- But if any Part of the Foot, or Ann, should he taken off  
thy a Bullet, or Cannon Ball, or should he torn off, or broke  
-to-pieces by aWheei, Or any such Machine, the Surgeon must  
consider, that the first.thing to he done is to apply the Torcu-  
lar immediately,. to check the Hemorrhage. Secondly, that  
.the Parts of the Bones standup out of the Flesh, if there are  
any, he taken off, either with a sharp Pair of Pincers, or a  
Saw, so that jhe End of the Bone may be rendered even and  
smooth, and that no pointed Fragments may appear above the  
Flesh; hut if the-Bones do not protuberate, then nothing is to  
he taken away. And, thirdly, that the wounded Arteries he  
either compress'd with thick Dossiis of Lint, or small Com-  
presses, or he tied up ; or even, in Cafes os.Exigency, as the  
Nature and Situation of the Wound, or other Circumstances,  
seem to require, with the actual Cautery, and afterwards care-  
fully bound up. - And, as to the rest, he must proceed in the  
Manner laid down before in other Amputations of the Limbs.

But - tho' *Botollus, R* celebrated *French* Physician, formerly  
invented a new, and, in Appearance, .wonderful and expeditious  
Method of amputating the Limbs, by a Machine, furnished  
with a very large and sharp Iron Instrument, which being very  
.heavy, and falling suddenly from a considerable Height upon the  
Place where the Limb was to he amputated, cut injoff without  
either Knives or Saw, most expeditioufly, and at one Stroke;  
- and the' *Hildanus* has alfo imitated this Method of Amputating,  
nevertheless the more prudent Surgeons, and that not without  
Reason, have abandoned this Contrivance ; for it is greatly to  
he seared, that, lest from the excessive Violence of the Blow,  
the Bones themselves should be splintered, and Very much shat-  
tered. *See above.*

After the Stump is perfectly healed, it may not be amiss to  
make an artificial Leg, either os Silver for Gentiemen; or, for  
the poorer Sort, of Wood.; which, heing properly fixed to the  
Part, either with Buckles and Straps, or even by Springs, the  
Deformity may be concealed, and the natural Use of the Limb,  
in some measure, restored.' Not only *Pare, Hildanus,* and  
*Solingen,* but some modern Mechanics, have curioufly shewn,  
in what manner it should be made ; but if Circumstances are  
very narrow, then only the common wooden Leg, hellowed in  
its upper Part, so as to fit the Knee, may he bound on, *so* that  
the Patient may walk with it tolerably well, ' .

- Lastly, if the Ends of the Bones should prove carious, as is  
very often the Case, whatever Care the Surgeon may take to  
prevent it, it is certainly necessary (altho’ many Surgeons are  
silent upon this Subject, because it impedes the Cure) to dress  
the Caries with Powder os Euphorbium,. or to touch them with  
the actual Cautery; or, which appears to me better, the rotten

Part inay he scraped off with the Rugine; for, by so doing, in  
a little time the Flesh will unite with the scraped Bone, and the  
Wound will-he healed, which could not be done whilst **the**Caries continued.

**\* AMPUTATION** *of the whole AB.M, at the Joint of she***HUMERUS.**

I myself have never performed an Amputation in the Joint  
of the Humerus, nor have read of its heing done by any other  
Surgeons, except *Le Dran,* and *Garengeot,* after his Example,  
tho' he does not name him; nevertheless, it will not be impro-  
per to shew briefly here, what they have specified concerning  
it. . . -. /

There are two Cases, in which they tell us this painful Ope-  
ration ought to be performed. The first is, if the upper Part  
of the Arm is broke to-pieces by a-Bomb-shell, Hand-granado,  
or by any other Violence is excessively bruised and shattered.  
The other Case is, if the Head of the Humerus, by any inter-  
nal Disorder, suppose either by a Tumour, a Spina Ventosa, **a**Caries, or even an Abscess, is found to be rotten ; to which -  
perhaps may be added, a Sphacelus of the Arm, winch extends '  
itself to the Joint.

But hesore so dangerous and difficult an Operation is at-  
tempted, the several things are to he provided, which may seem  
necessary to the Accomplishment of it. First, the Patient is  
to he placed in a convenient Chain, with his Face covered : But  
in this Operation the Torcular must not he applied, as in other  
Amputations, because it cannot be well fixed ; but the Bra-  
chial Artery must be tied, as soon as the Flesh is divined, which,  
they inform us, is to he done in the following manner:

As soon as the Patient is properly seated, the affected Arm  
mutt he extended, and held strongly by an Assistant, and the true  
Situation os the Brachial Artery must be traced from the Axilla ;  
in doing winch. Anatomy will greatly assist the Surgeon : But  
is, from the Largeness os the Tumour, it cannot be found, it  
is necessary to make an Incision .through the Flesh, on both  
Sides of the Arm, lengthways, so that the Bone may he touch'd  
by the Surgeon’s Fingers,-that from hence he may judge of the  
Situation of the Artery. The Brachial Artery being thus found  
out, a Needle, threaded with strong Thread, six or eight times  
doubled, and waxed, must he past through the Flesh, about  
two Fingers below the Armpit, near the Os Humeri, between  
the Bone and the Artery, taking care the Artery is not wound-  
ed by the Needle in its Passage, Holding down the Arm, that  
the Skin may be the more lax; the Thread then, being brought  
round, must be secured by a firm Knot. This being done, it is  
to he considered, - whether the Pulse of the Artery, in tho neigh-  
bouring Part os the Arm, is ceased or not: For if it is not  
perceived, it is a Sign the Artery is sufficiently compress'd by  
the Ligature ; but if any Pulsation of the Blood remains, the  
Thread must be drawn tighter, till the Pulsation entirely ceases:  
And then a second or third Knot, with Bows, must be made,  
left the Ligature should be too easily relaxed. For this Purpose,  
*Le Dran* proposes a strait Needle; but *Garengeot* recom-  
mends one that is crooked, such as is represented *Tab.* 35. *Fig.*Io-

With respect to this Operation, three Cautions are princi-  
pally necessary. For, after the Artery is tied in the manner  
before-mentioned, and secured from an Haemorrhage, great  
Care.must be taken, first, that sufficient Skin and Flesh is left  
at the Shoulder ; secondly, that the Flesh is properly cut thro';  
and lastly, that the Ligament itself, in the Joint of the cor-  
rupted Bone, is divided; then let the Bone be loosed from the  
Sinus of the Scapula, and at last entirely removed. Bur that  
these things may be Happily accomplished, it ought to be the  
Surgeon’s Care to find out, carefully, the true Situation of the  
Acromion; then that the Skin should be drawn back sufficient-  
ly ; and lastly, that the Knife, for dividing the Flesh, be intro-  
duced two or three Fingers Breadth under the Acromion; for  
by so doing, a great Part of the Deltoid Muscle is saved, by **the**Assistance of which, not only the hollow Sinus os the Humerus  
may be filled up, but the healing os the Wound may be sur-  
prisingly hastened.

. These things heing well considered, the Skin, with the Far  
and Deltoid Muscle, must, in the Place specified above, be cub  
through with a sharp Knife, such aS that represented *Tab.* 34.  
*Fig.* I. or *Tab.* 33. *Fig.* I4. Afterwards the Arm must he  
gently raised, that the Heads of the Biceps Muscle may he **the**more easily found and divided. If,, by Accident, a Flux of  
Blond from the lefler Arteries and Veins should perplex the  
Operation, an Assistant must apply either his bare Finger, or  
Dossiis of Lint, or hard and small Compresses, t0 the MouthS  
of the bleeding Vessels ; but if the Flux be from a laro-e Arm-  
ry, it must be tied by means of a small Needle and 'Thread :  
Then the Ligament, first in the superior Part of the Joint, and  
afterwards on both Sides, must carefully be divided, and **the**Head of the Bone of the Arm must be taken away, with the  
Left Hand; then all the other Parts which furround the Head  
of the Arm\* on every Side, must (γς loosened and divided, but  
with the greatest Caution, lest the Braohial Artery itself should

he cut. In tins way of Operating, it may be readily per-  
ceived, whether the Arteries are exactly enough secured. We  
must also take great Care afterwards, that the Skin and Mui-  
ties which are tied together with the Artery, are not rashly  
divided: Therefore the Skin must be so divided from the Bone,  
that an almost triangular Piece may remain near the Armpit,  
the broadest Part of it next the Armpit, the lower or outward  
Part somewhat narrower, and accommodated to the Shape *of*the Deltoid Muscle; and thus the whole Limb is, atlast, entire-  
iy taken off . .. .

The Arm being amputated, as above-mentioned, it remains,  
that the Artery tied with the Flesh should he found, and another  
Ligature made above the former, by pasting a *Thread,* by the  
Help os a smaller Needle, *Tab. priTrig.* 5. betwixt the Skin -  
and the Artery, which must he tied Very securely: Then .the  
other Ligature, which bound the Skin also, must he cut, lest a  
painful and dangerous Inflammation should be excited.

The Manner os binding up the Wound, after the Operation,  
so thus directed: Immediately a Pledget of Lint must he applied  
to the Trunk, and a small Cornpress upon the Arteries, to  
Jecure the Ligature. *Tt is, however,* Heiner's *Opinion, that it  
would be a bettcr way to apply the Flesh immediately to the Sinus  
.of the Scapula, and upon that the Pledgets and Compresses ; for  
he thinks, by this means, the Flesch would sooner unite with the  
stone, than is. they wore at first separated by the Interposition of  
the Lint and Pledgets.* Then the lower Part of the Skin must  
he drawn upwards, and the upper. Part, together with the Del-  
toid Muscle, .drawn downwards; and a great Quantity of dry  
Lint must he laid upon them, which *must* be secured upon the  
Parts by a Plainer, in the Shape of the *Maltese* Cross. Over  
the Plainer a thick and large four-square Compress must he ap-  
plied, and a round Bolster to the Armpit, by which the Pulsa-  
tion of the Arteries will he the hetter secured from breaking  
the Ligature. All these must he covered with a double Com-  
press in the Shape of the *Maltese* Cross, and in such a manner,  
that two or three more Compresses, of about two Thirds of an  
Ell lung, and sour Fingers broad, may he said npon it. These  
two Compresses are to he placed thus : The first must he applied  
obliquely upon the Trunk, so that the .anterior Part of it may  
rest upon the sound Shoulder, and the posterior Part about five  
Fingers helow the sound Armpit: The second should be placed  
upon the Trunk, cross-ways, over the first; and the third,  
broader than the other, must he applied over them both, so as  
.to coVer them, and be pass'd cross-ways upon the sound Shoul-  
Her; then with the Bandage, which the Surgeons call *Spica  
descendens,* (see FASCIA) the Whole must he firmly secured,  
placing first a thick Compress or Bolster under the sound Arm-  
pit, lest the Veins there should he too much press'd, and that  
the Roller may the more convenientiy he pass'd round.

This Operation *Le Dran* the younger, and *Garengeot,* ..re-  
port was.performed with good Success upon a *French* Nobleman,  
in the Presence of, and with the Consent of *Marefchall, Arnold,  
Lapeyrm, Petit, Merry,* and other noted Surgeons at *Paris,*on account of a Caries, or rather a Spina Ventosa, in the upper  
Part of the Arm. 'But *Garengeot,* in his second Edition of  
*Chirurgical Operations,* adds, that the same Nobleman died of  
a Plethora, six Months after the Cure was completed. He also  
orders Ibis Operation to be performed, in an Abscess, near the  
Joint of the upper Arm ; but whether a simple Abscess can  
call for so dangerous and difficult an Operation, I leave to the  
Judgment os more prudent Surgeons.

The Opinion of our own Surgeons, relative m Amputations,  
is much to he regarded; and this we may learn from the Practice  
6f the Hospitals, winch (according to Mr. *Sharp* J is as fol-  
sows: "

A spreading Mortification has been always looked upon aS so  
- principal a Cause *for* Amputation, that it is a Fashion with all  
Writers to treat of a Gangrene, previous to the Description of  
this Operation ; and, I think, they have all agreed, that what-  
ever the Species of it he, if the Remedies they prescrihe do not  
prevent its Progress, the Limb must he amputated: However,  
this Operation is spoken of as frequently unsuccessful; and, in  
Length of Time, its want of Success has been so unquestiona-  
bly consumed, by repeated Experiments, that some of the most  
eminent Practitioners here in *England,* make that very Distem-  
per an Exception to the Operation, which so few Years smce  
was the great Inducement; and the Maxim now is, never to  
extirpate till the Mortification is absolutely stopp'd, and even  
advanced in its Separation.

Gangrenes may he produced two Ways, either by Indisposi-  
tion of Body, or by Accident in a healthful State; for, **as the**Life of a Part depends upon the Circulation of its Fluids, whet-  
ever shall make the Circulation cease, will inevitably occasion a  
Gangrene -. Thus a mere Compress, preventing the Course of  
sheBlood, as effectually causes a Mortification, aS any Indisposi-  
tion in the Fluids or Veffeis.

' It frequently happens in old Age, that the Arteries of **the**sower extremities ossify, which destroying their Elasticity,  
must, in Consequence, produce a Gangrene in the.Toes first,  
and afterwards in the Limbs, nearly as high as where the Offise.

cationTerminates; so that, in Mortifications arising from this  
Cause, we at once see why Amputation, during their Increase,  
is of so little Service, unless performed above the Ossification ;  
but we have no way to judge where the Ossification ends, but  
by the Inference we make from the Gangrene's stopping:  
Hence we may learn the Propriety of our modern Practice in  
this Case.

Is, by any Accident, the Limb has been injured to that vio-  
lent Degree as to begin a Mortification, it will be no more sit  
to operate here, till it stops, than in the other Instance; because  
all Parts that are mortified, have had the Disposition to hecome  
so, hefore the Effect is produced ; and cutting off a Limb half  
an Inch above the absolute deed Skin, is generally leaving a Part  
behind, with the Seeds of a Mortification in it ; so, unless we  
can be sure the Vessels are not affected in the Place of Amputa-  
tion, which will he hard to know hut from the Consequence,  
the Operation will be useless. : . .

Sometimes the Fluids of the Body are so vitiated,-as to lose  
their proper nutritious Qualities, and the Limb -becomes gan-  
grened, not from any Alteration in its Veffeis, but chiefly from  
its Situation; winch being at a great Distance from the Heart,  
will be more subject to seel the ill Effects os a bad Blood, than  
any other Pars, as the Circulation is more languid in the Extre-  
mities. When therefore a Gangrene, arising from this Cause,  
is running on. Amputation above it will, for the most part,  
he useless ; since it is only removing one os the effects of the  
bad Juices, and leaving them in the same State, to produce the  
like Mischief in other Parts: Thus' we see, after Amputations  
on this Account, the Gangrene sometimes falls on the Boweis,  
or the other Extremities; from which Observation, I think,  
we may conclude it not safe to amputate, till the Fluids are  
altered, and this Alteration will presently discover itself by the  
stopping of the Mortification.

I have lain it down as a Rule, that the Mortification should  
not only he stopp'd, but advanced in its Separation ; theReafon  
of which is, that tho' the Blood is so much altered for the bet-  
ter, as to occasion a Stoppage of the Gangrene, yet at this Point  
Of Alteration 'tis still in a bad State, and should he lest tomend,  
with the "utmost Tranquillity os Body, and Assistance of cordial  
Medicines, till such time as Granulations of Flesh, upon the  
living Part of the .Extremity, shew the balsamic Disposition of  
the Blond: In the mean while, to take off the Stench of the  
Gangrene, it may he wrapt up in spirituous or odoriferous  
Applications. I have seen *.some* Limbs taken off immediately  
upon the Mortification's ceasing, .when afterwards .the patients  
have sunk, from frequent Effusions of Blood , not discharged by  
-the great Veffeis, but the whole Stump. These Hemorrhages,  
I conceive, were owing to the Thinness of the Blood, winch  
hardly gave a reddish Ἴinctureuto the CloathS and -Bandages s  
on the other hand, upon wasting a considerable time after the  
ceasing of the Mortification, I have taken off some myself-with  
as good Success as for any other Disorder.

Gun-shot Wounds, compound Fractures, and all siidden  
Accidents requiring Amputation, are attended with the heft  
Success, if immediately performed. Disorders of the Joints, .  
Ulcers of long standing, and all fcrophulous Tumours, do  
sometimes return on other Parts, after the Operation. When  
a Leg is to he amputated, the Manner of doing it is this :

Lay your Patient on a Table, three Foot sour Inches high,  
which is much hetter than a low Seat, both for securing him  
steady, and giving yoursels the Advantage os operating without  
stopping, which is .not only painful, but inconvenient, in the  
other Situation. While one of the -Assistants holds the Leg.,  
you must roll a Slip of fine Rag, half an Inch broad, three css  
four, times round is, about four or five Inches helow the inferior.  
Extremity of the Patella: This heing pinn'd on, is to serve aS a  
Guide for the Knife, which without it, perhaps, would nothe  
directed so dexteroufly: The Manner Of rolling has always been  
perpendicular to the Length of the Leg ; but having observed,  
that tho\* the Amputation at first he even, yet afterwards the  
Gastrocnemius Muscle, contracting, draws back the inferior  
Part of the Stump more strongly than the other Muscles Can  
do the rest of it; I have lately, in order to preserve the Regu-  
larity of the Cicatrix, allowed for this Excess of Contraction\*  
and made the circular Incision in such a manner, that the Part.  
of the Wound winch is an the Calf of the Leg, is further  
from the Ham, than that on the Shin is from the middle of the  
Patella.

**in the mean time,** one of your Assistants must cany a strong  
Ligature round the Thigh about three or sour Inches above the  
Patella,- which passing through a couple of Slits in a square Piece  
**of** Leather, he must twist with a T ourniquet till the Artery is.  
sufficiently .compress'd, to prevent any great Effusion of Blood;  
and to do it more effectually, he may lay a holster os Tow **or**Linen under the Ligature, upon that Part where the Artery  
creeps.

The Course of the Blood hemg stopp’d, you must begin your  
Incision just below the Linen Roller, on the under Part of the  
Limb, bringing your Knife towards you, which at one Sweep  
may cut more than the Semi-circse; then beginning your second

Wound on the upper Part, it must he continued from the one  
Extremity to the other of the first Wound, making them but one  
line. The Incisions must he made quite through the Mem-  
brana Adiposa, as far as the Mufcles , then taking off the Linen  
Roller, and an Assistant drawing back the Skin as far as it will  
go, you make your Wound from the Edges of it when drawn  
hack, through the Flesh to the Bone, in the same manner as you  
- did through the Skin. Before you saw the Bones, you must  
cut the Ligament between them with the Point of your Knife;

- and the Assistant, who holds the Leg while it is sawing, must  
observe not Io list it upwards, which would clog the Instru-  
ment. ' ... .

. In amputating below the Knee, it is of Advantage to stand  
on the Inside of the Leg, because the Tibia and Fibula he in a  
Position to be saw'd at the same time, if the Instrument he ap-  
ply’d externally: Whereas, if we lay it on the Inside of the  
Leg, the Tibia will he divided first, and the Fibula afterwards;  
winch not only lengthens the. Operation, but is also apt to  
splinter the Finals, when. it is .almost saw'd through, unless the  
Assistant be very careful in supporting it.;, .

. When the Leg is taken off, the next regard is to be had to  
the stopping the Blond, which must be effectually done hefore  
the Patient asuput to i Bed, or there will he great Danger of  
Bleeding again, when the Fever is excited, and the Verier of  
the Stump dilated, both which happen a Very Jittie while after  
the Operation. There is no Method for this Purpose so secure,  
as tying the Extremities os the Vefieis with a Ligature, which  
with a crooked Needle pass’d twice through the Flesh, almost  
round them,. will,' when the Knot is made, necessarily inclose  
them in the Stricture; and to discover .the Orifice os a Vestel,  
your Assistant must every time loosen the Tourniquet: This is  
a much better way than using the Artery Forceps, where the  
Vessels are. apt to flip away out of the Ligature;- and as to  
styptic Applications, their, want of Safety Is so well known  
now, that the Use of them in Hemorrhages from large Vessels,  
in almost universally rejected.' . ... . ' - . . i

It sometimes happens in a large Stump,. that ren or more  
Vessels require tying; which done, you must, apply loose .dry  
Lint to the Wound, or in case the sinall V esseis bleed plenti-  
fully, you may throw*A.* Handful of Flower amongst the Lint,  
**winch** will contribute to the more effectual stopping up their  
Orifices. Before you lay on the Pledget, youinnst bind the  
Stump, and begin to roll from.the lower Part of the Thigh down  
to the Extremity Of the Stump. The Use of this Roller is to  
keep the Skin forwards:,, which, notwithstanding the Steps al-  
ready taken, to prevent its falling back, would in forne measure  
do so, unless sustained in .tins manner.. The Dressings may he  
secured by the cross Cloth, and .gentie Bandage.; and theMethod  
**of** treating the Wound may he leam'd from whet has been said,  
with respect to recent incised Wounds. . . .

... Before the Invention of making the double Incision I have  
just now described, the Cure os a Stump was always a Wark of  
Length of Time; for by Cutting down to the Bone at once,  
and sawing it directly, the Consequence was, that the Skin and  
Flesh withdrew themselves, and left it protruding Out .os the  
Wound two Or three Inches in .some Cases, so that it rarely  
happened, that - an Exfoliation-did not follow ; which, beside  
being tedious, also frequently reduced the Wound, to an habi-  
tual Ulcer, and at best left a pointed Stump, with a Cicatrix  
ready to fly open upon the least Accident.; all which Inconve-  
niencies are avoided by this new Method, and I know not of any  
Objection to is, unless that the Pain os making the Wound is  
supposed to .he twice as much as in the other, because of the  
double Incision ;. but when we consider, that-we only cut the  
Skin once, and the FleshOnce, tho’ not in the same Moment,  
**I** fancy, upon Reflection, the Difference of Pain will be .thought  
inconsiderable. . . ι .

. In amputating the Thigh, the first Incision is to he .made *Λ*little more than two Inches above the Middle os the Patella;  
aster the Operation, a Roller should he carried round rhe Hedy,  
and down the Thigh, to -support the Skin and Flesh. This is  
also the most proper Bandage, as Abscesses will sometimes form  
in the upper Part of the Thigh, which cannot discharge them-  
selves so conveniently with any other, it being almost impracti-  
cable to roll about the Abscess, unless we begin from the Body.  
- The Amputation of the Arm and Cubit differs so little from  
the foregoing Operations, that it will he but a Repetition to  
descrihe it. However, it must he laid down as a Rule, to pre-  
serve as much of the Limb as possible, and in all Amputations  
of the upper Limbs, to place your Patient in a Chais,

There are, in Armies, a great many Instances of Gun-shot  
Wounds of the Arm, near the Scapula, winch require Ampu-  
tation at the Shoulder; but .the Apprehension os dosing their  
Patients on the Spot by the Hemorrhage, has deterred Surgeons  
from undertaking it. - I have heard of its having heen done once ,  
hut though it had never been perform'd, we might learn it is  
practicable from the Case of a poor Miller, whose Arm and  
Acapula were both tom from his Arm by a Rope which was an-  
«dentally twisted round his Wrist, and suddenly drawn up by  
the Mill. Almost every one in *London* knows the Story, aad

that he recovered in a few Weeks: It is ver; remarkable in this  
Accident, that alter fainting, the Hemorrhage stopp'd of itself,  
and never, hied afresh,, tho’ nothing but Lint and Turpentine  
were laid on the great Vesseis. In case therefore of a Wound  
or Fracture near the Joins, *or* incurable Fistulas in the Joint,  
not attended with much Caries, I think the Operation mAy  
he perform'd safely in this manner;

The Patient'S Arm being held horizontal, make an Inssimi  
through the Membrana Adiposa, from the upper Part of the  
-Shoulder, across the Pectoral Muscle, down to the Armpit,  
then turning the Rinse within Edge upwards, divide that  
Muscle, and Part of the Deltoid; all which, may he done with-  
out Danger of wounding the great Vesteis, which will become  
exposed by these Openings; if they he not, cut still more os  
the Deltoid Muscle, and carry the Arm backward; then with  
a strong Ligature, having tied the Artery and Vein, pursue the  
circular Incision through, the Joint, and carefully divide the  
-Vesseis at a considerable Distance helow the Ligature ; the  
other, small Veffelsare to be stopp'd aS in-other Cases.

In doing this: Operation, regard should be had to the saving  
as much .Skin as possible, and to the Situation os the Processus  
Acromion, winch projecting considerably heyond the Joint, an  
unwary Operator would he apt to cutupon. -

The Amputation of the Fingers and Toes is better perform-  
-ed in their .Articulation, that by any of the other Methods.:  
ForalsisPurpose; a strait Knife must -he used, and the Incision  
of the Skinhemade not exactly upon the Joint, but a littie to-  
wards the .Extremity of the Fingers, that more os it may he  
preserv'd sor the easier healing afterwards: It will also facilitate  
the Separation in the Joint, when you cut the Finger from the  
Metacarpal Bone, to.maketwo small longitudinal Incisions on  
each Side of it first. In these Amputations, there, is generally  
a Vessel or two. that require tying, and which often prove  
troublesome .when the .'Ligature is omitted.

It may happen, that the Bones os the Toes, and Part only  
of the Metatarsal Bones, are carious, in which Case the Leg  
need not he out off, but only so much *of* the Feet aS is diss  
ordered ; a small Spring-saw is hetter to divide with here than,  
a large, one. When this Operation is performed, the Heel and  
Remainder of the Foot will be os great. Service, and the  
Wound heal up safely, as I have once found by Experience,  
*Sharp.*

**AMPUTATION** *of the* **BREAST. -**

The Extirpation of a Cancer is an Operation of such im-  
portance, that it cannot he performed with too much Caution:  
Before 'tis thereforeattempted, the Surgeon ought carefully to  
examine, whether the neighbouring Glands under the Arm-  
pis, are already indurated ; and whether the Cancer is entirely  
adherent to these indurated Glands. If it is, the Cure, for the  
most part, does not succeed so happily as could he wish'd, her  
cause the cancerous Disposition, or the Poison of the Disease,  
seems now to he.Iodged in other Parts, besides the Breast; and  
for this Reason, when the Breast is taken off, the Disorder uses  
in a littie time to shew itself afresh. There .are, in the mean  
aline, some sew Instances, where the Patients have heen re-  
covered by extirpating the Cancer, together with the indurated  
Glands under the Armpit; but when the Surgeon inclines to  
undertake the Extirpation of this Sort of Cancer, the Patient  
must he duly, and ikilsusly prepared for the Operation by proper  
Management, and a due Regimen. After this Course of Pre-  
paration is at. an End, .if the Cancer is as yet moveable, and  
.not immoderately large, but only possessing a Part of the  
Breast, *[vid. Tab.* 43. *Fig.* I. A. B.J the Patient must he  
.placed upon a pretty high Chair adapted to that Purpose, and  
-the. Arm next . to the affected Breast, must he either well ex-  
tended, or even held backwards and downwards, or tied in a  
.proper manner to the Chair; for by these means the Pectoral  
Muscle is strongly expanded, and the corrupted Part of the  
Breast may, by means of that Very expansion, be more easily  
and more thoroughly loosened from it. Then 'tis Customary with  
.many, in the Very. Middle of the Tumour, to make pretty  
Jong Crucial Incisions . into the Skin and Fat, which cover the  
Cancer; whichthaving.done, they .wish an Incifion-knise sepa-  
rate the Lips of the Incisions, and so proceed to the Separation-  
arid Extirpation of. the Cancer itself. To do which with the  
.greater Accuracy and Dexterity, some use to raise and free the  
.corrupted Part with a flaxen Chord.pasied thro' it, by means of  
the large Needle delineated in *Tab. yap. Fig.* 5 or 6. or with  
-such a Hookas may he seen in *Tab.* 29. *Fig. 2* or 3. But I  
have several times happily cur'd Cancers of this Kind, which  
. were larger than the Fist, and reached from the Very Nipple to  
.the Humerus, as may. he .seen *ffiTab.* 43.. Fry. 3. A..B. and  
.yet made only one Incision,.and with the Hein os no other  
Instrument than an Incision-knife, - delineated in *Tati.* 32.  
*Fig.* 14. separated it entirely from.the sound Pans, and agglu-

- tinated the Wound, of which therein a Representation in  
*Trab.* 43. *Fig. 2.* .Bur where the .Skin itself is corrupt-  
-ed, or closely adherent to the Cancer, a Cure can scarce he  
**.expected, in any other way, than by Cutting on€. the .Cancer,**

and together with it the Skin, which, for the most part, may  
-be very foon done by a fkiiful Surgeon ., and I myself have per-  
**-formed** Cures of this Kind, without leaving any considerable  
Cicatrix.

Arter the Extirpation, unless the Patient is already too much  
weakened, it is very proper- to take as much Blood from her,  
as her Strength and Condition will allow; *for* by this means an  
Inflammation, a Fever; and a fresh Effusion of Blood, may  
most probably he prevented. Nor indced- is there in this Cafe  
-any great Necessity for a het Iran to stop the Hemorrhage, as  
**the** Antients imagined 5 for proper Bandage will sufficiently  
-answer the Intention, by the Application of a good deal of sice  
’Lint, some Folds of thick Linen Cloth considerably broader  
above it, and a Roller of a sufficient Length above all. And  
-indeed *Bidloo,* once my Master, and a Man very much conver-  
sant in Operations of this Kind, affirms, that the Blood, in  
Cases of this Nature, may-most advantageousiy he stopp’d, by  
'a Mixture of Pleister os *Paris* (Gypsum) with the Lint *[Ex-  
ercitat. Anat. Chirurg, p.* I57.J. Some again apply various  
.Styptic Powders, and others tic up the larger Arteries. : But  
*Garengeot,* agreeably to that Method of Cure proposed by  
MI. *Petit.,* a - famous Surgeon in *Pares,* maintains not only  
that the Blood will Icon slop, but that the incision will foon  
heal, and tire Cancer return no more, if without the Use of any  
Lint and Styptic Medicines, the Lips of the Wound he care-  
sully and speedily brought into Contaol: by means of Sutore.  
I myself made a-Trial os this Kind of -Cure, -but tho’, upon  
cutting but' the Cancer,- there was a very stnall Effusion of  
Blood, and the Patient was soon recottered yet her Disorder  
soon return’d, and the herself at last died ofa-Cancer, formed  
a second time after the Extirpation of the first, even though  
the Wound was perfectiy agglutinated : *I* therefore think .is  
incumbent on me, in Wounds of this Kind, where a vehe-  
rnent Effusion of Blood happens by-the Extirpation of a Cancer  
of the Breast, and where it . is to he fear’d, -that it cannot, he  
stopp'd by Lint alone ; I fay, in this Case, *I* think it incumbent  
on me to use either the belt rectifySpirit of Wine, or some  
Powder fit for stopping Hemorrhages, made of Bole, Dragons-  
blood. Colophony, and Mastich, together with. Lint, and  
the Crepitus Lupi. When the Patient is weak, but little or  
no Blood should he designedly allow’d to flow from the Wound.  
but we ought, immediately after the Extirpation, to proceed  
to Bandage. But in changing or renewing our Bandages, we  
are to proceed according to the general Rules for dressing  
Wounds. See **VULNUS.**

I have leam’d from Experience, that it was no bad Method  
proposed by- *Helvetius [Tra'ite des Pertes de* Sery) ’to fay **some**broad thick Compressas of Linen Cloath, well soaked in warm  
Ale and Butter, over the first Dressings, in order to prevent  
-Inflammation ., hut yet Matters proceeded well enough, when  
**I** apply’d ast ray Compresses dry. -

. But is a Cancer or Scirrhus possesses the whole Breast, in  
this Care, whether the Cancer should happen to be broke, or  
as yet remains covered, the whole Breast is to he cut off. Of  
this Kind was that large Cancer, which in the Year I720. I  
myself very successfully extirpated, and described in a Treatise  
by itself; nor had it, as appears from Tish. 43. *Pig.* 3. A. B.  
only possessed the Whole of the Breast, het it was at the same  
time so large, that it weighed above twelve Pounds. In this  
Case likewise, we are carefully to examine, as. I before cau-  
tioned, whether the Cancer is adherent to the Glands below  
the Armpit, or the Pectoral Muscle, because in both these  
Cases, most Authors maintain, that the Operation is perform-  
ed to no manner of Purpofe. . But, not to repeat what I have  
already raid of there Glands, *Bidloo,* as he himself affirms,  
*-[Exercitat. Anat. Chirurg, p.* I68.j more than once, success-  
fully treated Cancers of this Kind, where, at the same time,  
a corrupted Part, of the Poftoral Mufcle was to he cut off.  
The same Author also affirms, that the Case is not always  
desperate, even when a certain Degree of Caries has seiz’d the  
Erbs; and, that he himself has sometimes known such a  
Caries carried off by scraping, or even by the yellow Ointment  
of *lVurtiorus.* Bur when the Cancer neither adheres to the  
Glands nor Muscles, the Hopes of a happy Cure are far hetter  
founded.. . .T

Having thus shewn in what: particular Cases the whole Breast,  
in which a Cancer is lodged, is to be cut off, it now remains,  
that we point, out the particular Method in which this Opera-  
-tion is-to he performed. But since different Surgeons have gone  
- to work.in different Manners, it will not he amiss here to enu.  
-merate feme-of the principal Methods: - First then, let **the**Patient he placed on a Chair, in rhe manner described above ;

- then, according to the Directions of *Scultetus,* a large Needle,  
- represented in *Tab.* 3g. *Pig.* I a. with a large Thread or Chord  
- in its Eye, is to he passed thro’ the lower-Part of the Breast.  
- Then the Extremities of this Thread or Chord are to he  
. brought together in siich a manner, as to he a kind of Handle  
' for raising - the corrupted Breast. Sometimes, when one of  
**these** Threads or Chords does not seem sufficient for the Pur-

. pose, two of them are passed through the Breast in. a crucial

Direction, as may'he feen in *Tab.* 43. *Fig.* 4 and 5. Aster this,  
the whole corrupted Part is to he carefully cut out, not by  
pasting the Knife downwards, as *Scultetus* in his thirty-sixth  
Flare directs, but upwards, as is represented *inTab.* 43. *Fig. ζ.*lest perhaps an Effusion of Blond should either put an enure  
Stop to the Surgeon’s Proceeding, or at least prevent his per"  
forming the Operation with that Accuracy he could wish. If  
.the Breast is large, a proportionably large Incifion-knife is to  
be ust;d, that so the Operation may be the sooner performed.  
In a frnall Breast, on the other hand, a small Knife is sufficient.  
-Another Method of performing this Operation was principally  
used by *Selingen* and *Bidloo,* and it only differs from the former  
in this; that instead of Threads or Chords, a kind of Fork, de-  
lineated *Tab.* 4.3. *Fig. 6.* is used... This Fork is passed in such  
a manner through the corrupted Breast, beginning at its lower  
Parts, as that the Knife, represented *Plate* 43; *Fig.* 7. may he  
strongly passed under it.- If the Cancer should only possess **a**stnall Space, *Bidloe* did not in that Case use the "Fork *for sup-  
porting* the Breast,- het an Instrument, not unlike a small  
Sword, which you may fee represented *Plate* 44. *Fig. st.* All  
these Instruments must have proper. Handles. But because, in  
out Days, these two Methods -of performing the Operation,  
ssem’d too barbarous and cruel, and could not be accomplished  
without the most exquisite Pain and Horror of the Patient,  
*Hisoetius* madean Attempt not.at. all inconsistent with the salu-  
tary Art of Surgery, when *for* mis Purpose he invented a hind-of  
Forceps; one of which, represented *Plate* 44. Try.I. embraces,  
as it were, in its Arches, the upper Parts of the affectsd Breast;  
and the other, represented *Plate* 44. *Fig. 2.* lays, hold of its  
superior and inferior Parts ; so that betwixt them both, they  
embrace the Whole of the Breast; to the end that it may be  
the more easilyraised, andthoroughly extirpated with the **Assist-**ance of a large Knife. But the fourth, and, in my Opinion,  
the best Method: of performing this Operation is, when the  
Surgeon, without any other Instrument than a large Knife,  
lays hold of theBreast with one Hand, and elevates it,-and with  
the other cuts out.the Parts, over.which. the Corruption has  
spread itself. When the corrupted Breast is Io large, as that  
the Surgeon cannot.elevate it with one Hand, an Assistant is  
to do this Office with both his Hands, and the Surgeon is to  
separate it thoroughly, but at the same time cautiously,- from the  
sound and subjacent Parts. And in this manner, without any  
other Steel Instrument than a Knife, did I cut off that great  
Breast weighing twelve Pounds, represented *inPlate* 43.' *Fig.* 3:  
and that too very expeditiousty and successfully. Examples of  
Cancers cur’d-by this Method of Operation may be feen in the  
forty-fourth Observation of *Scultetus. -*

ι The last Method of performing this Operation is that-used a  
few. Years; ago by a *Dutch* Surgeon, and. illustrated in a Dis-  
sertation wrote by my Townsman- Doctor *Taber, .* whe also de-  
scribes an instrument fitted and adapted to that end , a Repre-  
dentation of which may be feen *Plate* 44. *Fig.* 3. The cor-  
rupted Breast is embraced by the Arches A A, ΒΒ, of. this  
Instrument *Plate* 44. *Fig.* 3. as may he seen in *Fig.* 4. of the  
same Plate. The Extremities of these Arches C C,.. Ay. 3.  
are shut with the Lest Hand,, thatso the Root or Basis of the  
corrupted Breast may be pretty strongly compressed. Then  
by a sharp crooked Instrument represented by E F, and which  
.should pass through the Cleft of the other Arch DD, the  
-Breast is very diligently to be cut off. But ho we ver curious  
this instrument may seem, or however specious and ingenious  
this Method of Operation may appear, yet I cannot help think-  
ing, that the plain and simple Method, directed above, is pre-  
ferable to its but as it is a late Invention, I ctiofe to pass it  
over in Silence. A fuller Explication of the Figure will he  
-given in the.Defctiotion of the Figures of *Plate 44.*

When the Breast is cut off, in whatever Method it has **hem**.done, inis proper, if the Patient’s Strength will admit of it,  
.to take away forne Ounces of Blood even before the Application  
of the Bandage, for preventing, as we already hinted, inflam-  
mation and an Hemorrhage. Tbe-Opinionof some Surgeons,  
whe imagine, that by this means, the vitiated or cancerous Blond  
-is quite drawn away, seems to be a Matter of no -Consequence.  
But when the Patient,is weak, it is more adviseablc **im-**mediately after the Operation, to apply a proper Bandage, than  
-by an unreasonable and ill-tainἈ Bleeding, to render her more  
.and more weak. I am not indeed ignorant, that *Bidloo* and  
*Garengeot* imagine, that in this Case there is no Danger of an  
Effusion of Blood, hut that it is-easily stopp'd and repress’d;  
but Experience has taught me the contrary ; for I have often  
observed large Quantities *of* Blond break through thick Dress  
sings and Bandage, by -which means the Patients, were consider-  
ably reduced.. .’Tis therefore absolutely necessary in this Case,  
carefully and cautiously to apply Bandage. . .

In what manner Bandages may he most advantageousiy ap-~  
plyd, we have already direSed. I must only here give a Cau-  
tion not to remove them before the third Day, and even then  
-they are not to he violently torn away, but allow’d to. fall off  
of their own accord. Besides, the less frequently, and the more  
-circumspectly, the-Dressings, are -renewed .the .Aaglutination

succeeds proportionahly the better. But if, in the Course of  
the Cure, too great-a Quantity os purulent Matter should  
happen to stow from the Wound, in that Case the Dressings  
are th be srequentiy renewal; and lest the Patient should he too.,  
much reduc'd, or even quite destroy'd, by a copious Discharge i.  
of the purulent Matter, the digestive Ointment will he more;  
properly omitted, and lint either dry, or slightly soak'd in -  
Essence of Myrrh, and Amber, substituted in its Place. - A.,  
certain Surgeon told me, that in Cases of-tbis Nature, he us'd.  
with Success burnt Alum, with the Addition of a small Quan-  
tity of red precipitate Mercury ; and that by this Very Means, \*  
a firm Cicatrix was Very soon brought over the Parts. 6 7  
’ That the Patientis lost Strength may he gradually restor’d,  
the must he careful to use not only Foods that are of good  
Nourishment, and easy Digestion, fuch as Broths, Jellies, soft .  
Eggs, and other Aliments of a like Nature, but also cordial  
Medicines, and especially grateful and palatable-Emulsions.

. Great.Care tin the other hand is to be taken, lest the Wound  
agglutinatestoo soon ; ’ for in this Case, as some Authors have  
observed, the Malady gathers-fresh Strength, and returns with,  
greater Violence.' "For- which Reason, if. there is any apparent  
Danger of this Missortunej Honey.of Roses is now-and-then to  
he usediwithe Dressings, that so a due Suppuration may he kept  
up fora sufficient:time; but when the Cancer is once cured;  
the Patient-must-take great Care always to observe a strict and  
proper Regimen,, and to shun the Exorbitanciss of the tumult-  
uous and nngovern'd Passions;" She is likewise at stated Seasons  
of the Year, especially in the Spring and Autumn, to use pur-  
gative Medicines, and to have as much Blood taken from her,  
as her State shall require. . . . .-.si ^...: ... . .Ἀ: - ..

- When in the Course -of the Core, a. Vehement Fever, ae-  
compony'd with Violent Pains about the *Praecordia,* and a Dif-  
siculty-of- Breathing seize the Patient, certain and imaVoidabse  
Death is generally the Consequence. Thet this may not there-  
fore prove -the Patient’s Tate, Blood is to be taken from her in  
time; and Medicines -preventive of-these Disorders prescrib'd.  
There are indeed some Women,, who bear this Operation with  
tincominon -Fortithde, and more than heroic Bravery of Mind ;  
whereas-others of then Sex, lose their Courage fo far, as to  
shriek and cry in a manner so terrible, as is sufficient to shook  
and confuse the most intrepid Surgeon, and disconcert him in  
**his** Operationi 'Tis therefore absolutely necessary in this Case,  
that the Surgeon, as *Celsius* directs, he intrepid, and acquit  
himself in all the Steps os his Operation, in such a manner, as  
if he was deaf to The-moving Groans, and. piercing Sbrieks, of  
the tortur'd Patient. -

*Mr.* Sharp’s *Observations on this Subject must not he omiited,as  
they acquaint us with several Particulars of importance.*

The Success of this Operation is exceedingly precarious, from  
the great Disposition there is in the Constitution, after an Am-  
putation, to form a new Cancer in the Wound, or some other  
Part of the Body. When a Scirthus has admitted of along  
Delay before the Operation, the Patient seems to have a better  
Prospect of Cure, without Danger of a Relapse, than when it  
**has** increased Very fast, and with acute Pain. **I** cannot, how-  
ever, he quite positive in this Judgment; but upon looking  
round, amongst those I know, who have recovered, find the  
Observation so far well grounded. . There are some Surgeons so  
disheartned by the ill Success os this Operation, that they decry  
It in every Cose, and even recommend certain Death to their  
Patients, rather than a Trial, upon the Supposition it never  
relieves; but the Instances -where Life and Health have been  
preserved by it, are sufficiently numerous to warrant the Re-  
commendation os it.

~ The Scirrhus may he distinguished by its want of Inflamma-  
tion tn the Skin, its Smoothness and Slipperiness deep in the  
Breast ; and generally by its pricking Pain, which, as it is more  
**or** less, increases the Danger accordingly, though there are  
some few with little or none in the Beginning. As the Tu-  
mour, degenerates into a Cancer, which is the worst Degree of  
Scirrhus, it becomes unequal and livid ; and the Veffeis grow-  
ing Varicous, at last ulcerates.

In extirpating the Scirrhus, if it he small, a longitudinal  
Incision will dilate sufficiently for the Operation ; but if too  
large to he dissected out in that manner, an oval Piece of.Skin  
must be cut through first, the Size of which is to be propor-  
tioned to that of the Tumour : For Example ; if the Swelling  
is five Inches long, and three broad, the oval Piece of Skin cut  
**away** must he nearly of the same Length, and about an Inch  
**and an** half in Breadth. In taking off the whole Breast, the  
Skin may be Very much preserved, by making the Wound a  
great deal less than the Basis of the Breast, winch must he care-  
’ fully clear'd away from the Pectoral Muscle. This is not dif-  
ficult to do, because all these Scirrhi, being inlarged Glands,  
are encompassed with- their proper Membranes, -which make  
them quite distinct from the neighbouring Parts, and easily  
separable ; at least this is the Case when the Tumour is move-

able; for .sometimes' it adheres to the subjacent Muscle, 'and  
that Muscle.io the. Ribs ; in .which Circumstance the Opera-  
tion is impracticable. When it is attended with Knots in the\_  
Armpit, no Service can he done by Amputation, unless the  
Knots he .taken away ;' for there is no sort of Dependence to  
he laith on: their subsiding by the Discharge of the Wound of  
the-Breast. .The Possibility of extirpating these Knots,: with-  
out wounding the great .Vesseis, is very much question'd by-  
Surgeons; but I have done it when they have not lain back-  
wards anddeep.i τ;... ; ... . o sc. - y. ψι -

t The Bleeding of the large Arteries is to be stopp'd by passing  
the Needle twice through the Flesh, almost round every Vessel,  
and tying upon i it,, which will necessarily include it. in the Li-  
gature. Tn order, to discover the Orifices of the Vessels, the.  
Wound must be clean'd with a Sponge wrung out of warm  
Water. .. ,. ς’ . . *s - -* ‘ .t.ss -- . - X *y*

. Thsscirrhous Tumours that appear about the lower Jaw, are,  
generally speaking, scrophulous Disorders, .that distinguish ‘  
themselves almost by the Circumstance of fixingOn the Salivary  
Glands. These are Very stubborn of Cure, but not *so* bad as;  
the Scirrhus, fince they frequently suppurate, and heal after-  
wards. . If they iinposthumate again, after healing, 'tis for want  
osa good Bottom, which may; sometimes he procur'd thy de-  
straying .their bad Surface with a Caustic,: and is a Method *1*have often practised with extraordinary Success. Besides these,  
there is another Species of Scirrhus in the Neck, that succeeds  
hetter aster Extirpation than either of the former Kinds;; this is.  
an Inlargement of the Lymphatic Glands, that run close up by  
the Jugular Vein; and is distinguishable from Cancers of this  
Part, by its Moveableness, want os Pain, the Laxness of the  
Skin covering it, the small Degree of Pressure it makes on the  
Oesophagus and Trachea; and lastly, the good Habit of  
Body, as it seldom affects the Constitution, which Cancers:  
here do Very early after their first Appearance. This Tumour,"  
from its Situation, requires great Exactness in the cutting off *r*The last I took away of this Kind,. I separated from the Jugu-  
lar Vein near, the Length of an Inch and an half;. they some-.  
times extend up the Chin towards the Mouth, and occasion a  
Division of the Salivary Duct in operating, which proves Very,  
troublesome to heal ; but when all other Methods have sail'd,  
may be cur'd by a Perforation into the Mouth, through that  
Part of the Cheek where it is wounded, winch by a Tent, or  
small Seton, may be made fistulous; then by dressing upon the  
Outside, the onzing of the Saliva - that way will be prevented,  
and the external Orifice healed without Difficulty.

. The Treatment of all these Wounds may he with dry **Lint**first 4 and afterwards, as in the common incised Wounds.  
*Sharp’s Surgery.'*

- As Accident sometimes, but more frequently Lewdness **and**Debauchery, lay People under a Necessity of having **the**Whole, or a Part Of their Penis amputated, I rnust not omit  
the Method of performing the Operation.

*Amputation of the Penis.*

. If at any time a Gangrene should happen in the Penis, in  
Consequence of an Inflammation, a Phimosis, or Paraphimosis,  
then the same Method of Cure is to he pursu'd, which is laid  
down under the Article **PHIMOSIS.**

But if a Sphacelus, or a Cancer in Consequence of a  
scirrhous Gland should appear in the Penis, then every Part, to  
which the Contagion has reach'd,.is with all Expedition to he  
extirpated, lest the Taint diffuse itself farther, and the Patient's  
Misery be produced by the Surgeon's Negligence. The most  
Convenient and proper manner os performing the Operation is  
**this : A** small Tube of Silver or Lead, a little longer than the  
Part affected, is inserted into the Urethra, and.passssa little  
further than the Extremity of the corrupted Part. Then the  
sound Part of the Penis, which next adjoins to the corrupted  
Part, is to he tied with a strong linen or iilken Ligature, jn the  
**same** manner as when Tubercles or Excrescences Os Flesh are  
to be taken off by Bandage. Then the Tube inserted into the  
-Urethra is carefully fix'd, that it may not flip out, but afford  
an easy and open Passage for the Urine. The Ligature is lest  
upon the Penis; and if Necessity require it, may be made  
fighter next Day, by applying another above it; .and by this  
means, after some Days, the corrupted Part falls off where the  
Ligature was made. I am not ignorant, that some Surgeons  
forthwith cut off the Corrupted Part, and that the Blood is  
sometimes stopt, and the Wound happily and thoroughly’ ag-  
glutinated by actual Cautery, or styptic Medicines: An instance  
of which may be seen in the fifty-sixth Observation os *Scultetus.*But as this Method os Cure seldom shccecds well, and for the  
most Part draws a Train of dismal Consequences after it, I can-  
not help preferring the way by Ligature to is. Besides, when  
there is only a part of the Penis taken off, there remains, aster  
the Cure, a certain Power of Procreation, which bears a Pro-  
portion to the Size of the remaining Part.

.Whoever is desirous of seeing Cases os this Nature, let him  
consult, besides *Scultetus Histdanus, Obs.cruat.* 60. and 65-

*Ruyschius, Cent.* 3. *Observat.* 88. and *Deebelius, Dbsertsar.* 30.  
for he has-written a Treatise upon this very Subjects *Hiester,  
Tmi. 2. : ‘ .. -- . r -.cro*

*fr s ’ sta* Ca.ASE s.’ ET

One *Peter Pentad,* a Blacksmith, in a small Village near  
*Liaufannes* of forty Years of Age, of a melancholic Constitu-,  
tion, and who led a Country Lise, had from his Infancy been  
troubled-with a Wart on the Top of the Glans Penis, not ex-  
ceeding the Size of a Lentil. Before Marriage he felt no Pain,  
from it, unless upon some accidental Collision; but when he  
changed his Condition of Life, and enter’d into the Marriage--  
State, by the Attrition of the Parts, during bis Embraces, he  
Began to feel a Tain so inteofeaind uninterrupted that he was  
forc’d *for* thirteen Yeats to part Beds with his Wise. But in.  
Process of Time, the Pain increas’d, and the Wart degene-,  
rated into ainonstrous Cancer, as large as a new-born Child’s  
Head. His Penis was in. a .manner transform’d into a Mass of  
Flesh ofalonht Colour, and uneven on its Surface. The Smell.  
it exhal'd: was so rank and . disagreeable, that his Friends and  
Acquaintance could no longer endure to he in the Place where,  
he was. 1 A great many Ulcers, thro’ some ofwhich his Urine  
came; surrounded this cancerous Fungus. The Disease grow-  
ihg daily worse and worse,- Physicians of all Charactsrs were  
consulted, but all in vain. : When the Panent’s Case was by  
them-all pronounc’d desperate and incurable, when his Life  
was in imminent Danger, and the Excess of his Misery mov’d  
the Compassion of all about him, he irnplor’d my Assistance;  
and that worthy old Clergyman *Petrus Pagesids, who* was at  
once a venerable Medel of Piety and Erudition, prevail’d upon,  
hie to undertake the Cure, which I. did, asters had declar’d:  
rny Sentiments-*to* his Friends, 'and the test of the Company-  
present.' Wliep I bad diligently examined his Case, I found it  
to he very terrible ., for the Cancer had by this nine thrust its  
Roots ’-.as- far as the Abdominal Vesseis, and fix’d them there *t*For this Reafon I judg’d it more advifeable to try the last Re-  
medy, or- in‘other Words, to cut off the .Member, than to  
leave a Man, who had already suffer’d fo snitch, in filch Excess,  
.of Agony and Rami .’ . . *r- scil* **: 2 -. - - ; - -.si**

- As the the Cure itself, Isproceeded in it after this Manner:  
: After prescribing the Regimen I thought most proper, I  
purg’d-him with this Potion i .?

- Take-of the Herbs Fumitory, Scabious, Dodder, and Spleen:,  
wort, each half an Handful , of Anise-sceds, half an  
O unce -, os Sena-lea ves, three Drams: Boll all together in  
- such a manner, that the Liquor to he strained, oss amount

to no more than three Ounces, in which dissolve three  
Drams-of the Confection of Hamech, a. sufficient Quan-  
tisy of the folutive Syrup of Roles, made with Rhubarb,  
;' Agaric, and Sena ; to which add one Ounce of Cinainon-

.. water distill’d without Wine: Mix all up together into **a**Potion, to he given pretty early in the Morning.

Next Day r opeahi a Vein in his Left Atm, and took six  
Ounces of Blood from him. Then, for the hetter Preparation  
and Evacuation of the Humours, I prescribed the following  
Apozem: **’is:**

Take of the Roots of Succory, with the whole Heth, the  
Roots of sharp-pointed Dock, Purfiain, Polypody, the  
greater Figwort, Tamarisk Bark, and the inner Roots of  
black Alder, each one Ounce ; of the Herbs Agrimony,  
Speedwell, Scabious, Dodder, Spleenwort, golden Maiden-  
hair, Crane’s Bill, of each a Handful; of the three cordial  
Flowers, Broom, and Elder-ftowers, of each one Pugllv  
of Liquorice,- and ston’d Rasins, each an Ounce : Boil in  
a sufficient Quantity of Water to a Consumption of a third

' ‘ Part.: In a Pint and an half of the strain'd Liquor infuse  
and macerate according to Art, two Ounces of pick’d  
Sena-leaves ; of the Roots of- Bastard Hellebore, that is,  
the Root of the Female Saniole .of Fuctisius, and of Poly-  
pody, each' one Ounce ; of Agaric newly reduced .into  
Troches, three Drams j of the best- Rhubarb, three

’ ’ Drams : Make a Potion, according to ’Art, . for four  
Mornings.

- Having with the above Medicines purg’d his Body, and or-  
"denog hub to discharge the Contents of his Bladder, upon‘the  
ninth of *July* I 6oI. I plac’d him in a Seat, and in the Presence  
of that renown’d and learned Gentleman *Johannes Plumerias,*Professor of *Hebrew* in tho School of - *Lausanne, Claudius  
'TlAareenes,* a most knowing - Apothecary, *David Clerk,* and  
some others who are still alive, I extirpated his Penis in the  
"very Abdomen itsess; then I apply’d my stymie Powder.upon  
'Stupes dipt in IVbites of Eggs ; and with Cloaths folded, and  
dipt in Oxycrate, I wrapt up his Scrotum and Groins, and  
apply’d proper Bandage 5 which being done, I appointed Ser-  
\* vants, who, in their Turn, should, with their .Hand. wet in

Oxycrate; press gently upon the Stopes, lest an Harnorrhage  
should happen ; for in this Case the. aciual Cautery is highly  
dangerous, both because it may obstruct the urinary Passage,  
and'bring on an Inflammation of the- Bladder, ;and adjacent .  
Parts. The Wound being drefsrd-in .this manner, I allow’d it  
to remain untoucti’d till next Day. .Then.by the Use of Dige-  
stives. for some Days after, anointing-; his JBelly, and the Parts  
adjacent to the Wound, with Oil of Roses, and Myrtles, and  
by applying a defensive Plainer to the; lower Part of his Belly,.  
I- cur’d the Wound .in my ordinary manner. By the Use of  
these Means, accompany’d with the Blessing of GoD, he reco-;  
veFdhis Healthpersectiy. . .- . so; ...... .. .. ~'

. For a Conveyance to his Urine JI. order’d him a; very sample

Instrument,, not vfillke a human Perris, which he used imme-  
diately aster the Cure, with lithe or-tio Degree either -of Dif-  
ficulty or Pain, Besides,, he .enjoyed such a good State of.  
Health, and-perform’d the. several Branches, of his Profession,  
with such Ease and Freedom,. that-Sll who had an Opportunity?  
of knowing his deplorable State, were struck with. Susprizo at  
so complete and so unexpected a Cute. .iV 00 γ ; \_ j  
: Besides, since some imagine, .than,a Cancer extirpated in **one**Part never sails to appear in another,.is worth while to ob-  
ferve, that this Man liv’d for many- Years, without .the least.  
Symptom of that Kind ; enjoyed so good a State of Health,  
that he followed his own Trade; and other Parts of Country-  
Labour, without the least, Impediment, and eyen without-the  
instrument he used at the Beginning, discharge his Urine as;  
freely, as if he had/an entire and sound Penis, since-he was,  
able. to. theow. it out. A coosidsrable way ς and whictiis still more,  
surprising, he several times told me, that he was very ofteni  
tantalised with a Stimuhisto Vonery. At last,;however, **.be**died, about the End of the Year *Assy,* when I was in the,  
*Netherlands* ; but what the Difordut- which prov’d sand to **hint**might have been, I cannot tell ’ i 4-

. During the. War between the Duke of *Savoy,* and the Inha-  
bitants of *Geneva, ά* Soldier happen’d in a Skirmish'to have his  
Penis shuck off by the Shot of a. Musket , Being, brouamt to'  
*Geneva,* he was heppily cur’d his that skilful Sutgeon Mr.;yher  
*Grifton s hat* in this Patient the hisemorthage was not greats  
otherwise the Cure had been difficult ond dangercut, as might  
he confirm’d from many Instances.- —-i Λ -

In. the last Observation bub one,. I. gave an Instance of a Fe-  
nis cut off, and cur’d, with Success. ΤI shall now shew, from  
two Instances, thet Operatioheof; tlils Kind are highly dawi  
herous», unless when perfeutid iwrth: SlfllJ, .Dextofity and  
Caution. - : h .T a’... : ί

In the Year I58I. a poor Countryman went out a begging j  
and having a pretty weighty Bag: hung about his Neolt, he. had  
the Misfortune to attract the Eyes, of a Cut-putfe, who, while  
he was deliberating about the most proper Excedient for getting  
is into his Possession, observed, that when the poor Man bended  
his Body forwards, the Bag hut^r ilcnwn betwcUfbis Thighe 15  
and thet when he recovered his Body from that Posture, i the  
Bag was. again raffed to his umbilicali Region.,. bWhen he hed  
thus taken bis Observations as .accurately as she epuld, and *lumr*the poor Man standing before a Shop, , and gazing on the Corn-  
modifies, he secretly came, hehindi him,, and seizing st once  
his Penis and the Neck of the Rag, he cut both oss at oue aod  
the saine time. But. the miserable Countryman, falling upon  
the Ground,..expired upon the Spot. .. ;

IntheYearI582. a Man os about forty Year? of Age,  
labouring under a malignant Ulcer in the Glans of his Penis, had  
the Misfortune to fall into the Hands of a Surgeon who  
none of the.rnost skilsul : He haying cut off the Glans, and nof  
bring furnished with styptic Powders strong enough for stopping  
the Blood, set about heatiog the first Piece os Iron that jygr  
seated itself, to him in the Kitchen, during which mine, so ter-  
rible.an Haemorrhage happened, that the Pauont.tiled a.few Daya  
after, for so great an Hamorrhagehad impaired hisStrengthjo  
entirely, that it was impossible to restore it... Hexed, young  
Surgeons ought to learn, that the greatest Skill, Diligence, and  
Caution, are necessary sot cutting off a Penis in a proper  
.manner. *Hildanus, Cent.* 3. *Cbserv.* 88, S9. . : . „

The human Penis may be successfully enough extirpated,  
.provided the.severaI Steps necessary he carefully and snithspljy  
taken. . :I

A Countryman had for two Years heen troubled with a sein-  
rhous Swelling on the Gians of his Penis, which at last degeme  
rated into an exuleerated Cancer, and became .as big as a Per.-  
fon’s Fist. *Jcachim Schrader,* a skilful Surgeon, who, had rhe  
Cute entrusted to bis Care, called: that experienced PhyIrcian  
Dr. *Hiddingh,* tnyfelf, and *Andrew Aneiebnan,* together wish  
his Son *Cornelius,* to a Consultation. We unanimously ap-  
proved of Extirpation, which was accordingly set about next  
-Day, and that. Thanks he to Heaven, with such Success, that  
tho’ he lost his Penis, he returned borne with his Health,  
**which he** still,continues to enjoy. The Operation was per-  
formed in , this manner . Having, passed a. Catheter up his  
*Hirxtara,* into the Cavity of his Bladder, v/4iinade a. strong

Ligature upon, his Penis, lost hebind the affected Part, with a  
Cord, which was indeed small, but capable of making a very  
.great Compression. The Patient here the Agonies of the  
^Operation with such a manly Courage, as surprised all the  
Spectsiors 7 for he was only heard to utter a few Complaints.  
Aster we had apply’d this Ligature, we so fixed the Catheter  
withiThread, that in could nut slip out of the Urethra. Next  
Hay w e apply’d a fresh Ligature, that the Part affected might  
mortify the spaner. In the mean time we wrapt up the Whole  
ofhis-Penis inn wet Biadder, for" the Reception of his Urine,  
and preventing *a.* bad Smell. Upon the fifth Day, if I rightly  
jemember, the.mortified Part was cot off with a Knife, with-  
out any Hlemorrhage ensuing, because it-was, totally mortified;  
‘We still left the Catheter in his. Urethra for a Day ut two, till  
the Ligatur4.shoosii come-off. of,am own Accord,, and the Pa-  
Itient stand no. longer in Need of is. Being now recovered, he  
^discharged am Trine thmi an ivory, instrument-; her.that Part of  
inis. Pedis which was lest, herL wholly shrunk heck into his Abdo-  
amen, *so-* thmihe was obliged to .use this Instrumam to prevent  
ams Cloaths heingamnde wed., *durysesc, sales. Obser.'^o.*ὓ .AMEimAirIitile used by *Castius Cardianus* in a Sense disse-  
frynt from thet already cigniugni. Thus Acat.L... 2, dur 6. and  
40. Voces Aiua.UTATro imports a Deprivation of Speech,  
'of Itiabiliryto speak. And the same Words.,arc, also used by  
.this Author,. *Chronic. Isa 4... Capij.* in exactiy the same  
.lSeofin th. δ᾽., ... . -O -'-B'na S:.:.v

ψ In this Author also *amputare Vires* signifies to render weak,  
jortake away Strength. *-.:s? ...*

ᾶ *Narvos' amputare* also in this Author signifies to take away  
yhe Strength.τ. . ς.γτῖ n,-' i ’ - :

s AMVCTICA, ἀμυκτινὰς from ἀμὑμὲν to yellicate. *Cae-  
sius Anreliantis, Chron. L. R. Cap. 6.* uses this t9 express Re-  
medies,.which.by vellicatiog and . stimulating, the Bronchia,  
innise a Cough, and by that means contribute so. the Discharge’  
of whatever is offensiveto the Lungs. These Medicines are the  
same as these callid ART E RI **Atio. .... ,. s.**

7 AMVETTL or Vetti-Tali, otherwise distinguished by the  
Narne of *Anipes Nested, Floribus spicatis, SesnsnUus.parvis in  
isseastcestesstsodur si -si so* **ςς ῆ.ίς . ’ς**

It is die Name of an *Indian* Tree ; hist I tion’tinnd any me-  
.dloinsl VirtuesautiSined. ha 4. - so . - *....... i .*

AMULlSTA, Amulets, As these and Charms: are nearly  
inllwil together, I shall treat of thetn under thesame Article.

As we learn from sacred History, that Idolatry had diffused  
ins baleful Influences over the Minds of Men long hefore the  
Days of *Mofes,* so ’tis probable, that Magic, and the ridicu-  
lous Attempts to prevent Diseases, and restore HeaIth, by the  
IIseof Charms and .Amulets, are as. old,, since they seem to be  
, closely connecied, and nhariy. ally’ts tol edicti other, dur this is ,  
.her Cole, it inust: Be as difficult to trace the Grinin of Magic  
7and Amulets, as of Idolatry itself : But as Disgnisinous.of this  
. Nature am foreign to out present Purpose, we refer the Curious

to those Authors who. have, wrote expressly upon that Subjects

That we may deviate from our Subjeci as little as is possible,  
. It is sufficient lor us to know, that these, illicit Methods of pro-  
cubing Heasth, which were sounded on a false Religion, and  
supported by the Credulity of a giddy and unthinking Multi-  
tude, were not only practised hist in a marther incorporated  
with Physic, long hefore the *Greet Apseulapius,* who in all Pro-  
bability practised them, himfelf:

- . As to the Manner in which this Abuse crept into Physic, and .  
. the Motives that heve induced Mankind to prostitute their Un-  
derstandings, and affront their Reasons, so far as to countenance  
in, ’tis probable, that Men seeing the natural Means-of pre-  
serving Health, and pre veruina; Death, frequently unsuccessful,  
grasp’d at every thing that first presented itself, and belrev’ri the  
first Impostor, who had Confidence and Wickedness enough to  
impose upon .them. They allow’d themselves tp be foifiuch  
the more easily decoy’d in this Particular, because they'ima-  
gin’d, that tho’ these superstitious Practices,shpuldlonppen to do  
no Good, yet at least they amid not possibly do anyHarm i and  
though they were of themselves without Virtue, and without

. Efficacy, yet to authorize and establish their Use, it was suffi-  
. cient, that some Persons believed, that they reap’d Advantage,  
and received Ease, from them. It is even, possible, that the  
Relief afforded by thefe Charms might have been real, since  
the Force of Imagination in the Patient might have fupply’d the  
Deleft of medicinal Virtue in the Amulet; and the linpression  
made upon the Mind by it, might have communicated, itself to  
the Body, and chang’d .the State and. Condition of its Paris. If  
to- what, has been said we join thefe two Considerations ; that  
these Amulets were, not, like other Remedies, ungrateful and  
painful; and that Religion, or rather Superstition, which has

-.too great an Influence.over all Mankind, join’d her facred  
Sanction, and pronounc’d them lawful. I say, is we reflect  
upon these things, wc shall nut be surprised, that Men fell into  
the Mistake, embraced the agreeable delusive Error, and justified  
their Prostitution of Sense and Reason, by an Allegation of ima-  
ginary gced Effects produced by them.

Whether besides the Craft and Artifice of Men, there was  
any thing more in the Matter, is a Point, the Decision of  
which I leave to Divines. But whatever the Cafe be, certain it  
is, that Chartos and Incantations have been so effectually intro-  
duced into Physic, that all the Nations of the World heve used  
hem Time out of Mind. The *Pagans* are not the only People  
who have fallen into this Folly. Those who have, been ho-  
tiouPd with the Knowledge *of* God, have allow’d themselves rd  
3e corrupted and carried off by the had Example of their idola-  
trous Neighbours i and fome even of these who have been ac-  
counted rhe wisest ofMen, whatever the Religion they profefs’d  
seed, have been so weak and superstitious as to split upon this  
Rock, as well as the Vulgar; tho’ there have heen in all Ages,  
even among the *Pagans,* some free uofetter’d Souls, who nobly  
daFd to think for thenrfelves; who look’d thro’ the Mask, and .  
sheer’d atthe wild Delusion.

Sometimes People charmid by single Words, or by certain  
Sentences, whispered in. the Patient’s Ear, or even pronounced  
at a Distance from him, with an Intentinn to cure him ; and  
this Form was always accompany’d 'with various other Cere-  
monies. These Words or Sentences were called by the *Greeks  
suurilumi,* by the *Eacins Incantamenta,* or *Carmina,* which  
Words correspond precisely to our *Englise* Words *Inchantments*god *Charms,* as being a fort of Song pronounced over any one j.  
for the Words were generally in Verse, or at least pronounced  
with the Air and Spirit of a Song; not but that they also made  
use. of Prose for this Purpose, and even employed barbarous and  
insignificant Words, which neither he that performed the Cere-  
mony, nor he for whofesake it was performed, understood:

At other times they wrote there Words, or Sentences on cer-  
"tain Substances,, which they tied to some Part of the Patient’s  
Body, or made him carry about him. These are what the  
*Liitius* call *Amuleta,* probably'from the Verb *amovere, to re-  
rneve* or *take away* , they call them allo *Prcebia* or *Proebra,*from *prihibere, to guard or defend.* The *Greeks* have with, a  
like Propriery and Significancy call’d them *Apotropaa, Phylac-  
teria, Amynteria, Alexiteria,* and *Alexipharmaca,* becaufe they  
imagined, that there Remedies could desend them, not only  
against such Diseases as proceed from natumi Caules, but asso  
Sgainstthe Charms or Incantations which might heve been used  
by others,. with a View to hurt or destroy them.

These Amulets were made of Stone, Metal, Simples, Ani-  
mals, and in a Word, of every thing theis Fancy suggested, or  
thein Caprice directed them to. Upon .Stone, Metal, and  
Wood, they engraved Characters, Figures, or Words, which  
were to be" disposed and ranged in a partioular Order, as well  
as. these delineated on Paper. - Such is that prescribed by *Serenus ‘  
Sarnonicus, for* the Cute of a certain Species of Fever, call’d by  
Physicians *Hemitritaeo.* The Cure consists in writing the Word  
*Atrafastabra* in. a certain manner upon Paper. See ABRAcA-

**-DABRA. ' ' ’ ” . .**

, The *Jeua* have attributed the same Virtue to the Word  
*Alaacaian,* pronounced in the seme manner. See. ABRA-

**.CALAN.**

We find in *IlAarcellas Empericus,* in *Trallian,* and other  
Authors, feveral Examples of Amulets made by Characters,  
:rang’d in a certain Order, and engraved upon. Mend, Wood,  
of Stone.: . ;

, Sometimes they neither wrote nor engrav’d any thing upon  
the Substances intended for the Amulets, hut ofed a great many  
superstitious Ceremonies in preparing and applying them. Not  
to mention the Tains they were, at in observing, whether the  
Stars were favourably dispos’d, or not. The *Arabians* heve  
given this last Species of Amulet, the Virtue of which depends  
ptioEinally upon the Influence of the Stars, the Name of *Talise  
, quifi,* which in their Language signifies an dinage.

Amulets were made of all Forms, and tied to, all Parts of the  
Body ; for whicti Reason they were also call’d *Periapla,* and  
*Puriapimata,* from a *Greek* Word which signifies *to tic about any  
thing.* Some of these resembled a Piece of Money, thro’ which  
they bor’d a Hole, and with a Piece of Thread hung it about the  
Ratientio Neck. Others of them were in the Form of Rings,  
which, were put upon the Fingers, or other Parts of the Body.  
Others of them . were contrived in the Form of Bracelets,  
or. Necklaces, whicti were wore upon the Arms, and about the  
Neck ; and some of them resembled Crowns, with which the  
Patienss Head was incircled.

We may join in the same Class with Amulets and Charms,  
all the other superstitious Remedies, in which the Antients  
reposed fo much Confidence, and of which they used Io great aNumber. . There were,, for instance, certain Simples, which  
they could neither gather, prepare, nor apply, without at the  
lone Time performing some Ceremonies; which, const-  
. derfd in themselves, could neither facilitate the Operation  
of the Medi.ein.es- nor augment he Virtue, and seem’d alto-  
gether of an indifferent Nature, but without which it was  
pretended that the Remedy was useless. The. Writings of the  
antient Physicians abound with Descriptions of Remedies of this  
**.Nature, which are** still, used by Quacks, old Women, and.

others who have the Misfortune to he under the Influences of  
Credulity and Superstition. See BARA.

There are also a kind of Amulets, in which neither Charms  
Yror Superstition had any Share, tho’ no Person could account  
fur the Effects attributed m them, nor comprehend the Man-  
ner in which they acted. These are, at this Very Day, ap-  
prov'd of by some Physicians,’ and aS indtistrioufly ridiculed and  
’ despised by others. *Le Clerc. Hist, de la Medicine.*

Amongst Amulets and Incantations, none seems to have  
gain'd so great a Reputation as the Royal Touch for the King's  
Evil, which has the Appearance of being a Mixture of both.  
- There is scarcely a Royal Family in *Europe,* which does not  
-pretend to inherit from some of their pious Ancestors, the  
Power derived from Heaven, of charming this Distemper.  
\* This Claim would he more justifiable, if most of them Tbrones  
had not originally.heen. gain’d by Rapine and Violence, and  
supported by an almost continual Series Of Oppression and In-  
Justice, which are not likely to draw down from Heaven any  
extraordinary Benediction. If, however, we look upon this  
' fort of Incantation aS a Piece of political Craft, we shall have  
Reason to believe it has its Origin more in Villainy than Folly;  
For Miracles are Very proper to extort a Veneration from the  
Vulgar, and impose upon Minds furnish'd with little. Sense,  
and much Credulity. I am sensible, that many grave Authors  
have treated this miraculous Method of Cure as a Reality, and  
that there are not wanting Persons, who at this Day, pretend  
- to produce Instances of People who have heen healed by the  
Royal Touch. But, at the same time, I cap produce as good  
Evidence of Tricks play'd by Witches, Spirits, and Fairies,  
" which however I cannot implicitiy believe. I should therefore  
: think it more probable, that those who relate and assert Stories  
either of Witches, or Cures by the Royal Touch, have suffer-  
ed themselves to be imposed upon through a littie Enthusiasm,  
- and a Fondness for the Marvellous, or intend to impose upon  
others, than that such Relations should he true. I will not  
deny, that the Solemnity os the Ceremony, and the Presence  
of a crown'd Head, may possible strike the Person touched  
with an Awe and Surprize, which may induce some Altera-  
tion in the Circulation of the Blood, and consequently upon  
~the Solids and Fluids of the Body; but this Cause does not  
appear adequate to the Effects attributed to it. It is possible  
also, that the Gold worn about the Neck may have some salu-  
tary Influence, if it can attract to itself, and draw out of the  
Body the Matter, which is the immediate Cause of the Ring's  
Evil, as it does Mercury, which however is not -so certain aS  
’ to he depended upon. ' .

AMURCA is the Faces which subsides to the Bottom of  
the Vestel, where the Oil of Olives newly express'd is put. .

It is emollient, lenitive, and resolutive, and proper to ease  
Pains in the Head, heing applied To the Forchead, and to stop  
. Fluxions. *Lemery de Drogues.. '*

' The medicinal Virtues of Amurca, as related by some os the  
Antients, are somewhat different from-those mentioned by  
*Lemery. . . . '.*

AMURCA, ἀμύρκη, is the Lees or Sediment of the pressed  
- Olive.

\* ' Boiled in a copper Vestel to the Consistence of Honey, it ’  
becomes an Astringent, and is serviceable in. the Tooth-ach,  
‘ and for Wounds, being mixed with Vinegar, Wine, or Wine  
and Honey, [όινόμελι] and the Parts anointed therewith. Iris .  
also an ingredient in Collyria and Planters. The older it is, the  
hetter. Administered in a Clyster, it is good for Exulcerations  
of the Anus, Pudenda, and Uterus. Boiled with Omphaciurn  
to the Consistence of Honey, it draws out rotten Teeth, that  
are anointed with it. 'A Decoctinn of it with Lupines and the  
Chamaeleon, cures the Scab in Cattle, being rubbed Over with  
it. Crude and new, it makes a good Fomentation for chose  
who are afflicted with the Gout in then Feet or Joints.

Being spread upon a Sheep-skin with the Wool, and apply'd  
to hydropical Persons, it represses the Swelling. *Dioseorides,  
' Libit. Cap.* I 36.

Amurca is of an earthy Substance, hot, but not sensibly  
acrid. When boiled, it becomes of grosser Parts, and more  
dry. *Orib. Med: Coll. Lip.* 14. *Cap.* I. \_ .

By reason of its heating and intensely drying Qualities, it  
cures Ulcers in Bodies that are of a dry Temperrment; but in  
all others increases and exasperates them. *Actius Tetr.* I.  
*.Serm.i. AEginet. Lib.y. Cap. 2.*

- AMYCHE, αμυχὴ, a superficial Exulceration, Laceration,  
or Scarification of the Skin.

It is derived from ἀμὑιΜω, m scratch, and is sometimes used  
by *Hippocrates.* HenceAMvCTICA, Stimulating, Vellicating,  
«fed by *Ceelius Aurelianus, Lib.* 2. *Cap.* 6. .

AMYDROS, ἀμυδρός, somewhat obscure, scarcely to he  
seen. It is used by *Hippocrates* in his Treatise *de Insomniis.*

AMYGDALE, Almonds, the Fruit of the AMYGDALUs,  
which see. It also sometimes signifies the ToNSILLJE, winch  
see.

AMYGDALIA, ἀμυγδαταα, Almonds. *Hippocrates de  
\TMurbis, Lib.* 2.

AMYGDALATUM, an. artificial Milk made of Almonds,  
usually called an Emulsion.

AMYGDALOIDeS, a Name by which *Oribasius* calis the  
Tithymalus, which, he says, goes also by the Names os *Tithfr  
malus Mas, Characias, Cometes, and Gobius.* See Τιτηυμλ-  
**IUs. ‘ ‘** ' S"

AMYGDALOPERSICUM, the Almond Peach. It is also  
Called *Pcrsica Amygdalardes. " ‘ '*

*AMYGDALUS amard, et dulcis,* Offic. J. B. I. 174.  
Mont. 36. Jons. Dendr. I22. *Amygdalusfativagi* Co B. rim  
441. Ran Histor. 2. I5I9;el. Bot. 497. *Amygdalus sativa.,  
fructu majore,* T. Inst. 627. Boerh. Ind. Δ 2. 245. *Amyg-  
dalus,* Chain 12. Ger. I256. emao. I445. Parkmfi Theat.  
1515. The ALMOND-TREE. *Dak.*

‘ The Decoction os the Roots of the bitterAhnond-tree, bruised,  
‘ clears the Face of Freckles ; and a Cataplasm *of the* Almonds  
has the same Effect. Apply'd by way of Pessary, they provoke  
the Menses; and made into a Cataplasm with Vinegar and Oil  
- of Roses, and apply’d to the Forchead or Temples; they ease  
Pains of the Head; with Wine- they cure the Epinyctides  
[Pustules arising in the Night] ; and with Honey are properly  
- apply'd to putrid and spreading Ulcers, [σηπεδονας καὶ *sportimaj]*and the Bites of Dogs. Being eaten, they ease Pain, loosen  
the Belly, incline to Sleep, and provoke Urine.' Taken with  
-Amylum, they help such as Vomrt Blood ; drank in Water, or  
made into an Eclegma with Resin of Turpentine, .they relieve  
those who are afflicted with Diseases of the Kidneys, or labour  
under a Peripneumony; Taken in Raifin-wine, [γλυκεῖτ they  
relieve such as are troubled with a Difficulty of Urine, or the  
Gravel. Made into an Eclegma with Honey and Milk, arid  
taken to the Quantity of a Haste-nut, they cure Diseases of  
the Laver, Coughs, and Inflations of the Colon; eaten before  
' drinking, to the Number of five or six, they prevent Drunk-  
enness. They kill Foxes, being mixed with their Food;- The  
'Gumof the Tree is astringent and heating; and, drank, re-  
lieves those whe bring up. Bleed. Mixed with Vinegar, and  
' the Parts anointed therewith, it takes off Tetters that affect  
only the Superficies of the Slfin. Drank in Wine and Water,  
it cures an inveterate .Cough; and drank in Raifin-wine, it

\* relieves those who ate afflicted with the GraVeL - *- s : ' ...*

*. The sweet and esculent* Almond is much inferior in Virtue  
to the bitter one, though it attenuates, and provokes Urine.

. Green Almonds, eaten with their Shells, amend the preterna-  
’ rural Humidity of the Stomach. *Dioseorides, Lib.* I. *Casi* I76.

1 011 of bitter Aimonds, which some call *Metopiurn,* is thus  
‘prepared : ..... :... \* : . .

Take of bitter Aimonds, clean'd and dry'd, six Pints; bruise  
them gentry in a Mortar with a wooden Pestle, till they  
come to a Paste, and thereto pour two half Pints of boiling  
Water. Let it alone for half an Hour to imbibe the Moi-  
sture, after which beat it again more strongly, and pressing  
it, put whet sticks to the Fingers into a Muscle-shell. This  
done, pour again half a Pint of Water to the Mass, and  
suffering it to imbibe the fame, do as hefore. every fix  
Pints of Water will produce half a Pint of Oil.

It is effectual against Pains and Strangulations of the Uterus,  
and against Contortions and Inflammations of the same Parts ;  
also for Pains of the Head, and Pain and Noise, or Ringing in  
the Ears. It helps those who are afflicted with Diseases of  
the Kidneys, a Difficulty of Urine, the Stone, the Asthma, on  
Disorders of the Spleen. Mixed with Honey, Root of Lilly,  
and *Cyprian* Cerate, or Corate of Roses, it clears the Face of  
Spots and Freckles, from Sun-burning, and smooths it from  
Wrinkles; it also rectifies a Dimness of Sight, and deterges  
Achors, and Scald Heads. *Dioseorides, Lib.* I. *Cap.* 39.

Troches of bitter Aimonds are thus prepared:

Take os Anise, the Seed of Smallage, Asarabacca, bitter  
Almonds, the Tops of Wormwood, of each an equal  
Quantity, and make them up with Water into Troches  
of the Weight of a Dram. To a Patient in a Fever give  
them in Hydromel; to one without a Fever give them in  
Wine and Water ζοινόμελι]. *P. AEgineta, Lilt.* 7. *Cap.* I2.

Oil of Almonds is prepared after the following manner:

Take clean bitter Aimonds, and pound them, instilling now..

- and-then a little Water; this done, to the Quantity of  
four Ounces put a Pint of sweet Oil; let it stand forty  
Days in the Sun, or let it boil three Hours in a double..  
Vestel, and then strain it for Use. Some put two Ounces  
of bruised Almonds to an *Italic* Pint of Oil, and. boil it  
in a double Vestel.

An Oil of Almonds, called also *Metopium,* prepared diffe-  
rentiy from that described by *Dioseorides c*

Take of Oleum Omphacinum, [Oil exprested from unripe  
Olives] twenty Pints; Of bitter Almonds, two Pounds ;

of Cardamoms, -one Pound ; of the Flowers of Juncus  
Odoratus, Calamus. Aromaticus, Carpobaliamurn, each  
one Pound; of Myrrh, Galbanum, each half a Pound ;  
of Turpentioe, two Pounds of sweet-scented Wine, to ma-  
cerate the dry Ingredients in, four Pints ; of *Attic* Honey,  
three pounds. - Bruise and dissolve rhe Galbanum and  
Turpentine in Part of the Oil, and mix them wish the  
rest of the Ingredients after they are bolled, and then add,  
the Honey. When all is throughly mixed, take it off  
the Fire whilst it is in a gentle Warmth, and strain it ;  
for when cold, it is thick.

The *Egyptians,* who invented this Oil, calledrt *Metcplam,.*because it had Galbanum for an Ingredient, which was the Pro-'  
dune of a Plant called *Metspiurn. P. Acginet. Lib.* 7. *Cap.* 20.

AMYGDALIS AMARA ET DULcis. This Tree is so much  
like the *Peach,* both in Leaves and Blofloms, that it is hard to  
know them afunder, but by their Finis, which is less in this,  
containing llttle or no pulpy Flesh, but a tough cottony Skin,  
under which is the Stone, which is smoother and more pointed  
at one End, but full of llttle Hollownesses, The Kernel of  
this is the Almond, not distinguishable whether bitter or sweet,  
but by the Taste.

The Almond-tree grows only spontaneoufly in the wanner  
Countries, as *Spain,* and particularly *Barbary ;* It flowers  
early in the Spring, and the Fruit is ripe in *August.*

Sweet Almonds are accounted nourishing, but if eaten too  
much, are bard of Digestion, arid very stuffing; of these, with  
Sugar, are made several Sweet-meats,' as *March Panes,* and  
*Maccaresns.* But it is the Oil drawn from the sweet Almonds  
that is most in Use, and is an useful and excellent Medicine.  
It is of great Service in Affections of the Lungs, as Coughs,  
Shortness of Breath, in Soreness of the Stomach, pleuretio Pains.  
In the Stone, Gravel, and all Diseases of the Kidneys and  
Bladder, it is of singular Use, hy its softening and lubricating  
Quality. It very much corrects the bilious Salts in the Sto-  
mach and Bowels, and is of great Advantage in the Colic, and  
helps a costive Habit of Body. It is commended to be given  
*to W*omen with Child, to take freely of it for some time before  
they expert their Delivery, It is very niseful for Childrens  
Gripes, and to purge them gently, mix’d with any opening;  
Syrup. .

The bitter Almonds are more used outwardly as a *Cafmetic,*being cleansing and beautifying. The Oil dropp’d into -the  
Ears, is good for Deafness ; and is frequently put among *Ano-  
dyne* Linimente.

The ouly officinal Preparation is, the expressed Oil of bitter  
and fweet Almonds. *Miller Bnt. Osts.*

Sweet Almonds contain a great deal of Oil, and a llttle Salt  
and Phiegm. ' :

'/ The bitter Almonds contain a great deal of Oil, more Salt  
than the sweet Almonds, and hut little Phiegm; it is for that  
Reason, that the Oil os the bitter Almond will keep a longer  
time without growing musty, than the Oil of sweet Almonds:  
*Eemery de Drogues. - - —*

*Pernet* adds, thet the Oil os bitter Almonds, outwardly ap-  
ply’d, softens bard Nerves, takes away Spots in the Skin, and  
brings down the great Bessies of Children: Some say, that the  
**Oll** of sweet and bitter Almonds both may he preserved from  
growing rancid, by the Help of Spirit of Wine tartarized.

Sweet Aimonds cause Sleep, and increase the seminal  
Powers. ... .

Both the one and the other agree at all times to every Age,  
and all Sorts of Constitutions, provided they his moderately  
used. \ ; sosm- V. .

*' L* Aster your sweet Almonds are bruised and steeped in Water,  
they squeeze a milky Juice out of them, which is gjven to lean,  
consumptive and pleuretio People, and does them a great deal  
of good; the Reason of which is, because the Milk contains a  
great many oily, balsamic, and ernhara sting Parts, fit for  
nourishing and restoring the solid parts, moderating the violent  
Motion of the Humours, and allaying their Sharpness.

The Difference of Taste between the sweet and hitterAlrnonds  
proceeds in this, thet theceds less Salt in the sweet ones, and that  
this Salt is perfectiy confined and cooped dp' by the ropy Parts,  
insomuch that k can make but a very flight Impression upon the  
Tongue. . -

The bitter ones, on the contrary, contain much sharp Salt,  
which being but half ernbarasfed with the oily Parts, cause a  
stronger, hut a more disagreeable Senfation..

*Plutarch* tells,a Story of a certain Physician, who lived with  
*Drusas,* the Son of *Tiberius,* and who by the Use of bitter  
Almonds became fo great a Drinker, that be was never made  
drunk, and oin-did ail thet lined in his Time thet way. *Lemery  
on Foods. -*

Some Years ago there happened a remarkable Case in this  
Part of the World, Ten. young Gentlemen, descended of  
illustrious Famllies, used pome Water-gruel, in. which more  
than two Ounces of Arsenic, mixed with an equal Quantity of  
Sugar, had been put. Soon after, they were racked with great

mifijuietudes, and Gripes in then Bellies . but, by the Blessing  
of God, I removed all their Symptoms, and put them out of  
Danger, by Oll of sweet Almonds and Milk: *Haffman.*

Oil of sweet Almonds well prepaced, and taken to the Quan\*  
tity of some Spoonfuls, in a little Broth, is a most effectual  
Medicine in all Pains and Spasms; even in such Spasins as shako  
the most remote Parts of the Body ; For this Reason, it is very  
properly prescribed in convulsive Coughs, spasmodic Asthmas,  
Fits of the Stone, Stranguries, and Cosies. *Haffman de Con-  
sensu Partiunt Narvofarurn.*

There are certain Poisons which prove noxious to particular  
Animals, and yet produce no poisonous Effects upon Men:  
Thus, for Instance, bitter Almonds are pemicious to Fowls,  
and excite 'Convulsions in the Stork and Dove particularly.  
Tine fame Almonds, as well as the Nux Vomica, when given  
to Cats and Dogs, throw them into such violent Convulsions,  
as put an End to their Lives. *Haffman Medicin. Rational.  
Sastemat. Vol.* i.

AMYLEON, or AMYLION, ἀμὑλεον, or ἀμὑλιον, from  
α Negative, and μὑλη, a Mill,, because made of Corn without  
grinding. Starch: See **AMYLUM.**

*. Hippocrates* in his Treatise of the Diseases of Women, *L.* 2.  
recommends this, roll’d up in Wool, as a Pessary, good against  
a Discharge of Water from the Uterus:

AMYLUM, Starch. ..........

**AMYLUM is** so called, because it is prepared without the  
Help of a Mill (from α Neg. and μὑλος, or μὑλη, a Mill).  
The heft is what is made of Sitanlous Wheat, (such as is sown  
and reaped in three Months) in *Crete* or *Egypt.* It is prepared  
of this Kind of Wheat, cleansed, in the iollowing manner:  
They water it five times in the Day, and, if it may he done,  
in the Night also ; as soon as it is soften’d, they gently let the  
Water runoff, without stirring it, for fear the hest Part of the  
Grain should stow off with it: When it appears to be through:.  
ly fofr, they pour off the Water, and tread it with their Feet;  
then pouting on it fresh Water, tread it again. ' After this,  
they take off the bulky and branny Parts, thet swim ,on the  
Top, with a Skimmer, and pass the rest through a Strainer ’;  
and as foon as this is done, they lay it upon new Tiles to be  
dried and condensed in the burning Sun ; for if it should, in **the**least, continue moist, it would contrail a Sourness.

It is good for Rheums in the Eyes, hollow Ulcers, and Puss\*  
toles." Drank, it flops vomiting *of* Blood, and mollifies the  
Parts about the Aspera Arteria *s* it is usually mined with Milk,  
and other Food.

Amylum is also prepared of Zea, (Spelt) macerated a Day  
Or two in Water, then kneaded with the Hands into a Mass  
like Dough, and afterwards dried in the fervent Sun as hefore..  
But this Sort of Amylum, tho’ very good in other respects, is  
unfit for medicinal Use. *Diascorides, Lib.* a. *Cap.* I 23.

Amylum is made of all Kinds of Wheat, but best of the  
common Sitatrious: It was invented in the Island of *Chios,*and the finest’still comm from thence - The Name was given it  
on account of its being prepared without a Mill. The next in  
Goodness is made of a fort of *vaty* light Sitahious Wheat: It  
undergoes a Maceration in fresh Water in wooden Veffeis, so  
as to be covered with the Water, which is changed five times  
in the Day;. and it would be better, if the fame were done in the  
Night, that it might be throughly mixed and softened alike,  
hefore it grows four. When it is dried enough in Bags and  
Baskets, they shoot it out upon a Tile smeared with Leaven, and  
let it condense in the Sun. Next to the *Chian* Amylum, for  
.Goodness, is the *Cretan*; arid after these the *Egyptian.* It is  
valued by its Lightness, Smoothness, and Newness. *Pliny,  
Lib.* 18. *Cap. y.*

The sorbile Liquor of Amylum is proper in Fevers attended  
with a Diarrhoea; and, upon account of the Belly, Lentils may  
be mixed with it. The same may allo he ufed in Milk, or  
mixed with Water, or be used alone ; in which Circumstance  
it is fittest in Dysenteries, and Fluxes excited by coughing. In  
boiling put ten Drams of Amylum to four half Pints of Water.  
*Oribase Med. Col. Lib. est Cap.* 7.

Starch is esteemed drying and astringent:

Starch, helled with Milk, is a famous Empirical Remedy for  
a Diarrhoea, which happens in a Fever, or in Child-bed, and is  
Dot a bad one. Mr. *Ciutton,* in a Treatise he published forne  
time ago, lays great Stress upon a Solution of Starch, given by  
way of Clyster, in a Diarrhoea, either accompanied with a Diar..  
thoea or not; and, if the Stools are bloody, and the intestines  
very much relaxed, he advises to make the Confection of Starch,  
as he calls it, very thick, and to add, to four Ounces of this,,  
an Ounce of *French* Brandy.

*Modern Method of making* **STARCH** *of Wheat.*

The Grain, being well cleaned, is put to ferment in Veffeis  
full of Water, which they expose to the Sun, when in its  
greatest Heat ; changing the Water twice a Day, for the Space  
of eight or twelve Days, according to the Season. When the  
Grain bursts cosily under the Finges, they judge it sufficiently

fermented. : The Fermentation perfected, and the Grain thus  
softened, it is pus. Handful by Handful, in a Canvas Bag, to  
separate the Flour from the Huths - which is done by rubbing  
and beating in on a Plank, laid across the MouthOf the empty  
Vestel that is to receive the Flour. . .

. As the veffeis are filled with this liquid Flour, there is seen  
swimming at the Top a reddish Water,, which is to, be carefully  
shumm’d off, from time to time, and clean Water put in its  
Place; winch, aster stirring the Whole together, is all to he  
strained through a.Cloth or. Sieve.; and what is left hehind, put-  
into the Vessel with new Water, and exposed to the Sun sor  
some time; and as the Sediment thickens at the Bottom, they  
drain off theWater four or five times, by inclining the Vessel,  
but without' passing it through the Sieve. What remains at  
Bottom is the *Starch,* which they cut in Pisces to get out, and  
leave it to dry in the Sun : When dry, it is laid up for Use.

*Castellus,* from *Libavius,* informs ns, that AMYLA, in a ge-  
neral Sense, is used to express any Sort of Chyrnical Faecula.  
t.AMYOS, ἄμίιος, from α Negative, and μῦς,. a Muscle.  
*Hippocrates,* in his Treatise *de Arte,* applies ἄμαον to the Leg,  
to express its being so emaciated, as to appear aS if it had no  
Muscles. . ?

*AMYTHAONIS EMPLASTRUM, Amythaoofs* Plaister  
for Convulsions and Distortions of the Joints; it is also a  
Drawer. Ἀ -' . - :

Take of Gum Ammoniac, Wax, Bdellium, each eight  
Drams ; of Turpentine, Illyrian Orris, Galbanum, each  
twenty Drams. *P.A.ginet. Lib.* 7. *Cap.* I7.

**A**

AN-PATER, Sulphur. *Rulandus.*

AN-FIR, Filins, Mercury. *Rulandus.*

AN-FIRARTO, Spiritus, Salt. *Rulandus.*

ANA, ὰνὰ, a *Greek* Proposition much used in Prescriptions.  
It is explained under the Article A. which see. - *Ana* is also  
used by some enthusiastinal Writers to signify *the Mend,* **and***Castellus* tells us it is the Name of a certain Idol. -

ANABASIS, ἀςάβασις, from άναβαινω, to ascend, signifies  
the Augmentation or Increase of a Fever in general, or of a  
particular Paroxysm. Henoe ANABATicA is synonymous Io  
EPACMASTICA? both being Epithets os Fevers, which, in  
then Progress, continually increase or grow more Violent. '",

ANABOLE, ἀναβολῆ, from ἀναβάλλω, to oast“np. 'The  
discharging anything upwards, as"by Vomit. \* \* .

. f ANABROCHISMOS, or ANABRoNCHISMUs, αναβραχι.

or ὰναβρογχισμός, *frosnsiafrifer,* a Noose. An Operation  
performed upon the Hair of the Eyelids, when they, are offend  
five to the Eye. It consists in engaging the offending Haith in  
a sort of Noose, by means of a Needle, threaded with a fine  
Thread doubled, or a Woman's Hair, after passing the Needle  
thro'the external Part, of The Eyelid, near the Hain *Celsus*Jokes. Notice of this Operation, *Lib. st. Cap. p.* in these  
Words: .

i *assidam- atunt, anu transisui junta pilor ceteriorem partem pa fl.  
pibrce oportere, eamestes transisaiati duplicem capillum rnuliabreni  
decent gin ; atque ubi acus transui, in ipsius capilli sinum, qua  
duplicatur, pilum esse inyiciendiim, et per earn in superiorem pal-  
pebres 'partem attrahendum^ ibique Torpori ndgluiinandum, et  
imponesedammedicamrntum, quo iferamen glutinetur't sic enim fore,  
'ut es pilus in exteriorlenpartem 'posteaspectet. ' ' ' ' ' ’*

*PaulurAEgineta* confines’the Operation to Cafes where only  
one or two, or at most three,"Nairs irritate the Eye." He  
describes the Operation,. *LU. hi. Cap.* I 3. but somewhat oh-  
seurely. \* ' ' ........

AN ABROSIS, ἀνάβρα-im, from ἀναβρώσκω, to devour. , **A**.Corrosion or Ekesion os the solid Parts by acrid Humours.  
It means thesarnte as DIABRosis. ' s “ '

. ANACAMPSEROS, *Anueamps.cros vulgo Faba crajsu,* J. δ'.  
Pit. Tournef. *Telephium vulgare, O.* Β. *Telepbiurn alterum  
sive Crasesula,* Doth ' *Cotyledum alterum,* Dioscor. Coh *Scrosu-  
'larta 'medica vel tertia,* Bruns. *Fabaria,* Matth. *Acetabulum  
alterum.* Cord, in Diosc. *Faba inverse.* Ad. Lob. *Crajsula  
siuesiabainverlsus Gnt.* ORPINE, or LIVE-LONG. ;

It is a Plant wliich grows to the Height, of one Foot, or  
shorei its Stalks are staait 'and round,cloathed with thick  
.Leaves, and full os Juice like that os Purflane, but longer, of  
a pale-green Colour, often intermixed with a little Red , some  
are notch’d at their Edges, others entire *i os* an insipid Vifcous  
Taste, The Flowers grow on the Tops of the Stalks in large  
'Bunches, and almost like an Umbrella, of a white or purplish  
Colour; every Flower as'composed os fine Leaves, disposed like  
a Rose, which, falling, are succeeded by a Fruit composed of  
many Huffs, which forms a sort of Head full of small Seeds.  
The Root is glandulouS, and-formed os’many white Bulbs like  
TurnepS, of an insipid Taste. This Plant grows in unculti..  
vated, stony, and shady Places. It contain; a' great deal of  
Phlegm and Oil, and but,littie Salt. ... ..; .

It is drying, cooling, resolutive, detersive, vuinerary, and  
consolidating, proper for Ruptures, and to take OUt dur  
the Skim *'Lemery. de Drcguesr ~ ' .*

*sissColumna* has confounded his *Eapuntium umbellatum,* with  
*ffiC Telephi urnfloribus purpureis,* Lob. *C. Bauhine* is guilty of  
the same Faint; bur it is easy toffee, by Cojinwuss Description,  
and by his Figure of the Flowers, that he has given a good  
Design of the *Trachelium azureum umbellatum Pon a.* Bald.-  
Itah 44; ἐν . .L τ'

The Leaves os the Orpine have-a glutinous Acidity, and  
give a strong Ted Tincture to the blue Paper. This Plant, being  
analysed, yields a good deal of Acid; a moderate Proportion of  
Earth- and Oil, and a pretty deal os volatile concrete'Salt.  
Thus there is room to believe, that -it contains an aluminous  
Salt., mired with.Sal Ammoniac, and wrapt up in a little Sul-  
phuri It is detersive; astringent-, and vuinerary : Being applied  
externally, it hastens the Suppuration of Tumours. *Martyns  
T.tnaAesorr.* ' Ψ - . ..

- ANACAR, ἀνἀκαρ, a *Grech* Adverb; sometimes used by the  
*Greek* Medicinal Writers, to express upwards, or towards the  
superior Part. ....... ....

'ANACARDIOS ANTIDOTOS THEO DORE TUS,  
the Antidote of *Anacardicem,* a divine Gift.

ς Take of Spikenard, Malabathrum; Cloves, Saffron, Cassian  
Epithymum, Flowers of Schoenanth, MyrobalanS, each

... .-.three Drams; of yellow Aloes, twelve Drams ; of Chest-  
: nut,. Ginger, Manich, each one Dram; of Illyrian Orris,

six Drams; of Anacardium, Agairic, each one Dram  
of Asarabacca, six Drams; of Seed. of Smallage, one  
Dram; of CostuS, one Dram and a half; of Pepper, three  
Drams; of Fennel, and its Juice, of each eight Drams:  
Beat the Fennel in a Mortar, and macerate it in Vinegar  
three Days ; then hoiltt well, and carefully strain it. Add  
of a sufficient Quantity, Attic Honey, or Sugar, and boil  
it again to the Thickness of. Honey. Let the several  
Ingredients he pounded together, and well levigated: If  
there he Plenty of Fennel, press out the Juice, and the  
Antidote will he the better.

. It is good in all obstinate and dangerous Diseases, for epilepi  
tical Persons, and Demoniacs; for Pains in the Head, Disor-  
ders of the Thorax, Pleurisies, Asthmas, PeripneumonieS, and  
such Stomachs;as turrr the Food sour;.and for any malignant  
Distemperature os the Belly or Stomach. ' It. wonderfully re-  
Vives and refreshes those who are just got over a tedious Distem-  
per, and have not yet recovered their Colour. It helps the  
Yellow Jaundice, Anasarca, Consumption, Distempers of the  
Kidneys ; and does Service to those who are continually subject  
**to** Colic PainsIt corroborates those who. have a Sense of  
Weight all over them Bodies: It is heneficial in inveterate  
Distempers, ;arrd intermittent Fevers, given in. the Intervals 5  
and helps the Gout, if given hesore the Fit. It is excellent in  
Womens Distempers, and in particular the Strangury, Diffi-  
culties in Menstruation, and Suffocation of the Uterus. **It**helps those who, by their Habit of Body, are. subject to mis-  
carry, and geutly looiedS the Belly.?. Lt teureS Inflammations of  
the Womb, and the Furor Uterinus, To say all in a Word, it  
is a divine Gift ; and whoever osey it. once or twice in the  
Spring and Autumn, and is nut Very fealty in his. Diet, shall  
line free from Diseases. It is to-he taken to the Quantity *os* **a**Hafie-nut,. in- the hinirimg.- *Mysoepfap, Sect. 1. Cap.* 2Ish  
*Aetii Tetrabib.* 4. *Sarm.* I. Cap. 122.. ἐν

L.Another Preparationr. . 2.

Take of yellow. Aloes, an Ounce and a half; of Orris, Cad  
'' - sia- Lignea, each, seven Drains ; of Ginger, Anacardium,

- Carpobalsainum,- each sour Dinins and a half se of - Mala-  
bathrum. Spikenard, MyrobalanS, Spignel, Epithymum,  
.each tbree Drams one Scruple; Cloves, Flowers of Sohoe-  
nanth, Pontic Rhubarb, Mastich, each one Dram three .

--y-.Grains ; the Bark of the Root of Fennel, washed, one  
- Pound : Macerate them in two Pints of good Vinegar sor

' ‘. seven Days; then boil them and strain them, and add two  
' Pounds- of pure Attic Honey, or a sufficient Quantity of  
. Sugar, and boss it to the Consistence os Honey. In this

put the Ingredients well beaten, and, after well working  
them together, set them aside, in a proper Vessel, **for**Use. - ; '. .. : . - ...

. It is good .against.Epilepsies, Apoplexies, and Paraplexies, that  
owe their Rise to Phlegm and Melancholy; and is excellent in  
Female Disorders. - *Adereps.us, Cap.* 2I9.

. ANACARDIUM, a sort of Fruit, of which there are two  
Sorts, the Oriental and Occidental. The Oriental is thua  
distinguished: ’ . . .

ANACARDIUM, Ossie. Ger. I36o. Emac. I544. Mont.  
Exot.I5. Commel. Finr. Mal. 15.- Park.Theat. T563. *Cl.* **B.**Pin. 5Ii. J. B. I. 334. *Anacardium vel Atwcardus.* Chain 24.  
*Anacardium. Orientale, Jons.* Dendr. 156. Pluk. Aimag. 28.  
*Oepata,* Hors, Mal. 4. 95. Tab. 45.' *Arbor Indica, fructu cAc.  
noide, cortice -pulvinato nucleum unicum, nulla ossiculo tectura,  
claudente.* Rail Hist. 2. I566. **THE ANACARDIUM,** 0Γ  
**MALACCA-BEAN-TREe.**

The Oriental Ariacardium is a Seed growing at the Top of **a**cubical Emit in the *Aeafi-litdiet,* It is, in Shape and'Colour,  
like a Bird’s Heart, covered whth a.- tosicti Skin, including i  
spongy Substance,, full of an hot caustic Oil iinderneath ; in  
which, inclosed in another Skin, lies the Kernel, in Taste like  
an Almond. It is said to be hot and dry, to comfort the Heart  
and Vitals, and to excite Venery: It is rarely to beinet with,  
and now never prescribed, the *Mel Anacardidm* heing left out  
in the three last Editions of the *Dispensatory.* They fay that  
*' the Indioris* use the caustic Oil of this Fruit, in staining therr  
ChintS and fine Callicoes, which sets the Colours so in, that they  
are not to be washed out. *Miller Bot. Off.*

- They contain a great deal of Oil and Soft. - - -

They rarefy and purge the pituitous Humours, are resolving',  
refresh the Brain, and strengthen the,Memory, being taken in  
Decoction. *Eemery de Drogues. -*

In forne old Dispensatories we find a Composition named  
*. Canseectis Anacardina,* which is not now in Use. *Hajsiniin, in***his** Treatise of *Officinal Medicinus-,* telis a very surprising Story  
concerning this Confection; which is, thet by theUse thereof  
**a** young Man, who was before fo dull and stupid, as not to be  
capable of learning any thing, became in a short time a very  
great Genius, and comprehended every thing thet was taught  
"with Ease. It was thought very proper to quicken the Motion  
of the Blood ; and, on someOccasions, is said to cause a Fever!  
which shews that the whole Nut, not the Kernel only, was  
an Ingredient inctiis Confection. *Geoffrey.: ' s*

I find the ANACARDIUM recommended by *Schroder,* and  
most other Writers on the *Materia Medica,* for quickening the  
Senses, and strengthening the Memory. As very sew Drugs  
have such useful Virtues attributed tothem, I shall give the Pre-  
parations of Anacardium, as delivered*uri 'Arnaldus de Villa Nova*and *'Lwelfer,* in the *PharTnacopceia Angrestdna.*

\* Take of Anacardium, bruised, three Drams and an half; or  
Honey of Anacardium, two Drains , these Remedies are  
endued with a natural Property of restoring a lost Me-

: rnory.

*Confectio Anarardina,* a ConseAion of Ahiscardinms, which  
helps the Memory, restores lost Reason, removes a Lethargy,  
and cures the Gout, Haemorrhoids, and those who are oppress’d  
whth Melancholy or Phlegm. - '

Take of Emblic, and Belleric Myrobalans, long Pepper, and  
s white Pepper,- each twelve Drams; Ginger, Honey of  
Anacardium, each eight Drams; Castor, Stotajt, Cloves',  
each five Drams ; Camomile Flowers, Bay-berries. Cype-  
Ius,, each three Drams; Sugar, twenty Drains; Honey;

X a sufficient Quantity. The Dofe is the Quantity of a  
frnall Nut in Whey, warm Wine, or a Decoction of the  
Seeds of Anise and Fennel; and the Patient is to avoid the  
Cold, and to abstain from phlegmatic Meats, as well as  
from Anger, Venery, and Dhrnkenness.

. This Remedy quickens the Wit and Senses, brightens the  
Understanding, and is a proper Confection for wifePerfons, and  
such aj desire to be so. .

The Anacardiums, before thry are fit to he ofed in Medicine,  
are to be thus prepared;

- Bruise them very well in a Mortar, mid thesi pin them in  
the strongest Vinegar; where let them macerate for feven  
Days. After this,:boil them over a gentle Fire to a Con-

- sumption of two Thirds of the Vinegar ς then strain Oss  
the rest from the Dregs; and keep it for Use.

*Th snake Haney of Anacardiums.*

Mix, with the Vinegar aforesaid, ah equal ’Quantity of clari,  
sied Honey; and boil them together to a proper Conset  
*place. Arnaldus de Villa Nava, Lib. t. Cap. 28.*

*SAEsttIsi’s* **CONEEdTIoN** *of* **ANACARDIUMS.**

Take of Chebul, Emblic, Belleric, and *Indian* Myrobalans;  
of black Pepper, of long Pepper, and of Castor, each two  
Drams; of Costus; of prepared Anacardiums, of white  
Sirgar,-of the Seeds of Rocket or Fennel, of Bay-berries,  
each six Drams; and of Cyperus four Dranis,' -

*.t -.***. st ... s‘ .... ' . :**

Let the Ariahardiuriis be poiinded -by themselves; and when  
υ theother ingredients are pounded, mix all together, and  
' - heat up into an Electuary,*s* with new unfalted Butter, and

pore-Honey, each five Ounces and an half. -

This Medicine is good against all cold Difordersof the Brain;  
and lower Belly purifies the Blood, and rendering the Animal  
Spirits pure and fine; thereby invigorates all the Senfes, the  
Apprehension, the-Intellecti and the Memory ; for which Red-  
sen *Mofue* dignified it with tod-spwinceTitle of. the *Genfectimi*

*of the VVise,* and, by its mearis, confidently promised Assistance  
to these who were desirous of acquiring Knowledge. It allo  
warms the whole Vascular System, and impairs a lively Heat to  
all-the-Body. But this Medicino is to he used cautiously, and  
riot till a Fertnight after the Fennentation is over. After taking  
it, the Padent is to beware of Labour, Anger, Venery, and  
Drunkenness. *Pharmacop.. Angast.*

. . C.EaRALm Cam?**EjoTION asc ANACARDIUMS.**

Take of the Waters of Marjoram, Orange-stowers, and  
Clove Gilly-flowers, each six Ounces: These heing pout’d  
into a glass Cucurbi t, imrnerse in the Liquor three Ounces  
of prepared Aramardiuhis : Let them macerate for twenty.,  
four Hours, theV essel heing closed all the while; then strain  
off, and in the strained. Liquor dissolve two Pounds of the  
bestSugar; by the sole Dissolution of which, reduce it to  
the Consistence of a Syrup ; to which and, while it is still  
warm, that so they may, as it wore-, dissolve in it, one  
Dram of Amhergrise, one Dram of Lemon-seeds, with  
their Husks taken off, two Drains of the Resin of Storax,  
.well pounded, and one Dram of Gum Labdanum : To all  
these, when dissolved, add the following Ingredients , one  
Ounce of the Powder of prepared Anacardiums, an Ounce  
and an half of the true Lcopard’s-bahe Root, an Ounce of  
the Powder of Aloes Wood, still of its Gum ; of the lesser  
Cardamoms, of Cubebs, mid Coriander-seeds, each two  
Drahis, of Nutmeg, half an Ounce; of Mace, three  
Drams j. of Cloves, two Drams; of *Indian* N utmeg,  
Preserved and beat to a Pulp, tbree Ounces; of distill’d  
Oil of Cinnamon, one Scruple, mixed with half an Ounce  
of Sugar of Roses'.

.. Mix all sip into an Electuary, which is a precious and excel-  
lent Medicine for a cold and weak State of the Brain, and  
Animal Faculty ; for strengthening the Stomach, preventing  
Apoplexies and Epilepfies, fecmitiog. old Age, strengthening  
'the Memory j and, lastly, excellent for all fuch Disorders of  
the Brain and Stomach sis proceed from Cold. Its Dose is from  
‘ two Drams to half an Ounce. *Pharmne. Angiest.*

‘ The Occidental Anacardium is thus distinguished: .

**ANACARDIUM** OcciDENTAtE, jonsi Dendr. I56, *Ana-  
."cardium Occidentale, Cascis,* Mont. Exot. 9. *Anacardium Ode  
cidentale Cajous dictum, osseculo reni lepsris figura,* Herm'. Cat.  
Sort. Lugd. Bat. 3br Comm. Flor. Mal. I5. *Anocardii alii  
fpeciesy* C. B. Pih. 3I2, Herm- Mus. Zeyh 37. *Anacardus  
ieylanica, folia nucis Juglandis Capris, Kaghu,* Ejuid. 55.  
*Cajous,* Ger. 1360. Emaci I544. Park. Theas. I658. J B. **I.**336. Chain 24. Laet. 606. *Acajou,* Touni. Inst. 658. Boerh.  
Ind. A: *1.* 262. *Arbor Acaseu, vulgii Caseu,* Pis Manti Amin.  
I93: *Acoiaiba,* Pis; (Ed‘. 1658) IIao. *Acajaiba, et Acajuiba  
Braselieastbus,* Marcg. 94. *Kaparnara,* Host. Mal. 3. 65. Tab.  
54. *Pomifera seu potius Pruriifera Indita’, muse reniformi summa  
prino innafceuie, Cgisus dicta.* Rail Hist. *R.* I694. Cat. Jain.  
L87. Sloan; Hist. 2.- I36- THE CAJOU; or CASSU-TREE.  
*Dale. -*

This grows at the End of a Fruijt, in Shaperand Colour like  
d small nnd Apple ; in Form and Bigness it resembles a Hare’s  
Kidney, only the End next the Fruit is bigger than the other.  
The Outside is covered with a tough, ash-coloured Bark, under  
which is a spongy Substance like the former; it contains a larger  
Quantiry of caustic burning Oil; and under that, in a soft  
jctiell, a white pleasant Kernel: It grows both in the *Ease* and  
*Wojl Indies, on* a large Tree, having pretty big, stiff, oval  
Leaves, with several hard Veins, running almost directiy across,  
shorn the middle Rib. It bears Tofts of five-leaved white  
-Flowers: In *Jamsaica* thry eat the Kernel of this Fruit, aster  
tt has beeri roasted in the Embers till all the caustic Oil is cost-  
finned. They,bring them to Table as a Desert; They are  
much of the Nature of the *Eastern Anacardia.* The caustic  
Oil is very good for Corns and Warts:,. *Mollar Bat. Oof.*

*Geestrey* adds, that the Fruit of the Tree is called, in *Erased,  
' Acofaibai* It is proper to take Freckles or Sun-burn from **the**Face; but Women ought never to ufe it in the time of their  
. Menses ς becaufe, in that Cafe; it often causes an Erysipelas;  
though even that may be cured by a Wash made of Brandy and  
-Water: *Gcosiroy.* BeeAcAj-AIEAi

ANACATHARSIS; ἀνακάθαοσνς,. from ἀνακαδαίρομαι; to  
purge upwards. A prirgauon of the Lungs by Ejipeftoration.  
I don’t know that it is ufed by Authors in any other Sense; tho\*  
*Blaneard* says it includes Vomits, Sternutatories,Errhines,  
, 'Mastioatories, anil Medicines that promoto the Discharge *of*Saliva. Hence . ' . ... -

ANACATH ARTICA, Medicines which pfornote Expedio.  
ration. - . . r ' . g -'

ANACESTOS; ἀνὰκεστος, ibcurable, from α Negative, and  
ἀκος. a Remedy.- It is sometimes wrote ἀνάκιστος.

\*. ANACHMUS, an incorporeal Spirit. *Dorneus isatis Fosra..  
celfns-. .. .*

. ANACHREMPSIS,. ἀνἀχρεμψις, from ἀνἀ, ser ***Aras,***which imports upwards, and χρέπτβμαι, to hawk. The  
bringing up from the Lungs, by hawking, any Viscid and  
tough Matter, which adheres to the Inside of the.Bronchia.

ANACINEMATA, ἀνακινήματα, from ἀνακινέω, to agitate,  
or toss, literally to move upwards. This is a Species of Exer-  
cise taken Notice of by *Hippocrates,* in his second Boolt, περὶ  
διαίτης; but he does not explain what it consists in. *Corrarus*takes no Notice of it ; *Foesues* only says, ἀνακινήματα are Com-  
motions of the Body; which are reckoned amongst Exer-  
dises. . ..

*Dacier* however, from a parallel Passage in *Plater,* concludes  
these Exercises to he those Gesticulations and Motions, which  
the Combatants used before they entered the Lists. By the  
Derivation however, ἁνακιιάματα, Anacinemata, should signify  
*Leaps.*

ANACLASIS, ἀνἀκλαοςς, from ἀναζλάω. to bend upwards,  
or elevate. It is used by *Hippocrates, rreAj dysm.v. Sect,* 3. to  
express the Elevation of the Left Arm altogether, whilst the  
r*Joint at* the Elbow is not at all bent; but the Humerus, toge-  
ther with the Arm, appear as one strait Bone. This Situation  
the Left Arm is in, when it supports and elevates a Bow, in  
order to resist the Right Hand, winch draws the String. I know  
'this is not the common Explication of the Word, hut it seems  
To be the Meaning of *Hippocrates.*

ANACLINTERIUM, ἀνακλιντήριον, from ἀνακλίνω, to  
. recline. A fort of Chais, made in such a manner, that a Person  
. may recline or lie upon it; a Couch or Settee.

ANACLISIS, άνάκλισις, from ἀνακλίνω, to recline. *Hippo-  
crates,* in his Treatise περὶ εύσχημοσύνης, uses this Word to ex-  
press the Decubiture of the Sick, which, he says, is to he  
regarded, both on account of the Season os the Year, and  
because it makes forne Difference, with respect to the Cure,  
whether the Patient lies upon an elevated Place, (θρίνους) as a  
.Bed or Couch; or upon the Ground, and in a dark Place.

ANACLISMOS, άνακλισμὸς, that Part of a Chair, on which  
the Back.of the Person, who fits in it, leans. . *Hippocrates  
rice sesccaV. . -*

ANACOCK, the Name .Of an *American* Species of pherse-  
*olus,* in the Opinion Of *Ray.* It is called by by *Jo Bauhine,  
Pisum Americanum aliud, magnum, bicolor, coccineum et no-  
. grum simul, five Phaseolus bicolor Anacock dictus.* By *C. Bau-  
hine, Phaseolus peregrinus ex rubro et nigro distinctus. By  
.Gerard,* and *Parkinson, Phaseolus AEgyptius. Raii Hist.  
Plant. . : : e ‘*

L don't find any medicinal Virtues particularly attributed  
- -to it.

. -ANACCELIASMUS, a sort of Remedy used by *Dioclet,*according to the Report of *Caelius Aurelianus,. Chron. Lib.* 2.  
Crap. I4. for the Cure of a Phthisis. His Words are. *Utitur  
etiam Anacceliafmis, quorum qualitates nan memoravit, adjiciens  
verrendum sive deducendam .a Pulmonibus- Humorem, quando  
fuerat mitigandumpotius Ulcus quam repurgandum.*

. It does not appear, by this, that the Author knew himself  
*Nunt.,Dioclet* meant by Anacceliafinus.. If, however, we con-  
Tider the Derivation, which must be from κοιλία. *Alvus,* the  
Belly ; and reflect upon the Effects which theAnacoeliasmi.are  
. expected to produce, *deducendum a Pulmonibus Humorem, VJC*may perhaps find Reason to believe, that AnacoeliasmS were  
frequently repeated gentie Purges, or Medicines which kept  
. the Patient perpetually laxative, especially as these are found of  
- the utmost Importance in the Cure of a Phthisis, or pulmonary  
Consumption. . .

ANACOLLEMA, ἀνακολλημα, from ἀνακολλάω, to ag-  
' .glutinate. A Name for certain Topics apply’d to the Forehead  
to prevent Defluxions of Humours upon the Eyes. *Galen sue  
.Comp. Medic. S. Gen. Lib.* 6. *Cap.* 8.

. It .is much the same as FRONTALE, (which fee) except,  
. .that at. ANACOLLEMA was usually made of astringent Pow-  
ders, aS *Bole,* or *Dragoofs-flloofl,* or *Acacia,* made Up with  
Vinegar, or the White of an Egg, whereas FRONTALE sig-  
nifies any fort of Application to the Forehead.

.' ANA COLUPPA, the Name of a Plant mentioned in the  
*Hortus Malabaricus,* called also *Ranunculi Facie* **INDICA** *fpi-  
. cata. Corymbiferis affinis. Flosculis tetrapetalis.*

The Juice of this Plant, with a littie Pepper bruised in it,  
is recommended as a sovereign Remedy in an Epilepsy ; and is  
said to be the only Preservative against the Effect of the Bite of  
*.atiC Cobra-Capella... Raii Hist. Plam.* S .

ANACOMIDE, ἀνακομιδὴ, from άνακομιζω, to repair or  
recover the Strength of a Person after Sickness. This is a Word  
which frequently occurs in *Hippocrates.* It imports the Resto-  
ration of Strength to a Patient after Illness, or the Recover-  
ing of Health. . \*

- ANACONCHYLISMOS, ἀναχογχυλισμός,οτ ἀνακογχυ-  
λιασμὸς, a Gargle, from ἀνακογχυλίζω, to gargle. Both these  
are much used by *Galea,* and the later GveSivirriters ; but I  
don't remember Jo heve met with it in *Hippocrates.*

- ANACOS, άνακότε, an Adverb used by *Hippocrates. Lt im-*ports carefully, prudently, with Circumspection.

**. ’ ANACOUPHISMATA9 μνακβυφίσματα, from ἀνακσφίζω,**to lift up, or elevate. This, in *Hippocrates, seism, iuesirnt, L.* 2.)  
joins with ANACINEMATA (which fee). *Dacier* tranflates  
and explains it by *Sauls,* Leaps. But some others have thought,  
that all those Exercises which the Antients called *Gestations,* are  
included in ANACOUPHISMATA. .

ANACTESIS, άνάκτησις, from *dyaesdosaat,* to recover  
Health. The Restoration of Strength to a Person recovering  
of a Distemper, which has render'd him weak. ’

ANACTORION, according to *Blancard,* a Name of the  
*Gladiolus,* Corn-stag. - - ...

' ANACYCLEON, ἀνακυκλέων, from κυκλόω, to wander  
about. It answers to the Word *Circulator,* Mountebank.  
*Castellus. . -*

ANACYRIOSIS, ἀνακυρίωσις, from κῦρος; Authority. *Hip-  
pocrates,* in his Treatise *us Decency,* giving Advice to Physicians  
aS to their Conduct towards the Sick, advises them, amongst  
other things, to remember to support their Authority, and the  
Dignity or their Profession, which he expresses by tins Word.

ANADENDROMALACHE, ἀναδενδρομαλάχη, a Name  
for the ALTHAEA. *Galen* says it is the Vulgar Name for the  
ALTHAEA, Marsh-mallows.

*Blancard* says ANADENDRON signifies the same.

ANADIPLOSIS, ἀναδίπλωσις, from διπλοω,- to redoubles  
It is the same aS EPANADIPLOSIS, which is the Reduplication  
of the Paroxysm or Fit, in a semi-tertian Fever; that is, a  
Renewal os the cold Fit, hefore the preceding Fit is entirely  
ended. *Galen de Typis, Cap.* 4.

ANADOSIS, ἀνάδοσις, from άναδίδωμι, to distribute. The  
Distribution of the Aliment over all the Body.

. ANADROME, ἀναδρομη, from δρἐμω, an old *GreehTetbf*which signifies, to run. It imports a Recess, or a Removal of  
Pains from the inferior to the superior Parts of the Body, in  
the Sense of *Hippocrates.* This is always esteem’d an unfa-  
Vourable Circumstance, and of bad Presage, because acrid Hur  
mours, or whatever causes Pain, cannot do so much Hurt in **the**Extremities, as in the Vital and more noble Parts.

*Hippocrates* in his first Book of Predictions informs us, that  
a Distortion of the Eye, consequent upon a Recess of Pain  
from the Loins or Hip, is bad. And in the *Coaca Praenotiones,*he says, that a Recess of Pain from the Hips or Loins to **the**Head, whilst the Hands are affected with a Torpor, and the Pa-  
tient seels a Cardialgin, (Heart-burn) is a Sign of a copious  
Haemorrhage from the Nose, and Plenty os Stoois; mean time  
People thus affected, are generally delirious.

ANTE DES, ἀναιδἐς, an Adverb -used by *Hippocrates,*in a Sense somewhat different from the common .Significa-  
tions ; for in this Author it imports *continually, perpetually,*whereas the natural Meaning is, *impudently.*

ANaEDROMOS, ἀνάδραμος, os the same Derivation as  
the former. It is used as an Epithet for those Fish, which at  
certain Seasons ascend from the Sea into Rivers.

ANESTHESIA, Ἀναισθησία, insensibility. A kind of Re-  
solution of the Nerves, accompany'd with an Abolition of the  
Sense of Feeling. *Aretaeus xcci ansc.* καὶ ἀιτ. κρον. νους. Ζ. I.C. 7.

ANAGALLIS, the Name of a Plant. I

There are two Kinds of Anagailis, which differ in Flower.  
That with the blue Flower is called the Female, the other with  
the scarlet Flower the Male Anagallis. They are small Plants,  
that spread themselves on the Ground, with small, roundish  
Leaves, like those of Pellitory on the Wall, set on littie  
square Stalks ;. the Fruit is round. . . . .. \.

;. Both Kinds are lenitive, cure Inflammations, extract sharp-  
pointed things, winch have pierced the Body, and restrain pha.. -  
gedenic Ulcers. The Juice of them, gargarized, purges **the.**Head of Phlegm, and, instilled into theNostriis, easeth the  
Tooth.ach, provided it be into theNostriis opposite to the aking  
Tooth. Mixed with *Attic* Honey, it deterges an Albugo, and  
helps Dimness of Sight. Drank in Wine, it relieves those who  
are bitten with a Viper, or ar e diseased in the Kidneys orLiver.  
Some fay, that the Anagallis with the blue Flower, apply’d in **a**Cataplasm, ‘restrains-the falling down of the Fundament; but  
that with the red Flower, thus apply’d, on the. contrary, pro-  
vokes the Disease. *Dioseorides, Lib. si. Cap. 200. -*

Some call the Anagailis *Corchoron*; it is of two Kinds, which  
grow no higher than a Hand's Breath, they flourishin Gardens  
and watry Places. Whet is strange. CattleAvoid the Female  
Kind; but if, heing deceived by the Likeness, for they differ  
only in Flower, they happen to taste it, they prefently seek  
out an Herb called *Asiyla,* as a Remedy, the same winch we  
Call *Fcrus Oculus.* Some advise those who have a mind to dig  
it up, to salute it thrice in the Morning, before they have  
fpoken a Word, and then to take it up, and press it; for so  
it will have the more Virtue.. *Pliny, Lib.* Ca/».I3.

Both Kinds of Anagallis are Very detersive, and **have some-**whet of atheating and drawing Quality, whence they extract  
Splinters out of the Flesh, and upon the Whole have the Vir-  
tue of Drying without Mordacity; for which Reason they  
conglutinate Wounds, and help putrid Ulcers. *Oribas. de  
.Virtnt.Sinepli.Lib.‘2..Cap.t.*

**... The** *Anagallis* of the *Greene* **is. the** *Macia* os the *Latins ;*the Juice of it is recommended to be pouted on the Head.  
*Marcellus Empiric. Cap.* **I.**

There are three Sorts *of* Anagallis commonly used in Medi-  
cine, the Mas, Fcemina, and Aquatica. The first is the  
**.. ANAcALLIs** TekresTRis **MAs,** .Ossie. *Anagallis -Mas,*Ger. 494. Emac. 6i7. Raii Hist. 2: 1023. Mer. Pin. 7. *Ana-  
gullisstore Phoenicia,* C. B. Pin. 252. Tourn. Inst. I42. Elem.  
Bon II9. Boerh. Ind. Α. 204. Hist. Oxon. 2. 568. RaiiSynoss.  
**3.** 282. Dill. Cat. Giss. I26. Rupp. Flor. Jen. I4. Park.  
**Theat.** 558. *Anagallis Mas,starePhaeniceo,* Merc. Bot. I. I9.  
Pint. Brit. 7. *Anagallis Phoenicea Mas,* J. B-3.369. *Ana-  
gallis Phoenicia,* Buxb. I9. *Anagallis,* Chain 452. MALE  
PIMPERNEL. *Dale.*

This is a sinall low Piant, not above a Span high, having a  
Keat many square smooth Stalks, with sinall Chick-weed-like  
raves, set one opposite to another, without Foot-staiks, full  
of sinall, round, blackish, red Spots underneath: The Flowers  
spring from the setting on of the Leaves, and grow singly on  
long Foot-stalks, being a Flower of one Leaf, divided into five  
Partitions, of a beautiful scarlet Colour. The Seed-vessel is  
round, opening horizontally in the Middle when the Seed is  
ripe, which is small and round, of a dark-brown Colour. The  
Root is final! and thready, perishing every Year. It flowers in  
*May zapijune,* and grows in Corn Fields. *Miller Bat. Off.*

The second is the

**ANAGALLIS TERRESTRISFOEMINA, Ossic.** *Anagallis Fia-  
inina,* Raii Synop. 3. 282. Ger. 494. Emac. 6I7. Raii Hist.  
2.1024. Mer. Pin. 7. *Anagallis Famina,store cceraleo,* Merc.  
**Bot. I. I9.** Phyt. Brit. *2. Anagallis caerulea.* **Bust. I9.** *Ana-  
gallis caeruleestere,* C. Β. Pin. 252. Rupp. Flor. Jen. I5. Dill.  
Cat. Gissi I32. Hist. Oxon. 2. 569. Boerh. Ind. A. 204.  
Toum. Inst: I42. Elem. Bos. II9. Park. Theat. 558. *Anagal-  
lis caerulea fcemina,* J. Β. 3. 569. Chub. 452. FEMALE  
PIMPERNEL. *Dale.. .*

This differs in nothing from the fonner,.but in the Colour of  
its Flowers, which in this are blue ; and it is more rarely to be  
met with. ,

. The Virtues of both *Pimpernels* are much the fame: It is a  
Plant moderately warm and dry, with a little Stypticity, and is  
therefore accounted by some a gond Vuinerary. The Juice,  
being given inwardly by itself, or mixed with Cow’s Milk, is  
useful in Consumptions, and Distempers of the Lungs., it is  
often put in cordial Waters, as ah Alexiphannic; and is good  
against malignant Distempers : It has been commended by some  
Writers of Note, as of singular Advantage in maniacal Cases,  
and in delirious Fevers. The whole Plant is used. *Miller  
Dot. Oof. .*

Both these contain a great deal of Salt, and a moderateQuan-  
tity os Oil and Phlegm.

They are detersive, vuinerary, and good against the Bite of a  
inad Dog, internally and externally applied. *Lemery de Drogues.*

This, however common in foreign Countries, is very rare  
*in England.* DI. *Fyjber* has found it *next Peckham.*

*John Bauhine* took the Flower of this Plant to be pentape-  
talous, and its Emit to be like that of the Chick-weed : But  
*Caesalplaus* knew the Struiture of its Parts hetter, for he affirms  
(not without Reason) that the Flower of the Pimpernel is only  
divided into five Segments ; and that its spherical Fruit loses half  
Its Shell when the Seed is ripe.

The Pimpernel has an herby, styptio, saltish Taste, and gives  
**a** deepTinctine of Red to the blue Paper : The Fruit gives it  
a deeper; so that it is probable, that its Salt may very much  
resemble the *Terra foliata Tartare Mullent. Tragus* says, a  
Glass of the Decoction of Pimpernel in Wine, is a potent Su-  
dorific, if the Patient fie still in Bed, so as not to internipt the  
Sweat. In pestilential Cafes he also advises to wash theWound  
with it, upon the being bitten by a Viper or mad Dog, drink-  
ing a Glass of it at the same time: Instead of the Decoction of  
Pimpernel, the Juice may he used, which he commends for the  
Dropsy, and for Obstructions of the Liver and Kidneys,  
out of which it expels the Stone, without any ill Consequence.  
*Hartman, Mynstcht, Falstncius, Michael, Willis,* and several  
others, very much commend the Decoction of this Plant, or its  
Tinflure, in Spirit of Wine, for Madness, or the Delirium  
that attends continued Fevers . The Extrait has the fame Vir-  
tues ; .it may be mixed with that of St. john’s-wort for theEpi-  
. lepsy. *Sirnsn Paulli* mentions a Cataplafin of *Pimpernel,*boiled in Urine, and applied to the Feet of thofe who have the  
Gout, as a Remedy very much used in his Country. *Martyn's  
Thumefort.*

The third is the .

**ANAGALLIS AQUATICA, BECABUNGA,** Ossic. *Anagallis  
- Aquatica vulgaris, five Becabunga Officinarum,* Merc. Bot. I.

I9. Phyt. Brit. 7. *Anagallis five Becabunga,* Mer. Pin. 6. Ger.  
496. Emac. 620. *Anagallis Aquatica minor, folio subrotundo,*C. B. Pin. 252. *Anagallis Aquatica, store caeruleo,folio rotun-  
diore, minor,* J. B. 3. 790. *Anagallis Aquatica,* Chain 568.  
*Anagallis Aquatica vulgaris jive Becabunga,* Park. Theat. I 2 36.  
*Becabunga majoretminorCsticinarum,Chotnd.* 537. *Beccabunga,*Rivin. Itr. M. Ico. *Beccabunga Officinarum,* Rupp. Flor. Jen.

199. Buxb. 332. *Veronica Aquatica rotundisedia Bscalnrnga  
dicta, miner,* Raii Synop. 3. 280. *Vercndca Aquatica major,  
folia subrotunda, Hisu Oxon. Ί.* 323. Boeth. Ind. A. 225.  
Tourn. Inst. I45. Elem. Bot. I22. Raii Hist. I. .852. *Beca-  
bunga major Opsccinarum,* Volck. 58. BRCOK-LIME.  
*Dale. .*

The Stalks of Brook-llme are thick, roimd; and smooth;  
shouting out fibrous Roots at the lower Joints, by which it  
easily prop^rates itself; the Leaves come forth at the Joints, on  
very short Foot-stalks, one opposite to another, fat, succulent;  
and round, little or nothing serrated about the Edges, some-  
what more than half an Inch broad ; the Flowers come forth at.  
the Joints, growing in long Spikes, each Flower heing made of  
a single Leaf, divided into four roundish Segments, and stand-  
ing on a short Foot-stalk, of s fine blue Colour, and issuccxoded  
by ,a flatfish Seed-vessel, in Shape like a Heart, full of very 1  
final! Seed. It flowers in *June,* holding the Leaves all Winter,  
It grows in Rills and running Ditches. The whole Herb is  
ufed\* ... .

*Brook-lime* is a good Deobstruent and Antiscorbutic, abound-  
ing with volatlle Parts, very good for theScurvy, being an Ingre-  
dient in the antiscorbutic Juices, and Diet-drinks, for that  
Distemper- It is also detersive and cleansing, and ufeful in  
Obstructions of the Kidneys, by Gravel or stainy Humours;  
as also for the Stone and Dropsy. *Miller Bot. Oss.*

. Besides there, *Ray* mentions the fallowing :

*Anagallis rnniurn minima,* Moris Prndud.

*Anagallis lutea.* Ger. *Flare lutes.* Park. *Lutca nemorum',*C. Β. *Luiea, Ftummielariae stndlir,* J. B. YELLOW PIM-  
PERNEL. ........ τ

*Anagallis ecerulea-, saliis Vines temisue ex adverse nasesntibusl,*C. B. *Tenuiselia',* Ger. Emac. *Tentcif alia store ciarulcs.* Park.  
*Tenuifolia urionelli,* Clof. ,

ANAGARGALICTA, ἀναγαογἀλιν.τα. Gargarifms. Me-  
dicines with which the *Fauces* are washed; from γαργαρεών, the -  
Throat. *Hippocrates de Affectipribus.*

. ANAGARGARISTON, ἀ; αγαργάείστον. of the seme De-  
rivation as the preceding. A Gargarisin to wash the Fauces  
with, in a Quinfev. *Hiippocrates.de Morbis, Lib.* 2.

ANAGLYPHE, ἀυαγλυφὴ, from άναγλὑφω, to engrave.  
A Name given- by *Hieroplalus* to a Part of the fourth Ventricle  
of the Brain. It is called by Anatomists at this nine **CALAMUs  
ScRIpToRiUs,** from the Resemblance it bears to a Pen, prof  
serving the Analogy of the *Greek. Galen, de Anatian. Administ.  
Lib.* 9. *Cap. 5.*

ANAGNOSIS, ἀνάγνωονς, from ἀναγινώσκω. to read or per.  
suade. It signifies, strictiy, Reading, or Persuasion, or Conviction.  
But *Foesius* thinks, that in the Treatise of *Hippocrates,* intituled'  
παρμγγελίαι, it imports frequent visiting a Patient, anil exa-  
mining the. Case. ,

ANAGRAPHE, ἀναγροφὴ. from ἀναγρἀίω, to prescribe.

*Hippocrates,* in bis Treatise *of Decency,* advises Physicians to  
heve, in Readiness, Portions capable of inciding, prepared  
ἐξ άναγραφης, according to stated Prescriptions, in this Sense  
all the Officinal Medicines may he said to be made εξ  
ἀναγρμφης.

ANAGYRIS, the Name of a Plant.

Anagyris, which forne call *Anagyros,* others *Aciapis,* **is a**Shrub, in Leaves and Branches like the Vrtex, of a very strong  
Smell, bears a Flower like that of Cabbage; and produces a  
parti-coloured solid Seed, in the Shape of a Kidney, and con-  
tained in long Pods; this Seed hardens about the Time that  
Grapes ripen. ' ; .

The young and tender Leaves, bruised, and applied as a Ca-  
taplafin, repress oedematous Turnouts: Taken, to the Quan-  
tity of a Dram, in Raisin Wine, it helps the Asthma, pro-  
motes the Expulsion of the After-birth, the Meofes, and the  
Embryo. For the Head-ach it is taken in Wine. It .serves  
for an Amulet for Women who are subject to hard Labour ; but  
it must be taken off, and thrown away immediately after Deli-  
very. The Juice os the Root is diapheretio and digestive. The  
Seed, eaten, is a powerful Emetic. *Dioscorides, Lib.* 3. *Cap.* I 67.

The Anagyris is thus distinguished by modern Botanists;

ANAGVRIS, Ossic. Chab. 78. Mont. Ind. 36. *Anagyris  
seasides,* C.B. Pin 39I. Ger. I239. Emac. I427. Park. Theat:  
245. Jons. Dendr. 364. Ran Hist. a. I722. Tourn. Inst. 647.  
Elem. Bon 507. Boerh. Ind. A. 2. 27. *Anagyris vera faetida,-*J. Β. I. 364. STINKING BEAN TREFOIL. *Dale. .*

It is a Shrub, very branchy ; the Bark is of a greenish Brown,  
the Wood yellowish or pale; the Leaves are set in Order, three  
by three, oblong, pointed, green above, whitish underneath;  
of fo strong and stinking a Smell, especially when they are  
broken, that they give the Head-ach. The Flowers are yel-  
low, and refemble those of Broom; they are succeeded hy Pods  
as long as one’s Finger, like those of Kidney-beans, and carti.  
laginous; every one of them contains three or four large Seeds,  
like the Kidney -beans ; white at first, afterwards purplish, and  
at last when perftctiy ripe,, blue and blackish. This Shrub  
grows in warm Countries, The Leaves are refolutive, and  
the Seed emetic. *Lemery de Drogues.\**

ANAIDES. See AN.2EDES. ,,,

ANAISTHESIA. See ANjEsTHEsIA.

AN ALCES, ἀναλκεστ, from α Negative, and ἀλκὴ, Strength,  
weak, effeminate. *Hippocrates* uses this as an Epithet for the  
*Astatic* Nations.

ANALDES, αυαλδές, from a Negative, and ἀλδέβ, to in-  
crease. It imports Not receiving Nourishment, or Augment-  
ation. It is apply”d by *Hippocrates* to the Fruits which grow  
about the River *Phases, de Aere, Licis, Aquis.*

. AN ALENTIA, a Species of Epilepsy mention’d by Para-  
*celfus.*

ANALEPSIA. *Johannes Anglicus* calk by this Name, thet  
Species of Epilepsy which proceeds from Affections of the Sto-  
mach.

ANALEPSIS, άνἀληψις, from ἀναλαμβάνω. to recover, or  
regain Strength and Vigour, after Sickness. It signifies a Re- -  
nutrition, or regaining Strength, after baaing been render’d  
weak by a Distemper. Hence

... ANALEPTICA, Analeptics, Medicines destin’d to pro-  
mote this Renovation of Strength, Restoratives.

Among all the several Classes of corroborative Medicines,  
. those call’d *Analeptics* justly claim tho first and highest Rank.  
Under this Denomination are included all such Remedies as re-  
store impair’d Strength, raise depress’d Spirits, and possess what  
we commonly call a comforting Quality. Such Medicines are  
likewise known by the Names of *Cordials and Cardiacs.* The  
Parts of the vegetable Kingdom, which best aofwer this Inten-  
tion, are the Flowers of Rofes, of the Lemon-tree, of the  
Orange-tree, of Jessamine, and’ of Lillies of the Valley ., the  
Heths Baum, Origanum, Marum, Lemons, *China* Oranges .,  
and of Sp:ces, Cinamon ; of resinous Substances, Amber ; of  
- Animals, Musk: And alfo the Preparations of all these, the  
Oil of *Cedar, of Turkifh* Baum, the true Oil of Roses, the  
**OLEUM CANA** kg **E,** Oil of Bergamotte, Essence of Amber-  
grise rightly prepar’d. Oil of Cinamon made into *&o.'Elaofac-  
charum,* Baum-water prepar’d with Lemons, Water of Lilles-  
of the Valley, of Cinamon prepar’d with Quinces. Under this  
Class -may llkewise he reckon’d Strawberries, Currans, Rasp-  
berries, Cherries, and their Stones, Waters prepar’d of fresh  
Cherries, Lemon-juice, and Syrup of Lemons.

These Cordials aft by their fragrant, sweet, subtile, and  
olly Principle, and very soon enter the Nerves, and communi-  
cate a mild and gentle Motion to the Fluid they contain ; for  
such is the Nature of all sulphureous, fubole, and strong-  
scented Medicines, that they soon pervade the inmost Recesses  
of the nervous Parts, and quickly produce their Effects, which  
is evident from fend Medicines; and even such as are of an  
agreeable Smell, especially in Constitutions, that thro’ an  
Idiosyncrasy cannot bear them. Hence by their Smell alone,  
as in Faintiogs and Swoonings, they speedily exert their corro-  
borative Virtues, and raise the drooping, languid Spirits of the  
Patient; and this becaofe the Extremities of the Nerves, and  
small Blood-vessels, are in no Part of the Body less cover’d, or  
more immediately expos’d and naked, than in those large and  
capacious Ducts which we call the Nostriis, to which when  
fragrant Medicines are apply’d, they very quickly affect the  
Nerves and Spirits.

Though we are not to deny the above-mentioned Analeptics  
their proper Share of Efficacy rn cherishing Nature, and recruit-  
ing impair’d Vigour, yet it must he confess’d their Power thet  
way is pretty much limited and restrain’d. It were indeed to  
be wish’d, that there were in Nature Medicines of this Kind,  
of a certain and infallible Virtue, which the Vulgar foolishly  
enough imagine, and as foolishly require at the Hands of the  
Physician, such as could effectirally exert their restorative  
Powers, and recmit languishing Vigour in all Distempers, but  
especially those of the acute and malignant Kind. But as in all  
Diseases there is not a more rational, or a more certain way of  
restoring Strength, than by carrying off the morbific Causes,  
and banishing the noxious Principles of the Disorder from the  
Body, so unlefs the Physician effect this, the Use of ANA-  
LEPTIcs is to no manner of Purpose.

**' Π.**

, Nor is it to be thought, thet a genuine, lasting, and uniform  
Restoration of Strength is to be procured only by Medicines  
which excite a Motion in the Spirits and solid Parts ; sot in raa-  
ny Diseases, especially in Fevers and Convulsions, there is a  
great moving Force and Power in the Heart, the Arteries,  
and nervous Membranes, and yet the natural Strength is weak  
and languid ; so that a true and genuine Restoration of the na-  
tural Strength principally depends upon proper Aliments, both  
of the eatable and drinkable Kind, being converted into good  
Blood, and laudable Juices, which afterwards generate that sub-  
tile Fluid which is secreted in the Brain ., and being carried thro’  
the Nerves to the Mufclss, and museular Coats, principally sup-  
plies the Body, and its several Parts, with Strength and Vigour.

HI,

These Nutritives therefore which afford a Matter most proper  
for this Purpose, are the best Analeptics, of which Kind are

gelatinous Broths of Flesh, Capons, and Bones with their Mar-  
row, helled in a close Vessel with Water, a little Wine, some  
Slices of Lemon, a little Salt, Powder of Mace, and Cloves.  
Broths alfo made of,coarse *JVestphalian* Breed, Water, Wine,  
and Eggs.

Chocolate, with or without Milk, Ast’s Milk, Water  
distill’d from coarse Bread, and Lemon-peel, and Wine, espe-  
cially rich old Rhenish Wine, and unadulterated *Hungarian*Wine; but thefe nutritive and strengthening Aliments are not  
to be used in the very Time of the Disease, nor when the whole  
Mass of Blood and Humours is very impure; but when the  
Distemper is over, and where, by a preceding Disease, or by  
Excess of Passion, long Watching, Fatigue and Labour os Body  
or Mind, or large Haemorrhages, the Strength is wasted and im-  
paifd, in these Cafes siich Medicines are very proper; but even  
then Caution is to he ufed, and a proper Moderation to be  
observ’d, and kept up to, because they pass very speedily into  
the Blood, and augment its Quantity, *Haffman, Medicina  
Rational. Systemat.*

ANALGESIA, ἀναλγεσία, from α Negative, and άλγοστ.  
Pain, or Grief. It signifies a State of Ease, without Pain, whe-  
ther in a natural State of Health, or from some morbid Affection  
depriving any Part of Sensation.

ANALLIS, ἀναλλις. *Erotian* says this is the Name of a  
Plant, but neither he, nor any other Author I have met with,  
fay what Plant it is.

ANALMYROS, ἀνάλμυρος. from α Negative, 3ηδάλμυρος.  
Salt, unfalted.

ANALOGISMOS, ἀναλογισμὸς, from ἀναλογία. Analogy.  
It signifies Ratiocination, or the Investigation of things not evi-  
dent from the Analogy they bear, or are supposed to bear, to  
things well known.

ANALOSIS, άνάλωσις, from ἀναλίσκω, to consume, a con-  
suming, or wasting.

ANALTHES, ἀναλδὴς, from α Negative, and ἀλ9έω, to  
cure. Incurable.

ANALTOS, ἀναλτος, from α Negative, and ἀλς. Salt,  
unfalted, insipid, not salt to the Taste.

ANALYSIS, άνάλυοτς, from άναλὑω, to resolve. The Re-  
solution of any Substance into its first Principles, with a View  
of discovering its component Parts.

The Method of analysing mineral Waters has been delivered  
under the Article AcIDULJE, whichI would advife the Reader  
to peruse, because I heve there specisyid the Nature of many  
Substances, some or more of which are found to exist in most  
compound Bodies ; and in the fame Place I have specifyed the  
general Methods of discovering them.

There is something very trifling in the common Analysis of  
Plants and Animals; the why is to distil them in proper Ves-  
sels, and examine what rifes into the Receiver, and' ths Caput  
Mortuum, or what remains in the Vessel, and-is too heavy to  
be rais’d by the Fire. But by this Method very little or no-  
thing can he discovered, insomuch that it is not possible from  
the common Analysis to discover even what the analys’d Plant  
or Animal was.

in the Analysis of Plants a large Quantity of Phlegm gene-  
rally comes over first, then an acid Spirit, an alcaline or urinous  
Salt, and lastly, a black fcetid Oil. From the Ashes of what  
remains, is obtain’d a lixivial Sait, such as Salt of Tartar,  
which runs *per deliquium* in the open moist Air ; or a Kind of  
*Sal Sasiius,* such as that of the common Wall-flower. Besides  
these Substances, which are got by Distillation from almost all  
Plants, there are others obtainable only from some of them.  
Thus from aromatic Plants, fuch as Lavender, Thyme, Sage,  
*etc.* a subtle, fragrant, essential Oil, generally rises first. From  
a few Plants, such as Hellebore, Helleborastrum, Speedwell,  
Cresses, and others, a very sharp, penetrating Spirit or Oil  
comes over with the first Degree of Fain, which is llkewise ob-  
tain’d after the Plants heve been fermented, but in a different  
Order. Sometimes the first Degree os Fire brings over art  
acid or urinous Spirit, sometimes an inflammable and very vola-  
tile Spirit.

These are the few Elements, or Principles, obtainable from  
Hants. We are not, however, to imagine, that those which  
go by the fame Name are exactiy alike in all Plants. The  
fix’d Salts, for Instance, got from their Ashes, being originally  
derived from some Acid, must differ from one another in vari-  
ous Plants, as much as Acids themselves do. For the same  
Reason the acid Spirits,' volatile urinous Salts, and even essen-  
tial Oil, must be different; and accordingly we observe, that  
the essential Oil of Thyme, digested with Spirit of Sal Ammo-  
. niac, gives a violet or purple Tinctirre, which many other essen-  
tial Oik will not do. Wherein all these Differences precisely  
consist, has not hitherto been sufficiently clear’d up.

From animal Substances we obtain a large Quantity of vola-  
tile urinous Salt, a thick Oll, very little fix’d Salt, and still  
less acid Salt. The fame Substances, bring boiled in Water,  
yield a Mucilage, or Jelly, from which, by Distillation, the  
Principles already mentioned may easily he gon But as most  
animal Substances yield these in much the same manner, and as  
they appear very llttio, if at all different, in different Animals,

nothing can he determined *a priori* concerning the medicinal  
Virtues of particular Animals from their Analysis.

The following Observation of *Hamberg,* and *Fernery,* deserve  
Notice, as there is something extremely curious in them upon  
this Subjects

*Observation sn the* **ANALYSIS** *of Vegetables, by M.* Homberg:

- All the Chemical Analyses of Plants which have hitherto '  
been made with a View to discover their Natures more per-  
fectiy, have heen conducted and managed almost in the fame  
manner; that is, by separating, by means of Fire, their consti-  
tuent and component Parts. The principal Difference which  
has been obfer/’d in Separations of this Nature, is, that some  
have fermented the mix’d Body, hefore it is subjected to the  
Powers of the Fire; whereas others have began the Analysis  
without any previous Fermentation. The Principles produced  
or furnished by both these Manners of Separation, universally  
consist of certain Quantities of *Salts, Oils, Water,* and *Earth.*

**It** has, for very good Reasons, been doubted, whether what  
we here call *Principles,* are the true and real *Principles,* which  
constitute and make up the mixt Body, before it was subjected  
**to** the Analysis; or, in other Words, it has been doubted,  
whether these four Substances, into which the compound Body  
is resolved by the Force of Fire, we’re really to he found in that  
Body, when it was in its natural State.

. The first Reason for our doubting of this, is, that two Plants  
perfectiy differing in Taste, in Smell, in Figure, and in Vir-  
tues, *Cabbage,* for Instance, and *deadly Night-seade,* are, when  
. subjected to an Analysis, reduced into Principles so similar, both  
with respect to Number and Quality, that a Person would take  
them for one and the same Plant analysed at different times ;  
arid nothing is more certain, then that the one is a Pot-herb,  
and the other a Poison.

The second Reason for our doubting of this, is, that one  
cannot make up the 5ame compound Substance, by rejoining  
the Principles into which it has been resolv’d by the Analysis,  
whatever Fermentation they should undergo, or whatever De-  
grees of Fire should he employed for that Purpose.

I pass over other Difficulties, since they seem to he of less  
Coofequence; but thefe I heve now mentioned, certainly Chal-  
lenge some Attention. As for what regards the first Reason of  
Doubt,.1 shall only say, -that we cannot absolutely deny, that  
these four Substances, Salt, Water, Oil, and Earth, enter the.  
. Composition of all Vegetables, since they are universally-found,  
in them, after whatever manner the Analysis is conducted or  
carried on ; but the- Difficulty only is, to know whether they  
exist aster the same manner in the Plants, as they do when we  
have procured their Separation by Analysis ;, or whether the  
Powers of the Fine have not alter’d there Principles, and given  
them a quite different Appearance, from what they had in the  
compound Body. ...

I have made several Experiments, in order to satisfy myself  
with regard to this Point; but I shall only here give an Account  
' of the Manner in which I performed one of them, since I intend  
to draw fome Consequences from is.

- The Juice of ripe Grapes, newly express’d, put into a Vessel,  
and distill’d, will first yield a large Quantity of an aqueous Li-  
quor, of which, the Part that first comes over, is tasteless and  
insipid , and that which come last, acid, with some Marks of a  
volatile urinous Salt; then by augmenting the Fire, it will  
' yield a fmall Quantity of a very fiend Oil., and thet which  
’ remains in the V essel, being incinerated and lixiviated, yields a  
lixiviaI Salt, and leaves a small Quantity of insipid Earth.

This fame newly express’d Juice of Grapes being evaporated  
to about a third on a very stow Fine, and put into a cool Place, an  
essential Salt, somewhat acid, crystallized itfelfin it; and an oily  
Substance, very fweet and agreeable to the Taste, floated on its  
Surface, and the Liquor that remained was a little tartish, on  
account of forne essential Salt, which still remained in it.

This fame Juice of Grapes, having fermented, and become  
Wine, yielded in Distillation a pretty large Quantity of in-  
flammable Spirit, afterwards a great deal of a purely aqueous  
Liquor; then the Matter, which remained in the Alembic,  
being evaporated to the Consistence of thick Honey, I took it  
**off the** Fire, and poured upon it the strongest Spirit of Wine  
well dephlegmated, which became charged with a reddish Oll,  
**of** an aromatic Smell; a little earthy Matter was precipitated,  
and an acid Sait, resembling Tartar, crystallized at the Bottom.

- These three different Analyfcs, of one and the fame mixt  
Body, yield us the fame Principles, but very much alter’d by  
the great Fire in the first, and by the Fermentation in the third  
Analyses; fo that the Principles yielded by the fecond Analysis,  
having neither suffered the Torture.of a strong Fire, nor under-  
gone a Fermentation, must least of all recede from the natural  
State which they retained in the Plant. We find the Sweetness  
of the Grape in the oily Mauer which floats above the Crystal- .  
lization, its poignant Taste in the tartish Salt which was cry-  
stallized, and its Fluidity in the aqueous Phiegm which was  
evaporated from it. The earthy Matter remain’d mixt with  
**the Oil and** Salt, and could not be separated hut by a great Fire,

as happened in the first Analysis, in which we observe the fame  
things with regard to the Salt of this Plant, as in strong Distilla-  
tions we observe of sessile Salts, fitch as Saltpetre, and Vitriol,  
which we very well know to be acid volatile Salts, mixed with  
a proportionable Quantity of fixed Salt,, and insipid Earth, which .  
serve as a Kind of Matrix to them. But as the Salts of Plants  
are more compounded than fossile Salts, we accordingly find  
the Salt of our Plant divided into three different Parts; the first  
is that acid Salt which past’d thro’ the Neck of the Retort along  
with the last Parts of the Phlegm ; the second is that volatile  
urinous Salt which passed parfly with the last Drops, of the  
Acid, partly alone, and partly with the fetid Oils ; the third is.  
the fixed Salt, which is separated from the earthy Parts by Lixi-  
viation; and these three Salts being naturally joined together in  
the Plant, compose its essential Salt, which, as we heve seen,,  
crystallized in the second and third Analyses.

The Oil. of this Fruit, which in the second and third Analyses  
is fweet, and of an aromatio Smell, is in the first Analysis con-  
siderably changed into a very acrid and stinking Oll, probably  
on account of a Quantity of urinous and acid Salts contained in  
the Plant, which the Violence of the Fire has earned off at the  
same time, and trained with the said Oil, which Salts, after  
passing thro’ the Neck of the Retort, became volatile, whereas  
the Salts yielded by the other two .Analyses were not so and as -  
Fermentation naturally disengages volatile from fixed Substances,  
we find in the third Analysis a great deal of a burning Spirit,  
which is the most volatile Parr of the Oil of our Fruit, and  
which was separated from it by the least Heat.

We fee by the Comparison we have made of the Principles  
yielded by one and the same mixt Body, in three different Ana-  
lyses, that these Principles are always sound in the same Num-  
ber, but different only in Degrees of Volatility and Fixation,  
according to the Fermentation and Degrees of Fire these com-  
pound Bodies have undergone, during their respective Analyses.  
Besides, if to this we add the infinite Combinations of *mcre ot  
lese* of these Principles, the Differences of which may he rinper-  
ceptible by us in the Analysis, we shall not be surpris’d to find  
two Plants so different in Taste, in Smell, and in Virtues, as  
the *Cabbage* and *deadly Night-seade* are, so much alike and simi-  
lar in .their Principles.

For there very Reasons we may likewise easily comprehend,  
why one cannot, if I may ure the Word, *recompose* a mixt *or*compound Body, by rejoining the Principles into which it has  
been resolv’d by Analysis; because the File having changed their  
natural Arrangement, and respective Degrees of Volatility and  
Fixation, and having, even unavoidably, dissipated some Part  
of them, there Principles, being again join’d together, are nei-  
ther sound in the fame Quantity, possessed of the fame. Quality,  
nor arrang’d in the fame manner they were in the compound  
Body before it was subjected to the Analysis.

To convince myself still further of this Truth, I have mixt  
very simple Principles, in order to compose certain Bodies,  
which I afterwards subjected to Analysis, and which yielded the  
several Principles quite chang’d from what they were ., for in-  
stance, the fixed lixivial Salt, and the express’d Oll of Plants,  
mixed together on a Fire, compose a Soap, which, among other  
Principles, yields in its Analysis, an acid Liquor, an insipid  
Earth, and an urinous Salt, which do not at all appear in the  
ingredients of which it is composed.

The Mixture of an acid Mineral, with the essential Oil of  
any aromatic Plant, composes a Resin perfectiy resembling that  
which flows from certain Trees. This Composition is only  
made up of two very volatile ingredients; and yet, upon ah  
Analysis, it yields all the four Principles. It must indeed be  
own’d, that upon the Mixture of these two Substances, so sud-  
den and violent a Fermentation arises, that a Flame is often  
thence produced ; and as we know, that in all Fermentations  
a Separation is naturally made of the volatile from the fix’d Parts,  
there was no great Difficulty in separating the one from the  
other in the Analysis, tho’ they did not appear fuch before the.  
Fermentation-

All these Considerations and Remarks shew us, that those  
Analyses in which only a great Fire is employ’d, are not so pro-  
per to discover the Principles and Virtues of Plants, as when by  
a moderate Heat, and Fermentation, we promote the Sepa-  
ration of their component Principles. *Homberg, Mem. de  
lAcade Roy. A.* **I70I.**

*Remarks upon the Usefnlnese and Deficiencies of the common Me-  
thods of analystng Vegetable and Animal Substances, by Mr.*Lemery.

That I may throw a greater Light around whet I intend to  
fay upon this Subject, I shall make use of a Comparison,  
which, to me, seems very well calculated for the Illustration  
of the Subjects

Suppose then two Edifices, almost of the same external Form,  
but built of MateriaIs different in themselves, and differently  
arranged and disposed with regard to each other. If, in order  
to discover this Difference of Materiais, and their different  
Arrangements in each Edifice, one should destroy both, and

make, if I may be allow’d the Expression, a sort of Decompo-  
sition or Analysis, by means of an active and violent Agent,  
which, instead of spaaing the Materiais on which it was to act,  
and only separating them from one another, and leaving them  
enure after their Separation, should by the natural Force and  
Quickness of its Motion, in a short nine, reduce them to a  
Dust; in such a Chaos, where every thing would not only be  
confounded, but even considerably altered and changed, would  
it be possible to know and distinguish the Difference of the  
several Materials, which had enter’d the Composition of each  
Edifice ? Or might it not possibly happen, that the Dust, pro-  
duced by the Demolition of the one, might resemble thet assord-  
- ed by the other ? If this should happen to he the Case, People  
would not fail to conclude, that both Edifices were built of  
the fame Materiais, tho’ in Reality it was otherwise.

This is a full Image and Represention of whet heppens  
in the ordinary Analysis of Plants and Animals; The Fire em-  
ploy’d in Operations of this Nature is the quick and active  
Agent above- mention’d; for it spares none of the Substances  
submitted to its Action; it foon confounds and attenuates  
them; and, if I may fo speak, reduces them to a kind of  
Dust. But, whether by the Coofusion and Derangement of  
the Parts, or by the foreign and adventitious Parts conveyed to  
the different Substances of the compound Body, it lays a Foun-  
datron for the Production of new Compositions, which are  
often widely different from those which were naturally inherent  
in the Body itself. ’Tis probably for these Reasons, and on  
account of a certain Change induced by the Fire on the dissert-  
ent Parts of Plants and Animals, thet it often happens, that  
two Plants, one of which has very salutary, and the other  
poisonous Qualities, and whose natural Composition must be  
consequently very different, resemble each other so much both  
in the Substances they yield, and the Quantities of th.efe Sub-  
stances, that if' their Qualities were not known before, we  
should he induced, in Consequence of the Analysis, to believe  
them one and the fame Plant.

When I say, that the Fire produces such a remarkable  
Change and Alteration upon the Substances yielded by com-  
pound Bodies, I do not intend to represent these Substances as  
real Principles, nor to insinuate, that the Principles of com-  
pound Bodies are alterable by the Action of the Fire. What  
has laid a Foundation for this Opinion is, that some Substances,  
which commonly, but unjustly, receive the Name of Principles,  
aftually undergo such a Change by the Fire; but I shell after-  
wards prove, when I come to examine what Bodies, in a truly Che-  
mical Sense, deferve the Name of Principles, that we have all the  
Reason in the world to be assured, that these Bodies do not change  
their For ms. by the Action of the Fire, or rather, that if they are  
susceptible of any Change by means of that Agent, the Altera-  
Don does not fall upon any of the Principles in particular, but  
only upon their Uninn, or the Manner in which they are united  
with one another; .so that the Fire may well change the Form  
of the compound Body, by disuniting its Parts, and arranging  
them in a different Manner from what they were, but can  
produce no Change with regard to the Principle, the Solidity  
of which renders its Parts inseparable, and consequently its  
Form unalterable.

It may perhaps he said, that if People would make a just  
Estimate of the Advantages arising from Chymical Analysis, in  
'acquiring the Knowledge of compound Bodies, before they  
engaged in them, the Fruitlesnefs of the Labour would make  
them drop the Project 5 by which means they should save a great  
deal of Labour, Expences, and Time, which might be more  
advantageoufly employ’d. .

I anfwer, that we are not able to form a just Judgment os  
Chymical Analyfes, till such tube as they are made, and we  
ourselves put into a Condition of examining all their Circum-  
stances carefully, and comparing them with one another. Since  
then a Knowledge of the small Advantage that attends them,  
must be the Result of a Trial made; it is requisite for Con-  
viction in this Point, and to put us in a Condition to discover  
wherein their Defect lies, that such Trials and Experiments he  
first made . and even tho’ one should foresee before the Experi-  
ment, all thet is observed to happen after it is made, yet the  
Reasons alledged against the Attempt, amount only, at best, to  
bare Conjectures, incapable of procuring Assent, and unworthy  
to be laid in the Balance against the Advantages, which, ’tis  
pretended, the Public receives from Labours of that Nature.  
Besides, as these Conjectures could not have been confirmed,  
but by going thio’ the Analyses themselves, there would have  
still been a Necessity for making them, hut with this Differ-  
ence, thet in the one Cafe, tho Analyses should have succeeded  
the Conjectures, and been a kind of Confirmation of them,  
whereas in the present Case, the Analysts are first made, and  
ley a Foundation for our suture Reflections.

- Besides, tho’ all the Analyses which should have been made,  
should anfwer no other End, but to undeceive as with regard '  
to themselves, and point oat what we ought to think of them,  
this would still be an Advantage sufficient to balance the Tube  
and Pains wc have laid nut in thet way. But what still more

contributes to justify Labours of this Kind is, that in exami-  
ning a long Train of Accidents thet happen in analysing a great  
Number of compound Bodies, one discovers a great many curi-  
ous Facts, which without Trial and Experiment had never been  
known, and which may, perhaps, prove of singular Ufe to  
Mankind.

The Execution of the Proje& having then sufficiently shewn  
the little Advantage to be reap’d from ordinary Analyses, that  
Point, as it is now no longer controverted, is not what I  
here propose to discuss and prove. I take the Each for granted,  
and look upon it as certain and incontestable ; but I search for  
the Reason or physical Cause of it, in the ordinary manner of -  
carrying on Analyses, that is, in the Violence and Activity of  
the Fire, which is the Agent employ’d, and in the Disorder,  
Derangement, and Confusion, which it brings to all the Parts of  
the compound Body.

I have already given an Idea of this Disorder and Derange. .  
rnent, in the Beginning of this Memoir; but as this Idea is too  
general, and requires to he proved and illustrated by a more  
minute Examination of the particular Change which each Suh-  
stance in the compound Body undergoes, I suffi set about it so  
much the more willingly, since by narrowly considering-wbere-  
in the Defecti of the ordinary Analysis consists, we shall acquire  
more correct Ideas *of* the Matter, and, perhaps, be enabled by  
that means to contrive and carry on other Kinds of Analyses,  
longer indeed than these, but at the fame time more *exastt,  
exempt* from their Inconveniencies, and much hetter calculated -  
*for* discovering the Principles of compound Bodies. In order  
to form a sound Judgment of the Change produced by the Fire,  
on the different Parts of a compound Body, analysed in the  
ordinary manner, we have only to consider each of its Pans in,  
their natural State, and compare this State with that which suc-  
ceeds it, aster they have undergone the Action, os the Fine; -  
Two Kinds of Substances, in Plants and Animals, deserve our  
particular Attention, one is their fallne, and the other their  
pinguious Parts.

I have already said, thet I did not pretend to represent these  
Substances as Principles; and indeed to declare my real Senti-  
ments with regard to Chymical Principles, I shall shew, thet  
each of these Substances is capable *os* being resolved into differ-  
ent Parts, none of which are themselves Principles; het, com-  
pound as they are, ’tis of importance for the Knowledge of the  
Nature of compound Bedies, to extraci them, and to know  
them to be such as they are in these cornpoand Bodies, thet is,  
when they are enure, and no ways disfigured or changed ; for ;  
it is in this Shape, that they aci immediately upon our Fluids ;  
and this Action does not depend upon any particular Part of  
which they are composed, but. upon the general Union of all  
these Parts, whence certain Masses are produced, the Effects of  
which are often very different from those of each of the Parts,  
whether considered separately, and acting in this manner, or .  
firpposed simply mixed and blended, but not closely and inti-  
mately united, as they are in the compound Body. It is then  
plain, that one cannot he at too much Pains to know these  
Masses in their natural State, and to extraol them as entile as  
the Nature of the thing will admit of: And if we incline after-  
wards to discover more- perfectiy the hidden Contents of there  
Masses, 'tis only then we can analyse them with Advantage,  
as *I* shall clearly prove, when I come to treat of Analyses of  
thet Nature.

I compare these Masses to the very Materiais of the two Edi-  
fices I have already proposed as an Example; for in order to .  
know the interior Composition of there Edifices, ’tis nor  
enough to destroy them by breaking the Union of -their Ma-  
terials ; but these Materials mast be separated in their entire  
State, at least they must not he unlike that which they were  
in the Edifice itself, or before the building of the Edifice; other-  
wise they will give us but a faint and obscure Idea of the into-  
rior Composition of the Building. This is what also happens  
in the different Substances extraiked from Plants and Animals,  
in the ordinary Method of carrying on Analyses; for I shall  
shew by an Examination, of each of these Substances, that  
aster the Analysis, and their Separation-from the compound  
Body, they are so far from resembling the exterior Form which  
they bore in it, thet they become often so different from whet  
they were, and acquire Virtues so opposite to those they bad,  
that we should scarcely helieve the Difference, if Experience .  
did not in a manner force us to it.

The saline Parts of Plants and Animals are commonly  
lodged in them under the Form of a concrete Salt, of which  
they contain feveral Kurds.

I have observed, in examining a great Nurnher of Animal  
Substances, on account of my Disquisitions into the Nature of .  
Saltpetre, that these Substances contained a groat Quantity of  
Sal Ammoniac, that is to fay, a Salt os the fame Nature with  
that which may be made by the Conjunction os an acid and avolatile Salt; Spirit of Salt for Instance, and volatile halt of  
Hartshorn, or of Vipers. Besides, I have observ’d, that the  
Acid of the natural Sal Ammoniac, contained in these ani-  
mal Substances, was nitrous, or like to that which is yielded

by Saltpetre ; so that one might, byaiTrain Of Operations, so  
well purge this Acid os the pinginous Substances, which are  
naturally complicated with it in the Animal, 'that itshould be-  
corne a Spirit of Nitre, differing in'nothing from the com-  
mon Spirin of Nitresi1 Besides, the animal Substances; oh  
winch *I* made my Observations, left me no Reason to doubt of  
their, containing a finall Quantity of true Saltpetre, that is, of a  
Salt like to that which is produced by an Union of the Acid of  
Spirit of Nitre, and *a* fixed alcaline Salt.' Ina word,-in  
these Substances, where the nitrous Acid/is. sound in a large  
Quantity, tho' so much invelop'd, that one cannot.discover it  
without a great deal of Pains and Industry; The greatest Part of  
this Acid is jom'd within Volatile Matter,1 and forms A Sal  
Ammoniac ; and a small Portion of this Acid is stoppsdthya  
fix'd Matter, and forms Saltpetre, s:t ) ς ἐνιυ 2 yr Um  
'' Besides the nitrous Sal Ammoniae, mid-the Saltpetre don-'  
tain'ff in all the animal Substances I haveoxamin'd, I have alfo.  
extracted from some ortheth, andsthafr with a great deal of  
Ease, a considerable Quantity of true common Salt, entirely  
like the ordinary Sort.; but. I'could never observe, that any of  
these Substances contained a Sal Ammoniac, produced by the  
Acid of that Salt. - I do hot; however, deny the Fact. I only  
think! -heve a Right, in Consequende ofthe many Experiments  
**I** have made upon animal Substances, to advance, that the  
greatest -Part of the Sal Aninioniac contained in them, is nitrous ;  
and that if any Part of it is produced by another Acid, that  
Acid is tohe found in a much smaller Quantity than that, os  
the Nitre. But whatever the Nature os the Acid contained in  
Animals be, it has heen already observed; that the Difficulty of  
discovering it sufficiently proves it to be strongly rnvelop’d ;  
and as theinitrotis Acid there naturally fonns a Sal Ammoniac;  
or a Saltpetre, according to the Nature -of the Substances in  
which it is engag'd, we have -Reason to believe, that all other  
Acids are conceal’d, at. least the greatest Part of them, under  
the same Substances; \* This is sufficient for understanding what  
**I** am to say hereafter.ευρὶί υ' si si '-Visiso. . --.. ἐν

Sal Ammoniac is not so edinfnoh in vegetable, as in animal  
Substances, They nevertheless contain some, of it, but abound  
much' more in a concreted Sait; the Matrix or Basis of which  
is a fixed Substance; and' as there are in Reality many more  
fixed and earthy Parts ] in Plants than in Animals, and more  
volatile. Parts in Animals than- in Plants, ’that Acid which in  
Plants ordinarily produces-a Salt of the same Nature with that  
which would he prodneed by the artificial Mixture os the said Acid  
with a fixed Salt, produces; on the contrary, inAhimals, as I have  
already observed; a Salt like that, which:would be produced by  
the Mixture-Of an Acid and a Volatile Salt. As this is the  
Case, we need not be surprised; that some Plants should con-  
tain a great .deal more os Saltpetre than is to he found in any  
animal Substance, and that there should he more nitrous Sai  
Ammoniac in animal Substances, than can possibly he found in  
any Plant, .. *.‘A - . - - -so- \* καὶ. ,*i It shall he shewn tinder the Article Nitre, hew the Saltpetre  
of Plants becomes the nitrous-Sal Ammoniac in Animals, and  
how the nitrous Sal Ammoniac may again hecorne Saltpetre in  
Plantai..:'-. - -

But the Saltpetre, and the nitrous Sal Aniinohiac, are not  
the only Species of concreted Salts contained in Plants. There  
are Other Sorts formed indeed by a like Matrix, that is either  
fixed Or Volatile, but by an Acid of another Nature, such, for  
Instance, as that winch is yielded either by Vitriol, or common  
Salt; and all these Salts contained in different Plants, form  
different Classes of essential Saits, which have different Pro-  
perries and Effects, according-to the Species os that Acid winch  
gives each os them its respective Form. I shall not at present  
enter deeper into this Subject, hut only observe, that in some  
**of** these Salts, the Acid is so well invelop’d in itS Matrix, that  
when the Salts themselves are apply’d to the Tongue, they only  
excite a Sensation os Saltness, but not at all os Any Acidity. I  
must also observe, that upon mixing some os them with an  
alcaline Salt, neither a Fermentation; nor a Coalescence of the  
**two** Salts enfue; such is the essential Salt of Borrage, and that  
**of** Purflane, which, to speak properly, are a true Saltpetre;  
But there are other essential- Salts, the Acids of which, being  
less closely invelop’d in their Matrices, appear, as it were, on  
the Surfaces, and present the extremities of their Points;  
**winch** being free andsdisengaged at that particular Part, excite;  
**by** that means, the Sensation occasioned by an Acid, upon  
their being applied to theTongue. By the same- Principles os  
Mechanism these Salts ferment, and unite with alcaline Salts;  
an Instance of this.Species of Salt, we find in the Crystals of  
Tartar..

Having examined the Character, the State; and the natural  
Composition of those Salts, which are ordinarily found in Ve-  
getable Substances, let us now inquire whet becomes os them  
when they have been subjected to the Fire, commonly em-  
ployed in the ordinary Analyses; and let us begin with the Sal  
.' Ammoniac contained in Plants and Animals. -

. As the two Parts of which .this Salt is composed, are both  
of such a Nature, as that whether separately, or in Con-

junction, they may be elevated by the Fire in such a manner,  
as that aster their EleVation they preserve the Union they had  
before the Operation; L say, as this is the Case, it should  
seem probable, that the Sai Ammoniac contained in Plants and  
Animals, , should be raised in the same manner by the Action of  
the Fine, that is, entire. But Yet it isr not raised so ; it first  
suffers a Disunion *of* the Parts which compose it, and each of  
these Parts rise separately by Distillation. We even observe ini  
the ordinary Analyses of Animals, that all which rises tn this  
manner .in’ not, or, at least, does het appear to the any more  
than a Volatile'alcaline Salt, that is; the most-volatile Portion  
of the Sal Ammoniac separated from The. Acid, which is so  
little discoverable in the Substances raped by the Fire, that it  
has fora long time been thought, that animal Substances con-  
rained no Acid; and it is but lately,' that the contrary has been  
sound true, which is look'd upon as a Discovery so much the'  
snore curious, because it destroys a Prejudice sounded upon the  
Analyses , of a great'Number of anirnal Substances. Tt is true,  
that by only-Considering these Analyses; One saps into two Very  
palpable Errors; the one is, thatthere is no Acid in Animals,  
though there as in Reality a great deal; the other is, that their  
Salts are lodged in them under the Forth of a Volatile alcaline  
Salt, though froth other Circumstances, .we know Very certain-  
ly, that these Sorts of Salts, like fixed alcaline Salsa, have not  
been rendered alcaline; thut fry the Fire, which has in a manner  
half uncompounded them, by depriving them of a Part of them  
Acids; *so* that by restoring these very Acids to them, they, are  
perfectly restored to the State and Condition in which they were  
in the compound Body, before it was subjected to the Action  
of the Fire; : ί ά '

' I proceed to explain why an Analysis only discovers' a Part  
of the Sal Ammoniac contained in Animals, what becomes of  
the acrid Part of that Salt, how the one is separated from the  
other; and why they do . not rise with each other, as it usually  
happens in theordinary Sublimation of Sal Ammoniac.

: In order to folve all these seemingly perplexing Phsenoinena,  
I lay it down as a Maxim-, that *When Circumstances vary,  
then, and in that Case, Effects must also be different :* For In-  
stance; Experience- teaches us, that Volatile alcaline Salts are  
more Volatile, thim ine Particles Of Water, that is, they are  
more easily raised thy the Fine; and'- yet in the Distillation of  
the Viper; and a great many other animal Substances, the  
Phlegm, which is less adherent to the other Parts; mounts first,  
and before the Volatile Salt; but when this fame volatile Salt is  
once unfetter'd, sand fee at Liberty from the Bonds which, as  
it were, held it in the coinpound Body, and when the Business'  
is to separate it from the Phlegm, with which it has mixed  
and blended itself .in the Recipiens, is is not the Phlegm,  
but the Volatile Salt, winch the Fine raises and sublimes  
first. .' . - :. ” ' . . ’

- Something similar to this happens in Sal Ammoniac, when it  
is alone, adherent to nothing, and quite disentangled; for therf  
the Fire surrounds it, and raises it entire, without any Dissi-  
culty, and without the Trouble of two Attempts. But when  
that Salt is in a compound Body, it is then intimately united  
with its earthy Parts, which fix it, render it heavy, and hinder  
it from yielding to the Action of the Fire so easily as in other  
Circumstances it would heve done ; so that the Fire not being  
able at that time to raise all the Salt, disengages and raises the  
most Volatile Parts of it; winch lays a Foundation for the acid  
Part to blend itself more and more with the earthy Part of the  
compound Body, in proportion aS the Volatile Salt quits and  
forsakes it. This Reasoning is sufficiently justified by Experi-  
fence, since by mixing a sufficient Quantity of an alcaline Sub-  
stance with common Sal Ammoniac, and subjecting the Whole  
to the Fire, that Salt does not in that Cose rise entire, as it  
does when alone, and only its volatile and alcaline Parts yield  
first to the Fire, and fly off, whilst the Acid of the Salt deeply  
insinuates itself 'into the Pores of the alcaline Matter, from  
which it does not afterwards disentangle itself; but by an Effort  
of the Fire more considerable than that of which we now  
speak 1 This is precisely what happens in the ordinary Distillaa  
tion or Analysts of an animal Substance ; for the Fire used in  
that Operation is sufficient to disengage the volatile Salt, the  
Phlegm, and a considerable Part os the Oil; but 'tis not fuf.  
sicient to produce such an Effect upon the Acid, especially fince  
it is more deeply entangled in the earthy Part of the compound  
Body ; and it is for this Reason, that one perceives none of it  
in the different Portions which are raised during the Analysis ;  
or is thefe Portions contain any of it, it is in so small a Quan-  
tity; and so strongly invelop’dTn oily Matrices. that it cannot  
be discovered ;.and what Proves the Truth of thin Reasoning  
is; that is the Matter is subjected to a more violem Fire than  
usual; there rises a Liquor which has manifest Marks *of* Acidity ;  
and one may observe Upon this Occasion a curious Phaenome-  
non, which has already been taken Notice of hy the late Mr.  
*Hardberg,* which is, that the Acids we are now speaking os,  
after being obliged to yield to the Force of the Fire, return,  
and are again found in tho same Liquor with the alcaline Salts,,  
which were before united with them; and notwithstanding

the new Mixture of these Acids with their alealine Salts in the  
same Place, there is neither a sensible Fermentation raised, nor  
does there happen a Reunion of the two Bodies, .which, on this  
Occasion, preserve their respective Properties, the here of an  
acid, and the other of an alealine Salt.

. Mr. *Hamberg* is of Opinion, that we ought to ascribe the  
Peculiarity of this Circumstance, to the small Quantity of  
Phlegm contained in the Mixture ; since in Cases of a like  
Nature, we often see AcidS and Alcalies remain together in a  
State of Inaction; but I likewise think, that the oily Parts,  
winch are scattered up and down in the Liquor, and which  
Inay have contracted a particular Union with the Acids during  
the Operation, which perhaps hinders us from distinguishing  
**the** true Character of them in the manner hereafter to he ex-  
plained, I say, that these oily Parts, by inVeloping the Acids,  
contribute very much to hinder their Action upon the Volatile  
alealine Salt. And indeed, *is* we were only to be sway’d by  
the Reason which Mr. *Hontberg* advances, we should be at a  
Loss to get over, one Difficulty, which is, that, there is often a  
Quantity of aqueous Parts in the Liquor, sufficient ait least for.  
a small Effervescence, which would very soon be succeeded by  
a sensible Reunion of the Acids and Alcalies. T τι'  
\_ As we have good Reason to heheve, that in the Analysis of  
Compound Bedies charg'd with Sal Ammoniac, rhe. Decompo-  
sition of that Salt is not made, but in Proportion to the fixed  
find earthy Parts contained naturally in these Bodies, I can-  
not help imagining, that . those animal Substances, which par-  
ticularly abound in Volatile Parts, may well be supposed not  
to contain a sufficient Quantity *os* earthy Parts,.for all the  
Sal Ammoniac contained in these Substances; and conse-  
quently, that all .that Sal Ammoniac .was not decompounded  
in the Analysis; but that Part of it either remained with  
the Caput Mortuum of the Substance, or lost only a mo-  
derate Quantity of its Acids; and becoming, thy that means,  
less Volatile than those Volatile Salts winch are hetter separated  
from their Acids, but at the same time more Volatile than the  
Sal Ammoniac which has lost none of them, it was in a mid-  
die State hetwixt the two, and might he said to he on the same  
Level of Volatility with the aqueous Parts in winch it had  
sheltered itself during the Operation, and from which we can-  
not afterwards separate it by Distillation, because being neither  
heavier, nor lighter than the Water, it neither rises before at,  
as the ordinary Volatile alealine Salts do, nor after It,.as the  
Sal Ammoniac, which is entire, does. And as that Liquor,  
which constitutes whet we commonly call a Spirit, ferments  
with AcidS, whether by means of some Volatile Salts it has re-  
tain'd, or on account of the Acids, which the Sai Ammoniac  
of the Liquor has lost, in whose Place new Acids are lodged ;.  
I say, upon some *ci thefe* Accounts,. some have.thought they  
had a Right to conclude from this Fermentation, that the Spi-  
rit was only a Phlegm impregnated with the same Volatile Salts,  
which are drawn from the Substance under .a concrete FormS  
But if this is the Case, why cannot we totally, or at least in  
a certain Degree,’ deprive this Spirit of its Volatile Salts, by  
putting it into a Mattrass with a long Neck, with a Head and  
a Recipient; and paving the way by a gentie Heat for these  
Salts, winch should happen to be lighter than the Water, to  
separate themselveS from that Liquid, and rise Io the Top, as  
a Volatile concreted Salt, dissolved in Water, or eVen in a Spirit,  
uses to do under such Circumstances *?. We* may therefore be-  
lieve, upon Very probable Grounds, that in the ordinary Ana-  
lyses of animal Substances, all the Quantity of their Sal Ammo-  
niac is not equally decompounded; that is, in the different  
Portions of that Salt, an equal Separation is not made of **the**Acid from its alealine Part or Matrix, which is what is com-  
monly cafled the *volatile Salt .of Animals*; so that certain Por-  
tions of that Salt free themselves to a certain Degree from the  
Acids, which they contained in the compound Body; other  
Portions retain more os their AcidS, and others perhaps lose  
still less; and, notwithstanding the Operation, remain almost  
under the same natural Form they had in the compound Body,  
as happens in certain Distillations of the Volatile Spirit os Sal  
Ammoniac, where for want of a sufficient Quantity of an  
absorbent Medium, there is only a Part of that Salt from which  
the Volatile alealine Salts are detached, and rise at first, whilst  
the other Portion of the Sal Ammoniac remains entire at the  
Bottom of the Vessel; and being afterwards subjected to a  
greater FIre, it rife in the Form of Flowers, which are nothing  
but an entho Sal Ammoniac, or at least a Sal Ammoniac with  
the greatest Part of its AcidS. .

What seems to confirm this Opinion,’ that all’ **the** Sal Am-  
moniac of animal Substances is not equally decompounded  
during their Analysis, and chat, hecauto they do not naturally  
contain a sufficient Quantity of earthy Parts; whet, I say,  
seems to confirm this Opinion is, that by supplying that De-  
sect, that is, by mixing with these Substances a sufficient Quan-  
tity of fresh earthy Parts, to produce the Decomposition of a  
greater Quantity of SalAmmoniac, we at last disunite, and set  
at Liberty, in great Number os Acids, and volatile Salts, the  
Union os which would, **have** still subsisted, without such an

Addition; and hy this .new way of Proceeding, we not only  
obtain more Volatile .alealine Salts, but also .the Iimuoredavinoh  
towards the Endos ^.Distillation, is carried .up by'a:proper  
Degree of Fine, is: much more sour, and /more impregnated  
with Acids, than, when we do nor mix an earthy Mediutg  
with the animal Substances'before Distillarion. -.. so *'i tsuuri:*

'Tis then certain.,, that, animal Substances contain.a great  
deal of AcidS, osiwinch the ordinary Analyses do nut discover  
the least Marks; and this Circumstance shews us how -httle  
Confidence is to .he.reposed: in them: But we must aiso.own,  
that the new Method os discovering the, .Acids os Animals, is  
not without its .Defects, - eVen with respect to rhe Acid  
discovered;, for if, by disentangling , this Acid, Itdiscovers  
onejwhere none was before perceived,)-then, as . the Disengage-  
inent os this Acid is carried op in the Very Bosom of the oomi  
pound Body, and her: the very middle of .the Parts oswhlch jt is  
composed, the Acid,.Sister itS.Separation from the volatileaika-  
Iirie Salt, which Yinyeiossd is, is ever .aster confounded,, -and  
mixed withParts.oTa afferent Nature, in the same. Fluid,  
which indeed may permit it *to* heidisedveredanScin imgene-  
ral, hut, by their Mixture, prevent our knowing theS speoifio  
and distinguishing Character os the-Acid; so that -we cannot  
ascertain the particular Class os ActdS :to .which-It.: helopgs-i.-ia  
Circumstance, winch *is nevertheless* ofgreat . Importence,. wherj  
we want to know the genuine Nature of the saline Part-of any  
Compound Body... λ . . ... τ. . .ά,υ ..... *s.* :. I  
. T stE endeavour to remedy this.Inconvenience, when I  
come to propose Processes for the Analysis os compoued BedieS;  
*Memoires de st Academic kiayale desfiorcuccsgrsuytsar rti ,* r- 2  
. Having now considered the Action' os. the. Fire - upon .-that  
Species-of Salt,- with which- animal.Substances arePrincipally  
impregnated, I mean Sal..AmmoBiac;.onjiu ,

*We are* now to examine the - Alteration produced by Ana-  
lyses in another kind os Salt, sound partio ularly in Vegetables,  
and differing from *sial ArnrApniac cafoeysos,* th ite Matrix,. .which  
is fix'd. This Difference, with respect to the Matrix, does  
not hinder the, Fire from producing, . upon the greatest Pari os  
the Salts os this kind, the feme Effects which it *usually*does  
upon *Sal Ammoniac* ; that is, it disengages a great Quantity of  
the Acids of thole Saits from the Matrix in which they:were  
lodged, and for the same Reason that *Safi Ammoniac* in-reduced  
by Analysis to an: acid, and an. alcaiine Volatile halt, cf That  
kind of Sait, os which we now treat,:.-must he reduced,- and in  
effect is reduced, the same way, tho an acid, and toanalca-  
fine fixed Salt But as the heed Sait, , for that Very Reason  
because it is fixed, makes infinitely'more Resistance to **the**Action of the Fire than, the volatile Sait, there occur two dif-  
ferent Things in theDisiodgment of the Acids of each ofthese  
Saits from their particular Matrix; which are, first, that in **the***Sal Ammoniac,* the Matrix being much more Volatile than **.the**Acid, it rises first, and leaves Putt of the Acid disengaged from  
it at the Bottom of the Vessel; whereas, on the contrary, in  
the other Species os Sals, the Matrix being Very fixed, and  
making much more Resistance to the Efforts *es* .the Fires than  
the Acid, it os consequence remains at the Bottom, of the  
Vessel, and the Acid quits it, and flies up, tho' not indeed so  
readily, and with inch a Degree of Volatility, as the Matrix  
of the *Sal Ammoniac* leaves its Acid, andevaporatesinto the Air.;  
- The other Difference, which merits, a particular Attention in  
tins Place, is, that the Volatile Matrix .rises pretty, quick, and  
by no considerableTire, and consequently is not. much exposed  
to the Force os that. Agent; but.the fixed Matrix, On the com  
trary, remaim always exposed thereto, because, it is not elevated,  
and besides has need of a pretty considerable Fire, .which must  
continue a good while, in order to separate from it a great  
Quantity of Acids, that it might become an alealine halt r  
These Things consider’d, the Pine has all the Time and Con-  
veninnce of working a Very considerable Alteration in the fixed  
Salt, while it cannot, and in fact does not, communicate **the**same to the Volatile Salts.‘ We shall in. the Sequel explain  
wherein that Alteration consists, and .what is the immediate  
Cause of it, in discoursing more particularly of alealine fixed  
halts. 1 -- ς’  
.. The' the Salts which have a fixed Matrix for them Base,; do  
all resemble one another in one' Point, that is, .in powerfully  
resisting, at least by their Matrix, The Violent Efforts of the  
Fire, we ought not, however, Io believe they .are alike in all  
Things, and that the Fire produces, the same Effect in every  
one os them;. for tho' they agree in the common Circumstance  
os the Fixedness os their Matrix, they Inay yet .greatly differ  
from one another, not only by the particular Character of.their  
AcidS, but even by the Very Nature of their Matrices, .which,  
tho'fixed, and Consequently like -one another in that respect,  
yet differ Very considerably on other accounts,, which is the  
Reason, thet tho' the . Action .of the Fine, with respect to the  
different Salts we are speaking of, he always the same, yet as  
the different Particles, of which these Salts are composed, do not  
give way to that Action in an equal Manner, and are more or  
less susceptible of certain Modifications, there mush result from  
thence as different. Effects,..; . .. ’ .2

..We know, .for Instance, that different Acids, .independent  
of an y solid Matrix capable of detaining them, and swimming in  
an aqueous Liquid.fhave not all the. same. Degree of Volatility.;  
that there are even .some of them, , such as those, in Oil of Vi-  
tricl, and Spirit of Alum, which rise but very stowly, and with  
great Difficulty, by. the Violence of a very strong Fire ;. whence  
ive may judge, that if these Acids .should take up their Resi-  
dence in a fixed Matrix,.and in Conjunction with it form a  
concrete Salt, they would in such a Stare make a *yet* greater  
Resistance to the Efforts ofthe.Firc .γ . - *.s '*I . We are assured, on the other -hand, that the . Ftiocievates  
with much greater Ease, and in a nuftch .shorter Tame, the  
Acids contained inSpirit of Nitreand common Salt, .and." thet it  
would also mid a less Refiftancefrom the Acids contained in the  
volatile Spirits, of Vitriol, and thofe of common Sulphur, ex-  
trained by the Process described by *Stahl..,* insomuch char when,  
for Example, the Acids of the Spinirof Nitre, or’those of Oil  
of Vitriol are united in the same Matrix, in Conjunction  
with which they form a concrete Silt, the Fire-will with much  
more Ease dispossess the nitrousAcids than these of therOil of  
Vitriol, provided that the Circumstances are all equal,rand [a  
due .Medium is .employ’d-when neceflary ; for without that  
there are Instances, where the Fimzwould have no rnoreTower  
to separate the nitrous Acid from jts^Mattix, . than to separate  
the Acid of the Oll of Vitriol, as we shall see hereafter.

. So much as to whetregards the different Refinance of the  
concrete Salts to the Action of the Fire, with respedt to the  
Acids, of which they are composed : But what contributes infi-  
nitely more to diversify the. Effeci:of this Agent.upon each of  
these Salts is, the particular Nature of the Matrix with which  
these different Acids are united and combined, for..the For-  
mation of such or such a Species of concrete Salt ,’ and we are  
convinced, that there are a.very great Number of fixed Bodies  
capable of absorbing Acids, and forming with them a .concrete  
neutral Salt, or *Sal Salsum : (se* this Rind are mot only all. the  
fixed alcaline Salts, hut many, of the different Kinds of Earth,  
as well as metalline Substances, ajnd: Metals.is  
. Hence itappears, thet Acids do not enter with the fame Faci-  
lity into the Pores of every One.of these Substances-;, that they  
penetrate farther into some than into others , that the Pores of  
thefe different Substances embrace, and retain them with more or  
less Streigniness, according he their natural Capacities, and per-:  
ham also according to the stronger or weaker Spring or Elasticity  
of their Strata ; for I have observed, thet when foreign Bodies  
enter with Violence and Difficulty, the Pores of some Substances,  
there necessarily follows a Dilatation of these Pores produced  
by the heaving up of .thein Sides or Strata,, which afterwards  
funk down again of themselves, by their proper Sptiog, as soon  
as the Bedy which kept them in that elevated State quitted its  
Place : Consequently, when the Acids, introduced into the  
Pores of different Alcalies, have dilated those Pores by elevating  
their Sides to a certain Point, as these Sides, by virtue of then  
Spring, make continual Efforts, to lower themfelves; and re-  
sume their former Situation, the greater the Spaing, the greater

’ is the Effort, and the more are the Acids contained in the  
Pores compressed, and streighten’d by the Sides of these Pores, and  
the more Obstacles has the Fine, which afterwards acts upon the  
Composition of Acids and Alcalies, to surmount, in distodging  
the Acids. Hence it follows, that the fame Acid residing in  
different Matrices, he they purely terrene, metalline, or of  
other Kinds, wlll make a greater or lefs Resistance to the Ac-  
tion of the Fire, according to the particular Nature of each of  
there Matrices. . It is alsto observed, thet the fame Acid which  
may, with more or less Facility, be distodg’d from several Sorts  
of Matrices, will not he made to quit some certain Kinds,  
whatever Violence of Fire he used for thet Purpose, at least,  
without having recourse to some proper Medium. We have a  
sensible Proof of this Truth in several natural and artificial neu-  
tral Salts, and, among others, in common Saltpetre, and in  
thet Sort which we can make at Pleasure in an Instant, by the  
Mixture of a nitrous Acid with an alcallne fixed Salt; for it is  
certain, and I heve feveral nines had Experience of it, thet how  
violent soever the Fine he which' you ufe about each of these  
.. Salts, they will sooner be dissipated whole and entire, either  
into the Air, or through the Pores of the Vessel, then admit  
of Decomposition, or the .Separation of their Matrix from  
their Acids, that is, a parting with their Acids, and re-  
maining behind at the Bottom of the Vessel, in the Form of  
an alcaline fixed Salt, such, for Example, as that used in  
making the artificial Saltpetre, But when to the Action of the  
Fine we join the Assistance of a convenlent Medium, the Sepa-  
ration of the Acid from the Alcali soon commences ; and in  
this Operation there happen two different Effects according to  
the particuiar Nature of the Medium. If the Medium be purely  
sulphureous, and nothing is to be done but to assist the Exalta-  
tion of the nitrous Acid, without communicating any thing  
new to the Matrix of the Saltpetre, this Matrix, aster the Ope-  
ration, appears under the Form of an alcaline fixed Salt, such  
as that used in making artificial Saltpetre. We heve an Ex-  
ample of this Truth in a very common Operation, which is the

Fixation of Saltpetre by Charcoal. ; Butis the Medioni itself  
contahisa gond Quantity of Acids more fixed, than thofe of Salt-  
petre, rand of-a vitriolic Nature, it much contributes to the  
Separation and Exaltation of the nitrous Add, but: it substitutes  
other Acids in the room of the nitrous ones ; in whichCase, the  
Matrix sis the Saltpetre, which after .the Lois of he Adds  
ought to have appeared under the. Form of an alcallne fixed  
Salt, always shews itself under thet of a neutral Salt; which is  
heLlostgSr true Saltpetre, but is become a real vitriolic Tartar;  
wholly resembling that which may he made with an ales line,  
send: Belt, and a vitriolic Acid. ,  
e In short, as the Vitriolic Acid, such, for Instance; as that  
Somnined. in Oil of Vitriol, in Spirits of Sulphur; or Alum, *etct.*considered independently of any Matrix; is the most fixed of  
all Acids, when it becomes united to one of these fixed and  
saline Matrices, which never let go a nitrous Acid, uulefs forced-  
tort by an Intermedium,.in must make *i* much greater Re-  
finance to the common.Efforts of the Fine and the Medium;  
than sheriitrous Acid would do in the like Cafe. And this is.  
normurethen what .really happens ; for if yon min Tartar.  
vitriolated and Powder of Charcoal in a red-hot Crucible, the  
vitriolic Acid will by no means fly off, as the nitrous-Acid,,  
join’d to the farne Mattio, would not fail to do by:a like Proce-  
dure..’ One might even totally consume all the oily Part of the  
Charcoal, mixed .with.the .Salt, oyer the Fire, without sepa-  
rating the vitriolic Acid .from its Matrix ; in short, after the  
Operation, and the rond Deflagration of .the Oil of the Char-,  
coal, we shall always, find the variolated Tartar in the fame  
State, as it was. besotat and without any sensible Lost of its  
Acids v And, in facts, if. *we* are refolved it: shall lose them;  
we must, besides the Fire, and sulphureous Medium, which -ate  
ssissicient *for* the Acid of Saltpetre, make use of other Assistant  
ces both in proper .Time ano Place, and of another Method ofi  
process ; that is, when , the olly Body has been mixed with,  
the vitriolated Tartarin the red-hot Crucible, and, having closed  
with-the vitriolic Acids, has not indeed been able to hurry them  
into the Air, but has always had Strength sufficient to disengage  
them in- some Degree from the Pores of the alcaline Salt, (which  
produces a new Compound ofa yellow or red Colour, and ofthe  
Smell of common Sulphur, i thet dissolves in Water,, and -in  
which the Acid lays bold, at the same time, of the fixed Sain  
of the vitriolated Tartar, and of the Oil of the Charcoal) we  
mush then lay hold of the Opportunity, when these vitriolic-  
Acidshegin to be disengaged, to putia Stop to the Action of  
the Fine, without which Precaution the olly Part would he hinin  
pated, and. the Acid, heing left to itself, would reunite, as be-  
fore, by Help even of the Action of the Fire, to the interior  
Parts of the A'cali, whence the otio Body had begun todisiodge  
it We must then dissolve the new Compound in Water ;  
and since the vitriolic Acid, heing uhited to an oily Substance,  
has not in that State so fast a Hold of its Matrix as before,  
because it has. teen half-disengaged by that Substance which  
absorbs it, and which invelopes it, at least in Part, we have  
no more to do but to pout upon that Dissolution a free Acid,  
which, in proportion as it insinuates into the fixed Salt, easily  
drives out and distodges the. vitriolicAcid, which being separated  
from its saline Matrix, and only attach’d at that Time to the  
olly Substance, forms a true common Sulphur, which is preci-  
pitated to the Bottom of the Vessel.

Thus much then we know in general, concerning the differ-:  
ent Alterations which Fire produces in several Kinds of coir-1crete Salts, which have for their Basis a fixed Matrix ; at least  
it iswhatwe have heen able .to learn of them from Experiments  
and Operations made upon a good Number of Salts of that  
Kind, as well natural, and extractsd from several Earths, Stones,  
Marchasites, *etc.* as artificial, and form’d by the Union of  
different Acids with a very great Number of fixed Alcalies.  
But in order to be perfectiy instructsd, and to have an exact  
and complete Idea of the Confusion produced by Analyses in  
the different Parts of all there Salts, which have for their Base  
a fixed Matrix, and are contained in Animals and Vegetables,  
but especially the last, it is necessary to extract from every, one  
of these. Compounds the Salts which they contain, and to  
extraol them entire, that is, such as they were in the very  
-Compound ; and after that to separate the Acid from the Ma.:  
trixof thefe Salts, and upon every one of these Parts to make  
the necessary Experiments,for knowing the particular Cbaractsr  
.both of the Acid and the Matrix; and, lastly, after we are  
come to. understand the Nature of.these Kinds os essential Saks,  
and the Form under which they reside in the Compound, we  
.must tompare them with what.they ate in the State to which  
they are brought, after they heve pasted through the ordinary  
Analyses.

This Undertalcng, which is of a vast Extent, and requires a  
very particular Detail of the Experiments, is exactly what we  
have already spoken of in the preceding Memoir. Mean time,  
the great Number of Analyses which hced been made, and the  
Reflections which naturally result from hence, the Discoveries  
that heve been made, and the Knowledge we already have of  
several essential Salts .of Plants, and the Comparison of those

Salts

Salts with such as are extracted from the Plants by the ordinary  
Analyses ; and, lastly, the Experiments which heve already  
heen related upon several other Salts, winch never lodg'd in  
the Plants, but which we certainly know are, several of them,  
analogous to those Salts which reside there, and susceptible os  
the same Alterations ; all these Matters os Fact, of winch we  
shall make a proper Use hereafter, will he more than sufficient  
to assure us not only that the Fire disguises and considerably  
alters .the Salts we are speaking of, but also to instruct us **in the**Nature and Manner of this Disginsement and Alteration. . - '

As the Salts we speak of reside principally in Vegetable  
Substances, we shall mostly inlarge on the Analysis os **these**Substances, and the rather, because there are usually but small  
Quantities ofthese Salts in Animals, and the Alteration which'  
they there receive by. means of the Fire, is the same as they  
YeceiVe in Vegetables by the same Agent. Wherefore, what-  
shall he said of this .Kind of Salts which are contained in Vege--  
table Substances, may he apply'd to the same Salts, consider'd as-  
residing in Animals. But aS the great Numher of Observations  
I have made upon the Analyses of Plants afford too much Matter  
to be contained in thisMemoir, I shall refer myself to these which  
follow. *Memarres de st Acad. Ray. des Scienc.* I720.

-. When we consider the Analyses of a great Numher os Plants, ,  
and the. different Particles which the *gradually increas’d Vise* in  
a Distillation raises from them, we observe that there are some  
Plants, which, besides their aqueous and oily Parte, afford sen-  
sible Prooss of a good Quantity of Acids, others promise less,  
some very little, and, in short, some there are, whose Number  
indeed is Very small, which yield no more than an animal Sub-  
stance, analysed according to the ordinary Method of proceed-  
ing, might he supposed to do. Thefe Differences arise from  
several Circumstances ; as, from the greater or less Quantity of  
Salt naturally contained in each Plant; for as this Salt is formed  
of Acids lodged in a fixed or Volatile Alcali, the more a Plant  
contains os that Salt, the more Acids it contains, and conse-  
quentiy tlje more it can send off and elevate in Distillation, all  
due Allowances being made. Besides, these Acids are raised  
more or less easily and copioufly in Distillation, according to.  
their different Degree of Volatility, and the particular Character  
of the Matrix which contains and inVelopes them, as has been  
shewn in the preceding Memoir ; and, in short, these Acids  
render themselves more.or less perceptible by known Characteris,  
as they are more or .less cover'd and concealed by other Cor-  
puscles which rise with .them, and which are sound with them  
in the Receiver. Having already spoken of the alcaline Volatile  
Salts which rise in the .Analysis of Vegetables and Animals, we  
shall only make this, farther Reflection on them with respect to  
the Acids we just now spoke of, which is, that as they rise  
with these Acids, they more or less prevent them from appearing,  
or making themselves taken Notice of by their proper Cha-  
racters, according aS they are more or less strictly united with  
them ; and as the Quantity of volatile Salts, with regard to  
‘that.br the Acids, is more or less considerable in every Portion  
"of the distilled Liquor : For tho' we, aS well as others, have  
observ’d in the first Memoir, that it sometimes happen'd in the  
Analysis of several Substances, that Acids and Volatile Salts,  
when driven by the Fire, were collected together in the same  
portion of Liquor, without reuniting one with another, but  
there preserving each of them their particular Properties, One of  
an Acid, the other of an Alcali, of which they gave distinct  
and evident Marks ; we did not, however, pretend to conclude  
from that Observation, that all the Acids and Volatile Salts  
which rose together, or which were found again in the same  
Portion of Liquor, were or remained in the same Estate of Dis-  
union. And, indeed, we made it appear, in speaking of the *Sal  
Ammoniac* contained in Animals, that the volatile Salt, which  
is separated from it by the Analysis, and is found in what they  
commonly call Spirit os Animals, had retained and carry'd up  
with itself a good Part of the Acid of the *Sal Ammoniac*; that  
this Acid did not render itsels perceptible in that State, because  
-it was surrounded on all Sides with a Very great Quantity of  
'volatile Salts ; that, on the contrary, these Volatile Salts, in  
spite of the Acids which they had retained, heing by no means  
entirely saturated, were still proper for Fermentation with new  
Acids, and consequently made themselves known by that Cha-  
racter ; and that, in fnors, if the Acid we speak of did not  
manifest itself by the ordinary Prooss, it might always be clearly  
perceived by means of an Analysis made with an earthy Me-  
dium; and that in another respect we were obliged to this  
Acid for the Degree of Volatility in the Volatile Salt contained  
in the Spirit of Animals ; for this Salt has one thing in parti-  
cular, which is, that in point os Volatility it is perfectly on a  
Level with those Parts of Water from winch it cannot he sepa-  
.rated by way of Evaporation, and from winch it is easy to sepa-  
rate the common *Sal Ammoniac* and volatile Salts ; the former,  
Joaden with Acids, heing less Volatile than Phlegm, and always  
rising after it; the others, on the contrary, which are depriv'd  
of their Acids aS much as is possible, being by that means more  
Volatile than Phlegm, rise, and are sublim’d before is, aS it  
appears in the common Operation of the Rectification of volatile

Balts’; or when, after ’dissolving volatile Salts in a certain.  
Quantity of Water, we urge the Liquor with a proper Heat.  
Another thing winch proves,‘that the Volatile Salt contained in  
the Spirit of Animals is a-Mean betwixt a complete *Sal Ammo-  
niac* and the eonimon Volatile-Salts, on account of the parti-  
oular Quantity of -Acids It retains, which renders it incapable  
of being separated by way os Evaporation, is,, that if you add  
to this Salt a sufficient Quantity os new Acids to render it less  
Volatile than Phlegm, you by that means revive it into what  
it was before, that is, into -a kind of *Sol Ammoniac,* which,  
heing urged thy a gentie and oonyenient Hear, does no longer  
accompany the aqueous Particles as before, thut lets them fly  
off, remaining itself at the ’Bottoin of ther-Vhffel under a dry  
Form; which it would not do,-were it less .charged with Acids. .  
- In short, if we use the ordinary Methods of exactly depriving  
this new *Sal Ammoniac* both os the new Acids which it had  
received, find Os thosewhich it had retained in too great a Quan-  
tity hefore;where will resultfrom that1 Operation a Volatile Salts'  
whose Volatility will no loinger.be on in Level- with the aqueous  
Particles as hefore, het will he sublim'd before them, and with  
a less Heat; Ἀ-ξ-.-ί ..:th - .. . ν

You see by this Example, and it will appear shore clearly by  
what follows, that a QuantityOf distill'd Liquor, which shews  
Marks only Ofan alcaline volatile Sait, - may yet contain also *d*considerable Quantity of Aoids? .But-it will be-said, that the  
Acids in the Example proposed are not intimately united with  
the Volatile Salts, during or since the Operation os the Analysis s  
that they were combin’d -In.the Compound itself, where they-  
made Part of its *SalArnmoniac*; and that it is not at all surprising;  
that this-Uninn, which always subsisted since the Operation,5should be'capable of keeping them under Covert,' and in a  
manner remov'd not only from our Taste, but also from tho  
Influence of some Chemical Essays ; but this Difficulty, will it  
he added, does not concern these Acids, which never forsook  
their Volatile Matrix, but the Acids that belong to the concrete  
Salts, which have a fixed Matrix :. For when once the Acids of  
those Salts have been loosed froth their Matrix, and carry'd off by  
the Fire, as they are then free, and without Covert, they may he  
easily known by different Prooss; and if they find any alcaline  
volatile Salts, either in their Way,-or in that Part of the Liquor  
which is transmitted to-the Receiver, there is Reason to think;  
that they will avoid heing invelop'd by them; first, because we  
are assured, from the Analyses of a Very great N umber of Plants,  
that one and the same Part of these Analyses Very frequently  
afforded fure Prooss of Acids and alcaline Volatile Salts at the  
same time ; which could; never happen, if from any Circum-  
stance, or the savourable Opportunity of being in the fame  
Place, these Bodies had contracted some Unless Secondly,  
because in analysing some animal Substances with more than  
common Exactness, it-is observ'd, that Acids, which .were united  
in the Compound with volatile Salts, and being separated from  
them in the Analysis, were afterwards again found with them  
in the fame Part of the Liquor,- did not, however, reunite,  
tho' they were at least aS fit to lodge themselves in their volatile  
Matrix, and to resume the Place which -they possessed there  
before, as other Acids, which at first belong'd to a fixed Matrix,  
and were separated from it by the Fire. ..

In Answer to this Objection, which appears founded on an  
incontestable Observation, I shall give an Account of some other  
Observations, winch will perfectly clear up the Difficulty pro-  
pounded. Soon after the Academy had done me the Honour  
to receive me as a Member,.! set myself to analyse a good Num-  
ber of Plants, and made some of my Analyses in the Assemblies  
at that Time ; but reflecting afterwards on the little Fruit **I**reap'd of iny Labour, which besides had been undertaken  
hefore my Time in the same Place, I lest it off, and did not  
then imagine, that some Remarks, which the Analyses had  
occasioned, would heve heen os Service in this Case. These  
Remarks regard the Alteration which happens to several Parts  
of analysed Plants, when these Parts heve been kept a certain  
Time ; for the ordinary Chymical Essays do then often work  
Effects in them quite different from such as they produce imme-  
diately after the Analysis has been made.; and this Difference  
made me helieve, at first, that I had been mistaken, and that X  
had been careless in examining for the first time the Part where  
I found nothing afterwards like what I had seen in the Begin-  
ning. But I was convinced of the contrary by several times  
repeating the fame Observations upon different Plants ; and  
hesides, I found, a little while since, in some Manuscript Ana-  
lyses of the late Mr. *Bourdelin,* that this worthy Member was  
well apprised, that some Sorts of analysed Plants did not always  
act after the same Manner, at different Times, under the **same**Chymical Essays. ; '

I observed then, that in the Number of Plants which I ana-  
lysed, there were many of them which in Distillation yielded  
some Quantities of Liquors, which shew’d, at one time, sensible  
and distinct Marks both of Acids, and of alcaline Volatile Salts,  
hut still more *of* Acids than Alcali; and that when these Liquors  
had been kept a certain Time, which was necessary for their  
volatile Salts,: in some measure, to saturate themselves with **the**

‘ ' i ’ ’ .' . . 1. i. . .\*\*

Acids, they, shewed no shore Signs of volatile Saits, hut still  
gave manifest Tokens of Acids, on account of the Redundancy  
Of those which remained in. the Liquor, or, if *you* will, on  
account of the. Overplus of Acids, which had riot been able’  
to find out a *Sal Alcaliati* whichthey might take up their Qu al-  
ters, and so, remaining free and uneovarid, might easily make  
themselves perceptible. '. ": ‘ su

In the second Place I observed, theTthereis requir'd, more or  
. less Time for the total disappearing os the. Signs os the Volatile  
Salts, of which we have heen speaking, according to the greater,  
or less Quantity of those Salts, and ati proportion as the Acids  
of the Liquor have inore Or less Disposition, to lodge themselves  
in those Salts, i . 7 ’ . τ t t o . -

i Thirdly? This Disappearing proceeds by little and htste, and  
hy Degrees, arid yon may observe every Day the successive  
Dtminution.of the Signs os the Volatile Salt, which disappear  
shorter or inter, in proportion as they aro inore Or less strong  
and Vigorous -im the. ."Beginning. Thin may often the observ’d  
in the Analysis ofa single Plant, which sometimes afforded'two  
or spree Parcels, which were of the Nature os those'we have  
been speaking of, shut had not the Signs of the volatile Salt  
equally strongand- lively in all os them immediately utter the  
Analysis. Whence these Signs osten became annihilated in one  
Parcel, and still subsisted in the other, -where, the\* diminished,  
they were still perceptible, either by an Ebullition caused in the  
Liquor by the Mixture os an .arid Spirjt, or by a white Treoipi-  
ratinn reselling’from the Mixture-of that Liquor withd Solution  
of corrosive Suhlithate. ' ... ss . Τ . . . μάμά'--!..Fourthly, When the sameTaroel ofdshilpd Liquor, which  
afforded sensible find distinct Marks-both of Acids and Volatile  
Saits at the sanie .time, contained a greater Proportion of Vola-  
tile Salts than Abids, it Often happen’d, that aster a certain  
Timesthat is, .when all the Acidos the Liquor had been absorb'd  
by a sufficient 'Quantity Of -Volatile Salts, the Liquor shewed  
her) more Signs of.an Acid aS before, hut still gave Tokens of  
volatileSalts, in proportion Io. tho Exoess of these Salts, which  
remained free, and uncover'd. Tor want of finding a sufficient  
Quantity ofAcids in the Liquor, .with which it might unite ;  
arid it appeared th the, that, id this Case the Sigrut -Us the Acids  
-.disappear'd aster the Tame Mannes, . and with the feme -Circum-  
stances, as did. those of. the/Volatile Salts in.the preceding. Ob-  
servations. ’ \ r ‘ I ’in ; -  
- .Fifthly, In all the Portions of distiH'd Plants which I.have  
observed, and .in which there becomes, in Process os Time, an  
IJninn of Acids and Volatile Salts, which at first: were .lodg’d  
separately, I found none, which, after a Junction of the Acids  
.and volatile Alcali,. ceas'd to afford Marks both of theone, and  
:the. other ; .which .is, no. more than what -might seem necessary  
:to happen-on . some Occasions , that is,- when we find .in the  
linquor no greater Quantity of -Acids than is requisite, to satu-  
rate the Volatile Salts therein contained. But as it is not im-  
.possible but such a just Proportion of Acids and Alcalies might  
.meet together, I wall not .deny the Matter os Fact,, which may  
. possibly be .observed hereafter. by some others r I only made on  
.-this Occasion the .following Experiment. In the Analysis of  
i several Plants it is observed, that some Portions Of the distilled  
Liquor, and . oftentimes all of . them, except the last, or two  
staff, of .the Distillation, shew no Signs but of Acids, and those  
.in Plenty ;. and that the; last Portions, on the contrary, afford  
. no Marks but .of. Volatile Salt, .which is there sound in great  
. Quantity. I mixed together Portions of Acids and. Alcalies In  
different Proportions,. and I found, that all these Mixtures, im-  
*r* mediately after .they had. been made, shew'd Signs at . once both  
. os Acids and Alcalies ; - and that aster they had been kept a suffi-  
- cient Time, they gave Murks but of one, that is, either os the  
, .Alcali, or. the Acid ; but I never sound out. the Point necessary  
*.. for* the disappearing .os both. - I do not, however, .pretend to

. conclude any thing from -this last Observation. ἰ " '

- Sixthly, In iny Examination of the Portions of different.

--analysed. Plants, .in which aster an Union ofIhe4.cid and  
. Volatile Saits contained im the Liquor, one Of these two Bodies  
- was still perceptible by its proper Marks,, fr seemed to me, that

the disappearing of the Signs of -the Volatile Sait happen'd much  
- more frequently than that os the Acid.. ;Tis possible shat, in  
. the Number of Plants which I analysed, there might offer too

many Coses of a particular Kind, which hinders me. from con-  
- .eluding so. strongly im savours os-my-Observation, he if Thad  
..made a much greater Number os Analyses. .However, .what,  
...among others, may sometimes justly be drawn as a Conse-  
s.quence of my Observation, is, that, in general, here Sum of the  
-..Acids in Plants surpasses that of the volatile. Salts, as we shall  
.Prove more particularly by .whet follows. Hence it\*appears,  
. ..that Plants in general will afford more Acids than Volatile Saits  
. inDistillation, and-that it in the Overplus OT these Acids that  
.. -renders them.thus perceptible, aS wo have already explained.

In that Case also, where no more Acids are elevated in Distil-  
.. lation than Volatile Salts, it is possible, that after that Union the  
. Acid should still seem to prevail ; as the common *Sal Ammo-  
niac* colours brue Paper with a dark Red, and after twenty-sour  
Hours gives a reddish Brown to a Solution os Turnsole, Bin it

is easy to distrnguish this Effect from that of an. Acid when free  
and disencuinherid, at leastIo a certain Point,-from other’  
Bodies in which it may; be ’engaged, as the Acid of *Sal Amnion  
niac* is in the Volatile Matrix, which makes the Other Part of  
thatssalt. .7 - ..'so ί S'. *i .καὶ* ' ’si. ς

-. Seventhly, I have often observed in examining some Parts of  
analysed Plants, that they contained an Acid more or less'  
invelop’d with oily Pdrtinles, which sustained-themselves in the  
aqueous Part of the Liquor) by.savour of that Acid ; that these  
two Bodies fifing together m Distillation, and remaining after-:  
wards united, At least for a certain Time, it happen'd that the  
Acid in.that State either7did not appear at all, or render'd itself  
perceptible by. very obscure Signs, - But ins the Liquors impreg-  
nated’with different Particles are always'subject to an internal  
Fermentation, the Fermentation, paying the Way for the Acid  
of the distilled Portion to disengage itself, shakes it then mani-  
festly appear," that the Inferences from tins way of Reasoning are  
just; that is, that the Acid did not shew itself, because it was  
invelop'd with oily Particles i And that in is discovered Walter-»  
wards only by getting nd eif them, appears, if we observes that  
during all the Time -in which the Acid heginS to shew itself;  
and continues mere and more so to do, -the Oil, which, sepa-  
sated from the Acid,, and left to itself; can no longer, in such a  
State, "support jtsels in /the Liquor, but is precipitated corn-  
inohly in the Form df a mucilaginous Substance, increases in  
Ouantity ’always in proportion as the Acid of the Liquorinakes .  
the greater Appearances One might also: observe the Tame  
Effect In several distilled Waters, which-at first,- and even for  
a considerable tirne, remain of a limpid Clearness, and shew  
no'Signs of Acids Y but after being kept, a sufficient feme, not  
"only “gfiow four, but also deposit at Bottom a slimy Matter,  
which t.s so .thick,' and in so considerable a Quantity, as would  
hardlyhebeliev’d, did wenot see it. *See the Article* AcETUM.

To proceed. We ought not to he surprised, that Acids, the  
iniost’ Part ofwinch'in a Plant belong- to a fixed Matrix,’ heing  
urged .by the Fire, abandon their Matrikto' enter into an inti-  
mate Union: with oily Particles with which they rise, and by  
which they are invelop'd, as it has' heen said. For we' hav)e  
shewn -in-other Memoirs, and in the Beginning of this, that  
oily Substances have a Property of strongly seizing upon Acids  
-that are lodged in fixed Matrices, by -which means, when they  
'rise in.the Air they draw our and carry up with them the’AcidS  
in which they .have fixed ; and that they Contribute infinitely  
To the Disengagement of a great Numher of Adds, which  
^without that-Assistance, and with the bare Action of the Fine,  
would never be brought to quit their Matrix,’ or at least would  
not do it, but'with a great deal of Time and Difficulty. Plants  
"then actually containing Plenty of oily Particles, which haven  
‘ Faculty, of fastening themselves upon the Acids of their Salts,  
and acting upon them after the same manner, as we shall  
describe, more particularly, when we dome to speak of the saline  
-Substance which remains in the Retort after the Distillation inf  
the Plant, it will not at all seem surprising, but is, on the  
‘contrary. Very natural to chink, that Vegetable Acids always  
rise in Company with oily Particles, with which they afterwards  
Sremain more or less intimately united, according to the.Diver-  
\*.sxty of the particular Circumstances which concurr’d to that  
Union, and which it is impossible to enumerate.

The Union of Vegetable Acids heing such as has heen said,  
we may easily conceive why these Acids sometimes subsist for  
a considerable Space of Time in the same Liquor with alcaline  
Volatile Salts, without penetrating and uniting with them, and  
how they came afterwards to do so. For, first, as long as  
these Acids are invelop'd, in a certain Degree, with oily Par-  
ticles, they are incapacitated, by this Invelopement, to pierce  
and open themselves aWay into the interior Parts of these Salts:  
One might, even Venture to say, that however free and bare  
Vegetable Acids might become tn general, they always preserve  
an Allay os oily .Particles, which \* tempers their natural Viva-  
city, .and thus prevents them from heing so corrosive, and from  
acting with so’ flinch Force and Violence, as they would do  
'without such 4. Mixture, and as mineral Acids do:in fact,  
which contain fewer oily Particles. And it is really possible  
sometimes so well to disengage the Salts of Vegetables from  
their oily Particles, that the Acids which result from thence  
become infinitely more active and corrosive, than otherwise they  
would ever have been. If then but a small Share of oily Far-  
ticles can so effectually diminish the natural Action of vegetable  
.Acids on all alcaline Bodies in general, it is plain, that by in-  
creasing the' Quantity 'you may at last render it sufficient-for  
entirely preventing all Acids from entering into the Pores of  
volatile Salts ; and that when afterwards this Quantity shall  
have had Time to diminish by the Assistance of a Fermentation,  
which shall occasion the Disunion of a certain Quantity of oily  
Particles, the Aoidstheing more free and’disclosed, and making  
a less Balk, will .in that State insinuate with more Force .-and  
Facility into the Pores, inm which before they could not obtain  
A Passage.

All that we have just now said and observed is of great Use  
for the understanding of the following Observation/which!