**.. BLACT.ARA. Ceruss, white. Paint**

**BL** sslS I TAS. Stammering, Or Lisping, **The same as  
BALBUTIES. .**

BL.ESUS also signifies a Person whine Legs are distorted  
and crooked, heing bent outwards.

BLANCA. Ceruss, white Paint. .

*Blanca* is also the Name of a compound, lenitive purging  
Medicine, described in the *Antidotarium* of *Nicolaus.*

. BLANCNON. A Name for Fern in *Orib a situs, Med.  
Coll. lib.* I2. i . . '

. BLANDUS, ἐὑς, ήύς. Gentle. An Epithet in Use among  
the Chymists, and Preparers of. Medicines, and commonly ap-  
plied to Fine or Heat, by way of Opposition to *fortis,* or *ve-  
hemens, strong,* or *violent.* Thus in the Affair of the Philo-  
fopher’s Stone there is required *blandus Ignis,* a *gentle* Fire.

BLAPTISECULA.^ A Graecostatin Name for *Cyanus,*Blue-bottle, from βλάπ/ω, to hurt, and *seco,* because it incom-  
modes the Mowers, by blunting the Edges of their Scythes.  
*Biancard.*

BLAS. A Term coined by *Helmont,*. by which he means,  
as he says, the Force os Motion, both alterative and local ; of  
this he makes two Kinds, the *Blas Meteor on,* and the *Blas  
humanum.* The first belongs to the Stars, whose *Blas nwti-  
vum,* he says, is the pulsive Virtue by which they perform  
their.Courses, and present their Aspects according to their  
Places; and this is their *local* Blas. The *Alterative* Blas of  
the Stars consists in the Production of Heat and Cold, espe-  
cially by the Change of the Winds. Analogous to this *Blas  
Meteoron* is the *Blas Humanum,* which operates in Men and  
Brutes ; and this is of two Kinds, *natural voluntary :* the  
former is what every one of the Viscera forms to itself, ac-  
cording to the Medel of its Constellation, whence it is called  
the *astral Blas ,* the other is impelled, and put in Motion, by the  
Wilf of Animals, and is no way connected with the upper  
Motion, that is, the *Blas* of the Heavens.

BLASIUS. A Martyr, whose Name *Aetius* represents as  
effectual in making any thing, which sticks in the Throat,,  
either come up or go down. See the Life of **AETIUS,**: BLASO, or PLASO, (for I am not certain which is the  
right) is the *Indian* Name for a Tree, otherwise balled. *Ar-  
bor siliquofa trifolia Indica, store papilionaceo, siliqua grandi  
piloso, unicam intus fabam continente.* The Fruit reduced to  
Powder, and taken internally, kills Worms. The Bark also  
powder’d, and taken with dried Ginger in Powder, is given  
for the Bite of a Viper. *Raii Hist. Plant.*

BLASTEMA, βλάστημα, from βλασἀνω, to germinate, sig-  
nifies properly a Bud, or Off-set, or Shoot *os* a Plant. But it  
is used by *Hippocrates* to express a cutaneous Eruption or  
Pimple. *Foesius* seems to suspect, that it may mean a Bubo,  
of glandular Tumor; but I see no Reason for this Supposi-  
tion.

BLATTA BYZANTINA, Offic. *Blatta Byzantia,*Schrod. 5. 325. *Blatta Byzantia sive Unguis odoratus.* Park.  
Theat. I573. Ind. Med. 2I. *Blatta Byzantina, Unguis odora-  
tus,* Mont. Exot. 6. *Operculum cochlearum marinarum subro-  
tundum vulgare,* Lang. Meth. Test. 56. *Blatta Byzantia Ara-  
bum,* Aldrov. de Exang. 346. *Operculi Conchylii et Buccini,*Rondel, de Pise. 2. 86. THE CONSTANTINOPLE  
SWEET HOOF.' *Dati. .*

When exhibited internally, it renders the Belly soluble,  
softens.the Spleen, and discusses peccant Humours. When  
used externally by way of Fumigation, it restores epileptic  
Patients, and Women labouring under a Strangulation of the  
Uterus. In other Disorders its Effects are the same with those  
os most Other testaceous Substances. *Dale Pharmacologia from  
Schroder. .*

The common Druggists and Apothecaries apply heth the  
Name and Virtues of the *Unguis Odoratus* or *Indicus* of the  
Antients, the όνυξ Ίνδικός *os Diofcorides,* to the *Blatta By-  
zantia,* and make the same Use of it. *Myrepsus* mentions  
the *Unguis odoratus* in some Places under the Name οζόνυχος  
Ἴνδικὸς, *(Onychus Indicus)* particularly in the Antidote of fifty  
~ Ingredients. And in many Places we meet with his βλάττα  
Βυζάντια, which, he informs us, is the Name by which the  
*.Italians* call τὸ οστῆν τῆς ῥινὸς τῆς πορφοὐρας, " the Bone of the

Nose of the Purple-fish." The Tranflators of the *Arabian*Authors have rendered the *Arabic* Words *adfar althalb,* which  
*in Latin* signify *Ungues Odordti,* or *Aromatice,* and literally  
express the *Greek* Denomination ονυξ ἀρωμάτίζων, hy *Blatta  
Byzantia,* how truly we shall by-and-by examine; bur our first  
Inquiry shall be concerning the Name. -

*Blatta,* or *Blattea,* was the Name which the antient *La..  
.tins* gave to a Bubble of Cisy, as *Paulus* remarks out of *Festus-,*afterwards it came to signify a Clot of Blood, as the Author,  
of the old Glosses observes: *Blattea,*\_θρόμβος ἄιμἀτος, ‘ς Elat-  
" tea, a gnjmous Concretion of Blond;” and Use ar last  
appropriated it to the concreted Blood or Sanies of the  
Purple-fish, as the forementioned Glosses also take Notice t  
*Blattea,* θρόμβος ἄιματος τῶν κογχυλίων. Hence *Blatteum^*under the Emperors Of the middle Ages, signified any thing

dy'dwith Purple, and *Blatta infectum,* Purple. The.Zsy-  
*zantine* Purple-fishes are also mentioned *by* the Antients,  
which are called *Blattee Byzantiae,* and by the *Greeks* of the  
*Constantinapolitan* Empire βλάττια Βυζάντια» whence *Anasta-  
sias* the Library-keeper, in his Lives of the Popes, often men-.  
*rtisorts Pallia e Blatiio Byxantino.* It appears then, that by the  
*Blatta Byzantiae* can he meant nothing but the *Conchylia By..  
xaniia, or Byzantian* Purple-fish. AS κογχύλιον, *(Conchylium)*as well among the *Greeks* as the *Latins,* is sometimes taken  
for the Flesh of an \_ Oyster, sometimes sor the Shell, so the  
Name *os Blatta Byzantia* has by Use been appropriated to the  
flinty Cover of the Purpin-fish. .

Considered therefore in this respect, the *Blatta Byzantia*are a. quite different thing from the *Unguis Odoratus* of the  
Antients, which was gather'd out Of the *Indian* Marshes, and  
for that Reason called by the *Greeks οηξ ’IrJirdur. But Diof-  
corides* telis us, that this *Indian* Onyx was like the CoVer of  
the Purple-fish: όνυξ ἔστι πῶμα κογχυλίου, όμοιον τῶτῆς πορφύρας,  
" The Onyx is the Cover or Lid of a Shell-fish, - like thet of  
" the Purple-fish.'’ Let us grant then, that, on account of  
the Likeness, the Name of the Purple-fish is justly due, and  
may be given, to that *Indian* Shell-fish. All the Difficulty does  
not lie here, but in whet *Diofcorides* properly calls the πῶμα  
κογχυλίου, so The Cover of the Conchylium, or Shell-fish."  
All Our modern Interpreters take it for the Shell Of the Con-  
chylium, because the Conchylium is empty. *Brafsuvolus* ren-  
ders it the Crust and Shell os the Conchylium, *[Crustas et  
Conchas Conchyliorum)* which, I am sure, is far wide of **the**Truth, and the genuine Signification of the Word πῶμα.  
The *Greeks* call the Shell of any sort of Oyster ’Ὁστρακον  
*{Ostracism..* Thus *Diofcorides* speaking of Lime: τῶν θαλάττίων  
κηρήκων τὰ οστρακα, " The Shells of Sea-whelks.'' Besides,  
that *Diofcorides* did not take the Word όνυξ, which, he fays, is  
the πῶμα Conchylii, for the whole Shell, appears from his  
own Words towards the End of the Chapter, where he fays,  
that " The *Conchylium* calcined produced the fame Effects  
"aS the Purple-fish and Whelk," ἀυτὸ δὲ τὸ κογχύλιον κμάν  
ποιεῖ όσα καὶ ή πορφύρα καὶ ὁ κήρυξ. Therefore the όνυξ. *Unguis,*is a Part of the Conchyhum, not its whole Inclosure or Shell.  
The *Arabians* took it right. *Avicenna's* Words, *adfar althaib,*by which he expresses the όνυχες ρθρωμά/ίζοντες of *Diofcorides,*are rendered by *Frusta vel Fragmenta similia Unguibus, qui* Bits  
" or Fragments resembling Nails;" for this is the Serise used  
hy him in the plural Numher, which in a Very antient Glossary  
is expounded by *Concisio, Incisio, Decisio, Comma, Morsum,*

Concision, incision. Decision, Fragment, Bit.’’ In the  
same Glossary *Mukatha* is explained by *decerptum,* "'crops,"  
what is cropt or cut off from an entire Body. So here όνυξ  
is to be taken for a Piece cut off from the Conchylium, and  
for a Part of it, not for the whole Shell; and this is the πῶμα  
κογχυλίου of *Diofcorides,* which now comes to be explained.

In Vessels ofa long Neck, and narrow Mouth, that which  
closes the Summit of the Mouth, by which Liquors are poured  
in and out, is called in *Latin (jperculum,* in *Greek accapia,*" a Cover.'' *Severus Sulpitius,* from its Figure, cash it *Umbo,*" a Buckler." In every Vessel also which has a wide Mouth,  
-what covers the Opening goes by the Name of πῶμα- thus  
we have πῶμα Ἀὑτρἀς, πῶμα φρέατος, " the CoVer of a Pot,  
" the Cover of a Well.'' The Purple-fish, Whelk, and  
other Fish of that kind, which the *Greeks* call στρομβώδη, tur-  
binated, or wreathed, may, in some measure, be likened to  
Veffeis with a narrow Mouth ; for they have but one Perfo-  
ration, through which they put forth their Tongue, and take  
their Food. They have also a sort of a Cover, at the Part  
where the Neck is situated, under which they thrust out their  
Tongue to feed, and draw it back as they please. This is  
called by *Diofcorides rrapeci.,* by *Aristotle i’tctRdKvpe.y.ez lssepica-  
lumrna),* who thus speaks os the Purple-fish; ἔχει δὲ καὶ ἀὓτὴκαὶ  
ο κήρυξ τὰ ἐπικαλύμματα κά/ὰ τὰ ἀυτὰ, καὶ τὰ ἄλλα τὰ ςρομβώδη  
ἐκ γενετῆς *osdvjac. vi.sm.lat .sc'* ἐξεμέντατὴν *Rcc.lump.ivw yKaoflctv* ὑπὸ  
τὸ κἀλυμμα. " This Fish the Whelk, and all others of the  
" turbinated Species, are furnished with *Covers* alike situated,  
ci under which .they thrust out what is called their Tongue,  
" and so seed.'' Nothing can - be expressed plainer. The  
*-Calumma, lumlumupesca,* is the same as the Poma, πῶμα, which  
-helongs to the Purple-fish, Whelks, and other turbinated Kinds,  
among which is comprehended the *Indian* sweet-scented Con-  
*chylium,* which resembles the Purple-fish, and whose *Covcr is*called ονυξ. *Unguis,* from its resembling in Shape and White-  
« ness a Manis Nail. In the Purple-fish, this Cover is what we  
properly call *Blatta Byzantia,* hecause out of that Part is taken  
the *Blatt a,* thet is, the Part which is used in Dying. *Pliny*writes, that it lies in the middle of the Jaws of the Purple-  
*fish. Aristotle, dvd lsusov rplaxsqu es* μήκωνος, " betwixt the

Neck and the Excrement." Hence *Blatta* came to he used  
for the Cover- itself, which is the πῶμα that the latter *Greeks*called ὸστῦν τῆς ῥινὸς τῆς πορφήρας, "the Bone of the Nose of  
" the Purple-fish;'' and sometimes ὸστῦν τῆς πορφήρας, " the  
" Bone ofthe Purple-fish;'' which must be understood of this  
Bone, which serves for a Cover to the Shell of the Purple-fish.

*Serapion, Cap.* 433. treating of the Parts of the Purple-fish,  
mentions, among the rest, *Adfcr,* thet is, *Ungues .,* 'and fays,  
they are Covers by which they are closed within their Perfora-  
. tion. The Tranflator gives this Chapter the Title of *Blattae  
Byzantia,* in which he is right; for these Covers of the Purple-  
fish are properly the *Blattae Byzantiae,* which were colleched at  
*Byzantium. Serapion* has another Chapter on the *Ungues Odo-  
rati,* which were the Covers of the *Indian* Shell-fish that resem-  
bled the Purple-fish ; and arc. by the Interpretor, wrongly ex-  
pounded by the *Blatta Byzantia ,* whereas the *Blatta Byssantia*is the *Unguls* of the Purple-fish, and .has nothing of an aromatic.  
Smell in it. But the *Unguls Oderatus* was the Cover of the  
*Indian* Shell-fish, and was commonly used with other sweet-  
scented ingredients in Sussumigations. *Myrepsus,* on *Suffiani-  
grtcions,* often mentions them, 'and calls them ονυχας μεγάλους  
καὶ μικρους. " the great and small Ungues;’ because there were  
two Sorts of them. The larger were brought from *Arabia,*so and the smaller from *Babylon,* according to *Diofcorides. My..  
- repsas* sometimes calls them simply ονυχας. *Ungues*; sometimes  
ονυχας Ίνδιν.ὴς, which mustjbe understood of these *Ungues* ; but  
. when he calls them ὀστουν τῆς ῥινὸς τῆς πορφὑρμς. " tho Bone of  
“ the Nose of the Purple-fish,” you are to take it for the  
Cover of that Fish which was call’d *Blatta Byzantia,* by the  
Crwis βλάἠιονΒυξἀντιον, and had nothing of a sweet Scent, but  
rather stunk when it was handled , both Sorts, however, went,  
commonly under the Name of the *Blatta Byzantia. Alpagus,*in his Lexicon, writes, that the *Blatta 'Byzantia* -is the Cover  
of a certain Shell-fish found in-the *Ped Sea*; - and that this Cover  
.was in the very Mouth os there Shell-fishes, and was open’d and  
.shut at the Pleasure *of* the included Animal i thet it was call’d  
*Blatta Byzantia*; and that he had often feen them adhering to  
their Shells. Nothing better could be raid for the Explication of  
the *Poma* and *Calumma,* as well in Purple-fish and Whelks, as  
in the fweet-scented *Indian* Shells.

*’'Omaj* was also a Name among the *Greeks* for a kind of Oyster,  
otherwise call’d φωλὴν καὶ ἀυλὸς, " Solen and Aulus.” *Pliny*calis them *Ungues, Lib.* 9. *Cap.* 3i. *Istdere,* of Oysters, *Un-  
gues a semilitudine humanorum ungulum dictae,* " call’d *Ungues*“ from their resembling human Nalls.”

- I wonder that *Diofcorides* should tell us, that this *Indian*Conchylium was found in the dried Marshes of *India,* which  
produce Nard, and that - this was the Cause of its Fragrancy,  
because it was fed with Nard.;- and yet, in reckoning the Rinds  
of this Conchylium, should only mention the *Babylonian,* and  
the *Arabian* -which comes from the *Red Sea.* - If it be found  
in the nardiferous Marshes of *India,* why should he make one  
Kind come from *Babylon,* and another from the *Ped Sea ?*Nard, indeed, is not produced in *Babylon,* nor in the *Red Sea,*but in *India* about the *Ganges* ; whence it is call’d Γαγτἑτικὴ  
νἀρδος, " *Gangetic* Nard.” But what he fays about the nar-  
diserous Marshes, is Matter of Laughter; for what Author  
among the Antients ever told us, that *Indian* Nard grew in  
’ Water and Marshes ? *Diofcorides* himself tells us, that it was  
- produced on a Mountain of *India* he mentions indeed another  
Sort, which grew “ in watery Places,” έφ ὑδατωδών. But  
it is one thing to grow in moist and well-water’d Places, and  
- another thing to fpring up in the Middle of Marshes and stand-  
ing Waters. *Garcias* informs us, that Nard is seldom found  
*in India* of spontaneous Growth, but that it is always propa-  
gated by-Culture.. *Diofcorides* compiled his Chapter of the  
*Unguls Oderatus from* two Authors, without considering thet  
they contradicted one another ; sot it is impossible to reconcile  
the collecting the *Unguis Oderatus* of the Conchylium from the  
Marshes of *India,* with the Account of two Kinds of it, one  
coming from the *Red Sea,* and another from *Babylon,* differing  
in Colour- and Bigners. Nor shall I regard whet may possibly  
he pretended, that the *Indian* Ungues may come in Ships by  
Way of the *Red Sea,* -and *to Babylon* by Land. This will by  
no means bringhirn off; for he mentions only one Kind in the  
Beginning, which was found in *India,* and assigns the Cause of  
its Fragrancy to its feeding on Nard: Now-it is certain, that  
Nard grows no-where but in *India ,* besides, he-every-where  
distinguishes the *Indian* Species from the *Arabian. ' .*

Upon the Whole, it-is evident, that *su&Dnguis Oderatus of.*the *Arabians* was the fame with the Όνυξ Ίνδικὸς of -the An-  
dents; which, however, was not brought out of *India,-* but  
from *Babylon* and the *Red Sea* ; and that whet *Diofcorides* tells  
us about the nardiferous Marshes, and the: aromatic Conchylia  
there collected, is mere Romance. \*- It appears also, that the  
*Blattae Byzantiae* are properly a different Thing from the *Ungues  
Dderati,* tho5 their Names are commonly confounded. for-the  
former are the Covers of the Ryzantnin Conchyllum,: or Shell-  
fish, which were formerly used to dye a Purple; but *tlumUmgues  
.Oderati* belonged to the *AraHan* Conchylium,- which was like  
.the.Purple-fish. *Salmastus de Hamonyrn. Hist. latr. Cap.* 98.

In the *Philosophical Transactions* I find the-following Re-  
rnarks of Dr. *Lester* upon *Coe Blatta Byzantia,* in Answer to a  
.Quere of Mr. *Dale's. . 2... -*

I take the *Blatta Byzantina* to have succeeded the *Unguls*

*Oder alar,* and to have been brought into the Shops in its  
Place. .

I conjecture, therefore; that the true Unguis Odoratos was -  
something like the half of a Pectiinculus Fluviatilis, so common  
in the River *Thames,* of the Bigness and Thickness of a Thumb,  
nail, and that sor these Reasons:

I. That the Unguis Odoratus seems to have been a fresh,  
water Bivalve or Mufcle, for that they staid till the Lakes on the  
River *Ganges* were dried up before they gather’d them. Now  
Bivalves are ever buried in Sand and Mud, and never rise up,  
and swim about, and float, as theTurbinate Snails do; to which  
fatter ouly the Operculum belongs, and which therefore were  
always, and easily, to be caught.

2. *Diofcorides* calls this Snail *Conchylium,* and by thet gene-:  
ral Name distinguishes it from all the other Sorts, concerning  
which he treats in several Chapters; which, tho’ in general it  
takes in both Kinds, as well Turbinate as Bivalve, yet it does  
more particularly denote a Concha or Bivalve:

3. The Onyx is exprefly reckon’d by *Pliny* amongst the  
Bivalves. For s*L.* 32. *C.* II.) he makes all these synonymous,  
*Solen, five Aulos, five Donax, save Onyx, five Dactylus.* And  
again, more particularly, *(Lib. z. Cap.* 6 I A he says. *Ex Con-  
charum genere sunt Dactyli, ab Humanorum Unguium semilitudine  
appellati*; so that, in all Probability, the Onyx Odoratus, brought  
more antiently out of the fresh-water Lakes about *Ganges* in  
*India,* was not unlike the common Onyx of the *Mediterranean,*which was of the Solen Kind.

Whatever the *Blatta Byzantia* of our Shops is, which has  
certainly nothing of the Cbaractsrs of the antieht Aromatic  
Unguis; and which, in all Probability, was lost upon site Ac- .  
count of the difficult Passage from *Ganges* into *Europe*; I  
lament its Lofs, which I have Reason to believe was a good  
Mediane, from its strong aromatic Smell ; which is much  
wanting in our testaceous Powders, of which this was one of  
the Number, so much ufed, and that not without good Reason  
now-a-days, which arc all very flat and insipid.

BLATTA, Ossie. Aldrov. de Infecti 499. *Blatta foetida.*Mousses. Insecti I38. Char.lt. Exer. -49. .Jons, de Infest. 82.  
Mer. Pin: 202. *Scarabaeus irnpennis tardipes,* Pet. Gazophylac.  
Nat. & Art. Tab. 27. Fig. 7. THE SLOW-LEGG’D  
BEETLE. *Dale.*

The inside of the *Blatta,* which is found in Bake-houses,  
bruised or boiled in Oil, and dropp’d, into the Ears, eases the  
Pains thereof. *Diofcorides, Lib.* 2. *Cap.* 38.

*Dale has,* by Mistake, attributed the Virtues of the *Blatta*Or Beetle sound in Bakethoufes, which is a very nimble Infecti,  
to the flow- leg’d Beetle. - . ’

BLATTARIA, Offic: BLATTARIA LUTEA, J. B. 3.  
874. Raii Hist. a. I096. Synop: 3. 288. *Blattaria vulgaris  
lutea.* Chain 495. *Blattaria lutea, folio longo laciniata,* C. B.  
Pin. 240. Tourn. Inst. I47. Elem. Bot. I23. Boerh. Ind. A.  
I47. Buxb. 40. Rupp. Flor. Jen. I95. *Blattaria Plinii,*Ger. 633. Emac 776. MeI. Pin. Ibr *Blattaria maser, 'stare  
luteo, vel Blattaria Plinii,* Merc. Bot. 24. Phyt. Brit. ι6ι  
*Blattaria lutea miner seu vulgaris.* Park . Theas. 64. *Blattaria  
annua ramosa, floribus luteis, staminibus purpureis,* Hish Oxon.  
2.489. MOTH-MULLEIN.

Authors have said very little with refpced to the Medicinal  
Virtues of this Plant, but inform us, that it is possessed of the  
fame as the Verbascum. - i

- - There is an Herb like Mullein, and often taken for it; but  
it has more Stalks, a Leaf not so white, and a yellow Flower.  
When thrown abroad, it gathers Moths (Bmims), and therefore  
at ikeaw theycallit Blonrarim *Plinys ~ ’ s"-.*

*Pay,* hesides this, mentions the following Species of *Blat.  
taria: α*

*Blattaria magno store,* C, B. J. B. *Flore ampla.* Ger;

*Blattaria lutea major five Hispanica,* Parie.

*Blattaria store coeruleo vel purpures,* J. B. - *Flere purpureo.*Ger. Park. *Purpurea,* C. B.

*.Blattaria perennis, stare gilve seu obsoleti celaris.* Moris  
*- Blattaria lutea adorata.* Park. . \_ . .

*Blattaria pilosa Cretica, sese Arctos qusrundam,* J. Β: *Vcrbase  
cum 'humile Creticum lacineatum,* C. B. *Verbascum Praesica  
folio, Coi. - .... 4.4. .’.*

*Blattaria Cretica incana, rotundo laciniam folio.* Park. This  
is the *Arcturus Creticus Belli.. . . ; .*

*- Ab hac diver fam,* C. Bauhinus, *Eumqy secutus.* Parkin-  
sonus. *Verbascum suum foliis subrotundis, store Blattaria, quad  
in Prodrcma see dofcribit.*

*nd Blattaria Cretica stinefa.* Park. *Leuriium Creticum spino-  
sum,* Clusi J. B. *Creticum spinosam incanum luteum,* C. B.  
*Galastivida Cretensium Belli. Leuccium spinofum cruciatum,*Alp. *Spinofum Creticum,* Gor, Emac.

*Blattaria incana multifida-* Boccom

BLECHNON. - .

*Blecbnon minus, pinnules integris. 'Folia auerna,* C.- B.. Pin.  
'358. *Filix ramosa minar,* J: B 2. 74I. *Filix arborea,* Trag.  
538. THE LESSER BRANCHED-FERN.-

*It* grows in shady Places, but very rarely.'

*C. Bauhine* hed no Reason to refer *Tabentaemcntanttro Fili-  
cula petraea fcemina,"v.* to this Species; we must rather, with  
*J. Bauhine,* refer .it to the *Filicula petraea fcamina* iv. of this'  
Author ; therefore we ought not to distinguish mis from the  
*Filix ramosa minor, pinnulis dentatis.* Pin. *C. Bauhine* was .  
mistaken when he said, that She *Pteridion rnaseulum Cordi* was  
the same with this ; for *Cordus* compares it to the unbranctid -  
Male *Fern,* and he finds in it no other Difference than that of  
Bigness: *J. Bauhine* knew thefe Species better than-his Bro-  
ther, who has separated from his *Filix qucrna* the *Filix pumila '  
saxatilis,* Qus. Those who examine *Clastics’s* Figure well,  
will not distinguish it from that of *Tragus.* Therefore this  
Plant is thrice repeated in the *Pinax,* under the Names of  
*Filix querria,* of *Filix ramosa minor, pinnulis dentatis,* and of  
*Filix saxatilis ramosa, nigris maculis punctata. Pena* and *Libel*have given a sorry Figure of it. That of *Camerarius* feems to  
be but a Copy of *Matthioluri* Figure. *Martyn's Tourne-*fort. See FILix.

BLECHROS, βληχρος. Weak, flight. Βληχρας πυρετὸς,  
*in Lib.* 5. *Epid,* is a flight Fever, and opposed to πεεικαέης, a  
burning (Fever), *Aph.* I7. *Lib.* 6. *Sect.* I. And βληχροὴς  
σφυγμὸς, a weak low Pulse, is opposed to οξὑη a sinart strong  
one, *Lib.* i. περὶ γυναικί: βληχρας, in *Galen’s Exegesis,* isex.  
pounded a kind of Pusse, otherwise written βλήχι».

BLEMA, βλημα. See **INTRITUM.**

BLENNA, R/εκο,βλέννα, μὐξα. κορὑζα, in *Hippocrates, is*a thick Phlegm and Mucus flowing from the Brain through the  
Nostrils, and shewing Signs of a beginning Concoction, as  
*Galen* explains him in several Places of his Works. He says  
alfo, that φλέγμα (Phlegm) is by some call’d βλέννα, or βλίνα.  
It is also read βλκόννα, in *Hippocraters* second Book of Diseases:  
" If there be an Eruption of Water or Mucus [βλμόννα] by the  
“ Nostrils, there is a Solution of the Disease.” It is alfo  
written πλέννα, and expounded by μὑξα in *Galen’s Exegeses.  
Hefychius* explains βλεννὸς by νωθρας, and μωρίς, a Blockhead,  
or a Fool, and as it were *mucous,* from the excessive Humidity  
of his Brain. *Blennus* alfo, in *Plautus,* has the fame Significa-  
tion, as *Festus* observes. Βλέννα, in *Erotian,* is the Name of a  
Fish, which he Also calls βλάξ or βλακις..\_

BLENNUS, βλέννος, βλῖνοςΐ βλινὸς, in *Suidas βαΐων.* A Fish  
sound in shallow Waters, of little or no Value, which is de-  
. noted by its Name, signifying *mucous,* as being of a soft, excre-  
mentitious, and insipid Flesh. It is described by *Aldro-  
vondus. ' . . .*

. BLEPHARA, βλέφαρμ. The Eyelids. **See PALPEBR.S.**

BLEPHARIDES, βλεφαείδες. The Hairs on the Extre-  
mities of the Eyelids, as expounded by *Hefychius* and *Celsas.* In  
*Hippocraters Coac.* it is put for the Eyelids,. as βλεφαείδων καμ-  
πυλοτης. there signifies a Retortion of the Eyelids. *Callus Aure-  
lianus, Lib.* 4. *Cap.* 3. *Tar de Pajsc* renders the *Greek dursae&squei.  
Palpebraria (Collyria). .*

BLEPHAROXYSTUM., βλεφαρίξνστον, from βλέφαρον, an  
Eyelid, and ξὐω, to scrape, shave. A Surgeon’s instrument  
for fcraping or scarifying the Eyelids.

There have been various Forms of Instruments for there Pur-  
poses. *Hippocrates -* seems to have ufed a Thistle, or some  
prickly Herb, fuch as the Atraolylis. Others' of the annent  
Physicians invented an Instrument of Iron or Steel, not unlike  
a sine Rasp, delineated *Tab. Fig.* 5. and shaped like a  
Spoon.; and with this they used to scrape the Inside of the Eye-  
lids till .the Blood flow’d, as we are told by *Celfus* and *Acgineta,*the latter of-whom, calls this instrument *Blepharoxyston* [Eye-  
lid-scraper] ; the other calls it *Asperatum Specillum,* the Rasp-  
like Probe. Some used that rough Herb which the Botanists  
call’d *Equisetum majus,* others, among whom was *Celfus,* the  
Leaves of the Fig-tree ; others a Pumice-stone, or the Bone of  
a Cuttle-fish, Or any other Thing that seem’d most convenient  
for the.Purpofe. Hi'estcr.

BLESTRISMUS, βληστεισμὸς, from βάλλω. to toss, in *Hist.  
primates',* is a disorderly Jactstion, or Tossing, and Restlessness  
os the Body, by which it is perpetually disturb’d, and thrown  
Out of one Posture into another. It is also call’d ῥιρὶτασμὸς,  
‘ whichus aWord used in several Pisces of the *Epidemics.. -Ane.  
taeus* uses βληστείζε(&5 to express the disorderly Tossing and  
Tumbling os a Person in a Phrensy.

BLETA, *White,* is an Epithet for milky Urine, proceeding  
from diseased Kidneys; and is reckon’d among the Causes of a  
Phthisis by *Paracelsas, de Tartars, Tract.* 3.. Cap. 3. *Ca-  
stellus.*

BLETI, βλὑτοι, from βάλλω, to strike. Struck. So the  
Antients call’d thofe who were suddenly seizin with a Suffoca-  
tion, Stertor, and Difficulty of Breathing, from an inflamma-  
tion of the Pleura, the.Side being mark’d with black and blue  
Spots, as from Blows; for which Reason they were call’d *Bleti,*struck or smitten, and *Syderati,* Planet-struck. *Hippocrates de  
Pat. Vict. in Mari. a cut.* and *Coac. in List.* I. πεεί γυναζκ.  
an Ecbollum, ἐνοβὄλιον, is describ’d to he ο τὸ παιδίονβλητ-ὀν γἱνο-  
μόμόν ἐνμαλλμ " what expels the kill’d or dead Child.’’ Βλιιτὸς

is expounded in *Hefysoius'* hy ἀπόπλνιοτος, καὶ ο ὑπὸ *ojs* **ὀξέων.**νοσημάτων αἰφνιδίως " one seiz’d with an Apoplexy,

" or that dies suddenly of some acute Disease.” And βλεῆὸς  
in *Varinus,* is *Syderatus,* labouring under an Apoplexy, or  
Stupor of the Body.

Βλητὸς. in *Hippoc. Lib. a., aeuri* γυναικ. is an Herb of :the  
Figure of a Tongue. And you meet with βλῆτον in *Theophra-  
stus, Hiiji. Plant. Lib.* 7. *Cop.* I. and βλῆττον in *Dioseorid.  
Lib.* 2. *Cap.* I43. ίοΓβλίτον. \*

BLICARE. Prepar’d Przesil, as defin’d by *Pistandus*; but I  
do not know what Praesil is.

BLICHODES, βλιχώδες, is expounded, by *Epicles* in *Ero-  
tian,* by τὸ λἱλιπασνὰο'ον μῆά γλοιώδους *ύγξ^αίΛί daohasae,*" turgid with some impure vinceus Humour.” *Euphorion* ex-  
plains it by τὸ ἐνοπεπιεσμςὑον καὶ κάτοῦξηρον, " express’d and  
" dried.” *Bacchius -* and *Lystmacbns,* in the same Author,  
read πληρώδες with a- π, and explains it by ἀτματυγμνὰν, .  
" smooth’d,” as much as to *say,* fall distended, and void of  
Folds Or Wrinkles. *Erotian* adds, that some sot βλιχώδες  
read γλιχρῶδες, glutinous or viscous, which agrees very well  
with the Exposition of *Epicles.* Βλικχώδες is expounded by  
*Suidas,* out of *Hippocrates,* and alfo by *Theseckius,* τὸ λελεπι-  
*csplaw* καὶ καδαραν, " decorticated and pute.”

BLINCTA is explain’d, by *Rulandus, Terra rubra,* red  
Earth. .

BLITUM, Blite. Α sort of Heth.

This Herb is cultivated in Gardens allotted for Pot-herbs,  
and is used in Food. It affords little Nourishment, and gene- ,  
rates a very bad Blood. *Plin. Lib.* 2.0. *Cap. oa.* hes these  
Words: “ Blltum feems to he without any Virtues, without ’  
“ any Taste or Acrimony ; for which Reason the Poet *Menan..  
“ der* makes cold and indifferent Husbands compare their Wives  
“ to it, *by* way of Contempt.” It is prejudicial to the Sto-  
mach ; and raises such a Commotion’in the Intestines, as,.in  
rome, to excite a *Cholera.* These Verses of *Eopern. Hiofsc Lib.  
de Bona Valetudine,* must not, on thisOdcasion, be forgotten : .

*Ignavum serie honore Blitum, sene viribus estur.  
Hac selo: Ventrem quod bene dejiciat.*

*Galen, Lib.* 2. *de Alim. sue. c.* 45. ranks it among the Pot-  
herbs without Taste; for which Reason it is so little used in the  
Kitchen, that it is become a Proverb of Contempt to say, that  
a Person is more despicable then *Elites.* Hence it also happens,  
that every thing of no Worth or Value is call’d *Elites*; for  
the *Greeks* call it βλίτον, as it were βλητὸν. aThing to he thrown  
away. *Iseodorus, Lib. iy. Orig. C.* Io. is of Opinion, that  
*Blitum is so call’d, as* it were, from *Vilis Beta.* In *Suidas* we  
Iced, that among the *Greeks* the Whores were call’d βλιτανίδες  
or βλίταδες. *Bliteae Uxores. Plausus* also speaks *de blitea et  
lutea meretrice,* that is, a most contemptible, wither’d, and  
insipid Whore. *Catullus* has an Expression to the same Purpose,  
*Nan asses sucis, oblitum Lupanar :* Thou art good for nothing,-  
" thou contemptible Whore. The *Greeks* also, according to  
*Hefychius,* call’d Fools and Idiots βλίτας and βλίτωνας, probably  
from the *Greek* Word βλἀξ, which signifies stupid. See yah.  
*Fluell. de Natura Stupe L.* I. *C.* 20.

. The Seeds of this Herb are good in Dysenteries, and immo-  
derate Fluxes of the Menses; and,' according to *Tabernamon-  
tanus,* the Seeds of it are boil’d Iike Millet *in Silesia,* and afford  
the common People a grateful Food. The Juice *of* the Herb,  
express’d, cures Corns of the Fees, if applied to them, A  
Fumigation of the Herb promotes the Menses, when stopp’d .  
and expels false Conceptions, and the Secundines. According  
*to Cafp. Schwenstsc. in Catal. Stirp.* the Country-people use it as  
a.Remedy against Hemorrhages in their Cattle; And *Taberna-,  
montanus* informs us,, that its juice, exhibited in Wine, cures  
the Bites of Scorpions and Spiders. *Barthel.* Ζοτεε *Botanolsg.*

There are-many Sorts of Elites, the common Sort of which  
is .thus distinguish’d. ; - ... : : ' .

**. BLITUM ALBUM, Ossie.** Park. Pared **4.88.** *s Blitum album  
majus,* or the great white Blite, GeI. 252. Emac. 320. C. B.  
IIS. Tourn.jhnsh 50I. Hist, Oxon, 2. 599. Bnerh. Ind. A. 2.  
9I. Dill. Cat. I64. Buxb. Ao. *Blitum pulchrum alburn ma-  
-gmern,* L B. a. 967, Rail Hist. I, 2oo. GREAT WHITE  
BLITE. , i '

The common Blite grows to be two Foot high, with thick  
hollow Stalks, oloath’d with a great many Leaves, somewhat  
like Beet-leaves, but less, growing on long Foot-stalks, and of a  
thinner Textore. -The Flowers consist of long Spikes, of  
sinall, rnofly, greenish *Plasculi,* in which lie frnall, round, , black  
Seeds. The Root is pretty thick, but perishes every Year. The  
.whole Piant has a flashy insipid Taste. It is planted in Gardens,  
and flowers in *July,* i . :

The Leaves, which are only used, and those but seldom, are  
much of the Nature of Arractie, being cooling and emollient-j  
and are sometimes put into Clysters. *Miller’s Bot. Oof.*

Elites are eaten among other Greens; and are. good. for the  
Belly, partrcspatiog of no purgative Quality.: *Diosaarides, Lib.  
a. Cap.* 143. ’

Another Species of this Plant is the

BLITUM RUBRUM, Offic. Parle Pared. 489. *Blitum ru..  
brum majus,* or the Great Red Blite, Ger. 252. Emac. 32O.  
Ran Hist. I.2OO. Co B. Pm. I I8. Tourn. Inst. 507. Elem.  
Bot. 4O7. Boeth. Ind. A. 2. 9I. Hist. Oxon. 2. 5qq. *Bli-  
tum pulchrum rectum magnum rubrum,* J. B. 2. 966. Buxb.  
4O? *Blitum,* Chain 304. RED BLITES.

The medicinal V irtues of this are much the same as those of  
the preceding.

BLITUM, Cod. Med. 2I. *Blitum fyvestrespicatum,* Tourn.  
Tnst. 5O7. Herb. Par. 399. Mart. Hist. IG6. Vai fl. Bot. Pat.  
2I. *Blitum minus album, et.* B. Pin. II8. Hist. Ox. 2. 599.  
LJ. B. 2. 967. Rail Hist. I. 200. Boeth. Ind. At. *2..* 9!.. Ger.  
‘Ἀ52. Emac. 32I. *Blitum album fyluestre minus.* Park. Theat.

.752. SMALL WHITE BLITE.

*Camerarius* is the only Anther who has given a good Figure  
os this Plant; it is so like the *Blitum rubrum minus,* that it is  
impossible to distinguish them without the Fruits; This Species  
is quite loaded with them, but they are not only placed in the  
Bosoms of the Leaves, but form also a very considerable Spike at  
the Top of the Stalks ; and, besides, each Fruit is a sort of  
membranous greyish Bladder, reddish, oval, pointed, stat, a  
Line long: It does not open transverfly, like the *Blitum ru-  
brum minus,* but bursts like a Bladder which is press'd, and lets  
out a Very small, black, smooth, shining Seed, shap'd like ar  
Lentil. . \

*Toumesurt* takes Notice of another Species of *Blitum,* which  
is the

*, Blitum rubrum minus,* C. B,.Pin. I IS, J. B. 2. 967. *Elie.  
tum rubrum supinum.* Lib. Icon. 25O. *Arnaranthus silvestris  
et vulgaris,* Inst. THE SMALL WILD RED BLITE.  
It is often found on Dunghiis. Λ

*„. J. Bauhine* and *Lobel* have given good Figures of this Plant.  
That of the *Blitum rubrum minus.* Cam. Epit. 235. agrees  
hetter with the *Blitum alburn minus,* C. B. Pin.

The Root of this Plant is whitish, sometimes purple, about  
half a Line long, four or five Lines thick at the Neck,. divided  
into capillaceous Fibres. The Stalks are procumbent, branch'd,  
about a Foot long, chanel’d, two or three Lines thick, red-  
dish, full of Juice, adorn'd with alternate Leaves, resembling  
those of Pellitory, about two Inches long, taking in tho Tail,  
which is Very {lender, and almost as long as the rest of the Least  
This Leaf is a bright-green, sometimes havingspurplish Edges,  
seven or eight Lines broad, divided into two equal Parts, by 4  
Rib which extends, itself from one end to the other, and forms  
Iittie crooked Veins, which lose themselves in the Edge. Out  
of the Bottom of each Leaf sometimes proceed others, which  
are much smaller ; these Bosoms are fill'd with many Flowers,  
Εowing upon. one another in rounded Clusters, three or sour  
ines in Diameter. . Each Flower usually consists of three Very  
narrow, pointed, gutter’d Leaves,' one Line long, whitish,  
with a greenish Back: From the Middle of the Flower arises  
an oval-pointed Pointal, encompassed with three Very slender  
Chives, which are foarce a Line long, and sustain each a yellow-  
ish Summit. This Pointal afterwards becomes an oval, stat,  
. membranous, reddish Capsule, one Line long, terminated by a

Iittie Thread. \* It is composed of two Pieces, placed one upon  
the other, and opening transverfly. . In- each Capsule is one  
Seed, almost round, black, smooth, shining, shap'd like a  
little Lentil.. ... .- . . 'sese ss . . ' ,

We have no good Figiire os this Plant y sor that of *Ju Bau-  
hine* has its Leaves too obtuse, and represents the preceding Spe-  
cies better ;, and that of the *Blitum rubrum minus.* Cam. which  
agrees better with it in the Leaves, makes in Spike of Flowers,  
which we do not see in our Plant.- *Label’s* Figure has the Very  
feme Fault. *Faill. Martyn's Toumoforti*

BLITYRI.. Βλιτυρι. A fictitious Word, with no Significa-  
tion annex'd To it, hut proverbially used *faGalen* ; as is also  
another'Word,' *Scindaplsus,AdevSasphe,* fin ridicule the Vanity  
of coining new Terms.- *Gal. de Discs.. Puls. Lib.* 3. *Cap* I»  
*et Meth. Med. Lib.* 2. *Cap. I. . \**

BLUMATI *terreum.* A glaz'd Vestel. *Johnson.*

BOA, Jonst. . .?/ V ' .

IS an aquatic Serpent of a prodigious Sine, which follows  
the Herds os Oxen, from whence it takes its Name ; it fucks  
the Cows Teats, for it loves Milk Very well. It is found some-  
times in *Calabria.* One of these was kill'd in the Reign of the  
Emperor *Claudius,* in the Belly of which they found a Child,  
winch it had swallowed whole. - The Bite causes an Inflamma-  
tion of the Part bit. - They, say that this Serpent is sometimes  
so big, that it can swallow a whole Ok, which is not to he  
Credited. *Lcmery des Drogues.*

BOANTH EMON, βοάνθεμον, is expounded in *Galen's* Exe-  
gesis: by τὸ βἣφθαλμα, *(Buphthalmum)* which, he says, is also  
call’d χρυσάνθεμον, *Chrysanthemum. Foestus.*

BOAX. SeeBoout. ‘ si

BOCCA. The large Mouth or Opening of a Glass-house  
Furnace.

BOCCARELLA. A smallHole, Or Mouth, one of which  
.. is on each Side the *Bocca Qi* a Glass Furnace, lyingalmost hori-

Eontally with it. Out of these the Workmen take colour'd of  
finer Metal from the Piling-pot.

BOCCONIA. A Plant so call'd from *P. Boccone os Sicily,*who has publish'd several curious Books of Botany. It has a  
Flower, consisting of one Leas; from the Middle arises the  
Pointal, which afterwards becomes an oVal-shap'd pointed  
Fruit, which is full of Juice, each containing one round Seed.  
We have but one Species of this Plant, which is a Native os  
*Jumaica,* and call'd by Sir *Hans Sloane,* in his Nat. Hist.  
*Chelidonium majus arborescens, foliis quercinis.* I find nome-'  
dicinal Virtues attributed to it.

BOCHETUM. The second Decoction of Lignum San-  
\_ctum, Sarsaparilla, China-root, and other Sudorifics. *Castellus. \_*

BOCIA. A Glass Vessel, firmly clos'd, and shap’d with a  
round Belly, and long Neck, about half a Foot in Diameter.  
.It is otherwise call'd *Ovum, Sublimatortiem, Urinale,* and *Cu-  
curbita.* This must not he touched withthe cold Hand in time  
Of working, for fear of breaking it. *Castellus.*

BOCIUM. The same as BRONcHocELE, which see.

. BODAGI is defin'd by *Palandus, Aliud Fas.*

BODID. An egg. *Idem. -*

. BOE, βοή. See CLAMOR, and ANAPHONESIS.

BOERHAAVE. The Figure this illustrious Physician  
.made whilst alive, and the Reputation of his Works now he is  
ho more, demand some Account of his Life and Writings. \

*Horman Boerhaave* was hern on the last Day of *December*I 668. about One in the Morning, at *Foorhout, a.* Vil age two  
’Miles distant from *Leyden:* His Father, *fames Boerhaave.,*was Minister of *Foorhout, of* whom his Son, in a small Account  
of his own Life, has given a very amiable Character, for the  
Simplicity and Openness of hiS Behaviour, for his exact Fruga-  
lity in the Management of a narrow Fortune, and the Prudence,  
Tenderness, and Diligence, with which he educated a numerous  
Family of nine Children. He was eminentiy shill'd in History  
and Genealogy, and well Versed in the *Latin, Greek,* and Ha.,  
*brew* Languages.

HiS Mother was *Hagar Daelder,* a Tradesman's Daughter  
.of *Amsterdam,* from whom he might, perhaps, derive an he-  
Teditary Inclination to the Study of Physic, in which she was  
Very inquisitive, and had obtained a Knowledge of it not com-  
mon in Female Students. . .’

This Knowledge, however, she did not five to communi-  
cate to her Son; for she diedin I673, ten Years after her  
.Marriage.

τ His Father, finding himself encumber’d with the Care of  
seven Children, thought it necessary to take a second Wife, and,  
in Jusp wa5 married to *Eve du Bois,* Daughter of a  
Minister of *Leyden,* who, by her prudent and impartial Con-  
duct, so endear'd herself to her Husband's Children, that they  
all regarded her as their own Mother. *e*

*Herman Boerhaaue* was always design'd by his Father for the  
Ministry, and with that View instructed by him in Grammatical  
Learning, and the first Elements of Languages ; in winch he  
made such a Proficiency, that he was, at the Age of eleven  
Tears, not only Master of the Rules of Grammar, but capable  
. of tranflating with tolerable Accuracy, and not wholly ignorant  
of critical Niceties.

At Intervals, to recreate his Mind, and strengthen his Consist  
turion, it was his Father’s Custom to send him into the Fields,  
and employ him in Agriculture, and such kind os rural Occu-  
pations, which he continued thro’ all his Lise to love and  
practise; and, by this Vicissitude of Study and Exercise, pre-  
serv'd' himself, in a great measure, from those Distampers and  
Depressions, winch are frequently the Consequences of indiscreet  
-Diligence, and uninterrupted Application ; and from which  
Students, not well acquainted with the Constitution os the hu-  
man Body, sometimes fly for Relief to Wine instead of Exercise,  
and purchase temporary Ease at the Hazard of chronical Dis-  
tempers.

' The Studies of young *Boerhaave* were, about this Time, in-  
terrupted by an Accident, which deserves a particular Mention,  
as it first inclin’d him to that Science, to which he was by Na-  
ture so well adapted, and which he afterwards carried to fo great  
Perfection.

In the twelfth Year of his *Elgst,* a stubborn, painful, and  
malignant Ulcer, broke out upon his Left Thigh ; which, for  
near five Years, defeated all the Art of the Surgeons and Phy-  
sicians, and not only afflicted him with most excruciating  
Pains, but exposed him to such sharp and tormenting Applica-  
tions, that the Disease and Remedies were equally insufferable.  
Then it was that his own Anguish taught him to compassionate  
‘that of others, and his Experience of the Inefficacy of the Me-.  
thods then in Use incited him to attempt the Discovery of  
others more certain.

He began so practise at least honestly, for he began upon  
himself ; and his first Essay was a Prelude to his suture Success;  
for, having said aside all the Prescriptions of his Physicians, and  
all the Applications of his Surgeons, he at last, by fomenting  
the Part with Salt and Urine, effected a Cure.

That heinight, on this Occasion, obtain the Assistance of  
Surgeons with less Inconvenience and Expence, he was brought  
by his Father, at Fourteen, to *Leyden,* and placedin the fourth  
Class of the public School, after having been examined by the  
Master: Here his Application and Abilities were equally conspi-  
cuous. In six Months; by gaining the first Prine in the fourth  
Class, he was raised to the fifth; and in set Months more, upon  
the same Proof ofthe Superiority os his ^Genius, rewarded with  
another Prize, arid tranflated to the sixth ; from whence it is  
usual in six Months inore to he removed to the University.:

Thus did our young Student advance in Learning and Repu-  
ration, when, as he was within View of the University, a  
sadden and\* unexpected Blow threaten'd to defeat all his Ex-  
pectations. ' Ἀ' '

*Od* the I2th of *November* in I682. his Father died, arid  
left hehind him a Very {lender Provision'lor his Widow and nine  
'Children,' of which the eldest was not yet seventeen^ears old.

This was a most afflicting Loss to the young Scholar, whose  
Fortune was by no means sufficient to bear the Expences of a  
learned Education, and who therefore now‘seem'd to he sum-  
moned by Necessity to some Way os Life more immediately  
and certainly lucrative; but with a Resolution equal Io his Abi-  
lities, and a Spirit not to be depress'd or shaken, he determin'd to  
break thro\* the Obstacles of Poverty, and supply by Diligence  
the want of Fortune.

He therefore a/k'd and obtain'd the Consent of his Guardians  
to prosecute his Studies as long as his Patrimony would support  
him, and. Continuing his wonted Industry, gained another  
Prize. -

He was now *to* quit the School for the University, but, on  
account of the Weakness yet remaining in his Thigh, was, at  
his own Intreaty, continu'd six Months longer under the Care  
os his Master, the learn'd *iPyns.chotan,* where he once more was  
Honour'd with the Prize.

At his Removal to the University, the same Genius and In-  
dustry met with the fame Encouragement and Applause. The  
learned *Triglandius,* one of his Father's Friends, made soon after  
Professor os Divinity at *Leyden,* distinguish'd him in a particular  
manner, and recommended him to the Friendship of Mr. *Van  
Apphen,* in whom he found a generous and constant Patron.

He became now a diligent Hearer of the most celebrated Pro-  
lessors, and made great Advances in all the Sciences, still regu-  
lating his Studies with a View principally to Divinity, for  
which he was originally intended by his Father; and for that  
Reason he exerted his utmost Application to attain an .exact  
Knowledge of the *Hebrew* Tongue.

Being convinc'd of the Necessity Of mathematical Learning,  
he began to study those Sciences in 1687.’ but without , that in-  
tense Industry with which the Pleasure he foundin that kind of  
Knowledge induc’d him afterwards to cultivate them.

in I 690. having perform'd the Exercises of the University  
with uncommon Reputation, he took his Degree in Philosophy;  
and, on that Occasion, discussed the important and arthrous  
Question of the distinct Natures of the Soul and Body, with  
fuch Accuracy, Perspicuity, and Subtilty, that he entirely con-  
futed all the Sophistry of *Epicurus, Hobbes,* and *Spinos.a,* and  
equally raised the Character of his Piety and Erudition.

Divinity was still his great Employment, and the chief Aim  
of all his Studies. He read the Scriptures in their original Lan-  
‘ guages, and, when Difficulties occurr'd, consulted the Interpret-  
ations of the most antient-Fathere, whom he read in Order of  
Time, beginning with *Carmens Romanus.*

In the Perusal of these early Writers, he was struck with  
the profoundest Veneration sor the Simplicity and Purity of  
their Doctrine, the Holiness of their Lives, and the Sanctity of  
the Discipline practised by them ; but, as he descended to the  
lower Ages, he found the Peace of Christianity broken by use-  
less Controversies, and its Doctrines sophisticated by the Subtil-  
ties of the Schools. He found the holy Writers interpreted ac-  
cording to the Notions of Philosophers, and the Chimeras of  
Metaphysicians adopted aS Articles of Faith. He found Diffi-  
culties raised by idle Curiosity, and fomented to Bitterness and  
Rancour; He saw the Simplicity os the Christian Doctrine cor-  
jrupted by the private Notions of particular Parties, os winch each  
'adhered to its own Philosophy, and Orthodoxy was confined to  
the Sect in Power;

Having now exhausted his Fortune in the Pursuit of his  
Studies, he found the Necessity of applying to some Profession,  
that, without engrossing all his Time, might enable him to sup-  
port himself; and, having obtain'd a very uncommon Know-  
ledge of the Mathematics, he read Lectures in those Sciences  
to a select Number os young Gentlemen in the University.

At length, his Piopenfton to the Study os Physic grew too  
violent to he resisted ; and, tho’ he still intended to make Divi-  
nity the great Employment os his Life, he could not deny him-  
self the Satisfaction os spending some Time upon the medicinal  
Writers, sorthe Perusal os winch he was so west qualified by his  
Acquaintance with the Mathematics and Philosophy.

But this Science corresponded so much with hin natural θφόν  
thus, that he could not forbear making that his Business, which

he intended Only as his Diversion j andstill growing more eager,  
. as he advanced further, heat length determin'd wholly to master  
.that Profession, and' to sakin his Degree, in Physic, before he  
engaged in the Duties of the Ministry.. \* ,su

*p* It is,. Τ believe,! a- Very just Observation, that Mens Ambiu  
lion is generally proportion’d to their Capacity. Providence  
. seldom sends any into the World with an Inclinatinn to attempt  
'great Things,\* who havenot Abilities likewise to perform them.  
To have form’d the Design of.gaining a competent.Knowledge  
in Medicine by way os Digression from Theological Studies,  
.would have been little'less .than Madness in most Men, and  
would have exposed them to Ridicule and Con tempt. But *Boer-  
siaave* was one of those mighty Capacities to whom scarce any  
thing appears impossible, and.who think nothing worthy os their  
Efforts but what appears insurmountable to cornmon. Under-  
standings. si. .\* ' ' ’Ἀ' '

He began this new Course of Study.hy a diligent Perusal of  
*siefalius, Bartholine,* and *Fallopius*; and, to acquaint himself  
inore fully with the Structure os Bodies, was a constant Atten-  
dant upon *NucPs* public Dissections in the. Theatre, And him-  
self Very accurately inspected the Bodies of different Aniinais.  
- Having furnish'd himfels with this preparatory Knowledge,  
he began to read the antient Physicians in the Order of Time,  
pursuing his inquiries downwards from *Hippocrates,* thro' ail  
the *Greek* and *Latin* Writers.

Finding, as he telis us himself, that *Hippocrates* was the ori-  
ginal Source of all medicinal Knowledge, and that all the later  
Writers were littie more than Transcrihers from him, he re-  
turned to him with more Attention, and spent much Time in  
making Extracts from him, digesting his Treatises into Method,  
and fixing them in his Memory.

He then descended to the Moderns, among whour none eh-  
gaged, him longer, or improved him more, than *Sydenham,* to  
whose Merit, he. has left this Attestation, *that be frequently  
porus.ed him, and always with greater Eagernefs.*

His insatiable Curiosity after Knowledge engaged him now in  
the Practice ofChymistry, which he prosecuted with all the Ar-  
dor of a Philosopher, whose Industry was not to he wearied,  
find whose Love of Truth was too strong to suffer himtoac-  
quiesce in the Reports of others.

Yet did he not suffer one BranchOf Science to withdraw his  
Attention from others: Anatomy did not with-held him from  
the Prosecution of Chemistry, nor Chemistry, inchanting as it  
is, from the Study of *Botany.* He was not only a careful Exa-  
miner of all the Plants in the Garden Of the University, hut  
made Excursions, for his further Improvement, into the Woods  
and Fields, and left .no Place unvisited where any Increase of  
Botanical Knowledge could he reasonably hoped for.

In Conjunction with all thefe inquiries, he still purfued his  
Theological Studies, *and still,* as we are inform'd by himself,  
*proposed, when he had made himfels. Mastcr of the whole Art of  
Physic, and obtain\*d the Honour of a Degree in that Science, to  
petition regularly for a Licence to preach, and to engage in the  
Cure of Souls* ; and intended, in ins Theological Exercises, to  
discuss this Question, *Why so many wore forrncrly converted to  
Christianity by illiterate Persons, and so few at prefent by Men  
of Learning. \* '*

In pursuance of this Han he went to *Hardewich,* in order to  
take the Degree of Doctor in Physic, which he obtain'd in  
*July* I693. having perform'd a public Disputation, *De utilitate  
explorandorum excrementorum in aegris, ut signorum. \**

Then returning to *Leyden,* full of his pious Design-of under-  
taking the Ministry, he found, to his Surprize, unexpected Ob-  
stacles thrown in his Way, and an Insinuation dispersed thro'

the University, that made him suspected, not of any flight De-  
viation from received Opinions, not of any pertinacious Adhe-  
rence to his own Notions in doubtful and disputable Matters,  
but of no less than *Spinostfm,* or, in plainer Terms , .os Atheism  
itself. - ". ss ’ . sc-  
' How *so* injurious a Report came to he raised, circulated, and  
credited, will be, doubtless. Very eagerly inquir’d; and an ex-  
act Relation of the Affair will not only satisfy the Curiosity of  
Mankind, but shew that no Merit, however exalted, is ex-  
empt from being not only attack'd, bur wounded, by the most  
contemptible Whispers. These who cannot strike with Force,  
can, however, poison their Weapon, and, weak as they are,  
give mortal Wotinds, and bring a Hero to the Grave : So true  
is that Observations that many are able to do Hurt, but few  
to do Good.

This detestable Calumny owed its Rise to an Incident, from  
which no Consequence of Importance could be reasonably ap-  
prehended. As *Boerhaave* was sitting in a common. Boat, there"  
arose a Conversation among the Passengers upon the impious and  
pernicious Doctrine of *Spinos.a,* which, as they all agreed,,  
tends to the utter' Overthrow of all Religion. *Boerhaave* sar,  
and attended silently to this DifcouHe for some time, fill one  
of the Company, willing to distinguish himself by his Zeal, in-  
stead of confuting the Positions of *Spinos.a* by Argument, be-  
gan to give a Loose to contumelious Language, and virulent In-  
**vectives I** with which *Bocrhaave* **was** so little pleased, that at

last he could not forbear asking him, whether **he .had ever read**the Author against whom he declaim’d." '

The Orator, nut being able to make much Answer, was  
check’d in the Midst of his invectives, but not witheut feeling  
a feccet Resentment against him whe had at once interrupted his  
Harangue, and . exposed bis Ignorance.

This was observed by a Stranger, who was in the Boat with  
them ; heinqub’d of his Neighbour the Name of the young  
Man, whose Question had put an End to the Discourse; and,  
having ream’d it, set it down in his Pocket-book, as it soosi  
appear’d, with a malicious Design, for, in a'sew Days,' it was  
the common Conversation at *Leyden,* that *Boerhaave* bed **re-**volted so *Spinofa.*

‘ It was in vain, that his Advocates and Friends pleaded ‘his  
learned and unanswerable Coofutation of ail atheistical Opinions,  
and particularly of the System of *Spinofa,* in his Discourse of  
the Distinction hetween Soul and Body. Such Calumnies are  
not easily suppressed, when they are once become general.  
They are kept alive and supported by the Malice of bad, and  
sometimes by the-Zeal of good Men, who, the’they do not  
absolutely believe them, think it yet the finest Method, to  
keep not only guilty, but- fuspectsd Men out os pubUc Ein-  
ployrnents, upon this Principle, That the Safety of many is to  
be proferPd hesore the Advantage of a sew.

*Boerhaave,* sinding this formidable Opposition raised against his  
Pretensions to Ecclesiastical Honours or Preferments, and even  
against bis Design of - assuming the Charactsr of a Divine,  
thought it neither necessary nor prndent to struggle with the  
Torrent of popular Prejudice, as he was equally qualified for a  
Profession, not indeed of equal Dignity or Importance, but  
which must undoubtedly claim the second Place among these  
which ate of the greatest Benefit to Mankind.

He therefore applied himfelf to his medicinal Studies with  
fresh Ardor and Alacrity, reviewed all bis former Observations  
and inquiries, and was continually employed in making new  
Acquisitions.

’ Having now qualified himself for the Practice of Physic,  
he began to visit Patients, but without thet Encouragement  
which others, nor equally deserving, have sometimes met  
with. His Business was, at first, not great, and bis Circum-  
stances by no means easy; but still, superior to any Discourage-  
ment, he continued his Search aster Knowledge, and deter-  
min’d thet Prosperity, if ever he was to enjoy it, should he the  
Consequence, not of mean Art, or disingenuous Solicitations,  
hist of real Merit, and solid Learning. . 1 ’ -

His steady Adherence tohis Resolutions' appears yet'more plain-  
ly from this Circumstance: He was, while he yet remain’d in this  
unpleasing Situation, invited byone of the first Favourites of King  
*William* HI. to settle at the *Hague* upon very advantageous  
Conditions, but declined the Offer. For having no Ambition  
but aster Knowledge, he was desirous of living at Liberty,  
., witheut any Restraint upon his Looks, bis Thoughts, or his  
Tongue, and at the utmost Distance from all Contentions and  
State-parties. His Time was wholly taken up in visiting the  
Sick, studying, making chymical Experiments, searching into  
every Part of Medicine with the utmost Diligence, teaching the  
Mathematics, and reading the Scriptures, and those Authors  
Echo profess to teach a certain Methnd of loving God.

This was his Methnd of living to the Year 1701, when he  
was recommended by MI. *Van. Berg* to the University, as a  
- proper Person to succeed *Drelincaure* in the Office of Lectirrer  
-on the Institutes of Physic, and electsd without any Solicita-  
tion on bis part, and almost without his Consent, on the I 8th  
of *Alay. ' ~* **' S'" δ᾽**

On this Occasion, having ctiferv’d, whth Gricf, that *Hip.  
pecrates,* whom he regarded not orily as the Father, but as **the**Prince of Physicians, was not sufficiently read or esteem’d by  
young Students, he pronounced an Oration, *de commendando  
Studio Hippscratico* ; by whichthe restored that great Author to  
his just and antient Reputation.

He now began to read public LectirrtS with great Applause,  
and was prevail’d upon by his Audience' to inlange his Original  
Design, and instruA them in Chymistry. '

This he undercook, not only to the great Advantage inf his  
Pupils, but to the great Improvement of the Art itself, which  
had been hitherto treated onlyina confus’d and irregularmanner,  
and was little more than a History of particular Experiments,  
not reduced to certain Principles, nor connected one with  
another : This vast Chaos he reduced to Order, and made that  
dear and easy, which was hesore to the last degree perplex’d and  
obfcure.

His Reputation began now to hear some Proportion to his  
Merit, and extended itself to distant Universities ; fo that in  
X7O3. the Professorship of Physic being vacant at *Groningen,*he was invited thither; hut he chose to continue his present  
Course of Lise, and therefore refus’d to quit *Liyden.*

This Invitation and Refusal being related to" the Governors of  
the University-of *Liyden,* they had fo grateful **a** Sense of his  
Regard for them, thet they immediately voted an honorary III-

crease of his Salary, and promised him the first Professorship  
that should he vacant.

On this Occasion he pronounc’d an Oration upon *the Use of  
Sdecbanics in the Science of Pbyfie,* in which be endeavour’d  
to recommend a rational and mathematical Inquiry into **the**Causes os Diseases, and the Stnictirre of Bedies; and to shew  
the Folly and Weakness of the Jargon introduc’d by *Paracelsus  
Halmant,* and other chymical Enthusiasts, who have obtruded  
idle Dreams upon the World, and, instead of enlightening  
heir Readers with Explications of Nature, have darkened the  
plainest Appearances, and hewllder’d Mankind in Error and  
Obscurity. . -

*Beerhaavelumd now for* nine Years read physical Lectsres,  
**hist** without the Title or Dignity os a Professor, when, by  
the Death of Professor *Hatten,* the Professorship of Physic and  
Botany fell to him of course.

On this Occasion he asserted the Simplicity and Facility of  
the Science of Physic in Opposition to thofe who think, that  
Obscurity contributes to the Dignity of Learning, and thet, **to**he admired, it is necessary not to he understood. '

His Profession of Botany made it Part of his Dury to super..  
intend the physical Garden, which he improv’d so much by the  
immense Number of new Plants which he procur’d, thet it **was**inlarg’d to twice its original Extent.

In I7I4. he was deservedly advanc’d to the highest Dignities  
of the University, and in the fame Year made Physician of SI.  
*August ire's* Hospital *in Leyden,* into which the Students are  
admitted twice a Week th learn the Practice of Physic.

This was of equal Advantage to the Sick and the Students ,  
for the Success of bis Practice was the best Demonstration of  
the Soundness of bis Principles.

When he laid down bis Office of Governor of the University  
in I7I5. he made an Oration upon the Subjedi of *attaining* ιο  
*Certainty in Natural Philosophy.,* in which he deciares himself, in  
the strongest Terms, a Favourer of experimental’Knowledge,  
and reflects with just Severity upon those arrogant Philosophers,  
who are too easily difgusled with the stow Methods of obtain-  
ing trueNotions by frequent Experiments, and who, possess’d  
with too high an Opinion of their own Abilities, rather ctiofe to  
consult their own Imaginations, then inquire into Nature; and  
are hetter Pleased with the delightful Amusement of forming  
Hypotheses, than the toilsome Drudgery of amassing Ob-  
servations. .... : . .

The Emptiness and Uncertainty of all those Systems, whether  
venerable for their Antiquity, or agreeable for their Novelty,  
he has evidently shewn ; and not only declar’d, but prov’d,  
**that** we are entirely ignorant of the Principles of Things, and  
thet all the Knowledge we have is of fuch Qualltles alone as  
**arc** discoverable by Experience, or such as may he deduced from  
them by Mathematical Demonstration.

This Discourse, sill’d as it was with Fiery, and a true Sense  
of the Greatness of the Supreme Being, and the Incomprehen-  
sibility of bis Works, gave such Offence to a Professor of *Frontier,*who, having long entertain’d a high Esteem *for Descartes,* con-  
sidcPd his Principles as the Bulwark of Orthodoxy, thet he ap-  
pear’d in Vidication of bis darling Author, and complain'd of  
the Injury done him with the greatest Vehemence, declaring: -  
llttle less than thet the *Cartesian* System and the Christian must  
inevitably stand and fall together, ’and that to say we were igno-  
norant of the Principles of Things, was not only to enlist  
among the Sceptics, but to sink into Atheism itself.

So far can Prejudice darken She Understanding, as to make  
it consider precarious and uncertain Systems aS the nines Support  
of sacred and unvaiiahle Truth. ,

' This Treatment of *Boerhaave* was fo far resented by **the**Governors of his University, that they procured *horn Franeker*a Recantation of the Invective, thet had been thrown out  
against him. This was not only cornply’d with, but Offers  
were made him of more ample Satisfaction; to which he re-  
turn’d an Aofwer not less to his Honour than the Victory  
**which he** gnin’d ; \*" That he should think himself sufficiently  
" compensated, if his warced Adversary received no farther  
" Molestation on his Account. “

So fur was this weak and injudicious Attack from shaking a  
Reputation not casually raised by Fashion or Caprice, but  
founded upon solidMerit, thet the same Year bis Correspond-  
ence was desired upon Botany and Natural Philosophy by the  
Acedemy of Sciences at *Paris,* of which he was, upon the  
Death of Count *Masrstgli,* in the Year I728. electsd a Mem-  
ber.

**Nor were the** *French* the only.Nation by which this great  
Man was courted and distinguished ; for, two Years after, he ’  
was electid Fellow of our Royal Society.

It cannot he doubted, but, thus caress’d, and honoured with  
the highest and most pubhc Marks of Esteem by other Nations,  
he became more celebrated in his own University ; for *Boer,  
haave* was not cue of thofe learned Men, of whom the World -  
has seen too many, that disgrace their Studies by their Vices,  
and by unaccountable Weaknesses make themselves ridiculous

at Home, while .their Writings procure them the Veneration of  
distant Countries, where their Learning is known, but not these  
Pollies.. ‘ -

Not that his Countrymen can he charged with being infensi-  
lrie of his Excellencies, till other Nations taught them to admire  
him ; for in I7I8. he was chosen to succeed *Le Mort* in the  
Professorship of *Chymistry,* on which Occasion he pronounced  
an Oration, *De Chymia errores suos expurgante* ; in which he  
treated that Science with an Elegance of Style not often to he  
found in chymical Writers, who seem generally to have affected  
not only a barbarous, brit unintelligible Phrase, and, like the  
*Pythagoreans* of old, to have'wrapt up their Secrets in Symbols;  
and enigmatical Expressions, either because they helieved, that  
Mankind would reverence most what they least understood,' or  
because they wrote not from Benevolence, butVanity, and were  
desirous to he praised for their Knowledge, though they could  
not prevail upon themselves to communicate it.

lin I 722. his Course both of Lectures and Practice was inter-  
rupted by the Gout, which, as he relates it in his Speech after  
**his** Recovery; he brought upon himself, by an imprudent Coni  
fidence in the Strength of his own Constitution, and by trans-  
gressing those Rules which he had a thousand times inculcated  
to his Popiis and Acquaintance. Rising in the Morning hefore  
Day, he went immediately, hot and sweating, from his Bed  
into the open Ain, and exposed himself to the cold Dews.

’ The History os his Illness can hardly be read without Horror.  
He was for five Months confined to lus Bed, where he lay upon  
**his** Back without daring to attempt the least Motion, because  
any Effort renewed his Torments, which were ***so*** exquisite,  
that he was at length not only deprived of Motion, but of  
Sense. Here Art was at a stand'; nothing could be attempted,  
because nothing could be proposed with the least Prospect of  
Success. At length having, in the sixth Month of his Illness,  
obtained some Remission, he took simple Medicines'in large  
Quantities, and at length wonderfully recovered.

*Succos presses bibit* Noster *herbarum Cichorea, Endivia, Fu-  
mor ice, Nasturtii aquatice, Veronica aquatica latifolia, cepia  
iinstnti t' Simul deglutiens abundantissime gummi fcrulacea Asi-  
atica. ' "* ""si / ’ . ῖ

' His Recovery, so much desired,' and so unexpected, was  
celebrated on *January* II. I723. when he open’d his.School  
again with general Joy, and public Illuminations.

' - It would he an injury to the Memory of *Bocrhaave,* not th  
mention what was related by himself .to one of his Friends,  
that when he lay whole Days and Nights without Sleep, he  
ffound no Meshed of diverting his Thoughts so effectual as Me-  
ditation upon his Studies, and that he often relieved and miti-  
-gated the Sense of his Torments by the Recollection of what  
**he** had read, and by reviewing those Stores of Knowledge'which  
the had reposited in his Memory. ‘ '/

. This is, perhaps, an instance of Fortitude, and steady Coin-  
posiireofMind, which would have heen for ever the Boast of  
The Stoic Schoois, and increased the Reputation of *Seneca* or  
*Cato.* The Patience of *Bocrhaave,* as it was more rational,  
was more lasting than theirs ; it was that *Patientia Christiana,*which *Lipsius,* the great Master of the StoicalPhilosophy, beg-  
ged of God in his last Hours; it was founded on Religion, not  
Vanity; not on Vain Reasonings, but on Confidence in God. .

In I727. he was seized with a Violent burning Fever, which  
continued so long, that he was once more given up by this  
Friends.. ’ ” ί.'ψ

From this time he was frequentiy afflicted; with Returns of  
his Distemper, which yet did not so sar subdue him, as to make  
him lay aside his Studies, or his Lectures, till in I726. he found  
himself so worn out, that it was improper for him to continue  
Any longer the Professorships of Botany and Chymistry, which  
he therefore resigned *April* 28. and upon his Resignation spoke  
a *Sermo Academicus,* or Oration, in which he asserts the Power  
and Wisdom of the Creator, from the wonderful Fabrio of **the**human Body ; and confutes all those idle Reasoners who pretend  
to explain the Formation of Parts, or the animal Operations, to  
which he proves that Art can produce nothing equal, nor any  
thing parallel. One Instance ! shall mention, which is pro-  
' duced by him, of the Vanity of any Attempt to rival the Works  
**os** Goth Nothing is more boasted by the Admirers of Chy-  
mistry, than that they can, by artificial Heats and Digestion,  
mutate the Productions of Nature. *Let all these Hordes of  
Science meet together, fays Boerhaave, let them tale Bread and  
IVine, the Food that forms the Blend of Man, and by Assimilation,  
contributes to the Growth of the Body : Let them try all their  
Arts, they stall net be able from thefe Materials to prodace a  
single Drop of Blood.* So much is the mosh common Act. of  
Nature beyond the utmost Efforts of the. most extended  
Science l

From this time *Bocrhaave* lived with less public Employ-  
ment indeed, but not an idle or an useless Life; for, besides  
his Hours spent in instructing his Scholars, a great part of hin  
Time was taken up by Patients, who came, when the Distem-  
**Per** would admit jt, from all Parts os *Europe* In console him Of

did it by Letters, which, in more urgent Cases, were Continually  
sent to inquire his Opinion, and ash his Advice.

Os his 5 rgacity, .and the wonderful Penetration with which he  
often disi IVered and descrihed, 4... the first Sight ***os*** a Patient,  
**such** Distempers as hetray themselves by no Symptoms to com-  
inon Eyes, such wonderful Relations have been spread over the  
World, as, though attested beyond Doubt, can scarcely he cre-  
dited. I mention none of them, because I have no Opportu-  
nity of collecting Testimonies, or distinguishing hetween those  
Accounts which are well proved, and those which owe their  
Rise to Fiction and Credulity.

Yet I cannot but implore, with the greatest Earnestness,  
such aS have been conversant with this great Man, that they  
will not so far neglect the common Interest of Mankind, aS to  
suffer any of these Circumstances to he lost to Posterity. Men  
are generally idle, and ready to satisfy themselves, and intimi-  
date the Industry of others, by calling that impossible which is  
only difficult. The Skill to which *Bocrhaave* attained, by a long  
and unwearied Observation of Nature, ought therefore to he  
Transmitted in all its Particulars to future Ages, thet his Success  
*Tors* may he ashamed to full below him, and that none may .  
thereafter excuse his Ignorance, by pleading the impossibility of  
clearer Knowledge.

Yet so sar was this great Master from presumptuous Const-  
dence in this Abilities, that in his Examinations of the Sick he  
was remarkably circumstantial and particular. He well knew,  
that the Originals of Di stampers are often at a Distance from  
their Visible Effects; thet to acquiesce in Conjecture, where  
Certainty may be obtained, is eitherVanity or Negligence ; and  
that Life is not to be sacrificed, either to an Affectation of  
quick Discernment, or of crouded Practice ; but may he **re-**quired, if trifled away, at the Hand of the Physician.

About the Middle of the Year I737. he felt the first Ap-  
proaches of that fetal Illness that brought him to the Grave, of  
which we have inserted an Account written by himself *Sept.* 8.  
I 738. to a’ Friend at. *London* ; which deserves not only to he  
preserved as an historical Relation of the Disease which deprived  
ths of so great a Man, but as a Proof of his Piety and Resignation  
to the Divine Will. ... . .......

*Alias, labor, corporifque epima pinguetudo, offecerant, anta  
annum, ut inertibus refertum, grave, bebes, plenitudine turgens  
corpus, anhelum ad motus minimas, cum fensu suffocationis, pulsu  
mirifice Anomalo, ineptum evaderet ad ullum motum. Urgebat  
praecipuesubsistmajprorsius et 'intercepta refpiratio ad prima somni .  
'initia t unde semnus piorsus prohibebatur, cum forjnidabilistraso-  
gulationis molestia. Hinc hydropo pedam, crurum, femorum, -  
scroti, praputii, et abdominis, siluae tamen omnia sublata. Sed  
dolor manet in abdomine, cum anxietate summa, anhelitu suffo-  
cante, et debilitate incredibili t Somno pauco, eoquc vago, per  
somnia turbatissimo .. Animus vero rebus agendis impar. Cum his  
'luctorfefsus, nec emcrgo csc Patienter expcctans Dii suffis, quibus ’  
resigno data, quae sola amo, et honoro unite.* .i

In this last. Iliness, which was to the last Degree lingering, .  
painful, and afflictive, his Constancy and Firmness did not .for- .  
sake him. \He neither intermitted the necessary Cares of Life,  
nor forgot the proper Preparations for Death. - Though Deje-  
ction and Lowness of Spirit was, as he himself telis uS, Part of  
his Distemper ; yet even this, in some measure, gave way to  
that Vigour which the Soul receives from a Consciousness of  
Innocence.' f .

‘ About three Weeks before hrs Death he received a Visit at his  
Country-house from the Rev. Mr. *Schultens,* his intimateFriend,  
who found him’sitting without Door, with his Wife, Sister,  
‘and Daughter; After the Compliments of Form, the ladies  
withdrew, and left them to private Conversation; when *Bocr-  
haaue* took Occasion to tell him what had been, during his III-  
iness, the chief Subject of his Thoughts. He had never doubted  
of the spiritual and immaterial Nature of the Soul, but declared  
that he had lately had a kind of experimental Certainty of **the**Distinction between corpores! and thinking Substances, which  
mere Reason and Philosophy cannot afford ; and Opportunities  
lus contemplating the wonderful and inexplicable Union os Soul  
'and.Body, which nothing but long'Sickness can give. This he  
illustrated hy :a Description of the Effects which the Infirmities  
of his Body had upon this Faculties; which yet they did not **so**oppress or Vanquish, but his Soul was always Master of itselsy  
'and always resigned to the Pleasure of its Maker.

**\* He** related, 'with great Concern, that once his Patience so  
sar gave way to Extremity of Pain, that, after having lain fif-  
teen Hours in exquisiteIortures, he prayed to God, that he  
might be set freethy Death.

Mr. *Schultens,* by way of Consolation, answered. That he  
’thought such Wishes, when forced by continued and excessive  
Torments, unavoidable in the present State of human Nature ;  
that the heft Men, even *Job* himself, were not able to refrain  
from such Starts of impatience. This he did not deny, but  
.said, " He that loves God, ought to think nothing desirable.  
" but what« most pleasing to the supreme Goodness.''

Such were his Sentiments, and such his Conduct, in this State  
of Weakness and Pain: As Death approached nearer, he was  
fo sar'from Terror or Confusion, that he seemed even less sen-  
sible of Pain, and more chearful under his Torments/ which  
continued till the 23d Day of *Septembcr* I738. on winch he  
died, between Four and Five in the Morning, in the 70th Year  
os his Age.

Thus died *Boerhaave,* a Man formed by Nature for great Dee  
signs,. and guided. by Religion in the Exertion of his Abilities.  
He was of a robust and athletic Constitution of Body, so hard-  
ened by early Severities, and wholsome Fatigue, that he was  
insensible. of any Sharpness of Ain, or Inclemency of Weather.-  
He was tall, and remarkable for extraordinary Strength.  
There was in his Air and Motion something rough and artiess,  
hut so majestic and great at the same .time, that no Man ever  
looked upon him without Veneration, and a kind of tacit Sub-  
mission to the Superiority of his Genius.

The Vigour and Activity of his Mind sparkled Visibly in his  
Eyes, nor was it observed, that any Change of his Fortune, or  
Alteration in his Affairs, whether happy or unfortunate, affect-  
ed his Countenances

He was always dhearfuj, and desirous of promoting Mirth by  
**. a** facetious and humorous Conversation; he was never soured  
by Calumny and Detraction, nor eVer thought it necessary **to**confute them ; for *they are Sparks,* said he, *which, if you de  
not blow them. Will go out of themselves. \ / . .*

' Yet the took care never to provoke Enemies hy Severity of  
Censure; for he never dwelt on the Faults or Defects os others,  
and .was so. far from inflaming the Envy of his Rivals by dwel-  
ling on his own Excellencies, that he rarely mentioned himself,  
**or** his Writings.

De was riot to be overaw'd or depress’d by the Presence,  
Frowns, or Insolence of great-Men, but persisted on all Oc-  
casions in the right, with a Resolution always present, and al-  
ways calm. He was modest, but not timorous ; and firm with-  
out Rudeness. .’ Ἀ

He could, with uncommon Readiness and Certainty, make a  
Conjecture of Mens Inclinations and Capacity by their Aspect.

Hrs Method of Life was to study in the Morning and EVen-  
- Ing, and to allot the Middle of the Day to his public Business.  
He rose at Four in the Summer, and Five in Winter. His usual  
Exercise was Riding, till, in his latter Years, his Distempers  
made it more proper sor him to walk ; when he was weary, he  
amused himself with playing on the Violin. .

His greatest Pleasure was to retire to his House in the Couti-  
try, where he had a Garden of eight Acres, stored with all the  
Herbs and Trees which the Climate would bear: Here he used  
' to enjoy his Hours unmolested, and prosecute his Studies with-  
out Interruption. ‘»

The Diligence with which he pursued his Studies, is fuffi-  
cientiy evident from his Success. Statesmen and Generals may  
grow great by unexpected Accidents, and a fortunate Concur-  
rence of Circumstances, neither procured nor foreseen . by  
themselves: But Reputation in the learned World must.be the  
. Effect of Industry and Capacity. *Boerhaave* lost none of his  
' Hours, but when he had attained one Science, attempted an-  
. other: He added Physic to Divinity, Chymistry to the Mathe-  
inatics, and Botany to Anatomy. He examined Systems by  
Experiments, and formed Experiments into Systems. He nei-  
.ther neglected the Observations of others, nor blindly submitted  
**to** celebrated Names. He neither thought so highly of himfelf,  
as to imagine he could receive no Light from Books; nor **so**’meanly, as to believe he could discover nothing hut what was to  
be learned from them. He examined the Observations Of other  
Men, but trusted only to his own.

Nor was he unacquainted with the Art of recommending .  
Truth by Elegance, and embellishing Philosophy with polite '  
\* Literature ; he knew that but a small Part of Mankind will  
sacrifice their Pleasure to then Improvement; and those Au-  
’ thorS who would find many Readers, must endeavour to please  
'while they instruct. . : . ’ - . .. - . ς ἐν

He knew the Importance of his own Writings to Mankind ;  
and lest he might by a Roughness and Barbarity os Style, tho fre-  
' quent among Men of great Learning, disappoint his own In-  
tentions, and make his Labours less useful, he did not neglect  
i the Arts of Eloquence and Poetry. Thus was his .lLearning at  
. once various and exact, profound and agreeable. \*

He was not only skilled in the learned Languages, and the  
i Tongues in which the Old Testament was written, but was  
; able to converse in many of the modern Languages, and to read  
" Others which he could not speak. . ' ’

Blit his Knowledge, however uncommon, holds, in his Cha-  
. ‘ racter, but the second Place; his Virtue was yet much more un-  
common than his Learning? He was an admirable Example of  
Temperance, Fortitude, Hnrnility, and Devotion. HiS Piety,  
and a religious Sense of his Dependende on God, was the Basis  
' of all his Virtues, and the Principle Os his\*whole Conduct. He  
was too sensible os his Weakness to ascribe any thing to himself,  
or to conceive that he could subdue Passion, or withstand  
Temptation, by his own naturalPower ; he attributed every good

Thought, and every laudable Action, to -the Furher’of Grind-  
nest Being once ashed hy a Friend, who had often admired  
his Patience under, great Provocations, whether he knew whet  
it was to be angry, and by whet means he had so entirely sup-  
pressed that impetuous and ungovernable Passion; fie answer'd ;  
with the utmost Frankness andSineerity, That hewas naturally  
quick of Resentment, hut that he had, by daily Prayer, and  
meditation, .at length attained to this Mastery over himself  
.. As soon as he: rose in theMorning; It was, throughout h.S'  
whole Lise, .his daily Practice to retire forari Hour to.private  
Prayer and Meditation ; this,, he often told bls Friends, gave  
him Spirit and Vigour in the Business of the Day; and this he  
therefore commended as the best Role of Life ; for nothing, he  
knew, could support the Soul in all Distresses but a Confidence  
in the Supreme Being, nor can a steady and rational Magnani-  
mity flow from any. other Source than a Consciousness of **the**Divine Favour. .

He asserted on ail Occasions the Divine Authority, and sacred  
Efficacy, of the Holy Scriptures; and maintained that by them  
alone was taught the Way os Salvation, and that they only could  
give Peace of Mind. The Excellency of the Christian Religion  
was the frequent Subject of his Conversation. A strict Obedi-  
-ence to the Doctrine, and a diligent Imitation os the Example;  
Of our blessed Saviour, he often declared to be the Foundation  
of true Tranquillity. He recommended to his Friends ai careful  
Observation of the Precept of *Mosey* concerning, the Love of  
God and Man. He worshipped God aS he is in himself, with- ‘  
- out attempting to inquire into his Nature. He desired only to  
.think of God, what God has reveal'd of himself. There he  
stopped, lest by indulging his own Ideas he should form a  
Deity from his own Imagination, and commit Sin by falling '  
down before him. To the Wall of God be paid an absolute  
.Submission,.without endeavouring to discover the Reason of hie  
Determinations; and thin he accounted the first and most invi-  
' olable Duty of a Christian. When he heard os a Criminal con.,  
demned to die, he used to think, and often to say. Who cart  
tell whether this Man is riot better than I ? Or, if I am better; -  
it is not to be ascribed to myself, but to the Goodness, of Ged.

So sar was this Man from being made impious by Philosophy;  
or vain by Knowledge, or hy Virtue, that he ascribed all bin  
Abilities to the Bounty, and all his Goodness to the Grace os  
God. May his Example extend its Influence to his Admirers  
and Followers l May those who. studythis Writings, imitate his  
Life; and those who endeavour after his Knowledge, aspire  
likewise to his Piety I ..

He married, *Septembcr iyi* I7IO. *Mary Drolenveaux,* the  
only Daughter of a Burgomaster of *Leyden,* by whom he had  
*-'Joanna Maria,* who survives her Father, and three other;

Children, who died in their Infancy. '

The genuine Works os *Bocrhaave,* according to his own Ca-  
talogue of them, are as follows ; and he declares, in I732.  
that all others under his Name are spurious, unless some few  
Prefaces to new Editions os Books.

v *Oratio de commendando Studio Hippocratico, habita et im-  
pressa Lugd. Bat*. I7OI. *apud. Abrah. Elsevier. -*

*de Usu Ratiocinii Mechanici in Medicina,* 1703. *apud  
c Juarrn. Verbessel. . - . . . ’ .*

. ς ——*4na repurgatae Medicinae, facilis asseritur Simplicitas,  
ssoiyCtty. apudJoann. Vander Linden. :*

*... de comparanda Certo in Physicis, griitq. apnd Petrum*

*.VanderAn.. .*

*\_ . \_ de Chymia sues errores expurgante,* I7 I8. *apnd Petrum.*

*Pandor Aa. ... .. .*

*— de Vita et Obitu Clarissimi Bernardi Albini,* 172is  
*apud Petrum Pandor Aas , - - . .*τ *—4. quam hebui, quum, hemesta missione impetrata, Botaa*

*nicarn et Chymicarn professionem publice ponerem,* 1729. *apud  
Jfaacum Sevcrinum.* τ si... . ,

*de 'Honora Medici,. Servitute,* I73I. *apud Isuacieni  
Sevcrinum.*

*Institutiones Medica in Usus annum exercitationis domesticos,  
TyoS. apud Joannem Pander Linden, P. et Fi*

*Nui dein auctior aliquoties rccusus in* 8\*yo.

*. Aphorism, de cognoscendis'et. curandis Morbis, in usum doc.  
ctrinae domestica,* I70o. *apud Joannern Pander Linden.*

*scsui dein auctior aliquoties recusas in* Sno. .

*Index plantarum, quce in Norto'Academico isougduno.Batdva  
rapcriuntur, i'jrQ..ApudNorneliugrj Eoutestesn, inp.uo.*

*Libellus de Materie Medica, et Remediorum Formulis,* Iyi9a  
*'apud Ifaacum Severinum, in Suo.*

*Nui iterum prodiit in Svo. ,* χ ’

*Index altor plantarum, qua in Horta .Academico Lugduno..  
. Batavo aluntur, AyiCp. apud Petrum Pander Aa, in astq.*

*Atrocis, nec descripti prius. Morbi Historict, fecundum Me.:  
dicer Artis leges confcripta,* I724; *apud Bout esi cen, in Sito.*

*Atrocis, rarisesimique. Morbi Hast oria 'altera,* I728; *apud  
Samuelem Luchemans et Theodorum Haak, in Svo.*

*Tractatus Medicus de Lue Aphrodisiaca,- prasinus Apihrodosiaco,*I728. *apud foh. Arn. Langerak, et. f oh. et Herm. Virbeek, in  
Folio.*

Besides these, he communicated to the Royal Society, and  
so the Royal Academy of Sciences, some Observations upon  
'Quicksilver, which are published in the *Philosophical Toranf-  
actious.*

Having given this Account of the Life and Writings of  
*Pocrhaave,* it remains, that *I* take some Notice Of his capital  
Works, which are his Institutes, his Aphorisms, and his Chy-  
mistry.

His Institutes were designed as littie more than a Syllabus  
to his Lectures. They are written in a Very concife and close  
Style, but abound in Matter containing all the modern Dis-  
coveries in Anatomy, Physiology, and whatever relates to the  
Laws of the Animal Oeconomy, and the Action of Medi-  
cines upon the Body, with considerable Improvements of his  
own, which are fpecify'd under their proper Articles. This  
Treatise is Very methodical and distinct; but I apprehend it  
is utterly unintelligible to any one who is not in some Degree  
previousty acquainted with the Subjects Of which he treats.

His Aphorisms are, as he telis us himself, collected from the  
*Greek* Medicinal Writers, the *Arabians,* and some few of the  
Moderns; and his Reasonings are founded on the Structure of  
the Parts, and the Laws of Mechanics. I must here observe,  
that *Bocrhaave,* to his great Honour, seems to have gone conn-  
ter to most Writers of Institutes, and Compilers of Systems.  
For they have generally endeavour'd to lead Nature as it were  
captive, and make her act conformable to their preconceived  
Notions, however Crude and chimerical; imposing Laws upon  
the Animal Oeconomy, which have no Reality, and establishing  
with great Pains and industry. Sources of Action, which exist  
no.where but in their own Imaginations. *Boerhaave,* on the  
contrary, was convinced- by daily Experience, and a Fund of  
good Sense, that *Greek* Physicians by diligent Observation  
had determin'd with great Accuracy, how Nature acts in pro-  
ducing the Symptoms of Distempers, and her Methods of  
relieving her herself, either with or without the Assistance of  
Art; and that their Experience had furnish'd them with Very  
successful Methods of Cure, The two Points therefore which  
he feems to have had perpetually in View were, to esta-  
blish on Mechanical Principles, as much as was possible, the  
Doctrine of the Antients with respect to the Diagnostics and  
Prognostics of Diseases, and shew that they could not he  
otherwise than they have represented them.

But the second View is of more Importance than the first.  
It heing no less than to demonstrate/ that the Methods of  
Cure, pursued hy the.antient Physicians, were generally the  
best that could possibly have heen contriv'd with the Materials  
they were acquainted with, tho'Tor Reasons to which they  
were probably Strangers, This appears to me the distinguish-  
ing Character of *Boerhaave.* And by this he has done almost  
as much Service to Physic, as his Predecessors for some Cert-  
titties had done Mischief. . .

It is greatly to he lamented, that our illustrious Author did  
not think proper to publish his Lectures on his Institutes and  
Aphorisms, hefore ins Decease. If he had foreseen the fetal  
Consequences of such an Omission, **I** helieVe his **Love to**Mankind would have prevailed upon him to have done it, and  
thereby prevented the Mischiess ins great Name, and the Re-  
putation os his Lectures, may possibly do in the World.  
That I may explain my Meaning, I must observe, that inis  
the Misfortune of the *English* to he Very little used to con-  
verse in *Latin,* tho' perhaps no People ip the World under-  
stand it hetter. Add to this, that as we pronounce *Latin* **in a**different manner from all other Nations, our Ears are not  
accustom'd to the foreign.Accent. Hence Foreigners with  
Difficulty understand us, and, on the other hand, it is impos-  
sible ' for ns to take their Meaning, especially in long Dis-  
courses, with that Degree of Exactness, which Subjects of  
Importance require; and indeed it is no easy Matter to take  
the entire Sense Of long Discourses, tho' deliver'd in the Lan-  
guages.we are best acquainted with. This is the'Reason, that  
many of his Pupils, who have only attended his Lectures for  
two or three Years, have frequentiy mistaken his Meaning,  
and held their Own Errors in an equal Degree of Veneration  
with the genuine Doctrine Of their Professor; and have impru-  
dentiy neglected to set themselves right,by examining the Sources  
from whence *Bocrhaave* himself drew his Treasures; some-  
times perhaps, because they imagined the Authority of their  
Professor render’d it superfluous; and sometimes, hecause they  
were Strangers to the Languages in which the best Medicinal  
Authors wrote; thus either out of Choice or Necessity taking  
**a** more easy, tho' less certain Way to Knowledge, than *Bocr-  
haave* either advised, or thought proper to pursue himself. .

That this has been really the Case, the spurious Works, at-  
tributed to *Bocrhaave* by his Scholars, are glaring Evidences;  
amongst which, his Method of studying Physic, as I think it  
is called, deserves some Notice, heing a crude and injudicious  
Performance, and in a great many Instances contradictory to  
the Sentiments of *Boerhaave,* on the Subjects there treated;  
and, as I remember, it recommends some Authors who never  
wrote. Or even existed. In the same Rank is the *Praxis*

*Medica,* printed in five Volumes in *Holland,* tho’ the Title  
telis us at *Padua,* in the Presace we are informed, that  
many Of his Auditors took his Lectures in Writing; that  
these were carefully compar'd, and hence this Work was  
compiled. Yet, notwithstanding all this Care, there are not  
many Pages without some enormous Error, nor even Sen-  
tences without false *Latin* ; so littie did they understand either  
then Professor, Or their Subjects..

With respect to his Chymistry, it may he justly said, that  
his Theory is more philosophical, exact, and full, and his Pro-  
Cefles more methodical and regular, than those of any pre-  
ceding Author on the Subject. It is remarkable, that in this  
Work he has made many Chymical Operations subservient to  
the establishing several important Doctrines of the Antients,  
and to the Confirmation Of their Practice. I shall concludo  
with remarking, that this Work alone would have been suf-.  
ficient to raise the Character Of any other Man ; but is, hew-  
ever, that in which *Bocrhaave* shines much less than in his  
Institutes and Aphorisms, the last of which is, perhaps, more  
useful than any One Book written upon Physic, and has had **the**Honour- of being transtated into *Arabic,* as is said,, by **tho***Mnsiti,* and printed At *Constantinople. ..........*

BOETHEMA, βοήθημα. A Remedy.

BOETHEMATICA SEMEIA βοηθημὲντικἀ σημεςα, auxi-  
Kary Signs in Diseases, are such as give us Notice of a **Cure**observable in them, (ἐξ *So voropetpevritruapribex.* τῆς ἐπ’ ἀυτὸιστ  
τετηρημένης θεραπείας) *Gal. Des. Meda .*

BOF. Quick-lime. *Rulandus.*

BOICININGA, Johnston. *Boicinininga,* G. Pison. *Domi-  
nica Serpentum,* Nieremb. In *Portuguese* and *Spanish, Cafcavel.,*or *Tagendor., in French, Serpent si Sonnettesi in Eriglists,* the  
**RATTLE-SNAKE.**

A Serpent of *Brasil,* four or five Feet long, of the Thick-  
ness of a Man's Arm, and of a reddish Colour, inclining to  
yellow, with small Eyes, a forked Tall, very" long and sharl\*  
Teeth, and its Tail towards the Extremity furnished **with a**paralielogrammous Substance, two Fingers Breadth or more in  
- Length, and about half a Finger's Breadth in Wideness, consist-  
ing- as it were. Of small Links combin’d with one another,  
dry, smooth, shining, and of an Ash-colour inclining to Red. \_  
This Substance increases every Year a Link, and makes **a.**Noise like littie Rattles, when the Serpent creeps, so aS to he  
heard at a good Distance. It keeps itself in By-paths, **and**runs aster Passengers with such Swiftness, that it seems to fly,  
and is a very Violent and dangerous Creature. They say that  
Travellers, for their Security against it, carry with them a Piece  
of *Virginian* Root called *Snakcroot,* fasten'd to the End of in  
Stick ; and that when they perceive by the rattling Noise, that  
the Serpent approaches, they hold forth to it that Root, **the**Smell of yvhich either kills it, or disables it from advancing  
any farther. .

Its Flesh has the fame Virtues as the Viper's in resisting Poi-  
son, purifying the Blood, and exciting Sweat.. \_ *Lemery det  
Drogues. ’ - ;*

This seems to be the Rattle-shake now so well known, and  
fo remarkable for its Poison. With respect to this sort os Vi-  
per, I find the following Observations in **the** *Philosophical  
Transactions.*

The.,Fat of the *Pattle-suctlie* is said to be used by the Phy-  
sicians of *Mexico* with good Success in the Sciatica, and all  
Pains of the Limbs, and for discussing preternatural Turnons.

A present Antidote sor this Poison is said to be the Snake-stone,  
*Picrre de Cobras de Cabelo,* as it is called by the *Portuguese,*' and is famous all over the *Indies* ; 'tis describ'd by *Garcias ah  
Horto,* by *Kircher,* and others, particularly by *siRedi,* who  
.renders very much suspected the Relations that are common-  
ly had os its great Force and Virtue r but that it does not al-  
’ ways fall, some Accounts I have had of Persons relieved by it  
There in *England* have convinc'd me. One Instance is re-  
“ markable, that was told me ~ by an eminent Physician in *Lon.,  
don,* of a Personmear the Town that was bit by a Viper : His  
’ Hand and Arm soon swelled with great Extremity of Pain.;  
"hut, upon the Application of this Stone for one Night, both  
5 were affwaged, and he thought himself well, and took off the  
; Stone, which still firmly adhered. But, not long after, ins  
'Former Symptoms Violentiy returning, he had recourse to his

Antidote, and then suffered It th continue there till It fell off  
itself, and so was cured. One Trial I formerly-made myself  
in a Patient troubled with the Gout in her Stomach ; having  
’ removed it thence, it seized her Toe; but she being impatient  
of the Pain, .that I might seem to do something, and to bin-  
' der her using abundance of Medicines, winch every body was  
like to advise her to, and might he apt to strike it to her Sto-  
mach again, I thought of this: Holding the Stone therefore in  
my Hand, and without, acquainting her, I put it near **the**Joint where her Pain was most, and, heing Very near it,  
I perceived it moVe out of my Hand, and readily adhere to  
the Part. Soon after, she acquainted me, that she very sensibly  
perceived a great Drawing and Tickling all down her Leg and  
’ Thigh, and afterwards Owned an Abatement of her Pain. In

pestilential Swellings very probably it may he of Use. Dr.  
*EdwardTys.cn. - J . si*

The *Rattle-suahe* seems to take its Name from the Rattles  
in its Tail,, in which are sometimes twenty of those loose '  
Rings. The more Northerly they travel, these Snakes are  
dess numerous, as well as less Venomous; nor, as it is said, are  
any seen to .the North of *Mcrimaclc* River, which is about  
forty Miles North of *Poston.*' st is constantly affirmed by the  
*Indians,* that these Snakes-frequently lie coiled at the Bottom  
**of** a great Tree, with their Eyes fixed on some Squirrel above  
in the Tree, which seeming by his .Cries, . and Leaping  
about, to be in a Fright, yet at last runs down the Tree, and  
into the Jaws of. .the Devourer. The Winter-abode os these  
Snakes is in the Clefts of inaccessible Rocks, from whence in  
the Spring they come forth a .funning themselves, at first Very  
feeble, which is their chief Time of destroying chemi At this  
time the Cystis or .Gall-bladder in these Snakes is full of an acrid  
azure-coloured Juice, winch they squeeze out into a Glass,  
shut it is so spirituous, that, if the Glass be not immediately stops,  
**it** will soon evaporate: ThiS'Liquor therefore they mix with a  
convenient Quantity of powder’d Chalk, or *Indian* Meal,  
and use it as a proper Medicine against the Venomous Bite of  
this Snake. Some have, named. it- *Trochisci Connecticotiani,*from-the *Connecticut* Colony. Tis observable, when the Sum-  
iner Heats come on, the Snakes have no longer this azure  
Liquor in their Gall-bladders, in which there is only found a black  
thick Sediment Of no known Use, at which time they think  
the forementioned spirituous Juice is carried to, and lodged in  
their Gums, .and so conveyed or thrown by the Hollow of the  
Teeth into the Wound when they bite,- having received an-  
other. Digestion, and higher Exaltation; by passing through *slum*veral Strainers and Glands hefore it arrives at the Gums.

.5 AS an Instance of the Virulence of the Liquor, Ἀ Traveller,  
killing one of these Snakes, suffer'd the .enraged dying Viper to  
bite the End os the Switch, with the Lashes of which he had  
disabled him; and a Fly by chance disturbing one os his Tern-  
pies as he rode on afterwards, the rubb’d his Temple with the  
other End of the Switch, which immediately caused his whole  
Head to swell to a great Excess, the Poison, aS he supposes.  
Penetrating the whole Length of the Switch. Another provoke-  
- Ing a Rattle-snake to bite the Edge os abroad Ax he had in his  
‘Hand, the Colour of the steel'd Part bitten was immediately  
changed , and at the first Stroke he made with it, in ufing his  
Ax, the discolour'd Part broke out, leaving a Gap tn his Ax.  
**But** to return\* to the Troches made os the Gall: It is a cordial  
Sudorific, and so good an Anodyne, that some, take three of  
four Grains of it to compose them to Rest after Travel. ’Tis  
good in all Fevers, especially the malignant. It is an infallible.  
Remedy for Obstructions incident to Women upon catching  
Gold in Child-bed.' Being taken in a convenient Quantity,  
twelve Hours before the Fit, it certainly cures a-Quartan Ague.  
The Dose is fourteen Grains, more or infs, according to the  
Circumstances of the Patient, in any Vehicle. Dr. *Mather.*

The Inhabitants of *America* have several Remedies for the  
Sting of a Rattle-snake: Among others, that which is much  
made use of is a Root they hall Blood-root, I suppose so named  
frorn the Colour of the Root, and the Juine, which is red like  
Blood.. It grows in great Abundance in the Woods . They  
bruise the Root, and bind it above the Place that, ishit, to pre-  
vent the Poison’s going further, at the same time scarifying the  
Place affected. Some of the Root is also boil'd, and the Per-  
son poison'd drinks the Water. *Paul Dudley, Elsus Phil.  
Trans.. Abr. so.c.at-*

TheSeHherin Rattle-fnake Root, taken internally, is said th  
he a Cure for the Bite of the Spake whose Name it hears. But  
It is probable, that the common Sallad Oil, that is. Oil of Olives,  
ruhb'd well into the Part by a warm Fire, would-cure this  
TBite, as it does that of a Viper. ’ / . u . r .

'. BOJOBI, *Pison. Jonsi.* A-Serpent of *Brasil,* call'd by the  
*Portuguese Cobresucrde,* about an Ell *(French)* long, and an  
Inch thick, and of a shining Leek-green Colour ; has a wide  
Mouth, and a black Tongue. It keeps itself among the Stones  
in Buildings, and does no Harm, unless provoked ;-but then  
raises itself on its Tall, and throws itself on the Hand that is  
next to it. . Its Poison is so Venomous, that it will-hardly yield  
**‘to** the most powerful Remedies. -The-Medicine chiefly ufed by  
the *Indian* Physicians is the Root of an Herb call’d *Coa-apia,*which is full of Joints, which they bruise weby and -cause the  
Patient to Twallow in Water, h -

The Flesh of this Serpent has much the same. Virtues with  
that of the Viper; and the Volatile Salt extracted from it would  
be more effectual against its-Bite, (than the *Coa-apia. Lemery  
’des Drogues. .*

BOITIAPQ, *Marcg.Junst.* is a Serpent of *Brasil,* called  
thy the *Portuguese Cabus de Cipose* It is seven or eight Feet  
long, aS-thick as a Mari's Arm, round, and pointed towards  
-the Tail, -like a Shoemakers Awl. jt .is. cover’d with fine, and,  
as it were, triangular Scales; and is of an Olivo Colour and yel-  
inwish. -It lives upon Frogs, and itS Bite - is -dangerous, like  
-that ofmany other Serpents, . . ἄκ. .—:

its Flesh might he used as effectually as that of the Viper sor  
purifying the Blond, and as an Alexipharmac. *Lcmtry det  
Drogues. ' \_ i* , , X

' BOLBIDION, βολβίδιον; A small Polypus, a fort of Fish.’  
*Hippocrates, yvraeK. Lib:* 2. ἤ δ’ ἄρτον βήλεται, καὶ βολβίδια,  
καὶ σηπίδια οὐρδ σμικρῶπ " If she has a mind to Bread, and Bul-  
" buli, and small Polypuses." Again, in she same Book, for an  
Inflammation of the Uterus, he advises, in -Food, βολβιδίοιος καὶ  
πολυποδιοιοςν ἐν όινῳ καὶ ἐλαιῳ\* " Bulbuli and small Polypuses in  
Wine and Oil." *Foesiusi ' '- -*

BOLBION, βόλβιον. This, aS well as the preceding, is a  
Diminutive of βολβός, and is render'd also *Bulbulus,* a small  
Bulb. *Hippocrates, Libs* 2. περὶ γυναικ. advises Bulbuli, with  
Garlick and Nitre, to he used as in Pessary for a Weakness of  
the Uterus, not retaining the Semen. He often uses the Bui-  
bulus, Ur *Bolbion,* in a Pessary for Disorders of th at Tart, as, iri  
*Lib. attei* ἐπικυήσιος, to cleanse the Uterus ; and. *Lib. L.* περὶ  
γυναικ. the same bruised, with Myrrh and Honey, as an excel-  
dent Pessary for the *Fluor Uterinusi* Again, *Libi 'srcci yuveun.  
quia,* he advises the Bolbion, bruised in White-wine, and wrapp'd  
in Wool, to cleanse the Uterus; in order for Conception ; and  
in the same Book, he orders βόλβιον dur *isisi rrvgulv,* " the Bolbion  
which grows amongst Wheat/' to be bruised and macerated

-in Wine, and, being wrapp'd in Wool, to be applied to a Wo-  
man newly brought to Bed. See **BULBUS. ;**

- BOLBITION, βολβιτίίν. *Galen,* in his *Exegesis,* says *Bol-  
bition* is call'd by some *Eombylion,* and is a small Polypus, a  
Tort of Fish. - *Foesius.*

BOLBITON, βόλβιτικ. Cow-dung. *It* is also call'd *Boise  
ion,* βόλιτον, as *Galen* says in this *Exegesis. Hippocrates, Libi  
aresd yvveun. quia,* for a Dropsy of the Uterus,, advises πυριουν ἐν \* .  
.gni βολβίτῳ, " to foment it with Cow-dungand in all his  
Treatises concerning Women, he frequently prescribes Suffurni-  
gations of Cow-dung for Disorders of the Uterus. And *Diose  
corides. Lib. L. Cap. AS.* writes, that the Dung of a Male Bul-  
lock represses the Failing-down of the Uterus. It is also called  
*Bolbitos,* and *Bolitos,* in the *Attic* Dialect, and by *Hefychius  
Bolynihon. Foesius c*

‘ BOLBONAC. See **BULEONAei**

BOLBOS, βολβός. *Erotian, in Hippocrates,* says, βολβὸν  
βοτάνης ονομα, " Bolbos is the Name of an Herbbut, *set  
-βολ&ν,* perhaps we should read βόλβιον ; tho\*, in *Lib. y. Epidi*we meet with βολβῦ χυλός, " the Juice of the Bulbus.” **See  
..BULAUS.**

. .BOLCHON, βολχον. A Name for Bdellium.

. BOLESIS. Ἀ Name for Coral. *Rulandusc*BOLESON. A Balsam. *Johnson.*BOLETTO, **Frit. SeeFRITTA.**

BOLETUS. A Mushroom. See **AMANITA.**

In Dr. *Martyrss Tournefort* I find the following Catalogue  
*"of isoleit. - - -*

*Boletus mayor, pileo fusco, ports albidis. Fungus porosut  
anagnus crajsus, ex fuseo albicans,* J. B. 3. 8I7. Lib. 4o. Co  
?9.. ‘ ‘ ; -

-The Head of this is sometimes ten or eleven Inches in Dia-  
meter, *Faill. si*

*- Boletus mayor, pileo purpurascentes Fungus porosus magnus  
'-crassus puepurasoensi*

"-' This differs from the former only in Colour.

*Boletus mayor, pileo tubcrculir aspero, coloris atirantii, porii  
ialbidisi Fungus porosus magnus crajsus, tuberculis minimis ex.^  
-asperatus, colorepomi aurantii exiccaset, N*aill. *59.*

The Diameter of theHead is from sour to nx Inches. The  
Stalk is four or five Inches high, above *Bn* Inch thick at the  
.Base, and tapers towards theTop. -It is white, and in a man-  
ner hairy: This Hair or Down afterwards.grows black, and  
-Variegates the Stalk. r. ... '

*Boletus mayor, pileo castanei coloris, poris ex lntco uirentibuse  
.Fungus porosus magnas crassus, coloris castanei nunc liquidio.\*  
adis, nunc magis sordidi,* Vaill. 59V - - . : .

- :The Head is from four to nine Inches in Diameter: Its Sub-  
-stance is white, but it grows red soon after it is cut. ~ It is an  
ι Inch thick in its thickest Part. The Top of the Head is a bright  
Chesnut Colour, sometimes of a dirtyncehite, and sometimes  
tofariamher Colour. The Stalk is white, andsornetimes tinged  
vwith Yellow. It is five Inches high, arid two or three in Did-  
-meter towards the Base, especially when the Plant is growing,  
.and tapers towards theTop. It is found about the latter .End of  
*August,* and .-Beginning os *September.*... The *-Fungus porosus  
maximus crajsus luteus lacer, pediculo longissima virescente,*Cimel. Reg. and .the *Fungus porosus nostras brachiatus rnario  
mus,* ibid, are Varieties of this Species, *Viaill. ’ et.*

- I take this to -be the same with the *Fungus porosus magnus,*-Rail Hist. Ioo. which we often meet, with about the .latter End  
os Summer. . . \*' '  
*-:' Boletus pileo purpurascente, poris flavis. Fungtis porosus me\*  
-dius, sordide purpurascens, VailL 59..*

- ’ The Head is .about two Inches in Diameter, a little convex.  
The Stalk is about one Inch and a half high, five Lines-thick,  
'andOf the saineColour with theHead. /Perhaps it is theiin»-

*gus Italicus, pediculo tumente, pileolo supina parte coloris ilini  
ifercum, prona vero luteo,* Csmel. Reg. Vaill.

*Boletus pileo sordide albo, tuberculis castaneis variegato, porii  
staves: Fungus poros.us medius, superficie sordide alba, tubercu-  
lis castaneis variegata,* Vaill. 5q..

The Head is hemisphericalat first; afterwards it grows flatter.  
It is two or three Inches high, of a dirty White, near an Inch  
thick at the Base, and about six Lines at the Top. I take it  
to he *tfoe.Fungus brixzatus madidus,* Raii Supp. 25. Vaill.

*Boletus laevis et viseidus, superne coloris sus.ci castanei, in-  
ferne lutei,* Dillan. Cat. Gist. 188. *Fungi lusei pcrniceosi sub  
pinu habitantes, J.* B. 3. SI6. Lib. 40. Co 24. \_

. The Head of this is from one to three Inches in Diameter:  
It is a littie convex, of the Colour oTGinger-bread, or a reddish  
- Yellow, smooth, and a littie shining. This Shining proceeds  
. from a Slime,‘with which it is usually cover'd, efpecialsy whilst  
it is young.. Its Flesh is white. The Pores are of a Lemon or  
Brimstone-colour ; there is a whitish Liquor distils from them,  
. winch gathers in Drops; The Stalk is white, an Inch or two  
long, and a little fwell’d something above the Base.

*. . Boletus pileo sordide albo, caule ovali. Fungus poros.us, pedi-  
. culo trvali, pileoli superficie sordidissime alba,* Vaill. 6o.

The Stalk, Pores, and Head, are all the same Colour; the  
- Flesh of the Head, when broken or cut, is bluish, and stains  
the Paper of the same Colour. *Vaill. ...*

*Boletus 'pileo croceo, caule ovali. Fungus poros.us, pediculo  
Arvali, pileoli superficie splendide crocea,* Vaill. 6o.

The Head is of a dark Saffron-colour, and the Pores of a  
light one ; as is also the upper Part of the Stalk, tho' the lower  
.Part of it is of the same Colour with the Head. The Flesh is  
of a greenish Yellow, when first cut ; but soon changes to a  
. dirty .Green. It is the *Fungus Italicus fuscus, pileolo patulo,  
pediculo tumescente, et in apice rubro,* Cirnel. Reg. Vaill.

*Boletus pileo castanei coloris, poris albidis, pediculo ovali.  
. Fungus poros.us, pediculo ovali, pileoli superficie castanea.* **Valli.  
6o. - .**

... The Stalk is of the same Colour with the Head : The Flesh  
is white, and does not change Colour when it is cut. Vaill

*Boletus fufcus, pedicule tumescente. Fungus porofus fuscus,  
sipediculo tumescente,* Vaill. 6o.

What is usually understood by the *Boletus,* is the -  
. BOLETUS, Ossie. *Tubera Cervina,* C. B. 376. Park. I32O.  
.Hist. Oxon. 3. 638. *Tubera perniciosa terrestria sive cervina,*Sterb. 315. Tab. 32. B. *Tuberum genus quibus.dam Cervi Boletus,  
J. B. 3‘* 85j. Rail Hist, i\* ni» *Cervi Boletus,* Chain 592.  
DEERS-BAL.L6. \_μά\_

These are digg’d out Of the Earth; and the Whole of them  
are used, which is as large as a Wainut, of an unequal Surface,  
externally Of a cineritious, but internally of a whitish-purple  
Colour, and of a grateful Taste.

It is rarely used, tho’ some recommend it as a powerful *Sti-  
mulus to* Venery,. and a Medicine Very proper sor increasing  
.Milk. . Its external Use is recommended in hysteric Disorders,  
and hard Labours. *Dale* from *Schroder.*

. BOLISMUS. This Word occurs *in. Avicenna,* where it is  
written, by Mistake, for **BULIMUS.** *Castellus.^*

BOLUS. A Bole, or Bolus. The Form os a Medicine.

A. *Bolus* is an internal Medicine, post, coherent, a littie  
. thicker than Honey, and whose Quantity is a little Morsel or  
Mouthful, *for* which Reason it is by some call'd *Buccella..*. Whatever is fit for internal Use, either by itself, or when  
min'd with other Substances, provided it is capable of the above-  
mention’d Consistence, is a. proper Material for the Compost-  
Iion of a *Bolus,* and may he applied to that Purpose: Such are  
all dry Substances, winch operate when exhibited in final! Doses,  
find such as are proper only for forming Powders: These are  
call'd *Excipienda,* and are not capable alone of forming a  
*Dolus. ‘* . i ' ' .'

... Soft .Substances, more or less thick. Conserves, Electuaries,  
soft Extracts, Robs, Pulps, soft Confections, thick, native,  
and factitious Balsams, potable Ointments, and Syrups, are  
call'd the *.Excipientia,* because, when mix'd with the above-  
named Substances, they constitute the Form of a *Bolus,* winch  
fome of the *Excipientia* naturally have of themselves. *'.a*

Liquid Substances, which *ntC given in smaller Doses,* such aS  
-liquid Balsams, whether .native or factitious, Oiis, Spirits,  
Tinctures, Essences, and Elixirs, being of themselves unfit for  
the Form of a *Bolus,* are either *received* into other Ingredients,  
or *receive* others into them, hefore they can hecome proper for  
this Purpose.

The Choice of proper Materials for *z Bolus* is regulated by  
the following Considerations.

A due Cohesion, Softness, and an equable Mixture, are high-  
ly commendable, and essential at least to the due Consistence of  
**a** *Bolus.*

. For this Reason dry Substances, or such as are liquid, are  
not by themselves proper sor this Purpose; but some Ingredients  
. of a soft and glutinous Quality must be interposed, hefore the  
"due Consistence of a *Bolus* can be produced.

**-. Most soft Substances must also be inspissated by the Addition**

**of some** dry ingredients, for the Formation Of a 2?o/us4yef  
some of them are of themselves sufficient for this Purpose, such  
as the thicker Conserves, Electuaries, and Rohe These may  
thereforehe used by way of a simple *Bolus.*

All the Ingredients of a *Bolus* ought to he os shclr a Nature,  
as to be capable of being mix'd up, and form'd into an equable  
Composition.

Acrid Substances, fuch as are offensive either by their Smell  
or Taste, and fuch as are Viscid, are more properly exhibited in  
, the Form of a *Bolus,* than in that of Powders; since, in the  
former Shape, their disagreeable Qualities are much hetter con-  
ceal’d than in the latter ; for which Reason the Form of a *Boltes*is the most proper Vehicle for the more strong and drastic Pre-  
parations of Mercury.

It is proper to divide pinguious Substances, Balsams, and po-  
table Ointments, by mixing them with Sugar, or some other dry  
. Ingredients, that they may be the more easily swallow'd down,  
and dissolved in the Stomach.

Alcaline, fix'd, and Volatile Salts, and all other Substances  
which soon become liquid, are Very improperly made ingredients  
in a *Bolus,* which is intended to he kept for any considerable  
Time; since, by their Colliquation, the due Consistence of **tho ’***Bolus* is lost, and its Virtues destroy'd by their Exhalation.

For this Reason Substances which produce an Effervescence,  
or easily ferment when mix'd together, are highly improper for  
; the Formation of a *Bolus,* Unless the Patient is to use it imme-  
diately after it is prepar'd.

The Number of Ingredients in a *Bolus* ought scarce ever to  
exceed three or four.

The most usual Order Observed in prescribing the Ingredients  
.of a *Bolus,* is, first, to specify the Quantity of the *Excipient ;*then the Quantity of the *Excipienda,* Or dry Ingredients, is to  
be determin'd; then that Of the Liquids; and lastly, if there is  
any more Of the *Excipient* to be added, at the Apothecary's  
Discretion, that Circumstance is to he mention’d..

'. The Dose of a *Bolus* may he extended from one Dram to.  
One Dram and an half, or two Drams ; but is. not rashly to bin  
augmented heyond the last-mention'd Quantity, unless when  
the Materials of the *Bolus* are of a considerable specific Gravity,,  
or when the Patient can take them without Reluctance or Un-  
easiness ; but the Dose ought scarcely to exceed a Dram,, if **the**Ingredients are light. For this Reason, when the Quantity of  
the Ingredients must exceed these Bounds, before, it prove an  
effectual Dose, it is better to divide the Mass into several *Bo-  
luses,* than to ehoak and disqust the Patient by one thet is un-  
conscionably and extravagantly large; for as Smallness of Bulk  
as a great Recommendation to a Powder, it is much more so to  
a *Bolus,* so that, im this respect, we can scarce err, tho’ the  
. Quantity of the *Bolas* should scarce exceed a Scruple.

The Number of *Bolases* made at a time, is, for the most  
part. Only one or two, and rarely three or four Doses, unless  
when they are *stp* be taken at Very short Intervals; for, when ’  
they are divided hy the Apothecary, they readily become too  
dry, Or are melted down, when kept for any Considerable  
time. . . . . . ... .'

The mutual Proportion Of the Ingredients is to be determin'd  
-by their Consistence, and their Efficacy; so that the same Proc  
portion is not to be observed promiscuously in the Composition  
.Of all Bososes, J. .-, EEsoEss .. . ς Ἕ . ..

. When soft Substances, each of which is os itself fit to form  
**.a** *Bolus,* are compounded, the Proportion in which they are **to**.he mix'd must he determin'd by the Quantity pf each, which  
proves an effectual Dose when exhibited by itself, and by **the**. Quantity .of the compound *Bolus* which must he a Dose ; sor\*  
;in this Case, the Consistence is not to he consider'd.. .

When dry Substances are to he incorporated with any *Excist  
pient,* the Pose of them may he half a Dram two Scruples, or  
at most one Dram ; but the Proportion of Excipients must he  
.Varied, according' as they are sof a thicker or thinner Cost-  
.fistence.

The Substances most commonly us'd for *Excipientspre* Con--  
serves. Electuaries, Honey, thick Balsams, and potahle Oint-  
ments ; and the Quantity of these to he us'd is front two Scru-  
ples to One Dram, or one Dram and an half. When Rohs,  
Pulps, and soft Confections, are us'd as *Excipients,* them  
Quantity may be from half a Dram to One Dram, or sour  
Scruples. - . , .... ,τ. -dur . .. ; .. ..

. When Syrups are.ns'd for this Purpose, as they; are more li-  
quid than the above-mentioh'd *Excipients,* their Quantity **may**he from one Scruple to half a Dram, or one Dram. . .

For, when the Quantities of dry ingredients are the same, the  
more liquid the *Excipientis,* the less os it is requisite in order **to**subdue them, or reduce them to the Consistence os a *Bolus.*

Hence 'tis obvious, that, when the Quantity of dry Ingre-  
dients is small, 'tis proper, to use thick *Excipients y* whereas,  
when 'tis large, thin *Excipients* must he us'd, lest the Dose os  
the Bolus should he inlarg'd to an unreasonable or improper  
-Bulk. . Ἕ -- Ἀ . . . .

If to the above-mention’d Ingredients liquids are to he added,  
we must not exceed the Quantity of one, two, three, os, at

most, sour Drops; and, even in this Cafe, the Quantity of  
the soft *Excipients* is to he lessen’d in a due Proportion.

On some Occasions, the precise Quantities both of the dry  
and liquid Ingredients being determin’d and fix’d, the Propor-  
tion of the soft *Excipients* is left to the Discretion of the Apo-  
thecary, to whom the Physician’s Meaning is convey’d by the  
two significant Letters Qu S. which importa sufficient Quantity.  
But this Method cannot he us’d, if a sinall Dose of these ingredi-  
ents is capable of considerable Effects: But when the Quantity  
of dry ingredients is pretty large, or when the primary *Excipient*is desir’d thick, and in so sinall a Quantity, that ’tis dubious  
whether the soft and delicate Consistence of a Bolus can be  
produc’d by it, there is often a secondary and more liquid *Excipi-  
ent* added; a sufficient Quantity, for Instance, of some Syrup.

On the contrary, when the too great Softness.of the *Bolus is*dreaded, ’riscustomary to add a ftifficientQuanrityof Sugar, Pow-  
der of Liquorice, or feme other proper Substance which Practice  
is principally us’d in making up pure terehinthinous Ingredients,

The *Subscription* runs thus: *M. F. Bolus, orBoli,* No. ij. iij.  
thet is, mix up into a *Bolus,* or into two or three *Boluses. As*in the Division of the Doses, when the Ingredients are of a  
- strong and drastic Quality, the Division must he made with the  
utmost Accuracy and Exaciness. Sometimes, for the fake of  
Ornament, or that the Patient may swallow the Medicine with  
the less Reluctance, it is added, *Auri Folic aut Nebula sbval-  
vatur,* ar *exhibeatur cum Nahuia* ; that is. *Let it be wrapp’d up  
i» Leaf-gala, or a Wafer, os let it be exhibited in a Woiser.* The  
Bolus is generally put into a fmall Gally-pot, or a Paper; but  
these are Circumstances too trivial to he mention’d.

The *Signature* must specify the Design of the *Bolus,* the  
Dose, the Vehicle, the Time of taking it, and the Regimen  
to be us’d. Some love a *Wafer* for a Vchicle, and others choose  
to have the *Bolus* previousty dissolved in some Liquor. It is  
proper to give some convenient Liquor to be drank after taking  
the *Bolus,* if we Inspect, that it will he dissolv’d slowly, and  
with Difficulty, in the Stomach; and this Caution is prin-  
cipally to be observ’d with regard to terehinthinous Substances;  
and others of a like Nature.

The Use of Boluses is almost universal, either as Evacuants  
or Alteratives j only we ought carefully to consider, whether  
the Nature of the Disease, its Seat, its Symptoms, the Consti-  
tution of the Patient, Custom, and the Nature of the indicated  
Relied do not render such a Formula improper. The Difficul-  
ty, or absolute Incapacity, of Deglutition in Quinseys, Ulcers  
of the Fauces, Apoplexies, Epilepsies, and Syncopes, feem to  
forbid, or; at least; render *Boluses* highly improper. The’ *Bo-  
luses* are design’d for the same intentions with Powders, yet they  
are less frequently us’d, hecause they do not always produce their  
Effects so soon as could he wish’d. Those, who are delighted  
with Variety, or choose a *Bolus* rather than Powders, are to he  
gratiiyil with this Form.

For Specimens of *Boluses,* take the following.

*An* **EMETIC BoLus,** *for a full-grewn Persen.*

Take of white Vitriol, twenty-five Grains; Rob os Juni-  
per, a sufficient Quantity : Mix up into a Bolus to he ex-  
bibited in a Wafer.

*Signature:* An Emetic *Bolus* to he taken in a little Ale, Or an  
Infusion of Green-tea. Let some Draughts of the same  
Infusion he drank tepid, after every Time of vomiting.

of Purgative **BoLUs,** *tn be exhibited in a feverish Restlestnese.*

Take of the Eleituarium Diapnmum of *Sylvius,* one Dram  
and an half; and of the Powder of Sena-leaves, one  
Scruple : Mix up into a *Bolus. '*

*An* **ANTIHYsTERIC BOLUS,**

Take of Mithridate, one Dram ; of the Troches of Mynir,  
half a Scruple; of the distll’d Oil of Amber, two Drops:  
Mix up into a *Bolus,* to he wrapt up in Gold-leaf.

*Signature:* A Sedative *Bolus, to* be taken in a Glass of  
Peny-royal Water.

*A* **BALSAMIC BOLuS.** *See* Harris de Moth. Infant. Lib. *R.*Observas, i.

' Take of the Turpentine of Chios, two Drams ; of Liquo-  
rice-powder, a sufficient Quantity : Mix and make two  
Bolufes.

*Signature ;* The Nervous Boluses, one of which is to be taken  
in the Morning, and the other in the Evening, in the Yolk  
of a new-laid Egg, drinking offer each two Ounces of  
alexiterial Milk-water.

**: SALIVATING BoLUSRs :** *See* BoerhaaveS Mat.

Take of the Conserve of red Roses, half a Dram ; of Mer-  
curius Dulcis triturated, nine Grains : Mix up into a Bo-  
. lus. And two others, exactly the fame, but made up sepa-  
rately, are to he deliver’d, put up in different Wafers.

*Signature :* Aperient Boluses, one of which the Patient is  
to take every sour Hours, having first drank a large Quan-  
tity. of some Droner Ptisan. - - :

**ASTRINGENT B0LUSES. '**

Take Rob of the Cornelian-cherry, three Drams ; Extracti  
ofTormentil, one Dram ; Armenian Bole levigated, two  
Scruples; Prepar’d Blood-stone, helf a Dram ; Syrup of  
Myrtles, a sufficient Quantity : Mix, and make four  
, Boluses.

*Signature ;* The astringent Bolufes, one of which is to he  
taken every three Hours, in a little austere red Wine.

There are many sat Earths us’d in Medicine, which go by  
the Name of Bo LI, *Boles ,* as the

BoLUs ARMENA, Ossic. *Bolus Arrnena Orientalis,* Mont.  
Exot. I3. *Bolus Orientalis,* Chech. Foss. 5. Cain. Mus. III.  
*Belas Armend, five Armeniaca,* Dugd.Ind. II8. *Bolus Orien-  
talis, quibufdam Arrnena,* Worm: Mus. II. *Bolus feu Terra  
Armenia,* Aldrov, Musi Metalli 269. *Bolus Armenius verus,*Kentrn. 7. *Belus vera quibufdam.* BOLE-ARMONIAC.  
*Dale.*

It is an earthy Substance, of a pale-yellowish Colour, in-  
dining somewhat to Red. It is ponderous, pinguious, easily  
friable, and of a styptic Taste. It is digg’d out of the Mines  
in *Tur by,* and thence brought to us. It is, at present, very  
rare with us ; sor what is found in rhe Shops, approaching to  
the Colour os red Okre, is imported from *Spain* and *Normandy,*and is thought to be little disterent from the *Rubrica fynopica.*

.It is an Alexiphannic, and. corrects those Acidities.in the  
Blond which are prejudicial to Health. It is astringent in some  
Degree, and, for that Reason, us’d in Fluxions of Humours..  
Whenapply’d externally, is is of adryingQuality, and inducer  
Cicatrixes on Wounds. *Dade.*

*Fracastorius* sayi, that Bole Arinoniac given to a Person al-  
most in the Agonies of Death, from the Bite of a Spider, in-  
stantly cur’d him, .

**BoLUs ARMENA** ALBA, Mont. **Exot Io.** WHITE  
ARMENIAN BOLE.- *Dale.*

This *Bole* is brought from *Armenia.* Its Virtues are the same  
with those of the *Bole Armeniae,* but it is nor to he met with  
in our Shops. *Dale.*

Bodins **ARMENA LUTEA,** Mont. Exot. I3. *Bolus luteur  
Theophrasti,* Kentrn. 7. *BolusArmenus naturalis flavus,* Aldrov.  
Must Metall. 27Ο. *An Terra Arabicastgiliata fublatea,* Charlt.  
Foss 6. YELLOW ARMENIAN BOLE.

This *Bale* adheres to the Tongue, is a strong Astringent, and  
said to he a powerful Resister of Malignity. *Dale.*

**BoLus BLEsENSIs,** Ind. Med. *21.* EARTH OF  
BLOIS.

- This is an Earth of a pole-reddish Colour; but I have never  
met with any Accounts of its Virtues, or its Use in Medicine.  
*Dale.*

**\* BOLUs BoIIEMICA,** Ossic. Aldrov. Mus. Metall. 271. *Bo-  
lus Bohemicus rubeus,* Kentrn. 7. GERMAN BOLE.

It is an earthy Substance, of the same Colour with the Orien-  
tal Bole Annoniac, but somewhat fainter. It has some Veins  
of a yellowish Colour running thro’ it, and is heavy, easily  
friable, and of an astringent Taste. It is digged from the Mined  
of *Bohemia,* and. thence imported to us.

Its Virtues are the fame with those of the Bole Annoniac, anil  
it is much kept in our Shops. *Aldrevandus* informs us, that it is **a**very efficacious Medicine in all exanthematous Fevers. *Dale.*

**BOLUS CANDIDUS,** Ossic. *Bolus candidus Ligulcenjis, feu  
Terra stgiliata Goltbergenjis,* Charlt. Fossi 5. Worm. Muf. I0.  
*Bolus candidus Ligulceasts,* Schwa Foss 397. *Terra Jigillata  
Ligulcensa,* Schrod. 3I8. Aldrov. Musi Metall. 265. *Unicornu  
Minerale,Schtod.* IIr.TIS. *Axungia LunaChymicis.* WHITE  
BOLE.

- This *Bole* isdigg’d from the Earth at *Gran ior Hungary,* and  
at *Galtberg in Liege.*

. It relieves and mitigates Pains of the Head, strengthens  
the Brain, and is singularly efficacious in curing Dysenteries, and  
the Fluor Albus. *Dale.*

BoLus RUBRA NOsTRAs, Ind. Med. 2I. FRENCH  
BOLE.

*Dale* confesses be knows nothing of this Bole. I take it to  
he the fed *French* Bole, which is got in many Parts of *France.  
Pomet* gives the ensuing Account of the *French* Boles.

“ The-Bole which we sell is sound in feveral Parts of *France,*" -about Binis and *Saumur,* or *Bourgogne,* and which is of  
" various Colours, as grey, red, and yellow. The Yellow is  
“ the most valuable, becaufe it passes the readiest for Bole of  
"\* the *Levant,* and hecaufe it fits the Gllders best.

“ As thefe Boles are the dearest, beeaofe of the Charge of  
“ traofporting them to *Paris from Blois* and *Saumur,* we pre-  
" ser that of *Baville* and other Places about *Paris,* hecause the  
“ Peasants bring it us at a cheaper Rare than we can buy **the**\*" other. The hest is the cleaned, smoothest, and well-colouPd,  
" of a llght-yellowish Red, which, being tasted, feems to  
“ - melt, like Butter, in the Mouth. Its Thickness is known

by sticking to the Tongue. The counterfeit or adulte-  
"" rate Bole is of a sad-deep Red, sandy, and gritty, heing,  
indced, not of a third Part of the Price. It is very drying

" and astringent, good against Fluxes and Gleets. It thickens  
" thin Humours, resists Putrefaction, and expels poisonous  
" Bodies. It is likewise us'd in spitting os Blood, bleeding  
" Wounds, and also to consolidate broken BoneS, and strength-  
" en weak Limbs. "

BoLUs ToccAviENsis, Offic. Charlt. Foff. 5. Worm.  
Musi 2. *Bolus Hungarian,* Crato. *Bolus Tokaikus,* Schw.  
37o. *Bolus Pannonicus verus,* Kentm. 7. TRANSYLVA-  
NIAN BOLE.

This *Bole* has all the Characteristics os the true- *Armenian  
Bole,* and melts in. the Mouth like Butter. It is digged from  
the Earth in *Tranfylvanta* near *Tonui.*

It is higltly celebrated as an efficacious Medicine in Catarrhs  
and the Plague. - It was first apply’d to medicinal Purposes by  
*Crato,* who prefers it to the *Armenian Bole* brought from  
*Turky.* I cannot determine whether it is really different from  
' all the former or not. *Dale.*

**. BOLUS FABRILIS.** The same as *Rubrica Fabrilis,* which see.  
**. BOLUS JUDAICUS;** A Name for the *Althaa,* Marsh-mal-  
lows. *Johnson.*

BOMBAX, Offic. *Gossipiumsute Xylon,* Ger. 753. Ernac.  
901. *Gossepiurnfrutescens annuum,* Parlc. Theas, I553. *Gose  
sipium frutescens, semine nigro,* C. B. Pin. 43o. *Xylon five Gose  
sipium herbaceum, j. Β.* I. 343. Rail Hista 2. re64. Tourn  
Inst. I0I. Elem. Bot. 84. Boerh. Ind. A. 273. *Gossipium her-  
baceum,semine albo,* Hist. Oxon. 3.5 I7. COTTON-BUSH.  
*Dale. - '*

. The Cotton-bush, or Shrub, grows to he a Yard high, or  
more, spread out into many. Branches, with many brittle woody  
Stalks, on which grow Leaves, divided into five Segments, not  
much unlike the Leaves of Maple, standing on pretty long  
Foot-stalks ; among these, on the Upper-part of the Branches,  
grow the Flowers, of a pale-yellow Colour, with a purple  
Bottom, in Shape like those os Mallows, or the Small Holy-oak,

\* and are succeeded by roundish or oval Capfulae or Seed-veffeis,  
which, when ripe, open into three usually, and sometimes four

- Partitions, discovering the white soft Cotton, among which  
lies dark-brown, longish, round Seed.

. Cotton is cultivated in *Greece, .Turky, Sicily,* and *Malta.*It flowers in *Jorne.*

The Seed, which is the only Part us’d, is of a balsamic Na-  
ture, us’d in Coughs, Shortness of Breath, and Soreness of the  
Lungs, causmg Expectoration, and freeing them from tough  
Phlegm. It is also restringens, arid good to stop Fluxes of all  
Sorts. *Miller's Bet. foff1.*

In the Shops the Seeds and Wool Of this Shrub are us'd.  
The Wool burn lol, and reduc'd to Powder, stops the Ef-  
fusion os Blood from Wounds, if put into them. The Seeds  
are good sor Disorders of the Kidneys and Liver, but pre-  
judicial to the Head and Stomach. -They are also esteemed ex-  
cellent for those who are afflicted with a Cough, or Difficulty  
os, breathing. They are good sor the Stone, yield a wholsome  
Nourishment, strengthen the Constitution, and cure the Dysen-  
tery ; for, by their lenitive Quality, they obtund the acrid and  
exulcerating Humours. *Caso. Hoffmann, de Medic, offic. L. st.  
C. 1o5.* The Oil expressed from the Seeds removes Spots of the.  
Skin, and cures Tunning Sores of the Head. *Z a cut. Lusitan.  
Prax. Hist. si. i. C. 0.. inObs.* In *Egypt,* according to'  
*Profpcr Aspinues* they extract a Mucilage from the Seeds, just as  
they do from those of the Fleabane and Quinces, which is of  
Use in burning Fevers, and corrosive Coughs. They also re-  
strain all immoderate Fluxes of the Menses. *Rein. Solenand.  
Consil. Medic.* 8. *Sect.* 4. The Inhabitants of *Malta* fatten  
their Cattie with the Seeds of this Herb, which have a Taste  
resembling that of an Acorn. See *Hinr. Bunting, Itinerary  
S..S. p. ly.fol. eye,.* See also *Pliny, L. 12. C. io et* II. *Tkeo-  
phrast.'de Plantis, L.* 9. *C.* 4. *Cland. Salmas, ad Solen. p.Ai..*296. and 998. and *Erasin. Franeise. Part. st.p.sTt.. Barthol.  
Torn. Botanolog.,*

BOMBUSt Βόμβος. A Word made to imitate, a Sound,,  
by a Figure the Rhetoricians call *Onomatopoeia,* a resounding,  
ringing Noise, proceeding from Blasts which break out of a nar-  
row Passage, and diffuse themselves abroad ; but if thofe Blasts  
sail into a narrow Passage, and Vent themselves, .as it were,  
thro' Chinks, there is heard a Stridor, a grating Noise, Or an  
Hissing. In *Coac. urisuapi lbv cffust,* καὶ ηχος ἐν ώσί, θανἀσιμον, " a  
" resounding Noise, and Ringing in the Ears, in acute Dis.  
" eases, is mortal. " .

BOMBYLIUM. Βομβύλιον is expounded in *Galen's* Exe-  
gesis by a narrow-mouth'd Cup, or a Cover, so call’d from its  
-ringing Sound. The Word occurs. *Lib.* 3. *de Morb.* καὶ οινον  
- γλυκὑν. καὶ ὑδαρέα προπίνειν,ι μὴ ψυχρὸν, ολέγον ἐκ βομβυλιου  
ευρυςομου. " Let the Patient drink a littie sweet diluted Wine,  
" not cold, out of a wide-mouth'd Bombylinm.

BOMBYX, Offic. Schrnd. 5. 33o. Goedart. I. Ii2. T..42:.  
List. Ed. Angl. .41. N. 32. Mar.Eruc. Ort. I. p. I. Aldrov,.  
**de** Insect. 278. Jons, de Insect. II.4. The SILK-WORM..».

This Insect undergoes a strange and surprising Metamor-  
phosis in the several Periods of its Existence. This Animal, or  
Worm, is call’d Bombyx in the Shops, and IS produced from

small Eggs, hatched by the genial Heat of the Sun, in **the -**Spring of the Year. It feeds upon Mulberry-leaves 'till it has  
arriv'd ata State of Maturity. After this theyare usually put into  
a small Paper-bag, where they wrap themselves op in a silken  
Cafe, which, coming fronutheir Months, is, without Interrup-  
tion,carry'dVery often round them. ThisCase is sometimes os a  
palish, and sometimes of a yellowish Colour. In this Cafe, or  
Coat, it remains wrapt up, 'till it is transform'd into its *Chry-  
salis* or *Anrelia,* and appears dead; bus, at last, it sallies forth  
from its Coat in the Form of a Butterfly, with four Wings ;  
and after a Copulation, which lasts for three Days, and proves  
immediately mortal to the Male, the Female lays a considerable  
Numher of Eggs, and dies likewise. The whole Worm, the  
Silk, and the silken Coat or Covering, are us'd in Medicine.

Silk-worms dry'd, and reduc'd to a Powder, are, by some,  
apply'd to the Crown of the Head for removing Vertigos and  
Convulsions. The Silk, and Case or Coat, are *of* a due Tem-  
perament between Heat and Cold, and corroborate and recruit .  
the Vital, natural, and animal Spirits. *Dale from Schroder.*

*N. B.* We must take care not to use the Coat or Case, if it  
is. either stain'd with their Excrements, or if the Aurelia or  
Worm remains dead in it. *Dale. . \_*

Silk yields by Distillation, a Very good Volatile Spirit and  
. SaltI which Spirit is said to he the *Gutta Goddardiana, Gode  
dardls* Drops,, formerly so famous. .

. BOMPOURNICKeD A Sort of Very coarse black Bread,,  
much us'd in *Westphalia,* on which *Haffman* gives the following  
Dissertation. . ’ .

'Tis a Truth not to be call'd inquestion, that the Bodies os  
Animals, heing inceflantiy and variously agitated by the Heat  
and perpetual Motion os their Fluids, do, by that Very means,  
continually lose some of their Parts, and, consequently, stand  
in .need of a seasonable Supply and Reparation of them.. .

Tin's Supply or Reparation is advantageoufly made by Ali-  
ments, which nourish and support our Bedies, and supply the  
Place of the -wasted eliminated Humours, assuming their Na-  
tures, and transforming themselves into Blood and Juices. Bus,  
of the several kinds' of Aliment, *Bread* is the principal and  
most considerable ; for, according to *Isidorus,* the *Latin* Word  
*Panes,* which signifies *Bread,* is derived from the *Greek* Word .  
Πᾶν, which imports as much as the *Engliso* Expression, *All in  
all.* 'Tis certain that *Bread* is, as it were, the Basis of Fond,  
and an universal Aliment, which is higltly agreeable to the Con-  
stitution,. and grateful to the Stomach; and which has not only  
heen daily us'd, but highly approv'd by most Nations of the.  
World, from the Very Infancy of Mankind to this present.Time ;  
so that it is with good Reason call'd the chief Or principal osAli- .  
Ifients: And, indeed, all the farinaceous Grains, and the Bread  
prepar'd of them, contain Principles more similar to our vital  
Juices, .than any other Substances us'd in Food. . .

For 'tis certain, that the Fluids of our BedieS are composed  
of Corpuscles of. widely different Figures and Bulks; and rher  
they contain, as we find .from Chymical Processes; a Variety of  
Principles or Elements; Sulphur, for Instance, Oil, volatile  
Salt, Mucilage, Earth, Water, and other Principles of a like  
Nature.. The like Elements are contain’d in Bread; for, upon  
Distillation, it yields an oleous, and somewhat, acid. Spirit,  
which, besides other Substances, speedily dissolves Coral, and,  
by a previous Digestion, produces a reddish Tincture, which is  
a Medicine of considerable .Efficacy. Bread also yields a large  
Quantity of an inflammable Oil, and . a groat deal of A black  
fix'd Earth is found at the Bottom of the Vessel after its Distil-  
lation. As for the thick and mucilaginous Substance it contains,  
it is obvious IO our Senses, without the Assistance ofChymistry.  
That it contains subtil spirituous Parts, of a comforting Qua- .  
lity, is not only proved by the Authority of Sacred .Writ, bur  
by the Evidence of Sense; for the Very Smell ofBread is refresh-  
ing; and Water prepar'd of Bread, especially of the coarser  
kind, as, by Physicians, highly extoll'd aS a Liquor of an ana-  
leptic and cordial Quality. . Its daily Use also proves, that in  
conveys Strength and Nourishment to the Body.. Besides, **the**Stomach is greatiy delighted with this Species of.Aliment, on  
account of its mild and subtil Acid, by whose means the dissol-  
vent Force and Activity os the Menstruum, appropriated so/  
the Maceration and Digestion Of Food, is highly-increased and  
augmented.

A great many other Things known to the Antients con-  
cerning the Nature, Virtue, and Various Kinds os Bread, might  
on this Occasion be advanced, were they necessary to my pre.  
sent Design. However, on this Subject the Reader may con-  
sult *Hippocr. L. 2. de Vict. Rut. Athenaeus, L. 3. Cap. sn. et*18. *Pollux, L.j. Cap. si.* and *Pliny, L.* I8. *Cap. y.*

My present Design is only carefully, but briefly, to inquire  
into the Nature and Qualities Of that coarse Bread Used by  
the Inhabitants of *Westphalia,* -which acquir'd the Name of  
*Boapournickel,* from a *French* Traveller, that I may rescue  
this Bread from the Contempt it lies under in the Opinions of  
many. . ’ 'se.-.

This Species of Bread was known long ago to some of the  
**most antient Nations, under the Name os *Panis surs.teracett^***

er surfuraceous Bread, -hecause it. was not throughly, purged  
from the Bran, according to *-Aulus Gellius, L.i. Cap.* 9. It  
.was also called *Panis impurus,* impure Bread. See*Hippocra-  
tes. Athenaeus, L.* 3. calk it *Syncomaston,* prepar'd os unsifted  
Meal He also called it *Coliphium,.* froth the *Greek* Words  
Κῶλον, a Member, and ιφι. Strength, importing that it con-  
yey’d Strength to the Memhers os the Body. See *Petr. Fa-  
ber Agonillices L.* 3. *Cap.* 3. By *Caelius REndiginus, L.* 9. .  
*C.* 16. it is called *Panes cibarius,* and *Pants gregarius-,* and by  
*Terence, Panis al er.*

.This kind of Bread was always highly esteemed, heth for  
nourishing the Body, and rendering it strong .and robust.:  
Hence surfuraceous Bread was among the *Greeks* called  
πίλυτροφώτεραι, that is. Bread which contains a great deal of  
Nourishment ; whereas, that which was made of Flour,:or  
the finest Meal, .was called όλιγοτραφώτερος, or Bread which  
yields littie Nourishment, according to *Athenaus,* in the above-  
quoted Book. For this Reason the Wrestlers of old, whose  
Limbs were of a large and robust Make, and who were full  
of Flesh and Blood, only used the Coliphium, or coarse Bread,  
sor Dinner, and at Supper Swines . Flesh, not boil'd, but a  
littie roasted by the Fire : They also drank warm Issa ter, not  
only that they might receive the more Nourishment from their  
.gross and thick Food, but that they might also he the longer  
sensible os the saturating and filling Quality of it. See *Pe-.  
trus Faber, in the alave-mertion'd Book-, as also Galen de Ali-  
mentis,* and *Arrtanus, Lib.* 3. *Verriits* in *Pliny* informs us,  
that the *Roman* People, for three hundred Years, used only the  
Bran os their Corn. See *Fulvii Ursini Append, p.* 3i6. For  
this hard and firm Food generates Humours less subject to  
Corruption, nourishes much more than that winch is soft and  
fine, resista Hunger more powerfully, and produces Bodies sit-  
ter sor bearing Hardships and Injuries, and less subject to those  
Disorders which proceed from a Colliquation of thcIIlood ge-  
nerally resulting from its excessive Heat.

The Inhabitants of *Westphalia,* who are a hardy and robust  
Race os People, capable of enduring the greatest Fatigue, and  
undergoing the severest Hardships, are living Proofs of the salu-  
tary Qualities of *BonpournickeL* 'Tis remarkable that the  
*LFestphalians* are rarely attack’d by acute Fevers, and those  
Diseases which proceed from an Ebullition of the Humours,  
and a certain malignant Colliquation of the Blond, and of the  
Elements or Principles of which it is composed. But the  
Diseases which rage among them are of a cold and chronical  
Nature, a Circumstance to he ascrib'd to the Groflness of  
their Food, and Hardness .of. their. Diet: For, when but a  
small Quantity of fuch Aliments as are disposed and prepared  
for a fpeedy Corruption is taken, the Humours undergo a flow  
’ and less violent Fermentation.: Hence an Excess of Heat is  
prevented by the Cohesion of the Viscid Parts. Nor can **the**Humours of the .Body, which have acquir'd a shin and durable  
Texture, he easily-broken and destroy'd thy a preternatural  
and morbose Ferment; and I am actually of Opinion, that  
the masterly Turn of Genius; the Evenness of Temper, and  
the happy Judgment of transacting Business, with which the  
*Westphalians* are peculiarly blessed, as also these Promotions in  
foreign Countries heth in Church and State,, preferable to  
the Natives, are Circumstances to be ascribed partly to their  
Education, and partly to their Method of living. They are  
highly qualified for Labour and ’ industry,, to which. they are  
Inur'd and habituated from these Infancy. Now, as People,  
by doing *nothing,* insensibly learn to do *ill,* so, by Diligence  
in the honest Employments of Life, the Sheds of Vice, and  
the Exorbitance os lawless Passions, are check'd in due Time.  
And the Method of living used by the *IViestphalians* courri-  
butes not a littie to the Production of this happy Effect. *Ari-  
stotle, Lib. i. Pol.* 3. judicioufly observes, that a Diversity of  
Food and Aliment produces a proportionable Diversity in **the**-Lives and Morals of. Men; nor is this asserted. without a  
. Reason. Since there is a continual Commerce, and an inn-  
mate Union hetween the Soul and the Body, such as are**/the**State and Motion of what we call the animal Spirits, fuch al-  
so will he the Inclinations, Thoughts, Operations of the  
Mind, and Morals. But this is a Truth so well known to  
Physicians, and consumed by Arguments so strong and irre-  
fragable, that it does not, on this Occasion, stand in need of a  
further Illustration. -

Nor can it he said, that the gross Fond used by the *West-  
phalians* generates gross Spirits; for, by labour and Motion,  
the Viscid Particles are fufficientiy divided, and,' aS it were,  
prepar'd in such a-manner, as not only to increase the Bulk of  
the solid Parts, by a closer Union and Adhesion to the Tubes,  
**het** also generates fufficientiy firm Spirits, which, as they are  
not fluctuating and inconstant,, render People sit for bearing  
the most obstinate Labours .both Of the Body and Mind ; and,  
**the'** their Blood is somewhat cold, - yet their animal Spirits are  
ομά sufficiently active Quality. It is obvious, that an-inte-  
stine Spirit, which resides in the Pores os any Fluid, must he  
confin’d:by the Pressure of the thick and rigid Parts, and of

course become less subject to Dissipation ; so that the spirituous  
Parts, heing forc'd to the Centre, and render'd stronger by a  
mutual Union, are possessed of an uncommon Force and  
Energy’.

But ’tis not to he denied, that this gross Food is less safe  
and salutary, for such aS have the Misfortune of weakly Con-  
stitutions, or these who live a quiet and idle Life, or are not ac-  
custoin'd to Labour. Hence *Hippocrates, de Medicina prise.*justly observes, " That the stronger Aliments, is subdued by  
" Nature, are excellent Nourished; is not, they produce  
" Pains, and cold Diseases." And *Celsus* informs us, " Thet  
" the stronger Foods are not easily concocted; but that, when  
" concocted, they nourish more than other Aliments." So  
that Labour and Motion are absolutely necessary sor those  
who use strong Aliments. Athletic Bedies, and such aS are  
accustom'd to Labour and Exercise, receive a more solid  
Nourishment than those who are habituated to a calm and idle  
Lise, in whom the Nutrition, and the Fat produc’d by is,  
are generally suspected of heing faulty ; for 'tis the Motion  
and Circulation of the Blood, which by its internal Attrition,  
and elastic Force, resolves, subdues, deterges, and converts  
the Particles of the Aliments into the Substance os our Bodies;  
whereas Rest destroys Nutrition, and generates Obstructions,  
which prove a fruitful Source of .Diseases, and render the Ge-  
. runs flow and fluctuating.

-From what has been said, I think, it evidently appears, that  
the *Westphalian Bonpourniekel* is or a highly nourishing .Qua-  
lity; and that this firm and strong Species os Aliment, by  
which heth their Bedies and Minds are recruited, may be more  
safely used, and produce more salutary Effects in these People,  
who are accustom'd to Labour, than a more delicate Diet can  
‘ in those who are habituated to Idleness. Besides, if we will  
but take the Pains to put this Matter to the Tost of Reason,  
many satisfactory Prooss of the Excellency of the *Westphalian*Bread occur; for the Nature and Qualities of this gross furfu-  
raceous Bread, are widely different from those of that which  
is made of the finest Meal. The coarse *lPestphalian* Bread,  
upon Distillation, yields a very large Quantity os an empyreu-'  
Inatic inflammable Oil. Bread indifferently fine, such aS that,  
commonly called *Second Bread,* yields a moderate Quantity  
of a similar Oil: But Bread os the finest Flour yields, a Very  
small Quantity, or rather none at all os it. Besides, Bran  
itself, upon Distillation, yields a large Quantity of Oil, pro-  
duced, in my Opinion, from the herd external Hulls, which is '  
continually acted upon hy the Warmth of the ambient At-  
mosphere. Now 'tis Very well known, that a distill'd Oil is  
an active Principle, highly agreeable to our .Constitutions, suit-  
**ed to** the Mass os Blood; a Balsam, as it were, to the Humours,  
and a faithful Guardian os a due and natural Temperament.  
The Blood Itself,' upon Distillation, yields an inflammable Oil;  
and the more it partakesof this oleaginous Principle, the greater  
Strength it supplies, and the more effectually it preserves Lise  
and Health. That distill'd Oils are the Repository, and, as it  
were, the Matrix of a Volatile Salt, with which the animal  
Kingdom abotmds, is a Truth sufficiently known to those who  
have any tolerable Acquaintance with Chymistry. .

From what has been said, we may easily see, how much  
*Bonpourniekel* is preferable to other Kinds os Bread.: It may  
justly he called a medicinal Aliment, since, hesides that Quality  
by which it is so friendly to our Constitutions, it is possessed of  
another, by which. it. remarkably restores Strength, corrects a  
moist Intemperies, dries, defends from Putrefaction, and recruits  
the spent and dissipated Spirits: For. which Reason it may he ex- .  
hibited as a Medicine, in Cases where Strength is lost, where  
the Force and due Texture of the Bleed is destroy'd, and where  
a Dissipation of Spirits is dreaded, either in Broth impregnated  
with Wine, Sugar, and Cinnamon, or in its own distfl'd Wa-  
ter of a highly sweet Taste, which is excellent in Loss of  
Strength ,and phthisical and hectical Disorders. I need not,on this  
Occasion, mention its singular Use, when apply'd externally in  
Pains os the Head, and in Cases where the Intention is to dissi-  
pate stagnating Humours. '

Lastly, this coarse Bread is possess'd of a fingular Quality not  
**to** he found in other Bread, fince, notwithstanding the Coarse-  
**ness** of its Texture, it renders the Belly soluble. This Virtue  
in coarse Bread- was long ago observed by *Hippocrates,* who  
affirms, " Thet Bread made of unsifted Meal is purgative,  
" whereas that which is purer, is proportionably less so ; and  
" that which is purest of all, is so. far from operating in this  
". way, that it renders People costive.'' I am of Opinion,  
that this purgative Quality is to be ascribed to the rigid Texture  
and Figure of the Bran, which proves a quick and continual  
Stimulus to 'the small intestinal Fibres, to perform their excre-  
tory Motion;Tor, according to *Galea,* Bran is possess’d of a  
detersive Quality. Hence we may observe, thet Gruels made  
of coarse Meal are excellently qualified for keeping the Belly  
soluble.

AS sor **the** Medicines prepared of this *Bonpourniekel,* **the**principal and most celebrated is the following Water, which is

excellent for restoring Strength, and recruiting the homogeneous  
Humidity of the Body in hectic Heats. It is prepared thus:

Take one Pound of the Bread bruis’d ; of the Juice of Cray-  
- fish, half a Pound; of Adur’Dew, sour Pounds; of Rose-  
water, four Ounces; ofNutmevs, half an Ounce; and  
of Saffron, one Dram : Let the Whole be distrain together  
*in Balnea Maria,* applying a moderate Heat.

Thus a highly cordial Water is yielded, of a fragrant Smell,  
grateful to the Stomach, and excellently calculated for allaying  
hectical Heats ; for which Purpose half a Pint of it must he  
taken dally, either by itself, or with Powder of calcin’d Harts-  
horn.

Besides, if a spirituous stomachic Water is desired, this Bread  
is to be distil’d with Rhenish-wine, adding a sufficient Quantity  
of Nutmegs and Cinnamon. By this Process a Water is yielded  
which is of singular Service for strengthening the Stomach, when  
afflicted with an excessive Relaxation, Vomiting, or Lois of .  
Appetite. Besides, the Spirit of this Bread when distil’d dry in  
a Retort, and well purg’d from its fend Oil, is a sudorific Me-  
dicin.e agreeable enough to the human Constitution, and highly  
efficacious in removing Impurities of the Blood. If this Spirit  
is exposed for some time to the Rays of the Sun, it assumes a  
reddish Colour. The Virtues and Excellencies of this Spirit are  
more fully insisted on by *Job. Tackius inChryseg. Acim. Hiofso  
tnan Oof. Chyrn.*

**BON. The Coffee-tree, or JAsMiNOIDEs, which see.**

BONA, or BOON A, in *Blancard,* is the Bean, or Kid-  
ney-bean.

BONASUS. A kind of wild Ox, as high as a Bull, and  
bigger than a common Ox. His Head and Neck are cover’d  
with great yellow Hairs, longer and foster then thofe of a Horse.  
His Horns are turned inward, fo that they are no great Defence  
to him; their Colour is a fine shining Blaclc. The Hair of his  
Body is ash-colour’d Grey, inclining to Red. His Skin is very  
hard, and Proof against Blows; and he lows like an Ox. He  
is found hetween *Paonia* and *Media,* and fives among the  
Mountains. His Flesh is very good Food.

His Horns arc astringent, sudorific, and alexipbarmac. *Le-  
rners de Drogues.*

BONATI is explained by *Rulandus* vitreati. I suppose  
glaz’d.

BONDUCH, Offic. *Bonduch Indorum,* Jons. Dendr. 3oO.  
*Bonduch cinerea, foliis lengioribus,* Acti Philos. Load. N. 267,  
7O2. *Bonduch vulgare majus polyphyllum.* Plum. Nov. Gen.  
25. Boeth. Ind. A. a. 59. *Bonduch Pianta Indians,* Zan. 44.  
*Bonduch Indiano,* Pon. Ital. Bald. 32. *Arbor exotica spinosa,  
follis lencifci,* C. B. Pin. 399. Raii Hist. a. 1743. Herm.  
Mus. Zeyl. 35. *Arbor spinofa Indica, muricatis stliquis.* Park.  
Theat.t551. *Lobus echinatus,* or Bezoar Nuts, Ger. Emac.  
Ϊ554. *Lobus echinatus, fructu casa, foliis lengioribus,* Herm.  
Parad. Ban Prod. 348. Cat. Jam. I44. Hist. 2. 4I. *subus  
alius exoticus hirsutus cum pise duro cinerei coloris.* Chain 92.  
*Lilias ryevisei cum pise daro cinerei coloris,* J. Β. I. 439.  
*Acacia gloriofa, lencifci foliis, spinofa, sure spicato luteo, seliqua  
magna muricata.* Pink. Almag. 4. Phytog. Tab. 2. Fig. 2.  
*Caretti,* Hort. Mal. 2. 35. Tab. 22. *Inimboy Brastlienjibus,*Marcg. I 2. *Inimboy Brastlianorurn frutex spinosas spicatus pla-  
tylebis echinoidibus, giycyrrhiza foliis,* Breyn. Prod. I. 4o.  
*Inirnboia serve Sylva de peraya Lusttanis,* Pis. 95. (Ed. I648.)  
*Inimboy,* Ejusd. '2O5. (Ed. I658.) ' *Crista pavanis glycyrrhisca  
folio minor repens stpenesissema, store luieo spicate minima,  
seliqua latisserna echinata, femine rotundo cineree, lincis circulari-  
bus cincto majore,* Breyn. Prcd. 2. 38. Cornrneh Flor. Mal. 93.  
MOLUCCA NUTS, MARSAO, BEZOAR NUTS.

It grows to a Man’s Height, and is a Native of both *Indies;*the Parts in Use are the round Beans, which are of an Ash-co-  
lour, white on the Inside, extremely hitter, and tasteless.

They are good in Hernias, discuss Flatulencies, ease the  
Colic, comfort a weak Stomach, provoke the Menses, and  
expel the Stone. *Dale.*

*t* There is another rarer Species of it barely mentioned by  
*Pay,* under the Title of *Bonduch Indorum, .seliqua minime  
spinofa. .*

BONIFACIA. The fame as *Laurus Alexandrina.* See  
**LAURUS.,** *Blancard.*

BONTIA. *Barbades* wild Olive *vulgo.*

It has a personated Flower, consisting of one Leaf, whose  
upper Lip is erects and the under Lip divided into three Parts.  
From out of the Cup arises the Pointal, fixed like a Nail in the  
hinder Part of the Flower, which afterwards becomes an oval  
Fruit, which is soft, and frill of Juice, in which is contained  
one oblong Seed, inclosed in a Nut of the fame Form, *Moller's.  
Dict. Vol.* 2.

We find no Medicinal Virtues ascribed to this Plant.

BONUM, ἀγαβὸν. καλον. Good. It signifies in general  
what a Perron ought to chuse, do, or on which he may rely,  
according to *Galen, Lib.* 7. *de Hippocr, et Platan. Decr. Cap.* 2.

*Boman Trap* he taken absolutely, or in itself, and comparatively,  
in which Sense it comprehends a .less Evil. *Galen, C. 20. in  
Epid. t.* 36. *Castellus.*

BONUS HENRICUS, *Tota bona, Mercurialis,* Offic.  
*Bonus Henricus,* J. B, 2. 965. Ger. 259. Emac. 329. *Bonus  
Henricus, Tota bona,* Chab. 3O3. *Bonus Hiersricus officinarum,*Volck. 67. *Bonus Henricus, false Mercurialis,* Pherm. Edengb.  
*4. Blitum Bonus Hinricus dictum,* Raii Hist. I. I95. *Blitum  
perenne Bonus Henricus dictum,* Synop. 64. *Blitum perenne,  
spinachiae facie.* Hist. Oxon. 2. 599. *Atriplex Chenopodia,  
folia triangule,* Horn Monsp, 29. *Chenopodium folio triangulo,*EL Bot. 406. Tourn, Inst. 506. Dill. Cat. 67. Buxb. 7O.  
*Lapathum unctuosum, folia triangule,* C. Β. II5. *Lapathum  
undiuofum, jive Bonus Hinricus,* Park. I226. Muns. Herb.  
Brit. 2O7. ENGLISH MERCURY. *Dale.*

This Mercury has a thick, yellowish, perennial Root, with  
feveral Fibres; the Leaves grow upon long Foot-stalks of a tri-  
angular Shape, like Spinage, of a yellow-green Colour, seeling  
greasy or unceuous in handling. The Stalks grow to he about  
a Foot high, with several of the like Leaves growing on them ;  
and on their Tops Spikes of final! herbaceous Flowers, inclosing  
little, round; black, shining Seed. It grows in waste Places,  
and among Rubbish ; and flowers in Spring.

This Herb is of a detersive cleansing Quality. The young  
Shoots, before they come to Seed, helled as Spinage or Aspara-  
gus, are pleasant to the Palate; cooling, soluble, and good for  
- the Scurvy, and provoke Urine ; outwardly it is much used in  
Clysters, and a Cataplafm of the Leaves helps Pains of the  
Gout; ' \*—

The only Officinal Preparation is the *Mel Mercuriale,* which  
is thus male:

Take of the Juice of Mercury, three Pounds ; of Honey,  
two Ps-ands: lint them be depurated, and boiled up toge-  
ther, to the Consistence of Honey.

This is seldom ufed, except in Clysters.

BOOPS, *Boau, Bose, tear, βίΛξ,* βοωψ. The Name of a  
Fish thet fives near the Shore. Its Flesh is reckon’d among  
Meats easy of Digestion, and is advised to sick Persons. It is  
described by *Aldrovandus, Lib. i. de Pise.*

BOOS *thalajscu,* βοὸς βαλαοιίου, from δάλαονα, the Sea, the  
Gehitive of βες θαλἀονιος, the Sea-cow. The Words are in  
*Galen’s Exegesis* on *Hippocrates,* which he expounds by  
σελαχώδης εστἰν *ί* ἰχθὑς ουτος, " this is a cartilaginous Fish.”  
This Sort of Fishes *Pliny, Lib.* 9. *Cap.* 24. calls *plani,* and  
amongst them he reckons the Sea-cow; and fo does *Aristotle,  
Lib. ζ. Hist. Acim. Cap. c* and Zih. 6. *Cap. 12.* who, aS  
*Pliny* says, calls all those Kinds σελάχη, “ cartilaginous,”  
which are distinguished from others by having a Cartilage instead  
of a Spina, or Chine-bone of the Back. *Foestus.*

BORACO, *Capistrum Auri, “* the Bridle of Gold.” *Rsc-  
landus.* See *Salrnasaus’s* Remark on this Name under BoRAx.

BORADES, Filings. *Rulandus.*

BORAGO, Offic. *Borrage,.* Park. Parad. 249. Chub.  
5 I 5. *Barrage hortenses,* or Garden Borage, Ger- 653. Emac.  
797. Raii Synop. 3. 228. Hist. Oxon. 3. 437. *Bsrrago stori-  
bus caeruleis,* J. Β. 3. 574. Toufn. Inst. I 33. Boerh. Ind. A.  
I88. *Borrage storibus coerulcis et albis,* Raii Hist. I, 493.  
*Buglossurn latifolium. Barrage,* C. B, Pin. 256. BORRAGE.  
*Dale.*

' The Root of Borrage is thick, whitish, and hut little  
branched ; from which spring several large, long, and roandish  
green Leaves, wrinkled, rough, and even prickly in handling.  
The Stalk likewise is rough and prickry, heset with smaller  
. Leaves, bearing many Flowers at the Top, which are of one  
single Leaf cut into five Segments, laid open like a Star, of  
a fine blue Colour, with a black Umbo in the Middle, each of  
winch is succeeded by four brown angular Seeds, growing in a  
round Calyx. It grows in Gardens, but is found wild in  
divers Places near Houses, and upon Walls ; and flowers in  
*June.* The Leaves and Flowers are used.

The Leaves are accounted Cordial, good to comfort the  
Heart, and drive away Faintness and Melancholy; and to  
thet Purpose, the Tops are frequently put into Wine, and  
Cool-tankards. They are llkewise Alexipharmic, and good in  
malignant Fevers.

The Flowers are one of the four Cordial Flowers. The  
only Officinal Preparation is the Conserve of the Flowers.  
*Millers Bet. Off.*

BORAX. A kind os Salt used in mechanic Arts and Me-  
dicine. It is thus distinguish’d:

*Borax, Cbrysecolla facticia, santerna Plinii et Tincar,* Offic.  
*Borax,* Cbarlt. Foss 9. Dougl. Ind. I8. *Nitrum unde Borax  
, coquitur,* Aldrov. Must Metall. 324. *Nitrum factitiam, Ara-  
bice Borax,* Worm. 2I. *Nitrurn nativum aliorum fossilium  
mode in terra repertum durum, et spijscum, us Lapidi non abs re  
astimilari posset. Tincar est Arabum, ex quo Chrysocolla Grae-  
corum, Borax eorundem Arabusrs, Venetiis consuitur.* Calc.

Mufr like. *'Niiru'ni natwum scissele durum, ex quo Feneiiis Eoi.  
rax'coquitur,* Kentm.. *Baurach,* Mayern. Syntag. I. BO-  
RACE. *Dado. . .. - :*

: The best Chrysocolla is what comes from *Armenia,* and is of  
**a** lively Leek-green. The next in Goodness is the *Macedonian,*and after; this the Cgniin», of which Kind the pure is to he pre-  
ferred ; what has gathered Dirt and Stones is to be rejected.

The Manner of washing the Chrysocolla is thus: Fust, they  
break it, and then put it into a Mortar, where, pouring inWa-  
ter, they nib the Chrysocolla well with their stat Hand against  
the Pestle after this they let it alone to subside, and then strain:  
It off. This done, they pour fresh Water to it, and work it as  
hefore, repeating the Operation till the Chrysocolla comes out  
pure and unmixed ; then they dry it in the Sun, and *so* lay it  
up for U fe. - -

When they have a Mind to burn it, they do it in the follow-  
ing manner:. Having pounded a sufficient Quantity, - they set  
it in a Pot upon the Coals, land proceed as has heen directed in  
other Cases. - - \  
\ Chrysocolla exterges the Marks of Scars, and checks Excres-  
cences.; it is of a cleansing, astringent, and heating Quality ;  
and is a gentle Septic, with some Degree of Mordacity. It is  
reckon’d among those things which excite Vomiting, and en-  
danger Lise. *Diofcorides, Lib.* 5. *Cap.* IOdur

Chrysocolla is a liquid Substance, which runs through a Vein  
of Gold, and is condensed by the Cold of the Winter to the  
Hardness of a Pumice-stone. The best is found in the Copper  
Mines, and the next in Goodness in the Silver Mines; they  
meet with it also in the Lead .Mines, and a bafer Sort in the  
Gold Mines. They heve also a way of making Chrysocolla  
artificiafly in all these Metals, though much inferior to what  
grows-naturally, by introducing into the Vein a gentle Current  
of Water during all the Winter, till the Month of *June,* which,  
in that and the next Month, drying up, leaves behind it the  
Chrysocolla, which may he understood, from, this manner of  
Preduction, to be no other than a putrid Vein. The native  
Chrysocolla is sar different from this with refpect to Hardness;  
they call it *Lutea,* though they dye it also with an Herb *of that*Name. It is of the Nature of Wool or Flax to imbihe any  
Juice. They pound it in a Mortar, then pass it through a fine  
Sieve; after this they grind it; and heing thus reduced smaller,  
they pass it through the Sieve again; what will not go through  
is pounded over again in the Mortar, and afterwards ground in  
the Mill. The Powder is always disposed into small Veffeis  
*[catinos], and* macerated in Vinegar, to take off. all Hardness j  
then pounded over again; and afterwards washed in Pans, and  
so dried. After this they stain It with plumous Alum, and the  
**Heth** *Luiea* hesore-mentinned ; and thus it is painted, hefore it  
paints. It matters much how bibulous and receptible it is ; for  
if it does not immediately take the Colour, they add to itSchy-  
tanum and Turbystum, which ate the Names of Drugs that dis.  
pose things to receive Colours. When the Painters, have stain’d  
**. it,** they call it Orobitis, and make two Sorts of it; the Yellow  
*. \* [Lutea],* which is kept for a Paint ; and the Liquid, resulting  
from a Dissolution of the Globules by Sweat; heth these Kinds  
**are** made in *Cyprus.*

The most Valuable Chrysocolla is the *Armenian,* next to that  
the *Macedonian,* hut the largest comes from *Spain.* The ut-  
most that can he said in its Commendation is, that it very nearly  
represents the Colour of a lively Corn-green. The Emperor  
*Nero,* in the Time of the public Shews, ordered the Area of  
the Circle to he strew’d with Chrysocolla, then enter'd himfelf,  
habited in the same Colour, and after introducing a Rabble of  
Mechanics,, entertain'd them with his Dexterity in driving **a**Chariot. They make three Kinds of Chrysocolla ; the *rough,*which is Valued at seven Librae; the middle Sort, Valued at five  
Denarii; and the *Attrita,* called also the herbaceous, at thir-  
teen Denarii. ,

. The Use of Chrysocolla in Medicine is to cleanse Wounds,  
heing mixed with Wax and Oil: .AS it is dry os itself, so it  
dries and .contracts. It is prescribed also in the Quinsey and  
Orthopnoea, heing mixed with Honey. It provokes Vomiting,  
.and is an Ingredient in Collyria for Cicatrices of the Eyes, and  
in green Plasters for mitigating Pains, and inducing a Cicatrix.  
Physicians call the Chrysocolla, except the Oribitis, *Acesis.***The** Goldsmiths lay Claim to the Chrysocolla for soldering Gold,  
from which Use it takes its Name, [χρυσός. Gold, and κόλλη.  
Glue, Solder] and is so called by all who use it for the like  
Purpose. It is temper'd with .Cyprus» Verdegrise, and the  
Urine of a Boy, with an Addition of N itre; they pound it with  
*Cyprian* Copper Pestles in *Cyprlan* Mortars; we call it *San-e  
terna.* Tins makes a Solder for that Gold which they call the  
*Silveri/h,* which is known by its acquiring a Brightness by an  
Addition of Santerna. But what they call the *Coppcri/h,* on  
the contrary, contracts itself, and looks dull, and is difficult to  
he solder’d. For this Rind they make a Solder, consisting of  
Gold, and a seventh Part of Silver, added to the before-men-  
tioned, and pounded together. *Pliny, Lib.* 33. *Cap.* 5..

Some Sorts of Chrysocolla are sound among Metals, and these

only are by some accounted proper Chrysocolla. But there is R  
factitious Sort, which is prepared by pounding them with Boy'S  
Urine in a Mortar of red Copper, with a Pestle of the same  
Metal, in the Heat, of the burning Sun. This is more medi-i  
cinal than the native Kinds, and makes an excellent Remedy  
for malignant Ulcers, either by itself, or mixed with proper in-  
gredients. Burning of it will diminish its pungent Quality?  
*P. AEgineta, Lib. J. Cap.* 3.. *Actius, T.etr.* I. *Serm. 0..  
Cap.* 8I. . ...

*. Borax* is a barbarous Word-Latinized, and now every-where  
used instead of Chrysocolla. The later *Greeks* also call it  
βοράχιον, s*Borachion)* as *Myrepsus,* in the Ointment διὰ κιτρίων,  
" os Citrons," Number forty-two, where one of the Ingre-  
dients is a Quantity λιθου βοραχίοῦ, " of the Borachian Stone,".  
where you see that Chrysocolla is called a Stone. But *Diosco-  
rides* makes it a Property os the best Chrysocolla to he without  
Stones ; and so the best Stone must not be at all stony, which is  
absurd. But I heve often wonder'd how heth *Greeks* and La-  
*tins* of the later Ages came to use theWords βορὰχ and βοράχιον»  
instead of Chrysocolla. /They seem to have received them  
from none hut the *Arabians ;* and yet these are no *Arabic*Words. Therefore a great Man happens to he mistaken in his  
Notes upon *Carcias, Cap.* 35. *Lib.* I. where he observes  
that *Borax* is a corrupt Word, and thet we ought to say  
*Baurac.* This *Baurac* is indeed an *Arabic* Term, but never  
used for Chrysocolla, but for *Nitrum,* or *Aphronitrum',* it is  
*Avicenna’3* Word for *Nitrum,* for he calis *Aphronitrurn, Zebed  
Baurac,* that is. *Spuma Nicri.* The *Arabians* sometimes  
also use the *Greek* Word *Nitron,* but Chrysocolla they, call  
*Tincar.* In a Very antient Copy of *Diofcorides,* χρυσοκοςλα  
(Chrysocolla) is expounded, by the *Arabian Glosser, Tincar va  
Lexac Alzeheb,* " Tincar, or the Solder or Consolidation of  
Gold." In the latter Explication the *Greek* Word χρυσοκολλα  
is expressed, heing no other than that by which Gold is sol-  
der'd. But *Tseheb* is put for *Deheb,* for this is *Avicennests* Word  
for Chrysocolla, as *Lescac Aldeheb.* This is the *Chaldaic* Name  
sor Gold; for they also say ΟΠΊ, *Dahab,* instead of the Ha.  
*brew* nnl, *Tsahab,* Gold. . *Brasseavolus,* and others, observe,  
that Chrysocolla is called by the *Arabians Dapisirum Aurs,*“ the Bridle of Gold.'' They were led into this Mistake by  
the old Interpreter, who on the Word *Tincar, in Avicenna,*has these Words, *et dicitur Capistrum Auri, " and it* is called  
" the Bridle of Gold." In the *Arabic* it is,-ti the Consolida-  
“ tion or Soldering of Gold." *Avicenna* uses the Veth every-  
where as signifying to conglutinate and conjoin separate Parts,  
in the same Sense as the- *Greeks* use συγκολλῳν and κολλῳν-.  
whence κολλιίτικὰ φάρμακα, " conglutinating Medicines." But  
the Letters os the Verb, with hut one Apex more, signify*fra-  
nare,* " to bridlewhence is deriv'd the Verbal Noun, signi-  
fying *Fraenum, Capistrum, "* a Bridle or Halter." This de-  
ceived the old Interpreter, who mistook it for the other; and  
indeed it would be absurd to call Cbrysocolla, which is the  
Cause of the Cohesion and ConglutinationOf Gold to Gold,  
the Bridle of Gold. .

The *Arabians* seem to acknowledge some Relation between  
the Chrysocolla and Nitre, that is, *Baurac*; for *Serapion, in‘*his Chapter os Chrysocolla, *Cap.* 413. writes, that the Tincar  
was a kind of Salt, and had some Taste of Nitre, that is, of  
*Baurac.* Also in his Chapter of Nitre, speaking according to  
the Opinion of *Rhasis,* he says, there is a kind of Nitrum, or  
Apbronitrum, whence is the Tincar, thet is, the Chrysocolla.  
However it be, I do not in the least doubt, but from this *Ara-  
bic* Word *Baurac,* or *Borac,* which is Nitre, *Barbarians*form'd their *Borax* to signify Chryfocolla. Thus from the *Ana.,  
bian Sandarac* we know they made their *Sandarax,* and  
βερνίκ» *(Bernice)* they chang'd Io *Fornix,* though-to- quite a  
different Sense from what the *Greeks* put upon their *Pernice.*

That the *Arabians* will have some Resemblance between the  
Chrysocolla, commonly called *Borax, and* Nitre, which they  
call *Baurac,* must perhaps be understood of that factitious kind  
of Chrysocolla, which is commonly made of plumous Alum  
and Sal Ammoniac ; and therefore *Scrapion* reckons the Chryso-  
colla among the kinds of Salt.- - - - - . . -

Borax, in *Albertus Magnus,* is also the Name os a Stone found  
in the Head of a Toad; but no Credit is to be given to that  
Author. *Salmasius de Homonym. Hyl. Iatr. Cap.* I2I.

*Aristotle,* in his Book περί θαυμασ. ἀκουσμἀτων, speaks of  
*De mon esus,* an Bland oVer-against *Chalcedon,* which produced  
Chrysocolla, the finest Sort of which was Valued at Its Weight  
in Gold, being a Remedy for the Eyes. *Idem, Pliniana Excr-  
citationes.*

Me. Geoffroy *gives the following Account of Borax.*

Borax is a Salt, whose Composition, whether natural or arti-  
sicial, is but little known. Natural History, as well antient as  
modern, affords us but little Light or Information concerning  
this strange Salt ; and from what we can learn of it from.  
thence, we are not sussicientiv instructed to conclude, that **it.**

is the true Chrysocolla of the Antients, though the *Spaniards,*who work in the Mines of *Chili,* the *scenetlans,* and other Mo-  
derns, still give it that Name, which they found in antient Na-  
rural History.

*Pliny,* speaking of the Chrysocolla of his Time, divides it in-  
.1» two Kinds ; the native, winch was taken out of the Mines  
of Copper ; and the factitious, which was made by sharing and  
beating the Urine pf young Children in Mortals os Copper-  
See above. ’ '

*Paul Horman,* in his *Matgria Medica, Strasibourg tsp CL.*says, that they make Borax in she *East-Indics* os a nitrous  
Earth, which, aster they have calcin'd, and reduced it to Pow-  
der, they boil and make thereof a strong Lixivium ; this they  
afterwards expose to the Air, in order to make st run into  
Crystals ; that this Salt never comes to a greater Perfection in  
that Country ;. and that it is in she Places whither it is trans-  
‘ ported that they purisy it. .. .... ἐν. . . ’

. By. these two Descriptions, and especially *Plinsis,* it appears,  
that we are at a Loss for the true Borax at present; sor, in the  
Essays which I made on the Solution of this Salt in Water  
without Addition, I could never find a single Atom of Copper,  
whereas there, ought to have been a considerable Quantity, had  
it heen the Chrysocolla of *Pliny.*

Nor had I any -more Reason, from what I could discover, to  
think that it might be made of a nitrous Earth, ’taken in the  
Sense, and according to the Properties of our Nitre at present,  
because it crystallized, in a different manner, and fused upon  
Coal. But. Is M. *Herman,* by his *Indian* Nitre, means the  
Nitre *Qs Agra,* and some other Places in the *East-Indics,* which  
is a Natrum, and consequently a strong Alkali, Borax would be  
an alcaline Salt os much greater Penetration, and of .a much  
more acrimonious Taste than we find it, unless they have a way  
in making this Salt, to add to the Natron some sweetening Snb-  
stance to take off the Acrimony, and so make an imperfect Sal  
Salsum, in which the Alcali is predominant.

My late Brother, in the Lectures which he read at the Royal  
College upon the *Materia Medica,* and aster rhe Perusal of  
-some Memoirs os a *Gcrrnan* Traveller called M. *Narglin,* a  
good Naturalist, who had made many Essays upon that Sals,  
both in’ the *Indies,* and at *Percies,* where it was formerly puri-  
sy'd, tells us, " Thet Borax was produced in several Parts of the  
*" East-Indies,* bur most plentifully in the Dominions of the  
" Great Mogul, and *in Persia* ; that, in several Places os those  
" two Countries, there flow'd gently from different Mines,  
" but principally from those of Copper, a salt Water, muddy  
" and greenish, which was carefully preserved ; that, after it  
" was evaporated to a certain Consistence, they poured it into  
" Pits sunk in the Earth, arid lined with a Paste composed of  
" the Mud deposited from the same mineral Sources, and the  
" Fat of Animals; that they said over these Pits a Cover of a  
" convenient Thickness, made of the same Paste ; that at the  
" End of some Months they open'd them, where they would  
" find the Water partiy evaporated, and the Salt of the Borax .  
" crystallized; that they took these Crystals out of that sat  
" Mud, with which they were still mix'd or cover'd, and in  
" thet Condition they were brought to uS from the *Indies.”*

Our Merchants import Borax also from *China,* where it costs  
littie; .which makes it probable, that this kind *of* Salt is natural  
to that Country, or at least Very easy to make.

These different Boraxes are at present refined in *Holland;*but the way os doing it is not a Secret known only to the  
*Dutch,* for there is a private Gentleman in the *Fauxhourg St.  
Antoine,* who did refine it, and deliver, it to the Merchants as  
fine and as pure as that of *Holland.* In this State of perfect  
Purification it is transparent like Rock-crystal.

While it is rough, or in the same State in which it was im-  
ported from the *indies,* its Crystals are commonly of the Bigness  
os Hasel-nuts, of a greenish Colour, dirty, and obscure, like  
the Lare-stone of *China,* or of a palish Green like the Jade [a  
fort os precious Stone]. . They are full of impurities, and mix'd  
with Earth, and bedaub'd with a sat Substance, which is per-  
haps that of the Paste spoken of before,, or some other Fat with  
which they were cover'd, in order to prevent their running into  
a Calx, or heing reduced to a Powder during their Carriage in  
these hot Countries, For we know, that Borax is easily cal-’  
cin'd in the Air, as soon aS it has been washed in cold Water,  
and cleared of its unctuous EnVelopement, which whitens the  
Water, and dissolves in it like Soap.

The Crystals of thia Salt have the Figure of an oblique Prism,  
with six Faces, whose Base haS fin Sides, of winch those opposite  
to each other are equal and parallel. The greatest Diameter or.  
Length os the Base is almost double, and sometimes more than  
double its Breadth. What is singular in these Crystals is, that if  
we consider the two opposite Planes, which may reciprocally serve  
for a Base, we shall perceive a small Side of that Plane flatten’d  
throughout its whole Length ; and sometimes also the acute  
.adjacent Angle, and the two Sides, one in each Plane, thus flat-  
ten'd, are so situated, as to be diametrically opposite. Though  
this he not exactly true in all these Crystals, we may yet per..

ceive, that they .for the most part resemble that Tignse. The  
greatest .Diameter. of .theBase os the largest that I could find was  
about ten or twelve Lines ; and the least Diameter, or whet  
measures the Thickness,. five or six.Lines. The length is not  
always proportion’d to the Greatness of the Base; Torone,  
the greatest Diameter of whose Base is but eight Lines,.shall he  
thirteen or fourteen Lines in Height,, whereas another, the  
greatest Diameter of whose Base ss. twelve lines,, shall have but.  
ten Lines of Height, r - *.. :r .. -*

- There are *some* Crystalsvwhich come Very short of that Siae;  
and eVen some which are no bigger than Grains of Millet. ;ν As it is Very probable, that this Salt was form’d in a troubled..  
or muddy Liquor:;accordingly we.find in distblving it a great  
deal os gross Earth, or Sand ; and Its greenish Colour disappears,  
is it be crystallized anew. ' - so-

This is all that I-have to say concerning the external Fonn  
and Figure of Borax; as to its internal Nature and Properties,  
which has been the Object of the Inquiries of the most Part of  
the ChymistS of *Europe,* I can speak no more than by Conje-  
cture. *Becher* seems. to have known the Composition of this  
Salt, if he did not speak at random in his *Physica Subterranea,*and his *Alphabetum Mencrale,* where he says, " That the uni-  
" versa! Acid, in dissolving a Stone, or fusible Earth, forms  
" Borax; as it forms Alum, when it meets with an Earth fit  
" to make Lime." I.-

We shall, perhaps, one Day or. Other, discover Borax in  
Substances where we never suspected it could have been, aS we  
have found *Glauber’s* Salt, and vittiolated Tartar, -in mineral  
Waters, Plants, and other natural compounded Bodies. *l \**

M. *Hornbcrg* believ'd, that Borax was a mineral urinous Salt.  
M. *Lemery* the elder thought it had the Qualities of a neu-  
tral Salt, which neither fermented with Acids nor Alcalies; and,  
in the last Place, M. *Lemery* defin'd it to he a Sal Alcali, he-  
cause it precipitates the metallic Earth of Vitriois, and the Earth  
of Alum, almost as readily as Salt of Tartar does it. He has  
shewn also, that Borax is sublimed not only with a vitriolic  
Acid, but with other mineral Acids, and with white Vitriol.  
*MernoiresdellAcad:Ray. des Science* I 7 32. o

The distinguishing Properties Of *Borax* are principally/  
these: - . ' ; . - ?' . - . . \_

I. Its Form and Appearance, as brought to us from the *Easts.  
Indies,* which is that of dirty Lumps, or a coarse,- saline, and  
particularly fetid Substance, mixed with much unctuous, earthy,  
and stony Matter ; and in this State it is Commonly called Tin-  
cal, orTincarf r... . s ς Ἀ.: . ... . ~

2. Its pure and entire Crystals, when refined, being octagonal .  
Prisms very finely cut, though seldom obtained perfect in **the**ordinary wayof refining it. . i..:-, -r ..i i.-...

3. Its particular Taste,, not easy to he described, as being  
sweetish, sharpish, and somewhat urinous or lixivions. - - .

4. Its Property of soldering Metals, or making them easily  
unite, or take held of each other, more particularly the Parts of  
Gold.

5. Its making an excellent Flux for Metals and certain Ores,  
and, by being melted with a proper Proportion of Sand or Flint,  
turning, in a very short time, to a hard Glass, capable of Cut-  
ting common Glass almost like a Diamond.

6. Its extremely vitreseible Nature, fo as hy. itself, with **a**moderate Heat, and in a sew Minutes time, to become true  
and permanent Glass. ς

The Use of.Borax in Medicine is that of an incisive and ape-  
rient Salt, by virtue of which it is effectual against Diseases  
which proceed from an inspissation os the Humours, and Ob-  
structions thence arifing, acting at the same time against **the .**Acid, without exciting any Motion. The Dose. is an entire  
Dram. It is thought by some to have a specific, emmenagogi-  
cal, and expulsive Virtue, which may probably be derived from  
the aforesaid incisive, deobstruent, and aperitive Qualities,  
However, its Stimulus does not seem strong enough to he de- '  
pended upon for present Relief in a difficult Birth, unless it het .  
join'd with some other ingredients, that are of more Efficacy by  
their Volatile Stimulus. For this Reason Borax is commonly  
given in Powder mixed with Saffron, Myrrh, Oil of Cinnamon,  
Castor, the Volatile Salt of Amher, and other Powders of known  
Efficacy, in promoting the Birth, and sacilitating Delivery, ί  
Some advise a few Grains of it to he taken in a poach'd Egg,  
as a Provocative to Venery, especially to those whom poach’d  
Eggs alone have a good Effect upon. - . .

-- Borax calcin'd is reckon'd of specific. Virtue in Fluxes ofthe  
Belly, or the.Semen, because it is a sort of styptic Earth. The  
Dose is from a Scruple to half a Dram, in Conserve of Roses,-  
either alone, or with other suitable Ingredients, sor Instance,  
the Bone of the Cuttlefish, or toasted Nutmeg. . — . T.

Outwardly it is apply'd, though but seldom, to consume  
carnous and spongy Excrescences in sordid Ulcere ; in isrecom-  
mended also for the Itch, and in Cosmetics. The Usefuiness of  
Borax in fuch Cases may reasonably he expected from its saline,  
incisive, and resolving Qualities, .which cause it to he received  
into the Unguentum Citreum, which is recommended for-

stinking the Skin smooth, and free from Asperities, Its sapona-  
iceous, abstersive Virtue, for the Purposes aforesaid, may perhaps  
more justly he expected from Borax in its crude State, as it is  
sold in ***Indict***; tho', according to ***Garcias,*** it is seldom used by  
**the** Τπέίίσιι Physicians, unless for the Itch. The ***Puluis Diabo-  
racis Mynsiehti*** has Borax sor its Basis, and stimulating Aroma-  
tics and Absorbents for Accessories. The Dose is to a Dram  
for Women in Labour, to facilitate the Birth, andzo expel the  
Secundines, and dead Foetus; ...T ..' - '...'I - -he

As Examples of the Methods of prescribing-Borax, I shall  
give the ***Puluis Emmenagogus cAPuller,*** and ***thePulvis Diabora-  
cii*** of ***Mynsicttt. -s.***

i PCLvIS EMMEAAGOGUS, ***Fallen. .- - - - 00.***

**Take** of ***Venetian*** Borax, fifteen Grains; . Myrrh, twelve  
Grains ; Saffron, three Grains; Oil of Cloves, one Drop:

.' Mix together, and make4 Powder. . ..... ...

This is to he taken twice a Day, and is recommended ior  
Promoting the Menses. . . ...... suuri

PULVIS DIAS0RACIS, ***'Mynstsues.su***

. .Take of ***Venetian*** Borax, an Ounce and a half; Cassia Lig-  
is nea, and Oriental Saffron, each three Drams; Savin-wood,  
white Amber prepared, each a Dram and a half ; Bone  
of a Stag's Heart; Mifleto, Flowers of the Wall-flower,  
each a Dram : Mix, and make a Powder. The Cassia Lig-  
\*- , nea, Savin-wood, Mifleto, the Bone of a. Stag's Heart,  
the Saffron, and Flowers dried, are to he powder'd toge-  
ther; and so-are the Amber and Borax'; and then all are  
to he mix'd together.

It Is recommended for promoting Delivery, and expelling  
**the** After-birth ; and is said to he a good Emmenagogne.

BORBONICUS, ***Borbonensis.*** A patronymic Epithet of  
some hot Springs, commonly call'd the Waters of ***Bourbon.  
Castellus. ‘ ' '***

BORBORODES, ββρβορῶδες, muddy, dirty; earthy, fecu-  
**lent.** Βορβορῶδες πήον, is dirty, feculent Pus, ***Hip. Prognostic.***and ***Aph.*** 44." ***Lib. J.*** and ***Coac.*** Βορβορώδεες όδμαι are " muddy,  
" earthy Smelis," ***Lib. vccii yyjsticiv.*** Βορβορώδεα »ρα are  
" muddy, feculent Urines.'\* ***Galen. Comment, ad Aph.*** 69.-  
***Lib. An -***

BORBORYGMUS, βορβορυγμός. A rumbling Noise, ex-  
**cited by** Wind, mix’d with some Degree of Humidity. ***Galen,***in his Comment on the seventy-third Aphorism of ***Booh An fays*that *Borborygrnus*** is the Noise of a Flatus, not very loud, nor  
long, with a moderate Degree of Humidity, descending to the  
inferior Parts. And, ***Lib.*** 3. ***Symptom. Cause Cap.*** 7. " a Bor-  
" borygmus is a murmuring Sound, excited by Humidities con-  
" tam’d in the intestines, and is the Fore-runner of a humid  
" Excretion: So Tumors about the Praecordia terminate in a  
***" Dorborygmus,*** or Rumbling; the Flatulencies, together with  
**" the** Excrements and Urine, discharging themselves principal-  
" ly by Stool; for such is not barely a Sign of a Flatus, but  
that it is mix’d with some Humour, or more solid Body."  
Βορβορυγμός γενόμὲνιος ἐν ὑποχονδρίῳ- ***i( A*** Rumbling in the  
" Hypochondria,'' ***Coac.*** Βορβορίζ'ειν, and διαβορβορίζμν, are  
fpoken of the κοιλιην " Belly," when it rumbles, and is irrita-  
ted to Excretion, ***Lip. de Rat. Vict. in Morb. acut. ascaCa^o-  
ξύζασα.*** κβιλίη***- astrali gfatvardazor*** " The Belly rumbling, with  
" vain Efforts to ease itself, " ***Prorrhce.*** Διαβορβορύζοντα  
εἴποχόνδεια μετέωρασ " The Hypochondria rumbling, and  
" elevated, ***Aph. J%. -Lib.* 4\*** Ὕ'^ςβ’ρβορήζβν is also used, as,  
Χβιλί» ὑποβορβίρύζουσα ***quiarial, CC*** the Belly rumbling with Flatu-  
" lencies,'' ***Aretceus, Lib.*** 2. ***Caps.*** 6. ***de Causis et Signis acut.  
Morb. ‘Os io*** πότοῖσιν ὑποβορβορήζοντες. " Who have a Rum-  
V bimg in them when they drink,'' ***Coac.*** This sort of Noise  
is like whet is produced by treading in Mine, βόρβορος, whence  
**it** takes its Name.

- BOREAS, ***Boreales Vintt.*** The Northern Winds **are of a**cold Temperament, and therefore the most wholsome of all  
Winds, especially to Bodies of a hot Complexion, and well  
cloathed with Flesh. ***Actius, Totrab.*** I. ***Serm. 2. Cap.*** I63.

It is observed, that the North and East Winds bring with  
them the universal Acid of the Air in great Abundance; Hence  
they might reasonably he expected to he cold, ***a priori,*** aS we  
in Effect find they are. In consequence of this Cold, all Ten-  
dency to an alcaline Putrefaction, and a Dissolution os **the**' Blood, is destroy’d; thet is, all Contagion, in some Degree  
**at** least; which the South Winds, as productive of Heat,Tn-  
crease and promote. .

Hence we may readily determine, what forts of Diseases **the**North Wind is likely, in general, to produce s which are such  
. as depend upon an increased Rigidity of the Fibres, and a visci-  
dity of the Juices, the Consequences of Cold. And, in Fact,  
**we** find in these Northern Climates, most Fevers, those which  
happen during Winter more especially, are accompanied with a  
Siziness of the Bloed.; whereas very het Countries, are more

subject to Fevers attended with a Distolution of the Juices, that  
is, pestilential Disorders.

BORIDIA. A sort of salt Meat, prepared of a kind of‘small  
Fish, and eaten raw. This, with other Pickles of the like  
Kind, are hurtful to the Stomach, herd of Dinestion, and  
loosen the Belly.\* - ***Oribasius*** from ***Xenocrates, Mud. Coll. Lib.  
Oso.Coep.*** 58. ***adismem. - ....*** . . v .

- BORITIS. The Philosopher'S Stone, which melts the Cop-  
per of the wise MenT and renders st fluid like Water.- -  
’ BORIZA. The same as LUNARIA, winch see..

. BOROMETZced See AGNUS SCYTHICUS. See AGNUS.

, BOROS, βορα'ς. Voracious, edacious. - Hence υ'δωρ βορῥα.  
Voracious Water, that is. Water which excites a good Appetite,  
***-Aph.*** 18. ***Lib. 6. Epid. Sect. 4. Galen*** says, All tho ***GreeH,*** in  
"'.'our Part ***CAAsia,*** still call great Eaters thy the common Name  
- of ***Bari st7*** Εορὴ, in the ***Ionic*** Dialect, sor βορὰ, signifies Food,  
***Lib.*** I. ***smei γυναικ.*** Βορα?, in ***Hefychius,*** is expounded by  
βρῶὸις, σῖτος, τραφῆ, " Meat, Food, Aliment."

***Castellus,*** by an egregious Blunder; calls this ***Eorrhus,***

BOROZAIL, or the ***Zail*** of. the ***Ethiopians.-*** A Disease  
epidemic in the 'Countries about the River ***Senega.*** Itprinci-  
pally infests the Pudenda, but is different from the ***Lues Vinerea.***This owes its Rise to immoderate Venery, to which they are \_  
very fuhject. This ’Distemper, in the Men, is call'd ***Afab;***in the Women, ***Ajsiabatus. Blanaardsc - ‘ .***

BORSELLA. An Instrument belonging to the Glaflinakers,  
by which they contract or extend their Glass Vefleis, as they **see**Occasion. ***Castellus: \ ’ ... -***. BOS, Ossic. Schred. 5. 269. Schw. Quad. 63. Aldrov. de  
Quad. Biful. I3. Gesm de Quad. 25. ***Bys‘ domesticus,*** Jonf. ;  
de Coad. 26. Charlt. Exer. 8. Rail Synop. A. 7o. - ***Mas Trncr  
rus.*** THE BULL. ***Dale. ; si -***

- But ***Bos*** properly signifies a Cow, Bullock, Heifer, or any  
thing of the Neat Rind.

- Black Cattle, or Kine,- as well as: other Animals which  
v feed on high Grass and Herbs, during Winter, and **the**Beginning of Spring, are lean, and of bad Juice; but as **the**Summer comes forward, and the Grass grows, they visibly in-  
crease in Flesh, and become of better Juice. But Animals  
which can eat tender Herbs, and short Grass, are best in the Be-  
ginning and Middle of Spring: Such are Sheep. The Beginning  
and Middle of Slimmer agree heft with Goats, and then Flesh  
is most wholsome when they can broufe on the . tender Shoots  
of all manner of Shrubs. ' χ

Beef affords ***a.*** good deal of Nourishment, and **what is not**easily dissipated, but generates too thick a Blood. And if **a**Person he naturally os a melancholy Temperament, a plentiful  
feeding on Bees will bring upon him some melancholy Disorder.  
As much as Bees surpasses Swines Flesh in Solidity, so much  
does this latter exceed the other in Sliminess os Substance, **and**yet is much easier os Concoction. ***Oribasius, Med. Coll. Lib.***2. ***Cap.*** 28.

In a Resolution of theStomach, by which it becomes incapa-  
ble of retaining the Fond, Meats of- a cold Quality, and such .  
as are difficult of Concoction, rather than easy to he corrupted,  
are to he prcserr’d; for which Reason many Persons digest Beef,  
who can digest nothing else. ***Celsius, Lib.*** 4. ***Cap. 5.***

The same Author advises Eating of a Bullock's Spleen, **to**thofe who labour under a Hardness and Swelling os that Part,  
***Lib. An Cap.*** 9. - ’ '

The Marrow of young Bullocks is reckon'd, by ***Oribasius,***next in Goodness to that of Stags; that of Bulls and Goats, he  
fays, is more drying and acrimonious, and therefore not fo fit  
as the others for dissolving a scirrhous Tumor or Hardness. ***De  
Virtut. Simpl. Lib.*** 2. ***Cap.*** I.

- TheFat of Beef is reckon'd among Sudorifics, by the **same**Author from ***Zopyrus, Mede Coll. Lib.*** II. ***Cap.*** 56.

The Dung of Bullocks, like their Food, has but littie Varia-  
tion : It is of a drying Quality, ‘and is also an Attractive. A  
Physician, of no mean Skill in his Profession, used to cover up  
his Hydropical Patients with Cow-dung, and then expose them  
to the Sun, and by that means did much Good. He chose the.  
Dung in the Spring-time, when it was moist, and the Cows  
were at Grass: This he dried, and said aside for Use. He ap- '  
plied the same, by way of Cataplasm, to strumous and all other  
hard Swellings. ***Aetius, Totrab.*** I. ***Scrrn. 2. Cap.*** II5.

With respect to the Ox-kind as an Aliment, it must he con-  
siderfd, that Animals of this Species live on Grass and Water  
only; and that their habitual Exercife is very littie, most of  
their Time being employ'd in Eating, Sleeping, and chewing  
the Cud ; unless when they are imprudently put upon hard La-  
bour,’ as is the Custom in some Countries. Hence their Flesh  
is not render'd too hard by their habitual Exercise ; nor are their  
Salts highly exalted either by them Food or Motion. It mint  
therefore be a Very good Aliment, under proper Management,  
when taken in due Quantities, and in proportion to the Exer-  
cise used by the Person who eass it. .

But the ***English*** generalljr rake care to abuse the Gifts of Pro-  
vidende, in regard to this salutary Food; and with much Pinna

Contrive in convert Bees, of itself a very nourishing aad strength-  
ening Aliment, into a Poison, rendering it hard, and, th  
Consequence of that, indigestible, hy laying it in Salt for many  
Days hefore they dress it; not to mention, that it is even.then  
frequentry swallow'd half raw. The digestive Organs, there-  
fore, not heing able to dissolve thisindurated Aliment, and con-  
vert it into good Chyle, many Particles, too large to circulate  
thro' the minute Vesteis of the Body, must stagnate in different  
Parts, and particularly in the Glands. *. tiensx* that Distemper  
which we call the Scurvy, .the Source of innumerable Disor-  
ders, both acute and chronical; to which Sailors, on account of  
their salt Diet, are particularly subject, s

It is owing to this Error,: more than to out Climate, that **the***-Englisii* are remarkable for being melancholy and dejected,  
especially in a rainy or cloudy Day, wherr the Atmosphere is  
light, and the Elasticity os the Air diminish'd; for on these  
Occasions it is, that they appear gloomy, and unsociable, and  
are much inclined to find out a retired Place, where they may,  
without Disturbance, put an End to then Lives : A Custom too  
frequent amongst us, and which is peculiar to our own Coun-  
try; for Self-murder is scarcely ever heard os. abroad.

The *French,* with respect to their manner os Diet, are more  
prudent than we. They boil their Bees well, unsalted, and  
make os it large Quantities of Soop and Boullies; adding to  
them a large Quantity of Vegetables, and Salt aS they like it;  
**hy** which they avoid the Inconveniencies and Disorders we  
voluntarily run into. Hence they are perpetually gay, and full  
of Spirits; and hence the Scurvy, and. its Consequences, are  
known in *France* to none but the Sailors.

Beef, according to *Hippocrates, de.Diata, Tip.* 2. is a strong  
Fond, and binds the Belly, and is of difficult Concoction, he-  
cause the Animal abounds with thick Bleed, arid its Flesh is  
heavy. In another Pisce, which is his Book *de Rat. Vict'.* he  
*Says,* that- atrabilious Affections are exasperated by eating os  
Beef; for its Nature is insuperable, and it is not to he digested  
by every Stomach; but.it is best qualified for Concoction and  
Distribution when thoroughly hell'd, aster it has. heen hung up  
for a good while. .

ῖ *Simeon Sethi,* giving ns the Opinion of the Antients, writes,  
that Beef affords very firm Nourishment, and that the Blond .  
generated of it is immoderately thick; - for which Reason; in  
melancholy Constitutions, it causes Various Diseases os the same  
Kind. It is also Very heavy of Digestion and Distribution ; but,  
si well concocted, is abundantly nutritive. If compared with  
Mutton, it is of a Cold Nature, and generates melancholy  
.Blood; but Broth made of it stops a Flux of the Belly pro-  
ceeding from yellow Bile. If any one defines, or is compell'd,  
**to** seed on it, let him, if he he apprehensive of any Harm from  
it, eat it corrected with Vinegar, Garlick, and Rue ; but it  
only proves of had Juice in the hefore-mention'd Cases, and is  
a Remedy sor a hot Stomach, and to those who use much and  
Continual Exercise.

From the Premises we learn, that Beef is hetter for strong  
than weak Persons; for those who use exercise, than theSeden-  
tary; sor those who are in the Vigour of their Age, than for  
Children or aged Persons ; and in the cold Seasons os the Year,  
than in the hot. We see the Reason also, why Beef is call'd  
the Food of Heroes in *Nonnius*; and why its Broth is good to  
stop a Looseness, that is, when the Disease requires a Remedy  
of a glutinous Nature, that tempers Acrimony, and is a Vul-  
nerary ; arid lastly, why it is hurtful to those who are of a me-  
lancholy Habit of Body, if they seed too freely on it. Is it he  
eaten, then, by.those who use much Exercise, and with Mode-  
ration, it will Verify what *Celsius* says of it. *Lib.* 2. *Cap.* 24.  
which is, that it is good for the Stomach.

. The Flesh os Busis is inferior to that of Oxen in Wholsome..  
**ness;** unless the Ox has been much inur'd to Labour, and his  
Flesh by that means render'd dry and hard. The Flesh of  
.Oxen is also preserr'd to that of Cows.

The Smell os the Hide, but especially old Leather made of  
it, , burnt or singed, is commended for the Hysteric Passion.  
The Tallow is of Service, where-ever Emollients are required.  
The Axungia, which is melted from the Hoofs, is more pene-  
trating and emollient, because of finer Parts; but the Marrow  
exerts its emollient Virtue where-ever it is applied. Thet  
.the Bones, calcin'd and pulveriz’d, are said to strengthen the  
Bowels, to stop a Looseness, and to be effectual against Worms  
and the Epilepsy,’ used either internally, or in Ointments or  
Plasters, must be understood of such Cases where the Disorder  
.proceeds from an Excess os Humidity, or an Acid, and is to be  
.subdued by Driers and Absorbents. Some commend the Scrap-  
’ings of a Bull’s Horn, taken at the Time of his Coition, for  
the Epilepsy and impotence ; but, supposing it easy to be oh-  
rain'd at such a Juncture, it can no otherwise he effectual to  
these Purposes than aS an Anti-acid, which acts by its volatile  
alcaline Salt. The Horns are also commended as proper for  
jSuffinnigation in pestilential Times ; but I much question whe-  
ther the inspir'd Fume, being os an alcaline Nature, would nut  
.more dispose the Humours to Putresaction. The Hoofs have,  
.an antepileptic Virtue, with the Limitations aforesaid: Being

fried, and'so taken, they may: he .of some Sendee in a Dysen-  
tery, where an alcaline, antiedcid, glutinous Faculty is requir'd.  
The *Talus of* a Cow pulveriz'd, . and drank in Wine, is com-  
mended.by.*Fcrestus,* as a Specific against Worms in the Into-  
stipes. The *Membrum genitale,.or Fizzle* of a Bull, pulve-  
riz’d, or else a Decoction of the same, is reported to create **a**Desire of Coition in Men, but an Abhorrence of the same in  
Women ; but Reason does not .comprehend these Contrarieties,  
nor Experience attest them. There is a Stone sometimes-found  
in the Gall-bladder of this Animal, which is call’d *Bezoar Bovi..  
Acts,* and. *Astchcron Lapis,* by .the *Portuguese Mesiangde Vacagi&ad.*by *tffiC Arabians Haraccci,* winch is said by some to have .an alexi-  
pharmac and antepileptic Virtue. But this Stone is not to he  
confounded with the *Bulithunt,*or.Balspwhiefi. is sometimes  
found in the Stomach, and sometimes in the Intestines of this  
Animal; These are usually call'd also *Tophi Bovinigi* And consist  
of Hairs, which it gets off, by Licking, from itsTBody, and  
swallows; where by degrees They concrete 'into a Ball, which  
is commonly of the Colour of the Animalis Hair. Sir *Hans  
Sloane,* in his History of *Jamaica, -sms,* that some give half a  
Dram of it in Powder as an Astringent. These Balis have some\*  
times a shining Crust over them, in which respect they imitate  
the true Bezoar-stone. - The Gall-is sully treated on under the  
.Article BILIS. ' The Spleen is;not only commended in De-  
coctions, het sor external Uses, in Affections of the Spleen, as  
Hardness, Inflammation, Pain, and Tumor. *Paracelsus, as  
Etmullcr* writes, has a remarkable Experiment of the Virtue of  
this Part, which he chopp'd into small Bits, and boil’d in Wa-  
ter, for ' a Suppression os the -Messes, and a Cachexy proceed-»,  
ing from it. Reason does not comprehend this, but must yield  
Jo Experience. *Etmullcr* goes on to tell uS, that the Essence  
prepar'd with Spirit of Baum is commended in Obstructions of  
the Menses, and a Cachexy thence proceeding. It may also  
conveniently be mix'd with liquid Essence of Steel, that it may  
be more appropriated to such Cases, and more especially to **the**internal Parts, and principally to the Opening of the Obstructi-  
ons and Oppilations os the Mesentery. *D. Michaelistad* some  
compound Essence of Ox's Spleen mix'd with Essence of Steel,  
.which he used in a Suppression os the Menses, attended with  
Pain. Some commend it to provoke an Appetite. The Spleen  
of an Ox, distil'd with Spirit of.Wine, is recommended for all  
Infirmities of the Stomach. Thus sar *Etmullcr* ; but the Vir-  
tue of this distil'd Liquor, I should think, were owing to **the**Spirit of Wine, and that of the Essence to the other Ingredient,  
.rather than to any thing proceeding from the Spleen os the Ox.  
In the *Berlin* Dispensatory there is aMedicine intituled, *EfscK.  
tia Splenis Bovini,* which is extracted from the Spleen of a young  
Bull castrated, by means os Spirit os Wine, or of Baum, after it  
has been cut into thin Slices, and macerated for. some Days In.  
Spirit of Wine, saturated with Myrrh, or the Powder of Ange-  
lies, and then dried in the open Air. ' .

The Liver of an Ox, dried and pulveriz'd, is commended as  
good in Fluxes of the Belly, and Hemorrhages. - Is it be seed  
Viceable in this Case, it acts as an absorbing, alcaline Powder;  
but then the Liver of other Animals will have the same effect;  
It is said to be conducive in curing Infirmities of the Liver, if a  
Decoction he made of it, and other hepatic Plants ; but I attri-  
bute such Effects to those Plants alone.

The Dung of an Ox is deservedly commended for its discus-  
five Virtue in external Applications. Hence it is used recent,  
by way of Cataplasm, in Inflammations, particularly the Gout,  
as an approved Anodyne. Some mix with it Earth-worms,  
and apply it to the Abdomen, in order to cure the Colic, and  
discuss Flatulencies; aS also in the Ascites, to reprefs the Tu-  
mor, and discuss the Water ; for, next to human Dung, that -  
os an Ox is reckon'd the best for this Purpose. *Etmullcr* says  
It is Very effectually applied to cedematous Tumors :. It is also  
commended against a Suppression of Urine, if applied to the  
Pecten, and the Region of the Pubes. The common People  
give the express'd Juice in Pains of the Colic; and *Etmullcr*asserts, from certain Experience, that it is not only a present  
Remedy in the Colic, but also in the Pleurisy; that of this  
Dung, in the same manner as of human Dung, by repeated  
Digestion and Sublimation, may he prepar’d the *Zibethum Occi- .  
denude, so* call'd by *Paracelsus,* because it exhales a sweet Smell  
like Civet. *Dioscorides, Lib.* 2. *Cap.* say5» that the Dung  
of an Ox thet grazes, applied recent, mitigates the Inflamma-  
tion of Wounds. It is wrapp’d, he says, in Leaves, and.heated  
in het Ashes, and then applied to the Place ; that aTomenta-  
tion of it affwages the Pain os the Sciatica; thet it discusses  
Hardnesses, Pain, and Strumae, being anointed with it, infused  
in V inegar; and that a Suffumigation os the Dung of the Male  
of this Species represses the Falling-down of the Uterus; and  
that the Smell of it, when kindled, drives away Gnats. On  
these Passages, *Matthiolus* remarks: " We are. to. consider,  
." .that all Medicines os this Kind are accommodated to the hard  
" Bodies of Rustics, such as Diggers, Mowers, and such as  
" are inur'd to Work which requires bodily Strength; to  
" such aS these, when affected with scirrhous Tumors, it is ap-  
" plied by way of Cataplasm, with Vinegar." *Visiescus de Tas. -*

*-ranta* assures us, that the Dung of an *Ox* (or a Horse) is of ex.  
-. cellent Use in a Gangrene,-to preserve the sound Parts from -  
Corruption. And, after him, *Sylvius* and *Barbette,* as they say,  
. tnade use of the fame Remedy, which they kept as a great  
Secret. But it is really a fordid Medicine, hardly worthy of a  
Physician, and to be left to the poor Commonalty, rather then -  
. to betecommended to the Rich and Noble, according to *Hicijler,  
Cher. p.* 323.

Cow’s Urine, internally ufed, *Etmuller* lays, cures the Gout,  
if it be taken in the Month of *May,* and the Feefare bathed  
a while in it, and, after that, the *Narimberg* Pleister is applied  
to them. TiascsrrdTs fays, that a Bull’s Urine, with Myrrh, insist’d  
into the Ears, eases Pains thereof. *Hilmont* proposes, as an ap-  
proved Remedy for the Stone, the Liquor that usually fills the  
. Bladder ofthe Foetus in a Cow, drank every Morning, tothe Quan-  
tity of about two Ounces, in a like Proportion of White-wine.

The Blood of a Bull, fresh-drawnis reckon'd poisonous, by  
causing a Difficulty ofBreathing, and Suffocation; but *Ildatthia-  
lus* on *Diaseorides* observes," that, except it be drank in great  
Quantities, and hot as st comes from the Veins, before it con-  
cretes, it.does little or no Harm. This poisonous Quality is nos,  
however, confirm’d by later Experiments. But the Blond of Oxen  
and Bulls is commended, as internally used, for the Dysentery,  
an Excess of the Menses, and other internal Hemorrhages; and,  
for Spitting of Blond, it is prescribed to be taken in Vinegar.  
Externally it is effectiial in discussing and. mollifying Tumors,  
and clearing the Face of Spots and Blemishes. *Etmuller* rays,  
the Bloed is hardly used, but,in case of an Atrophy of the Limbs  
and,Joints, after great Wounds receiv’d; and for Weakness  
and Pains in the Memhera and Joints, which, being thrust into  
the fresh Blood of an Ox, or a Dog newly kill’d, will he won-  
derfully refresh’d thereby, and render’d more pliable, and fit  
for Motion. The Blood of an Ox then, externally applied,  
has these Virtues in common with the Blood of other Animais;  
.which Virtues are derived from its saponaceous Nature, where-  
by it is a Dissolvent and Aperient, its native Heat promoting  
-its Operation. Internally taken, it is hurtful, by its natural Pro-  
.petty, which causes it to concrete in the Stomach, and renders it  
insuperable by the vital Powers. *Helmant* says, that the Blond of  
a Bull .is Poison, but not that of an Ox or Cow; and assigns as  
a Cause the Fury of the Bull, dying with an eager Desue of  
Revenge, which iniptefles a Mark of Vengeance, and a powerful  
jSignature; oh the Blood. *Guainerius* says, that not only the Blond  
of a Bull, but that of an old Ox, is poisonous.. *Kiegar.*

BOSA. An *Egyptian* Word lor a Mass, prepar’d of the Meal  
.Of Darnel, Hempseed, and Water, of the same inebriating Vir-  
tue as the Assrs, which see.

BOSCADES, βοσκάδης. An Epithet for Pigeons which  
build in Towers, which foroe use to erecti in the Fields. They  
are otherwise call’d *Agrestes,* wild, to distinguish. them from  
-the Domestic, *ifis ndmajusiav, Galen, Lib.* a. *de C. M. S. G.  
Cap.* IO. Βοσκἀς is also a kind of dry Pitch, of a tenacious  
Quality, like Bird-lime. *Cerraeus.*

BOSCI SALVIA. A kind of Sage which takes its Name  
from *Bofcurn,* **or** *Boseus,* a Wood, the Places where it grows.  
*Blancaril. . . ' -*

BOSMOROS, or BOSPOROS, from βόσκωι to seed, and  
a Portion or Division, jed.kind of ;Com so call’d, he.  
caufe it is divided by the Teeth of the Mill, or by the Stone ;  
Or hecause it rs separated from the Chess by theTreading of the  
.Oxen, it may deriveits Name from βους, *Dorice, sues,* an Ox i  
or, again, from βώς and ποῦεω, to pafs over. *Blancand.*

. BOTAMUM. Wash’d lead. *Rsdandus.*

BOTANE,, βοτάνη. An Herb ; whence is derived

BOTANY. The Science relating to Herbs and Plants, **for**which the Antients have no Name, as it was not in their Days  
ereoled into a regular Science. i, , d

. Before I proceed to the History of Botany, it will he, con-  
venient to give an Explication *of* the Botanical Terms com-  
monly us’d, which will save the Reader the Trouble of turning  
to a Multitude of Artioles,, in,order .to understand what will  
afterwards he said. ; st .

**' ’ ἐν’ - A** *;.:.z ....... . ..*

Ac Aur. Is & AcAULoS, without a Stallt ; that is, when the  
Flower of a Plant, grows close, to the Ground, having no visible  
Stalk, as in the Carlinethistle.

ὐ AcINUs &-ACINI, are the Berries or Fruit of the Elder,  
Privet, Ivy, *etc. ' -*

**AGARIoUs.** . Seerhis Word in the Letter A. ,

. . ALA is the Sinus of a Stalk, which the Leaf or Pedicle makes

with the Stalk or Branches, from whence a new Offspring nsea  
to put forth.'. ----- .....

**ALcYONIUM.** See this Word in the Letter A.

: ALGA. The *Alga* is a Speclesof Piant that grows in Water,  
with sine oblong grassy Leaves, and more perfecti Seed than  
that of the Fucus; for its Vessels, when come to Maturity,  
gape, and let fall the Seed, as it happens in more perfeci Plants.

AMENTAcBoUs FLowERs are such as have an Aggregate of  
Summits^hanging down in form Of a Rope or timS Tim . Μ

the Male Flowers of the Mulberry, the Hasid, Walnut, and  
Oak. Thefe are also call’d *Iuli,* and, in *English, Katkins.*

APETALoUs FLowERs. See FLOS.

**APICES,** *Summits,* are thofe Bodies which, hang upon the  
Chives, or Threads, which generally surround the Polntais of  
Flowers, and contain the prollsic Powder, which is analogous  
to the Male Sperm in Animais.

ARBOR, a *Tree,* is defin’d to he a woody Phot of the largest  
- Growth, whose Trunk is perennial and single, and divided into  
many large Branches, which areagain divided into sinallerTwigs,  
on which the Leaves, Flowers, and Fruits, are produc’d.

ARtsTA is that sharp-pointed Needle which stands out from  
the Husk or Covering of the Grain of Corn or Grass, and is  
call’d *Awn, css Beard.*

**ARTICULATION** is the Connexion of Parts thatcoofist of  
.joints or Knees, such as the Pods of Birdsfoot, or *French* Ho-  
neyfiickle, which, when ripe, divide into so many Parts as  
abereare Knees or.Joints.

Axis is a taper Column, placed in the Centre of some Flow-  
els of Katkins, about which the other Parts ate dispos’d.

- B -

BAccA, *z Berry,* a roundish Fruit, for the most part soft,  
containing one or more Seed in a pulpy Substance.

BALMrsrItrM is the Cup of the Flower ofthe wild Pome-  
granate. - - s „

BaRBuLA are the Half-florets of compound Flowers.

BivALyn : The Pads or Husks of Plants, which open  
lengthways in two Parts; like the Shell of a Muscle, are term’d  
*Bivalve.*

BRAoHIA are the Division of the large Branches of Trees  
from the Trunk.

SRYtibr. The *Bryurn, oi Bryon,* is a fertile kind of Moss,  
which differs from the *Polytrichum* by its smooth Calyptra, and  
from the *Hypnum* principally with respect to the Original of its  
Pedicles, which proceed from the Tops of the StaIks and  
Branches, or from the Radicles and annuel Shoots, which, the  
former Year, were the Tops of the Stalks, and have not their  
sower Part inolosed in a squamous Sheath, like those of the *Hy-  
pnurn.* Add io these Cbaractsrs, that its Stalks are, for the most  
part, erects and less branch’d than those os the *Hiypnum,* **and**not trailing and creeping. The Calyptrae are situated sometimes  
perpendicularly, fometimes obliquely ini the Head, and the  
Seed-vessels, usually part traofverfly, sometimes with an even,  
sometimes with an indented Margin.

**- BULBUs.** BulbousRoots are fuch as consist either of several -  
Coats involving one another, or of several Scales lying one over  
another. The first of these is call’d a tunicated Root, (of this  
-Sort isthei Onion and Tulip) and the last is call’d a squamous  
(that is, a scaly) Root; of which fort is the Lily and Martagon.

Byssus. The *Byssecs* is the lowest, and a barren kind of  
*Mofs,* consisting of a very thin, and, to the naked Eye, im-  
perceptible sort of Wool, which is produc’d from various Sub-  
stances, appearing sometimes like a very fine Powder, sometimes  
like’Dowo, and frequently lasts for a considerable time, in which  
respects it differs from the *Fungus,* as it does also in having no  
. Head, or any other Refemblance to the rest *of the Fungi.*

. 'si gisi C 'st

CALYPTRA is the thin Involuctumor Cover of forne Seeds.

**CALYPTRA, a thin Cup,** which covers the Hcaus of some  
ofthe Mosses. " - S. ...

CALYX, or Empalement, is generally understood to mean  
thofe less tender leaves, which cover the Other Parts of the  
Flower. ' .

**CAPiLLAMENTS in** Flowers are generally understood to  
mean the Chives which support the *Apices.*

**CAPITELLUM, the** Head or Seed-vessels, frequently ap-  
plied to Mosses.

**; - CAPITULUM** isthe Heed or Topofany Plant.

**CAPSULAin** the short Pad or Husk of a Plant, containing the  
Sced.

**. CARINA is the** concave Petal or Segment of a Butterfly-  
flower, which resembles the Keel or lower Part of a Boat.

**. CAUDA,** the Tail of a Leaf, is a Preduction of the middle  
Rib, and connects the Leas with the Stalk, after the manner  
of a Pedicle ; when the middle Rin has an Appendix of the  
Leaf running along it, it is often call’d a wing’d Least

CAUDEX isthe Trunk of a Tree.

CAULIs is a Part of a Plant receiving the Nourishment from  
.the Roos, and conveying it into the other Parts with which it  
is cioath’d, not having one Side distinguishable from the other.  
The Stalk os aTree is call’d the Trunk, and in Corn and Grass  
it is call’d the Blade. . ‘ n-jr-m

CAULIs iRocUMBENs, a procumbent or trailing Stalk, **is**that which lies on the Ground without emitting Roots.

CAULIs KEPENs, a creeping Stalk, is that which lies on the  
Ground, and propagates itself by emitting Roots, as the Ivy  
and Strawberry.

**I.CAULIS** sCANDENs, a ch'mhing Stalk, is that which climbs  
by the Help ofTendrils, as the Vine and Briony.

**CAULIs VOLUBILIS,** a twining Stalk, is that which twist!  
aheut any Prop without the Help of Tendriis, as the Hop.  
Kidney-bean, *etc.*

**CIRRI** are thelittie Fibres of the Roots of Plants.

**CLAVICULUs,** or *Capreolus,* (that is, Tendriis) is a Part ol  
a Stalk, curling and laying held on any adjacent Body, and is  
always produc'd at a Joint. These are also call'd *Claspers. .*

COMA is the Top of a Branch or Flower.

**CONFERVA. .** *Tht Conferva* is a barren kind of *Mose,* de-  
stitute of littie flowery Heads, and even of those Bosses and  
Tuhercles, which some other Kinds are furnish'd with instead of  
them, and consisting only os round, smooth, and uniform  
Leaves, or rather little Stalks, divided into fine Cap filaments;

**CONUS, a Cone, is the Fruit of the Pine, Fir, and Cedar;**

CORYMBUS signifies a Cluster of Flowers or Fruit standing  
on Pedicles, which are disposed in fuch a manner as to form a  
Sphere.; of this sort is the Ivy. .. :

CRENA, or crenated Leaves, are such as are out aheut the  
'Edges into several obtuse Segments. : '

**CUBITUS,** a Cubit, that is, a Foot and .a half; so she  
Stalks of Plants are term'd *Cubitalis, Bicubitales,* &c. accord-  
ing toTheinHeight. (- --

CULMUS is the Stalk or Blade of Corn.’ **b "**

**CYLINDRUS,** that is. Cylinder ; the Fruit of Plants are  
term'd Cylindrical, when they resemble a Columns'

CYTINUs is generally understood to mean theFlowers ofthe  
true Pomegranate; bus, by some Writers, the Cups os Flowers,  
which expand after the same manner, are term'd *Cytiniforynes:*

D t.ET

DENTIcuLATUs, thather indented ; those Leaves of Plants  
which are cut aheut the Edges into several Segments, more acute  
than the crenated Leaves, are term'd denticulated. -

*DIGITATED LEAVES are* compound Leaves divided into  
several Parts, all of which meet together at the Tail, in form of  
a Hand. ‘ ... --

PIscUS, the Disk, is an Aggregate of Florets, forming, aS  
it were, a plain Surface. ’ ..' ...

**DiSSEPIMENTUM is** the thin Septumwhich divides the  
several Celis in the Fruit of Plants. \

***.. : ' E . .*** .. SE.ss

**' ECHINUS ;** those Plants, Or Parts of Plants,, which are beset  
Very closely with Spines, like a Hedghog, are term'd echinated. .1

**EMARGINAT US ;** those Leaves of Plants which are hollow'd  
at their'Extremities, so as to form a Heart, are Call'd 'Emar-  
**ginated** Leaves. " . ' : . ι. ’

EMBRYO is the tender Foetus ofthe Plant.

ESCHARA. The *Eschara* is a stony kind osuPlant, some-  
what resembling *a.*Web in its Contexture.. -.

' ί 1 F Ἀ - ' '

. ' . . ψ . \* - \* .' ; - .: -. - - - - -

FIMBRIA, Fringe; those Parts of Plants or Flowers, whose  
Borders end in small'Threads resembling fring’d Linen, are  
term'd fimbriated. - . .-

**FISTULOUS PLANTS** are such whose Stalks are hollow like  
**a Pipe. . si** .s . - ' -6 .

**FLOS,** that is, a Flower, is the Organs of Generation of both  
Sexes, adhering to a common Placenta, together with their  
common Coverings, or of either Sex separately, with improper  
Coverings, is it have any. - . - - -l- - -

The Flowers of Plants are distinguish'd by Botanists in the  
following manner. - . . T

**FLos AM E NT ACEUs,** Amentaceous Powers ; these are such  
as are term'd Katkins. . . . ' sc

‘ FLOs ARET ALUs, Flowers without Petals; these are such  
as have no other Covering to the Parts of Generation but the  
Calyx. . - . ' -- s .

FLOS CAMPANlFORMls is such a Flower as is shap'd like a  
Bell. Those Flowers whose Edges spread Very wide, are term'd  
open hell-ihap'd Flowers; but those winch are much less spread,-  
are call'd tubulous bell-shap'd Flowers. . .

‘ F**LOS cARYOPHYLLEUS is** such a Flower as is shap’d like a  
**Clove-gilliflower. . 1**

FLos coMPOsiIus is a compound Flower,-which in Coin-  
pos'd either of Florets or Semistorets, or os both together. ’ Of  
this kind is the Blue-bottie, Knapweed, and many others.. - : -

FLOS ORUCIFORMis, a cross-shap'd Hower, which is coin-  
pos'd of four Petals, plac'd in form, of 4 Cross.-- Of this Tort  
are the'Cabbage, Mustard, and Wall-flower.- - '. - -  
. - FLOS F-LosCtILosUs, a flosculous Flower, is that which IS  
compos'd Of several Florets, included in one common Cup.  
t FLOS.INRUND1BUL-1FoRMrs,a funnel-shap'd Flower, is that  
which is shap’d like a Funnel.’ Of this kind is the Primrose,  
lesser Centaury, and many others. ‘ . /

FLOS-LABiATUs, a Lip-shap'dFIower. This is an irregular  
monopetalous Flower, divided commonly into two Lips ; the  
upper Dp is .call'd the’ Crest, and the under one the Beard.  
Sometimes the Crest is wanting, and then the Style and Chives  
supply its Place. This is by some call'd an unilabiated  
Flower. - - . ’ - - - ρα

**FLOS LILIACEUS, a** Lily-shap'd Flower, is generally com-  
pos'd of six Peaals, which resemble those of the Lily. Of this  
fort are the Tulin and Asphodel.

**FLOS MON0PETALUS, '** a Flower compos'd of one Leaf.  
. All those Flowers whose Petals are join'd at the Bottom, so  
. that they fall *off* entire, are term'd monopetalous Flowers.

**- FLOS MONOPETALUS ANOMALUS,** an irregular.Flower,  
consisting of one Leaf.

**- FLOS pAPILiONAcEUs,** A papilionaceous or pea-bloom .  
Flower, is one which, in soine measure, resembles a Butterfly  
with its Wings expanded. It always consists os these sour Parts;  
the Standard, (or *Fexillunse* which is a large erect Segment or  
.Petal ; the two .Wings, *sodlaj* which compose the Sides ; and  
the Keel, *(Carina)* which is a concave Petal or Segment,, re-  
fumbling the Reel of a Boatj; this is sometimes entire, and, at  
other times, *it* consists of two Petals or Segments, adhering  
pretty close together. Of this sort are the Bean, Pea, and  
.Vetch, *etc. ..*

-..-FLOS PERSONATUS, a personated Flower, thet is, an irre-  
gular monopetalous Flower, whose upper Part resembles the  
Beaks of Fowls. Os this kind are the Snap-dragon, Toad-flax,  
and others.. : . **χ- ’ . . . ", ..ἐν:-.'?. .....**

**, FEOS BETALODES,** a petalous Flower, that.is, -a. Flower  
herbose Organs of Generation are surrounded with Leaves or  
.Petals.' *e.....* - .; - ..j . - ’ l .s .

FLOS PoLYPETALUs, a polypetalous Flower, shat is, a  
Flower compos'd of several Leaves or Petals. : When these  
agree in Figure and Position, it is call'd a regular polypetalous  
.Flower;. but when the Petals do not agree in Figure and Posi-  
tion, it is call'd an irregular polypetalous Flower.

**.; FLOS RADIATUS,** a radiated Flower, consists os two Parts;  
the Disk, which is an Aggregate of Florets forming a plain  
Surface, and the Rays, which are several Semiflorets set round  
the Dish, .in form of a Stars These are call'd radiated discous  
Flowers ; but those which have no fuch Rays, are call'd naked  
difcouS Flowers.' .ci.

- FLOS RosACEUS, a rose-shap'd Flower, that is, a Flower  
consisting os souror more Petals, which are plac'd circularly in  
form of a Rose..

**FLOS ROTATUS,** a Flower in the Form of a WheeL Such -.  
are those of Borrage, Anagallis, and Willow-weed.

**l.** FLOS scORPIOIDES, that is, when.the Flowers are rang'd on  
rone Side of thePedicle, which twists at the Top in form of *i*Scorpion's Tail.. Of this sortis the Heliotropiura.

**. FLOS SEMIFI-OSCULOSUs,** a semistoscusons Flower **j this is**-compos'd of. several Semiflorets, included in one common  
Calyx.

**FLos sproATUs,** a spik'd Flower, is that whose Flowers  
are set thick on the Pedicle, in such a manner as to sorm an  
acute Cone., **i’**

. . FLOS STAMINEUS, a stamineous Flower, is that which is  
compos'd of many Chives included in a Calyx, having no Pe-  
tals. Of this sort is the Bistort and Sparganium.

**-. FLOS STERILIS,** barren Flowers ; these have no Embryo  
adherIingto them; so are call'd Male Flowers, and False Flowers.  
Os this kind are the Melon and Gourd.

FLOswERTIcILLATUS, that is, a whorle-shap'd Flower.  
These Flowers grow closely united, surrounding the Stalk at the  
several Joints? ' ’

FLOS UMBELLATUS, an umhellated Flower, is, when the  
Extremity' of the Stalk or Branch is divided into several Pe-  
dicles or Rays, beginning from the same Point, and opening in  
fuch a manner as to form a kind of inverted Cone, like an Um-  
brella. When the Pedicles, into which the Stalk is divided,  
are subdivided into others os the same Form, upon which the  
Flowers are disposed, the first Order is call'd Rays, the second  
Pedicles. Thet Umbel which consists of Pedicles only, is call'd  
*a* fingle Umbel ; that which is composed heth of Rays and Pe-  
dicles, is call'd a compound Umbel., ss . . ί .

**FLOS URcEOLATUs,** or Pitcher-shap'd Flowers’ Of this  
sort are the Arbutus and Whortle-herry. - *.l .*

**FOLIUM,** a Leaf, is aPartofa Plant, extended into Length  
and Breadth in such a manner as to have one Side distinguish-  
able from the other. This is call'd in *Latin Folium,* to distin-  
guish it from the Leaf of a Flower, which is call'd *-Petalum.***- FOLIUM ALATUM,** a wing'd Leaf, is, as it were, com-  
posed os several pinnated Leaves. .. . '

s **FOLIUM ANGULATUM,** an angular Leaf, is that whose  
Margin is cut into several Angles.

**FOLIUM AURICULATUM, an** ear'd Leaf, is that whose  
Base, next the Pedicle, is indented, somewhat resembling art  
Ear. i . . . -

**FOLIUM COMPOSITUM,** a compound Leaf, is that which  
is divided into several Parts, each resembling a simple Leaf. -  
**' FOLIUM CRENATUM,** a crenated Leaf, is that which is cut  
aheut the Edges into several obtuse Segments.

**, FOLIUM DIGITATUM,** a digitated Leaf, is-a compound  
Leaf, divided into several Parts, all Of which meet together at.  
**the Tad, in aS -to resemble a Hand.**

**FOLIUM HEPTAFoLIATUM,** A **heptafoliated** Leaf, is **a**digitated Leaf, consisting of seven Fingers.

**FOLIUM INTEGRUM, an entire** *Leas,* **is that which has no  
Division on the edges.**

**FOLIUM LACINIATUM,** a jagged Leaf, is that which is  
cut about the Edges into several deep Portions, in an irregular  
manner. ‘

**- FOLIUM PENNATUM,** a pennated Leaf, is a compound  
Leaf divined into several Parts, each of which is call'd a Lohe,  
Plac'd along the middle Rib, either alternately, or by Pairs.  
When the middle Rib is terminated by an odd Lohe, it is call'd  
. an unequal pennated Leaf; and when it is not terminated by an  
odd Lohe, it is term'd an equal pennated Leaf When the Lobes  
are all nearly of the same Form and Bigness, it is call'd an uni-  
form pennated Leaf; when they are not so, it is term'd difform.

**\* FOLIUM QUINQUEFOLIATUM,** a quinquefohated Leaf, is a  
digitated Leaf consisting of **five** Fingers

**FOLIUM RAMOSUM,** a ramose Leaf, is that winch is still  
' farther divided than the wing'd Leaf, as is the common or Fe-  
male Fern. ;

**FOLIUM sAGITTATIUM,** aSpear-shap'd Leaf, is that which  
ends in three sharp Angles, resembling a Dasti

**FOLIUM SIMPLEX, a** simple Leaf, is that which is notssi-  
vided to the Middle. ' . { ....

**FOLIUM SINUATUM,** a sinnated Leaf, is that which Is cut  
about the Edges into several acute Segments, like the Teeth of  
a Saw- . ’  
**. FOLIUM TRIEOLIATUM,** a trifoliated Leaf, is a digitated  
Leaf, consisting of three Fingers. 1

**FOLIUM TRIL0BATUM, a** trilohated Leaf; consists os three  
obtuse Lohes, which are not divided to the Bottom.

**FOLIUM UMBILICATUM,** an umbilicated Leaf, is that  
which has the Pedicle fasten'd to the Backside of a Leaf, so that,  
on the upper Side of the Leas, there is a small Cavity form’d  
like a Navel. ' -  
**s FoLLICULUs is a** leafy membranaceous Sheath Or Covering,  
which surrounds the Fruit or Seed ; as the Winter-cheny.

**FONTINALIS.** The *Fontinalis* is a sort of Moss distinguish'd  
hy its close uniform Heads, supported by none, or very short  
Pedicles, and, when come to Maturity, opening transVerily in  
the upper Part, and discharging a Capitellum.

**- FORNICATUS,** or fornicated Petais, are such Flower-leaves  
as are arch’d aster the manner of the Galea, or Crest,, of the Clary,  
and Sage. ..

FRUcTtis, a Fruit. By the Word Fruit is to he understood  
the Seeds of all Plants, with their Covering.

**FRUCTUS UMBILICATUS,** an umbilicated Fruit, is that  
which had the other Parts of the Flower growing On its Top  
when it was an Ovary. They usually form a Cavity, which is  
known by the Name of the *Umbilicus, qt* Navel ; as in the  
Medlar, Rose, and Pomegranate.

FRUTEx, a Shrub, is a Plant with many woody perennial’  
Trunks, such as Roses, Syringe's, and Spanish-broom, which'  
divide into several Stems pear'the Ground ; but the Word is.  
frequentiy us'd by Gardeners for all woody Plants of low  
Growth. ‘ Y'./

FUcOIDEs. The *Fucoides* is a Species Of Plant which grows  
in Waters, and is of.a middle Nature between the *Conferva,  
Corallina,* .and. *Fucus.* It is often finely divided, and of a more  
tender Substance than the *Fucus,* and nor distinguish'd by Nodes,-  
and Joints like the *Conferva* and *Corallina:*

F U e U s. The *Fucus* is a Species of Plant growing in Water,  
whose Leaves and Stalks are of various Figures. , It is,. for the  
most part, of a viscid and coriaceous Substance, and is furnish'd  
with Vesicles on both Sides, which admit the Air, heing form’d  
so assist its Floating. Its Extremities are often set with Tu-  
bercles, which seem to contain something of a seminal Nature.

FUNGOIDES. A *Fungoides* is a Species of *Fungus* without al  
Head or Cap, whose Pedicles or Stalks are of Various Shapes and  
Divisions. As to its Substance, it consists of an uniform Matter,  
which is undivided into Lamellae,- or by Pores.

**FUNGUs.** A *Fungus* is the lowest, and a Very imperfect  
Genus of Plants, having neither Seed nor Flower, as sar as can\*  
hitherto be observ'd, and remarkably differing from other Plants,,  
in that it has not an herbaceous Colour, nor Leaf, properly  
speaking, nor any thing else analogous in its Contexture. Most  
of them spring up in a Very short time, and are as soon difiblv'd  
. into the putrid Matter whence they arose.

**G**

**GENICULUM,** a Knot; such Roots and Pods of Plants are  
said to he geniculated, as are divided into Joints.

**GLUMA** is the Hush or Chaff of Corn.

**H**

**HABITUS PLANT** *x* is the outward Appearance of Plants,  
or what they call the *Port.*

**'HERBA,** an Heth. By an Heth is meant all such Plants  
whose Stalks die to the Ground every Year. Those whose  
Roots do notuontinue longer than one Year, are term'd annual

Hants; those whose Roots continue two Years, are term'd  
biennial Plants; and those whose Roots continue many Years,  
are term'd perennial Plants.

**HYPNUM. The** *Hypnum* is a fertile kind of Mose, furnish'd  
with uniform calyptrated Heads *(Capitulis)*; the Calyptrae, for  
the most part, being situated obliquely on them. The Capitella  
fell off tranfverflv, sometimes with an even, and sometimes,  
with an indented Margin The Pedicles, which, for the most  
part, are pretty long, proceed from the Sinuses of the Leaves,  
and shoot. along. by the little Stalks and Branches, and have  
their lowest Part inclosed in a squamous Sheath, which is differ-  
ent from the Leaves. To these Characters we may. add, that  
the Stalks are, for the most part, set at a wider Distance, and  
more branch'd, than in the *Bryon.*

**I**

**IMBsticATUS.** The Leaves or Scales of Plants are said to  
he imbricated, when they are disposed so as to lie one on the  
Edge of the other, after the manner of Tiles on a House.  
**. INTERNODIUM** is that Part of the StalkS of Plants hetween  
the Knots Or Joints.

**\* IULUS** is aKatksh. χ

**. . L -**

. LANUGO, Down. The Seeds of Plants which have a downy  
Substance fasten'd to them, which serves as Wings to transport  
them, are term’d lanuginous, as the Thistle: These are also  
call'd pappous. ' . -

LICHEN. The *Lichen* is a floriferous as well as seminife-  
rous kind of Moss, whose flowery littie Heads are furnish'd with  
many Grains, and are VariouIly shaped, producing, as they ripen,  
several littie monopetalons Flowers. The Seeds, which are.  
small, stat, and orbicular, are contain'd in some peculiar open  
Capsules, resting upon the Plane of the Leaves; and are some-  
times found in the same Plant that bears the little Heads, some-  
times in other Plants of the same Species. Besides these flowery  
little Heads, there are observed in some Species some umbel-  
lated Heads of different Figures, which produce neither Flower  
nor Seed, aS other Plants of the same Species usually do. The  
Pedicles of both Species are, for the most part, naked, and  
proceed from no Vagina. Tho' these Characters are very evi-  
dens, yet, the more easily to distinguish it . from the rest of the "  
Tribe of the Mosses, we may add, that .the Leaves are of an  
herbaceous Consistence, and Of an indeterminate Figures,  
widely spreading, and running out into numerous Roots from  
their back Part.

**LICHENASTRUM.** The *Lichenastrum* is a fertile, or in re-’  
Inarkably floriferous, kind of *Mose,* with Heads supported by  
pretty long Pedicles; which Heads, as they ripen, usually cleave  
into four equal Parts, as sar as the Base, and resemble a cruci-  
form Flower, and discharge a Very fine Dust, which answers to  
the fine Flour of the Apices in the most perfect Flowers: This  
Dust cannot he denied to he of the same Service in the rest of  
-the Mosses, fince the Dust of their Heads appears to he exactly .  
of the same Figure and Contexture, if examined with a Micro-  
scope. The Heads of the *Lichenastrum* are simple and naked,  
each standing on its own Pedicle, which is longer or shorter, and  
proceeds from a Vagina or Sheath, sometimes simple, sometimes  
bivalve, and sometimes divided at the Top into several Parts,  
by which Character it is Very clearly distinguish'd from the  
*Lichen.*

**LICHENOIDES.** The *Lichenoides* is distinguish'd from the  
*Conferva* and *Uh a,* by its Bosses and Tubercles ; and from the  
*Lichen, Lichenastrum,* and others, by the same, and .its heing  
destitute of littie flowery Heads, and consisting of a middle  
Substance hetween the *Fungi* and *Messes* ; whence many Of its  
Species are usually call'd *Museo-siungL*

The *Lichenoides* are divided into,

" I. The Cauliferous, or Stock-bearing, which are subdivided  
into,

I. The capillaceous, not tubulous, and scutellated, that is,  
with Eminences like llttle Targets, from *Scutella,,* a hsttle Tar-  
get or Buckler.

2. The coralliform, for the most part, set withTuhercleS ;  
and of this Sort there are (LJthe solid, and nor tubulous; ’  
{2.) the tubulous.

3. The pyxidated, that is, hollow'd in form of a Box, in  
*jestin pyxis.*

4. The fungiform, or those resembling a *Fungus.*

II. The *Lichenoides* without Stalks, subdivided into

I. The purely crustaceans.

2. Those with a leafy, scutellated Crust, or scutellated  
Leaves, closely adhering one to another; and these are either  
(I.) of a Jelly-like Substance; or (2.J of a harder and juiceless  
Consistence.

3. Those with Leaves more at Liberty, and not growing so  
close to one another ; and these are either (I.) with Leaves fcu-  
reflated and tuberculated, or (2.) peltated.

**LITHOPHYTON.** A *Liobophyteio* a Species of Plans, of  
horny sort Of a Substance, and of a middle Nature, between

Wool and Stone. There usually adheres to it a Bark, which  
consists of a Contexture of Fibres, or resembles Tartar. *Boer-  
haave* calls these *Keratophyti.*

**LOCULAMRNTA** are the Cells in the Emit of Plants, where  
the Seeds are lodged, which are divided by small Partitions.

LOCUSTA is the outer Covering of the Flower and Grain of  
Corn, which incloses the Chaff.

LYcoFoDroIDEs. The *Lycppodioides* differs from the Ζγοο-  
*pedium,* in the fame respech as the *Selaginoides* differs from the  
*Sclago.*

LycqPODIUM. The *Lycopodium* is a fertile kind of *Most,*, destitute, as well as the *Selago,* of pedicles and Capitella: But  
it differs from *sue Selago,* in that its Heads, or Capsules,. grow  
not scatter’d in the Sinuses of the Leaves, but are collecied into  
a Club, for each Scale covers a Kidney-fheped and bivalve  
Capsule, which lores no Part of itself when ripe.

**M**

**MALLEOLUS,** Mallet. , The Cuttiogs of Vines, which are  
taken with Joints of the old Wool th their Bottom, so as to  
resemble a little Mallet, are term’d *Malleoli*, which Cuttings  
, more certainly take Root than any other; and always make  
better Plants.

**MARGINATUs,** border'd. The Seeds of Plants which have  
a thin leafy Border round them, are said to he margniated *; as  
these of* the Stock-gilly-flower, Honesty, and others.

MNIUril.. The *Mniurn* is a fertile kind of Moss, furnish’d  
with little flowery Heads, Or seminal ones, if they rnay he fo  
. esteem’d, which are of two Sorts ; for some of them are naked  
and dusty, having neither Capsule nor Cover, nor so much as  
surrounded with a Membrane; but others are observed to he  
like the rest of the floriferous kinds of Moss, particularly the  
*Hiypna* and the *Brya* ; and the different Manner of flowering is  
what distinguishes this Kind from all the rest. There is usually  
a Variety in the little Heads, sometimes in the same, sometrrnes  
in different Plants ; and the Pedicles which support membrana-  
ceous Heads, are pretty long and bare; but those which heve  
their Heads naked are observed to he much shorter than the  
Others, and fiirrounded with very small leaves.

MUdRo, a sharp Point. Those leaves or Fruits of Plants,  
which are terminated in a sharp Pnint, arc termed mucro-  
nated.

**MULTIdApstrLAR PLANTS are such as heve severel Pods  
of Seeds succeeding each Flower, as the Celandine, Columbine,  
and others:**

**N . ‘**

**NUCLEUS,** a Kernel, is thet Part of the Fruit which is in-  
closed in a bard Shell, as the Kernel of the Almond and Aprj-  
cock.

**O**

. OssICULUM, a Shell, is the hard stony Covering of Seeds.

P

PANIcULA, a Panicle, is a Stalk diffused into several Pedi-  
cles, sustaining the Flowers or Fruits; of this Sort are the Oat,  
Millet, and others.

’ PAppUs, Down. See LANUGo.

PEDicULUs, aTediole, is thetPart ofa Stalk which imme-  
diately sustains a Leaf, a'Flower, or a Fruit, and in *Englijb* is  
call’d Foot-stalk.

**PETALA,** Petals, are the tender fine-colouPd Leaves, which  
are generally the most conspicuous Pans of a Flower; so those  
Flowers which consist of one Leaf, are call’d monopetaloiis  
Flowers; thofe of two Leaves are call’d bipetalous ; those of  
**three** Leaves, tripetalous; those of four Leaves, tetrapetalous ;  
those of five Leaves, pentapetalous; those *of* six Leaves, hexa-  
petalous ;, and those of a greater Numher of Leaves, are term’d  
polypetalous. - ' - - .'

\_ PEz-izA. The *Peziza* is a Species of *Fungus,* sometimes  
without Pedicles, and sometimes with them, having its Edges  
divided in such a manner as to form a remarkable Cavity he-  
tween them.. It is of au uniform Substance, like the *Fun-  
guldes,* and neither distinguish’d by Lamellae nor Pores.

**PIsTiLLUM,** Pointal or Style, is thet Column which occu-  
pies the Centre of the Flower, rising on theTop of the Em-  
bryo, and is generally surrounded with the Chives. These dif-  
. fer greatly in their Form ; for in some Flowers they are round-  
ish, in others triangular, oval, or fquare.

PLACENTA is that Part of the Ped or Husk of a Plant to  
which the Seeds are fasten’d, and by which they are nourish’d  
till they are ripe.

**PLANTA,** a Plant, is an organical Bndy, destitute of Sense,  
and spontaneous Motion, adhering to another Body in such a  
manner, as to draw from it its Nourishment, propagating itself  
by Seed. Under this generical Name are inctiHedTrees,  
Shrubs, Under-shrubs, and Heths.

PotYVITALous, many Leaves. Those Plants are term’d  
polypetalous, whosi; Flowers are composed of several Leaves.

**f. PoLYTRrCHUM.** The *Polytrichum* is a fertile kind ofMoss,  
whose Capitellum commonly quits the Plant transverfly, with an  
even Margin; and is cover’d with an upright and villous Calv-  
ptra, with a Capitellum ; by which Character it is distinguish’d  
from the *Bryon.* From the *Hiypnum,* besides the Difference of  
the Calyptra, it is distinguish’d by its erect and lefs branch’d  
Stalks, which, from their Tops, or from annual Shoots, pro-  
duce naked Pedicles, not having their lowest Part inclosed in a  
squamous Sheath.

PoMUM, an Apple, is generally understood to he any fleshy  
Vessel, containing more Seeds than one; so thet all Plants  
which produce such Fruit are term’d pomiserous, thet is. Apple-  
hearing.

**PRUNUM,** a Plum, is a fleshy Vestel, inclosing a hard brittle  
Shell, in which are one or two Seeds; *fo* thet all Plants which  
produce such Fruit are term’d pruniferous, that is. Plum-  
bearing.

PULpA, Pulp, is the soft Part of Fruits which surrounds  
the Seeds, as in the Tamarind and Cassia.

PYRAMIDATus, pyramidal. Those Flowers or Fruits  
which grow in form of a Pyramid, are term’d pyramidal.

**R**

Racemus, a Cluster, is a Stalk «herded or branch’d into  
several Pedicles, firstaining the Flowers or Emits thick set toge-  
ther (as in the Vine and Currant): The first of these Condi-  
tions distinguishes it from a Spike, the last from a Panicle.

RADIx, a Root, is that Part of a Piant by which it natural-  
ly receives its Nourishment. These are of different Forms anil  
Contextores, some of them heing fibrous, others fleshy or  
woody.

**RADIX AspHoDELI,** an Asphodel-root, is thet which is  
composed of several oblong fleshy Knobs j of this Kind are the  
Kingspear and Day-lily.

RADIX BULBosA, a bulbous Root, is that which consists of  
several Coats, involving one another, or of several Scales lying  
one over another. The first of thefe is call’d a sonicated Root;  
of this Sort are the Onion, Tulip, and Hyacinth (from whence  
*the French* cast all these Sorts of Roots Onions); the last is vall’d  
a squamous (or scaly) Root; of this Sort are the Llly and Mar-  
iagon.

RADIx FIBROSA, a fibrous Root, is that which consists  
only of small Fibres Tike Hains; of this Sort are Grass and  
Corn.

RADIX **GRANULosA,** a granulous Root, is **a** kind of gru-  
mous Root, consisting of many small fleshy Knobs, resembling  
Grains of Corn ; of this Kind is the white Saxifrage.

**RADIx GRUM0SA,** a grumous Root, is that which consists  
of many oblong fleshy Knobs, joined to one Centre at the  
Top ; of this Sort is the Ranunculus.

RADIX vALMATA, a handed Root, is a tuberous Root,  
divided as it were into severel Fingers, so as to resemble a Hand,  
of this Sort is the handed Orchis.

**RADIX TESTICULATA,** a testiculated Root, is a double  
tuberous Root; for it consists of two Knobs, resembling a Pain  
of Testicles: Of this Sort are some Of the Orchis Species.

RADIx TUBERosA, a tuberous Root, is that which consists  
of an uniform fleshy Substance, and is generally Of a roundish  
Figure: Of this Sort is the Sowbread.

**RAMUS,** a Branch, is the Division of a Stalk ; in Trees it  
is often cull’d a Bough.

**S**

**SELAGINOIDEs.** The *Selaginoides* **is a** kind of Moss, which  
agrees with the *Selago* in all respects, except its Heads, which  
consist of three or four Grains, and, when ripe, open, as it  
were, into as many Capsules: Of this there is but one Species  
hitherto known in *England.*

SELAGO. The *Selago* is a fertile kind of *Moose,* destitute os  
Pedicles and Capitella; for the Heads are situated in the Sinuses  
os the Leaves, heing bivalve, and shaped like a Kidney; or,  
. when ripe, oleave in two lengthwise, and discharge a mealy  
Substance, without letting go any Part of the Capitellum.

Semen, a Seed, is thet Part of a Plant which is committed  
to the Earth, in order to obtain a Plant of the like Kind with  
its Parent Plant, which produced it.

SEMEN also signifies a Body perfected by the mutual Opera-  
tion of both Sexes, containing the Rudiment of such Piant as  
thet from which it was taken; so may properly be judged to he  
analogous to the Egg of an oviparous Animal.

Semen **NUDUM,** a naked Seed, is thet which has no Cover-  
ing, beside the Empalement, remaining upon it, till the time  
of Vegetation.

Semen **FApposUM,** a downy Sced, is that which has **a**downy Substance, like Wool, fasten’d to It, by which it is  
transported in the Air to a great Distance from the Parent  
Plant.

SILIQUA, a Pad, is along, flat, or round membranaceous  
**Vessel, containing one or two Rows of Seeds.**

.SyHAcNUxi. The *Sphagnum* is a fertile hind of Moss;  
whose Heads are furnish'd with a Capitellum, in Shape like those '  
of the Hypnum, Polytrichum, and Bryum; but differing from  
them in that they are bare; and without Calyptrae, and common-  
ly stand on none, or but Very short Pedicles; whence they were  
heretofore call’d *Mufci apocarpi.*

**‘ SPICA,** a Spike, is a Part of a Stalk, thick-set with Flowers  
or Fruit, in such a manner as to form an acute Cone. χ

**\* SPONGIA,** a *Sponge,* is somewhat like a *Fungus,* heing a  
Plant that grows in the Water, thick, of a soft, and, as it were,  
woolly Subitanee, full of littie Perforations, elastic, and easily  
imbibing and retaining Water, or any other Moisture.

**\* STAMINA,** or Chives, are those stender Threads which en-  
compass the Style in the Centre of Flowers, and support **the**Apices or Summits which contain the Male Dust.

' ST CLONES, Suckers, are such Shoots of Plants as arise from  
the Root, and may be taken off, with Fibres to them, so as to  
propagate the Species thereby: Of this Sort are the Filbert and  
Fig.

**STRIAE,** Chanels. Those Parts of Plants which have small  
longitudinal Funows running along them, are termed striated.

STRoBYLUs is the Cone or Fruit of the Pine-tree. -

**SUPERUTEX,** Under-shrub, is a woody Plant, notgemmi-  
parous.. Of this Sort are Thyme, Sage, and Lavender.

.. . - T - . -  
' TALEA, Cuttings, ate finch Parts ofa Branch as, when cut  
off from the Tree, will take Root, if they are planted in the  
Ground.

' THYRsUs, a Thyrse, differs from a Spike in having the  
Flowers or Fruits set more loosely on it, so that there are Spaces  
Visibly between them.

**TOMENTUM,** Flocks, is when the Leaves or Stalks of  
Plants are cover'd with a thick Down, as in Mullein.

TRAcHAE *JE* are the Air-Vessels in Plants.

' TURiONEs, Buds, are the future Shoots of Plants, which,"  
heing inoculated into a proper Stock,- will produce a Tree of  
the same Kind with its Parent Plant, from which it was  
taken. ’ \* .

v

.‘VAGINA, ΟΓ THECA, is the Sheath or Covering of **a**Bud.

’ VALvAE, Valves, the Sides of the Pod or Seed-vessel, which,  
when they open lengthways in two Parts, like Muscles, Coc-  
kles, and such kinds os Shell-fish, are term'd bivalve Peds, as  
in the Stobk-gilly-flower.

**\* VERTICILLUsil. See FLOS vERTICILLATUS.**

**VEXILLUM, or** *Standard.* **SeeFLos PAPiLIONAcEUs.**

VlMEN is the flexible Shoot *of* a Tree." "

**\* VITICULAE,** Runners, are the (lender Shoots of Plants,  
. which trail on the Ground, and emit Roots at their Joints, so  
as to propagate ; as in Strawberries and Cinquefoil.

ULVA. The *Ulva* is a barren kind of *Mose,* which differs  
from the *Conferva,* in that it consists os plain and Very thin  
Leaves, which are sometimes wide, sometimes narrow, and  
sometimes tubulous.

**UMBELLA. See FLOS UMBELLATUS.**

' UMBILICUS. See FRUCTUS UMBILICATUS;

Tho' *Botany,* as a Science, may to some appear a study too  
flat and dull for whet we commonly call an exalted and refined  
Genius; yet, if we cast Our Eyes back on the earlier Ages, and  
trace this Branch of Learning down to our own Times, we  
shall find, that it has been cultivated by those of the brightest  
Parts, and caress'd by Men of great Distinction. AS a Proof  
**of this, I** shall first mention *Solomon,* that Venerable *Eastern*Sage, so famed for his Wisdom, that his Very Name is become  
another Tenn for a wise and knowing Man. This Prince,  
tho' born to a Throne, and destin'd to rule over a powerful  
People, Vitas yet so captivated with the Charms of Botany, and  
so strongly addicted to the Study of Plants and Herbs, that he  
is in Scripture said to heve known them all, from the Cedar  
**of** *Lebanon* to the Hyssop that grows upon the Wall; and he  
himself, in the . Book of *IVis.dom,* informs ns, that he was  
ikill'd in the Differences of Plants, and the Properties of Roots.  
*Josephus,* also, that celebrated *fesvisu* Historian, makes mention  
**of** *Solomorfs* Skill in Botany, and gives uS almost the same Ac-  
count with that laid down in the Sacred Records. But how-  
ever knowing *Solomon* might be in this respect, yet 'tis cer-  
rain, we are at present no competent Judges, how sar his  
Knowledge might have reach'd, and consequently cannot de-  
Termine positively with regard to the State of Botany in his rime.  
He began to reign in the Year of the World two thousand  
’one hundred and twenty-nine, that is about an hundred and  
seventy Years after the Siege of *Troy,* and is said to be the  
first Botanist mention’d by any Records now extant.

But as 'tis an unpleasant Thing to grope, if *I may fo* speak,  
in the dark, and a criminal Thing to advance imaginary Facts  
. sor historical Truth, we shall oafs the State of Botany during

the Ages which intervened betwixt *Solomon* arid *Hipfoordiesp*the great Founder of Physic.

This Physician was, according to Itiost Historians and **Chro\* \***nologers, horn in the Ifland of *Cos,* in the first Year of **the**eightieth Olympiad, that is; about four hundred andfrfty-nine  
Years before Christ.. Some maintain, that he died in the  
eighty-fifth, others in the ninetieth, others in the hundred  
and fourth, and others in the hundred and ninth Year of his  
Age. So that according to these different Accounts he must  
have died, either three hundred and seventy.four; or three  
hundred and sixty-nine; or three hundred and fifty-five, or  
three hundred and fifty Years before Christ; AS in this Phy-r  
sician's Days it was customary *sor* those who were cured of  
Diseases to fix up in the Temple of *AEseulapius* an Account  
of their Disorders, and the Medicines by which they had beeri  
removed, that the same Remedies might afterwards be used  
in parallel Cafes ; he is said to have wrote out these Ac-  
counts, and, according to *Farro,* constituted by their means  
what we call *Clinical Medicine,* after the Temple was burnt **j**- for this Reason- we find the Writings of *Hippocrates* inter-  
- fperfed with the Names of the Plants most known to the  
*Greeks,* and Accounts of their Uses and Virtues. But he  
would have done a further Sendee to Botany, and-still more  
effectually consulted the Health arid Welfare of Posterity, if  
he had given us Descriptions of therti. But he has only men-  
tinn'd the Names and Virtues of about two hundred and thirty-  
four, leaving their Descriptions to *Cratevas,* the most oelea  
brated Botanist of ins Time; whilst he himself was wholly  
employed in curing the Sick.

' This *Cratevas* or *Crateias,* Vgas Coternporary with *Hippar  
crates,* and so skilful a Botanist, that this divine Physician  
styled him ἄριστος ῥιζοτομος, the Prince or Clues of Botanists ;  
and publiekly professed, that he admir’d his Skill and Know-  
ledge of Plants and Herbs. This *Cratevas,* and *Andreas Me-  
dicus,* who are thought to have been the most skilful Botanists  
in the Times in which they liv'd, are yet charg'd by *Diof-  
corides* with having left many useful Roots and Herbs imper-  
fectly describ’d. But, however imperfect the Works of *Cra..  
tevas* may have been, yet 'tis certain. Botany has in Aftere  
ages sustain’d a considerable Loss for want of them; since in  
all Probability he described the Plants mention'd by *Hippo.:  
crates.* Whether this Conjecture be well sounded, they who  
have an Opportunity of looking into the Fragments of *Cra-  
teslas* still preserv'd in the *Imperial* Library, are best able to.  
judge.

The next Botanist of any Note who appear'd was *Theo.,  
phrastus,* the Son of *Melantus* a Fuller of Cloth. This Au-  
thor justly deserves the highest Encomiums for his History of  
Plants, and his Treatise intituled, φυτικῶν ἀρτζῶν βιβλία ri, or  
*eight Books concerning the Causes of Plant:,* of which the first  
fix heve only reach'd our Hands. He was first called *Tytramo,*according to *Diogenes Lacrtius-,* but was afterwards called  
*Theophrastus* by *Aristotle,* on account of his uncommon Elo-  
quence. He is said to have had two thousand Disciples at one  
time, a Circumstance which sufficiently proves the Reputa-  
tion he had acquir'd. He was hern at *Eresus* in the Ifland of .  
*Less os,* and studied under *Leucippus, Plato,* and *Aristotle^*whom he succeeded in the hundred and fourteenth Olympiad,  
in the Beginning of the Reign of *Ptolemy* the Son os *Lagus,*under whom *Herophilus* flourish'd. Tho' *Theophrastus* lived  
till he was eighty-nve Years os Age, he is said to have found  
Fault with Providence for giving a longer Lise to *Deer* and  
Ravens, than to the human Species ; since Men, is their Lives  
were longer, might acquire greater Degrees of Knowledge,  
and become more perfect than they really are when they come  
to die. . .

The *Romans,* tho' in other respects **a** polite and learned  
People, were nevertheless Strangers to Botany till *Pompey*conquer'd *Mithridates,* the most powerful, and at the same  
time the most knowing King then in the World. Thin  
Prince is reported to have drunk poisonous Draughts every  
Day, in order to render himsels proof against Poison ; and **in-**deed so curious he was with regard to Medicinal Subjucts in  
general, that he collected all the Observations of this Nature  
the possibly could, winch, selling into *Pompes.s* Hands, were by  
his Order tranflated into *Latin* by one *Lenaeus,* a fkiiful Gram-  
marian, and a freed Man of his own; Till this Time, accord-  
ing io *Pliny,* the *Romans* were entire Strangers to Botany;  
and even after this Science was known in *Rome,* it was not  
universally cultivated, *set .Marcus Cato* alone is said to have  
apply'd to it. Nor after him do we read of any Botanist  
among the *Romans,* till *Caius Pal gists* published a very imper-  
'sect Work of this kind, dedicated to *Augustus.* After *Paisius,*appear'd *Marcus Tcrentius Parrs,* about twenty-five Years be-  
fore the Birth of Christa This *Roman,* however skilful in  
Botany, wrote nothing on the Subject till the eighty-sirst Year  
of his Age. He has wrote three Books *de Re Rnstica,* which  
make a Part of that valuable Collection which goes under **the**Name of *Rei Rnstica Scriptores,*

Much about the same time lived a considerable Number of ,  
Physicians well versed in Botany. Os these .the most celebra-  
ted are *Antonius Musa,* and *Euphorbus,* the former of whom  
saved the Lise of *Augustus,* and wrote a Treatiso on Botany,  
dedicated to *Marcus Agrippa*; which Work has heen revised  
by *Gabriel Humbelbergius,* of *Ravens.purg in Germany,* and '  
printed at *Zurich,* 'together with *Apuleitess, Treatise de Medica.,  
minibus Herbarum.*

The next *Raman* Botanist who appeared was *AEmilius Ma-  
cer,* who was hern at *Vircna,* and died in *Asia,* whither he  
had gone to fight. AS this Author had a Turn for Poetry,  
he cloathed Botany in Numbers so agreeable and soft, as to de-  
serve the Approbation of *squid. -.* See .dEedILIUS MAC ER-

Next appear'd *Julius Bafsus,* and *Sextius Niger,* who, tho’  
both *Romans,* yet wrote in *Greek* concerning Plants. These  
Authors have but littie Regard paid them by *Diofcorides,* a  
littie before whose Age, or that of *Pliny, Salrnasius* thinks  
they liv'd. - e

But hitherto Botany feerns only to haVe been, as it were, in  
its Infancy, till *Diofcorides* arose, who, by. his Industry and  
Diligence, surpassed all who had gone hefore him. . He was  
born at *Anazarba,* a City of *Cilicia,* afterwards called *Cas.a-  
rea Augusta.* He is commonly distinguished from the others of  
his Name by the Epithet *Pedaceus,* which *Photius* without any  
Reason supposes to be bestow'd on him from his Country. In  
some Manuscripts the Epithet is read *Pedantus,* and 'tis pm-  
tended, That *Diofcorides* receiv'd that Part of his Name from  
the *Pedstnian Family,* aS other Foreigners did from the *Roman*Families into which they marriedl But *Lambecius* was proba-  
bly in the Right, when he supposed, that this Epithet was be-  
stow'd on him, because he was the Son of *oss&Pedanius* or  
*Pedicinius,* as that Author would have it.

From the Works of *Diofcorides* it plainly appears, that he  
was contemporary with *Licinius Basseus,.* who in- Conjunction  
with *Crassus Frugi* had been Consul under *Ncro.* But the’  
Time in which he flourish'd is a Point so much controverted,:  
and so littie capable os being fix'd, that it would be a Task  
both tedious and useless to attempt it. In his Works he has.  
mention’d about six hundred Plants, four hundred and ten of  
which he has either describ'd or compar’d with fuch as were  
better and more universally known, but of the rest he has only.  
given us the Names and Virtues.

Soon aster *Diofcorides* appear'd *Lucius Junius Moderatus.  
Columella.* He was born at *Cadiz in Andalusia,* and the Time  
tin which he liv'd may be determin'd from his having been  
contemporary with the *Senecas,* and his quoting *Lucius* **the**Philosopher as then alive. Other memorable Incidents concur  
to render us sufficiently certain as to the Time in which he-  
flourish'd; sor he was the intimate Acquaintance of *Gallio,*and wrote his Work aster the Consulship of *Lucius Volusius.*We have only thirteen Books of his *de Re Rustica,* and one *de  
Arboribus,* the' C^Worusattributes sixteen to him. In the first  
Chapter of his first Book he enumerates not only the *Roman,* but  
also the other foreign Authors who had wrote upon Agriculture  
before him. The delicate and polite Turn of his Language, to-  
gether with his Learning, and the Force os his Genius, Justly  
calis for our Admiration. In his Poem intituled *Hortulus,* **the**Numbers are soft, harmonious, and unsullied with that un-  
meaning Pomp of Words, winch is the Reproach of Language,  
and the common Bane of theill-sorm'd and luxuriant Genius.  
But, among all the *Romans,* none seems to have made more  
furprifing Advances in Botany than *Plenius Secundus.* In his'  
History of the World, which he dedicated to the Emperor  
*Vespasian,* or, according to others, to *Titus,* he treats of Plants  
in an historical, philosophical, medicinal, rural, and magical  
Light. This, according to *Cefner,* is his Design from the  
twelfth to the twenty-seventh Book. His Work consists in  
all of thirty-seven Books, which contain a great Part of **the**Writings of *Diofcorides,* whom he no-where quotes, having  
in all Probabiity used the Very same Authors, from whom  
that Author had made his Collections. . He also translated se-  
veral Tilings from *Theophrastuses* History os Plants, and is  
thought to have been no Very happy Tranflator, however bright  
his Genius might be in other respects. The precise Time in  
which he liv’d is much disputed: However,'tis, I think, gene-  
rally agreed, that he flourish’d pretty near the Time os *Diof-  
corides.* He is by some censur'd as wanting some of the  
Qualifications most necessary for producing a Botanist, whilst  
\* others are so blindly devoted to his Character, as to believe  
him infallible.

The next of the *Romans* who distinguished himself in this  
Way, was the illustrious *Palladius Rutilius Taurus AEmilianus,*tho' he is more properly to be class'd among the *Geoponici,  
.Cato, Parro,* and *Columella.* He wrote fourteen Books de  
*Re Rustica.* According to *Ludouicus Vives,* he wrote in a  
pure and elegant Style, except that some Words and Phrases are  
peculiar to the Time in which he lived. *Johannes Jucundus  
. os Virma,* in *Pref. Lib. de Re.Rustica,* gives him an ample,  
and at the same time a just Character in the following Words.  
" When, says he, amongst Other Books' of Agriculture, I

***U read*** the Works of *Cota, Farro, Columella, and Palladius,  
“ I* could not help being charm'd with the delightful Study ; .  
" for I imagin'd I was transported to the Country, placed in  
" some agreeable Village, and leading the calm and blissful  
" Life of *Marcus Curius,* and *Lucius isuinlius Cincinnatus ;*" the former of whom, alter having triumph'd over the *Sam..  
" nites,* the *Sabines,* and *Pyrrhus,* retir'd to the Country to  
Ci spend the Remains of a glorious Life, where, having a large  
"Quantity of Gold brought him by the *Samnites,* he heave-  
" ly refused the magnificent Presens, and told them, *his  
" Grandeur did not consist in the actual Pessefsun of Gold, but  
" in ruling over those who possessed. it.”* And the other, being  
created Dictator, was honourably invited to leave the Country’,'  
and take his Place in the Senate.

From these Accounts 'tis plain, that the Diligence and In-  
dustry of the *Romans* were more employ'd in cultivating Agri-  
culture than Botany; in which they were surpassed by the  
*Greeks,* amongst whom the most considerable, who applsid to  
the Study os natural Things, was *Claudius Galenus,* who/next  
to *Hippocrates,* was justly accounted the greatest Ornament of  
anti ent Medicine. . He was hern at *Pergamus,* a most flourish- -  
ing City of *Asia,* about the Year of Christ I33. under the  
Reign *os* the Emperor. *Adrian,* and flourish'd under *Antonius  
Pius, Marcus Aurelius, Antoninus,. Commodus, Pertinax, Di-  
dius Julianus,* and *Septimius Severus.* He died under the’  
Reign of *Caracalla,* aster having lived, according to *Suidas,*seventy, according to *Laertius,* eighty-seven, according to  
others, ninety-eight, or an hundred and five Years. He was  
a curious and indefatigable Inquirer into the Virtues and Qua-  
lities of natural Bodies,, with which View he undertook seve-  
ral Voyages. He went, for Instance, into *Palestine,* in order  
to get acquainted with the Opobalsamum and Bitumen; he  
sailed into the Bland of *Lemnos,* that he might discover whe-  
ther the Accounts he had receiv'd os the *Lornnian* Earth were-  
true or false. He Visited *Cyprus,* in order to take a View of  
the celebrated Mines of that Country. He also travelled into  
*Cilicia, Phoenicia, Crete, Egypt,* and several other Countries,.  
to enrich his Mind with a proper Store of useful Observations.  
He has treated os the Virtues of about lour hundred and forty  
Plants, in the sixth, seventh, and eighth Books os his Trea-  
*tise, de Simplicium Medicamentorum Facultatibus,* hesides many  
more, which he has casually describ'd on different Occasions.

I now proceed to those whe aster *Galen’s* Time apply'ti-  
themselves to the *Materia Medica.* The first os these whe  
distinguished himself was *Oribasius* of *Sardis,* tho' *Coiringius*endeavours to prove, that he was a Native of *Pergamus:* This  
Author was contemporary with *fulian* the Apostate, whose  
Favour he had so effectually gain'd, as to he appointed Quae-  
stor os *Constantinople* by him. He wrote many Things eon-  
cerhing simple and compound Medicines; but stole most of  
his Works from *Galen,* except some foolish and trifling Things  
he has added of his own. - ’ .

Next appear'd *Aetius,* distinguish'd by the Epithet *Amide-  
nus,* because hern at *Amida,* a City os *Mesopotamia.* Ho  
has written pretty much in the same manner with *Oribasius,*fince like him he has borrow'd a great many Things from other  
Authors. *Castellanus* seems to give him a favourable Chara-  
cter, when he affirms, that in his Works we have *Galen* con-  
tracted, *Oribasius* explain'd, and *Paulus AEgineta* inlarg'd.  
This Author flourished in the Year os Christ three hundred  
and fifty, or, according to others, four hundred and fifty-  
five, winch was more early than *Paulus AEgineta. Sce A.PTIVS.*

*Alexander Trallianus,* so called from *Tralles,* a City of *Ly-  
dia* in the lesser *Asia.* He has several Things relating to  
Herbs, principally borrow'd from his Predecessors. See ALEX-  
**ANDER.**

Aster *Trallian* appear'd *Paulus AEgineta.* This A uthor co- \*  
pies pretty exactly *Diofcorides* and *Galen,* with respect to  
Plants. See KE GIN ETA.

But *Ges.ncr,* tho' a severe Censurer of these three Authors,  
yet seems to have .entertain'd more favourable Notions os the  
*Arabian* Physicians than the rest of his Contemporaries; for  
the *Materia Medica,* during many Years cultivated only by the  
*Greeks,* was at last so considerably enriched by the *Arabians,* that a  
great part of the Medicines now in Use are to be ascribed to  
them. They receiv'd Botany, as well as all the other Branches  
Of Physic, from the *Greeks,* especially after the Califs ordered  
the Productions of the *Greek* Authors to be tranllated into  
the *Persian* Language. The first whe applied to the Sciences  
among them, was the second Calis *Abu-Jaas.ar Almansor,* who  
.was created Calif in the Year os Christ seven hundred fifty-  
four. But the Empire at last Tailing into the Hands of the  
seventh Calif *Abdalla Almamunem,* in the Year of Christ eight  
hundred and thirty-one, he interceded with the *Greek* Empe-  
rors to send him all the philosophical Works they possibly  
could; which Favour when they had granted him, he sought  
out for learned interpreters, and order’d them to . be faithfully  
tranllated. Then Learning began to flourish, and all the  
Branches of Medidine were cultivated with uncommon Care  
’and Industry. ’ .

But of all the ***Arabians,*** none was more successful in car-  
tying on this Design than ***Scrapie,*** who collected and digested '  
all the ***Greek*** and ***Arabian*** Authors who had wrote on Simples  
hefore his Time. The greater Part of this Work consists not  
only of the Materials, but also os the very Words, of ***Diosc-  
cocides*** and ***Galen,*** but yet it contains a great Number of  
Simples not .taken from the.aarieot ***Greeks.*** Some of these  
are at present known, whilst we are entire Strangers to the.  
rest. According to ***Wols.gaagus Justus,*** he flourish’d in .the  
Year one thousand and sixty-six. . ' '

Next appear'd ***Eazis*** or ***Pazy,*** or ***sirraxy,*** which Name  
he receiv’d from ***Rai,*** the City of ***Persia*** in which he was  
hern ; sor his original Name was ***Aboubieri Mouhammad.*** He  
is by some quoted under the Name of ***Almansor,*** and his Book -  
called ***Almansor*** or ***Manser.*** HiS Book is, as is were, an Abf-.  
tract of thirty other Volumes, which he called ***Al hhaouy,***wltich in the ***Arabian*** Language signifies ***Containing,*** because '  
it was thought to contain uncommon Treasures of useful  
Knowledge, He likewise published ***Aljania,*** which was an .  
immense Collection of Things relating to Physic ; and some .  
Treatises concerning the Parts os the human Body. He flou-  
rim'd, according to ***Wols.gangus Justus,*** in one thousand and  
seventy, or one thousand and eighty-five. - . ’

Next appeared ***Avicenna,*** hy some called ***Auis.ena,*** or ***Aben-.  
find, Cic Ben Sina,*** or ***Abuali Ibn Tins.a.*** His second Book  
. treats os all kinds os Medicines in general. Io this Work he  
quotes ***Galen, Dioscorides,*** and a few ***Arabian*** Authors. ***See***AVICENNA. .

***Actuarius,*** who lived about this Time, or perhaps a littie  
later, has not much contributed to. the Improvement of the-'  
Knowledge of Plants ; all that he says concerning them'being  
taken from others. See ACTUABIUS. ..

Next appeared ***Johannes Mefues Damascenus,*** the Son of  
***Abdela*** King of ***Datnascus.*** Joe acquir'd an uncommon Fame  
for his having been the inventor of many of the Medicines  
which we daily use with Success. He flourished in the Year ?os Christ one thousand one hundred and fifty-eight. -  
***‘ Averrhoes*** about the same Time distinguished himself by the  
Improvements he made in the ***Maicria Maedica.*** This Physi-  
cian collected an Account os the most remarkable Plants from ’  
***Galen’s*** Books os simple Medicines, and reduced them to the '  
Order of the ***Greek*** Alphabet, as ***Gefner*** observes.

Next appeared ***Baitar,*** by others called ***Ibnu El Baitar, as***-' also ***Abenbitar,*** or, as others write it, ***Ebenbitar.*** He was born  
**at *Malaga,* in the** Year of Christ one thousand two hundred :and sixteen. \* "

It must he confessed, that Botany is much indebted to the  
***' Arabians,*** who, the' they borrow'd much from the ***Greeks,"***have enriched the ***Materia Medica*** with many Plants unknown  
to their Masters, among which are most of the milder Ca-  
thartics, .

Aster the Time of these ***Arabians,*** a shameful and almost  
universal Ignorance prevailed, and the Monuments of Learn-  
ing handed down from former Times were, excepting a very  
few, buried in Oblivion. The barbarous and ill-form'd Taste '  
which reigned in these Days, is sussicientiy prov'd by the'  
Works of ***Nicolaus Myrepsus*** of ***Alexandria.*** We cannot  
precisely six the Time in which he liv'd; yet, according to  
***Fuchsius,*** he was among the later ***Greek*** Writers, since he  
quotes ***Actuarius*** and ***Mefue,*** who lived in the Year of Christ  
one thousand one hundred and fifty-five. His Style is uncor-'  
rect, and his Works abound with barbarous, and ill-chosen  
"Words. ...

in the Year one thousand one hundred and eighty, appear'd  
***Hildegardis,*** Abbot of St. ***Raper Ps*** Monastery in ***Mentx,*** and  
one of the ***Benedictine*** Order. He enriched several Parts of  
Natural Knowledge, and among the rest Botany; but writes  
in a very barbarous Style, and has many Things which are not i  
only trifling, but also superstitious, and repugnant to Truth and  
common Sense.

Next appear'd ***Johannes Platcrius*** of ***Salerno.*** He flou-  
rish'd in the Year of Christ one thousand three hundred. As  
the Reader will he hest able to judge both of his Design, and  
of his Style, from some of his own Words, I shall insert the  
following Passage os his Preface.

" In Tractatione, ***fays he,*** uniuscujusq; Medicinae simplicis  
" Complexio rerum primo est intendenda, consequenter utrum  
"fit Athos, an Frutex; Herba, Radis, an Flos, an Semen,  
" an Folium, an Lapis; an Succus, an aliquid aliud : Post-  
" modum quot sunt ipsius Maneries, & qualiter fiant, & in  
" quo loco inveniantur. . Quae etiam Maneries sit melior,.  
" qualiter sophisticantur, & sophisticate cognoscantur.'?

Much about the same ***T.\rcae Matthaeus Sybvaticus,*** of ***Mantua,***compil'd a Volume of the Pandects of Medicine, and dedicated  
it to ***Robert*** King of ***Sicily-,*** but this is a Work os so little Va-  
lue, with respect to ***Botany,*** that we shall not spend Time in  
- giving any Account of it. Its Author liv’d in 1336. Nor is a  
much greater Regard due to the Productions of***Arnaldus de Villa  
Nova,*** who died in the Year 1412. or those of ***Jacobus de***

***Dondic,*** of ***Pavia*** ; or of ***Petrus Creseentiensts, i Senator*** of  
***Bononia,*** who wrote in the Year I473. - εἴ

Soon aster appear'd ***Johannes Cuba, Fdosiricres de Augnsiis de***

***Thertona, Johannes do Bosco os Alexandria,*** and ***Paulas Suar-  
dus*** of ***Melon*** ; but the Works of these Authors are so obscure,  
and full of Blunders, that they scarce deserve our Consideration.

; About this time ***Avicenna -VJ2&*** first road in the Schools. Then  
***Razis,*** especially his ninth Book to ***Almanaror.*** Numhers of the  
later practical Physicians were also study’d, whilst the ***Greeks.***were entirely neglected, and forgot so much, that the Names of-  
***Hippocrates*** and ***Galen*** were lost, or rather chang’d into those  
of ***Hippocray*** and ***'Galiemes. . „ . .***

\_ Thus, for about sour Centuries, Barbarity and Ignorance had  
almost put an End to the Sciences, and banish’d Learning from  
theWorld, till at last, about the End of the fifteenth Century,  
propitious Heaven -raisedop fome great Men, who rescu'd the  
Authors os Worth and Note from the shameful Oblivion in which  
they bed been bursid;- At this happy Conjuncture, ***Botany*** had  
the same good Luck with other Parts of Learning ; for ***Theos,  
dorusGascacefaoredTheophrastus,*** and transiated his Works into  
***Latin,*** in which he is thought to have succeeded very well;  
He died in ***Romeyn*** the Year I478. -

Aster him appear'd ***Hermolaus Barbarus,*** a ***Venetian*** Noble-  
man. He was born in the Year 1454. He corrected ***Plins.s***Natural History, and tranflated ***Dioscorides*** into pure and beau-  
tiful ***Latin ;*** but he is thought to have receded too much from.’  
the Meaning of the Original, that he might imitate the Style of  
***Pliny. Fuchsius*** commends him for the seasonable Aid he gave -  
to Botany and Physic, and the Pains he was at in improving and  
enriching them,Iho'he was himself no Physician.

Soon after arose ***Johannes RueUius,*** born at ***Scejsins*** in ***France, ,***arid a Man of uncommon Learning. He seems to have trod  
in the Footsteps ***of Hermolaus Barbarus,*** and pursued the same  
Design of banishing and exploding the Jargon of ***Avicenna,*** and. -  
some other-***Arabians,*** that we might draw our Knowledge of  
Plants from ***Dioscorides*** himself. He\* cultivated Botany with  
greater Care than any os his Contemporaries, and collected ail  
the useful Observations which ***Theophrastus,. Pliny,*** and ***Galen,***had made concerning Plants;

He was soon aster succeeded by ***Marcellus Virgilius,*** a FA-  
***rentinc,*** who, tho' not a Physician by Profession; nor, perhaps,  
very skilful in Botany, is, nevertheless, to be commended for.,  
his Industry in correcting, and restoring to their antient Splen-  
dor, some Pages os ***Dioscorides,*** which had been wretchedly  
mangled and. corrupted: .

***Marcellus*** was succeeded by ***Joannes Manardui*** of ***Ferrara,***a'celebrated Physician. In his Epistles.there are many Things  
which illustrate ***Dioscorides,*** especially in the eighth Book,  
where he corrects ***Marcellus's*** Version in many Places, and de-  
fends the Interpretations of ***Ruellius*** and ***Hermolaus Barbarus:***He also wrote Annotations on the ***Medicamenta Simplicia*** of  
***Joannes Mesue,*** in which, if we may believe his own Word,  
many obscure things are made plain, those that were formerly'  
too concise inlarg'd, such as were lost restor’d, and such as were  
erroneous corrected.

In the fame Age appear'd a great Number of Interpreters,  
Critics, and Restorers of ***Theophrastus, Dioscorides,*** and ***Pliny:***Amongst the rest, ***Nicolaus Lconicenus,*** in his Workifr ***Plinii  
et aliorum in Re Medica Erroribus,*** delivers many things of -  
great Importance with respect to the Knowledge os Plants. He  
was hem at ***Vincentia*** in the Year 1428. and died at ***Ferrara,’***(where he had taught sor sixty Years) in I 524. aster he was  
ninety-six Years of Age. When he was ash'd what medicinal  
Secret he us'd, in order to preserve so uncommon a Vigour both-of Mind and Body, and elude the Attacks of old Age, since he-  
us’d no peculiar Diet which could account for such happy Ef-  
fects, he made this noble Reply: " I easily preserve my Mind  
" lively, by a Reflection on the perpetual innocence of my  
" Lise ; and my Body sound and healthful, by a cheerful Fru-  
" gality. '' According to ***Scaliger,*** this Author was, from his  
Infancy, afflicted with Violent epileptic Fits, till the thirtieth  
Year of his Age; after which this formidable Disease left him,  
and he enjoy’d the perfect Use of all his Limbs and Senses, with-  
out the Suspicion, much less the Shock, of a Disease, till he was  
ninety-six Years of Age. If this Circumstance is true, he was  
singularly indebted to his Temperance ; sor, according to ***Pau-  
lussejovius,*** he was highly abstemious in every respect. He first  
tranflated ***Galen’s*** Works from ***ffico Greek*** to the ***Latin*** Language,  
and illustrated them with Commentaries.

**In** I 5 34- appear'd ***Antonius Metso Brascvolus of Ferrara.* He**publish'd an Examination of all the Simple Medicines used in the  
Shops, in which Work he often treats of Plants} He also wrote  
Commentaries upon the Aphorisms of ***Hippocrates,*** and compil'd  
a large Index to all the Works of ***Galen.***

***Bras.avolus*** was succeeded by ***Otho Brunfelsius,*** wlro was born  
**at *Mentz*** in ***Germany.*** He was first a ***Carthusian*** Monk,  
.then a Schoolmaster for nine Years, and, last of all, a Phy\*  
sician. He was a Man os singular Learning, and attempted to  
restore and illustrate Botany, both in the ***Latin*** and ***German***Languages. The', in his Works, many things are imperfect.

rhoy the Descriptions do not CeIrespond to the Draughts, and  
rhe’ he often calls Herbs by their wrong Names, yet he was  
the first who restor’d the true way of drawing Herbs in ***Ger-  
many.*** He was at last call'd- to ***Bern in Svvitxerland,*** where  
lie practised with fuch Success as to acquire an uncommon Repu-  
tation ; but he died about ***2.*** Year and an half alter he had set-  
tied there, in the Year I 534. .

***Bruofelsius*** was succeeded in. his Design of restoring and en-  
riching ***Botany,*** by ***Euricius Cordus,*** born at ***Hesse*** in ***Germany..***He practised and taught Medicine at ***Erf ord, Marpurg,*** and  
***Bremen.*** Besides his Skill in Poetry,- and other fine Accom-  
plishments, lie was a Man of' untainted Morals, and singular In-  
dustry. How much he has contributed to the improvement of.  
Botany, may he judg'd from his ***Botanologicon, sou Colloquium  
de variis Herbis.*** He died in the Year 1538.

Nor are we to pass over in Silence ***Gualterus Hormeuius Riffus,***Proseflor at ***Slrasourg,*** and ***Joannes Loatierus,*** Professor at  
***Marpurg ,*** tite former of whom has follow'd ***Ruellius,*** and the  
other. ***Marcellus,*** in interpreting ***Dioscorides. Gesucr*** gives  
both these Authors such a wretched Character, as would induce  
one to neglect their Productions,, as worthless and insipid  
Jargon.

\ .But the greatest Illustrator of ***Dioscorides,*** and the most hap-  
\ pv Discoverer of Plants hefore unknown, was ***Valerius Cordus.***

ss\He was born in ***Nesse*** in the Year I5I5. and died at ***Rome***' Ἕ544. in the twenty-ninth Year of his Age. He was more in-  
dustrious in enriching Botany than many of those who had gone  
hefore him. Besides his exquisite Annotations on ***Dioscorides,***he compil'd an History of Plants, in four Books; but as he died,  
before that Work was completed, all his Descriptions are not  
equally exact and justa

- In I5.50- appear'd ***Amatus Lusitanus,,*** who is by some call'd  
***Joannes Rodericus Lusitanus,*** and ***Joannes Rodccicus Castelli albi.***He wrote Illustrations ***uunsaDioscorides,*** in which he often talks  
of things to which he wd ’wicntire Stranger.

. But ***Andreas Lacuna***,οοπώ***egovia,,*** is a» Author far preferable  
to ***Amatus Lusitanus.*** He was clues Physician to ***Julius*** the  
Third. In the ***Spanish*** Language he wrote Commentaries and  
Annotations on ***Dioscorides,*** but. is severely censor'd sor: bring  
a ***Plagiary*** by ***Matthiolus.*** He also tranilated that Work con-  
- cerning Plants, ascrib'd to ***Aristotle:*** He died in the Year I552.  
- I ***Hieronymus Bockias,*** call’d commonly ***Bock.*** He is known  
by the Name ***Tragus,*** and was hern at ***Hieds.pach,*** a Village of  
***Bretta,*** near the City of ***Spires.*** He liv'd for some Years at  
***Creueponts,*** where he adorned the Gardens os Duke ***Lewis,***Palatine os the ***Rhine,*** with a Variety os Herbs formerly un.-  
known in it. He composed a History of Herbs at ***Saarbruck,***and died in I 554.»

Next appear'd- ***Joannes,*** er ***si anus Haynbut,.*** or ***Hagnsbut,***who was call’d ***Carnarius,*** tho' ***Hagenbut*** signifies the Fruit of  
the Dog-rose. He was born at ***Zuvicca,*** a City of ***Mosaics, in***the Year 1500. He tranilated ***Dioscorides,*** and added Figures  
to each Chapter. The' in this Work he does not discover a  
more extensive Knowledge in Botany than some who had gone  
hefore him, yet he re-establishes the genuine Readings in num-  
berless Places. He had sor an Antagonist ***Leonardus Fuchsius,***who finds fault, with a great many Passages in his Translation.  
He died in I558.

Next appear'd ***Jucobus Goupylus*** of ***Pcictiers.*** He was Doctor  
**os** Physic at ***Paris,,*** and Very skilful in the ***Greek*** and ***Latin*** Lan-  
guages. He gave some very short, but, at the same time. Very  
useful Amendments of ***Dioscorides.*** He diligentiy and judici-  
oufly revised ***Trallian, Actuarius,*** and some others. He died  
in the Year I56O.

At ***Wernbdictg,*** in the Counfrysof the ***Gris.ons,*** was hern ***Leo-  
nan bus Fuchsius,*** in the Year 15o I. He was a Klan of un-  
common Application, and a diligent inquirer into the Plants  
**os *Germany,*** five hundred and ten of which he ‘represented in  
large Figures, to the no small Improvement of Botany. But  
he was so foolishly attach'd to ***Dioscorides,*** that he endeavour'd  
Io accommodate ***Dioseoridests*** .Descriptions to the ***German***Plants ; which made him sometimes affirm, that things were  
clearer then the Light, when they were, at the same time, in-  
volved in the greatest Darkness and Obscurity. He died at  
***Tubingen*** in the Year I 5 66.

. The same Year deprived the World of ***Gulielmus Rondeletius,***a celebrated Physician, born at ***Montpelier.*** He was indesa-  
-tigably laborious in discovering and finding out Simples, and  
their Virtues. Ho wr»te Commentaries upon several Parts of  
***Dioscorides,*** which were much esteem’d by the Botanists who  
liv'd at the same time with himself. He died in I566.

***IVilliarn Turner, an Englisu*** Physician of singular Learning,  
In soft- publish’d an History of Plants in ***Englisus,*** in winch  
Work he has, ***for*** the most part, publish'd the Figures of  
***Fuchsius,*** and given the Names of the Plants in ***Latin, Gerei,  
Englijh, German,*** and ***French,*** in an alphabetical Order.

Nor ought we to forget ***Lucas Ghini of Forli,*** a Physician of  
an excellent Genius, and uncommon Learning. He professed  
the ***Materia Medica*** at ***Pisc*** for several Years with universal  
Approbation ; and tho' he publish'd nothing himself, yet k«

was either the Master, or the intimate Acquaintance, of thosecelhe  
brated Men, ***Casulpinus, Anguillara, Marantha, Matthiolus,***and some others, to whom he not only sent Plants, but openly  
deliver'd his Opinion of them ; by which means he contributed  
considerably to the Illustration of sormer Authors,, and the Im-  
provement of Botany. - -

***Petrus Andreas Matthiolus was*** born at ***Sienna,*** a celebrated  
City of ***Tuscany. Thuanus*** gives him a Very great Character for  
a skilful Botanist. But however well acquainted ***Matthiolus***might heve heen with the Writings of the Antients, yet he  
was so ignorant of the common Plants, that of the whole nine  
hundred, he has treated os, he has scarce given an accurate De-  
scriptinn of one. He died of the Plague at ***Trent*** in the  
Year I 577.

***Bartholomeeus Maranta,*** a Physician of ***Venusiurn,*** composed  
three Books on the Method os knowing simple Medicines,,  
which are highly useful ***for*** understanding many Passages of  
***Dioscorides.*** He died in the Year I 554.

***Adamus Lonicerus*** was hern at ***Marpurg in Hesse*** in I52R-  
He was a learned Physician, and a skilful Botanist, aS is obvious  
from his ***Botanicon,*** his ***Historia Plantarum,,*** and his ***Hirba-  
rium,*** publish'd in the ***German*** Language. But ***John Bauhina***seems to have judged rightly of ***Lonicerus,*** when he affirms, that  
he collected his Botanical Works from ***Tragus.***

Nor. at this time were there wanting Men. of Learning, **who**either went to both ***indici*** themselves, in order to discover the  
Spices and Plante produc'd in them, or treated largely of them  
after they were brought into. ***Europe.*** Amongst these were’  
***Gartias ab Horto r Chrisiophorurti Costa, Nicolaus Monardes,  
Gons.aluus Ferdinandus Oviedo, Francescas Loper, de Gomara\*  
Johannes Fragosus, Hugo Linsehotanus, Johannes Leirius,  
Pranciseus Hernandez, Franorseus Ximenex, Josephus a Costa,***and, nearer our own Times, ***Jucobus Pontius,*** os ***Rotterdam.,.  
Gulielmus- Pise,*** a Physician: of ***Amsterdam, Georgius Marcgra-  
vius,*** of ***Liebsiad,.*** and some others..

Among those who. have more particularly applied themselves  
to the Knowledge Of Plants, was ***Jucobus Dalecampius,*** who  
was born, at ***Cadorn.*** He practis'd Physic at ***Lyons,*** with uni-  
versal Reputation. He was the first of the Moderns who un-  
dertook to write an universal History of Plants ; but bring in-  
VolVed in a Multiplicity of Bufiness, he did not Eve to finish iu  
This Talk was, by ***Kovillius,*** a Printer at ***Lyons,*** committed  
to one ***Molinaus,*** a learned Physician, who finish'd the Design,  
and publish'd it under the Title of ***Historia Lugdunensis. Dale-  
carnpius*** died in the Year Γ537.

***Jucobus Theodorus Tobernamontanussis,*** according to ***Conrin-  
gins,*** justly preferable to his Master ***Tragus***;. fince, in Imitatin'»  
of him, he advanced many things new concerning the Virtues  
Of Plants; but'tis to be lamented, that he only finished the first  
Part of his Work, fince the second and third, done by another  
Hand, however excellent, are yet short of the Judgment and  
Skill of ***Taberncemontanus*** himfelfi in his Practice, abstracting  
from the Theriaca and the Mithridate, he used very few exotic  
Substances, contenting himself with the Simples of his own  
Country. Besides his discovering some Plants formerly un-  
known, he has wrote Very well, concerning the Virtues os those  
winch were commonly known. He was call'd ***Tabernamonta-  
nus*** from the Place where he was hern, which is ***Bergzabern,*** a  
Town in the Territories of the Prince of ***Deuxponts.*** He died at  
***Ideidelberg*** in the Year I590.

This Author originally practised Pharmacy at ***Xronweiso  
sienbcrg.***

Some of the Figures of ***T.abernarnontanus,*** and also of ***Lobelias,***were taken by ***John Gerard, an EngliJhjnan,*** born at ***Nant-.  
wich in Cheshire.*** Nor did he add any Figures of his own, ex-  
cept sixteen, in the whole History of Plants which he publish'd  
in ***Engli/h.*** He had littie or no Knowledge of the Languages.  
The greater Part of his Work is nothing but the ***Pemptades as  
Dodonaus,*** turned into***' Englijh*** by one Doctor ***Priest,*** whoh  
***Gcrard*** took without any Alteration. To conceal this, he  
changes the Method of ***Dodonaus*** into that of ***Lobelias,*** begin-  
ning with Grasses and GraminifoliouS Plants. To this Tran sta-  
tion of ***Dodonaus*** he has added some Plants from ***Clusius,*** and  
others from the ***Adversaria*** of ***Pena*** and ***Lobelius,*** having only  
given about fourteen of his own. He has confounded and un-  
skilfully transposed the Figures of ***Tabermernontanus.*** He flou-  
rished about the Year I597.

***foachitnus Camerarius,*** born at ***Norimberg*** in the Year I 5 34.  
acquired a sar greater Reputation than ***Gcrard.*** He is by some  
celebrated as a Man of profound Learning, and a skilful Bota-  
nist. He was so fond of promoting Natural History and Botany,  
that he purchased of ***Wolsius*** the ***Bibliotheca Herbaria,*** and the  
Botanological Works which were left him by ***Ges.ner*** in his last  
Will. However, he isnotmuch extoll’d by ***Tournefort,*** who fays  
of him, " That if we were to judge of him from what he  
" publish'd during his Life, we should find his Skill in Botany  
" sar inferior to the Reputation he acquired on that account."  
He died in the Year I598.

With ***Camerarius*** we may join ***fanus Antonius Saracenus, as  
Lyons,*** who flourish^ about 1598. By his Care and Diligence

he restor'd the Works of *Diofcorides* to their primitive Dignity;  
for he preserves the Sense of *Diofcorides,* without receding from  
the Purity os *Plinfoe* Diction.

*Petrus Bellonius,* of *Mans,* was a Man of incredible industry  
and Application, as appears from his Works publish'd partly in  
the *Latin,* and partly in the *French* Languages. He has written  
concerning coniferous Trees and Evergreens. He has also given  
us Commentaries on *Diofcorides,* and a Book concerning Agri-  
culture. He likewise designed some other Works, but Death  
prevented'him. . .....

*Leonardus Ratevolsius* was hern- at *Mechlin* in I5I7- He  
travell'd thro' *Syria, fitdea, Arabia, Mesopotamia, Babylon,  
Assyria,* and *Armenia,* from which Countries he brought back  
into *Gcrrnany,* with him, many Heths, Shrubs, Plants, and  
other things of the like Nature. He wrote a Book, which he  
calls ssssactiorssen, or Travels intobyrin, *fudea, Arabia,Mcsopo-  
tamia, Babylon, Assyria, Armenia,* winch he divided into six  
Farts, and which contain many curious things relating to the  
*Materia Medica.* He flourish'd about the Year I583.

The World is considerably indebted to the Lucubrations of  
*Rembertus Dodoneeus,* who was hem at *Mechlin, in Brabant,*1517. His History of Plants is recommended not only by the  
Elegance of the Figures, but also the Richness and Variety of  
the Matter. By his Learning he acquired such a Reputation,  
thathewas invited to theUniversity os *Leyden,*where he profess'd  
Physic with great Applause, and died in I 585. in the sixty-eighth  
Yearofhis Age. \* \*. - -

*Carolus Clusius* was fin.gularly fond of Botany. He became  
enamour'd with this Science when he was at *Montpelicr,* where  
he lodg'd with the celebrated *Rondeletius, as Borssetrd* informs us;  
He was bom at *Arras,* in the *French Netherlands,* in the Year  
1526. His Reputation soon procur'd him an invitation from the  
-Professors os the University os *Leyden,* which having accepted, he  
thererevis'd all his Writings, put the last Hand tothem,and digest-  
**ed** them into two Volumes; the formerofwhich containsone thou-  
'sand one hundred and thirty-three Figures os Plants; the other,  
besides Fruits, and exoticAnimals, contains the Representations of  
foray-five Plants discover'd by himself. He died, much regretted,  
*nt. Leyden,* in theYear I6o9.inthe eighty-fourthYearofhisAge.  
*' Matthias LObelius, Qs Laster* was sar inferior to *Clusius,* and  
less exact in describing his Plants, as appears from his *Adver-  
saria,* and his Observations and Illustrations of Plants, in winch,  
**where** Figures are wanting,- he is scarcely intelligible. In as.  
signing the Places where Plants grow, he trusts too much to his  
Memory; for, as Mr. *Ray* justly Observes, he takes many  
Plants to he the natural Product of *England,* which were never  
seen to grow spontaneously in it, and which, perhaps, were  
never seen any-where in the World. *Lobelias,* relying on the  
Assistance os *Petrus Pena,* a Native of *Provence* in *France,*and a Man of great Learning, publish'd a Description of the  
rare Plants of *Languedoc,* in a harsh and uncouth Style.

I now come to *fohn* and *Caspar Bauhine,* two Brothers,  
who have acquir'd such an uncommon Fame for their Skill in  
Botany, that the smallest Herb is hardly mention'd without, at  
the same time, mentioning the Name affix'd to it by them.  
They were bom at *Basil,* but their Father was a Native of  
*Frances* Notwithstanding the Learning and industry of these  
two Brothers, they seem to have undertaken a Talk to which  
they were by no means equal; for each of them proposed to  
write an universal History of Plants. But as *Gefncr,* in one of  
**his** Epistles to *Fuchsius,* well observes, one Man is not at all  
sufficient for carrying on so extensive a Design, fince there are  
numberless Species of Plants, each Of which a single Man must  
he an entire Stranger to, on account of the Diversity of Cli-  
-mates. But if different Men, in different Climates, would  
oblige the World with their Observations, there is a Possibility  
of an universal History of this kind being some time or other  
produc'd by a masterly Hand. The' it were to he wish'd, that  
a Work of this Nature should appear in out own Age, yet we  
have no Reason to expect it; because, from the Descriptions of  
the Plants already known, we can neither infallibly discover  
then Species, nor reduce them to their proper Genuses ; and  
from this Source have arisen almost all the Errors of the universal  
Histories of this Nature, which have hitherto appear'd. But, to  
return to the *Bauhines:* No more useful Work of the kind has  
appear'd than the *Pinax,* nor was it possible to render it much  
more perfect at the time in which it was written. Among the  
fix hundred Plants describ'd by *Caspar* **in the** *Prodromus Thea-  
tri Botanici,* many were receiv'd dry and Imperfect from his  
Friends and Acquaintances. His Brother *John,* the' he us'd  
the same Practice, yet gave his Descriptions far more natural  
and accurate. But the great Fault of these two Authors seems  
**to** consist in their having neglected to establish the Genuses of  
Plants, than which nothing is more requisite to such a History.  
*fohn* died at *Mont Beleard* in I6I4. and *Caspar* at *Basil in*1624. in the sixty-fourth Year of his Age.

‘.Nor ought we, on this Occasion, to forget the *Hirtus Flori-  
dus* of *Crtfpinus Pafseus,* publish’d in I6I4. in which there are  
three hundred and twenty-five Figures accurately delineated,  
and divided according to the Seasons of theYear , nor the Works

*iA Emanuel Suvertius,* **a Native of** *Ssioiotberg in Holland* **; nor**the *Florilepia* of *Theodorus de Pry so* nor -the Description of the  
Heths growing on Mount. *Baldo,* publish'd by *Johannes Nona,*an Apothecary of *Verona , nor* the History of the PlantSOf Co-  
*nada,* publish'd by *facobus Cornuti,* a Physician of *Paris.*

After the *Bauhines* appear'd *John Parkinson,* a Native Of  
*London,* and Apothecary to the Ring, who 'attempted to give  
an universal History of Plants in the'*Englisu* Language for in  
his *Paradifus Terrestris,* publish'd in I 629. he gives the History  
of Flowers at great Length ; and, in this *Theatrum Botanicum,*he has comprehended more Species of. Plants, than were to he  
sound in any History of Plants publish'd before his Time. - For.  
the most part, he follow'd *Caspar Bauhine*; and added'several  
Species from *Alpinus, Cornuti,* and some others. But tho' he trod  
in the Steps of the best Authors, who had gone before him, yet,  
thro' Forgetfuiness or Haste, he has omitted many Things, and  
sometimes repeated his Descriptions *of* one and the sanieHeth. :' AS Kings and. Princes have contributed to the Advancement  
of other Sciences, so have they not been wanting to the  
Improvement of Botany ; for the Herbs of *Greece,* Ind the  
*Eastern* Countries, have been rendered as famous by the.NO-  
dice which Kings have taken of them, as by their own Virtues.  
*Juba,* King of *Mauritania,* is as memorablefor his diligent Study  
of Plants, as for his heing cloath'-d with Royalty, and swaying  
the Sceptre over a wariike People: And, according to *Galen,  
Mithridates* and *Attalus* were acquainted with the Virtues of  
almost all the Simples which resist Poison, the Qualities of which  
they tried upon such Criminals aS were condemn'd to Death.  
' Nor were *theRoman* Emperors lessAdmirers ofBotany, or less  
careful in advancing it; for the Botanists kept by *Cafar* in *Ara-,  
bia, Lybia, Sicely,* and *Crete,* transmitted Basnets of Flowers  
not only to *Cafar* himself, but almost to all the *Roman* People.  
And *Evax,* a certain King of the *Arabians,* is said to have  
written to *Nero* concerning the Virtues of Simples.

But, to comenear our own Times, *Philip* the Second, *Os Spain,*as we are told by *Josephus Acosta,* sent his chief Physician, *Fran-  
eis.cus Hernandez,* into *America,* with a View to discover new  
Plants, and more accurately descrihe those already known.

Among the public Gardens, in which Herbs are demonstrated  
by Professors, that of *Padua* is the oldest. *Franciscus Bonasi-  
dius,* a Physician of *Padaa,* at whose Persuasion the Design  
was set on Foos, first explain'd the Simples in this Garden from  
theYear 1533. to I549. when, beingRveaken'd with Age,  
and losing his Sight, he resign'd his Place.

He was succeeded in this Office by *Gabriel Fallopius,* of Me-,  
*dena,* whose Character, both as aSurgeon and a Botanist, is well  
enough known. He was succeeded by *Benardenus Trivisc-  
nus* in I563.

In I56I. *Melchior Guilandinus* was chofen Keeper of the  
*Paduan* Garden. He was hern at *Crningsocrg in Prussia,* and  
made uncommon Advances in Medicinal Learning, but more  
especially in Botany: He took Notice of an hundred Errors in  
the *Hcrbarium os Mettthiolus*; and, after having acquired an  
uncommon Character for Learning, died at *Padua* in I589.

His Place was given to *Jucobus Antonius Cortusus,* in the  
Year 159O. who, tho’ no profess'd Physician, was yet the most  
skilful Botanist of the Times in winch he lived. He died in  
I593. without publishing any thing, except a Catalogue of **the**Plants in the *Paduan* Garden.

The fame Year *Prosper Alpinus,* hem at *Marnstica,* a Town  
at the Foot of the *Vicensian* Mountains, in the *Venetian* Terri- -  
tones, was chosen to read Lectures on Simples in the Schoois,  
and shew them in the Garden. He went into *Egypt* in the  
Year I580. with *Georgius Amius,* a *Venetian,* in order to take  
care of the Health of the *Venetianslumrsa* resided there. He was  
called thence to *Genoa* in I586. by *Joannes Andreas Aureas,* Ad-  
miral of the *Spanish* Fleet, in order to prescribe for him.  
Thence he went to *Padua,* and enter'd upon the Explication  
of Simples. He was a Man of an universal Genius, and un-  
common Learning. The Plants he himself had seen in *Egypt,*as also those fent him from *Crete,* and other Parts, by *Hiero-  
nymus Capellus,* and *Nicolaus Ccntarenus,* are imperfectly de-  
scribed by him, and as imperfectly delineated, as appears not  
only from his Treatise *de Plantis Ai gypseis,* but also from his  
Books *de Plantis Exoticis,* publish'd by his Son *Alpinus* in I628.  
*Prsuper,* the Father, died at *Padua* in I6I7.

The following Year *Jacobus Zabarella* was chosen to give  
Lectures on Simples; and *Johannes Prevotius,* a Native of Ba-  
ses in *Switzerland,* to shew them in the Garden ; but the lat-  
ter was carried off by the Plague in I63O. The following Year  
an Oster of his Place was made to *Joannes Rhodius,* a *Dane,*but he refused it; and in I633. it was given by the Senate to  
*Alpinus Alpinus,* the Son of *Prosper,* who enjoy'd it till I637.  
when he died of a Consumption. Next Year he was succeeded  
*by Joannes Vesiingius,* os *Minden,* whofe Character, both as an  
Anatomist and a Botanist, is too well known not to procure  
him the Esteem he justly deserves. He was a Knight of **the***Holy Sepulchre,* and died of a malignant Fever in 1649. He  
had for his Successor, in Office, *Georgius a Turre,* who is justly  
Celebrated for his Skill in Botany. His Successor, the illustrious

**.Abbot** *Fella Viali,* **was no less a Glory Io hh Country, and-the**University of *Padua.*

Encouraged by the Example of the *Paduans, Cosimo* of *Me.,  
dicis,* the Great Duke of *Tuscany,* formed a Garden for the  
same Purpose at *Pasta* ; she Care of which'he committed to *An-  
dreajsiasalpinus.* We must not here forget the *Farnesian,*she *Earkiaisilan,tfoeLdd'Anisian, rLCEurghesian,* the *Aldohran-  
dtnian,.* and the *Esicnsiari* Gard eris in *Italy.* The *Bononian* Gar-  
den has been singularlysqnrich’d by *'Joionus Zanoni,* and *Leelius  
T.rikiaphetts,* and thimat'Rwne by he ssalsul Botanist *Joannes  
Baptista, Triumphetti. - si.'" ' "sisi; . .*

. Tsor let us imagine, that in this Particular we were outdone  
hy the .celebrated Gardens of the *Hefperides,* or those of *Baby-,  
lony.os* by that of *Adonis, Alcinous, Epicurus,* or *Theophrastus ;  
for* IT we take a View' of the Gardens os *Holland* and *England,*Tve shall.-lind them equal, is not preferable, to the most cele-  
brated among the Antients; since those of *Leyden* and *Arastcr-  
darn* contain whatever the *Indies* and *Africa* produce i And’those  
of *London* and *Oxford,* the last of which has of late heen greatiy  
Unproved by Dry *Dillenius,* thro\* the Munificence of Dr. *She?-  
rard,* contain whatever7*amnica* and *Virginia* afford. And thole  
os *Hampton,* Bishop *Compton's* at *Fulham* (how neglected), and  
that at *Chelsea,* are furnrsh'd with almost whatever is to he sound  
in the whele World. The.Gardens of Mr. *Beaumontin Holland,*In which there is Euphorhiuin, brought *ssdffi. Africa* at the Propri-  
etors Charges, is no less famous than that ofyama, and will for  
ever he signaliz'd by the Catalogue of its Plants, publish'd, by  
the learned *Hagelacrusse'* Ἀ . \ i . /’

Nor have the Kings of *France* been wanting in this Particu-  
lar ; *set Francis* the First was not onlyan Admirer of Botany him-  
self, het also a great Encourager of every Plan that could improve  
and advance it. *Henry* the Fourth also. King of *France* and  
*Navarre,* form’d, a Garden for the Culture of rare Plants,  
and oave the Core of it to that skilful Botanist *Joannes Reatinus.*But *Lewis* the Thirteenth, in I626. form’d a still larger, and  
more noble Garden, in the Suburbs *os St. Ficturis* at *Paris, by*the Persuasion of *Heroard* his chief Physician, and *Guido Brose  
sieus* his Physician in Ordinary, and who, being created Gover-  
nor of the Garden, appointed the Plants to be demonstrated by  
*Vifpasianus Robinus,* that diligent Botanist; who, besides **the**' 'Species of the *Lingua Cervina,* the Names os which are men-  
tioned in the Catalogue os Plants contain’d in the Royal Gar-  
dens, first brought into *France* the *Filix Baccisiera,* the *Adian..  
ihum Americanum,* the *Geranium Triste,* the *Origanum Fistulo-  
sum* , the *Afarurn Canadense,* the *Acacia Amcricana,* and other  
Curious Plants, with winch *Cornuti,* a Physician of *Paris,* has  
adorn'd his History of Plants. At last, *Lewis* the Fourteenth  
gave the Charge of his Gardens to the illustrious *Guido Crefcen-  
tsius Fagon* who, at his own Expence, soon enrich'd the Royal  
Garden with Store of curious Plants, which he cull'd, with his  
. own Hands, in different Parts of the World : So tint it is no  
Wonder, is the Royal Garden at *Parti* surpasses most others in  
the World for the immense Number os Plants it contains. Mr.  
*Fagon,* being call'd to the Court, *put Armandus de Mateuillain,*a Physician of *Parti,* into his Place ; and in the Year I683.  
*Mauvillain* was succeeded by *Tournefort,* a brief Sketch of  
whose Lire I shall give; smce he seems to heve carried Botany  
to a higher Degree of Perfection, than any os the Authors I heve  
thitherto mention'd.

Besides -the Royal Garden at *Paris, France* is bless'd with  
another at *Montpelicr,* instituted by *Henry* the Fourth, about  
the Year I598. the Care of which has successively heen corn-  
minted to the most distinguish'd Botanists ; such as *Petrus Richsu  
arises de Bellrval, suoannes Richcrius de Belleval, Mechael Chy-  
‘ aoineau, Petrus Magnol, Franciseus Cbyocineau,* and *Nicolaus  
Fabricius Peiresiius,* who,, by a matchless Diligence, trans-  
planted the *Myrtus latifolia flore pleno* from the woody Pisces  
hetween *Toulon* and *Marseilles*; the *Jusininus Indicus stavus  
cdoratissernus* from *China y* the *Papyrus* from *Sa is,* a Town of  
*Egypt*; the *Lisa from Mecca*; and some uncommon Vines  
from *Tunis, Smyrna, Sidon, Damascus, New France,* and other  
Parts. . .

The Gardens of *Casto Borbonius,* Duke of *Orleans, are also*ja noble and entertaining Scene for a Botanist, since it is enrich'd  
with Store of curious Plants. But among all the botanic Scenes  
the World ever saw, the most glorious and magnificent is that  
incredible Treasure of Plants, done in their native Colours, as  
.large as the Lise, and kept in the Repository of *Lewis* the  
Fourteenth. This Garden dreads neither the Cankerworm,  
**the** Locust, nor the Caterpillerj but blooms with all the Ver-  
dure os an eternal Spring, and bids a Defiance at once to the  
nipping Colds os the Winter, and the scorching Heats of the  
Summer.

**LIFE of TOURNEFORT.**

When we observe any Man distinguish’d by a superior Know-  
ledge, or Skill os any Kind, it iS natural for the Mind to he  
solicitous and inquisitive about thc several Circumstances which  
heve concurs d to render him thus conspicuous. When, for  
Example, we hear os *sssaxandpris* Skill in all the Arts of War

and Copquest; when we. view the brave and heroic Actions of  
*Censor, Scipio,* and *Hannibal*; when we reflect on the extensive  
Knowledge, the deep Researches, the accurate Deductions,  
and important Discoveries, of. the incomparable Sir *Isaac New-  
ton ,* our Minds are indeed struck with certain Ideas of Gran-  
deur and Surprize ; but. a secret Dissatisfaction is still lodged in  
the Breast,, and the labouring Soul remains, asst were, on the  
Rack, till we know something more, about the Men, and have  
discovered their Turns of Mind, and the several Steps by which  
they have" gradually advanced th Honour, and paved their Way  
to - immortal Glory. Now,, as .Mr. *Tournefort* is universally  
allow’d to have carried Botany to a higher Degree os Perfection  
than any who went before-him, by enriching it with numberless  
DiscoVeries, advancing it into a Science, giving It an Air os  
Accuracy, which it formeriy wanted, and smoothing alldis Disc  
ficulties ;. it must, of course, he an uncommon Satisfaction to  
become acquainted with the Education, the Genius, the Dispo-  
fitioii, and Studies *os this* celebrated Botanist. . ...

*Joseph Pitton de Tournefort,* then, was hern at *Aix in Pro-  
vence, on* the.Fisth.of *June,*-1656. .He was theSon.es *Peter  
Pitton de Tournefort,* and *Aimare de Fagone,* the Descendant of  
**a** Family os .Note in *Paris. . ’’ -*- Their Son *Joseph* was put to the Jesuits. College m *Aix,*with a View to learn *Latin,* as the other Scholars' dis. But, as  
soon aS he saw any Plants, the Bent of his Genius discover'd **the**suture *Botanist,* for he was anxious and uneasy, till he sound out  
their Names i He carefully remark'd their Differences, and  
sometimes neglected to attend his. Class, in order to discover  
Herbs, and study Nature in the Fields, instead of the Language  
of the antient *Romans* in the Schoois. And as it is no uncom-  
mon thing to see some People excel in an Art, by the mere  
Force of Genius, without the Assistance of a Master, this young  
Botanist had, by his own Industry, acquir'd a Knowledge of air  
the Plants produced about the V illage where he was hern. ...  
\_ When he enter'd upon his Philosophical Studies,. he disco-  
ver'd no great Relish for what was taught him. In Disquisi-  
tions of this Kind, instead of Nature, with whose Contempla-  
tion he was so highly charm'd, he found only vague and abs-  
tracted Ideas,-which decoy and amuse the Mind, without  
enriching it with any thing that is solid and satissactory\*  
During this Period of his Education, he accidentally found the  
Philosophy of *Descartes* in his Father's Study, and soon disco-  
ver'd it to be the very Thing he wanted. Tho' he could only  
read the Preductions of this Author privately, and, as it were,  
by Stealth, yet he read them with Care and Accuracy; and the  
Father, who violentiy opposed so useful a Study, afforded bins,  
without being sensible of it, the Advantages of a fine Education.

As he destin'd his young Son. for the Church, he made him  
apply to the Study of Theology, and for that Purpose enter'd  
him in a Seminary. But in his Breast *Botany* cousd not endure  
a Rival, and the Bent of Nature was too powerful to he  
balanced by any Views, or overcome by any Byas.

Notwithstanding the Intentions of the Father, the Son must  
necessarily see Plants; and for this End he retired to prosecute  
his darling Study, either to a curious Garden belonging to an  
Apothecary *osAix,* or Io the neighbouring Fields, or to the  
Summits of Rocks, winch had been inaccessible to others,  
fir'd with a less ardent Desire of Knowledge than he. Ei-  
ther by Stratagem or Presents he found Access to the most:  
close and conceal'd Pisces, where he suspected there were Plants  
not to be found elsewhere ; and when these Means sail'd, so  
undaunted was his Resolution, that he would make his Way  
into them in an unlawful and clandestine manner, rather than  
.not satisfy his Curiosity; and, indeed, sor an Attempt of this  
Kind, he once ran a Risque of being stoned to Death by the  
Country-people, who took him for a Rohher. . But what Hard-  
ships will not a Mind, actuated with an ardent and insatiable  
Desire of Knowledge, undergo for Satisfaction?-

Mr. *Tournefort* was almost as fond os Anatomy and Chy-  
mistry as he was of *Botany*; and at last Physic and Medicine **so**engross'd his Affections, as to gain a thorough Victory over his  
Inclinations to Theology, which he now resolved to drop. In  
this Resolution he was encouraged by an Uncle on his Father's  
Side, who was a Physician of great Skill and Reputation. ‘Soon  
after, the Death os his Father in the Year 1677. left him at his  
own Disposal, and Master of his own Inclinations.

He quickly improv'd this Revolution made in his Fortune  
by his Father's Death; *for,* in the Year I 678. he carefully  
ranged the Mountains os *Dauphiny* and *Savoy,* from which he  
return'd with a large Quantity of beautiful dry Plants, which  
were the Beginnings of his celebrated Collection of Herbs.

*Botany* is not an unactive and sedentary Science, winch, like’  
Geometry or History, may he acquir'd by a recluse and soli-  
tary Application within the narrow Precincts of a Closet; **or**which, like Chymistry, Anatomy, and Astronomy, demands  
only fuch Operations as may be perform'd without a great deal  
of Exercise, Toil, and Fatigue. The Botanist must wander  
thro' Mountains and Valleys, range the gloomy Forests, climb  
the steepest Rocks, and expose his Life on the Brinks of hide-  
ous Precipices, in Quest o/ Knowledge. The only Books capa-

**ble.** of instructing ns . thoroughly in this Science, are, with a  
rich and liheral Hand, scatter'd op and down the whole Surface  
-of our Glohe. But Resolution and Patience, Industry, and  
Contempt of Danger, are necessary to collect and gather them.  
This is the Reason why so few excel in this Science: That De-  
gree of'Ardor which is capable of rendering a Man fltiU'd hy  
other, Branches of Literature,’ is by no means sufficient for  
forming .acomplete Botanist; whe, besides the insurmountable  
ArdouroThisfinul, must have an uncommon Strength of Body,  
and Soundness of Constitution, to bear hina up under **the** Toris  
and Fatigues he must necessarily undergo. Now, Mr. *Tourne-*Jorihad ahrisk laborioutTurn of Mind, a robust Constitution,  
and T large Fund os natural’Gaiety in his Temper, to siIpport  
him under\* his painful Researches; To that both the Make ofhis  
Body,' and the Turn of his Mind, Joined'their united Force th  
qualify hith for a Botanist, ῖ.'ϊί’ -ς 'ς/.ί.ῆ''' "‘si..'.

: Tn the" Year 1679. he went from *Ain* to *Montpelier,* where  
he.persectedthimself in Anatomy.and Physic.' . The Garden os  
Plantsestablished'.in that 'City.-by *Honrg* IV. rich as it was,  
could hotTatisfV this'imheimdedeturiosity: He 'ransack'd all  
the Tracts'of ‘Ground within, more than ten'Leagues of- *Mortise  
pilter,* 'and s'as a Recornpencessorhis Labour, ssound' Plants tin-  
known and unheard of by' the'Inhabitante of. the Country  
themselves. But. as he thought himself still confin'd within  
Yoo narrow'Bounds, he quitted *Montsierteir,* and went to Boss  
*celena,* in the Month of *April* s68I. He proceeded as far as δι.  
Toby, in .the Mountains os *Catalonia,* where he was-follow'd  
about from one Place to another by the Physicians and young  
Students’ of Medicine, to whom heidefcrshd the several Plants  
which ocourfd ; and one would have thought, that in this he  
resembled‘the antient *Gymnosephisis,* who led their Disciples in-  
to the Desarts, in order to instruct them. " .. ......

'.- The Pyrenean Mountains, winch were now not sar of, could  
hot sail tempting him to make them a Visit; and before he finder-  
took this Expedition, he knew that in these forbidding Soli-

. tudes he shoald have no other Sustenance than what the'most  
austere Hermits are accustom'd to ; and that the miserable In-  
habitants, whe could supply him with it, were not more nu-  
merous than the Robbers, to whose Violence he was sure to  
**he** exposed; - Accordingly he'was several'times robb’d by'**the***'Spanish* Michelets. In order to prevent the like Misfortunes

Tor the . future, he bethought himself of a happy Expedient ;  
Tor he inclosed his Money in some Bread, which was so  
black and'hard, that the *Spanisu* Robhers, undoubtedly the  
greediest’ in the World, did not think it a Prize worth the  
.taking. '. The unconquerable Force os his inclinations sur-

mounted all Difficulties ; and the dreadful find almost inacees-  
fible Rocks, which surrounded him on every Side, had to him  
transform'd themselves into a magnificent and well stor'd Li-  
brary, where he passed the Time with Pleasure, and fully satis-  
fied the Ardour of his Soul. One Day a ruinous Cottage,  
1 in which he had the Misfortune to ledge, fell all on *a* sudden;

;and Mr. *Tournefort,* heing buried under its RoinS for two  
.Hours, had undoubtedly perish'd, had not a seasonable Relief  
been afforded him. But this Accident, which of itself would  
have struck Terror into the Bravest, did not interrupt **the**Course os his painful Inquiries, nor fright him from a Scene  
in other respects so agreeable to bira.

At last, in I 68 I. he return'd to *Montpelier,* ’and thence to  
*Aix,* the Place of his Nativity, where he ranged in his Repo-  
story of Herbs all the Plants he had collected about *Pro-  
vence, Languedoc, Dauphine,* and *Catalonia,* and those less  
known produc'd by the *Alps* and *Pyrenean* Mountains ; and

. whatever People, whofe Minds and Studies are turned another  
way, may think, the Pleasure os seeing such a large Number  
of Plants, entire, well preserved, and disposed in a beautiful  
’ Order in large Paper Books, was a sufficient Recompence for

the Toil and Pains they had cost him.

The Fame of Mr. *Tournoforrs* extensive Skill' in Botany  
had by this time reach'd the Ears osMr. *Fagon,* who was him-  
self a curious Botanist, and first Physician to the Queen; and,  
as he had receiv’d a very advantageous Character os *Tournifert*from all Quarters, he conceived a Design of alluring him to1*Paris,* the general Rendezvous of all the Literati of *France.*For this Purpose he apply'd to Madam *de Venelle,* who was  
second Governess to the Daughters of The Royal Family, and  
who was intimately acquainted with Mr. *Tournefort,* and his

\* Relations. Accordingly, this Lady, prevailing on him to come  
*to Paris* in I683. presented him to Mr. *Fagon,* who, hefore  
that Year was expir’d, procured him the Place of Prosestbr of  
*Botany* in the Royal Garden of Plants established at *Paris* by

*\* Lowis* XIII. *sot* the Instruction of the young Students of  
physic.'

. . This .Employment did not hinder him from undertaking se-  
veral other v oyages ; for he went hack to *Spain,* and thence  
*tss Portugal,* where he saw new Plants, but sound no Botanists.  
When he was in *Andalusia,* a Country fertile in Silk-worms,  
he endeavour'd to find out the Truth os the Reports so long

‘ ago handed down to us, concerning the Amours hetween the  
Male and Female of these Insects ; but he Could discover no-

**thing Certain-with regaid to this Particular; and these Amours,**if real, are hitherto mysterious. He travelled also into Hose -  
*land* and *England,* where he had-an Opportuni ty sof seeing  
Plants he had never-seen hefore, and conversing with some of  
the greatest Botanists os the Age, whose ’Esteem find Friend-  
ship he easily gained. As a Proof, of this, no other Circum-  
stance is necessary -to he mentioned,. than his.being, ^solicited  
by friendly' and importunate -Tettegni from *NsiseHasirnan.,* the  
celebrated Erofeflhr of Botany sat" *Les.deii, rD* "accept of his  
Place,. which, uthe was-too cld anss insons, he offer'd .to re.-  
sign in -savour of Mr. *.T.eurtiofortsi.* This iGenrlehern?s ;Zeal  
sor the .Interest oTBosany made hirn choose *Taeurn'eforAstsati* his  
Successos, tho'\* .hel was hot inrilya" Foreigner, but belonged to  
a Nation thefeengaged'in anTopen WutsVihthSg/.owq..Cajuti-  
try.' *Nir. Nortnan* promised him sour thonheridduriytes'jn **the**Name os the States-General, and gave shim Rehso’n’JoTfiink,  
that his Salary would he augmented^ when Ἔ sssqsp tit herne to  
he better known. But tho' the Ifecomc affixed nothin Place in  
the Royal Garden wascVery.inndesain, yet the.ToverEspis  
Country prevailed upon him toryeject’sh .fair and'pdyantageous  
an Offer. He also gave his Friends, aii \* additional .Reason for  
hisRefushVof this Place, which whs,sihatTthe.Einheesr were  
as‘least inas‘flourishing a State\*, at *scar is,* as inah^sp ther Part  
of the.World ; JorimeurativssCountiySsS.gedume.ahd’un-  
feign’d Virtuoso .would he butiedduJIimffjoncotedqrI^lrf.Shene  
to him, if the.Sciences did not. theivejand. prosper 1E3L’'

'His Conn try'did not prove ungrateful for the.Love.hehad  
she wn, her iff rejecting Preferment In in distant Nation; Tor, in  
the 'Year I 69 I si the Academy of Sciences being put., under  
the Inspection os the Abbe *Bignon,*. that Gentieman exerted  
his Authority, two Months after the was Tested with it,- by  
taking, into . the Society *NlasiTouhlesifrt,* .and Mt. *'Hesnberg\**neither of -whorse the -was. personally acquaintedwim, sthes he  
.was no Stranger to.the Fame .and Reher'tariim.thesyJtistly.he-  
quir'd; si - si. - ’' ;; ' δ᾽. δ᾽ et," \, *si squetscs fret \_ l*

*In* I694- Mr. *Tourneforti^* -Elements. osiBoinny, for the  
Method of knowing Plants, was printed at the*‘ Isatevreffoe* **three**Octavo Volumes. ThisTVork, tho’ generally approv’damfound  
some Very .powerful’ Opposers; sor its Author ..was attack'd  
upon some Points by Mr.: *Ray,* a celebrated ^Botanist in  
*England.* And in I697. „ ME *T.aurnefort.* answered **the**Charge in a *Latin* Dissertation addressed her *Nit. Sherrard,*another *Englisu* Gentleman, whe was. .a skilful Bosaniss The  
Dispute on both Sides was manag'd not only without Bitter-  
ness, but even with a certain graceful Ain of Decorum and  
Politeness,'which bespeak Candour, and a Love ofTruth. Tt  
may possibly-he said, that the Subject was not of sufficient  
Moment to rustle their Spiriss,’ or inflame their Passions, since  
the Question in Dispute was only, whether the Flowers and  
'the Prints of Plants were sufficient to establish their. Genuses;

and whether certain Plants were of one Genus,; or another.  
‘But this Circumstance does not at all detract from the Merit  
Of these two Disputants, fince 'tis natural for Men, especially

. of Learning, to become enrag'd at each other, on account of  
the most arrant Trifles in the World. Mr. *Tournefort,* **in a**

. Work posterior to the Date of this Dispute, passes very high  
Encomiums on Mr. *Ray.* and his System ; an exalted Instance  
-of a candid and generous Soul l . '

Mr. *Tournefort* was created Doctor of Physic, Of **the**Faculty of *Paris',* and .in. I698. he published his *History of*

*. the Plants which grow about* Paris, *together with an Account of  
thiir Use in Medicine.* Now we cannot readily suppose, that  
the Man who had made his Way to the Summits of the *Alps*and *Pyrenean* Mountains, in Quest of Plants, could he a care-  
less Observer of those produced about *Paris,* where he had  
resided so long. Botany would Only he an Amusement **to**

. the Mind, is it had no Relation to Medicine ; buy Mr. *Jour.,  
nesurt* has in .this Work shewn the SuhserViency of she former  
to the latter.

We may aifo reckon among the Works, of *Towmofort,* **a**Book, or at least a Part ofa Book, which yet was not printed by  
his Orders, intituled *Schola Botanica, sive Catalogus Planta-  
rum, quaslsuss aliquot annis in Horta Regio Parisun/s, studiosis  
indigitavit Vir clamssetmus Josephus Pitton de Tournefort Doctor  
Medicus', us igr Pauli Hermanni Paradisi Batavi Prodromus,  
etc. Amsteladami,* 1699. One Mr. *Sirnon Wharton, an Eng.,  
list* Gentleman, who had studied Botany for three Yeats in  
the Royal Garden under Mr. *Tournefort,* made this Catalogue

- of the Plants he had there an Opportunity of seeing.’

As *the Elements as. Botany* had met with as favourable a  
Reception aS the Author himself could have desired, in **the**

. Year I7Ooi for the sake of Foreigners he gave a *Latia* Trans- \*  
\_ lation of it considerably inlarg’d, under the Title of *Jnstitu..*

*tiones Rei Herbaria,* in three Quarto Volumes; the first of  
\_ which contains the Names of the Plants distributed according

to his own System, and the other two their Figures Very ac-  
. curately enoraved. To this Work he has prefixed a large  
. Preface or Introduction to Botany, containing the Principles  
\_ of his own System, ingeniouily and solidly establish'd, and **a**

History of Botany and Botanists collected .with uncommon

Care, and written with an agreeable Spirit. We may easily.  
suppose, that he employ'd himfels with Pleasure on every Oh-  
ject that had the least relation to Botany, his darling Study. :  
'' But his Curiosity was not entirely confin'd to Plants arid  
Heths; for he was almost equally fond of all other natural  
Rarities, fuch as figur'd Stones, uncommon; Marcasites, exd  
traordinary Petrifications, and Crystallizations, and Shells os  
all Kinds. y\*Tis true, he looked upon Stones to he Plants  
which Vegetated, and had their, respective Seeds s. he was also  
pretty much inclin'd to extend this System to Metals, and  
seem'd inclin'd to transform every Object into the Nature os  
Vegetables, the Coin templarion of winch afforded him so ecsta-  
tic arid superlative a Delight. He also collected the Garments,  
**the** Anns and - Instruments os' distant \* Nations, another Species  
of Cariosities, which, tho' not' coming immediately from the  
Hands of Nature,' may yet; afford 'proper Occasions of phi-  
Iosophspingtho- those happySouls who have the Art of doi  
ing it. With all these Objects he had furnished a Museum,  
surprisingly magnificent, for a private Person, and justly famous  
*in Paris:,* The Virtuosi Valued it at forty-five or fifty thou-  
sand Livres, an Expence which'would have thrown an indeli-i  
hle Blot ossthe Character - os a Philosopher, had the Money  
been laidsoutfor less - curious.. and instructive Purposes. Tim  
Circumstance however proves,'that Mr. *Tournefort,* consider-  
ing his moderate TncorneS,:could not lay out a great deal of  
Money on other Pleasures more-frivolous in themselves, tho'  
inore eagerly pursued by the Generality of Mankind.

- When we take a View of the fine Qualities of which Ms,  
*Toumofort* was' possessed, we must readily perceive how well  
he was calculated for- making an ‘excellent Traveller; by  
which Word I do not' mean the Man who runs from one  
Country to another, without'knowing what he is about, or  
entertaining the least Thought of rendering himself wiser and  
hetterTthut.the-Man who attentively Views Nature in all her  
Variety Of Shapes, with in View, to become useful to his sei-  
low Creatures, and treasure up a grateful Store of Knowledge  
in his own Mind; so that the faithful Accounts of the Travels  
of a real Philosopher may he look’d upon as sacred Archives  
of inestimable Value. We may therefore account it an Adil  
vantage to the Sciences, that in I7oo. Mr. *Toumofort* re-  
ceived an Order from the King to travel *into Greece, Asia,*and *Africa,* not only to take a View of the Plants mention'd  
by the Antients, and perhaps to discover others unknown to  
them, but also to make Observations upon Natural History  
in general, upon antient and modern Geography, and even  
upon the Customs, the Religion, and the Commerce, of the  
People. He had Orders .to write, as often as he had Oppor-  
tunities, to Mr. *de Pmtchartrain,* and to give him a Detail of  
his Discoveries and Adventures. Accordingly Mr. *Tourriefort,*accompanied by Mr. *Gundelsiocimcr,* a *German,* and an excess  
lent Physician, and Mr. *Aubries,* a skilful Painter, went as *far***as the** Frontiers os *Persist,* Collecting and making Observa-

. irons on Herbs. Other Travellers Convey themselves - by Sea  
from one Part to another, if they possibly can; and, when that  
cannot he done, they take the most beaten and patent Roads  
by Land. But Mr- *Toumofort* with his Associates were as littie  
at Sea as was possible, disdained the common Roads, and  
bravely struck out new ones hefore untrod by Mortals. A  
Pleasure, blended with Gloom and Horror, rises in the Mind  
upon reading an Account of their Descent into the Grotto of  
*Antiparos,* which consists of three or four hideous Abysses, one  
after another. Mr. *Tournefort* had here the sensible Pleasure  
of beholding a new Species of Garden, in which the Plants

\* were different Shoots of Marble, as yet young and springing,  
and which, according to the Circumstances with which their

\* Formation was accompanied, must necessarily Vegetate, in  
‘ vain did Nature endeavour to conceal the Vegetation os Stones  
in these profound and inaccessible Caverns, from so held and  
curious Virtuose

*Africa* was comprehended in the original Design of Mr. ’  
*Tournefortis* Voyage; but the Plague, which rag'd in *Egypt,* de-  
’ termin'd him to return from *Smyrna* to *France* in I7O2. This  
Was the first Accident that put a Stop to the Execution of his  
vast and extensive Design: However, he return'd, loaded with  
' the Spoils of the *East* ; for, besides the numberless different

Observations he had made, he brought along with him one  
thousand three hundred and fifty-six new Species of Plants,  
most of which ranged themselves, as it were, of their own Ac-  
cord, under some one .or other of the six hundred and seventy  
three Genufes he had already established; and, for all the rest,  
he had only twenty-five Genuses to create, without heing

\* obliged to augment the Number of Classes. A Circumstance  
winch sufficiently proves the Advantage and Commodiousness  
of a System to which so many foreign and unexpected Plants  
were easily reducible. Os thefe he composed his *Corollarium*

*' Institutionum Rei Herbaria* printed in I703.

When he return'd to *Paris,* he thought of resuming the  
‘ Practice of Physics which he had sacrificed to his *Levant*' Voyage, at a time when he began to he well employed.

**Experience sheiijs ne, that in every thing depending on the**

Taste ofthe Public, especially Affairs of this Nature, Delays  
are dangerous. The Approbation of Men is something forc’d,\*  
and food comes' to an End MI. *Tournefort* then found a'  
Difficulty in getting into the Business he had left; Besides, he  
was obliged to gothrough his form erExercises in the Royal  
Garden, and those of the Royal College, in which .he was  
one of the ProsefiorS of Medicine. The Functions \_ of **the**Academy also took up some Part.oshisTiino yandfbesides theses  
he wanted to revise and polish the Relation of his last Voyage,  
of which he had only the simple Memoirs roughly drawn up,  
and intelligible only by himself. This Multiplicity of Business  
put him upon studying in the Night-time, a Circumstance  
which soon broke his Health; and, when he was in this un-  
comfortable State, he accidentally receiv'd' a Blow on the  
Breast, which he thought would Very Toon prove mortal to  
him- Accordingly, he languish'd sor some Montha,l and died  
on the twenty-eighth of *December* : ~ sista Ἀ. ν

He made a last Will, in which he left his Mtsseurnsof Ra-  
rities to the King, for the Use os the Literati, andhisbotani-  
cal Books to the Abbe *Bignon.* ' This second .Article was no  
less a Proof of his Love to. the Sciences than the former, con-  
sidering the Character os the *Abbe. gul ’ .) ἐν*

One Volume of Mr. *Town escort's* Travels was printed ini  
the Author's Life-time at the *Louvre:* And the second is, finch  
his Death, printed'from his own Manuscript, which was sound  
perfect and finished. This Work, in which the original  
Form of Letters addressed to Mr. *de Pontchartrain* is retain'd,  
contains two hundred Plates of Plants, and other Antiquities,  
well engraved. Besides the Branches of Knowledge, os which  
we have already shewn Mr. *Tournefort* to he poflefled, he in  
this Work discovers an uncommon Degree of Learning, and  
a Very extensive Knowledge of antient and modern History 1  
But one Quality, when posteffed in an eminent Degree, in  
often the Reason why we overlook others, which however, de-  
ferve our Attention. *Hist, de llAcad. des Scientes, A. IJQS.*

*System of* Tournefort.

The Knowledge of Plants has in all Ages and Nations been  
justly esteem'd an useful and important Branch of I.earning-  
People are generally convinc'd, that Simples make up almost  
the Whole of Medicine ; and aS Nature has implanted in cer-  
tain Animals an Instinct, by which they discover particular  
Plants to he proper Remedies for their Disorders, so she seems  
to have acted a still more liheral Part by Man, in furnishing  
him with an Instinct sor Plants in general, and inspiring him  
with an uncommon Confidence in the Remedies prepar'd from  
them. Bus, tho' Nature has been thus bountiful in giving us  
so useful an Instinct, yet she has left uS to nfe the laborious  
Methods of Reason, Deduction, and Experiment, in order to  
discover the Virtues and Uses of each particular Plant; a  
Talk, in the Execution of which, the Reason of Man can  
with Difficulty come up to the Instinct of some Animals.

. The Works of *Theophrastus* and *Dioscorides,* of *Pliny* and  
*Galen,* are sufficient Proofs, that the Antients had some Know-  
ledge of Plants, tho' their Learning in this Particular was Very  
superficial, defective, and imperfect, since *Dioscorides,* who  
applied himself to this Study in a particular manner, and ac-  
quir'd the greatest Reputation, on account of the Progress he  
made in it, has only mention’d about six hundred Plants, and ..  
described them in a manner so obscure and intricate, that 'tis  
often difficult, and sometimes impossible, to know them by his  
Desciptionos them.

The Ages immediately succeeding that of *Dios.eatides,* did  
not greatly enrich Botany ; for in them all the Sciences seem  
to have heen Veil'd with Clouds of Darkness and Ignorance,  
- which were not dispelled till the fifteenth Century. Then in-.  
deed People began to read the Antients with great Diligence,  
in order to make themselves Masters of their Knowledge,  
which had heen so long involv’d in Obscurity and Oblivion.  
The Botanists sought for Plants no-where else than in the Books  
Ofthe *Greeks* and *Romans-,* and even *Mattheolus,* the most cele-  
brated Commentator upon *Dioscorides,* was not at the Pains  
to compare the Plants produced by Nature, with the Descrip-  
tions his Author had given of them; thut, attaching himself sa-  
credly and inviolably to the Descriptions, form'd to himself  
ideal Plants, which he thought Nature must, or at least ought  
to have produc'd.

But, when the Sciences hegan again to be cultivated. Reason  
assumed her just Prerogative, People studied Nature as well as  
Books, and Ventur'd to seek for Herbs in the open Fields.  
Upon this. Botany was enriched with new Discoveries, and be-  
came daily more extensive.

Notwithstanding this favourable Revolution, a Difficulty still  
remained to he surmounted. The immense Number of Plants,  
all differing from each other, began to prove a Grievance to  
Botanists ; for whet Memory was sufficient to retain so incon-  
ceivable a Variety of different Names, as were already in Use,  
or eVen all the new ones, which were daily becoming necessary?

.The Botanists therefore bethought themselves of inventing a.  
Method proper for the Removal of this Grievance ; but it must  
be own'd, that few of them apply'd themselves to this Dis-  
covery ; that those who did, were -pretty late in doing is ; and  
that others disputed either - the Possibility or Usefalness of fuch  
**a** Method. But 'tis no uncommon thing to see the Progress  
os Learning retarded by the Learned themselves.

The only Method then, which could, either he thought os  
or desired, consisted in distributing all the known Plants under..  
certain Genuses, so that the Knowledge of each Genus might:  
contain, as it were, a compendious and general Account of all  
the Plants it included; and that they might all, as . much as the  
Nature of the Thing would permit, come under oneDenomina-  
tion common to their respective Genus, that too great a Num-  
ber of particular and widely different Names might he avoided;  
Custom has established this Practice with regard to all the Spe-  
cieS of the Ranunculus ; but 'tis a hard Task to extend this  
Plan to. a great many other Plants, whose Species do not easily  
exhibit to View what they have in common, and such Circum-  
stances aS may serve to establish their proper Genus.

. In order io preserve that Uniformity which Method requireS ;  
in the System of Plants, the same Idea must prevail in the Esta-  
blishment of the different Genuses ; and they must all be de-  
duloni from the same Principles. " A Plant, according to  
" nvlr. *Tournefort,* is an organiz'd Body, which has always a

( " Root, always probably a Fruit or Seed, and almost always a  
" Stalk, Leaves, and Flowers.'\* These are the five Parts; i  
some of which are essential to all Plants in general, whereas  
others belong only to some particular Species of Plants. It is1evident, that the Resemblance between some of these Parts  
will constitute the Genuses; but this Resemblance ought always ’  
tothe between the corresponding Parts ; and our whole Business ’  
is to find out to which we ought to give the Preference. Mrs \_  
*Tournefort* determines for: the Flowers and the Fruit taken in  
Conjunctiori. - . ... -

*sudesuer* and *Colonna,* two of the most learned Botanists that  
have hitherto appeared, were of the same Opinion ; and indeed  
the Intention of Nature seems to point out these two Parts as  
the principal and most important ; since the Whole of the  
Plant, and all the Apparatus of its Organs, which is greater and  
more \_ magnificent than- jo commonly believed,' seems only  
form'd with a View to the Production os the Seed, or, which  
is the same, of the Fruit, -which is the Covering and Nourish-  
ment of the Seed. As for the Flower, it is only designed for a  
short time, to afford the growing FnIit a Nourishment more  
delicate, better prepared, and more Agreeable to its Nature,  
than what it could draw from the Leaves.

.AU Plants whose Flowers and Fruits are of the fame Figure  
and Disposition, are, then, of the same Genus, according to Mrs  
*Tournefortis* System ; and the Roots, the Stalks, and Leaves,  
are not on this Occasion taken into Consideration. \_ But when  
any particular Genus is afterwards to he divided into the several  
Species comprehended under it, we must consider the Roots,  
the.Stalks,“and Leaves, and those Plants which either differ in  
all these'three Parts, or only in some of them, are taken to  
belong to different Species. : '

AS in all this the express Design is not exactly to follow or  
imitate Nature, (who, in the Production of Vegetables, seems  
not to have been Very solicitous about a System) but Only to  
establish an arbitrary Plan for facilitating the Knowledge of  
Plants, the Goofiness of any Method invented for this Purpose  
cannot be so properly proV'd by philosophical Reasonings, as by  
the Advantages it brings along with it ; its Clearness and Per-  
spicuity, find the Delight and Satisfaction that may possibly be  
found in it; and upon these Principles we must judge of the  
Sufficiency and Perfection of Mr. *T.oumeforsts* System.

It mute, indeed, he owned, his Plan is not universal, fince  
there are Plants which have neither Flowers, Fruit, nor Seed ;  
at least the Fruit and Seeds are either not at all Visible, without  
the Assistance of a Microscope, or not easily discovered even  
withit; so that we are obliged, without perceiving them,. to  
reason analogically for thein real Existence.

Now in an Affair of this Nature, 'tis necessary there should  
he evident and uncontroverted Characteristics subjected to the  
Eye. And the Assistance of the Microscope is not in this Cafe  
admitted, and much less the most plausible and solid Hypothesis.  
Mr. *Tournefort* is therefore reduced to a Necessity of distributing  
these Rants into separate Genuses, which he regulates and fixes  
by their most remarkable Parts. And as these Genuses are only  
very few in Number, they make, if I may so speak, but a very  
inconsiderable Chasm in the Universality of Mr. *Tourneforfs*Plan, which, however, is more extensive and general than any  
other that could have been thought os.

Sometimes also, when the Flowers and Fruits taken in Con-  
junction are not sufficient for fixing the Genus, he calis in to  
his Assistance not only the Roots, or the Stalks, or the -Leaves,  
but also, if there is a Necessity for it, some of their most obvi-  
ous and sensible Properties, such as its manner of growing, or  
what Botanists call the Ρργί *Of α Plant* ; that is, its general

Conformation, Or what strikes the Eye immediately upon its  
heing presented ; for fince, in this Case, there is not a natural  
System whose Rules would he unexceptionable, we must rest  
contented with an artificial one, as perfect and complete as Di-  
ligence and industry can possibly make it. -

The Distribution of Plants under their Genuses renders it '  
more easy to name them; for they have first thein generical  
and common Name, to which we add another, which deter-  
mines their Species ; so that the very Name of each Plant be- .  
comes a Definition of it.. .It isutrue, as the Botanists, who have,  
gone before Mr. *Toutmofors,* have not had the Genuses of Plants  
at all in their View, or, at least, have not had an Eye to the  
fame Genuses he has establish’d, he is, for this very Reason, -  
often obliged to change the Names which they had affixed to  
particular Plante ; but he carefully mentions the antient Names  
given them by different Botanists, provided their Characters  
were famous enough to deserve his Regard or Attention. And  
if Students in Botany would but habituate and familiarize them-  
selves to the new Names used by Mr. *Tournefort,* they would  
reap the Advantage by it, of knowing more readfly the Genuses  
and Species of Plants in a System, which seems excellently cal-  
culated for the. Advancement and Improvement of Botany.

Some Plants lately discover’d, have, as it were, of their own  
accord, rang'd themselves under certain Genuses,-already esta-  
blished by Mr. *Tournefort* ; and when others shall be discover’d,  
which, in Consequence of their Flowers and Fruits, shall call  
for new Genuses, we have no more to do than to establish  
them. . . . . - -

**s** Mr. *Tournefort,* in his Institutions, has reduced the Whole  
to aheut six hundred and seventy-three Genuses, which compre-  
hend-more than eight thousand eight hundred and forty-fix Spe-  
' cies, including all Land and Sea Plants hitherto known; so  
. that at present we know more Genuses of Plants, than *Dioscit..*

*rides* did different Plants.

But as the Memory would be very much burden'd with six  
hundred and seventy-three Genuses, whose different Character-  
istics must necessarily be known ; and as the Number os those  
Genuses must undoubtedly be increased in Process of Time ;  
Mr. *Tournefort* sound out a happy Expedient for rendering thin  
Talk considerably more easy, by reducing the several Genuses  
to Classes ; and the is the first of all the Botanists who formed  
*so* noble and useful a Design. In order to establish his Classes,  
he only considered the Flowers of Plants, if they had any, as  
indeed most of them have. He determines all the known Fi-  
gures of the Flowers of Plants; and . finds them to be only four-.  
teen in Number, which of Consequence must only produce  
fourteen Classes, if their Number was not augmented by those  
Plants which have no Flower, and by the Distinction which it  
was necessary to make hetween Herbs or Suffrutices *{Under-  
scbrubso* and Shrubs or Trees, the Difference of whose Bulks has  
render'd it improper to range them under the same Class, tho'  
the Flower in heth should he alike. But notwithstanding these  
Augmentations, the Whole of Mr. *Tourneforgis* Plan in his \*  
*Botanical Institutions* is comprehended under no more than '  
twenty-two Classes.

It is then sufficient to retain in the Memory fourteen Figures  
of Flowers ; and when we see the Flower of a Plant which we  
do not know, we may find in the Institutions to what Class it'  
properly belongs. - Some Days after the Flower, the Fruit will  
appear, which gives the Genus; and all the other Parts of the  
Plant will determine the Species. If the unknown Plant is not  
in Flower, we must wait till it appears, before we can pro-  
nounce certainly and infallibly.

Mr. *Tournefort* has regulated his Classes by the Flowers,  
rather than by the Fruits of Plants; because when we see **the**Flower appear, we have but a short Time to wait hesore we  
see the Fruit, and thus determine the Genus; whereas, when  
we see Only the Fruit, we must wait till the ensuing Year, he-  
fore we can have an Opportunity of Viewing the Flower.

Upon this Plan all the Difficulties of Botany are render'd as  
easy to be surmounted, as the Nature of the Thing can possibly  
admit of; and that prodigious Number of Plants, which not  
only adorn the Surface of our Glohe, bur also those which Vege-  
rate in the Bottom of the Ocean, are reduc'd to so narrow  
Bounds, as to be easily retained by the Memory, without in  
the least distracting the Imagination. But all this is no more  
than the first Institutions, and, as it were, the Out-lines of  
Botany ; for the Knowledge of the Virtues of Plants, which is  
the most important Part of the Science, is a Field of a vast and  
unlimited Extent; but 'tis still more spacious and extensive,  
if" to their real inherent Virtues we join these ascribed to  
them by .the Whim, the Ignorance, or Caprice, os different  
Authors, ss ' ’

Mr. *Tournefort,* in his History of tho Plants produc'd about  
*Paris,* has already given an Essay on the Manner of explaining  
the Virtues and Uses of Plants ; and has proposed some new-  
Hints founded On the most solid Principles of Physic. See  
**ANALYSIS. ' - .**

**Mr.** *Tournofsri* thus distinguishes Plants into their proper \_  
Classes. \_ -

**CL** Ass L comprehends

Heths and UnderfhrubS with monopetalous, campaniform  
' Flowers.. 7

**CLAES** IL ’’ -

Herbs and Undershrubs with monopetalous, insundibulifonn,  
and rotated Flowers.

**CLASS** HL

Herbs and IJndershrubs with monopetalous, anomalous  
Flowers. ‘ ’

CLAss ss. -

\_ Herbs and Undershrubs with monopetalous, labiated  
Flowers. - . -

**- ‘ CLASS V.**

Herbs and Undershrubs with polypetalous, cruciform  
Flowers: . ; "

Y ss . **CLASS** VL

Herbs and Undershrubs with, polypetalous, rosaceous  
Flowers. -

CsiAss VII.

Herbs and Undershrubs with polypetalous, rofaceous, umhel-  
lated Flowers.

**CL** as s VUL. -  
, Herbs and Undershrubs with polypetalous, caryophyllated  
Flowers.

**ἐν CLASS** IX.

Herbs and Undershrnbs with. liliaceous Flowers.

Class **X.**

Herbs and Undershrubs with polypetalous, papilionaceous  
Flowers.

**CL-ASs** XL

Herbs and Undershrubs with polypetalous, anomalous  
Flowers. ... ' .

**CL** *.Ass XII. ,*

*Herbs* and Undershrubs with flosculous Flowers.

]

-CLAts XIII.

Herbs and Undermiubs with, semistosculous Flowers. (

**CLASS** *XIV.* **i**

Heths and Undershrubs with radiated Flowers.

**,, CLASS** XV.

Herbs and Undershrubs, with, apetalous, or stamineous  
Flowers.

CLAss XVL, .

Herbs and UnderfhrubS which have Seeds, but no Flowers. ;

CLAss XVII.,

Herbs and Undershrubs. which have no conspicuous Flowers  
- or. Fruit. ,

**CL** As s XVIIL

Trees and Shrubs, with apetalous Flowers.

**- - - - CL Ass.** XIX.

Trees and Shrubs with apetalous, amentaceous Flowers.

CLAss XX.

Trees and Shrubs with monopetalous Flowers.

**CL Ass** XXI.

Trees and Shrubs with rosaceous Flowers.

CLA&s. XXIL.

Trees and Shrubs with papilionaceous Flowers.

s Those who are desirous of being acquainted with the farther-  
Divisions of. Plants. made by *Toumefort* into Genera and Spe-  
cies, I must refer to his *Rei Herbariae institutiones s for,* to spe-  
cify these, would be to transcribe the Book.. . -

*Tournefore* had for an Antagonist the celebrated Mr. *John  
Pay,* an *Engliseman,* hern in *Black Natly,* an obscure Village  
of *Essex,* in the Year 1628. Though *Rases* Father was only  
a Blacksmith, the sent bain to *Cambridge* for the Advantages of  
a liberal Education. Among the several Branches of Learning  
taught at this University, *Ray* was principally captivated with

. Phytoingy, by the Love of which he was prompted to range  
nor ouly the Fields about *Cambridge,* but also the whole County  
in which in lies, in Quest of Plants, a Catalogue of which he  
publish’d as a happy Earnest of the sutore Advances he was to  
make in Botany. In I66I. he enter’d into Holy Orders; and  
in I 673. he married *Margaret,* one of the Daughters of Mr.  
*Jobn Cakley, of Launtcm in Qofardseire ,* and hetwixt I648.  
and the Time of his Marriage, he undertook several Journeys  
through ass the Parts of *England, Scatland,* and *Ireland,* with  
a View to become acquainted with the Natural History of these  
Countries. Nor did he coniine the Scene-of his Studies to  
these Countries alone; for he travell’d through *Holland,  
Germany, deals,* and *France,* as a Companion to Mr. *Wile  
leughby,* an *Englise* Gentleman of Note, who was very fond  
of Natural Knowledge. These Travels laid a Foundation sor  
his compiling a Synopsis of the *Englise,* and another of the  
*European* Plants. But as his Travels had contributed nothing  
to the bettering of his private Circumstances, and only pro-  
cured him the Honour of heing created a Fellow of the Ravel

: Society, after having passed sout Years in *Wotrwickseire,* the  
retired along with his Wife to his native Country, where, being-  
content with a little, an Annuity of sixty Pounds a Year left  
him by-Mr. *Willoughby,* in I672. being most of his Fortune,  
he made it his only Business to enrich Botany with his Observa-  
tions, by comparing which withthe Histories-of *JobnBauhine,*and *Carolus Clastus,* he form’d his METHOD, which wasfal-  
lowed by a general History of Plants, wrote in an elegant and  
modest Style, and reduced to a more natural Order than any  
Work of the Kind before published. He was so much assisting  
to his Patron *Francis Willoughby,* who was then compiling a  
History of Birds and Fishes, thet almost the whole Work may  
be faid to be his. He also prepared for the Press a *Method of  
Insects-,* but being spent partly by running Ulcers in his Legs,  
and partly by Old Age, he at last died in the Year 1705.

MI. *Rases* System of Botany differs much from that of Mr.  
*Taumefort.* According to the last Edition of his *Synopses Me-  
thodica Stirpium. Britanni carum,* in which some Improvements  
have been made by the Editor, it coosifts in a Division of Plants  
into twenty-eight different Genera.- "

Under the first are contain’d the various Kinds of Fungi,  
which are divided into,

I. *Fungi Pileati et Lamellaci,* thet is. Fungi which hevea ’  
Head or Cap, the inferior Substance of which is diviced into  
Lamellae or Plates. - - - -,

IL *Fungi Pileati lamellis carentes.* Fungi which have a Cap  
or Head, but which are not lamellaced. -

HL *Fungi Pileis destituti.* Fungi which are destituto of a  
Cap or Head. Thefe again are subdivided into,

*i. Fungoides. .- '-*

2. *Pevivae.*

3. *Agarics,* Agarics: .. - \_

4. *Fungi pulverulenti.* Puff-balls.

5. *Fungi-subterranei,* subterraneous Fungi, such as Truffles.

The second Genus contains submarine Plants, or Plants which  
grow in the Sea. These are dividedinto, .7

L *Spongia,* Sponges. '  
*11. Aleyonia. - . . - .*

HL *Esehara. e .*

IV. *Corallia,* Corals.

V. *Lithophyta,* Lithophytes.

VL *Carallinae,* Corallines, which are subdivided into’,  
i. *Carallinae per Garnphastn articulatae.* Corallines articulated:  
*by-Gornphastfii . — - .. ; : .*

a. *Ccrallina vel denticulatim divifa, vel Capillamentis-  
Pilijve obestita.* Corallines either indented, or thiclo set with  
Capillarnents *or* Hairs.

VIE *Fucoides. " - - i '*

VIII. *Fuci.* These are subdivided into, : . - ..

I. *Fuci non rornasc,* the Fuci without Branches.

2. *Fuci ramose,* the branchedEnch

*IX. Alga.* j ' δ᾽ ; ἰ "

Under the third Genus are comprehended the various Sorts of  
Mosses, divided into,

L *Bysse, . - - ' '*

H. *Conferva,* subdivided.into. . . . 1

*I. Conferva simplices, er aequabili Filapretenses,* simple Con.  
servae, shooting out.wish even Threads.

2. *Conserva geniculatae,* geniculated or jointed Confervae.

3. *Conferva nadefae,* knotted Conservae.  
HL *Ulva. si '* . . ί ....

TV. *Lichenoides,* subdivided into, " , . . -

I. *Lichensides caulifora,* the Stallc-bearing Lichenoides.

2. *Lichenoides cauliculis- destituta,* the Lichenoides without  
Stalks. *- ε so.. ..*

V. *Mnia,* subdivided into,

I. *Mnicrs capprilisineadern Planta consuoctisi-Gsu^-lumdeapi*Mhion. ..

*2. Mntisn capitulis tota planta remotis,* soatter-hceded Mdioin  
VI. *Fontinales.*

VIL *Hiypesa,* subdivided into,

I. *Hypnum capitulis erectis, vel paulum saltem inclinatis.*Hypnum with upright or very little inclining Heads.

2. *Hypnum unicum capitalis rofleviv,* the single Hypnurn with  
Heads bending backwards.

VIII. *Palytricha,* stibdividedinto,

' I, *Polytrichurn capsula quadrangulari.* Poly trichum with  
-the quadrangular Seed-vessel. ι --

5 a. *Polytrichum capsula subrotundae,* Polytrichum with the  
roundish Seed-vessel. - ' ’

IX. *Prya,* subdivided into, '

I. *Bryan capitulis ereuris,* the Bryon'whth upright Heads.

*i. Bryon capitulis reestescis,.* the Bryon with Heads bending  
backwards.-

- X. *Sphagna. . -*

XL - *Selaginei.*

XIE *Selaginoidei-.*

X-IIL *Lycopodia.*

- XIV. *Eycopodididat. \_ - .*

XV. *Etchenaserae,* subdivided into;

*. I. Li chinastrum capitulis bifariam seapirientibui,* Lichena-  
strotn with Heads that cleave in two.

2. *Lichenastrunr capitulis in quatuor segmenta ficrida tan-  
quant tut idem petala fe aperientibus,* Lichenastrirm with Heads  
thet open into four florid Segments like Petals.

XVI. *Lichenes,* subdivided into, \*

- i. *Lichen pileatus,* Lichen with a-Cap.

2. *Lichen stellatus,* starry Lichen.

3. *Lichenes aut Lichenastra dubia dua,* two dubious sorts of  
Lichen or Lichenastrutn:

The fourth Gesus contains the capillary Plants, with such  
others as-nearlytesemble them. Theseare divided into those,

L *Foliis integris et indivisa,* such as have their Leaves whole  
and undivided. - ,

II. *Foliis laciniatic ant pinnatis,* those with jagged of pin-  
riated Leaves, , ’, - ’ ‘.

III. *Hierba capillares foliis semel divests,* capillary Herbs,  
with Leaves once divided.

IV. *Hierbacapillares foliis bir subdivists, sea ramascs, majdur*lary Herbs, with Leaves twice subdivided or branch’d.

**V.** *Herbae capillaribus affines.* Herbs that have a near Rela-  
tion or Resemblance to the capillary Genus. These *Ray* distri-  
butes into, χ τ ' ‘.

I. *Ophiogisyscimc* Adder’s-tongne. \_ -

a. *Lunaria minor.* Ger. et'Park. Moohwort. i'

3. *Lattes palustres, cujus tres speciesyecexsei,* three Species of  
Water-lentils: .

4. *Equisetum, cujus duodecim recensu species,* twelve Species  
of Equisetum or Horse-tall.

5. *Chora quinque Species,* five Species of Chara..

’ Under the ‘fifth Genus *Pay* comprehends chore Herbs which  
bear an imperfecti or stamineous, or rather an apetalous Flower.  
These are divided into,

**I:** *Hirbae store imperfects sue: apetalb staminibus cure ate.*Herbs than bear an imperfecti or apetalous Flower without  
Stamina:

Π. *Hierba store apetpla,. Jlaminib'us dmioti,* Herbs with an  
apetalous Flower, andinnulhid with Staminal These are sob-  
divided into, ... . .J- S.. .......... λ .... .W

I. *Calyce vel nullo Isecundum TovinvivTtiumajvel mmophyllo  
et indivise,* these with no Calyx, ar FIower-cup, (according to  
*Tournefortj* ot aCalyx'coosisting.only of one" undivided Leaf.

2. *Calyce donata in plants lacinias divise,* those’which' heve  
the Calyx jagged in several' Places. To this Division belong;  
(I.) *Flare αseminesejuncta,, vel totis'plantis, quasexti differre  
dicuntur, vel'in eadem,* those which have their Flower separate  
from their Seed, and that'either in distinit Plants, which sort  
are said to differin Sex, or in thrnfame Plant, (a.) *Hirtfastore  
imperfecto, quorumseminastoribns contigua,, et triquetra.* Herbs  
with an imperfect Flower, whose Seeds are contiguous to their  
Flowers, and of a triangular Figure. (3.) *Hierba sure imper-  
sects,.structui contiguo, seminibus rotundis.* Herbs with an ini..  
perfea Flower, contiguous to the Emit, which is of a round  
Figure. . . . ’'' '

The sixth Genus comprehends all such Herbs as bear a full  
composite Flower, and afford.a lacteous or milky; Juice; Το  
this Genus belong,

I. *Hierba semine-pappose.* Herbs with a pappous or downy  
Seed.

II: *Hirbastcre-planifolis, natura plant, lactescentes seminia  
bus selidis, sea store e stefculis irregularibus tantum ’ csmpostts.*Herbs with a full plain-leaf’d Flower, and affording a milky  
juice, with solid Seeds ; , or Herbs whofe Flower consists only  
of irregular Floscules. !

The seventh Genus contains Herbs which are furnish’d with  
a composite discous Flower; a downy Seed, but yield no ladle-  
ous Juice.

The eighth Genus contains such Herbs as bear a composite  
diseous Flower, with Seeds void of Down, and are call’d corym-  
biferous (cluster-bearing).

To these he adds the *Hirbae corymbiferis asiines,* such Herbs  
as bear a near Resemblance to the corymbiserous, which are  
some Species *όί the Scabiosa* and *Dipfdcus. .*

Under the ninth he- comprehends Herbs whose Flower con.»  
fists of fistular Floscilles, or capitated Herbs.

The ninth Genus comprises Herbs bearing a perfecti simple  
Flower, with naked solitary Seeds; of a single Seed rd each  
Flower.

. The. eleventh includes umbelliferous-HethrL.Or such aSafe  
sinnishw with aii Vmbella’; mid these are divided into, .

. I. *Umbelliserae semine lata cersesirejse, seu foliaceo, aui ala  
foliacea cincta,* umbelliferous Herbs with a broad flat Seed,, or a  
foliaceous Seed, or one surrounded with a foliaceous Border.

II. *Umbelliserae semrne et tumidiore et longiore,* umbelliferous  
Herbs-with a long, plump Seed. \_ ....

*TH. Umbelliserae femine breviori,* umbelliferous Herbs with

a short Seed! /

IV: *Umbelliserae radice tuberose,* umbelliferous Herbs with  
a tuberous Root. s

V. *Umbelliserae semine striata minore,* umbelliferous Herbs  
with a sinall striated Seed.

VL *Umbelliserae semine hirsuto, hispida, aut echinato,* urn-  
belllferous Heths, with hair}., bristly, of prickly Seed:

VII. *Umibelliferae folia 'integris,* umbelliferous Herbs with  
entire Leaves: - ,.

The twelfth .contains stellated Herbs,, that is, fucti as have  
their Stalk surrounded, at Inter vals,- with Leaves imitating **the**irradiation of- a Star.

Under the thirteenth are comprehended the *Herbae asperis,  
folia,* or Herbs which hear a rough Least.

The fourteenth comprises the verticiliated *Sustrutices.* (or  
*Dnderserdbri* and Herbs.- ' . . . .

Under the fifteenth, are contain’d polyspennous *(where more  
than four Seesis succeed to each Flvivery.* Herbs with naked  
Seed. - .'

- The sixteenth contains bacciferous or Berry-hearing Herbs.

The seventeenth includes Pod-hearing: orcomiculated Herbs,  
that is, such as for every Flower produce a Pod. . .

.. Under the eighteenth .are comprehended: such Herbs as bear  
a single dry Fruit without -'a monopetaIous Flower: These  
are divided, with respect to their Flower, into such as are  
furnish’d,

I. *Flore regulari,* with a regular Flower; and these are sub-  
divided, , - . ', ’

I. *Flore integra, aut minus profunde divise,* such as have  
the'rrTlower'enure, or with very shallow Divisions.

a. *Flere tftrapitalum rofaresite, seu tetrapitaloide,* those  
with a tetrapetalous or sour-leav’d Flower:

3i *Flerespentapri'alcide,* with a' pentapetalous or sive-leav?d  
Flower. Of this Species there are (I.) *Unecapfulares,* those  
with one Sced-vessel, or unicapsolar; (2.) *Bicapsalares,* the  
blcapiular, or'these'with two Seed-veffelsf and' (3:). *Multi-,  
capsulares,* the inulticapfular, or those with many Seed-vessel..

II: *Flore irregulari.* Herbs with an irregular Flower:

The nineteentlf arid iwentlethGenera consist ofvasoullserous  
Herbs, with a dipetalous and’tripetalousTlower.

The twenty-first, contains tetrapetalous Herbs, divided into  
the, '/

L *Siliquofae,,* those with large Pods,- or *Siliqua',*

IL *Siliciilosu,* those'with small Pods, , or Husks, or *Sism  
cula.* Under these he'distinguishes’the *Tetrapetalaeseliculesu  
rnonofpermae,* the tetrapetalous Herbs with a-small Pod, con-  
taining ohly/oise Seed . ' - '

The rwenty-shconil ‘includes vashuliferotis Herbs of ah ano-  
jmalous Kind, with’ a tetrapetalous Flower.

Under' the twenty-third Genus are- comprehended Herbs 1  
whichbear a papilionaceous-Flower, or leguminous Herbs. These  
are divided into.

**I.** *Papthonacees, seu legumtnojcs scandentes,* papilionaceous  
or leguminous, scandent, or climbing Herbs.

II. *Papilionaceee feu leguminoism non trifoliate?, Claviculis  
carentes,* papilionaceous or leguminous Herbs, not three-leav’d,  
and without Tendrils. . ... ...

- IIL *Hirbce papilionaceo Flore, sou leguminofa tris.oliaia,*three-leav'd leguminous Heths, or Herbs with a papilionaceous  
Flower. . .... }

The twenty-fourth Genus contains vasculiferous pentapeta-  
IouS Herbs, divided into,

I. *Pentapetalae Foliis in Caule ex adverse bints,* pentapetalous  
Herbs with Leaves on the Stalk, standing opposite in Pairs,

II. *Pentapetalae Foliis in Caule alterno aut nulla Ordine po-  
stses,* pentapetalous. Herbs, whose Leaves stand on their Stalk  
alternately, or in no regular Order. These are subdivided into, .  
**- i.** *Flore regulari,* those with a regular Flower.

**2.** *Flore irregulari,* those with an irregular Flower.

' The\* twenty-fifth Genus Contains Vaseuliferous, hexapeta-  
lous, and polypetalous Heths.

? The twenty-sixth comprises such Herbs as have a bulbous  
Root, and such as are akin to bulbous Herbs.

.... \* ... a’ ’.

Under the twenty-seventh we have the culmiserous Grass-  
leav’d Herbs with an imperfect Flower. Under this Genus are  
comprehended, . '

L *Calmisercs Grano may ore. Frumentacea ei Cerealia dicta,*culmiserous Herbs with a large Grain, such as the frumenta-  
ceons, or those Kinds of which Bread is made.

II. *Culmifercs Grano minore. Gramina dicta,* culmiserous  
Heths with a small Grain, call’d Grasses. These are subdi-  
.vided into,

i. *Graminafpicata.* Grasses bearing a Spike Or Eat.

**2.** *Gramina paniculata,* paniculated Grasses. And these are  
(I.), such aS have a simple Locusts, or Hush; and (2.) such  
as have a squamous one. These again are either *muiicee,* such  
as have their Locusta without a-Beard ; Or *aristatie,* such as  
have it bearded. 1 .

The twenty-eighth and last Genus contains the graminifo-  
lions or Grass-leav’d Herbs, with an imperfect or stamineous  
Flower. This may be divided into,

I. *Gramen Cypercedes polystacheon,* the Cyperoidal Grass with  
many Ears.. .

IL *Gramina Cyperoidea cum Spicis in summo caule, quemsipica  
epaleacea non terminat,* cyperoidal Grasses with Spikes on the  
Top of the Stalk, which does not terminate in a paleaceous  
Spike. . . -

III. *Cyperi Botanicis dicti,* the Grasses call'd by Botanists  
*Cyperi. . . .*

*IV. Scirpus,* the Rush, subdivided into,.

I. *Scirpi nudi,* naked Rushes.

**2.** *Scirpifoliosi,* leafy Rushes.;

**V.** *Juncus,* the Juncus, subdivided into,

**I.** *Juncus aphyllos,* the Juncus without Leaves.

2. *Juncus foliosus,* the leafy Juncus, with their several  
Species,

To these he subjoins the *Graminiseliae non^culmiferasingula-  
res, et sui Generis,* the Grass-leav'd Herbs, which are not culmi-  
serous, but are singular, and belong to no Genus.

To make this Method more complete, the Trees and Shrubs  
are divided into Genera, with respect to the Difference of their  
Flowers, in the following manner. . ’ . .

The first Genus Comprehends such Trees and Shrubs as have  
their Flowers remote Or separated from their Fruit. Of these  
There are the following Species. su .

*I. Nucifera,* the nuciferous. Or Nut-bearing.

.II. *Conifera,* the coniferous, or Cone-bearing.

HL *Baccifera,* the bacciferous, or Berry-bearing.

IV. *Lantgera,* the lanigerous, or such as produce a woolly  
Substance.

**- V.** *Vasculis foliaceis,* those with foliaceous or leafy Vesseis.

. The second contains those Trees and Shrubs which have their  
Fruit contiguous to a petaloidal Flower. .

These are divided into, so

**' I.** *Arbores et Frutices Flore summo Fructui insidente.* Trees  
and Shrubs which have their Flower resting on the Top of their  
Fruit ; such are the pomiferous and bacciferous Species, which  
produce a great or small moist umbilicated Fruit.

II. *Arbores quarum Flos Basi Fructus, sou imo Fructui coha.,  
aret, et primo Fructu pir Maturitatem humido.* Trees whose  
Flower adheres to the Base or Bottom of the Fruit, which, as it  
ripens, turns to a humin Substance, These are subdivided into.

I. *Prunsisera,* the prnniserous, on .Plum-bearing.

2. *Bacctsera,* the bacciferous, or Berry-bearing.

III. *Arbores Flore imo Fructui adnascence, Fructupcr Matu-  
ritatemsicco.* Trees whose Flower grows to the Bottom os the  
Fruit, which grows dry aS it ripens. ' s

There ase some very considerable Botanists, who, the' they  
have been an Honour to their Country, and a Blessing to Man-  
kind, are, however, not mention’d in the foregoing Account.  
Among these, the first who occurs is *Carolus Plumicr.* He was  
born at *Marseilles* in 1646. and was contemporary with *Tour-  
nesori.*.' Thod he was descended of an obscure Family, yet he  
soon became conspicuous, not only on account os ins Mecha-  
Ideal and Botanical Observations, but also on account os the an-  
nexed Figures, delineated and engraved by his own Hand. Be-  
sides his happy Turn for Mathematics and Mechanics, he was  
an industrious and skilful Botanist. He presented his first La-:  
hours of this kind to *Lewis* the Fourteenth, who, as a Reward  
for his growing Merit, gave him at once the Title and the Sa-  
lary of King's Botanist. Besides his Descriptions of *American*Plants, his History of Ferns,, and his establishing some new  
Genuses, there are several otherWorks, wrotewith his ownHand,  
which are preserved in the Libraries of the Royal Academy, and,  
that belonging to the Monastery of the .Justus in *Parti.* These  
Works contain not only the Figures and Descriptions of about  
nine hundred *American* Plants, but also the History of a great  
Variety of Birds, Fishes, Shells, and Insects, which he had.  
sech, and whose Figures he had drawn in *America.* Whilst he  
intended a Voyage to *Peru,* in order to discover something more  
concerning the famous *Peruvian* Bark, he was seized with a  
Pleurisy, of which he died in the sixtieth Year os his Age,  
in 1704. x ......

The Merit of *Samuel Doody* may be Judg’d of by the Speci-  
mens of his Botanical Observations, given in *Basis* History of  
Plants. He was born in the County os *Stafford,* and, by his  
Diligence, Industry, and Sagacity, soon distinguish'd himself  
among the Apothecaries of *London* ; by whom, on account os  
his Skill in Natural History and Botany, he was made Master  
and Protector of their Garden at *Chelsea. Ray* ingenuouby  
confesses, that he borrow'd a great many things from him. He  
was a diligent Inquirer into the Natures of Mosses, capillary  
Herbs, Fucuses, and Corals ; so that Botany and Natural  
History sustain'd a very considerable Loss by his Death in 1706.

Of those celebrated Botanists who have died fince the Days  
os *T.ougrnefort, Petrus Hotto* is the first. He was born at *Am-  
sterdam* in I648. Aster he had taken the Degree of Doctor of.  
Physic in the University of *Leyden,* he declin'd Practice,  
that he might pursue the Study of Botany to the greater Advan-  
tage. With this View he travell'd into *Denmark,* in order to  
make Observations on the Plants os that Kingdom. But he was  
recall'd thence by the Magistrates of *Leyden,* in order to read  
Lectures for *Herman,* who was appointed to go to the *Indies  
to make* Observations on exotic Plants; and he had the Promise  
of this Professor's Place, if he should happen to die in his  
Voyage. Dining *Herman’s* Absence he taught with great Ap-  
plause. *Harman,* upon .his Return, resum'd his Place ; but,  
after his Death, *Hotto* succeeded him in 1695.

Besides his elegant Oration *de Historia et Fatis Botanices,*deliver'd that same Year, he endeavour’d a Reconciliation of  
.the Methods of *Tournefort* and *Horman* ; but his Death, in  
I 7 O9. put a fatal Stop to the Execution of so useful a Design.

Among all the Botanists produc'd by the present Age, none  
is more justly celebrated, than Dr. *Sherard,* who had his Edu-  
cation begun at *Merchant-taylors School,* and afterwards became  
a Fellow of *St. Juhrfs College, Oxford.* His Learning, toge-  
ther with his other Qualifications, procur'd him an Opportunity  
of travelling with two Noblemen at different times; during  
which he visited many Countries of *Europe,* in which he was a  
diligent Observer of the Plants produc’d by each. Upon inis  
Return to his native Country, he was created Consul of *Smyrna,*which gave him an Opportunity of viewing the *Asiatic* Plants,  
At his Death he left three thousand Pounds to the Physic-garden  
at *Oxford.* He was much admir'd by *Boerhaave,* who also  
makes honourable Mention of his Brother *fames Sherard,* as an  
accurate and curious Botanist.

Mr. *Isaac Rand,* Dr. *Martyn,* Dr. *Dillenius,* and Mr.  
*Miller,* are so famin for their Knowledge of Botanical Subjects,  
that, to name them, is to praise them.

It would be doing a Piece of Injustice, not to make honour-  
able Mention of the following Gentlemen, Messieurs *Buddle,  
Lawfon, Lhwyd, Newton, Stonestreet, Dubois, Dale, Man-,  
ningham,* and *Richardson.*

I must add, that Sir *Hans Sloane,* by his Skill, Industry,  
and Munificence, has greatly contributed to the Perfection of  
Botany, and laid a Foundation for its farther Improvement.

The last Author I, shall mention, who has lent his friendly  
Aid to the Improvement of *Botany,* is the justly celebrated  
*Bocrhaave* ; and, indeed, by his Performances of this kind, he  
has, at once, oblig'd the World, and prov'd the Force and Ex-  
. tent of his own Genius ; fora as his Aphorisms and Institutions

discover the sagacious and discerning Physician,' and his Chy-  
mistry the fitiltul Natural Philosopher and Chymist ; so las Bo-  
tanical Productions pronounce him an accurate, a diligent, and  
penetrating Botanist. The', by the surprising Degrees of Per-  
fection, at which this Author arriv'd in other Branches ofLearn-  
ing, one would be tempted to suspect, that he had too small a  
Portion os Time lest for. making any considerable Advancements  
in the Knowledge of Plants ; yet, when his judicious Divisions  
and Distributions of them home to be perus'd, we are inclin’d to  
think he had employ'd the Whole of his: Life in the Study of  
Botany.

In 17IO. the Year after he was made Professor of Botany,  
he publish’d, in one *Octavo* Volume, an Index of the Plants  
with winch the Physic-garden at *Leyden* was then stor'd. This  
Work, tho' perhaps the most perfect of its kind the World had  
ever seen, began by degrees to be look'd upon aS very imperfect  
in its Author’s Eyes ; tor his Impartiality, join'd with the fupe-  
rior Strength of hts Judgment, enabled bun to discover Blemishes  
in his own Productions, which escap'd tire Eyes of all, except  
the happy Few, who are bless'd with a discerning Judgment. He  
had us'd *new* Names to *old* Plants; and, as he became sensible,  
that no Circumstance had a more evident Tendency to create  
Confusion and Disorder in Botany, he was resolv'd to rectify  
this Mistake, which was, perhaps, adverted to by few except  
himself. Accordingly, in I72O. he presented the World with  
a second Index, in two *squarto* Volumes, to which he has pre-  
fix'd a new and large Preface, with a Plan, and short History, of  
the Physic-garden. In the Preface to this Work, he affords us  
an Instance of that disinterested Candour, and noble Humility  
of Soul, which is, at once, the peculiar Glory, *of* human  
Nature, and the distinguishing Badge of every Mind that is  
truly *great.* .It is customary sor Men to be blind to the Imper-  
fections os their inental, *as* well as of their natural Offspring r  
Indulgent Fathers, and tender Mothers, are not fonder of their  
vicious, deform'd, and ill-dispos'd Children, than some Authors  
. are of their own Productions, however lame, monstrous, inco-  
. herent, and absurd. How sar the incomparable *Boerhaave* was  
remov'd from this Weakness, so destructive of the true in-  
terests of Truth, the Reader may judge from the following  
Tranflation ofhis own Words in the above-mention'd Preface.

"In this Edition I heve endeavour’d to avoid the Innovation  
" of Names, aS much as the Nature of the Thing would possi-  
" bly allow, in my former Index I transgressed against this  
" fundamental Law, by imposing new Names upon Plants,  
" which were long ago much better known by other Deno-  
" Initiations. I ingenuoufly confess my Error, and am heartily  
" sorry for Iny Fault. The Hurry in which the Work was  
" compil'd, and my Mind not heing employ'd on Botanical Sub-  
" Jocts for a great while hefore, laid : a satai Foundation sor my  
" Error, which I now endeavour to amend ; and the. few  
" Transgressions of this kind, which are found in the present  
An Performance, will, I hope, be pardon’d by such as have any  
" tolerable Share of Goodness, or a sympathizing Sense of the  
" Frailties to which Mankind is unavoidably subjected. But I  
" am of Opinion, that nothing more fatal can hesal Botany,  
." than that every Author should, without any Necessity, and  
" with no other View than the Gratification of his own Ca-  
" price, impose new Names on Plants which were before accu-  
" rarely describ'd, and properly denominated."

.. Nothing paints .a truly great.Man in Colours that strike the  
Dyes, of the discerning Mind with more Energy, and captivating  
Force, than a Confessioriofhis Weakness from his own Mouth.  
He did hot use the low and difingenuous Arts of Detraction and  
Obloquy, in order to establish his own Fame as a Botanist ; for  
his History of his Predecessors is one continu'd Strain of Praife  
and Approbation. Men who want Merit themselves, are only  
fond of stripping others Of theirs, and raifinga short-lined Cha-  
racter upon the Ruins os real and uncontested Worth.

: His Industry, and conscientious Discharge of the Office with  
which he was entrusted, appears from this Circumstance, that,  
in the Space of ten Years, the Time between the Publication of  
his first and second Indexes, he had enrich'd the Physic-garden  
with double the Number of Plants it formerly contain'd. But  
this was- not all; he discover'd a fine Taste by the happy Choice  
he made, of them, and the beautiful and regular Order into  
.which he dispos'd them: And, as they were rang'd with a refin'd  
Tastesiso they, were cultivated with the nicest Judgment; for  
it must not be forgot, that all this Variety of delicate and tender  
Plants, under *Eoerhaavfs* Management, acquir'd a sar. greater  
Strength and Vigour, than the same Plants generally do under  
the Care and Conduct of other Botanists.

in the Conduct of his Botanical Works, he has discover'd a  
Mind oped to Truth, and entirely free from that base and ser-  
vile Attachment to *Names* and *Authority,* which has, in all  
Ages, prov’d the Bane of Learning and good Sense. He had a  
Judgment of his own, and bravely dat'd to use it. He follow'd  
Truth where-ever she led him, and did not, like some of his  
Predecessors, blindly follow .the Methods of *Rast* and *Morison,*but selected, from a Variety of Authors, fuch Materials as were  
proper for forming a hetter and less exceptionable System 5 and

where he found these defective, he added what he thought pro-  
per ofhis own. *Lirnaus, R* competent Judge of these Matters,  
affirms that he has form’d his *Genera Plantarum* in the most  
judicious manner ; fince he was the first of all the Botanists who  
call'd in to his Assistance all the Pans of Plants which concur  
to Fructification, and gave so accurate and minute a Description  
of them, as to render the Arts of Sculpture and Colouring al-  
most entirely useless. *John Baubine, Morison, Tournefort,* and  
some others, tho' justly celebrated for enlarging the Catalogue  
of Plants, and classing them more judicioufly than their Prede-  
cessors had done, yet added a fresh Load to Botany, hefore too  
burdensome to the Memory, bjv fixing new-coin’d Names to  
such Plants aS were accurately enough described under old ones  
full as proper. This Misfortune made *Boerhaave* wait impatient-  
ly for the Publication of the *Pinax,* expected from Consul *She-  
rard,* who, in that Work, design'd to fix the various Names  
given to each Plant, in a manner so correct and accurate, thet  
there should not remain the least Motive or Temptation, for the  
future, to forge any new Appellations. By this means he pro-  
posed to fix a Standard in this Part of Botany, and render it  
immutable and invariable for ever after. But I don't find this  
has ever heen publish’d.

Tho' it is certain the individual Species of Plants never vary  
essentially from themselves, yet it is equally obvious, that, by  
Difference of Soil, Situation, and Culture, they may assume  
**such** a Variety of external Appearances as to deceive anyone,  
who does not, with *Boerhaave,* distinguish them by the Parts of  
Fructification, which never alter. This seems to be the pecu-  
liar Excellency of *Boerhaavels* Method, above all others the  
World has hitherto seem Since Botanists, aster comparing  
Plants thus settled with the Descriptions os Authors, have col-  
lected all the Various Names given by different Authors to each  
Plant ; and fince *Vaillant,* and some others, have furnish’d us  
with exact Descriptions and Delineations os them, according to  
what they really are, in the several Places where they are natu-  
rally produced; and by preserving them complete and entire, by  
means of proper Leaves of Paper, form'd to perfect an *Hirtus  
Siccus,* they have been able to fix the precise Number os Plants  
hitherto known, and to secure the distinct and discriminate  
Knowledge of them to the latest Posterity: This, amongst  
others, is one Advantage, winch we originally owe to the Per-  
fection and Extent *of* Mr. *Boerhaawsts* System. The Publica-  
tion Of his Index, abstracting from its own Perfection, produced  
a Very happy Effect, both with regard to himself, and other  
Botanists, who before were unwilling to communicate Their  
*Duplicates,* without an Assurance, that they should, in return, .  
have their Deficiencies supplied : But when his Index appear'd,  
they perceived he was possess'd of whet they wanted ; a Cir-  
cumstance, from which he was certain of obtaining his Requests  
from them on the Foot of Exchange. Thus the same Plane  
came under the Inspection and Management of different Bota-  
nists, by which means each had an Opportunity of making his  
own Observations on it ; a Circumstance which Tends more to  
the Advancement ofBotany, than perhaps every one is aware of.  
To his Skill in Botany he added the. most extensive and distin-  
guish'd Gratitude ;.-sor in an Oration deliver'd in I73I. on re-  
signing his Professorship, he immortalizes the Names of his Cor-  
respondents ; and, in the warmest Strains os Gratitude, .recites  
the Friendships and Favours of the *Sherards,* Sir *Hans Sloane,*Baron *Bajsund,* and about forty more of different Nations.

\_ Besides, his Botanical Knowledge was not of the barren  
Kind ; for it furnish'd him with new Subjects for Chymical  
Operations, and new Medicines for Use. About seventeen  
Years after the Publication of his Index, he, in this Lectures,  
gave a full Description of the Plants, together with an Account  
of their Virtues ; but he never published these, which ismuch  
**to he** lamented.

I shall now proceed to specify some of the modern Discoveries,  
relative to the Structure and Vegetation of Plants.

*The* **STRUCTURE** *of* **VEGETABLES.**

. in treating this curious Subject, we shall pursue that Method,  
which, as Dr. *Grew* justly observes, is follow'd by Nature her-  
self, in her continued Series of Vegetations, proceeding from  
the Seed sown to the Formation of the .Root,. Trunk, Branch,  
Leaf, Flower, Fruit, and, last of all, to the Seed to he sown  
again'; to every one of which we shall speak in their particular  
Order. . ..... -  
- \_ The Seed of a Plans, then, is that Part by which the Plant is  
propagated, and consistaofan Embryo, with its Coat or Cover,  
winch Embryo contains the whole Plant in Miniature, .and is  
therefore call'd the Gem or Bud, and is rooted in the Placenta  
or Cotyledon ; winch last serves the fame Purposes in Vegetables, '  
as the Secundines, or the Chorion and Amnion, in Animals.

y But tho' the Constitution of the Seed is essentially the same  
in all Vegetables, yet, as some are more convenient for Obser-  
Vation than others, we shall chuse to instance the great Garden-  
bean; which, if we dissect, we shall find cloath’cl with a dou-  
ble Vest or Coat. These, while the Bean is green, are separa-  
ble, and easily distinguish'd ; bus, when it is dry, cleave so close

together, that the Eye, not hesore instructed, will judge them  
but one ; the inner Coat (which is of the most rare Contexture)  
so far shrinking up as to seem only the Roughness of the  
outer.' W . -

At the thick End of the Bean, in the outer Coat, there is a  
very’ small Foramen or Hole, which, in Dissection, is found to  
terminate against the Point of that Part call'd the Radicle, of  
which we shall speak hereafter; and is of that Capacity aS to  
admit a small Wyre, and is most conspicuous in a green Bean.

This Foramen may be observed, not only in the great Gar-  
den-bean, but also in the other Kinds ; in the *French* Bean Very  
plainly, in Pease, Lupines, Vetches, Lentiles, and other Pulse;  
and in many Seeds not reckon'd of this Kindred, as in that of  
Fenugreek, Goats-rue, and others ; -in many of which it is so  
very small, as scarcely, without the Help os Glasses, to he dis-  
cover'd ; and in fome not without cutting off Part of the Seed,  
which otherwise would intercept the Sight.

All‘Seeds which have thick or hard Coats, have the same  
likewise perforated in this or some other manner; and accord-  
ingly, althoI the Coats of such Seeds as are lodged in Shells or  
Stones, being thin, are not Visibly, perforated; yet the Stones  
and Shelis themselves always are.

And for the sake of this Aperture it is, that Acorns, Nuts,  
Beans, Cucumbers, and most other Seeds, are, in their Forma-  
tion, *so placed,* that the Radicle still stands next it, that, upon  
Vegetation, it may have a free and ready Passage into the  
.'Mould. \_ . st. .

*That* this Foramen exists, even in old setting Beans, like-  
wise appears, upon their being soak'd for some time in Water ;  
for then taking them out, and crushing them a little, many  
small Bubbles will alternately arise, and break upon them. And, \*  
indeed, a free Access of the Ain is as absolutely necessary to  
maintain the Principle of Vegetation in the dry Seed, (tho’ in a  
less Degree) as to nourish the Plant when germinated; which  
is well known to the Seedsmen, who find by Experience, that  
all sorts of Seeds are best preserved, if kept in the Pods or Huiks  
wherein they grew, and not shut up too close from the Air.

The outer Coats of the Bean, then, being stripp'd off, the  
proper Seed shews itself, which, as we hesore observed, consists  
os a main Body, Cover, or Cotyledon, and an Embryo, or  
young Plant; which last may also he distinguish'd into two.  
Parts, the Radicle, and the Plume. .

- Now the main Body is not one entire Piece, but is always  
divided lengthwise into two Halves or Lobes, which are both  
Join’d together at the Basis of the Bean. These Lobes, in dry  
Beans, are but difficultiy separated or observed ; but in young  
ones, especially heil’d, they easily flip asunder.

. There are some few Seeds, indeed, which are not divided  
into two Lobes, but more; aS that of Cresses, which have six;  
and some are not at all divided, but entire, aS Corn: Excepting  
.which few, all other Seeds, even the smallest, are divided, like  
. the Bean, into just two Lobes. But in all Seeds whatsoever,  
they perform the same Office to the infant Plant, as the Mem-  
branes, (call’d *Chorion* and *Amnion* by Anatomists) *Placenta* **or***Cotyledons,* cafl'd-the After-birth, do to the Embryos of Ani-  
mals. When the Plant begins to take Root, and receives some  
Nourishment from the Earth, these Lohes, in all except those  
os the Pulse Kind, hecome the Folia Seminalis, or Seed-leaves,  
which still serve to protect the young Plant from injuries; but,  
as soon as it has taken sufficient Root in the Earth to shift for  
itself,' the Plant may he sain to he born; and then these Seed-  
leaves, heing of no farther Use, wither find drop off, like the  
aforesaid Membranes in. Animals,' . et -

Without these Lobes, and somewhat above the thicker End  
of the Bean, stands the Radicle, which' is so call'd, because,  
upon the Vegetation os the Seed,’ it becomes the Root Of the  
Plant. Now this is immediately Visible, upon diVesting the  
Bean of its Coats, and is of a winter Colour, and more glosty,  
than the main Body, especially in a young. Bean.

The next Part to be consider’d in the Plume, which lies in-  
closed in two small Cavities, form'd in the Lobes of the Bean  
for its Reception. Its Colour. comes near to that os the Radi-  
cle, to the Basis of which it is fix'd;; tho" it has quite a  
contrary Germination, that is; towards the thin End of the Bean ;

. and this is that Part, which, in Process os Time,- hecomes the  
Body *or* Trunk ofthe Vegetable. . 's

- It is not, like the Radiole, one entire Body, but is divided at  
its loose End into divers Pieces, all close set together, like Fea-  
thers, in a Bunch, whence it derives its Name ; and these are  
so Very close, that only two or three of the outermost are, at  
first. Visible; but, upon a nice and curious Separation, others  
still more inward may he discover’d ; all which are so many true  
Leaves, already form'd, tho’ not display’d, intended for the said  
Trunk, and folded up with it, as afterwards appears upon the  
sprouting of the Bean. In a *French* Bean the two outermost  
-of these are Very fair and conspicuous ; and in a great Garden-  
bean two Very small Plumes frequendy, if. not always, stand one  
on each Side the great one just now described, from which they  
differ in nothing but the Size. In many Sheds, indeed, nothing  
hut the Trunk is Visible, - without any Leaves; notwithstanding

which these last never sail to exert themselves, after the Seed  
has lain some time in the Ground. The Seed, thus composed,  
is inclosed within two common Membranes, the outer thin, and  
the inner thicker; and one proper, winch we shall call the Cu-  
ticle, which covers heth the Outside and Inside of the Lobes, as.  
also the Radicle and Plume.

But, before we proceed any farther in the Description of **the**different Parts of Plants, it will be highly worth while to take.  
Notice of the great Analogy there is betwixt Plants and Ani-  
mass, in as few Words as may he.

*First,* then, as a Mixture of Male and Female is necessary  
in Animals towards Generation, so it is in Plants, as appears,  
beyond all manner os Contradiction, by a great Number of Ex-  
periments.

Again, as the first perceivable Effect of the Mixture of Sexes,  
in Animals, is the Production os an Egg, which is deposited in  
the Matrix or Womb of the Female Parent; or else laid in a  
Nest, to be hatch'd by the Heat of the Mother's Body; or per-  
haps conceal'd by the Parent in some proper Place, in order to  
be brought to Perfection by the Heat os the Sun : It is just the.  
same in Plants, where the first effect of the Mixture of Sexes  
is the Production of a Seed, which may Very properly he call'd  
the Egg of the Plant; which, when deposited in the Earth, aS a  
proper Matrix orWomb, is, in its Season, as it were, hatch'd by  
the Heat of the Sun, and becomes a Plant of the same Species,  
as its Parent. .

The Embryo of Animais, whilst in the Egg, is inclosed in  
Membranes, and is nourish’d by a Juice contain'd in the Egg,  
which it receives by means of a Navel-string, or something that  
performs the Office thereof; heing first collected by a Congee  
tries or great Number Of Vessels, which is call'd the Placenta,  
or, in some Animals, the Cotyledons. In the Seeds of Plants,  
also, the Embryo is contain’d in Membranes, and the infant  
Plant is for some time nourish'd by Vessels analogous to the  
Navel-string, and Placenta, or Cotyledons, which convey to  
the Embryo proper Nourishment. ‘i

When the Animal is born, or hatch'd, the Way of. its Nou-  
rishment is then very different from what it was in the Egg;  
for then there are a great Number of small Vessels, call'd by  
Anatomists Lacteals, which take up, from the Intestines, **the**finest Parts of the Aliment or Food which the Animal eats, and  
convey it to the Blood-Vessels, where it circulates with the rest:  
of the Juices, till it is again discharged from the Animal by 5means of Perspiration, Urine, or some other Evacuation. III  
Plants, the Fibres of the Root perform the Office of theDacteaisj  
and convey Nourishment to the Plant ; which, aster having cir-  
culated in its Vessels, is again thrown off by Perspiration.: And,  
as curious Observers have found, that a Man in Health perspires  
aheut thirty-one Ounces in twenty-four Hours; fo Dr. Halen  
has demonstrated by Experiment, that a Sun-flower perspires  
twenty-two Ounces in the same Time; not that the Sun-flower  
is the only Plant that perspires, nor a Man the only Animal;  
but all Plants and Animals throw off vast Quantities of their  
Juices by Perspiration, some more, and some less, when in  
Health. - : - - -'si- ss

Is the Air necessary to the Support of Animals ? It is not less  
so to the Life of Vegetables; for all Plants whatever will soon  
wither and die, when deprived of a: free Intercourse with the  
external Ain Ἀ.'.λυ dur- :si

Are Animals kept alive, nourish'd, and supported, by the Colon  
Culation of the Bleed ? The Circulation of the Sapin - equally  
necessary to Vegetables, which cannot subsist without *it.'* - s

And here we cannot fufficientiy admire the Wisilom of the  
great CREATOR, in this surprifing Harmony between Plant?  
and Animais, than which we need uro other Proof,' *that* GOD *is  
a* Gon *of Order.* And it may he no ill Lesson of Humility  
to us, thet as even the Very-Worm, we tread under ourFeet,  
can say to Man, who is so wonderfully and fearfully shade, *l I  
am thy Sister , -* so likewise the basest and most noisomeWeed is,  
as well as ourselves; a Link os that golden,Chain, by which the  
Poets feign the World to be fasten'd to the Throne *sps.Jui  
piter.* 7 si\ si

- The Lobes, as. we have already observed, answer’ **the same**Purposes as the Membranes in Animal Fcetufes; for hetween  
these the tender Embryo is warmly and safely lodged, herd by  
that means secured from all external Injuries, whicssit imight  
otherwise sustain from the Mould,1 or the Access \* of noxious  
Colds; and this is continued till the little Plant is somewhat inur’d  
to its new Element, and its Root tolerably fix'd in the Ground,  
when these two Lobes-hecome the Folia Seminalia, or Seed-  
leaves, whose Office it is still to protect the tender Plant, till  
the Plume is become fufficientiy strong and expanded. -. .

Nor is this the only End they answer; for while they'adhere  
**to** the little Embryo, they not only guard and desend it in the  
ahove-mention'd manner, but likewise prepare and Purify the.  
cruder Juioe the Plant is to receive from the Earth, by straining  
**it** thro' their own Body, and assimilating it to their own Na-  
**ture;** which Nourishment the littie Plant’receives, and draws  
to itself by a great Number os small branchingVesseis, which  
it sends into the Body os the Placenta, and which answer the

same Purposes as **the** *Funes Umbilicales,* or Navel-strings, in  
Animals.

Moreover, we find thet every Placenta or Cotyledon of a  
Seed abounds for the most part with a Balsam, disposed in  
proper Celis, which is oily and tenacious, and not only serves  
to defend the Embryo from any extraneous Moisture, hut, by  
Its Viscidity, to entangle and retain that fine, pure, volatile  
Spirit, which is the ultimate Production of the Plant., and  
which is call’d the *Spiritus Pector,* or *Prevailing Spirit.*This Oil, it is true, is never observed to enter into the  
Vessels of the Embryo, which are too sine to admit (o  
thick a Fluid; but the Spirit, being quicken’d by an active  
Tower, may probably breathe that vital Principle into the  
Juices which nourish the Embryo, which stamps upon it  
the Charailer which distinguishes the Family; after which  
every thing is changed into the Nature of that particular  
Plant. . .

But, hefore we dismiss the Seed, it may not be improper to  
observe, thet every Plant, even the least and most inconsidera-  
ble, arises from a Seed, nor is produced any other way ; for,  
tho’ the Earth nourishes every Individual, yet it cannot form  
an organical Body ; and indced, if it could, it must be endow’d  
with all the Omnipotence of the Creator:

Having thus taken a View of the Seed, we come next to  
the Root, or that Part of a Plant, by which it adheres to the  
Earth, and receives its Nourishment; but, before we proceed  
in our Anatomy, it may not he amirs to observe, that the Roots  
of Plants being of various Forms, are accordingly distinguished  
by Botanists. Bee the Explications of the different Roots under  
this Article.

But notwithstanding these Varieties, in regard to Matter of  
Form, the essential Parts of the Root seem to be the same in  
all; and are, .

**I.** The Bark.

*' 2.* The Wood, or signous Body; or, in the more herbace-  
ous Plants, something equivalent to it.

a. The Medulla, or Pith.

The Bark, the Wool, and the pith of the Root, seem to be  
nothing different from those of the Trunk and Branches. Its  
Use is to receive the nutritious Juices of the Earth into its Ves-  
sels, which are thence convey’d into the Trunk by correspond-  
ing Vessels therein; or, according to the Opinion of seme, the  
Vessels of the Trunk are only a Contiouatiost of the Vessels of  
the Root.. Therefore what we are going to observe of rhe  
Bark, Wool, and Prcti, is. to be understood both os those of  
theTrunk and Branches, as well as those of the Root,  
’ The Bark may be divided into the outward Shin, pr.Cuticle;  
and the inner or cortical Substance. \ ' ."’...j. *. i.*

The outward Skin, or Cuticle, seems to derive its Origin  
from the inner or cortical Substance, and mi he nothing more  
then the old Bark dried and shrivel’d up, being supplanted year-  
ly by a new one, after the fame manner as a Snitre oasts her  
Skin.

It is composed of little Bladders, or Vesicles, horizontally  
Placed, so as to form a Ring ; among-which are also intermix’4,  
more or less, several parallel woody Fibres, or Sap-vessels.

The inner Substance consists, I . of several Enfoldmenis'of  
wondy Fibres, interwoven in the manner of a Net, and wraw  
pingover each other like.the Coats of an Onion: ‘ a. Of a great  
many little Bladders, or Vesicles, sometimes of an oval, and  
sometimes an angular Figure, which fill up the Spots or Spaces  
between the said Fibres; and are placed, as it were, in Lines  
horizontally towards the Wood. And, 3. of ici owh peculiar  
Vessels, which contain the proper and specific Juipt'of the  
Plant. - ς - - - ;

The woody Fibres are certain tubular Bodies, hallow for the  
Reception *of* their proper Fluids; and are composed of a great  
many smaller concave Fibres, disposed in a quadrangular Figure,  
and communicating one with another These Vessels do.not  
rain in rightLines or Parallels; but, for the most pert, ate ga-  
thered together; as it were, in little Bundles ; which, when ex.  
tended, or separated from each other, form a kind os Net, of  
reticular Coat, with which they embrace the Wood. Dr. *Grew*calls them the lymphatic Ducts, from their containing an aquhy  
ous, limpid, and almost insipid Fluid. \_ ,

The Bladders, or Vesicles, which are full of a Liquor they  
receive from the wondy Fibres, are, for the most part, placed  
horizontally in right Lines, which run fromi the Ciitiole towards  
the Wood, and are call’d hy DI. *Crew* the Parenchyma of the  
Bark, as being analogous ito the Parenchyma in the Bowels of  
Animals. Into these transverfe Veftcles the ascending FIuiin  
which may be cull’d the Chyle of the Tree, rs deposited; where  
baking remain’d for some time, and being intimately mix’d  
with the former Juice, it is at length exalted into the Nature  
of an Alainent, and from thence distributed to the ether Parts of  
the Plant. And as there is great Plenty of' this kind of Fluid  
in there llttle Biadders, or Vesicles, it is no Wonder, that the  
Bark of a Tree should supply the Fire with a shonger and snore  
abundant Pabulum, than any other Part. ' '"χ.- - .-

The Cententsof the Sap.veffeis.are different in various Plants,

aS a Resin in the Fin, Milk in Spurge, *etc.* This Juice Mr.  
*Pay* chuses to call the Quintessence of the Plant, as containing  
not only its Smell and Taste, but all its Virtues:

The Wood consists of the fame Parts, and those connected  
in the fame manner as the Bark, *vise.* I. Of certain hollow  
woedy Fibres, gather’d together, as it were, in little Bundles,  
and interwove in the manner of a Net. 2. Of little Bladders,  
which fill up the Spaces between the laid Fibres. 3. Of the  
Vessels containing the specific juice of .-the Plant- And, 4. of  
certain Vessels, which we shall call Air-vessels, and which an-  
fwer to the Lungs in Animals.

The woody Fibres are exactly the lame as in the Bark, only  
there is this Difference hetween them, that, upon cursing the  
Trunk transversty, the Sap will voluntarily flow from thofe in  
the Bark, but seldom or never from thefe. They compose far  
the greatest Part of the Wood, and then Use is for the Strength  
and Compactiiess of it. *Malpighi* will have them communi-  
care one, with another, like the Branches of the Veinsof Am-  
mals. . ....... '

The little Bladders are rank’d in Lines, hetween the Fibres  
and Vessels, from the Bark to the Pith ; tho\* they do not all  
extend quite so far, being sometimes interrupted bv little Cir"  
oles, which rise towards the inmost Parts of the Wood.. In  
Shrubs., and these which have not a very thick woody Body,  
and are pretty pithy, these Bladders are visibly extended as far as  
the Pith, and refolve themselves into it, whence it plainly ap-  
pears, that the Bladders in the Bark, and those in the Pith, are  
of the fiime Nature: They are composed os oval Bodies, which  
communicate one with another; whence they are swell’d with  
the Juice of the Plant, in some with a lirupid, in others with a  
tinctur’d Liquor. Each Bladder consists of a. fine transparent  
Membrane ; and, in different Plants, they are very different,  
both in Numher, Siae, Texture, and Extension.

The Vessels containing the proper and essential Juice of the  
Plant are disposed- in as many Circles as there are Coats, or  
Strata, of annual increase from the Pith to the Bark ; for these  
Strata are the fame with the inner Parts of the Bark, which  
every Year apply themielves to the Wood, being rendered thus  
compaft by the Pressure of the woody Fibres, which surround  
them, on all Sides.

'. The Air-vessels consist of certain spiral Lines, each of which  
is cornndfed of a great many squamous parallel Fibres, and of **a**great Numhet.of smaller Fibres, which run across these, and  
cover them in the manner of a Coat. .... ‘ ........ ..

These Air-pipes contain, as is were, certain pulmonary Vef-  
seisand, where they. communicate one with another, are  
fiainejdinss of an oval Form, and always closed at rhe other End,  
so that they bear *νβ..* small Resemblance to the Vessels in. the  
Lungni of Insects. And Nature,seems to have given both to  
Plants and Insects, instead of Lungs, these fpiral Vessels, thus  
composed of hellow squamous Fibres, for the better hearing the  
sudden Pressure and Dilatation of the Air, in those violent Fled  
Korea which Trees are liable to, and the classic Motion of the  
included Air. „ .

2. They are mostly supported, surrounded on all Sides, and  
shinetimes streighten’d by the wondy Fibres., whence, on cutting  
the Wood across, .their Orifices frequently appear oval or round,  
arid sometimes.angular. They run up' almost in right Lines  
from she *Root* to the Trunk, whence they are dispersed thro\*  
the Branches, and, growing curved in the Leaves, are .inter-  
woven in the manner of a Net. Thefe Vessels, except rhe Saju  
' volherof the Bark, are by rar the largest of all, and occur in  
grcatTlenty thio’ the whole Substance of the Wood j but none  
have ever been observed in the Bark.

The Pith,, witch was formerly look’d upon as analogous to  
the Heart anil strain in Animals, consists of a great Numher of  
stttio Globules, rank’d lengthways. These Globules, which  
aro. sp many little Bladders, or membranous Vesicles, in most  
Pheris are of around, and in some of 4n angular or cubical Fin  
gilre, consisting of five or eight Sides.

Now the Pith, tho’ it has a different Name from the spongy  
Substance of the Wood and Bark, yet is of the fame Nature  
and Substance, as appears not only from itsTexture, but Con-  
tinuity ; for the little Bladders, which form that spongy Sub-  
stance, run quite from the Bark thio’ the woody Fibres, and  
and in the Pith,. whence it is plain, they partake of the same  
Nature t- And,, indced, they differ in nothing but Siae, the Vest-  
oles os the Pith being very large, those os the Bark lest, and  
these of the Wood the smallest of alt The Quantity of Pith is  
likewise different in various Plants; and is, in general, more in  
Shrubs, and the herbaceous Kinds, in proportion to their Size,  
than in. Trees: It. may am distinguish’d into he Vesicis and  
Bladders , the first of which are placed at the Extremities of the  
Pith, which they circle round, and embrace. These Vessels  
contain the propel and essential Juice of the Plant.

The Bladders of the Pith are likewise of different-Magni-  
tndes in different Plants, at least an hundred times larger in  
some than in others ; as in the common Thistle, for Example,  
than in the Oake And it most also he observed, that the Size;  
of these Biadders bears no Proportion to the Quantity of Pith j  
for

\* sor in the Pith of the Elder-tree, which is more, in .Quantity  
than that of the Berberry-tree, the Bladders which compose it  
are aS small again aS those of the latter. ; .

The Pith is only succulent or sappy the first Year, its Blad-  
ders, aster that, growing dry, lax, and soft; and this Sap it  
probably receives from the reticular Veffeis which surround it.

The Texture of the Branch is exactly the same with that of  
the Trunk. \* . . . ?

But here we must not forget two Very material Parts, re-  
mark'd by the curious Observers of Nature; and these are the  
'Knots, and the Buds. ' -

The Knots are those Parts of a Plant in which the Buds are  
lodged, and from whence it shoots out its Branches. ‘ They not  
only serve as Abutments for the dilating Sap to exert its Torch  
upon, but also to prevent the rarery’d Sap’s too free Retreat  
from the Pith.

The Buds, to use Mr. *Bradlefls* Words, have their first Rife  
in the Pith; they are there framed, and aS they become fit for  
Action, by being furnish’d with every necessary Part for Vege-  
tation, they are forced along certain Chaneis, till they meet the  
Air at.the tender Bark, thro’ which they make their Way, and  
would drop to the Ground, were they not restrain'd by a Num-  
her of Sap-veffeis, winch serve aS so many Roots to nourish  
them from the Body of the Tree. These Buds are, in every  
respect, as perfect as the Seed, or rather more so; for a Bud  
contains a whole Plant, roll'd up in itself; and has, for the most  
part, its Juices so well digested, aS to come sooner to bear Fruit  
than the Plant wrapp’d up in the Seed.

The Difference hetween a Bud and a Seed is, that a Seed  
consists, of Lobes and Ear-leaves, which include the young  
Plant, andTerVe to give it the first Stamp, by teaching it what  
kind of Juices it ought to draw from the Earth for its Nourish-  
tnent: But a Bud has no Occasion for such Ear-leaves, hecause  
it takes Root immediately in the Body of the Tree, where .the  
Juices are already sit sor it.

Buds likewise differ from Seeds, inasmuch as they are always  
constant to the Mother-tree, and exact Representatives of the  
Plant that produced them ; whereas Seeds multiply their own  
Species, with Variety of Complexions, all the Plants produced  
by them being some way different from one another, either by  
some littie Variation in the Colour os the Flower, the Taste,  
or Time of ripening of their Fruit, the Flower or Figure os it,  
- or some Difference in the Shape or Colour of the Leaves. And  
Nature, in this respect, - seems to observe the same Conduct as  
amongst Animals, where no two Faces are exactly alike ; and  
where no Offspring perfectly resembles either Mother or Sire. .,

This constant Likeness, therefore, of the Plant, proceeding  
from the Bud to the Mother-tree, seems aS if design'd on purpose  
to support the Reputation of the Mother-plant, and, in some  
measure, to make amends to Plants sor their Deficiency in the  
want os local Motion ; fince, by the Bud, any particular Fruit,  
Or Tree of Merit, may come to be naturaliz'd in any Part of  
the World. ...... / ” “δ᾽

But it must he observ'd, that the Buds are of several Sorts,  
*vix.* either Leaf-buds, or Blossom-buds.. The Difference be-  
tween them may be known in most forts of Fruit-trees, before  
they open, by observing, that the Leaf-buds are long, thin,  
and pointed ; but the Blossom-buds short 'and turgid. The  
Juices also, in the first, are inore fluent and aqueous; and, in the  
latter, more digested and gummy. But both these sorts of Buds  
proceed from the Pith of the young Wood, and are disposed for  
different Offices, as the Plant or Branches that produce them  
are more or less Vigorous. The most Vigorous bring Leaf-buds,  
and thofe that are smaller, and seem to be less nourish'd, pro-  
duce Blossom-buds. ’ ‘ ‘

They are spread into Branches, when the Temper of she  
Air is such, as to render the Sap or Juices of the Plant of suchX  
Fluidity as to cuculate thro' the Veffeis without Interruptions  
. when the Sap, heing sussicientiy fluid, fills the Buds, and they,  
by degrees, are open'd into Shoots and Branches, every one of  
which is properly a Tree growing upon another Tree ; which  
makes it practicable to cut off Branches from any Tree, where  
we please, without destroying the Tree; whereas, if a Tree  
was one entire Body, as the *Body of an* Animal, the cutting  
off the Branch would endanger the Whole.

But the Buds are not confin'd to the Parts above Ground  
only, being fram'd in the Pith of the Root, as well aS in that  
os any other Part ; and here it is worthy our Notice, that those  
which are form'd in the Root,- are impress’d with the Form of the  
Root, when put in Action ; and so those Buds winch are form'd  
in the Branches, are also medel'd for Branches, when they he-:  
gin to act; bus, in their Principles, they are both the same.  
For if we expose the Roots of a Tree to the Air, after allow-'  
ing them a little Time to be acquainted with the Element, they  
will put out Buds in such sort, as to produce Leaves ; and is  
we lay down a Branch of a Tree in the Earth, after It has had  
time to reconcile itfelf to that Situation, those Buds form'd in  
the Pith, when they begin to move, instead of Leaves, or  
Flowers, or Fruit, which they would have produc'd, if raised  
in the Air, will now bring forth Roots, and from them others, '

*t*

. And hence it is likewise observable, that as the Pish, of C0B-  
sequence, is only found in the younger Shoots ; so, if we would  
increase a Tree by Layers, those Layers must he os the young  
Shoots, where this Pith is perfect; otherwise they will wahe  
those Seeds or Buds, so necessary to the Preduction os theRoot, i :

. The Leaf consists of the same Parts as the Trunk and  
Branches, that is; woody Fibres, orLympheducts, Vessels con-  
taining the specific Juice os the Plant, Air-vessels, a Parenchy-  
ma, or Ranks of little Bladders, which fill up the Spaces between  
the reticular Fibres, and a Cuticle ; all which are substantially  
the same with those of the Branches: For the Cuticle of the  
Leaf, for Example, is no more than the Amplification of that  
oTthe Branch; as the Fibres or Nerves, dispersed thro’ the  
Leas, are only the Ramifications of the Wood of the Branch,  
or lignous Body. So likewise the Parenchyma of the Loaf,  
which lies betwixt the Nerves, and filis all up, is nothing else  
but the Continuations of the cortical Body, or the inner Part os  
the Bark, from the Branch into itself; as in most Plants, with afat Leaf, may easily he discern'd. For it must be observed,  
that the Stalk of the Leaf, which is composed of all these,  
where it enters the Leaf, divides itself, like another Trunk,  
into a great Number of Branches; and these again are subdi-  
vided into a great many lesser Branches or Twigs, which mu-  
tually crossing each other, .compose a kind of Nur-work, which  
is Very Visible in the Leaves of some Plants, particularly on the  
back Side of those of Sage.

That these Fibres are likewise accompanied by the Vessels  
containing the specific Juice of the Plans, is evident from the  
different Colour of their Contents, which discovers itself upon  
Dissection of the Leaves, as a Milk in those os Spurge and Sue-  
cory, and in those of Celandine a yellowish Liquid. And the'  
this is not so apparent in the Leaves of many Plants, where these  
Veffeis are only full of a limpid aqueous Fluid, yet the aforesaid  
Instances are sufficient to Convince us,. that they are present in  
all.

The Spaces between these Veffeis and Fibres, being fill’d up  
by the above-mention'd little Bladders, form the Parenchyma,  
or fleshy Part of the Leaf; and these Bladders, according to the  
Nature of the Sap they contain, and the Closeness or Laxity of  
their Pores, are of different Figures upon the Surface of the  
Leaf, as in some angular, in others quite irregular.

Between these Bladders and the reticular Fibres, *Mulpighi*observes, that there are several little Cells or Pores dispersed,  
which serve sor the Discharge of some Fluid, or the Exhala-  
tion of some Vapour.

The Whole is cover'd with a fine Cuticle, or Epidermis,  
which partakes of the Colour of its Contents.

. Dr. *Grew* divides the Flowers of Plants into the Empalement,.  
Foliation, and Attire.

The Empalement is the outermost Part of a Flower, which  
covers it before it is blown, and forms a kind of Support for it  
afterwards/ This is call'd by some the Perianthiuin, as fur-  
rounding the Flower ; and by others, improperly, the Calix, or  
Cup ; for the Calix is properly the hollow Cup form'd by the  
Perianthium, or Empalement, out of which the other Parts of  
the Flower grow. There are some Flowers whose Petals, or  
Flower-leaves, .heve a sum and strong Basis, sufficient to sup-.  
port themselves, and therefore stand in need os no Empalement  
or Perianthium ; and accordingly Nature has given them none,  
as may be seen in the Tulip. These, however, have a Calix  
or Cup.‘ .etsusi.su

By the Foliation Dr. *Grew* means the Assemblage of the  
Petala, or those finely colour’d Flower-leaves, which constitute  
the Beauty of the Flower. These Petala, or Flower-leaves,  
grow generally immediately within the Perianthium, or.Einpaleil  
inent, from the'Edges of the Calix or Cup, and inclose the At-  
tire, or Male and Female Parts of the Flower. Some Flowers  
consist of one Petal, or Flower-leaf, and are *of* different Shapes  
in different Plants, as that of a Bell, or a Funnel; and some-  
times of two, three, four, or five Petais ; and sometimes of a  
Number, as in the Marygold and Sun-flower.

‘ There is a large Class of Plants which have no Petals at all,  
and therefore are call'd apetalous, as Hops, Mercury, Netties,  
and Docks, These are also call'd stamineous Flowers, from  
their great Number of Stamina or Chives. : ”

These Petais are design'd by Nature for the Safeguard of the  
Parts Of Generation in the Flower; and hence we see them  
expand themselves at the Rising of the Sun, to receive the  
Heat ; and close up, some more, others less, at the Approach  
of Rain or Night. Nor is this their only Office; they also  
draw arid convey Nourishment to the Embryo; Fruits, and  
Seeds; for as soon as the Pistil is form'd into a small Fruit, now  
impregnated with its minute'seminal Tree, furnish’d with its  
Secundines or Membranes, the Blossom falls off, leaving this  
new-form'd egg, or first-set Fruit, to imbibe Nourishment for  
itself, and the Foetus with winch it is impregnated ; which Nou-  
rishment is brought within the Reach and Power of its Suction  
by the adjoiningLeaves.

We now come to the generative Parts of Hants, call'd by  
Dr. *Grew* the Attire. These consist of the Male Parts, call'd  
the Stamina or Chives, and Apices , and the Female Parts,  
call'd the Pistillum or Stylus. . . .

The Stamina are those fine Threads which grow up within  
the Foliation, surrounding the Pistil, as may be seen in Tulips .  
and Lilies.

On the Tops of these Stamina, or Chives, are placed the  
Apices, or littie Knobs, which may properly he call'd the  
Testicles os Flowers ; because they contain the *Farinafcscun-.  
dans,* or Seed necessary for the Impregnation of the Pistillum,  
which maybe call'd the Womb of the Plant. .

in siome Flowers these Stamina are exceedingly short, and in  
others there are none at ail; but in those the Apices, with  
the *Farina seecundans,* or impregnating Dust, are fix'd imme-  
diately to the Capsula, or Pod, which contains the Seed.

in other Flowers, as the Thistle, and Lettuce, several  
of these Stamina, uniting together, form a littie kind of Tuhe,  
Ur Pipe, which incloses the Apices, furnish'd with their im-  
pregnating Dust. . .

The *PartitaJucundans,* or impregnating Dust, is form’d in  
" the Apices, which, when ripe, burst; and then the *Farina*falis upon the Head os the Pistil, or Female Part of the Flower,  
and is thence convey’d to the. Matrix, or Wornb, in order to  
impregnate the Seed.

Tins *Farina .sm'cundans* is what is gather'd by the Bees, in  
order to make their Wax. .- . .

The Pistil is the Female Part, of the Plant.. It grows upright  
’ from the Very. Middle of the Cavity form'd by the Flower-  
leaves, which is call’d the Calix ; and, when ripe, forms, the  
Pod that contains the Seed, or becomes the Emit. Sometimes  
the Pistil is enlarged at both Ends, in the Shape of a Pestle,  
whence it derives its Name ; sometimes it is, as it were, only  
a fort of Thread; in some Plants it terminates in several  
Branches, or Horns, which have their Rife from as many Pods,  
containing Seeds ; sometimes it is round, sometimes square,  
triangular, or oval. ‘ "so. . - . ζ -

- The Pistil in seme Flowers is cover'd, at the Top, with Very  
fine Hairs, which make it like Velvet. In others it is surnish’d  
with a fort of Plume 7 and others are cover'd with Vesicles, or

\* small Bladders, full os a glutinous Juice: But all Pistfls, Of -  
whatever Shape they are, have littie Openings at the Top, which  
receive the *Farina foscundans r* and have also little Chaneis  
within, which convey the same *Farinafcecdndans* to the Seed,  
in order to its Impregnations , ‘ - ί ;

\_ Some Authors make no Distinction between the Pistil and  
Stylus; hut *Malpighi,* and after him *Bradley,* seem to call it  
a Pistil when it contains the Seed within it ; and name that  
Part the Stylus, - which, in some Flowers, dries and falis off,  
after the Impregnation *of* the Seeds . '

Many and Very different are the Opininns of Authors, in  
regard to the Generation of Plants: Without entering into their  
- Disputes, we shall give that Account of it, which seems to us  
most Probable ; after having observed, that, most Plants are Her-  
maphrodites, among which some, and that the greatest Part of  
them, contain both the Male and Female Parts of Generation  
in the same Flower. Others, the Melon for Example, bear  
Flowers upon the same Stem, Of different Sexes, the Female,  
which produce Fruit, and the Male, which produce none. There  
are also fome entire Plants, which bear Flowers without Fruit ;  
whilst others, of the'same Species and Name, bear Fruit with-  
out Flowers a and they are hence distinguish'd into Male and  
Female Plants.: Of this last Kind are the Palm-tree, Poplar,  
Hops and'Hemp. The Male are those which produce the  
Flower, and the Female those which produce the Seed.

. : Now 'tis highly probable, that the Embryo of the young  
Plans, or that Part which we have hefore describ'd as lying in  
the Middle of the Seed, and which we have distinguish'd into  
the Radicle and Plume, is form'd by the *Farina Jucundans,*which, falling down the.Pistil into the Uterus *or* Womb of the  
Plant, meets there with a. proper Receptacle, where it fixes 4  
and that the.Lobes of the Seed, above describ'd, which perform  
the fame Office as the Membranes, Placenta, Cotyledons, or  
After-birth,- do to the Young Of Animals, *are* furnish'd by the  
Female Part, of the Plant

When, the Male and Female Parts of the Flower are-  
pretty near to each other, it is not difficult to conceive,, hew  
the *Farina Jucundans, or,* as it may he calPd, the Male Sperm,  
is convey'd to the Pistil, or Womb : But when the Male and  
Female Flowers are at a Distance from each other upon the.same  
Stern, but more particularly when they grow upon different.  
Plants of the same Species, it is not so easy to comprehend how  
the. impregnating Dust of the Male Plant is convey'd to the  
Female Plant, especially when they are at a great Distance from  
each other... ....

. . We have a Story in *s.ovianus Pontanus,* which will give the  
Reader an Idea of the vast Distances to which this impregnat-  
ing Dust may be carried. He tells us, that there was a Female  
Palm-tree which grew in tho Wood of *Otranto,* and a Male  
Palm-tree at *Brindisi,* **fifteen Leagues from the Female , that  
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the Female was barren for several Years, and bore no Fruit at  
all ; till at last growing above the other Trees of the Wood, it  
began to he fruitful, and. bone great Quantities, tho' there was  
no other Male Palm-tree nearer than that at *Bryndist.*

/ .Most Authors, that have treated of the Generation of Plants,,  
have quoted this History ; and, I think, generally agree, that  
the Male Dust must be brought from the MaleTree at *Brindisi,*to the Female at *Otranto,* by the Wind ; and therefore conclude,  
that the Wind is the Agent which carries the Dust from the  
Male Plant to the Female... This would he very probable, pro-  
vided these Palm-frees grew betwixt the Tropics, where the  
Wind, for at least three Parts of the Year, blows from the East,  
and the Situation Us the Male Tree had been towards the East  
of the Female; hut if the Female had been placed East of the  
Male, it would have proved a .Very unfortunate Position for the  
Female, which mush therefore have certainly heen barren.

. For my own part, I don't think it probable, that the Supreme  
Being, whe always orders all the Operations of Nature to be  
perform'd in the best manner, should leave a Thing of so much  
Consequence, as that of the Generation of Plants, to be con-  
ducted by so uncertain an Agent as the Wind ; which would  
undoubtedly leave a great Numher of. Plants barren, is it did  
dot happen to blow from a right Point, just at the Time .'that  
the Dust of the Male, being arrived at Maturity, was ready to  
he carried to the Female Plant. . . . . .

, I arn therefore of Opinion, that there is some Power in Na-  
ture, which has not yet been duly consider’d by the Learned,  
, capable of affording so sure a Conveyance to the Main Dust,  
that it can never fail impregnating the Female.

. There is a Power in Nature to which Philosophers have given  
’ the Name of *Electricity,* because first observed in Amber, call'd  
in Latin, *Electrum.* This is an attractive or magnetic Force,  
which the aforesaid Amber, Glass, and many other Bodies,  
exert, when rubb'd till they' are warm, and by which they draw  
to themselves any light Body that is near them, and sometimes  
repel the said Bodies from them. Mr. *Gray,* of our own Royal  
Society, and Monsieur *du Fay,* of the' *French* Academy of  
Sciences, have, by their indefatigable Researches, discover'd  
many amazing Properties of electrical Bodies, too long to enu-  
merate in this Place. But it is very much to our present Pur-  
pose to observe, that Bees-wax is endued with this attractive  
Power, at least as much as any other Body whatever,' and that  
without any rubbing at all; and this electrical .or attractive  
Force Bees-wax retains longer than any other Body.

Now, if we consider, that Bees-wax is littie more than *ai  
Mass of* the ’ *Farina smcundans,* or impregnating Dust of  
Flowers, collected by the Bees, it seems very likely, that  
every Particle of this was endu'd with a certain electrical or  
attractive Force, before it was gather'd from the Flower ; and  
if so, why may we not presume, that the Pistil or Womb of  
the Plant, and the *FarinafcEcundans,* or impregnating Dust,  
strongly attract each other? And as some Bodies are known  
to exert an attractive Force to a prodigious Distance, we may  
easily conceive; that it inpossible for the *Farina s.acundans* of  
a Male Palm to sail, even against the Wind, from *Brindisi* to  
*Otranto,* though fifteen Leagues. asunder, when the Female  
Palm was grown high enough to receive the *Farina,* which,  
before that, would be intercepted in. its Passage by the other  
Trees of the Forrest. . . .

There are some Circumstances relating to Electricity, which  
seem to confirm, that what we have hinted at is, at least, one  
of its principal Uses. \*One in, that this electrical Virtue of  
Bedies is much diminish'd by?a moist Ait. Another is, that  
it does not exert itself so Vigorously, during the Heat os **the**- Day. ' \ '/

Curious Observers of Nature will discover, upon Examina-  
tion, that the Generation of Plants is principally curried on in  
the most temperate Part of the Day, and when the Son has  
heen risen long enough to dry in seine measure the Air, and  
elevate the Vapours to some Distance from the Surface of the  
Earth. At this time the Mulberry, and many. other Trees,  
during the Season of their generating, may he seen surrounded,  
as it were, with a Cloud of Dust ; and this Appearance is not  
observable at any other Season of the Year but that in which  
they generate, nor any Other time of the Day but early in the  
Morning. . . ..

Having now dispatch'd the Structure of Plants, and their  
Generation, we shall next proceed to their Vegetation or  
Growth. .. .

*Of the Vegetation or Growth of Plants.*

In order to form some Idea of the Vegetation of Plants, it  
will not be amiss to consider the. Preduction ossa Plant as the  
Result of a Chymical Process, in winch Nature in the Ope-  
rater, and the Person who cultivates the Ground an Assistant.

The first thing then, that is done, is to manure the Land, or,  
in other Words, to furnish in with an alcaline Salt. Here  
we must suppose, that the Earth m be manur'd was hefore de-i  
pric'd os all its Salts, by bearing Too frequent Crops, otherwise  
this Part of the Operation would be unnecessary , Nature urt-

assisted heing abundantly sufficient to supply the Ground with  
**a** due Quantity of Salts ; but, when these are taken away. Na-  
ture unaided is a long tone in providing more.

These Salts, while they retain their alcaline Nature accord-  
ing to their known Property, divide she Earth into small Par-  
ticles, and render it light, and disposed to crumble and fall in  
Pieces, like Laine, when Water is pour’d upon it . and there-  
by promote its Fertility. It is for thiS very Reason that fre-  
quent Ploughing, or Digging,-fertilizes the Ground, and is  
what People mean when they talk of *making it mellow.*

When this is done. Nature furnishes these alcaline Salts  
with a Fluid to dissolve them, that is, they attract strongly  
the Vapours and Dews floating in the Ain, which have al-  
ready heen render’d somewhat oily, by the Oils of Animals  
and Vegetables, which perpetually float in the Atmosphere:  
By these oily Dews, they are dissolv’d into a kind of Oil,  
*pcr Deliquium,* and sink into the Bosom of the Earth, which  
. may be esteem'd aS the Vessel in which this Operation, or Pro-  
cess os Vegetation, is perform’d; and here again they meet  
with an Oil, of which all Earths contain more or less.

It has been observ’d under the Article ALCALINE, that  
if Salts are mix’d with any Acid, especially when in a  
fluid State, an Effervescence is . raised, with Ebullition, and  
a violent intestine Motion; and thet they attracithe Acid  
of the Air so strongly, as in time to he impregnated there-  
with, and to become entirely neutral. It is then easy to nn-  
derstand, that whilst these Salts lip in the Bosom of the Earth,  
dissolv’d into what the Chymists call an Oil *per Deliquium,*’ or, in other Words, a *Lixivium* or *Lye,* as they gradually at-  
ι trail the Acid of the. Ain, a gentle Effervescence, or Ebulli-  
tion, must be caused, which must divide and break those Parts  
. of the Soil, which before cohered strongly together, and render  
the Earth yet more light and mellow: \

'. . Now let us call to mind, that when alcaline Salts are digested  
"..with an Oil, they intimately unite with it, and form a pene-

trating deterging Substance, which is dissoluble in Water,  
anil is *of* a Nature very differens, both from the component  
alcaline Salt, and Oil; and this is commonly called Soap.

When therefore these alcaline Salts are committed to the  
Earth, and dissolv’d into a kind of *sue, meeting* there with  
an Oil, thefe Salts and this Oil are digested by the Heat of the  
Sun, united together,' and converted into a Soap much more  
perfect than the artificial Sort we make use of; for this last  
always retains some of the Acridness of its Parent Salt, which  
renders it unfit for the Purposes of Vegetation till neutraliz’d;  
whereas that form’d in the Soil is render’d entirely neutral as  
it is made, the Salts attracting and imbibing the Acid of the  
Ain, atthe fame time that they are miking with the Oils os the  
Earth, in order to be transform’d into a Soap. See Acetum.

As all Vegetables whatever contain a large Quantity of  
Earth, it feerns at first View somewhat difficult to explain,  
how it should be able to get there ; because the Pores of the  
Roots are too small to admit of Earth nndissolv’d, and per-  
haps even of Water; or, if they would admit Water, wesind thet utterly incapable of dissolving Earth, How there-  
fore Earth comes to be dissolv’d, and render’d capable of en-  
tering through the Pores of the Roots, we are now endea-  
vouring to explain.

The Solution of a Body is nothing more then dividing it  
into Particles small enough to swain in the Menstruum, or sol-  
vent Liquor, without being visible. Thus, when Salts of any.  
kind are dissolv’d in Water, their Particles are fo divided by  
the Menstruum, Water, as to become invisible whilst they  
float in it. Now the dividing the Earth mio small Particles,  
in the manner just above-rnentionin, is One Step towards a

-Solution.:- . - . . . .

Let us now consider the saponaceous neutral Juice, form’d  
in the Earth by an alcaline Salt, an Oil, and the Acid of the  
Air, as *a.* saponaceous or soapy Menstruum, or Solvent, and-  
see hew it is capable of acting upon Earth; and, in order to  
make this the more plain, we shall give a very obvious Ex-  
ample, which falls under the Observation of every body.

. When Cloaths, or Linen, or any thing else, are dirty, thet  
is, have Concretions of Earth sticking to them, we find the  
most effectual way to make them clean, is to wash them inWater  
. wherein Soap has been dissolv’d. Here then Soap penetrates  
the Pores of the Earth, divides it into excceding fine Parti-  
cles, and in some measure dissolves it. ‘ A saponaceous Fluid,  
therefore, bids the fairest of any thing we are acquainted with,  
to he the Menstruum or Solvent of Earth, and it is probable,  
that the saponaceous Fluid which is made in the Bosom of tho  
Earth by a long Digestion, is more penetrating than any arti-  
ficial Soap, and consequently more capable of dissolving  
Earth.

We shall he still farther confirm’d in this Opinion, if we  
consider this Juice of the Earth as a neutral Menstruum or  
Solvent; for it appears by a great Number of Chymical Expe-  
riments, thet neutral Menstruums will dissolve m2ny Bodies  
or Substances, especially those thet are of an earthy Nature  
which no other Menstruums Or Solvents will touch. ’

From whet has been said, it appears very plain, that wheg  
the Earth has for a considerable time been, as it were, digeste  
by the Heat of the Sun, in a saponaceous, neutral Liquor,  
the Rains, fessing in great Quantities, dilute this saponaceous  
Liquor more, extra# a kind of Tinctirre from the Earth, thet  
is, dissolve a Quantity thereof sufficient for the Purposes of  
Vegetation, which, entering the Pores of the Root, is carried,  
into the Stem of the Plant; and by this means is brought  
about what could not be' effected by Water alone, that is, a  
Solution of Earth.

The Antients, who were fond of concealing all their  
Knowledge under Allegories, seem, however, to give fome  
Hints of the Earth being impregnated by the Ain Thus  
*Homer* tells us, that when *Jupiter,* thet is, the Ain, lay with  
*Juno,* meaning the Earth, on the Top of *Gargarus,* the  
Flowers sprung up under them to make them a Bed.

Ἀ ῥα, καὶ ἀγκιὴς ἔμαρπτε Κρονου .σαῖς ῆν *osaquiMiJty,*

Τοῖσι δ’ ὑπὸ χθών δἰα φὑἱν νε«9ηλέα ποίην,  
Λώτθν 0’ έρσήεντα, ίδὸ κροκον. ήδ’ ὑἀκινθον  
Πυκνὸν καὶ μαλακὄν'βς ἀπὸ χθονὸς ὑψοσ’ ἔεργστ  
Τω ἔνι λεξάσΘην, έπι δέ νεφέλην έσσαντο

.Καλην, χρυσοῦην' στιλπναὶ δ’ άπέπιπτον ἔερσαι. U. r4. 546, *&e.*

.Gazing, be spoke; and, kindling at the View,  
His eager Arms around the Goddess threw. ’  
Glad Earth perceives, and from her Bosom pours  
Unbidden Herbs, and voluntary Flow’rs.

Thick new-born Violets a soft Carpet fpread,  
And clust’ring Lotos swell’d the rising Bed:

And sudden Hyacinths the Turf bestrow,  
And flamy Crocus made the Mountains glow.  
There golden Clouds conceal the heavinly Pair,  
Steep’d in soft Joys, and cincumfus’d with Ain;

Celestial Dews, descending o’er the Ground,

Perfume the Mount, and breathe Ambrosia round. PoFE.

*Virgil* in some measure explains this Passage in *Hirner,*speaking of the Spaing.

*.. Tum Pater omnipotens suecundis Imbribus Aether  
Conjugis in Gremium laetae descendit, et omnes  
Magnus alit, magno commixtus Corpore, Foetus.*

Georg. L. 2. v. 323, *etc.*

For then Almighty *Jove* descends, and pouts  
' Into his buxom Bride his fruitful Show’rs.

And, mixing his large Limbs with hers, he feeds 1

Her Births with kindly *j* uice, and fosters teeming Seeds.

**DRYDEs,**

Both these great poets seem equally sensible, that the Earth  
owes its Fecundity to the Air; but I don’t know, thet either  
they, or any more modern Authors, have explain’d the Man-  
ner how this Impregnation is brought about.

We have before observ’d a great Analogy betwixt Ani-  
mals and Vegetables. It will very much illustrate the ,Do-  
ctiine aheady laid down, in regard to the Preparation of the  
Food of Vegetables, that is, the Juices which enter their  
Roots for their Nourishment, to explain the Ways which Na-  
ture- takes to prepare the Food of Animals in their refpedhve  
Stomachs.

There heve for many Ages been great Disputes amongst  
Authors who heve wrote upon the Animal Oeconomy, con-  
coming the Digestion of Fond taken into the Stomach. Most  
have agreed, that fome kind of Menstruum was necessary for  
its Solution. Amongst thefe,- some heve affirm’d it to be an  
alcaline Solvent,, feme an acid: There are others, who heve  
attributed this Solution to a Ferment in the Stomach, and .  
some heve imagin’d, thet Digestion was perform’d by Tritura-.  
tion, or grinding, as it were, the Aliment, contain’d in the  
Stomach, betwixt the Diaphragm and the Muscles of the Belly.  
But *Papin,* and since him, many more tell us, that the All-'  
ment is digested by the Heat of the Stomach, which, rarefying  
the Air contain’d in the Food, breaks it into small Particles,  
and reduces it into a Fluid. It would be endless to enter into  
a Detail of all the Inconsistencies which have been broached  
upon this Subject: I shall therefore content myself with ob-  
serving, thet it is probable, that the Saliva, *or* Spittle, to-  
gether with the Juices pour’cl into the Stomach out of its own  
Glands, much of the fame Nature as the Saliva, furnish a  
Menstruum or Dissolvent entirely neutral, of a penetrating sa-  
ponaceous. or foapy Nature, capable of dissolving the Aliment  
by the Assistance of a gentle Heat, without having recourse  
to an acid or alcaline Menstruum, Ferments, and Tritura-  
tion. When this Operation is perform’d in the Stomach, the  
Aliment, thus far digested, is protruded by a gentle Pressute  
from the Diaphragm and Muscles of the Belly into the Intestine,  
or Gut, called by Anatomists the *Duodenum,* where it again  
meets with a Fluid of all others, perhaps, the most saponaceous  
and penetratiog, I mean the Blle, or, as it is usually called,  
the Gall; and, miking therewith, undergoes a farther Solution,  
is render’d more fluid, and fitted to enter the Mouths of **the**

Lacteal Vessels, which open into the intestines, and perform the  
same Office to Animals, as the. fibrous Parts of Roots do to  
Vegetables.

- That the Saliva, or Spittie, is of a saponaceous Nature, any  
one will readily he convinc'd, that thinks it worth while to  
try an easy Experiment ; for he will find, that Spittle will dis-  
solve Concretions os Earth, or, in other Words, Dirt, adhere-  
ing or sucking to any Substances much sooner than Water.

\* There is a Remedy recommended by the good old Women  
for Wens, or other final! Swellings upon the Surface of the  
Body, which, however Vulgar, is said to he a very good one ;  
it is to anoint the Part with Fasting-spittie : Now the good  
Effect it has in these Cases, is owingsto its saponaceous, pene-  
trating Nature. '

Gall is so commonly known to be a natural Soap, that it is  
frequently used in Washing, especially that of Oxen, which  
is easily procur'd, instead of artificial Soap.

It is remarkable, that the Gall os Pikes, Eeis, and other  
Fishes of Prey, which want some Helps to Digestion which  
Other Animals enjoy, have a Gall the most penetrating and  
saponaceous of all other Animals. See BiLISi

From what has been said about Digestion, it appears how  
little those People consult their Health, who draw off Vast  
Quantities of their Saliva, or Spittle, by smoaking, or chew-  
ing Tobacco. '

' From hence also it appears, that Nature is simple and uni-  
. form in preparing the Pabulum, or Food, both of Animals  
and Vegetables.

This Subject must not be dismissed without animadverting  
upon an Error of many Authors, who have compar'd the  
Roots of Plants to the Stomachs of Animals, which seems to  
be without the least Foundation ; for the Food ***of*** Plants, or  
the Juices which are to circulate therein, are prepar’d in the  
. Bosom of the Earth before they enter the Pores of the Root;  
and the Office of the Root seems to be little more than to fin-  
nish Conduits, or Pipes, to convey these Juices to the Stem ;  
though it is probable, they may undergo some Alteration by  
circulating in the Vessels of the Root.

The nutritious Juices of Plants being thus prepar'd in the  
Bosom os the Earth, we are now to explain,show it comes  
th pass, that they enter into the Seed. In order, to do this,  
. we must observe, that all Bedies whatever are expanded, that  
is, grow larger, by Heat. When therefore a Seed has lain all.  
Winter in the Ground without any Signs of Germination, in  
the Spring, as the Seed is distended by the Heat os the Sun  
in all its Dimensions, though never so littie, there must be  
fome Vacant Spaces within it; and, as Fluids press every Way,  
the nutritious Juices in the Earth, with which the Seed is fur-  
rounded, will enter "the Foramen, or Hole, which we have  
describ'd to be at one End thereof, and fill up these Vacancies.  
When they are once got within the Seed, being extremely  
penetrating, they enter the Pores of the Cotyledons, or Lobes,  
for the Very same Reason that they first enter'd the Seed.  
From hence passing through the ***Funis umbilicalis,*** or Navel-  
strings, they are communicated to the Radicle and Plume,  
which are thereby distended, or, as it were; unfolded. And  
thus is the Circulation in the Infant Plant carried on, till the  
Radicle, by degrees extending- itself into the Earth, fixes there,  
and becomes capable at last ofimmishing the whole Plant with  
a nutritious Juice, whilst the Plume, shooting in a contrary  
Direction, in a Very little time, flourishes above the Surface,of  
the earth.i' - ς j ' ‘ ' - - '5 U- . .\*.

. Some Gentlemen of the Royal Academy os Sciences, have  
pretty much puzzled themselves, and their Readers, in endea-  
vouring to give the Reasons why the Plume ascends, and the  
Radicle descends, when a Seed happens to be inverted in thej  
Earth, which must often ***be-*** the Case, or, in other Words,-  
when the Plume, which ought to-tend upwards; lies lowermost,'  
Or in any other Direction but perpendicular, ***viuri*** pointing to  
the Surface of. the Earth. 'Tis certain, that Seeds of all  
Kinds, from the smallest to the largest, tho’ thrown never so  
confusedly into the Earth,: and - lying there in- all manner of  
Directions, notwithstanding these Disadvantages, redress them-:  
'selves when they come to spring and rise with the Plume per-:  
pendicular to the Surface of the Earth ; and this-is one of  
those amazing Instances of the Wisdom of Providence, which.  
never leaves the Welfare of its Productions to- Chance, but  
conducts the most inconsiderable Parts of the Creation with so i  
much Art and Oeconomy, that the more we are acquainted  
with it, the more we must admire it. It seems exceeding  
easy to explain how this Perpendicularity is effected, if we  
only consider, that, whilst the Radicle is fixing itself in the  
Earth, the Plume lies betwixt the two Lobes, which Lobes  
afterwards shoot out os the Ground, together with the Plume, ’  
and become the seminal Leaves in all Plants, except those of  
the Pulse Kind, which have something analogous to them.  
VVe must also consider, that. Fluids of all Kinds contain a  
great Quantity of Air.

.This Part then of the Operation of Vegetation seems to us  
to he performed in the following manner ; the Lobes of

the Seed are distended with, and fitll of, the nutritious sapona-  
ceous Juice of the Earth, which Juice has in it a great Quan-  
tity of Air: This Air, being rarefied by the Heat of the Sun,  
is perpetually endeavouring to ascend, and get above the Sur-  
face of the Earth, that it may perspire through the Pores of  
the Lobes, and mix with the Atmosphere, as we find in Fact  
it does, when these Lobes become the seminal Leaves, and get  
above the Surface of the Ground ; but the Pores of the Lobes  
being stopp'd by the surrounding Earth, the Ain, which cannot  
yet make its Escape, acting perpetually upon the Inside of the  
Lobes, forces them to tend perpendicularly upwards, and with  
them the Plume. . . ,.

If it should he said, that the Grains of Barley; in Steep in  
order to be made into Malt, or that Acorns, Chesnuts, Pista-  
chio-nuts, or any other Seeds, when laid in a moist Place to  
sprout, send the Radicle downwards, and the Plume upwards,  
notwithstanding the Pores of the Lobes cannot in this Situa-  
tion be stopp'd by the surrounding Earth ; I answer. That even  
suppofing the Pores of the Lobes not to be stopp’d at all, the  
same End will yet be answer'd, and the Lobes, together with  
the Plume, will be elevated perpendicularly, by the rarefied  
Air perspiring through the Pores, and tending upwards.

-But if we may suppose, that the perspiring Air carries along  
with it a Portion of the nutritious Juice, in the Form of a  
Vapour, imperceptible to the naked Eye, as such Vapours al-  
ways ascend, they must necessarily make the Lobes from  
whence they perspire, endeavour to do so likewise, because  
they must have this Tendency to rise, before they have quitted  
the Vessels in winch they were contain’d, whilst circulating  
in the Lobes.

Now, if this Reasoning, in regard to the Elevation of the  
Plume, holds good, 'tis not necessary to mention the Reasons  
why the Radicle shoots downwards, because the Radicle must  
necessarily grow in a Direction contrary to that of the Plume.

Let us now pursue the Progress of the nutritious Juice, or  
Sap, and endeavour to investigate the Method taken hy Na-  
ture to conduct this Embryo to a perfect State.

We have observ'd above, that the Radicle and Plume re-  
ceive their first Nourishment from the Lobes. Now; when the  
Radicle has fix'd itself in the Earth, and has put out Fibres  
sufficient for the Support of the Plant, 'tis probable, that the  
Order of Circulation is chang’d, and that the Lobes, now  
about to become the seminal Leaves, receive, in their tum.  
Nourishment from their Root, either by the same Vessels  
which originally convey'd Nourishment to the Radicle, Or by  
others, which last , is most probable.

f These Lobes, now become seminal Leaves, and got above  
Ground, are of great Use to the Plant-; for, if these are taken  
away before the true-Leaves are expanded sufficiently to per-  
form their Office, the Plant immediately withers and dies.  
The Office‘they perform I take to be this.

Tn a known Maxim in Hydraulics, that when a Num-  
ber of Branches proceed from one large Pipe, or Canal, if one  
of these Branches is open'd, a greater Quantity of the Fluid  
circulating in these Pipes will flow to every Branch proceed-  
ing from the-same Pipe. Now these seminal Leaves, once  
got above Ground, are m a perpetual State of Perspiration,  
when the Heat of the Atmosphere is sufficient to rarefy .the  
Juices of the Plants enough sor that Purpose; or in an im-  
bibing State; when the Heat is not so great as to make them  
perspire, insomuch that Plants generally perspire in the Day-  
time, and imbibe the Ain, and its Contents, in the Night, at  
the Leaves. : When therefore these seminal Leaves are in a  
State of Perspiration, a greater Quantity of the nutritious  
Juice is deriv’d not only to these seminal Leaves, hut also to  
the leading Stein or Head of the Plant, which is nourish'd by  
Vesseis proceeding from the same Trunk with those which  
nourish the seminal Leaves. By means of this Perspiration,  
there is a perpetual Supply of a nutritious Fluid drawn to the  
ascending Branch os the Plant sor its Support and Increase,  
which ceases, if the Perspiration of these seminal Leaves is  
by any means stopp'd, or if the Leaves are taken away before  
the true Leaves are expanded, and grown large enough to per-  
form their Office, and by perspiring in a due Quantity to draw  
a sufficient Nourishment to the leading Stem, or Head. ..-

AS soon then as the true Leaves are fit to do their Duty,  
there being no farther Occasion for the seminal Leaves, they  
immediately wither and rot off; and this Decay of the seminal  
Leaves is probably caused by the Air, which, entering the Pores  
of the true Leaves, is from thence communicated to the Air-  
Vessels of the Trunk, winch, being distended therewith to the  
very Root, the sinall Vesseis, which before convey'd the nutri-  
tious Juice to the seminal Leaves, are compress’d and stopp’d  
up ; the Consequence of which is, that the seminal Leaves must  
perish. Here again we have an Instance of an exact Uniformity.  
in animal and vegetable Productions ; and may observe, with  
Wonder, the Analogy betwixt the one and the other.

A young Animal originally receives its Nourishment from a  
Placenta or Cotyledon, by means of a Navel-string ; but as soon  
aS the Animal is born, and is capable of taking in its Nourish-.

incht at the Mouth, there being no farther Occasion for **the**Placenta or Cotyledon, the Navel-string rots, and the Animal  
is separated from them. Mean time the Ain, falling into the  
Vessels of the Lungs, entirely alters the Circulation of the  
Blood and Juices. . ,

**'Tis** pretty much the same in Vegetables, where the Insant  
Plant is originally nourish'd by Juices which it receives from the  
Lobes, by means of Vessels analogous to a Navel-string; hut  
as soon as the Mouths Of the Plant, that is, the Pores of the  
Root, are sufficiently opened to provide for its own Support,  
the Circulation in somewhat altered ; and the Root giving Nona  
Iishment to the Lobes, they become the seminal Leaves, which  
rot off as soon aS the Plant has no farther Occasion for them  
Assistance. si.'

Animals are kept alive by an alternate Inspiration and Ex--piration of the Air, that is, by the Air's being taken into, and  
foon after expell'd out of, the Lungs ; and if this Inspiration and  
Expiration is prevented for but a Very little time, the Animal  
dies. There is also something in the Air, which; in all Proba-  
bility, is communicated to, and mixes with,’ the Bloed of Ain-  
mass, entering the fine Pores of the Blood-vessels in the Lungs  
during Inspiration. This I take to he the Acid floating in the  
Air; and a fresh Supply of this is so necessary to Lise, that no  
Animal can live long, is confin’d in a close Place where there is  
no Communication with the external Air.

Something of the Very same Nature happens to Vegetables ;  
they suspire or take in Air at the Leaves, during the Night,  
and in moist Weather ; and in the Daystime, especially in the  
Morning, when the Weather is warm, they expire, that is,  
the Ah is- expell'd from the Plant, and carries along with it a  
Part os the nutritious Juice or Sap, in the Form *of an* exceed-  
ing fine Vapour, aS it does from the Lungs of Animais, where  
it is Visible in frosty Weather. And this Acid of the Air, or  
whatever is so necessary to . the Life of Animals, is not less so  
to the Life of Vegetables; for all Plants wherever will quickly  
die, if set in a close Place, or covered with any Vessel in such  
a manner, as to be depriv'd of a free Intercourse with the exter-\*  
nal Air.

The Leaves then of Vegetables may justly he esteem’d their  
Lungs, and are so necessary to their well-being, that if all the  
leaves are pull'd off a Plant, it will neither inspire nor expire ;  
and an immediate Stop is put to all Accretion or Growth, inso-  
much that the Plant generally dies. ’ 'Tis upon, account of  
this Perspiration of Plante at the Leaves, that when Trees are  
transplanted, they cut off a great many of the Leaves and  
Branches, that they may not perspire too much, and kill them-  
felves before the Roots are sufficiently fix'd in the Ground, to  
supply them with a due Quantity of Nourishment; and prudent.  
Gardeners shade their Plants, when first transplanted, that the  
Sun may not make their Perspiration too great, before the Roots  
are capable os bringing a proportional Supply of Juices. But  
this Inspiration and Expiration of Plants at the Leaves is only  
necessary at that Season of the Year when .they increase or grow .7  
and accordingly we find, that against the Winter the Leaves  
drop off, when there is no farther Occasion for their Ministry,  
from all but Ever-greens, which probably always, in some De-  
gree, inspire and expire. .. - -

We heve now conducted the Plant above the Surface of the  
Earth : It remains, that we examine into some Circumstances  
relating to its Accretion or Growth, and shew by what means  
it is brought to Perfection. .

What has heen said of the seminal Leaves drawing Nourish-  
ment, holds good of all the true Leaves os a Plant; for they all  
bring Nourishment to themselves, and the adjacent Parts, by the  
Means, and for the Reasons already taken Notice of: And as  
the rarefy'd Air and Vapour in the Leaves is perpetually tending  
upwards, this still preserves the Perpendicularity of the Plant,  
and keeps the Stem in an upright Direction, unless it is forced  
to deviate from its Perpendicularity, by some intervening Acci-  
dent.

There is another thing which may asso contribute something  
towards the Perpendicularity of Plants, and that is the different  
Density of the Ain at different Distances from the Earth. 'Tis  
well known, that the Ain is heaviest at the Surfaces Of the  
Earth ; and that it decreases in Gravity every Inch, to the  
utmost Limits of the Atmosphere. Now, when a Vegetable is  
once got above the Surface of the Earth, the Direction of its  
Growth must be towards that Part where it meets the least  
Resistance; and as the Air is loss dense above the Plant than  
round about, it must meet with less Resistance upwards, and  
consequently tend that Way.

I am sensible, that the Difference in the Air's Gravity at fuch  
littie Distances from the Earth, is very small; but small as it  
is, it may have a considerable Effect upon so tender a thing as a  
young Plant.

AS the Body of the Plant is daily more and more distended by  
the Heat of the Sun in all its Dimensions, the Fluids it contains  
are yet more distended hy the said Cause, I say more, because  
Fluids having a less Degree of Cohesion than Solids, their com-  
**ponent Parts more easily recede from each other, and therefore**

take up more Room: The Consequence of this is, that the con-  
raining Vefieis of the Plant must he press'd on all Sides by the  
Contained Fluid, and grow larger; mean time the Ain contained  
in the Air-vessels of the Plant in also rarefied and distended, so  
as to keep constantiy of the same Density as the external Ain.  
Thus we see the Plant is constantiy compress'd betwixt the in-  
ternal and external Ain; and as the Veffeis of the Plant are more  
expanded by the Rarefaction of the internal Ain, the external  
Air is also rarefied, and consequently, pressing less upon the Sur-  
face of the Plans, gives it more Liberty to increase its Dimen-  
fions Outwards, and yield to the internal Pressure both of the  
Sap, and internal Ain; but as the Heat os the Atmosphere is  
seldom many Moments exactly the same, the Rarefaction and  
Density both of the internal and external Ain must he perpe-  
tually altering, as the Heat increases and decreases; insomuch  
that the Force of the Air acting upon the Inside os the Plant,  
and upon the Surface, is different almost every Moment; so  
that by this Pressure, a Plant is acted upon much in the same  
manner as a Potter, who is going to form a Vessel, would act  
upon his Clay, pressing the Inside with one Hand, and the Out-  
fide with the other; ’ . z ..

The reflecting Reader will readily observe, that something  
shore than what we have already mention'd is necessary towards  
Vegetation, otherwise the Plant would indeed be distended;  
but then its Veffeis would grow much thinner, just in the same  
manner as a Glass Vessel under the Hands of the Maker decreases  
in Thickness; as the Surface is enlarged by the Air the Operator  
forces within; or the Sap-vessels and Air-vessels of the Plant  
would be like a Parcel of Bladders laid contiguous to each other,  
some of them distended with Water, and others with Ain,  
where the containing Vessels would decrease jn Thickness, as  
they were expanded by their Contents : We are therefore to  
explain how it comes to pass, that Plants increase in Solidity as  
well as Dimensions.

This Part of the Operation then seems to he performed by  
the means of Cold, in the following manner ;

The Heat os the Sun in the Day-time having distended the  
Sap in the Vessels, and made a Part of it perspire through the  
Pores of the Leaves, in order to draw Nourishment to them- .  
selves and the adjacent Parts, the Coldness of the Night imme-  
diately succeeding, when Plants are not in a State of Perspira-  
iron, this Coldness contracts both the Solids and Fluids of **the ;**Plant; for 'tis the Nature Of Cold to contract all Bodies what-  
ever, and reduce them into a less Space, which must he effected  
by making the Particles of Matter, of which they are compos'd,  
approach nearer each other ; and the Particles Of Matter are  
known to attract each Other very strongly at small Distances,  
and infinitely more when their Surfaces exactly touch each  
other : Therefore that Part of the fluid Sap winch Is nearest the  
solid Sides of the Veffeis, is, by the Action of Cold, which  
contracts both the Solids and Fluids, forc'd into Contact with  
the Solids, where it sticks fast by reason of the increas’d Al-  
traction 5 and thus are the Salts and Earth, which werediflolV’d  
in the Sap, applied to the Vessels, and reduced to a Spljd ; and .  
in this the Salts and Earth are much assisted by the Oil and Wa-  
ter, which, entering betwixt each Particle of Matter, fill up  
the Vacant Spaces, and render the Cohesion stronger; just in  
the fame manner aS two polish'd Pieces of Marble applied to  
each other will adhere Very strongly when the Surfaces areuoiled ;  
and- as Leather or Paper will stick closely to any Body, when  
wet. ..... .. . . . ' - . .. .

When once these Particles of Matter have acquired such a  
Degree of Cohesion, the Heat of the Sun, next Day, approach-  
ing by gentie Degrees, is not capable Of dissolving this Union,  
which however it would do, was it more sudden and intense ;  
and indeed we find, that this Union is utterly dissolv'd by  
Heat or Fine applied to Vegetables in4 certain Degree; for,  
when Vegetables are burnt, the Oil and Water is dissipated or  
destroy'd, whilst the Salts and Earth remain without any con-,  
fiderable Cohesion.

But so sar is this gradual Heat from destroying this Cohesion  
of. the Particles of Matter, that it increases it; and by drying  
up the superfluous Moisture, helps to harden it, and renders it  
more solid, just in the same manner as Bricks, before they are  
committed to the Kiln to be burnt, are dried and hardened *by  
the Heat of the Sun,*

Thus we see how necessary a Vicissitude of Heat and Cold  
is to the Vegetable World ; for without it not a single Plant,  
could grow upon the. Face of the Earth : Was the Atmosphere  
to he always hot. Vegetables would beta a perpetual State of  
Perspiration, so long as the Earth could afford a Supply of  
Juices; hut then they could never he enlarg'd, or grow bigger,  
but would he littie more than the Neck or Pipe of an Alembic, .  
affording Only a Conveyance to that Fluid which is forced thro’;  
them by the Fire. AS a Confirmation of this, we may fre...  
?uently observe in very hot Summers, that Plants set in a warm  
lace, much exposed to the Sun, perspire themselves almost to  
Death, and grow but Very little; whilst others, planted **in the**Shade, and defended from the too Violent Heat Of the Sun,  
**increase .in Bulk considerably; and hecome very large. . - -**

.Was it always to he cold, Hants would want the'Conse of  
their Extension, and consequently not grow at all.

In either of these Cases the whole Britte Creation must want  
Subsistence,, and consequently Mankind.

Thus.as we were originally miraculously formed, we are still  
supported by a perpetual Chain of Miracles; insomuch that if  
it pleas'd the supreme Being to dissolve a single Link thereof, an "  
immediate End. would he put to the whole Race of Animais  
upon the Face os .the Earth, without having recourse to a De-  
luge, or a Conflagration. - . .

Many have been the Disputes amongst Naturalists .concern-  
ing the Circulation of the Sap in Vegetables; some will have  
it, that it rises in Vessels analogous to the Arteries in Animals,  
and is again return'd towards the Root by other Vessels ana-  
logous to the Veins; others again are of Opinion, that there is  
uro such Retrogradation of the Sap ; and both Parties bring Ex-  
periments to justify their different Sentiments. For my own  
Part, I believe there are no peculiar Vessels in Plants destined,  
like the Arteries and Veins in Animais, for the Flux and Reflux  
of the .circulating Juices ; but that the Sap rises, and in some  
measure again retires, by the same Vessels, as both the solid and  
fluid Parts of the Plant are dilated by Heat, and contracted by  
Cold. .et .

It may riot be amiss to make one more Observation concern-  
ing the strict Analogy there is betwixt Animals and Vegetables.  
It is well known so Anatomists, that the Bodies of Animais  
abound with. Glands of different Sorts.; which are destin'd by  
Nature to separate Various Kinds of Liquors from the Blood,  
\* necessary either for the Preservation of the Animal, or the Pro-  
pagation of the Species ; thus the Bile or. Gall is separated by  
the Liver, arid the Saliva or Spittie by the Glands about the  
Mouth and Throat. I don't in the least doubt, that there is a  
Mechanismjike this in Plants Of all Sorts; and that Vegetables  
are furnished with Glands in Vast Numbers dispersed all over  
them, which separate different Liquors from the hap, according  
to the’Exigencies of those Parts where they are plac'd ; and by  
these Glands I apprehend the nutritious Juices os the Earth are  
converted, if I may use that Expression, into the specific Juices  
**os** the . Plant.; which Juices distinguish every Plant upon the  
Face os the Earth from every' other Plant, as much as their'  
Forms and Complexions,  
; What we.have above call'd; aster Dr. *Grew,* the *Paren-  
chyma,* I take to consist of a great Number of Glands destin'd to  
separate a peculiar Fluid from the Sap ; and I also take the Pith  
to he a Congeries or Bundle of Glands, tied to each other";  
**or** what she Anatomists call a conglomerate Gland ; and as the  
Pith is in greater Quantity in proportion, and more juicy, in  
young Plants, and the young Shoots of Trees, than in old  
ones, I conclude, that it furnishes a Fluid absolutely necessary  
to the Accretion or Growth of the Plant. Now, as the Buds  
are form'd in, and proceed from, the Pith, if I may he allow'd  
**. a** Conjecture, do not the Glands of the Pith separate a Liquor  
necessary for the Formation and Support of the Bud ? And may  
not the Apices, of Flowers be considered as Glands separating  
the *Farina foscundans,* for the Impregnation of the Pistil or  
Uterusss ; '

I am far from entering into those romantic Notions and Opr-  
IsionS of some late Writers, who dream that the first Plant of  
every Species which grow upon the Face of the Earth, *cone-*tam'd in it every individual Plant, with its Seeds, in Miniature,  
which haXe. since been propagated from it; for it seems to be  
more consistent with the general Order observ'd by Providence,  
that one Plant- should, by a particular Mechanism, be render'd  
capable of forming another of the same Species out *of* fuch Ma-  
serial? as the juices of the Earth afforded, than that at the  
Creation one Plant should be stuffed into another, and another  
into that, and so on, *ad infinitum,* like a Nest os Boxes.

**. . W**e proceed now to make some Observations on the Flowers :  
The first thing then that occurs worthy Of Observation in  
Flowers is,; that they perform the fame Office to the generative  
Organs, as the Leaves do to Other Parts of Plants, that is,  
draw Nourishment to them for their Support, by perspiring;  
and that they do. actually.perspire, and in great Quantities, is  
certain; because they transmit to Our Organs certain Effluvia,  
winch affect us with that Sensation winch we call Smelling.  
These Effluvia are a Portion of the *Spiritus Factor,* or prevailing  
.Spirit; winch is exactly alike in no two Plants os different Sorts,  
hut the same in every Branch of the same Family, allowing for the  
Accidents os Soil and. Climate,, and is inimitable by Art. This  
*Spiritus Rector* resides in the essential Oils of Vegetables, and is  
probably sensed by the finest and most Volatile Parts of these essen-  
tial Oiis, exalted by, and mixt with, the Particles of Light or  
Heat, which are embodied with them, and reside therein in a  
solid Form.; and this. I the rather believe, because the essential  
**Odin** of Plants are of an alcaline Nature, especially those of the  
aromatic Kind, which, growing in hot Climates, hevea greater  
Proportion.of the Particles .of Fire in their Composition, in-  
.stances to our present Purpose are the Oiis of;Cloves, Sassafras,  
and Caraway, which make a violent Effervescence, when mixt  
with fuming Spirit of Nitre. Now, in many Instances, Tire

renders Bodies it acts upon alcaline, or, however, dissipates or  
neutralizes the Acids which they contain. Therefore, as  
essential Oiis are of an alcaline Nature, I think it highly pro-  
bable, that they are. render'd fohy the Particles of Fine, which  
enter their Composition. And when I consider the extreme:  
Volatility of this *Spiritus Factor,* I am farther confi rm'd in the  
Opinion, that the Particles of Light or Fine are a Parr of its  
Composition.

Is we wanted an Instance to prove the Destruction of Acids  
by Fire, we might find one in moil Kinds of Fruits, which are  
originally acid ; but this Acid is by Degrees destroy’d, and the  
Juices of the Fruit neutraliz'd, as it imbibes the Particles of  
Fine, that is, as the Fruit ripens. . . .\*

I have a few more Observations to make upon Flowers with  
regard to their Colours, which, however Various and beautiful,  
may easily be accounted for by the Action Os the Acid of the  
Air so often mentioned, upon a Portion of the Oil, or, as the  
Chymists call it. Sulphur of Plants, when exposed to the Ain  
upon the Surfaces of the Petals or Flower-leaves ; and, indeed,  
if we consider that the Varieties in Colours depend entirely upon,  
the different Reflexions, Refractions, and Suffocations, the  
Rays *of* Light undergo upon, the Surfaces of Bodies, 'tis not sur-  
prising that so penetrating a thing as the Acid of the Air, acting  
forcibly upon Sulphur,- which the Chymists, by.a Multitude of  
Experiments, have prov’d to be the Parent of Colours, should  
so far alter the Disposition and Texture of its Particles, aS to  
produce those beautiful Colours which we observe in the Petals  
of Flowers ; and aS the most minute Difference conceivable in  
Sulphurs or Oiis will also make a Difference in the Action of  
the Acid thereon, the Variegation, or the Variety of Colours in  
the same Flower, may, from these Principles, he easily  
accounted sor.

A great many Liquors, originally clear and limpid, will, by  
being expos'd to. the Air, become red ; - and if 4 Bottie iS fill'd  
half or three Parts full of these Liquors, the small Quantity of  
Air contain’d in the Bottie, though closely stopp’d, shall have  
this Effect upon them. That this is caused by the Air, is very  
?lain ; because if another Bottie is fill’d quite full with the same  
dquors, and guarded carefully .from the Ain, the Liquors will  
retain their Limpidity. - .

And indeed nothing is more cominon than for Acids to change

the Colours of Bodies; thus Nitre, which contains an Acid,  
and even the add Smoak of Wood, will make Flesh intensely  
**red.**

Those, who are concerned in the Trade of Dying, observe,  
that a cloudy, moist Air, very much interferes with the Vivid-  
ness and Beauty of their Colours; and, on the contrary, **a**serene Sky exalts their Colours, and makes them more elegant.  
Now, it is certain, that an Acid does not so much abound in-  
a moist, cloudy Air, aS in one which is serenei

- The Colours os Flowers are also liable to the very same. Acct-  
dent; *for in* cloudy, moist Weather, they are never so vivid  
and exalted as when the Air is serene and dry. -. . „ . ..

So much has been said already upon the Seeds of Plants, and  
their Generation, that 'tis unnecessary to repeat it in this Place :  
**I** shall therefore proceed to the Decay of Vegetables.

An annual Plant, when it has once brought the Seed to Per-  
fection, has answer'd the End of "Providence; and now the  
Vessels which bring Nourishment to the Leaves being fum'd up,  
incrusted within-fide, and render’d impervious, that is, no  
longer hollow, the Leaves can no more perspire,. but wither  
and drop off; mean time the Vessels of the Root and Stem ,.  
undergo the same Fate with those of the Leaves; insomuch  
that the whole Plant dies, rots, and helps to supply the Earth  
with a fresh Pabulum, or .Food for a succeeding Generation.

There is a large Class of Plants which are called perennial, of  
which Sort are Trees that live for Ages; these, likenannual  
Plants, lose their Leaves against Winter, and for the same Rea-  
son ; hut then the Sap-yeflels in the Root and Trunk continue  
pervious or hollow, so that eVen in the Winter a sort Of Very  
languid Circulation is maintain'd, much like that by winch Tor-  
toises, Snakes, and many Sorts of Insects, are kept alive during  
Winter. These, at the Approach os Spring, when the Heat is  
increas’d, and the Earth has been for many Months laying in st.  
Stock of Pabulum, or Food,, for their Support, put out Leaves  
afresh, perspire and grow, till at last the Sap-veffeis in .the.  
Root and Trunk are obstructed, and become impervious by »  
Degrees, insomuch that when the Circulation is entirely stopp'd  
in any Part of it, the Air dissolves its Texture, and It gradually  
decays, dies, and rots. ’ . ......

As the Decay ofTrees begins in the Middle, .this .is a strong  
Evidence, that the Air penetrates into their inmost Recesses ;  
for nothing can rot, unless expos'd to the Air. *.And* this Ob-  
servation helps to confirm what we have already laid down in  
regard to the Air-Vessels of Plants. ῆ -. ...

I have purposely omitted obviating some Objections .which  
may be made against many things I have advanc'd, (and winch  
**I** think may easily be defended) for sear os heing too prolix; and  
for the same Reason I have not .drawn all the Corollaries thet  
the Subject would have admitted of. As I hope 1 have led the

Render in a just way ofThinking upon these Subjects, his own  
Reflection will supply him with many philosi-phimi and useful  
Truths, which I have either omitted, or, perhaps, not observ’d;  
and the more be pries into the Mysteries of Nature, -the more  
will he adore the Power and Goodnefs of the Supreme Being,  
. whe created all Things in the Beginning, .and still continues to  
protect them by a Series of Miracles not lefs wonderful than  
that of their first Creation ; otherwise the whole Frame of the  
Universe would, in an instant, he utterly dissolv’d, and all  
things degenerate into their original Chaos.

There is one Experiment, which should he taken Notice of  
hesore we dismiss the Subjecti of Vegetation, which is this: Im-  
merse the Ends of a Parcel of cylindrical Glass Tubes, open at  
both Ends, in Water, and the Water will rise in thefe Tubes  
above the Surface of the rest of the Water, hut always highest  
in the least Τube: Now, as ’tis very likely something of the  
same Nature happens in the Sap-vessels os Plants,- mis may he  
a great Help to Vegetation, and contribute much to the Rising  
of the Sap. -

I shall conclude the Article of Botany with some Account  
of the principal Authors upon rhe Subjeci, and to these I shall  
add the Names of others whe have wrote on the different  
Parts of the *Materia Medica,* not with a View of giving In-  
formation to those who are already acquainted with the Sci-  
ence ,- but with a Design to direct those, who are inclined to  
he more acquainted with it, to proper Authors. I shall also ex-  
plain the Abbreviations of Authors Names generally used, and  
specify the Editions resemi to in this Work. . '

*\_ Ac. Reg. Sel* implies the . Histories and Memoirs of the  
Royal Academy of Sciences at *Paris.*

*Act. Med.* I. Thomae Bartholini Acts Medina & Philoso-  
phica Hafriensia, Vol. I. *Hiasu.* I673. 4to.

a. Vol. II. Ib. I675. 4to.

3. Vol. III. Ib. I677.

. —i . 4. Vol. IV. Ib. I677.

- 11 1 . 5. Vol. V. I 680. 4to.

*Acts Philasc et Transact. Philasc* signifies the Philosophical  
Transactions. '

*Agulcol.* Agricola de re Metallica, *Basest sCay.*

*Albin. Inse.* Albin Eleazhr, a Natural History of *English*Insects, *Land.* I720.4.0.. . ...

*Aldin, et Alden. Hart. Fam.* Exactissima Descriptio -ratio.  
rum quarundarn Plantarum Horti Farnesiani, Tobias Aldmi,  
*Paemae,* I625. fol.

*Aldrsvi Dendr.* Aldrovandi Dendrologia, *Bonen.* I668.

*Aldrcm. Exang.* Aldrovandus de Animalibus exanguibus,  
Ib. 1642.

*de Insect.* Aldrovandus de infectis, Ib. I638.

*' Muse Metal.* Aldrovandi Museum Metallicutn,  
I648. - . :

*. - 111 Ornith.* I, 2, 3. Aldrovandi Ornithologia, Vol.

T II. ΠΙ. I64o. , . ...&

*de Pise.* Aldrovandus de Piscibus, 1638.

*de Quad.* Aldrovandus de Quadrupedibus, I639.

*de Quade Biful.* Aldrovandus de Quadrupedibus  
Bifulcis, I642.

*—— de Quad. Digit.* Aldrovandus de Quadrupedi-

- bus digitatis, Ib. I 645.

*.. - Hist. Serpent.* Aldrovandi Historia Serpendum,

. Ibid. I640.

*' Alpin. Asgspt.* Prosperus Alpinus de Plantis AEgypti, Liber  
4to. *Patav.* I640.

*de Balse* Prosperus Alpinus de Balsamo, *Patav.*4to. I639. , \ .

'—Ci,.-*—. Exot.* Profperus Alpinus de Plautis Exoticis,Libri  
duo, 4to. *Venet. i&ly*

*Amman.* Pauli Amman! Brevis ad Materiam Medicam in  
usum Philiatrorum Manuductio, ad finem Supellectilis Botanicae,  
*Lipsta,* I675. 8vo.

*Amman. Char. Plant.* Ammanni Character Plantarum, *Lipsc*;I6S5. I2rno. , .

*Ang. et Angull.* Simplici del? Excellente Μ. Luigi Angull-  
.4aia, *Venet.* ,I56I. 8vo. - 1

*Barr. -Icon.* Jacobus Barrelierus. . Icones Plantarum per Gal-  
hem, Hifpaniam, & Italiam Observatarum, *Parise.* I 714.  
Fol. .

*: — Spec. Insect.* Idem. Specimen Iofediorum quo-  
Iundam marinorum mollium, &c. Ib. I7I4.

*Bauhine.* See C. *B.* and *J.B.* s

*Bellon, de Aquat.* Petrus Bellonius de: Aquatilibus, Libri  
duo, Parasc I553. Svo. forma longa.

*— . des Oyse.* Ejusdem, L’Histoire des Oyseaux, *Paris,*

1555- Fol. . .

*. Oof.* Observationes tribus Libris expressa, *Antw.*

.1665. Fol.

These were wrote originally in *French,* and were tranflated  
ίinto*Latin* by *Clastus.. ’ . .*

*Best. Fascic.* Bosilii Befleri Fasciculus rariorum.00 *Ncrimb.  
tiuv.* Fol. \* ...

*Sese. Garapirjl.* Gazophylaciurn renim Natutalinin Μ1-  
chaelis Ruperti Befleri, *Norimb.* I6I3. Fol.

*Best. Hint. Eyf* Befleri Hortus Eystetensis, *Narimb.* I 6I 3. Fol.

*Bccc. Plant. Ramer.* Paulus Bocconus. Icones & Deletio-  
stones rariorum Plantarum Sicilis, &c. *Oxon.* I674. 4to.

*— - Oof.* Observationi naturali, *Bclog.* I684. I2mo. i-  
*. — Muse di Fist* Mnseo di Fifica, *Venet. iduri.* 4to.

*Museo di Piant.* Mufeo di Plante Rare di Paulo Boc-  
cone, *Venet.* 4m. . ,

*Bod. a Stapes* Joannes Bodaeus a Stapel in Theophrasti  
Historiam Plantarum, *Amstel.* 1644. Fol.

*Boerls. Ind.* Index Plantarum, qua; in Horto Academico Lug-  
duno-Batavo reperiuntur, I7IO. Svo. - . .. :

*Ind. A.* Hermanni Boerhaave Index alter Plantarum,.

*Lugde Bat. t-soo.* 4to:

*- Boet.* Anselmi Boetii de Boet Gemmarum & Lapidum Hi-  
storia, *Eugd. Bat.* I 72o. uro.

*Boncrn.* Philippi Bonanni Recreatio Mentis & Oculi, &c.  
ἐ?ονυιπ,ι684. 4to.

*Bora.* Jacobus Bondus de Historia Naturali Indite Orientalis  
aGuhelmo Pifone edit: *Arastel.* I658: Fol.

*Soyrnii* Flora Sinica. -... ‘ .

*Sreyn. Cent.* Jacobi Breynii Exoticarum aliarurnque minus  
cognitarum Plantarum centuria prima, *Gedane,* I678. Fol.

*. Prod.* I. Ejusdem Prodromus fafciculi rariorum Plan-  
tarum, &c. *Gedane,* I680. 4to.

*— — Prod.* 2. Prodromus fasciculi rariorum Plantarum se-  
cundus, *Gedani,y*689. ’ '

Hist. 6οα. Joannes Philippi Breynii Historia Natu-:  
ralis Cocci Radicum Tinctinii, *Gedani, fngr.*

*—— Schede* Schediasoia de Echinis, *Gedane, tThl.*

Differt. Βου ...

*Brom. Chlor. Gath.* Olai Bromelii Chloris Gothica, seu Ca-  
talogus stirpium circa Gotboburgum nascentium, I694. 8vo.

*Brojseaus.* Description du Jardin Royal des Plantes Medici-  
nales, par Guy de la Brosse, I633. 4to.

*Brunofelftus* (Otho) Historia Plantarum, I. Vol. I530.

2. Vol. I53r. 3. Vol. I536.

These were also publish’d in *High Dutch* at *Strase.* I539. 4to.

*Pry* (Johannes Theodorus de) Florilegii Pars prirna, I6Ia.

Pars secunda, I6I4. Pars tertia, I6I8. Fol. - -

*Buxb.* Joannis Christiani Buxbaumi Enumeratio Plantarum,  
*HalaMagdeb. iquis.* 8vo. , . - -

*Case et Caesalp.* Andreas Cndalpinus. De Plantis Libri I6.  
*Florent.* I583. 4to.'

*Calc. Muse* Museum Calceolarium Veronenfe, *Veron.  
1622.* Fol.

*. Cam.* Joachimus Camerarius de Plantis Epitome, *Francof.  
ad Man.* I586. 4ro.

*— - Hart.* Hortus Medicus & Philosophicus, Ibid. I588.

4to. - . ' ’

*Camel. Syliab.* Georgius Jofephus Camellus. Stirpium In-  
fuhe Luzonis, &c. Syllabus. ...

*Car. Steph. Praede Bast.* Caroli Stephani Praedium Rush  
*Parise* I 629.

*Cast. Dur.* Herbaria nuovo di Castore Durante, *Rama,* I585. '  
*Venet.* I 684.

*C. Β. Pin.* Culpari Bauhini Pinax Theatri Botanici, *Basel.*

I67I. 4to. - ' '

*Phyt.* Ejufdem Phytopinax, Ibid. I596. 4.0.

*’ Prode* Ejusdem Prodromus Theatri Botanici, Ibid.

I67I. 4to. \_

*Cat. Basel.* Ejusdem Catalogus Plantarum circa Ba-  
sileam fponte naseentiom. *Basest.* I622. Svo. ' .ιοϊ

j —*— Theat.* Ejusd. Theatrum Botanicum, *Basel.* I658.

Fol. - .

*Matsu.* Idem. In Matthiolo, Ibid. I674. Fol.

*Chab.* Dominicus Cbabraeus, M. D. Stirpium Icones &  
Sciagraphia, *Genev. sdury.* Fol.

*Charlt. Extr.* Gualterus- Charltonus. Exercitationes de  
differentiis & nominibus Animalium, *Oxon. majy.* Fosi ?

*— de Pisi.* Idem de Piscibus, Ibid. I677. Fol.

*Cluse et Cluj. Hist.* Carolus Clusilis. Rariorum Plantarum

Historia, *Antw.* I6oI. Fol. - ‘ ;

*Exot.* EjuId. Exoticorum Libri decem. Ibid. I605.

Hisp. Ejusd. Rariorum aliquot stirpium, per Hifpanias  
observatarum Historia, Ibid. I576. 8vo.

*Pan.* Ejusd. Rariorum aliquot stirpium, per Panno-  
niarn, Austriam, & vicinas quasdam Provincias observatarum  
Historia, Ibid. 1583. 8vo. ' - '' ’ .

*— Cur. Past.* Clusii Curae posteriores, *Antw.* I6II. Fol.

& 4to' ’ . . ί ’

*Cal. et Colum. Ecph.* Fabius Columna. Minus cognita-  
rum ratiorumque stirpium ’Εκφραστὴ I. 2. *Romae,* I6I6. 4to. \*  
*' —— Aquat.* Ejusd. Aquatilium & terrestrium aliquot Ani-  
maliurn, &c. Observationes, Ibid.

*Purp.* Ejufd. Purpura, *Rama,* I6I6. 4to.

*— - Phyt.* Ejuid. Phytobatanos sive Plantarum aliquot Hi-  
storia, *Naap.* 1592. 4to.

*Col. injlsaech.* Columna in Rechum in Hernandez, *Romae,* I649.

ο l- ντ..οτ, *a f*

*-. Gommel. Plant. "Usu.* Casparus Commelinus. Hofti Media  
**A** mfteheris mensis Plantarum Ustralium Catalogus, *Amstel.*T724. 8vo. . - . ... . .

*Commel. Pralnd.* Idem. Proludia Botanica, ad Publicas  
Plantarum exoticarum demonstrationes, *Lugde Bat.* I 715. 4to.

*Flo. Mal.* Idem. Flora Malabarica, sive Horti Maia-  
barici Catalogus, Ibid. I696. 8vo. ’

*—-— Hart. Anast.* a.. Idem. Horti Medici Amstehedarnensis  
Rariorum Plantarum, &c. Pars altera, *Amstel.* I7oI. Foh

*In Nat.* Joannes Commelinus, None ad Hortum Ma-  
Iabaricum.

Hare. Idem. Catalogus Plantarum Horti Medici Am-  
stelaedamensis, *Anast.* I689. 8vo.

—Mode Idem. Horti Medici Amstehedarnensis Ratio- ,  
rum Plantarum Descriptio & Icones, *Amstel. Itscyj.* Fol.

*—— Indigi* Idem. Catalogus Plantarum Indigenarum Hol-  
landise, 1685. Iamo.

*- Corde Eur.* Euricii Cordi Botanologicon, sive Colloquium de  
Herbis. *Colonia,* apud Johan. Gymnicum, I534. Svo.

*Corde* Valerii Cordi Historia stirpium, L. 4. *Argent.* I56I.

Fol: , . ὐ  
Corains also wrote Annotations on *Dioscorides.*

*Corn.* Jacobus Cornutus, M. D. Canadensiurn Plantarum,  
&c. Historia, *Purist* I 635. 4to.

*Cup. Hart. Cath. et Hart. Cath. Supp.* FrancisouS Cupanus  
Hortus Catholicus, &c. *Neapri.* I 696.

*. ' . Hart. C. Suppi.* Horti Catholici Supplementum pri-  
mum. ,

*Sup. Alt.* Idemi Supplementum alterum ad Hortum  
Catholicum, *Panor. sCay.* sto. .

*Dale* Samuel. Pharmacologic feu Manuductio ad Materiam

' Medicam, *Lind. tTTh.* 4to.

——Thomae Dissertatio Medico-Botanica Inauguralis, *Lugd.  
Bat. tsus.* 4to.

*Dalechamp. Lugd.* Historia genendis Plantarum Dalecham-  
pio elaborata, *Lugd.* I586. 2 Vol. Fol. c- J ’ - ' --Λ -  
.“—f — App. Ejufdem Appendix, Ibid.

*Dill. Cat. Cisse* Joannes Jacobus Dillenius. Catalogus Plan-  
tarum fponte circa Gissam nascentium, &c. *Franc, ad Man.***I7I9.** Svo. -

*Diofc.* Pedacius Diofcorides Anazarbeus.

; Of this Author’s Works there heve been many Editions, of  
which one was publish’d by *Aldus inGreek, Vena.* I499. Foh  
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third was publish’d under the inspection of *Janus Ccrnarius.  
Basest.* 1529. 4to.

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ful Edition.

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it has been translated into many of the modern Languages.

*Dnd.* Rembertus Dodonaeus stirpium Historiae Pemtades sex,  
sive Libri 30. *Antw.* I 616. Fol. -.

*Dodart.* Description de quelques Plantes nouvelles, *Parise*I676. 8νο. ί

*. Donat.* Trattato dei Sernplice, &c. di Antonin Donati, *Ve-  
na.* I63I. 4to. .

*El. et Elem. BOt.* See TOURNEFORT.

*Ephem. Germ.* Ephemerides Medico-physicae Germanise, five  
Miscellanea curiofa Medico-physica, *Lipstae,* 4to.

*Ferr ar. Hisp.* Ferrarii Hesperides, *Romae,* I 646.

*....—..— Flor.* Ferrarius de Florum Cultura, *Rama,* I655.  
*Amstel.* 4to.

*Fler. Altdert.* See HOFFMAN.

*Flo. Lugd. Bat. FlOr.* See HERMANNUS. .

*Fuch.* Fuchsii de Historia stirpium Commentarii. *Basel.*15421. Fol,

*Gal. Sc Golem.* Claudius Galenus. See GALENUS.

*Garid. Hist.* Petrus Garidel. Μ. D. Histoire des Plantes osii  
naissent en Provence, & principalement aux environs d’Ant,  
*Paris, list).* Fol..

*Garz.* Garzia ab Horto. Aromatum,& Simplicium aliquot  
Medicamentorum apud Indos nascentium Historia, sive Caroli  
Clusii Exoticorum Liber septimus, *Antw.* 1695. Fol.

*Gazapii. Rup. Best, and Rar. Muse Best.* RarioraMufei Bez-  
leriani, &c. edita *Lochncra,* I7I6. Fol.

*Ger.* The Herbal, or general History of Plants, by *John  
Gerard, Lind. s5c)y.* Fol. ' ' cedete-— sine

*- —- - Emac.* The Herbal, or genend History of Plants, cor-  
rested and enlarged, by *Thomas Johnsen, Lind.* I636. Fol.

*Gefn. de Aquat.* Conradus Gesuerus. Historia Animalium,  
Lib. 4. Qui est de Piscium, & Aquatilium Animantium natura.  
*Francof.* I620. Fol.

*—— Avib.* Ejusdem, Historia Animalium, Lib. 4. Qui est  
tio Avium natura, shid. I6I7. Fosi

***Gasct. de*** *Piant.* Fjusdem, Historia Plantarum & vires,. *Basel.*

I54I.

*Quade.* Ejusdem, Historia. Animalium, Liber Primus,-  
De Quadrupedibus viviparis, Ibid. 1603. Foh

*Ovip.* Ejufdem, I586. Fol.

*— Serp.* Fjusdem, Historia Animdinm, Lib. 5. Qni est

dc Serpentium natura. Ibid. I62X.

*de Lap.* Ejusdem, De rerum Fossilium, Lapidum, &  
Gemmarum, &c. Liher, *Tigur.* I565. Svo.

*Gaeda. Insect.* I. Joannes Gindartius Metamorphosis & HI-  
storia Naturalis Insedforum, Pars I. *Modioburg.* I662.

2. Ejusdem, Pars altera. Ibid. 1667.

3. Ejusdem, Pars terna & ultima. Ibid. I667. Svo.

*Grenv (Nahemiahy* Anatomy of Plants.

—— Catalogue of Rarities in *Greseam College.*

*Gristey (Gabriel)* Viridarium Lusitanicum, *Dlysseprn.* I66O.

I2nio. . .

*Garland.* Melchior Guilandinus de Papyro, 4to.

*Hilum Lithogr.* I. M, Georgius Andrea Helwing. Litho-  
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-—— i. Ejofd. pars 2. *Lipsc* I720.

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-Svo.

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- 2. Ejusdem. Principio Editionis 2.

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I7I7. 8vo.

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miis, sive Plantarum Exoticarum in Batavorum Hortis Obfer-

\* vatarum index, *Amstel.* I69I. Iamo.

*Herman. Parade Bat.* Ejufdem, Paradisus Batavus contioens  
plus centum Plantas asiabre sere incisas, & descriptionibus illu-  
stratas, *Lugd. Bas* I698. 4to.

*Hirri.* FranciscusHernandea; Nova Plantarum, Animalium, S  
& Mineralium Mexicanorum Historia, &c. *Pcrnae,* I65I.Fol. .

*Hieronymi* Bruswicensis Apodixis Germanica, *Argent.* I531. -  
Fol. , ...

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cinialibtrs tam Simplicibus, quam compositis. Libri duo, *Parise*I647. alo. ; '

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Delicise Horteofes, sive Catalogus Plantarum Horti Medici .  
*Altdeoffo* I66o. 4to. \_ ' .

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rum in Agro Altdorflino lociique vicinis sponte naseentium, -  
&c. *Altdarff.* 1662. 4to.

*Ii. Beaum,* Herbertus a Beaumont, Horti Beaumontiani  
Exoticarum Plantarum Catalogus, *HagaDomit.^Cai.* 8vo.

*Hi M. et Hi. Mal.* I. Hortus Malabaricus Henrici Aldriani  
Vah Rheede, Vol. I. *Acastel.* 1678. Fol.

. Ejusd. 2. Ibid. I679.

— -——ἱ 3. Ibid. I6S2.

.-.— — Ibid, I683.

... ibid. Iofhis

—-.— -" 6. Ibid. I686.

—...— — y. ibid, I68S.*.e*

8. Ibid. I688.

. ' ——. 9. Ibid. I689.

Io. Ibid. I69o. \

—— - II. Ibid. I 692.

I2. Ibid. I7O3.

*Hi Oxon.* See MoRIsoNus. f- ,. . . ,

*Hart. Reg. par.*.Antonius *Vallos.* Hortus Regius, *Parise*

I665. Fol. , s'f . '

*Impcrat.* Historia Naturale di Farrante Imperato, *foenet.*

*maji.* Foh b ; ; ... i ..... I

*Ind. Med.* Index Medicamentorum, *Parise* 1732. Fol.

*J.B. 1.* Historia Plantarum Universalis, Auctoribus' Jo-  
hanne Bauhino, & Joharine Henrico Cherfero, Tom. I. *Ebrnd.*,I65o. Foh - : τ i *s '' ' - "*

- — 2. Ejusdem. Tom. 2. Ibid. I65I. Fol.

. — 3. Ibid. I65I. Fol.

*J oof. de Avib.* Jeannes Jonstonus Historia Naturalis de Avi-

bus, *Amstel.* I637. Fol. \ \_

*— Pise.* Ejusdem, Historia Naturalis de. Pifcibus &  
Cetis, Ibid.

*Exang.* Ejusdem, Historia Naturalis de Exanguibus  
aquaticis. Ibid. ,'

*. . .——Isuect.* Ejusdem de insectis, &c. shid. -  
*’ Quade* Ejufdem, Historia Naturalis de Quadrupe-  
djbus. Ibid. \_ - . -

*Serpent..* Ejusdem, De Serpentibus, Ibid..

*- - ' Dendr.* Ejusdem, Dendrograpbia, sive Historia Na-  
turalis de Arboribus Si Fruticibus, *Franco/, ad Aesari.* I662.

Fol. - - - .. - :

*Main. Eust.* Eiusdem,'Exoticorum Simplicium Medicamen-  
torum, ibid. &c. ,

*Prode* Ejusdem, Catalogi stirpium agri Bononiensis  
Prodromus,*- Btmon.* I7 I9. aio. .urini -p ...

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nova, &c. *Oxon.* I672. Fol. - '

*Hiest. Oxon.* 2. Eiusdem, Plantarum .Historiae univer-  
salis Oxoniensis, pars.secunda, *Oxan.* 1680. Fol.

' — — 3. Plantaram Historiae Universalis Oxoni-

ensis, pars tertia, ibid. I699. - S- -

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rum Animalium Theatrum, *Lend.* I634. Fol. - *s'- -*

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*Muse Pet.* See PETIVEK.

*Offic.* signifies the Names generally used in the Sheps. ...  
*Ogilb. Chiri.* John Ogilby. History of *China,* Parti. *Land.*

thy3. - . :

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I658. Fol. . ... r.

*Plin.* C. Plinius secundus in Historia Naturali.

*Plet. Hest. Nat. Stajffi.* DI. *Plofs* Natural History of *Stof.  
fordseire.*

- Natural History of *Cofcrdseire.*

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Botanicum, sive Phytographiae Pluknctianae Onomasticon, *Lind.*I696. Fol. . ' .. .;

*Amalt.* Ejusdem, A maithaeum Botanicum, &c. ibid.

1705. Fol. - . ’ :

*. : Mans* Ejusdem, Almagesti Botanici Mantissa, ibidin

I700. Fol.'so - ' S; : , i ‘

*Phyteg.* Ejusdem, Phytographia, sive Stirpium illustri-  
orum & minus cognitarum leones, ibid. I69I. Fol.

*- Plum.* Description des Plantes de 1’ Amerique, par le Pere  
Plunder, ἁ *Puris,* 1693. Fol' ε

. This Author also wrote a Treatise on the Fems os *America,*printed St Paris in I705. Fol. And another on the new Ge- .  
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*Lend.* I686. Fol. so.

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— '3; Ejufdem, Tom. 3. ibid. I704.\_Fol.- '.

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 Descript,* Ejufdem, Defcriptio Itineris Plantattim  
Investigationis in agrum Cantianum, Ibid. I632. .

. Ericeturn Hampstedianurn, sive Plantarum ibi

crescentium. Ibid. 1629.

— Idem. Enumeratio Plantarum; in Ericeto Ηκιηφόν  
stediano locisque vicinis crescentium. Ibid. I632.

τ—*—.mere. Bps.* I. MercuriusBotsnicus, sive Plan-  
tarum gratia suscepti Itineris, Anno I634. Descriptio, *Lend.*I 634: Βνοί ; ' - -

— 2. Mercurii Botanici Pars ultera, five Plan-  
'. tarum Gratia firscepti itineris in Camhriarn, five Walliam,  
. Descriptio, *Lend.* I64I:

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*. yuf. Obf.* Antonins de Jussieu. Planhe per Galliam, *etc.* in  
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tiones indiae Occidentalis, ibid. I 633. Fol.

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*Laurernb.* Petri Laurembergii Apparatus Plantarius, *Francof.*

**rfiSa. - ί** υ ’ , S

*Lister et Lise. Hist. A. A.* Martinus Lister, M. D. Historia  
Animalium Anglon, tres tractstus, *Lind. i6y8. 4to.*

\_^\_.υ— *— Conch.* Ejufdem, Historia-sive Methodus

Conchyliorum, *Lend.* I685. Fol.

*' . --—:— — Excr. Anat. -* I. Ejusdein, Exercitatio

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. ——— : -ee— 2. Ejusdem, Exercitatio

Anatomica altera, ibid. I695. 8vo. . .. ...

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rum Bivalvium utriufque aquas. Exercitatio Anatomica, tertia,  
ibid. I696. 4.to.

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mentorum Explicationes, & Stirpium Adversaria, Lind. I605.  
Fosi 'i

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Fol. -

*. Icon.* Eiusdem, Plantarum seu Stirpium Icones, ibid.

I58I. uro. forma longa.

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I686. Fol. .. ... - '

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' I565. FoL - - .φαύ: . . . ; .

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*esiO.* ' -ε ... *--c-.-'i.*

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I674. Fol. - ) ’ ’ - / . " 1 '; ‘ '

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stianiMenzelii, ,ΒίΓοἰιπέί I682. Fol. - ?

. —— Pugili. Ejusdem, Pugillus rariorum Plantarum, ib.

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lium, *Lmaj.* typo. Svo.

*Philip Millers* Gardeners Dictionary, Vol. I. *London,* I 7 *3^.*

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num usum recipi solent, *Bcnan.* 1724. 4to.

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humum, *Lortd.* I7IO. 4to. . ’

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generalis in Rem Herbariam, *Lips..* 1690. Fol.

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altera, *Lugde* I555. Fol. - . -

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*Basil.* 1536. Fob

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lium Historiae Liber primus, *Romee, sSSy.* Fol.

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4to. : ..... . -τε. -

— . — -'--.ι Ejusdem, Prodromus, ibid. I708. FoL  
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*Infect.* Ejusdem Insectorum, &c. ibid. 4to.

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-— Ejusdem Scotia illustrata. *Edin.* 1684. Fol.

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**rum** quae in Insula Jamaica sponte proveniunt, *Lond.* 1696.  
8vo. . ..

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2. Vol. 2. ibid. 1725.

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. .ISOTARGUM. The salted Spawn .of the. Mugil, or Mui-  
let; which are prepar'd in the following manner:

They sake outthe Follicles of the Spawn entire, and cover them  
with rough bruised Salt for four or five Hours; after this.

' they put them in a Press, hetween two wooden Planks or  
Boards, for a Day and a NightThen they wash them,  
and afterwards dry them in the Sun for thirteen or fourteen  
Days together, taking them into the House at Night.

Others fay they hang them up in the Smoke, but far enough  
from the Flame, that they may not he injured by the Vehe-  
mence of the Heat. . Y

They .excite a decay’d Appetite, and provoke Thirst, and  
give a Relish to Wine. *Dale, from Rafis Ichthyologia.* i .

BOTHOR is taken by some for an Abscess os the Nostrils,  
*Boihor,* among the *Arabians,* has three Significations; in the  
largest Sense it comprehends all Tumors ; in a more restrain’d  
one, a Tumor with a Solution of Continuity ; hut, in the  
strictest Acceptation, it signifies only small Tumors. *Ca-  
stellus.*

BOTHRION, βοθρίον, [a small Ditch] is a hollow or pure  
Ulcer in the Black of the Eye. *Gal. Des. Med.*

Of Ulcers in the Eye, the hollow and pure one, which is  
seated in the *Cornea Tunica,* is call’d *Bothrion* ; hut that Ulcer  
which is wider, hut not so deep as the *Bothrion,* is call’d *Cccior  
mas P. AEginet. Lib.* 3. *Cap. Q.Q.. Actuarius de Meth. Med.  
Lib.* 2. *Cap.* 7. .......

.. BOTIN, *Butino,* Turpentine; also the Balsam of Turpen-  
tine, when' it is gather'd at a certain Season, according to its bal-  
samic Influence. *Rulandus. ’\**

*Paracelsus* mentions a distiPd Botin for extracting the *Flos  
AEris. Lib.* 10. *Chirurg.*

BOTIUM. A strumous Tumor or Abscess in the Throat.  
*Rulandus.* See BRoNCHocELE. .

BOTOTHINUM. An obscure Term in *Paracelsus,* which  
he explains by the *Flower of a Difease*; whence he calls the  
Gout in the Feet *Locusta gummata Botoihina. Lib. y.. de Poda-  
gric. Necrornantia. .*

BOTOU, or BOTOUA. The same as PAREiRA BRA-  
vA, which see. 'Ἀ I ..

BOTRACHOU, βοτραίχου, in *Hippocrates,* according to  
*Galeests Exegesis,* is written tor *Bsotrachou, the* Geni-

.five of βάτραχος; a Frog; and some, he says, read it *Palra-  
chou* ; so βὸτραχος is expounded in *Tdes.ychius* βάτραχος. Foe—  
*s.lUS‘ ' ' .*.. BOTRYITES, Botrfrfr, βοτρυίτις, from βοτρυς, a Cluster,  
properly, of Grapes. A sort of burnt Cadmia, resembling a  
duster os Grapes, and collected from the upper Part of the  
Furnace where it is burnt; aS \_what in collected in the lower  
.Part is call'd *Placetis, orseatiirtc. Gorraus. -*

*Schrodcr, Tib.* 3. *Cap. ya.* says, that the *Botryites* is collected.,  
in the middle Part of the Furnace, the *Placitis* in the upper,  
.and the *Oflracitis* in the lowest. . t

BOTRYS, Offic. Ger. 950 .Emac. 1108. Pharm. Eden in  
4. Rail Hist. I. I96. *Botrys vulgaris.* Park. 89. *Botrys plen  
ris.queDotanicis, j.* P 3. I 98. *Botrys Antbrostoides vulgaris,*C.B. I 38. *Botrys five Ambrosia,* Cod. Med. 22. *Atripsta  
odora seu suaveolens.* Hist. Oxon. 2. 605. *Atriplex Chenopodia  
Antbrostoidesfoliosinualo,* Hort. Month. 29. *Chenopodium Am.,  
brosioidesfoliosinuata.* El. Bot. 406. Tourn. Inst. 506. Boeth.  
.Ind. A. 2. 90. . OAK OF JERUSALEM. *Dale.*

Botrys is a Plant all over yellow, shrubby, wide spreading,  
and running out into a Multitude of Branches. The Seed grows  
-quite round the Branches ; the Leaves are numerous, and much  
like those of Succory. The whole Plant has a very fragrant  
Smell, and is for that Reason laid among Cloaths. It grows  
chieflythy the Sides of Precipices, and the Banks of Torrents.

Drank inWine, it has a paregoric Virtue inime Case of an  
Orthopnoea. The *Cappadocians* call it *Ambrosia,* others *Arte-  
misia. Dioscorides, Lib.* 3. Cap. X3Q.

The Leaves of Oak of *jerusulem* somewhat resemble the  
Leaves of the common Oak, whence it derives Part of its

**Name; Only they are longer and narrower in proportion, and**pointed at the End, having the like Incisions; they are some-  
what' rough, and of a yellowish-green Colour, of a pleasant  
agreeable Scent. The Stalk is striated, or chanel’d, growing  
about half a Yard high, much branch’d, and full of the like  
Leaves. On the Tops of .the Branches grow long Spikes,  
loaded with Bunches of small;, round, greenish, mossy Flowers;  
in which lie Very small, round, and black, shining Seeds.

This Herb .is of a bitter Taste, and of a strong, but not a  
disagreeable Smell: It is os a heating, drying, dissolving, open-  
ing, cleansing, and purgative Nature. It resists Putrefaction, \*  
and is fingularly efficacious in Oppressions, Coughs, and all cold  
Disorders of the Breast, and Difficulties of Breathing. It is  
also Very, effectual for dissipating viscid Matter lodged in the  
Thorax, ***Hier. Cappivacc. Pract. .Medic. L.*** 2. ***C.*** 2. ***Hier..  
Mercurial. Med. Pract. L.Q.. Co-2.*** It opens Obstructions of  
the Liver, Kidneys, and Matrix; cures the Jaundice, prevents  
Dropsies, promotes a Discharge of the Menses and Lochia, .and  
cures Pains of the Uterus and Belly. The ***Venetian*** Women  
find the ***Botrys*** to be a sure and infallibleRemedy against hyste-  
ric Fits, both when used internally and externally, ***G.HiVilsch.  
Mictomim. adSocietat. Nat. Cur. Cent.*** 2. ***Obs.*** 35. Fumiga-  
tions of the Herb itself are excellent for provoking the Menses,  
and expelling dead Fetuses, ***Dom. Chabr.*** The Leaves dried,  
reduced to Powder, and mix’d with Honey, are excellent for  
Vomitings os Blood, and Disorders or Ulcers of the Lungs,  
***Camerar. in Hort. Med. Matthialus*** informs us, that by  
this Medicine he cured Patients, who had spit up Pieces of their  
Lungs. A Decoction of ***that Botrys,*** with Syrup of Violets, is  
recommended, as good for Abscesses, by ***J. Heurn. L.*** 2. ***Methe  
ad Prax. C.*** 8. In the foreign Shops there is a Conserve made  
Of the young Leaves, and a Water distil’d from the whole Plant  
when it flowers : Both these are Very 'good Medicines in Op-  
pressions of the Breast, and in Pains of the Belly. A Lohoch  
of the ***Botrys*** is recommended as an excellent Medicine for all  
Disorders of the Breast, by ***P. Forejso L.*** 16. ***Obs. Med.*** 4. ***in  
Schol. Guil. Fahr. Hildan. Cent.*** I. ***Epist. Chirurg.*** 4o. And the  
***Syrupus Diabotryos is, by Levin Fischcr. L.*** 3. ***Corpor. Mede  
Imper. Tip.*** 4. said to he an excellent Medicine for those who  
are phthisical. The Herb itself, boil'd in any Lixivium, kills  
Vermin, and carries off other Sordes of the Head, if wash'd with  
it. ***fob. Theod. Tabemeemont.*** in his ***Harp. L.*** i. informs us,  
that the Seeds of this Herb, if sown with Corn, kill the little  
Worms which prove so hurtful to it. ***Barthol. 'Lorn Botano-  
dog.***

BOTRYS MExicANA, Cod. Med. 22., ***Botrys Antbrosioides  
Mexicana, C.*** B. Pin. I 36. Rail Hist. i. Io6. ***Botrys Amersu  
Cana,*** Park. Theat. 89. ***Atriplex odorata suaveolens Americana,  
Mexicanave,*** Hist. Oxon. 2. 605. v ***Chenopodium Ambrosioides  
Mexicanum,*** Tourn, Inst. 529. Elem. Bot. 406. Booth. .Ind.  
A. 2. oo.: ***Epazoth, Atriplex odorata Mexicana,*** Hern. I 59.  
MEXICO THEA.

' This is only found in ***Europe,*** in the Gardens of the Curious.  
The Herb and its Root are in Use; both which are said to cor-  
roborate the Stomach, and to relieve in Asthmas and Obstructi-  
ons. A Decoction of, the Root restrains Dysenteries, discusses  
Inflammations, and is said to be disagreeable to poisonous Ani-  
mals, and therefore, to keep them at a Distance. ***Dale*** from  
***-Hernandez.. si***

BOTUS, ***bocia, bolus barbatus.*** A Chymical Vessel, other-  
wisecalled ***Cucurbita.*** Also a Vessel upon a Vessel, a ‘Vessel  
for melting, a Crucible. ***Castellus. \_ .***

BOUBALIOS, βκβάλιος, in ***Galen's*** Exegesis on ***Hippocra-  
- tes,*** is expounded by σίκυς ἄγριος, a wild Cucumber. But  
’βουβάλιος, in ***Hes.ychius,*** is expounded the wild Cucumber in  
***Hippocrates,*** and also the ***Pudendum Muiiobre.***

BOUBON, Βσβςὸν, in ***Hippocrates,*** sometimes signifies the  
Groin, and the Place where the Thigh-bone and Hip-bone  
. meet; sometimes it means the Glandules on either Side, and  
**a** Tumor and Inflammation of the same. Hence the Appella-  
tion has been transserr'd to Tumors or Inflammations in the  
- Glandules of the Neck and Arm-pits, which are sometimes  
.called Βκβῶνες. Places to this Purpose are very frequent, in ***Hip-  
pocrates, An*** in his Books, ***de Epid. Coac.*** and ***Lib. su. de Mor-  
’ bist,*** also in ***Aretaus*** and ***Galen.*** Α - ι

Βουβὰν is aim taken universally sor an Inflammation of **a**.Glandule of any kind, whether it be in the Neck, in the  
Arm-pit, in the Groin, or behind the Ears; as όι ἐπι βουβῶσι  
πυρετοἰ, " Fevers proceeding from Buboes," (inflammations  
of the Glands) ssAA 55. Lib. 4. and ***Lib. An Epid.*** So Lib.  
2. ***Epid. °t wfrlotat βν&Ζνίί xaRofaot,*** Buboes from Fe-  
" vers are of a worse kind." ***Galen*** also ***Meth. Med. Lib.***-13. says, πὸμάζὑσιν δἐ τὴς ἐξαρθέντας άδένας βουβῶνας, " they  
" call Tumors of the Glands ***Buboessa*** And in his suit  
Book ***de Discs. Febr. Ibnpcar isc osoo*** γέν«ς ἐστι τῶν φλεγμονῶν, " **a**" Bubo is a kind of Inflammation." . See BUBO.

BOUCERAS, Εοήκερας, from βῆς, an Ox, and κόρας, an  
Horn, in ***Gal errs*** Exegesis, is expounded ή τῆλις. Fenugreek ;  
to which he adds, that ***Mnethrus,*** in tho Tities of Medicines,  
thought that Anagallis came under that Name. It is also helled

Βκκόρως, by Contraction from ***Bnrioaoc, ffi Theophrastus.*** And  
***Pliny, Lib.*** 24. ***Cap.*** I9. says it is called ***Tolis,*** by some ***Car-  
phos,*** by Others ***Buceras,*** by others ***AEgoccras,*** hecause its Fruit.  
is corniculated, by uS ***(Latius) Silicia. Columella*** calls it ***Si-  
liqua,*** because its Pods resemble those of the ***Siliqua. Hies.y-  
chius says,*** that Βήκερας signifies τὸ σπἐρμα τῆς τ ἥλιος, " the  
" Seed Of Fenugreek.”. The Word is used by ***Hippocrates  
{Lib.*** i. περά γυναικ.) καὶ βήκερας, ***n atitaadmaji*** πυρίνης μᾶλλον  
χυλός» " and Fenugreek, Or rather the Juice Of Ptisan made  
" of Wheat."

BOVILL.E, with the antient Physicians, were the same as  
the ***Morbilli,*** or Meastes, with the Moderns, in the Opinion '  
of ***Raym. Vinarius de Peste, Lib.*** 3. ***Casteflus.***

-BOVINA AFFECTIO. A Disease among Black Cattle,  
-caused by a Worm lodged between the Skin and the Flesh,  
and perforating the same.

Something analogous to this is a cutaneous Disorder, with  
which some scorbutic Constitutions are frequently affected. It  
seems to be owing to an Obstruction of the perspirable Mat-  
ter, which concretes in the Pores of the Skin, and forms a  
sebaceous Substance, resembling a Worm with a black Head,  
which may be squeez’d Out; and sometimes causes a small  
Suppuration, and is discharg'd along with the Pus. I never  
heard of these being attended with any great Inconvenience.  
Put aS they are Blemishes, I have given a Preparation of Gall, -'  
which is said to cure them, under the Article BILIS, from  
***Hamberg. .***

BOVISTA. The same aS LYCOPERDON, which see  
BOULIMUS, Βούλιμος, from βῦ, a Particle which in Com- .  
position augments the Sense, and λιμός, Hunger, is a Dis- '  
ease which causes a Desire of Food at Very short Intervals.  
Persons thus affected faint, and fell down, lose them Colour,  
are cold in their extreme Parts, feel Oppression at their Sto-  
machs, and have a'weak Pulse. ***Galen. Des. Medica.***

***Boulirnos,*** as the Name itself indicates, is ***a great Huagcr.***It proceeds, as Reason seems to inform uS, from the immo-  
derate Heat and Weakness of the Mouth of the Stomach, .  
winch causes the Patients, unless supported with an excessive  
Quantity of Food, to faint and fall down; under which Mis-  
fortune there is hardly any so ignorant, but knows how to have

' recourse to such Smells as are proper to recal and recollect  
the dissipated Vital Spirits. Among such Things as remarkably  
affect the Sense of Smelling, it is usual to offer Bread sopp'd  
in Wine, roasted Swines Flesh,, or Kid, and, in general,-  
all such things as have a nidorous and well-savour’d Smell.  
They compress the Extremities, prick them in every Part, rub  
their Ears, and pull them by the Cheeks, and by the Kinin  
When they are come to themselves from the Lipothymy, **the**most proper Thing to be given them in the first Place, is  
Wine, and, after that, other Food. In our future Manage-  
ment, we are to restore them by such Meats as are of good and  
quick Nutrition, but difficult Of Alteration and Digestion ;  
they are also to be treated with such things as refrigerate and '  
strengthen ; by this Method they are greatly benefited, and,  
-in. Process of Time, are restored to a good Temperament.  
Some for a ***Boulirnos*** have given Opium in cold Water, in  
order to allay the excessive Heat ; but I would advise yon to  
be cautious how you give Opium, but rather set the Patients  
take such Food as is difficult of Concoction and Alteration. **I**-knew a Woman who eat a Vast Variety of Meats, and in im-  
moderate Quantities, and digested them all, and never said **she**was satisfied,' but felt a Gnawing at her Stomach, and a Pain  
in her Head ; at last, she took the Cathartic Powder, called  
***Hiera,*** which brought away from her by Stool a Worm sup-  
posed to he above twelve Cubits in Length; after which her  
immoderate and furious Appetite ceased, and it appear’d, that  
-it was not a ***Boulirnos,*** but this mischievous Animal, which  
-compelled her to take such Quantities of Food,, and consume

it all. ***Alex. Trallianus, Lib. y. Cap.*** 4.

***- Paulus JEgiiieta*** gives much the same general Account ***as a  
Boulirnos,*** as this of ***Alexander's. - -***

In -the ***Caninus Appetitus,*** there is a Define after much Food,  
and great Quantities are eaten, which, oppressing the Stomach,  
-are again discharg’d by Vomit: The Patient being thus re-  
lieved, his Appetite returns, which having gratified, he finds  
himself obliged .to ease his Stomach again, line a Dog, by vo-  
miting. - -

Oftentimes this Disorder has procur’d a ***Boulirnos,*** a deep  
***Sapor,*** a Lientery, Dropsy, Atrophus, and Death itself.

In a ***Boulirnos,*** the Patients at first labour under a great  
Hunger, which however, does not last long. At every turn  
also they faint away, and at the same time their Breath fails  
them; in which Case a Syncope may he feared to be at Hand,  
.followed by Death. ***Lornrtii Med. Obs.***

***Boulirnos*** is sometimes called ***Phagedaena, cuvet,*** which  
is also a Name for eating, spreading Ulcers; and ***Fames cant-  
na,*** hecause the Persons affected have their Appetites vehe-

. mentiy set upon their Food, after the manner of Dogs.

It is to be observ'd, that some make a Distinction between  
***Boulirnos*** and ***Fames canina,*** whereas others take them for the

same. The former say, that in the *Fames caitina* the Patient  
is taken with Vomiting, as Dogs are, after eating too great  
a Quantity of Food ; thss some are seined with a Flux ofthe  
Belly instead of Vomiting, Nature that way discharging the  
Superfluity of Aliment, which the Stomach was incapable of  
digesting; but the *Boulimos* is not.attended with Vomiting,  
but sometimes with a Lipothymy. Some there are who labour  
under this insatiable Desire of eating, and yet are not molest-  
ed with Vomiting, nor a Flux; but throughly digest all the  
Food they take, and are sick if they are not readily supplied  
with more. *Sennertus* relates a Story of a Student, a Man of  
**a** black Complexion, who would he eating not only in **the**Day-time, but in the Night, and perfectly digested whatever  
he took, without Vomiting; nay further, he could not he sa-  
tisfied with delicateEood, but long’d for coarser; for winch  
Reason he did not eat inch Bread as was made by the Bakers,»  
but what was bak'd by the Peasants in the neighbouring Vil-  
lages, aS being more solid and substantial. He would often  
eat a great Number os raw Garden Parsnips in the Morning,  
without the least injury.

*Galen* makes the immediate Cause to he, first, a Vicious and  
acid Humour stimulating the Stomach ; and, secondly, **a want  
of** Nourishment from too great a Digestion.

. The Vicious Humours lodged in the Stomach excite an im-  
moderate Hunger, because by their excessive Coldness, Acidity,  
and Austerity, they cause a Constriction, Corrugation, and  
Vellication of the Mouth of the Stomach, and so excite a  
Sensation like that of natural Hunger.

The perpetual Craving aster Food is sometimes Owing to a  
Defect of Nourishment, on account of excessive Evacuations, by  
a Haemorrhage, Flux of the Belly, Vomiting, Sweating, or the  
like, or from too great a Consumption of the alimentary Sub-  
stance, effected by the immoderate Heat of the Parts, the  
Thinness of the Humours, the rare Contexture of the Body,  
and Laxity of the Pores, want of Sleep, Bathing, immode-  
rate Exercise, or excessive Venery-; all which Things cause a  
great Dissolution Of the alimentary Matter, and consequentiy  
**a** great Inanition,"and want of Nourishment; whence the Food  
**is** hurry’d out of the Stomach with greater Speed than it.  
ought to he.

Sometimes tins Affection is owing to Worms Consuming .  
the Chyle, aS in the Case related by *Tralliant*

The diagnostic Signs of this Disorder are sufficiently evi-  
dent, aS well to the Patients aS Attendants, who cannot but  
observe a depraved and excessive Appetite, which compels  
them to receive into their Stomachs an immoderate. Quantity  
*of* Victuals, which afterwards proving burdensome and op-  
pressive to Nature, are thrown up again by Vomiting, in  
which Case the Distemper is she *Fames canina* ; or, if there be  
**no** Vomiting, the Patient as seized with a Lipothymy, and  
then it is a *Boulimos.. .*

The different Causes os this Distemper are distinguishable  
by the Circumstances, which are antecedent, attendant, and  
consequent to it. , Acid Evacuations and Vomitings, crude  
Stools, and want Of Thirst, are Signs of an Acid abounding  
in the Stomach. In Defect of Nutrition, the Patients are  
emaciated ; and lastly, the Signs Of Worms, are to -he taken  
from their proper Symptoms.

As to the Prognostics of this Disorder, is it depends wholly  
**'on** external Causes, there is no Danger, provided these are  
speedily remov’d ; and what proceeds from Worms carries but  
littie Danger in it, because their Effects cease as soon as they  
are destroy'd. In Pregnancy, where an inordinate- Appetite  
is frequent, there is no Danger to be apprehended from it.

But the Distemper is Very dangerous when followed by large  
Evacuations or Colliquations of the Body; and especially,  
when after receiving Food, while the Stomach is yet full, the  
Patientis seized with sainting Fits; for when those Things,  
which ought -to give most Relief, prove of none or ill  
Effect, it is a Sign of a great Disorder in the Tone Of the Sto-  
mach. .. - - - . . .

So also the canine Appetite, when the Vomiting Or Flux  
is obstinate, is not void of Danger; for it commonly dege-  
nerates into a Cachexy, Dropsy, Lientery, Atrophy, and  
other fatal Distempers. . .

For the therapeutic Part,. fince the *Fames canina* generally  
takes its Rise from redundant Humours inherent arid lodging  
in the Stomach, we are to use evacuant and alterative Reme-  
dies, not omitting such aS are proper to strengthen the affected  
Part.

Evacuation is to be perform'd either by Vomits or Purges,..  
- and that by means of such Remedies as are proper for those

who labour under **a** want of Appetite; for, though these Affec-  
tions are contrary one to another, yet they are usually uro-  
dnc'd by the same Humours, differing only in Degrees of Fri-  
gidity, and some very different secondary .Qualities which af-  
fect the Stomach aster a different manner. A Remedy of this  
kind, winch is very much commended by *Gakrs, is Hicra*made into Pills, in the following manner.

Take Of choice Aloes macerated *[nutrited]* in the Juice of  
. Wormwood, one Dram; Troches of Agaric, two Drams;

Rhubarb pulverized, and sprinkled with White-wine, one  
Dram ; Nutmegs and Spikenard, each half a Dram ; Salt  
of Tartar, Mastich, and Cinnamon, .each one Scruple;  
and .with byrup of Wormwood make them into a Mass  
for Pilis, sipo of which gilt are to weigh a Dram, and  
are a Dose in the Morning, if the Patient has a mind  
to purge thoroughly; or three of them may be taken two  
, Hours before Limner, two or three rimes , in a Week.

Such Remedies also aS heat and strengthen the Stomach,  
both internal and external, are Of Very great Service Os this  
Nature are Syrup of *Pontic* Wormwood, taken to **the**Quantity of an Ounce in the Morning fasting, sor some Days  
together; or, instead thereof. Wormwood-wine may he sub-  
stituted. Or,

Take Conserve of Rosemary-flowers, Mint, Lemon-peel  
preserved. Nutmegs preserved, each half an Ounce ; Che-  
bale Myrobalans preserved, Nnmher one; Confectio Alker-  
mes, three Drams; the inner Membrane of Hens Giz-  
zards prepared, two Drams ; Cinnamon pulverized,, and  
Aromaticum Rosatum, each one Dram; make them  
into an Opiate with Syrup os Mint, or into a Conserve  
'with Sugar of Roses. Let it he used in tim Morning,  
drinking after it a littie generous Wine. . . '.

Salt of Wormwood, or Chymical Oil of Mint, may very  
properly be added to the above-recited Remedies : Or,

- Take of Salt of Wormwood, and Orange-peel, or either  
of them, half a Dram, and take them in Wino or Broth.

The following Mixture is also very effectual:

Take Of Syrup of Quinces, and preserved. Lemon-peel,  
each two Ounces; Cinnamon-water, one Ounce; Oil -  
- of Sulphur, twelve Drops; mix, and give a Spoonful at pro-  
per InterVais. - . ' -

E ” r ♦ . 1

In a Very great Frigidity Of the Stomach, Cinnamon-water  
by itself is of excellent Use; or it may be mined with Syrup  
of Wormwood, of Mint, or of Coral, to which Ambergrife  
may properly be added. -

External Remedies are Fomentations, Liniments, and Plai-  
stars, such as the following.

Take Os the Root of Cyperus, Galangal, Florentine Orris,  
dry’d Lemon-peel, each two Ounces ; the Leaves of Mint,"  
Hystop, Sage, 'Rosemary, and Marjoram, each one Hand-  
sul ; Annifeeds, Bay-berries. Nutmegs, Cloves, and  
Cinnamon, each three Drams; Flowers of Stoechas,  
Schoenanth, and Rosemary, each one Pugil: Cut and  
bruise them, and inclose them in two Bags, which must  
be macerated in generous Wine, and by turns applied  
warm to the Stomach. Or,

Take Oil os Wormwood, Oil of Mint, and of Hops,  
each half an Ounce ; Oil of Nutmeg, two Drams; Lig-  
num Aloes, Mace, Cinnamon, each a Scruple, with **a**little Wax; make a Liniment. This may be improved  
by adding Of Oil Of Cloves, fix Drops ; of Mush **and**Ambergrife, each seven Grains:. Or a Liniment may  
**be** made of Oil of. Nutmegs, and Balsam of *Peru* ; or  
Of Oil of Wormwood, and Balsam of *Peru. .*

For a Plaister. .

Take Mastich, one. Ounce ; Aromaticum Rosatum, Ono -  
Dram; Oil of Nutmegs, a sufficient. Quantity-; mix,  
and make a scutiform Plainer, which apply to the Re\*  
.. gion Of the Stomach.

*- Crato* greatly recommends the following Plaister ::S

Take of ladanum, two Ounces; Wax, four Ounces *j*. Oil.of Nutmegs, three Drams ; make them into **a** Mass  
for a Plaister, and add Of Tacamahac and Mastich, each  
one Dram. .

*Galen, Lib. J. Meth. Med.* advises not to suffer Plaisters of  
this kind to continue long on the Place, because by long Con-  
tinuance they dissolve the natural Heat.

Besides the above-mention'd Medicinos, pure Wine alone,  
drank in sufficient Plenty, is a most powerful Reliever osHun-  
ges, according to the Aphorism os *Hippocrates,* 2I. *Sect.* 2. And  
the Spirit of Wine, commonly Galled *Aqua Vita,* has still **a**more powerful Effect that way. .

-Such Medicines as mightily relax and moisten the stomach,  
and correct the Acidity of the Humour, have a peculiar Virtue,  
in taking off the Sense of Hunger. Of this Sort are all pin-  
guious and oleaginous Things ; as Fats, Oiis, and the Extre-  
mities of Animais.. Thus *Ftllanovanus* relates, that a certain  
Man, affected with this Disorder, eat hot Bread dipt in  
Lees of Ofl ; and that a Woman, in tho like. Case, drank  
twice the melted Fat of Beef with a like Quantity Of hot Oil;  
and that heth these Patients contracted so great a Loathing of \*  
Feed, that, neither \_os them eat any rising for five Days,, and  
***so*** got rid of their Distemper.

Narcotics, by blunting the too exquisite Sense ofthe Sto-  
mach, have a Virtue of moderating the *Fames canina.* Among  
other Remedies of this sort, *Vinice* Treacle, when new, is of  
common Use; because, besides its narcotic Virtue, it has a  
Power, as an selexipharmac, of correcting the malignant Qua-  
lity of the Humours, which some suppose to belong to this As- a  
section.

But, hecause Narcotics are seldom, and never without Ne-  
cessity, to be used, old *Vinice* Treadle is to he used at other  
times, as well forthe Reasons above given, as for the sake of  
corroborating the Parts.

Ambergrise to the Quantity of five or six Grains, taken  
in a poach'd Egg, not only strengthens the Stomach, hut is  
supposed to he endu'd with a specific Virtue against this Dis- .  
ease. *Diverius, Prax. Med.*

So far *Riverius* ; and it must he confess'd, that the most ra-  
tional Way of curing a'Disorder, which is caus'd hy an acrid  
Humour irritating the Stomach, is, first, to evacuate such Hu-  
mour, or correct its Acrimony ; and then to restore the Sto-  
mach, and the Organs employ'd in Digestion, to their natural  
Tone and State, that no more may he generated:

. BOUNIAS, βουνίμς, a Species of *Napus,* which has a round  
Root, and delights in βύνοις, or rugged Places. *Blaricard.* See'  
BUNIAS. . ῖ

BOUSTHE, βήσίνη, a corrupt Word, the' found, as *Poe-  
stus* says, in all the Copies Of *Hippocrates.* It is in a Passage of  
- his 2.αραγγελίαι, which is, ἀιτήσαιμι δ’ ἁν θαρσάλέως βὴσθην.  
Here plainly appears, says *Foesius,* a Mistake, and all Tranfla-  
tors read it βοηθεῖν, rendering the Place thus, "I would with  
" Confidence aik Assistance," or, " I would confidently de-  
" fine them to give their Assistance.'' For the Subject of the  
Discourse are those Physicians, who, heing destitute of a Me-  
thod of curing, insinuate themselves into popular Favour by  
pompous Words. With such Physicians *Hippocrates* declares  
himself unwilling to hold a Conference concerning a Method of  
Therapeutics, but rather defines Assistance from them, or calis  
upon them to perform, by their Actions, what they so const-  
dentiy pretended to by their Words.

BOXUS, Milleto, growing on Trees, such as Misteto of  
- the Oak. *Castellus from Dorneeus. \**

.. - BRABE, in *Qrsbasius,* is an Herb, a Cubit high, shooting  
forth thin Branches on heth Sides, with Leaves like those of  
Dittander, but foster and whiter. At Top it bears an Umbella  
like that of Elder, with white Flowers. *Oribas. Med. Coll.  
Lib.* II. ' '

BRABYLA, τὰβρἀβυλαι large. Tweet, black-azure Plums,  
commonly call'd *Damascene* and *Hungarian* Plums. They are  
reckon'd by *Galen, Lib. i. de Alim. Fac. cap.* 38. amongstAli-  
meats which, afford but little Nourishment to the Body, and  
are of bad Juice; but the boil'd Juice is accounted amongst  
Stomachic Medicines by the fame Author, *Lib.* 6. *de C. Μ.  
S. L. cap.* 2. '

BRACHERIUM. A Surgeon's Bandage and Truss for an  
Hernia. \_. *Castellus s Sculieius* gives Figures Of two of these.  
*Tab.* 39» *Fig.* 6. and 7. Of his *Arntamentar. Chir.* printed  
1657.

BRACHIA, βραχίονες. The Branches of Plants, especially  
Trees; so call'd because they are extended like the *Brachia*’ (Arms) of a Man. *Plancardo*

.. BRACHI.ZEU6. There are two Muscles.which go by this  
Name. The first is the *Brachiceus internus.*

This derives its Name from its Situation, lying partly un-  
der the Biceps. It ariseth fleshy from the internal Part os the  
Os Humeri, at the Insertion Os the Deltoides and Coracobra-  
chialis Muscles; and, descending over the Juncture Of the Cu-  
bit with the Arm-bone,, it’s inserted, partly fleshy, and partly  
tendinous, to the superior and sore Part os the Uina. This  
helps to bend the Arm.

The second is the *Brachiatis externus.* This seems to be the  
third Beginning os the Gemellus. Its Origination is continu'd  
from above the Middle of the Insertion and back Part of the  
Os Humeri to its Cavity, which receives the Olecranum in the  
Extension of the Cubit, where, joining with the tendinous Out-  
side of the Gemellus, it is inserted into the superior and external  
Part of the Uina, call'd Olecranum, and Ancon, or the Elbow.  
*Cowper.* See GE μ E L I. Us.

- BRACHIALE. The same as CARPUS, which see.

BRACHIUM, βραχιων, in *Hippocrates,* signifies the Bone  
which lies between the Cubit and the Joint os tho Shoulder,

*Galen, in the Beginning of his second Comment on Hippocrates of  
Fractures.*

But the fore Arm, as we express it, the *Avant Bras* of the  
*French,* signifies properly that Part of the superior Extremities  
which lies betwixt the Elbow and Wrist.

That the Reader may not lie under a Necessity of turning to  
too many different Articles, for an Account Of the Parts he- .  
longing to the Arm, I shall, in this Place, take into Considera-  
tion the entire superior Extremities, and descrihe particularly  
the Bones, Cartilages, and Ligaments, helonging to these.

The Os Humeri, or Bone of the Arm, is heth longer and  
thicker than any other Bono of the upper Extremity. It is  
situated under the Acromium, along the lateral Part of the  
Thorax, from which, however, it may be remov'd to a con-  
siderable Distance in all Directions. Its Figure is irregularly  
cylindrical, and it is thick at one End, and broad at the other.

It is divided into the Body and two Extremities, - or into an  
upper, middle, and lower Part. . -

The upper Part is generally call'd the Head of the Os Hu-  
meri, and the Part immediately below that, is call'd the Neck. \_

In the Head, we consider a Half-globe Obliquely inclined,  
crusted over with a smooth Cartilage ; two Tuberosities, one  
large, terminating upward in a Point, OVer-against the Half-  
glohe ; the other small, placed laterally hetween the large one  
and the Hals-globe: A Chanel or Groove between the two  
Tuberosities ; four muscular Impressions, three of which are,  
on the large Tuberosity; one in the Apex, one on the Side op-  
posite to the Grove, and the third lower down on the same .  
Side, Over-against rhe small Tuberosity upon which the fourth  
is found. Of these, sour Impressions, that on the small Tu-  
berosity, and the second of the other three; are the largest.  
All these Parts of the Head of the Os Humeri, are one Epiphy-  
sis in Children, of which very plain Marks remain sometimes .  
in an advanc’d Age.

The Chanel, or Groove, between the two Tuberosities, is -  
Continu'd downwards, in an oblique Direction, thro' one Quar-  
ter of the Length of the Bone; and there becoming rough, it  
. forms a muscular impression, not always equally sensible. The  
Edges of this Chanel are two Ridges, or prominent Lines,  
continu'd down, as it were, from the two Tuberosities. That:  
from the great Tuberosity is the most considerable, and is con- ,  
tinu'd down to the Middle of the Pone, where it is lost in **a-**long, broad, rais'd muscular impression,, more or less rough.  
The other, which comes from the small Tuherosity, is less/  
prominent, and shorter. At the Side of this Ridge, toward,  
the lower Part, are two other narrow, longitudinal, and super-  
ficial muscular Marks, one above the other, the lower Extre-  
mity of the first reaching down on the fore Side of the upper  
Extremity of the second.

The middle Part, or Body of the Os Humeri, comes nearer  
to a cylindrical Figure than the Extremities. It is a little rais'd  
at the rough Eminence, or impression, already mention’d. On  
each Side of this Eminence is another muscular Impression,--  
which uniting immediately below it, it appears to be inclos'd  
hetween them as between the two Prongs of a Fork. On that  
Side which answers to the Middle of the Half-globe, we see  
likewise a longitudinal muscular Mark; and about the Middle  
Of that Side which is eVen with the great Tuberosity, there is  
an oblique hollow Turning, of a considerable Length and  
Breadth, which, running down by the Side of the fork'd Im-  
pression, makes this Part of the Bone appear contorted.

The lower Extremity of the OS Humeri is triangular from  
' its Very Beginning, and from thence grows Very broad and flat,  
heing hent a littie near the End, towards thet Side which an-  
swers to the small Tuberosity in the upper Extremity. It is di-  
vided into three Sides, two anterior, and one posterior, which  
is the broadest ; and into three Angles, One anterior, and two  
lateral. - - -

At the End of this broad Extremity are two Tuberosities; one  
- short and prominent, answering directly to the Middle of the  
Half-globe ; the other oblongs rough, and resembling a Crista,  
which answers to the Apex of the great Tuberosity of the  
Head. The short Tuberosity is call'd the internal Condyle,  
the other the external Condyle. .

Between these two Condyles, on the Very lowest Part of the. ,  
concave Side of this Extremity, are two articular Eminences ;  
one double, like a Pully, next the short Condyle; the other  
rounded, like a finall Head, next the long Condyle. The  
Pully has a great and small Edge, with a Depression between  
them. The small Edge is dost in the round Eminence, or  
Head ; the great one is gradually widen'd, and ends in a sharp  
Circumference. This Pully is situated obliquely ; for, on the  
Concave Side, it approaches toward the short Condyle, and,  
**on** the other, it is turn'd from it.

Three Foffuhe are likewise observable in this lower Part of  
the Bone; two anterior, one immediately above the Pully, the  
Other above the small Head; and one posterior, which is very  
large, and situated likewise immediately above the Pully. in  
Children, the Pully, the small Head, and she short Condyle,  
**are Epiphyses..**

**- The** outer substance of this Bone is compact, especially in  
**the** middle Pars, within which there is a large tubular Cavity,  
containing a reticular Texture of bony Filaments.X The Out-  
sides of the Extremities are less solid, and their inner Substance  
is cellulous.

- The particular Situation of this Bone deserves well to he coni  
fider'd, because we are often misted in forming an Idea of is,  
by Viewing the Bone itself separated from the Trunk of the  
Body, by the Figures which have been given of lt, and by the  
endue Application of the Terms External, internal. Anterior,  
and Posterior, to the different Parts thereof; which Mistakes  
may he of Very had Consequence in many chirurgical Cases.

When we examine the Os Humeri, as lying along either  
Side of the Trunk, in its natural Situation, the Head will he  
found so dispos'd, as that the Half-globe is turn'd inward and  
hackward, answering to the Situation of the Glenoide Cavity  
. of the Scapula, the great Tuherosity outward and forward, the

-Chanel between the two Tuherofities almost directly forward,  
the long Condyle, said commonly to he external, turn'd aS  
much forward as outward, and the short Condyle, call’d the  
Internal, turn'd as much backward as inward.

This Bone is articulated above with the Glenoide Cavity of  
the Scapula, by Enarthrodia, which is much plainer in the fresh  
Bones than in the Sceleton ; and below, with the two Bones of  
- the fore Arm..

. TheUses of this Bone aregenerally well enough known. The  
Explication of all its different MotionspresupposeS the Knowledge  
of the fresh Bones, and of their Ligaments and Muscles. ’

***The*** Bones ***of the*** fore **ARM, *and, first, the* ULNA.**

The fore Arm is made up of two long Bones, whereof one  
is nam'd Cubitus, or Ulna; the other Radius.

The Ulna is irregularly triangular, diminishing in Thickness  
from one End to the other. It may be divided into the Body or  
- middle Part; and two Extremities, one great, the other smalt

\* In the great Extremity we observe two Eminences, one large,  
call'd Olecranurn or Ancon ; the other small, call'd Corone, or  
the Coronoide Apophysis; and two Semilunar or Sigmoide Ca-  
vities ; one great, theotherfinall.

The Olecranum is a large Apophysis ending in a rough Tube-  
rosity, and an obtuse Point. The Tuberosity makes the Comer  
of the Elbow ; the Point is lodg'd in the posterior Cavity of  
the lower Extremity of the Os Humeri, when the fore Arm is  
extended. Next under the Tuberosity is a stattish, oblong,  
triangular Surface, on the Outside of which 'is another of the  
same kind; hut longer, and a littie hollow, together with a  
muscular Poffuis.

: The Coronoide Apophysis is prominent, and a littie point-  
nd, resembling a broad short Beak. It is receiv'd into the ante-’  
rior Cavity above the Pully, at the lower Extremity of the  
OS Humeri, when the fore Arm is bent.

The great Sigmoide Cavity lies directly between these two  
Eminences, reaching from the Point of one to the Point of the  
other. It is articular, cover'd with a smooth Cartilage, and  
divided thro\* iss whele Length by a middle angular Line, heing.  
thus suited exactly to the Pally of the Os Humeri, upon which,  
it moves'obliquely; these two together making a most perfect  
- Ginglymus, as well in respect os their Structure as of their

Use. The Half-cavities on each Side the angular Line are alsio  
divided transverily by another Line a littie hollow, which ter-  
Ininates at the Middle of each Edge Of the Cavity, by a very  
small Notch; '

- The small Sigmoide Cavity, which Inay likewise be term'd'  
transverse or lateral, is a sort of transverse Notch in the inferiori  
Portion of one Edge of the great Sigmoide Cavity, at the Side  
**of** theCoronoide Point, directly opposite to the innseular Fos.’  
fula already mention'd. It is’ cover'd with a Cartilage as well  
as the great one, of which st appears to be a true Continuation,  
and it belongs to the Articulation of the Radius. Near this Ca-  
vity, directly under the Coronoide Apophysis, there is a very

' - rough muscular Impression, sometimes rais'd’ like aTuberosity.

This upper Extremity is obliqued and its Obliquity answers **to'**that of the Pully in the OS Hninerh

. The sinall.Extremity'is cylindrical, of "aless Diameter than  
.any other.Part of the Bone.\* It may he reckon'd a kind of  
Neck, ending in an inverted Head, stat at Top, and of A cy-  
lindrioal Circumserence, both which areooverfd with the same  
smooth Cartilage; and the Circumference is broader on the Side  
of the Coronoide Apophysis, and small Sigmoide Cavity, than'  
any-where elfe. From the Head runs down a short Styloide

- Apophysis, on the Side of the Tuberosity of the Olecranum,  
distinguish'd from the rest of the Circumference hy a small  
Notch.- . - sqfe- . - \ J -

The middle Portion,\* or Body os the'Ulna, .is divided into'  
three Sides and three Angles. ’ One of the Sides is narrow and  
rounded, one broad and hollow, and the third fiat, and mark'd  
with an oblique Dine on its upper Part. The narrow Side an-  
fwersto the Tuberosity of the Olecranum, and is cover’d only  
hy the-coininon Integuments, ' The other two Sides are distin-  
guish'd from the former by two blunt Angles; .and they unite

at a sharp Angju, which lies opposite to the rounded Side, dfii  
answers to the Point of the Coronoide Apophysis. The hollow  
Side is eVen with the small Sigmoide Cavity, and the fiat Side  
opposite to it. Thefe two Sides give Insertions to ninny  
Muscles ; and the sharp Angle, to what is. call'd the Interos-  
seous Ligament; At the Top of this Angle there is a narrow.;  
oblong, hsuscular Impression. The Angle common to **the**rounded and flat Sides ends below in an oblong, uneven, mus-  
cular Eminence. .

The Substance of the Uina is much the fame with **that of**the OS Humeri, already describ'd. The Tuherosity of **the**Olecranum, and the small interior Head; with its Styloide Apo-  
physis, remain for a long time epiphyses in some Subjects.

, It is connected with the Pully of the OS Humeri, by an arse  
gular Ginglymus ; with the two Extremities of the Radius, by  
a compound lateral Ginglymus; and with the Hand, by Liga-  
ments, and not by Articulation.

The Situation of this Bone may be consider’d two ways; either  
when the sore Arm is extended, and lies along the Side ***of* the**Trunk, or when it is bent, and lies ori the lower Part of the  
Breast. The first Situation appears to he most commodious for  
determining what Parts of the Bone are to be call’d anterior-,  
posterior, superior, inferior, external, and internal ; but the  
second seems most natural, as being the most common in living  
Bodies, whether fitting or standing, and has accordingly been  
follow'd by some of the Antients.

***The RADIUS. - \****

The Radius is nearly of the Tame'Length with the Ulnas  
bigger at one End than at the other, irregularly triangular, **a**littie bent, and situated along the Side os the Ulna. Its Name  
is taken from the Resemblance it bears to tire Spoke of aWheel.

We are to consider in the Bone two Extremities, and 4  
middle Portion. One Extremity is small, and like a kind of  
Head set upon a Neck ; the other is large, resembling a Pede-  
stal or Basis; and therefore it might he divided into a Head,  
Body, and Basis.

The Head, or fmall Extremity of the Radius, is very short  
**or** low, the Top of it is concave, and the Circumference cylin-  
drical; and both the Glenoide Cavity and the Circumference  
are cover'd with the fame smooth shining cartdaginous Crust ;  
and about one Quarter of the Circumference is broader than the'  
rest. The Neck is small, and its Situation a little oblique. **It**ends by a lateral Tuberosity, which lies directly under the broad  
Part of the Head, being rough in the Middle and on one Side,  
and smooth and superficially cartilaginous on the other.

' The Basis, or great Extremity of the Radius, .is much  
broader than it is thick, and has two broad Sides, and one nar-  
row. One of the broad Sides is a littie hollow, and pretty eyen ;  
the other is unequally convex, and divided by longitudinal  
Eminences, or bony Lines, into three or four longitudinal  
Chanels, much more distinct in fresh Bones than in the Scele-  
ton. ‘ The narrow Side is concave lengthwife, and hetween its  
Edges,.and those of the two broad Sides, two’Angles are form'd,  
by which the three Sides are distinguish'd ; and, opposite to it,  
the broad Sides form a common Edge, and a third Angle. This  
narrow Side ends in a semilunar Cavity, border'd with a smooth  
Cartilage, and lying almost in the fame Direction with the Tube-  
rosity. The broad Sides end at their common Angle, by an  
ohttsse Point or Production, which has been call'd the Sty-  
loide Apophysis of the Radius, and is really a Continuation of  
one of the bony Lines.

' The whole Basis ends in an oblung, triangular, Glenoide  
Cavity, the Cartilage of which is continue over the hollow  
Edge of the narrow Side. This is an articular Cavity, resem-  
bling an Arch, and ending on one Side at the Styloide Apo-  
phyfis, and hollow’d on the other, by the Cavity of the narrow  
Side. It appears divided into two Portions by a small transversi:  
Line, and in the natural State the hollow’d Side is lengthen'd out  
by a cartilaginouS Production, the Description of which helonge  
**to** the History of fresh Bones. x \*

The Middle, or Body os the Radius, 'is a little incurVated,.  
the Concavity lying hetween the Tuberosity in the Head, and  
semilunar Cavity in the Basis. It has three Sides, one rounded,  
which forms the convex Side os the Curyature, and two con-  
cave ; three Angles, two of which are obtuse, distinguishing  
the two concave Sides sroin the convex; and the third sharp,  
lying betweenthetwo concave Sides, opposite'to the cohyexSidea  
In each of theseSides there are several muscular Marks. \*

The Substance os this Bone is like that of the Ulna. **The**Head and Basis are Epiphyses in Children, and, in some Sub-  
sects, remain such sor a long time afterward.

The Radius is connected with the'Ulha, the Os Humeri,  
and'Caspus. It is articulated with the Ulna, at irs two Extre-  
Inities, by a double lateral' Ginglymus-; the cartilaginous Cir-  
cumference of the Head turning in the" small Sigmoide Cavity,  
and the semilunar. Cavity in the Basis turning, upon the "small  
Head, at the lower Extremity of the other Bone ; and thhe  
the'small Extremity of one Bone in join'd to the great Exire-  
mity of‘the other. ' .........

Radius. The outer and7 inner Surfaces are small and retain  
This Bone would he hetter nam’d Os Semilunare.; .

/

**OS CUNEIFORME.**

The third Bone of the first Row, call'd *Cuneiforms* from its  
Figure, appears rather-like a Wedge sticking between the two  
Rows. It has a rough Surface, with a small Tubercle upon is,  
which forms the greatest Part os the cubital Edge of the Carpus;  
and sour articular Sides, whereof one is convex, winch com-  
pletes the articular Convexity of the Carpus; sone orbicular  
and internal, oron theconcaVe Side os theCarpus, on winch the  
Os Pisiforme is set; and two winch make an Angle between  
them; one for the OS Semilunare, and the Other for the Os '  
Unciforme. ; . .

**OS ORBICULARE.**

The fourth Bone of the first. Row, call'd *Orbiculare, Pisi-  
forme,* and *Lenticulare,* from its Figure and *Size,* is irregularly  
round. It has but one cartilaginous Side, irregularly orbicular,  
the Border or Circumference of which represents a fort of nar-  
row Collar. The rest of the Bone is rough, convex, and ir-  
regularly round, making one of the four Eminences on the  
concave Side os the Carpus, This Bone, and the Cis Cunei-  
forme, may be suppos’d to make a third Row distinct from the  
other two. \*

The four Bones of the second Row lie all in a line, the first  
being articulated with the Thumb, the rest with the Meta-  
carpus.

**.... OS TRAPEZIUM. .**

The first Bone of the second Row is nam'd *Trapezium,, as*heing suppos'd to he of an unequal square Figures Its outer  
Surface is rough, and makes a Portion of the convex Side of  
the Carpus. On its inner Surface is an oblong Eminence,  
which makes one of the sour Eminences on the concave Side of-  
the Carpus ; and, on the same Side, it has a Groove or Cha-  
nel. There is likewise a small Tubercle on the outer Surface. )

It has several articular cartilaginous Sides; one Brachial,  
one Digital, and two Cubital Sides. . . .

The Brachial Side, which is hollow, is articulated with the  
Os Scaphotdes ; the Digital, with the first Phalanx of the.  
Thumb ; one os the Cubital Sides, with the Os TrapeaoideS,,  
and the other with the first Bone os the Metacarpus.

The Side which is articulated with the first Phalanx of the .  
Thumb, appears to he made up of two superficial Sigmoide or  
Semilunar Half-sides, distinguish’d by an Eminence of the fame  
Figure, being each more hollow' toward the Sides than at the  
Middle, winch makes a Portion of a.sort of superficial Pully,\*  
with the Edges much worn. . . \* .

One of the Cubital Sides, which is articulated with the’Os  
Trapeaoides, is large; the other, which joins the first Meta-  
carpal Bone, is small.

**OS TRAPEZOIDES\* ' . -**

The second Bone of the second Row deserves the Name of.  
*Pyramidale,* rather than *Trapescoides,* being, a kind os Pyra-  
mid with the Point broke off Its Basis makes a Portion of the  
outer or convex Side of the Carpus, and its Point a Part *of* the  
concave Side. - /' - ,

It has several articular Sides; one Brachial, which jo the least,  
of all, and articulated with the Os Scaphoides ; one Digital, of.  
a considerable Length, notch'd on each Side, and divided into  
two Havlesj.by a Tort of middle Line or Angle, - which gives it .  
the Appearance os a Pally, Articulated with the Basis os the  
first Metacarpal Bone ; one Radial, irregularly triangular,  
and articulated with the Os Trapezium, and one Cubital, a little,  
hellow, and articulated with the Os Magnum.

**. OS MAGNUM.**

. The third Pone of the second Row, call'd *Os Magnum, is.*the largest of all the Bones of the Carpus. It is of a consider-^  
able Lengths and has a kind of articular round Head, which is  
receiv'd into the Cotyloide Cavity form'd by the two first Bones  
of .the. first. Row.; and this Articulation is capable of a small  
Degree os Flexion and Extension. . . - : . - ..so

The Digital Side is a cartilaginous Basis, unequally and ob-  
liquely triangular, the Apex heing turn’d inward. It is articu-  
lated wi th the second Metacarpal stone, and is also a little notch'd  
on the Radial . Edge, sor its Articulation with the finch Edge os  
the first Metacarpal Bone. \*

The Radial Side is very small, antsp near the Basis, it is arti-  
culated with the Os Pyramidale ,-.the rest os this Surface is with-,  
out Cartilage; The Cubitarssise\* is double, answeringto alike-  
Side. in the. OsUncisorme, with which it in articulated.

The outer Surface, which forms a Portion of the convex  
Side of the Carpus, is broad, rough, and uneven, sor the in-  
sertion of Ligaments. The inner .Surface is likewise rough,  
but narrower 5 and round both' Sursaces are several Depressions,  
which, in the natural State, are fill'd with shiall Glands and  
Ligaments, 'so 'su

*c* It is articulated with the OS Hunted, by the Application of  
the Cavity in the Top of its Head to the small ar the  
lower Extremity of the other Bone. By thin Conformation it  
would be capable of moving in all Directions 5 but, as it is ry'd  
to the Ulna at heth Extremities, its Motions on the small Con-  
dyloide Head, at the lower Extremity of the Os Humeri, are  
confin'd to two kinds ; that os Rotation, when it turns on the  
Sides os the Extremities os the Ulna, and that os Flexion and  
Extension, in common with the Ulna; and both these Motions  
may be perform'd at the same time....

The Articulation of the Radius with the Bones os the Car-  
pus shall be explain’d in describing these Bones. '. ~

*The* **BONEs** *of the* **HRNti;** *and, first,* **tike BONEs** *of the***- . ; .. CARPUS.**

The Hand is the last Part of the upper Extremity, and is  
divided into the Carpus, Metacarpus, and Fingers. It may be  
further divided into the concave and convex Side. The concave  
Side is likewise call'd the Inside, hecause it is commonly, and, .  
as it were, naturally, turn'd toward the Body, and so hid. The  
convex Side is, sor the same Reason, nam’d the Outside, as  
hssng, for the most part, turn’d outward, and expos'd to View.  
The first is also nam’d the Hollow or Palm os the Hand, the  
other the Back of the Hand.

The Carpus, or Wrist, consists of eight small, unequal, and  
irregular Bones ; and, taken all together, they represent a sort  
of Grotto *(Grote)* of an inregular quadrangular Figure, and  
connected principally with the Basis of the Radius. Consider'd  
in this manner, the whole Collection of them. has. two Sides,  
and four Edges. One of the Sides is convex and external, the  
other Concave and internal. The Convexity of the Outside is  
pretty uniform; but the inner or concave Side has four Emi-  
nences, one at each Corner. One of the sour Edges touches  
the foreArm, and is, as it were, the Head of theCarpus:

. another Edge may be term'd the Basis, and touches the Meta-  
carpus; the thud is toward the Point os the Radius, and the  
fourth Toward the Point os the Ulna. The first os these last I’  
shall .call the small edge, and the other the great Edge.

. The Bones of the Carpus are divided into two Rows ; the  
first of winch lies next the fore Arm, the second next the Me-  
tacarpus. Each Row consists of four Bones, but the fourth of  
the first Row lies, in a manner, out of its hermit. Each Bone  
has several cartilaginous Surfaces for their mutual Articulations L  
and, in some of them, for their Articulations with the Radius,  
and Bones of the Metacarpus and Thumb. . i

It is to no purpose to distinguish the three ordinary Dimen-  
sions in any os these Bones, except one; but, in mint os them,  
we may consider six Sides, one external, turned toward the.  
convex Sursace os the Carpus ; one internal, toward the con-  
cave Sursace ; one toward the fore Arm, which I call the bra-  
chial Side; one toward the Fingers, which I call the Digital  
Side; one toward the Point os the Radius, or the Radial Side;?

. and one toward the Point of the Ulna, or the Cubital Sinai

Of these Sides some are bony, others cartilaginous or arti- \*  
cular. These last I shall call Sides, the other Surfaces, as be-  
ing Portions of the common Surface Of the Carpus in its natu-  
ral Situation. ' ’ *' ' ' s*

' To distinguish these eight BoneS from each other, they are;  
call'd first, second, third, and fourth Bones of the first or se-  
cond Row, beginning to count from the Radius or Thumb.

*Lyserus* has been at the Pains to give a particular Name to  
each of them : He calls the first Bone of the first Row OS Sea-  
phoides, or Naviculare; the second, OS Lunare; the third.  
Os Cuneiforme; the fourth, OS Pisiforme d The first Bone,  
of the second Row, OS Trapezium ; the second. Os Tran  
peaoides ; the third, OS Magnum; and the fourth, OS Uncise  
forme. ' '. ' et. si

. . ' . . OS SCAPHOIDEI. ' .. . s νύ .ςξ

\* The first Bone of the first Row Is term'd *Scaphoidessin -  
Greek,* and *Naviculare in Latin,* from Its' Resemblance *to* a  
small Boat.. Next the Radiusit has a convex Side, by Wbich it  
is articulated with the Basis os that Bone ; and a Tu herein,,  
which is one of the sour Eminences on the concave Side of.the  
Carpus. Toward the Thumb it has two Half-sides; a Ia’rgei  
one sor the Os Trapezium, and a small one for the Os Trape-  
2oideS. It has likewise a hollow Side sor'the Os Magnum, and  
a small semilunar Side fur thc Os Lunare. The inner and outer'  
Surfaces are rough. / . ' ss ’ ‘ '.sse'si

**r' ' . ς i OS .LUNARE. u;**

’ The second Bone of ther first Row is calTd *Lunare,* hecause  
One of its Sides is in form of a Crescent. The articular Sides \*  
in this Bone are four in Number ; one convex, sor the Basis of  
the Radius; one semilunar, for the Os Scaphoides ; one almost ‘  
triangular, for the Os Cuneisorme; and one hollow, which,’  
with the hollow Side of the OS Scaphoides,'.forms a Cotyloide,  
Cavity for the Head of the OS Magnum? "The convex Sides  
together with that of the OS Scaphoides, Tornis an oblong Con-  
Vexiry, answering to “the oblong Concavity in the Basis of‘the

**Os UircIFORME.**

. In the fourth Bone *of* the second Row we are to consider the  
Body, and hook’d orUncifonn Apophysis, from whence it has the  
Name of *Umciforme.* This Apophysis, one of the four Emi-  
nences on the concave Side of the Carpus, is flat, and the hol-  
low Side of its Curvature is turn’d toward the Os Magnum.  
The outer Surface of its Bedy is rough, and, in fome measure, .  
triangular. It completes the convexsiide of the Carpus, and,  
toward the Ulna, terminates, in a sinall Tuberosity, which is all  
the Cubital Side of this Bone.

It has three articular or cartilaginous Sides, One Radial, one  
Brachial, and one Digital.

. The Radial Side is double, answering in the Cubital Side of  
the Os Magnum, The Brachial Side is very oblique, partly  
a llttlc concave, and partly a little convex, aofwering to the  
Digital Side of the Gs Cuneiforme. The Digital Side is  
double, or distinguish’d into two Halves, by a Sigrnoide angu-  
lar Line, for its Articulation with the .two last Bones of the  
Metacarpus. ...

The Bones of the Carpus are articulated with each other by.  
Arthrodia, but the first Row forms a sort of Ginglymus with  
the second, because the Head of the Os Magnum may turn in  
the Cotyloide Cavity of the first Row, while the two first  
Bones of the second Row Aide upon the Digital Side of the Os.  
Scaphoides, and the Os Unciforme in the fame manner on  
the Os Cuneiforme. . .. ...

When all these Bones are in their natural Situation, a trans-.  
verse Depression is form’d on the convex Side of the Carpus, by  
which the two Rows are distinguish’d. This Depression ap-  
pears most hetween the Os Scaphoides'and the three last Bones  
Of the second Row, and looks.like a kind of Fold, by which  
the second Row is thrown,a little back upon the Convexity of  
the first. The four Eminences on the concave Side of the Car-  
pus are for. the Insertion of a. strong transverse Ligament. The  
inner Substance of all thefe Bones is spungy, and their Surfaces  
are not very compacts .

*The* **BoNBs** *of the* **METACARPUS.**

The Metacarpus is the second Part of the Hand, situated  
hetween the Carpus and Fingers. The Antients, who call’d  
*the Carpus, Brachiale,* from whence the Word Bracelet  
seems to he deriv’d, term’d the *Metacarpus, Past-Brachiale.*

The Metacarpus consists of four Bones, one Side of which  
forms abroad Cavity, call’d the Palm of the Hand; the other  
a gentle Convexity, call’d the Back of the Hand. The an-  
Dent Anatomists reckon’d five Bones in the Metacarpus, in-  
eluding that Bone which is now look’d upon as the first Phalanx  
Of the Thumb. . ’ . .

**The** Bones of the Metaearpus are long, thicker at the Ex-  
tremities than at the Middle, and of unequal Length and Big-  
ness.. The first is the largest, the restate lessen’d by Degrees  
in all their Dimensions. . The two first are sometimes, tho’  
very rarely, equal. : "

Each Bone is divided into the Extremities and Middle-part;  
err into a Basis, Body, and Head. The Safes are angular, and  
turn’d toward the Carpus ; the Heads rounded like Condyles;  
and turn’d toward the Fingers. Both. are.coyetio with Car-  
tilages, and the Heads remain for a long tube very distinci  
Epiphyses. - . : ' - .

The Bases are narrow, and almost angular, toward the  
Palm of the Hand; toward the Back of the Hand their Breadth  
is considerable ; but, on the other two Sides, they are very  
broad ; and there, they have small artioular Sides, which I call  
lateral Sides. The Heads are flatted on the two Sides, which  
anfwerto the lateral Sides of the Basis; and their greatest Con-  
vexity is turn’d toward the. Palm of the Hand, terminating in  
two obtuse Points. Several Notches and Fossulae break in upon  
the lateral Sides, and the flat Sides of the Heads are a.little de-  
press'd, a sinall Tubercle arising in the Middle of each De.  
pression. --

The Body of each Bone is contrafted, of a triangular Fir  
gure, and distinguish’d into three Sides, whereof one is.external,  
and a little convex, contributing to make the Back of the  
Hand ; - the other two internal, and a little concave, one being  
tumid obliquely toward the Radius, the other toward the Ulna,  
Thefe three Sides are separated by the fame Numher of Angles;  
and that Angle, which parts the two internal Sides, is sharp. It  
is by these two Sides, .and the Angle between them, thet the  
Hollow of the Palm of the Hand is form’d. .... .

**; ‘ FIRST BoNE. ‘ :**

The first Bone of the Metacarpus is longer, thicker, and  
bigger, than any of the rest, and supports the fore Finger. Its  
Basis is a little'hollow, answeringto the Digital Side of the  
Os Pyramidale of the Carpus. - On the outer Edge there is a  
small angular Notch, and., on the Cubital Edge of the Basis, a  
small lateral Line, which is articulated.with the Basis of the  
second Bone. The inner Edge is terminated laterally by an  
oblique Angle, which is articulated with the neighbouring An..

gle in the Basis of the Os Magnum. Round the Basis are In-  
equalities and Depressions, sot the Ligaments and articular  
Glands. The Outside of the Body of - the Bone is broader **to-**ward the Head than toward the Basis.

**SECOND BoNE. -**

The second Lone of the Metacarpus supports the middle  
Finger, and has this peculiar to it, thet its Basis is very oblique,  
terminating at the outer Edge by an angular Point, turn’d  
towar the first Bone. By the triangular Side of its Basis, it is  
articulated with the Basis of the Os Magnum; and, by its  
lateral Sides, with these of the first and third Bones of the  
Metacarpus.

**THIRD BoNE.**

The third Bone of the Metacarpus supports the Ring-finger,  
heing less than the first and fecond. Its Basis is irregularly tri-,  
angular, and proportionably Jefs than the two former ; and by.  
the principal Side thereof, it is articulated with the first Half of  
the Side of the Os Uncisorme. The small lateral Sides of the  
Basis join those of the second and fourth Bone of the Meta-  
carpus.

**FOURTH BONE..**

The fourth Bone of the Metacarpus supports the little Finger.  
The principal Side of its Basis, instead of being triangular, as  
in the other Rones, is all of an equal Breadth, a little oblique,  
somewhat convex, somewhat concave, and is articulated with  
the second Half of the Side of the Os Uncifonne. By its late-  
ral Side it joins the corresponding Side of the Basis of the third  
Bone ; but in a much looser manner than in the other Articu-  
lations of the like Kind. On the opposite Side there is a sinall  
Tuberosity;

*- The* Bones *of the* **FINOBRs.**

The Fingers make the third Part of the Hand, and terminate  
the whole upper Extremity. They are five in Number in each  
Hand, call’d the Thumb, the fore Finger, the middle Finger,  
the Ring-finger, and: the hide Finger.

. They may he said in general to represent the same Number  
of compound, long,, small, bony Pyramids, convex on one  
Side, somewhat concave on the other, , and join’d by their Bases  
to the Carpus and Metacarpus, from whence they diminish gra-  
dually, and end in a sort *of* small Heads. .

The Thumb is the biggest of all the Fingers; next to thet is  
the third, call’d the long Finger. The fecond and fourth are  
shorter than the third ; the fourth being a very llttle longer than  
the second. The fifth is the smallest of all. .

Each Finger consists of three Pieces, call’d *Phalanges ,* **the**first of which is longer and thicker than the second and the  
second than the third. Each *Phalanx* is divided, in the **seme**manner as an entire Finger, into a Basis, middle Portion, and  
Head j into two Sides, one convex, the other concave; and  
into two Edges. The Bains of the Phalanges remain Epiphyses  
for a long time, as well as the Heads of the metacarpal Bones.

**FIRST PIiALANX** *of the* **THUMB.**

The first Phalanx of the Thumb is not like thofe of the other  
Fingers. Antient Authors reckon’d it among the Bones of the  
Metacarpus, which it resembles very much ; and then they  
counted five Metacarpal Bones, allowing only two Phalanges to  
the Thumb. The convex Side of this Phalanx is very much  
flatten’d, and broader toward the Head than toward the Basis.  
On the concave Side is a kind of angular Line, which in some  
measure distinguishes it into two Parts. Its Headis like thofe of  
the metacarpal Bones, only flatten’d at the Top.

. The articular Side of its Basis is proportion’d to the Digital  
Side of the Os Trapezium of the Carpus; and fram’d in such a  
manner, as that .the Sigrnoide Cavities and Eminences in both  
Bones cross each other. This Articulation has something very  
partioular in it. It is a kind of double Ginglymus, which tea-  
dily allows of Flexion and Extension, Adduction and Ab-  
duction, but with Difficulty permits the oblique Motions; he.  
caufe then the two Sides run counter to each other.

- The Head and Basis carry for a long time the Marks of Epi-  
physes ; and for all these Reasons, this Bone may he reckon’d a  
Metacarpal Bone degenerated. \* *' A: bn... . .*

*The* **SECOND PHALANX.**

. . The fecond Phalanx of the Thumb is shorter than the first j  
its Body convex or semicylindrical on one Side, flat on the  
other, and contra fled hetween the Edges. The articular Side  
of the Basis is gently concave, and furrounded near the Edges  
by small Tuberosities; as also near the Angle of the Phalanx.  
The Head is a regular Portion os a Pully, which projects more  
On. the concave than on the convex Side; and on each Side of  
it there is a small Fossula, and tome Inequalities in form of  
Tubercles... On the flat or concave Side of the Phalanx are two  
rough Lines, one near each Edge,-which.are often destroy’d in  
cleaning the Bones; they are the Impressions or Marks of the

**articular Vaginte, which shall he explain'd in describing she fresh**Bones.

The Connexion of this Phalanx with the first is by a kind of  
Arthrodia, or by a flat Enarthrosis, which permits a Motion in  
several Directions, though more limited than in other Articu-  
iations of the same Rind. It is articulated with the third by a  
very perfect Ginglymus.

**THIRD PHALANX.**

The third Phalanx os the Thumb represents the half of s  
sort of Cone, cut lengthwife ; and by joining it to the same  
Bone ’of the other Thumb, an entire Cone is form'd. The  
convex Side is more eVen than the flat Side ; and on each Edge  
there is a Tuberosity near the Basis. The Basis has two hollow  
Sides, which form a Ginglymus, with the Head of the second  
Phalanx.1 The Head is small ond flat, ending in a rough semi-  
circular Border; winch, on the flat Side of the Bone, repre-  
sents a Horse-shoe.

***The* FINGERS.**

The other four Fingers in general, and their Phalanges in  
Particular, are all nearly of the same Structure, differing chiefly  
in Size. The fore and Ring-fingers are almost equal, only the  
fore Finger .is generally a littie bigger, and sometimes a littie  
shorter than the other. The middle finger is the longest; and  
the littie Finger the least. Almost the same Proportions are to  
be observed in the Phalanges.

**FIRST PHALANGES.**

The first Phalanges of these four Fingers are made nearly in  
the same manner with the second of the Thumb ; only they  
are longer in proportion, flatter on the concave Sides, and more  
rounded on the convex Sides. The Edges of the stat Sides have  
the same rough Line as the second Phalanx of the Thumbs  
Their Bases are more hollow for their Articulations with the  
Heads of the metacarpal Bones, and their Heads are like Pullies,  
aS in the second Bone of ths Thumb. -

**SECOND PHALANGES,**

**The** second Phalanges are shorter, narrower, and thinner  
than the first. Both phalanges are somewhat incurvated, and  
resemble each other in Structure, except that the second Con-  
**tract** by Degrees from their Bases to the Heads, which are very  
small; and that their Bases have a double Cavity for their Arti-  
cuiation, by a Ginglymus, with the Heads of the first Pha-  
langes. Their flat Sides thave the same rough Lines already  
mentioned.

**THIRD PHALANGES.**

The third Phalanges are in every thing like that **of the**Thumb,, except that they are smaller, each of them heing pro-  
portion'd to the Fingers they belong to.

It is to he observed concerning all the Phalanges, that their  
Bases have small Tuberosities; and their Heads, .except those of  
the last Phalanges, have on each Side a roundish sort of Foffuls,  
border'd with finall Eminences.

***The particular Situation and Uses of the* BONES *of the* UPPER  
‘ EXTREMITIES.**

The Hand is generally represented in Sceletons and Figures,  
as lying in the same Plane, and in the same longitudinal Dire-  
ction with the Bones of the fore Arm. This gives a Very false  
Idea of its trueSituation, which, with respect to the fore Arm,  
is oblique, in two respects. The Back of the Hand is inclined  
Upon the.convex Side of the Carpus, and. makes an Angle with  
the sore Armand, hesides, the fourth Bone of the Metacar-  
pus is inclined.towards the Ulna1 in particular. In a Word,  
the Breadth of the Hand makes an Angle with the Breadth of  
the fore Arm ; and the Thickness of the Hand, at the same  
time, with tho Thickness of the fore Arm. 1 mean here that  
Part of the sore ***Arm*** which is next the Hand.

This as owing to the Structure and SituationOf the Bones of  
the Carpus, and to their Connexion with those of the fore Arm.  
First, the two Rows ***Of*** these Bones, make a sort, of transverse  
Fold onrthejconVex Side of the Carpus ; and the articular Bra-  
chial Sides of the.two first Bones of the first Row. are turn'da  
littie toward the same convex Side of the Carpus; which obliges  
the whole Hand to he a litefe hent back in he natural Situation.  
Secondly, the Edge of these Bones next the Ulna is much shorter  
than .that next the Radius, which makes the Cubital Edge of the  
whole Hand incline to that Side,

By not Considering this, a. large Void Space is commonly left  
**In** Sceletons, between the Extremity of the Uina and the Oa  
Cuneiforme Of the Carpus. It ought likewife to he observed,  
that the edgeof the Metacarpus next theTJina is shorter than  
‘the, other.; ***ft),*** that in:the Metacarpus A small and great Edge may  
**las** justly he distinguished as in the Carpus. .

.. In this, oblique and natural Situation oftheHand, the Fin-  
^era being extended, anda. little. separated, the Extremity of

the fore Finger will he found to answer to the Interstice he-  
tween the Bones of the sore Arm; and if in this Situation we  
make alternately the Motions of Pronation and Supination, the  
Extremity Of the fore Finger will he found to he in some mca-  
sore the common Centre of these Motions.

This Disposition of all the Bones of the Hand is moreover  
Very well Contrived, to give it several kinds of Attitudes ; sor  
hy means thereof it may he lengthen'd, flatted, shorten’d, and  
contracted. The Hand is lengthen'd or widen’d, and flatted,  
by extending all the Fingers,, .and turning back the Thumb,  
winch is what is called extending or opening the Hand. It is  
shorten'd by bending all the Fingers, whether in what is call'd  
closing the Fist, or in grasping any thing ; and Io thin the Situ-  
ation of the Thumb, and the Oblique Disposition of the Bones  
of the Metacarpus and Fingers, contribute in a particular man-  
ner. And as in this Case the Thumb counterbalances all the  
other Fingers, the Articulation of the first Phalanx thereof with  
the ***Os Trapezium appears*** to he render'd more firm and steady,  
by partaking a littie of the Nature of a Ginglymus, without  
hindering its other Motions. Lastly, tho Hand is contracted,  
and made into a fort of Gutter or Furrow, by the Adduction  
Of the Thumb, and the assy Motion of the fourth Metacarpal  
Bone; and if at the same time we hend the Fingers, and press  
them close together, we heth shorten and contract the Hand ;  
and thereby form a Hollow, which is called ***Diogenes’s*** Cup. ...

In the Fingers we ought likewise to remark, that though the  
Articulation of the second Phalanx os the Thumb, and first  
Phalanges of the other Fingers, he moveable in many Directions,  
and framed nearly in the same manner as that of the Os Humeri  
with the Scapula;«yet these Phalanges cannot he moved round  
their Axes. Tins is not owing to their Conformation, but to  
the want of proper Muscles. The same thing cannot he said of  
the first Phalanx of the Thumb; because, though it had proper  
Muscles, yet the kind of Half-ginglymus, by which it is arti-  
culated, would not allow of such a Motion.

The Thumb is situated differently from the other Fingers,  
**The** Fingers, heth with respect to their Sides and Edges, have,  
in their natural Situation, nearly the fame Direction with the  
Plane of the Metacarpus. The Thumb being in its natural  
Situation, and free from the Action of all its Muscles, its Con-  
vex Side answers to the convex Side of the Radius,- and its fiat  
Side is turn'd toward the little Finger; and the first Phalanx  
makes an hollow Angle with the Radins, and a prominent  
Angle with the second Phalanx ; bur heth this, and the third  
Phalanx, lie in a strait Direction, like that of the fore Arm.

The Carpus is the Basis and Centre of all the Motions of the  
Hand, except that of Rotation. By means thereof, we can  
bend the Hand in all Directions, but with more Ease toward the  
Sides and Edges, than any other Way. The four Bones of the  
second Row may have a small Degree of Motion on the first,  
fuch as a Ginglymus can allow of.

The Radius is in a manner the Handle of the Hand; and it  
is chiefly by means thereof, that we can move the Hand reci-  
procally as on the Axis, turning either Edge of it toward- the  
Body. This Motion or Attitude is term'd Pronation; and  
when the Cubital, or small Edge, is toward the Body, it is  
term'd Supination. In the natural and most ordinary Situation  
of the Hand, the Palm is turn'd toward the Body, and not **the**Edges. . - ν ’

This Disposition of the Hand determines the trueSituation  
of the Radius, which is not on one Side of the Ulna in a pa-  
rallel Direction, as the Figures and Sceletons commonly repre-  
sent it; but the Radius crofles the Ulna obliquely in such **a**manner, as that the Styloide Apophyses in heth Bones are  
directly over-against each other. This is its true natural Situ-  
ation. The Radius, heing bent, may he still farther cross’d over  
the Ulna, than in its natural Situation ; and this happens in  
Pronation, but in Supination it isparallel to the other Bone.. '

The Ulna supports the Handle of the Hand, without being  
itself articulated with the Hand. Two lateral ***Ginglymi,* and**Very strong Ligaments, connect the Radius closely with it, ***set***that in the most Violent Motions these two BoneS cannot be  
separated. When we push or press any thing with the Hand,  
the whole Force is sustain'd by the Radius, the Basis of which  
supports the Wrist, and its concave Head is strongly pressed  
against the small inferior Head of the Os Humeri. The oblique  
Direction of the Pally of the Ulna is the Reason, that, in  
hending the fore Arm upward, the Extremity of that Bone is  
naturally turn’d Toward the Thorax, and shot without Difficulty  
toward the Articulation Of the Scapula. - i . - - - .. .

An Account of the Cartilages and Ligaments are not less ne-  
cessary to a Knowledge of the superior Extremities, than the  
preceding Detail of the Bones. For this Reason, LshallgiVe

**WiNsLOWh *Remarks upon the* FRESH BONES.**

The Cartilage by which the Hemisphere of the Head, of the  
OS Humeri is covered, is gradually thinker toward the Middle,  
than toward-the Edges,

The four Surfaces of the Tuberosities, which appear cartila-  
ginous iurdry Bones, serve only\*'for the Insertion of the Tendons  
os sour Muscles, which move the Os Humeri, on the Scapula.

The-Channel:or Sinus between the :two Tuberosities is  
partiy.covered by a thin Crust, which appears rather ligamentary  
than cartilaginous ; and partly.by a tendinous Stratum, of which  
hereafter." - - . . \* . *A -*

The Trochlea and small Head os the'lower .Extremity of the  
**Os** Humeri-are'covered thy a common Cartilage, :in which the  
same Proportion, os Thickness is observable, . as inchat os-tho  
upper Extremity. This holds'pretty generally os all ’ tho con-  
vex articular Cartilages. T '

The Fossulae near the Pulley and small Head -are covered  
with a kind of .thin cartilaginous or ligamentary Varnish. X ss

The Capsular or mucilaginous Ligament loofly surrounds  
the whole Articulation of the Scapula with the Hoad of the Os  
Humeri. ‘ From its Insertion'rdund the Edge of the Glenoide  
Cavity, it is continued over, the Hemisphere of the Head os .the  
Os Humeri,"and fixed near’spin τEdges, towards the muscular  
Surfaces os the great and 'smallTuberosities. .. ' -

4 Afterwards parting from them on both Sides,-in the large  
Space left between the "two'Tuberosities, thatis, thet ween the  
small Tuberolity and the lowest Snr face of the great Tuberosity,  
it runs down gradually on the Neck of the Bone below the  
lowest Part of the cartilaginous Hemisphere. . .

In all this Course the Capsula, is. closely fixed in the Bone,  
except in' the small Space lest, between the two Tuberosities,  
that is, at the Channel orSinus, where it forms a Production  
like the Tube of a Funnel, proportion’d to rhe Capacity of the  
Channel, and strongly fix’d sin the upper Portion thereof. This  
membranous Tube is the Vagina ’ of the inter-articular Tendon  
of the Biceps. . - .

The true Ligament of this Joint appears to be composed os  
two Ligaments closely united together; one-a Capsular Liga-  
ment, which surrounds the whole Articulation ; and the other,  
fram'd by several true Ligaments which run over, and closely  
adhere to the former in disterent Places.

Thus the Capsula, or mucilaginous Bag of this Articulation,  
is in part strongly united to four flat Tendons inserted in the  
two Tuberosities ssand in part covered by-true ligamentary  
Bands, which,-between the sour Tendons, and-on both Sides  
of the first and last, form a considerable Thickness. The rest  
of the Space between the first or superior Plane of the great  
Tuberosity and the small Tuberosity is so little provided with  
ligamentary Fibres, that it has been' believed to be altogether  
without them ; and Anatomists have satissy’d themselves with  
telling us, that in these Places the orbicular Ligament is very  
rough on the Outside, but fifining and smooth on the Inside.

On the Body of the Os Humeri there are two particular Li-  
gaments, which I term'intermuscular, or-lateral. They are  
long, flat, thin, strong, and narrow, fixed on one Edge along  
the two lower Thirds of the Pone, and reselling to both Con-  
, dyies. They are braced pretty tight, and are very narrow at  
the upper Part, but broader toward the Condyles.

The lower Extremity of the Os Humeri is joined to the  
Bones of the fore Arm by two Fasciculi *os* Ligamentary Fibres,  
one fixed to the internal Condyle, the other to the external.  
Each Fasciculus is composed of Fibres closely joined together at  
**the** Condyle, and afterwards parting in distinct Bands like a  
Goose's Foot.

The Capsular Ligament is fixed to the Condyles, and there  
covers them ; - and afterwards it is fixed round both Sides of  
this lower Extremity above the Foffuhe. Its Insertion in these  
Sides is Archwise ; so that it is there at a much greater Distance  
from the Articulation, than at the Condyles. FheFoffuhe are  
Ilightly varnish'd over with a cartilaginous Substance.

This Capsula appears to be strengthen'd by a Ligamentary  
Web, the Fibres whereof cross each other in different Di-  
rections ; but we must not take *for Ligamentary* Filaments  
some tendinous Fibres os Muscles, to which the Capsula adheres  
Very closely. It appears larger and looser when the Muscles'  
are separated from it, than in its natural State, when closely  
united to the Muscles. ...

The two Sigmoide Cavities in the upper Extremity of the  
. Ulna are covered by a Cartilage common to both, which is a  
' littie interrupted about the Middle of the Edges os the Cavities  
by the transverse Notches mentioned before. ’This cartilagi-  
nous Crust seems to he thicker at the Edges, than in the  
Middle., .

The inferior Extremity, or small Head of the Ulna, is  
crusted over by a Cartilage round its cylindrical Border, in **the**Notch near the Styloide Apophysis ; and for some Space on **the**Apophysis itself.

The Cartilage which covers the Head of the Radius is like-  
wise stretched over the cylindrical Border thereof; and a lateral  
Portion of the muscular Tuberosity immediately below **the**Neck is also covered with a thin shining Cartilage. . -

All the concave Side of the Basis of the Radius is cartilaginous,  
and often divided by a small cartilaginous prominent **Line. The**

lateral Notch of the Basis is likewife covered by **a Continuation**of the same Cartilage. -

\_ The lateral Hals-grooves or Channels of the Basis of this  
Pone appear likewise to be crusted over with a rarrnaoinnus  
-Matter ; but this I rather take to be Portions os the annular  
Ligaments.

Ar the Basis of the Radius there is likewise a particular addi-  
tional. Cartilage,. or triangular Production, longer than it is  
broad. Very thin, and rather flat than concave on both its smooth  
Tides. It is fixed by its Basis, or shortest Side, t0 the lateral  
Sigmoide Notch -of tho Basis os the Radius, in such a manner  
as that one Side os ir is on a Level with the largo cartilaginous  
Surface os the Basis of the Bone, and its Apex directly opposite  
:to the Styloide Apophysis. The other Side touches the star Ex-  
Ireinity of the small Hoad os the Uina, but is not fixed to it.  
..' Thin Cartilage may be term’d the interarticular Cartilage of  
the Joint os the Wrist. It is tied to the Radius by very short  
Ligaments ; and Aiding on tho small Head of the Ulna, it fol-:  
lows all the Motions os the Radius. It is therefore a sort of  
articular Production of the lower Side of tho Basis of the Radius,  
and silis in the natural State the void Space, which, in the.See-  
Ieton, appears between the End of the Ulna, and the neigh-  
bouring Bone of the Carpus.

Some of the Ligaments of the Bones of the fore Arm are  
common to them with the Os Humeri; some common to  
them with the Bones of the Hand ; and some are propers  
These last are two in Number ; one call’d the interosseous Li-  
gament os the sore Arm ; and one which may be termed the  
coronary Ligament of the Radius. To these may be added the  
annular Ligaments, which only serve sor the Passage os Tendons,  
and other Ligamentary Expansions, -which may he called mus-  
cular Ligaments.

The interosseous Ligament os the sore Arm is very like that  
of the Leg. It is fixed by one Edge along the sharp Angle of  
ths Ulna, and by tho other along that of the Radius. It is  
principally made up of two very strong Planes of Fibres, which  
cross each other at oblique Angles, and leave HoleS.at different  
Distances for the Passage of the Blood-vessels.

This Ligament ties the two Bones closely together ; and the  
Two Planes serve sor the Insertion os several Muscles. In the  
Supination os the Hand it is Very tightiy braced ; bur in Prona-  
tion it is folded a little Lengthwise.

The Coronary Ligament os the Radius is a fort of Liga-  
mentary Hoop surrounding the circular Circumference of the  
Head of that Bone, reaching from one Side of the small lateral  
sigmoide or transverse Cavity os the Ulna to the other, in an  
Arch, which is about three quarters os a Circle. It is very  
strong, and comes near the Solidity os a Cartilages The Side  
next the Radius is very smooth ; and though it connects that  
Bone Very closely to the Ulna, yet it leaves it room enough to  
turn in the Motions of Pronation and Supination.

The Capsular Ligament os the Joint os the Elbow runs  
down from its Insertion in the Os Humeri, and is fixed hi the  
Olecranuni round the Edge os the great Sigmoide Cavity, in-  
eluding both the Apex of the Olecranum, and of the Coro-  
noide Apophysis. It likewise runs over the Head of the Radius,  
and is fixed to the Coronary Ligament quite round. Thus it com-  
pletely surrounds the Articulation of these three Bones, and serves  
to contain the mucilaginous Liquor furnished by the Glands, and  
fatty Substance, both which are found in great Quantities near  
the Extremity of the Bone which forms the Elbow.

The true common Ligaments by which the Os Humeri is  
connected to the Bones of the fore Arm, call’d lateral Liga-  
ments, are the two Fasciculi before-mentioned, which, after be-  
ing inserted in the Condyles of the Os Humeri, are expanded  
like a Goose's Foot. That which is fixed in the inner Condyle ..  
may be call'd Brach io-cubitale, and the other Brachio-radialei

The Brachio-cubital Ligament running down over the Cap-  
sula, to which it closely adheres, below the great Edge os the  
Trochlea os the Os Humeri, is inserted like Radii (os which  
its other Extremity fixed in the Condyle is the Centre) on the  
Side of the great Sigmoide Cavity of the Ulna. It is covered  
on the Outside by several Tendons which adhere closely to it,  
and seem to strengthen it.

The Brachio-radial Ligament is disposed much after the same  
manner, but is os a greater extent. It is expanded from the  
external Condyle os the Os Humeri, as from a Centre ; and is .  
inserted round the Coronary Ligament, and from thence all the  
Way down to the Neck of the Radius ; and also in the neigh-  
bouring Parts of the Ulna. Through all this Passage it covers  
the Capsular Ligament, and is covered by several Tendons ad-  
hering closely to both.

Of the Ligaments by which these Bones are connected to  
those of the Hand, one is like a roundish Cord fixed in the  
Styloide Apophysis of the Ulna, and from thence passes directly  
over the OS Cuneiforme os the Carpus,- in which, and in other  
Bones, it is inserted in a peculiar manner. Another pretty  
broad Ligament is fixed in the Point os the Radius ; and by its  
other Extremity, in the Bones os the Carpus.

Prom this Styloide Ligament of the Radius, along each Edge  
of the Basis of that Bone, are Ranks of Ligamentary Fibres  
lying much in the fame Direction with the Ligament itself,  
and continued all the Way to the Styloide Ligament of the Ul-  
na ; those nearest the Ulna'inclose the interarticular Cartilage  
of the Basis of the Radius, and near the Styloide Ligament of  
the Ulna there is a particular Fasciculus inserted in the Point  
' of that Cartilage.

-All these Ligaments surround and cover the Capsular *Lsigdur*ment so closely, that they can hardly he distinguished from it.  
The Capsula is likewise in part cover'd by a Portion of a  
great oblique Ligament, which heing by a Very broad Insertion  
fixed in the large extremity of the Radius, about two Fin-  
gers Breadth above the Styloide Apex, afterwards crosses ob-  
liquely, partly over the convex Side of the *Basis Radii,* and  
partly over that of the Carpus; and then turning towards the  
Os Orbiculare, is inserted therein. It is called the external  
transverse Ligament of the Carpus; and may likewise be  
named the great oblique Ligament of the Wrist.

There are several small annular Ligaments placed at differ-  
ent Distances on the convex Side of the *Basis Radii,* from  
its Styloide Apex to its Articulation with the Extremity of the  
Ulna. They are at least six in Number, some of them be-  
ing often double or triple. '

The first is fixed in the Ssploide Apex; the second in the  
Groove near that Apex; the third, in the small narrow or  
middle Groove; the fourth, in the Groove next the former;  
the fifth, in the Corner of the semilunar Notch of the Ba-  
sis, at its Articulation with the Ulna ; and the sixth, in the  
Extremity of the Ulna, near the Styloide Apophysis.

These particular Ligaments are almost wholly covered by  
‘the great oblique Ligament; and are fixed as strongly in it on  
one Side, as they are in the Bones on the other. They are  
all very strong, and their concave Sides, serving sor *Prana* to  
the Tendons of several Muscles that pass over them, are very  
smooth, and accompanied with thin mucilaginous *Fagina. .*

To these we may add the Ligamentary Expansions, with  
which several Muscles are Cover'd, and separated from each  
other, as by so many distinct *Septa* ; which are all Very thick  
and strong, where they are inserted in the Bones. One kind  
of them may be term'd Ligamentary Bands, or muscular *Va-  
ginae,* the other Ligamentary *Septa,* Or intermuscular Ligaments.

All the Bones os the Carpus, Metacarpus, and Fingers, are  
’crusted over with Curtilages at those Places, which I term'd  
Cartilaginous Surfaces, in the Treatise os dry Bones: but in  
fresh Bones they are thicker, softer, and whiter, than in the  
Sceleton. In adult Subjects, then Figure remains the same  
in both; but it changes in the dry Bones of younger Subjects,  
and in those of Children it is quite different. The Impres-  
sions and Notches in which the mucilaginous Glands are  
lodged, are most sensible in the Cartilages of fresh Bones, be-  
cause of their Thickness.

The Ligaments of the Carpus are very numerous. Some  
of them tie each Bone to one or two neighbouring Bones in  
the same Rank; and these are composed of a great Numher of  
'Filaments, but so very short, as to allow these Bones only a  
small Degree of Motion. Some os them tie the Bones of  
one Row to those of the other ; which are likewise made up  
of many Filaments, but not so short as the former, and there-  
fore allow these Bones,a more manifest Motion, as we see in  
bending the Wrist. Lastly, there are other Ligaments of the  
Carpus, by which the three first Bones of the first Row are  
connected to the Bones of the sore Arm; and to thefe may be  
added the Ligaments by winch the Bones of the second Row  
are join'd to those of the Metacarpus, and first Phalanx of the  
Thumb.

We have already describ'd all the Ligaments belonging to  
the Articulation of the Carpus, with the Bones of the fore  
‘ Arm, except their insertions in the Carpus. The Styloide  
Ligament of the Radius is fixed round the neighbouring Tu-  
berosity of the OS Scaphoides. The Stybide Ligament of the  
Ulna is fixed first in the Os Cuneiforme, and then in the Os  
Uncisorme, from whence it is a little stretched over the fourth  
Bone os the Metacarpus.

The Ligamentary Ranges, which lie between the above-men-  
tion'd Ligaments, tho Balis of the Radius, and a small Portion  
of the Head of the Ulna, are fixed round the common Con-  
vexity of the three first Carpal Bones, as is also the mucilagi-  
nous Capsida, by which these Ligaments are lined.

Besides all these small short Ligaments belonging to each  
Bone in both Rows, the rough Surfaces of all the Bones, es-  
penally those which form the Convexity of the Carpus, give  
Insertion to a great many Ligamentary *Fasciculi,* stretched  
over, and closely united to the former small Ligaments, and  
serving, probably, to strengthen them. Some Fasciculi of  
the same kind are found on the concave Side of the Carpus,  
but they are fewer in Number, and not so strong.

There is likewise a considerable Ligamens, hasted **the** inner  
transverse Ligament of the Carpus. It wua formerly railed an

annular Ligament, and may still Very justly retain that Name  
in the Sense already explain'd, when I spoke os the Ligaments  
in general

The Bones os the Metacarpus, hesides the short Ligaments  
by winch they are tied to the second Row of the Bones of **the**Carpus, have several Rows, by which both their Bases and Heads  
are connected together. The Bases of the third and fourth  
Bones are not so closely tied as the rest, and therefore they  
have a Very sensible Motion, which, however, is greater in **the**fourth than in the third.

The Heads of thefe Bones are firmly tied to each Other, by  
a strong transverse Ligament, situated in the Palm of the Hand,  
and fixed by distinct Productions in the neighbouring Part of  
the Heads, in such a manner, as to form in the Spaces be-  
tween the Heads, as it were, perforated or chanel'd *Prana,*through which the Tendons os the Flexor Muscles of the Fin-  
gers have a free Passage, and these *Dana* are also supported  
by aponeurotic Expansions.

The first Phalanx of the Thumb is fixed to the Os Trape-  
zium by short Ligaments, which pass obliquely over the Ar-  
ticulation. The first Phalanges of the other sour Fingers are  
joined to the Heads of the Metacarpal Bones, almost in **the**same manner, and by Ligaments like the former, which are  
strengthen'd hy adhering to the transverse Ligament. The se-  
cond Phalanx of the Thumb is joined to the first\* by Liga-  
ments of the same kind.

The third Phalanx of the Thumb is joined to the second ;  
the second Phalanges of the other Fingers to the first, and the  
third to the second, by lateral Ligaments almost in **the same**manner as the Bones Of the fore Arm to the Os Humeri; that  
is, these Ligaments spread from a Point fixed in rhe lateral  
Tuhercles of the Heads of the Phalanges, and are infected by  
their Other Extremity like *Radiisuiu.* the Bases of the neigh-  
bouring Phalanges.

The two first Phalanges of each Finger have a Very strong .  
Ligamentary *Fagina* inserted in the rough Lines or Ridges on  
their flat Sides. These *Fagina* are fined with a mucilaginous  
Membrane, which runs like a Tube, from one Phalanx to the  
other, over the Articulation. They serve for *Prana* to the  
Flexor Mufcles of the Fingers, the Tendons of which pass  
through them. *Winsiow.*

All these Bones would he useless, and an Incumbrance, if  
they were not furnish'd with Muscles, in order to move them  
in fuch Directions, and for such Purposes, as the Exigencies  
of Mankind may require. All these Muscles are described,  
and their Uses aye specisy'd, under their proper Names. I  
shall therefore only, in this Place, give their Names, and some  
Observations of Mr. *Cowpcr,* relative to them.

*Galen, Jacobus Sylvius,* and *Vifalius,* descrihe seven Mus-  
cles helonging to each Arm, that is, the

**PECTORALIS.**

**DELTOIDES.**

**TERES MAJOR.**

**LATISSIMUS DORSI.**

**SUPRASPINATUS.**

**INFRASPINATUS, and**

**SUBSCAPULARIS.**

*Arantius,* in his Anatomical Observations, counts another, by  
*Riolanus* called,

**CORACoBRACHIAEUS.**

To which *Julius Caesserius Placentinus* adds **the**

**' TERES MINOR**

By some, reckoned as the eighth Muscle Of this Part, which  
is therefore **Called OCTAVUS** Humeri **PLACENTINI.**

*The* **MUSCLES** *of the* **CUBIT.**

The lower Part Of the Arm, from the Elbow to the Wrist,  
is called the Cubit, which is either bended or extended by  
five Muscles, which are **the**

**BICEPS.**

**BRACHIAEUS INTERNUS.**

**GEMELLUS.**

**BRACHIAEUS EXTERNUS, and**

**ANCoNAEUS.**

*. Of the* **MUSCLES** *of the* **PALM** *of the* **HAND.**

**The antient Anatomists mention but one Muscle belonging  
to the Palm, which is the PALMARIS LoNGUS.**

**But** *Fallopius* **describes the PALMARIS BREVIS, commu-  
nicated to him by** *Joannes Baptista Cananus,* **an eminent  
Anatomist, his Contemporary, and was first published by** *seal..  
ver da,* **in his Anatomy written in** *Spanish.*

*The* **MUSCLES** *ofthe* **FOUR FINGERS,,**

The Muscles of the four Fingers .are divided into Commem  
and proper. The Common Muscles Of the Fingers are such as

arise from the external or internal Protuberances of the ***Os Hit.  
mere,*** and, sundividing themselves, are inserted into most, if  
Dot all the Fingers ; they ate the

**' PERFoRATUS.**

**PEKFORANS.**

**LUMBRICALES, and**

**' ExTENsoR CoMMUNIs DIGITORUJI.**

The proper Muscles of the Fingers are fuch as have their  
Beginnings distincti and are inserted, without any Subdivision,  
into cacti respeolive Finger; as the

**: IKTERossEI. '**

**EXTENSOR INDrcis.**

**Abductor INDicrs.**

**EXTENSOR MINIMI DIGITI.**

**ABDUCTOR MINIMI DIGITI.**

*Of the* **MUSCLES** *of the* THUMB.

Authors disagree concerning the Numher, Rise, and Infer-  
tions of the Muscles of the Thumb; which may partly pro-  
ceed from that great Variety, which may be *so frequently* ob-  
served in divers Subjects : They are the

**FLEXORTERTII INTERNODII, SEU LONCIssIMUS FOL-  
LICIS.**

**ABDUCTOR PoLLICIs.**

**FLEXOR PRIMI ET SECUNDI OSSIs PoLLICIs.**

**ADDUcToR PoLLICIs.**

**ExTENsoR.PRIMI'INTEKNODII PoLLIotS.**

**EXTENSOR SECUNDI INTERNoDII OSSIS PoLLtCIS.  
EXTENS0R TERTII INTERNoDII OSSIS PoLLICIS.**

***Of the* MUSCLES *of the WRIST or* CARPUS.**

- These are generally well described by most Authors, and re-  
ccive their Names from their Situation and Use.

**. FLEXOR CARPI RADIALIS.**

**.. FLEXOR CARPI ULNARIS.**

**EXTENSOR CARPI RADIALIS.**

**EXTENsoR CARPI ULNARIS.**

*Of the* **MUSCLES** *of the* **RADIUS.**

The Radius is moved in common with the Ulna, or Ctr-  
bitus; but besides thet, it bath alfo a proper Motion, in which  
the Carpus, together with the Hand, is chiefly moved, or  
turned either upwards or downwards: And to this End there  
are two sorts of Muscles; of which some are called *Prana-  
tores,* or thofe that turn it inwards, and the Palm of the Hand  
downwards; and others *Supinatores,* which tum it outwards,  
and the Palm of the Hand upwards. These have their Names  
from their Figure and Ufe, and are,

**PRoNAToR RADII TBREs.**

**PRONATOR RADII OUADRATUs.**

**SUFINATOR RADII LoNGUs.**

SUFINAToR RADII BREVIS.

For the Blond-vessels of the superior Extremities, fee AR-  
**TERI.K,** and VENA. And for the Nerves, fee **NERVI.**

BRACHUNA. The fame as **ACRAI,** which fee.

BRACHYCEPHALI, βραχυκεφαλοι, from βραχὑς, short,  
and κεφαλὴ, a Head. A kind of Fish, condemn’d by *Oribajius,  
Made Cell. Lib.* 2. *cap.* 58. as of bad Juice, and a rank SmelL

BRACHYCHRONIUS, βραχυχρονιος, from βραχεὴς, short,  
and χρόνος, Time. An Epithet of a Disease which contiones  
but a short Time. *Galeni Def. Medica.*

BRACHYLOGIA, βραχυλογία, from βραχὑς, short, and  
Λόγος, a Word or Sentence. Α short Sentence, such as the  
Aphorisms of *Hippocrates.*

BRACHYPNCEA, βραχὑπνοια, from βραχὑς, short, and  
πνέω, to breathe; most frequently signifies a short and small Re-  
fpiration, and one fetch’d he longIntervais, according *to Galen,  
Lib.* 3. *de Diff. Refp. Cap.* S. So βραχὑπνοος is one who draws  
his Breath small and rare, that is, by long Intervals, from an  
universal Refrigeration of the Body, and Extinction of the na-  
tural Heat, *Lib.* 3. *Epidem. Aigr. i. et* 15. But, *Lib.* I.  
*Epid,* and *Lila 6. Epid. Sect. 2. Aph.* 9. βραχὑπνους is a short  
Respiration at small Intervals, or stnall and frequent, and is  
oppos’d to μαν.ρὄπνους. *Galen, Lib.* 3. *de Dioffi. last. Cap.* II.  
*Foestus.*

BRACHYPOTAE, or BRACHYPOTI, βραχυπόται »  
βραχὑποτοί, from βραχὑς, short, small, and πὄτος, Drink.  
Little Drinkers. Perfons in a Phreofy are said. *Lib.* **I.** *Prorrhet.*to be βραχυπὄται, that is, to think little and seldom. The  
same in *Galen, Cam.* 3. *in* 3. *Epla.* are call’d βραχὑποτοι, which  
he explains to he οσοικαὶ βραχὑκαὶ διάπολλοῦ πίνουσιν, “ such as  
\*" drink little at a time, and at long Intervals.’’

Some have erroneousty imagin’d, that by this Word *Hippo-  
crates* means to express the Dread of Fluids, with which People  
under a Hydrophobia are sein’d. But it is plain, thet he only

means a Symptom very common in Fevers of the worst kind j  
and which is necessarily bad, because it prevents the Patient  
from taking sufficient Quantities of diluting Liquors; which arc  
of great Importance in the Cure of acute Diseases.

It seems not unlikely, that this Disgust at Fluids may arise  
from a Dryness, and consequent Closure of the Mouths of the  
lacteal Vesseis, which prevents Liquors from entering into them.  
Hence Liquors swallow’d are a Burden in the intestinal Tube,  
and consequently are nauseated:

- Upon this Subjeci, I rememher a pretty Observation ofaPhy-  
sician of Reputation, communicated to me ; which was; that he  
attended a Patient in a Fever, whom he imagin'd plentiful Di-  
luting would relieve; but eould not prevail on him to take any  
Fluids, ’till, at last, he offer’d him fome Oil of sweet Almonds,  
which he took with Pleafure, and would not be easy without  
taking it in large Quantities ’till he recover'd: If we consider  
the Latsteals, in this Case, as obstructsd by extreme Dryness,  
and, at the same tube, refleol upon the relaxing Nature of Oiis,  
we may readily conceive why Oils should he agreeable to this  
Patient, whilst he could hear to drink nothing elfe:

BRACHYS. **SeeBREvIs.**

BRACIUM. Copper. *Rulanduso*

BRACTEA, ἔλασμα, έλασμὸς. πέταλον. The sarite as *ha:  
mina,* a Plate, orthin Piece of Metal: *Palandus.*

BRADYPEPSIA, βραδυπεψίη, from βραδυς, stow, and  
πέπτω, to coneoft. A flow, weak, and imperfect Concoction  
of Fond. *Gal. de Diff. Sympts Cap. 4.*

BRADYS, βραδὑς, stow. See **TARDUS.**

BRANCA, an *Italian* Word, signifying Foos. Hence the  
*Acanthus* is call’d *Branca uesina,* that is, *Beas’s-foot,* from the  
Resemblance of its Leaves to the sore Feet of a Bear. *Blancard.*

BRANCA LEONIS, or PES LEONIS. The same as  
**ALCHIMILLA,** which see:

BRANCA URSINA, *Germanica.* **See SPHoNDYLIUM.**

BRANCHUS, βρἀγχος, τὸ, a Defluxion of Humours upori  
the Fauces, heing a Species of Catarrh, call’d by *Caelius Aurea  
lianus. Lib. 2. Tarde Passe, cap.* 7: *Raucitas,* a Hoarseness.  
Hence, *Lib.* I. *Epid,* βραγχώδεες φωναἱ, and βραγχωδέστάτα  
ὕδάτα, *Lib. de Aer. Lies et Aqu.* are Waters which very much  
dispose to a Hoarseness. *Foestus.*

BRANCHI, or BRANCHAE, is also a Name for those  
glandulous Tumors in the Fauces, which resemble two AN  
monds, and are accompany’^ with a Difficulty of Spitting, and  
a troublesome Respiration. *Castellus.*

BRANCIA. Glass. *Pulanduss , \_ .*

- BRANTA, orBERNICLA. A kind of Goose in *Eng\*  
land and Scotland,* which has been the Subject of many fabu-  
lous Stories; as thet it grows on Trees, and hangs on **the**Trunk or Branches ; or is generated of rotten Wood. It is  
described by *Aldrrns. Oreiith. Lib. 29. Cap.* 23. Its Flesh is  
more unfavoury and rank, then of the common Goofe, but  
is esteem’d a Delicacy in the inland Parts of *Scotland.*

PRASE Coals. *Rulandas.*

BRASILIA, Offic. *Arbor Brastlia,* Raii Hist. 2. 1.736.  
Part. Theat: I644. *Brajilium lignum,* J: B. I: 490: *Brasse  
liurn lignum.* Chain 37. *Lignum Brajilianum,* Geoff. Tracts  
3IO. Mont. Exot. 8. *Pfendofantalum rubrumgiseue Arbor Brast.  
lia,* C. Β: Pin. 393: *Ibirapitanga- save Lignum rubrum,* Pison.  
(Ed. I658.) I64. *Ibirapitanga Braftlieastbus,* Marcg. IoI.  
*Crista pcruonis Ccronillafolio tertia. Jive Tinctoria maxima Bra-  
stliana, store variegato parvo oderat issems, Jiliqua aculeata, lig.  
num Braseliurn dictum firms,* Breyn: Prod. 2. 37. *Etythexy.  
lam Brastliamon spin of urn, foists Acacia,* Herm. Par. Bat. Prod.  
33c. BRASIL WOOD. *Dale.*

This is the Wood of a Tree call’d *Pfendofantalum rubrum  
Brastlia,* C. B: P. It is used by Dyers in dying Red, aS the  
yellow *Erased* Wood is for thet Colour. *Geestmaji*

It is cold and dry, mitigates the Heat of Fevers, and is a Re-  
stringent and Strengthener, like the Wood of *Sanderss Dale.*

BRASIUM. The fame as BvNE, which see.

BRASMA, βρασμα. in *Dioscorides, Caps* I 89: *Lib.* 2: **is a**light empty fort of biack Pepper, which is good for nothing.  
*John Bauhine* assures us, that it is the fame with what is now  
observed to corrupt on the Piant, and never come to Mato-  
rity.

BRASMOS, βροεσμος. The same as ξὑμωςπς, ‘ι Fermenta-  
"" tionfor which a very antiontGrmi Author, *Phornuthus,*is quoted. It is also call’d *Ecbrascnuss ha&cyffapi. Castellus.*

BRASSATELLA, *Brajscadella.* The **same as OpHIos  
GLOssUM, or** *Adder’s Tongue. Pulandusi*

BRASSICA. A Cabbage. A celebrated Plant among the  
Antients, and much in Use among the Modems.

The Garden Cabbage is agreeable to the Stomach, if it be  
eaten flightly boil’d; for, offer thorough Boiling, it binds the  
Belly; and much more, if it he twice hell’d, or host’d in a Liki-  
vium. The Summer Cabbage is more acrimonious and hurtful  
to the Stomach. What grows in *Egypt* is not eatable, hecause  
of its Bitterness.

. .Cabbage, in Food, is goodfor Duiness of. Sight and Trent- ,  
blingsu'Eaten aster Meais, it prevents the mischievous Conse-  
quences of Surfeiting and Drunkenness. The tender Shoots  
are most agreeable to the Stomach, but fuller of Acrimony,,  
and more diuretic ; but, being put in Pickle, are hurtful to the  
Stomach, and disturb the Belly. The Juice of raw Cabbage;;  
taken with Iris and Nitre, mollifies the Belly, and, drank in  
Wine, is good against the Bite of a Viper. Mix’d with the i  
Meal of Fenugreek and Vinegar, it helps the Gont in the Feet .  
and Joints; and is effectually apply’d to old and foul Ulcers,  
infused by itself into the Nostrils, it purges the Head ; and,  
made into a Pessary with Meal of Darnel, provokes theCata- ;mcrda. A Cataplasm of the Leaves, either alone ot bruised  
with Polenta, is- effectual against all kinds *of* Inflammations,  
cedemarous Swellings, and Erysipelas, and cures the Lpinvcti-,  
des and Lepra. The Leaves, applied with Salt, eauso a ’Caret  
bundle to break, and restrain the Falling-off of the Hairs os\*  
the Head...The fame hell’d, and mix’d with Honey, stop the.  
Progressam a Gangrene; and, eaten raw with Vinegar, relieve,  
those who labour under splenetic Disorders.: Chew’d in the'.  
Mouth, Io as that the Juice he swallowed, ther' restore a'-lost  
Voice. A Decoction of Cabbage, drank, loosens the Belly, and  
provokes the Menses. . The I lowers, ..used in a Pessary after  
Child-birth, prevent Conception. The Seed,; especially what  
grows in *Egypt,* being drank,’ expels Worms ; and is an Ingre-  
dient in theriacal Antidotes. It also clears theFace of Freckles.  
The green Stalks, burnt, with the Roots, and then mix’d up  
with old SwineS Fat, and applied, mitigate inveterate Pains of  
the Sides.' *Diofcorides, Lib. i. Cap.* I46. '

.Wild Cabbage grows, for the most part,. in craggy Places,  
and by .the Sea-side. It is like the Garden Kind, only whiter,;  
more hairy, and bitter. The tender Buds, boil’d, in a Lixi-  
vium, are not unsavoury to the Palate. r Τ

A Cataplafm of the Leaves conglutinares Wounds, and dis.  
cusses cedematous Tumors and Inflammations. *Idem, Cap.*147.' '

It would require a long Time to speak all that has been said  
in Praise of-Cabbage. *Chrystppus* the Physician wrote a Volume  
on this Subjeol, which he digested under genend Heads and  
Sections, according to the different Parts of the human Body;  
and *Dieieches* has written another; But, before them all, *Pytha~  
goras* and *Cato* were no less liberal of their Encomiums on Cab-  
bage. The Opinion of *Cato* concerning its Virtues deserves  
to be sully represented ; and the rather, that we may know what  
sort of Physic the *Boman* People used for six hundred Years to-  
gether. ' ' . ’ ' . . '

.The most antient *Greeks* made three Species of Cabbage:  
As, first, the *curled,* which they call’d *Selinas,* from the Re-  
semblance of its Leaves to .those of Apium. This Kind is  
friendly to the Stomach, and gently mollifies the Belly. An-  
other Species was the *fmaoth,* shooting forth broad Leaves from  
f its Stalk, whence it was call’d by seme *Caulodes;* It was of no  
Use in Medicine. The third was properly call’d *Crambe,* which  
produced thinner Leaves, plain, arid growing very thick toge-  
ther': This is of a bitter Taste, but of great Virtues. *Cato*most approves of the *curled*; next to which he prefers the  
*sensoth,* with the large Leaves, and great Stalk.

He tells us, that it is effectual for Pains of the Head, Dim-  
ness of Sight, and Scintillations of the Eves; for the Spleen,  
Stomach, and Praecordia,, if it be taken in the Morning raw,  
in Vinegar and Honey, mix’d up with Coriander, Rue, Mint,  
and the Root of Laser, to the Quantity of a Quarter of a Pint:  
That there is fo great a Virtue in this Medicine, that the very  
Person who bruises the Ingredients will feel an Increafe oi  
Strength. It may be supp’d after it is bruised with thefe Sim-  
ples, or taken out of the Liquor and eaten. Min’d with Rue,  
Coriander, a little Salt, and Barley-meal, it makes a Cataplasm  
for the Gout. A Decoction of it in Water wonderfully help:  
the Nerves and Joints; and is an effectual Fomentation for  
Wounds, whether recent or old ; and even for, a Carcinoma,  
which can be cured by no other Medicine. He first orders the  
Part to be fomented with the warm Decoction, and the Herb  
to be bruised and applied twice in a Day; and by the fame Me-  
thod are hollow Fistulas incarn’d, and Tumors discuss’d. Boil’d  
Cabbage, plentifully eaten fasting, with Oil and Salt, relieves  
under Want of Sleep; Twice boil’d, and eaten with Oil, Salt,  
Cumin, and. Polenta, it eases the Gripes; if eaten without’  
Breed, it will have the more Effecti Among other Virtues,'  
-thank in black Wine, it purges Bile. The very Urine of one  
that usually eats Cabbage, being kept a while, and heated, is a)  
. Remedy for the Nerves. I will express the Author’s Mind in  
his own Words, which are as follow; *cc* If you wash little  
" Boys with that Urine, they will never grow weak.” He  
also advises the juice of Cabbage, in Wine, to be infill’d warm  
into the Ears, and assures it tohegoed for Duiness of Hearing;  
and says, moreover, that it cures the Impetigo without nine-,  
rating the Parts.. So far *Cate, for* whore fake it is sit that I  
should subjoin the Opinions of the *Greets,* which I shell do  
only in those Things which he has omitted. They bold it, if par.

hell’d, toheaCholagogue, and toloofen the Belly; but, aster  
two Borlings,, to he binding: Thet inresists Wine, as. heing an  
Enemy to Vines: That taken first at Meals,' it:prevents  
Drunkenness ; if last. Surfeits: That, eaten as Fond, it con-  
duces much to Clearness of Sight; but is much more eSedtual,  
if only the Comers of the Eyes be touch’d with the raw juice,  
mix’d with *Attic* Honey: That it is a Fond of *very* easy Con-  
coction, and cleanses and quickens the Senses. The Disciples  
*of Erajijlratus,* .with one Voice, assart, that there;is nothing  
more beneficial to the Stomach and Nerves, and prescribe it in  
Palsies, and Tremblings, and Spitting of Blond. *. Hippocrates*orders it, aster two Boilings, with Salt, to be given to those  
who labour under the Colic or Dvsentery. He judges it also  
to he good in the Tenesmus and Asloitibns of the Kidneys, and  
to procure Plenty os Milk to Women in Child-bed who eat it,  
and to provoke the Menfes.' The Stalks, eaten raw, expel  
the dead Foetus. *Apollodorus* advises the Drinking of the Seed or  
Juice, against the Poison of Mushrooms *[Fungi]. Phillylius*recommends the Juice in-Goats Milk, with Salt and Honey,  
fcr the *Opistbetonici.* I find also, that some have been freed  
from the Gout by eating it, and drinking the Decoction.; and  
if is prescribed for'the Cardiac Passion, and the Epilepiy; and  
also for Disorders os the Spleen, in White-wine, for forty Days.  
The Saw Juice of theEnetctirorder’d to he gargarized, and  
drank, for the jaundice, and in a Phrensy. For the Hiccough-  
it is prescribed to he drank in Vinegar, with Coriander, Dill,  
Honey, and Pepper;'and Inflations of the Stomach have been  
relieved by anointing it with the same. The Decoction only,  
with Barley-meaI, or .the Juicein Vinegar, or with Fenugreek,  
heal the Bites of i Serpents, and.old fordid Ulcers.r Some apply  
it to the. Joints affected .with the .Gout , and an Application  
thereof cures also the Epinyctides, or any other spreading cuta-  
neous Affection , also a sudden Dimness *[Caligines],* which.it  
asso helps, is eaten with Vinegar. The simple Juice takes off'  
the livid Marks.of Blows in the Face, or any other Parti if it  
is anointed therewith : The same, with round Alum and Vine-  
gar, cures the Lepra and Psora ., it prevents also the Falling-off  
of the Hair. *Epicharmus* asserts, that an Application of it is  
very effectual in Diseases of the Pudenda; and thet its Virtue  
is increased by mixing it with Bean-meal. Mix’d with Rue, it  
cutes Convulsions; and, taken with the Seeds of Rue, it allays  
the Heat of burning Fevers, helps Disorders of the Stomach,  
and expels the After-birtb. The Powder of the dried Leaves  
cures the Bites of the Shrew-mouse.

Of all the sorts' of Cabbage, the sweetest are the *Cymae*(voung Sprouts, after the first Cutting) ; the’ they are os no  
Use in Medicine, are difficult of Concoction, and noxious to  
the Kidneys. We ought also to take Notice, that the Liquor  
of boil’d Cabbage, so much commended for its manifold Use-  
fulness, stinks when pour’d upon the Ground. The Ashes of  
burnt Cabbage-stalks are reckon’d among Caustics ; and, mix’d  
with very old Fat, help the Sciatica, With Laser and Vine-  
gar they serve as a Psilothrum, to prevent the Growth of Hairs  
after they heve been pull’d out-.. Drank in heated Oil, or in  
Water wherein they alone have been boil’s, they are effectual  
in Convulsions, inward Ruptures, and Bruises hy Falls.

-Are there, then, no ill Properties belonging to Cabbage?  
Yes, thefe fame Authors acknowledge, that it gives a Person  
a rank Breath, is hurtful to the Teeth and Gums., and in *Egypt*they will not eat it, on account of its Bitterness.

*Cato* is very diffuse in his Praises of the wild Cabbage, and  
affirms, that the Powder of the dried Plant, made into an Er-  
mine, or the Smell of it alone, taken up the Nostrils, cures all  
Defects, and amends the ill Scent therein. Some call this rhe  
Rock Cabbage, and say, that It is a great Enemy to Wine,  
thet the Vine avoids it above all things, and, if it cannot get  
rid of it, dies. It has two small round smooth Leaves, and  
is much like the Garden Colewort, but whiter and more hairy.  
*Chrystppus* recommends it for Inflations, and melancholy Dis-  
orders; also for recent Wounds, being applied with Honey,  
and not taken off hefore the seventh Day: For strumous Swell-  
ings and Fistulas,: he orders it to he bruised in Water. Others  
affirm, that it checks the Progress of spreading Ulcers, which  
they call *Narna*; consumes Excrescences, and smooths the Skin  
from Seams and Scars ; that being chew’d, or the Decoction of  
it gargariz’d with Honey, it heals Ulcers of the Mouth, and  
Affections of the Tonsils; and that three Parts of it, mix’d  
with two Parts of Alum, in strong Vinegar, cure the Psora,  
and inveterate Lepra, if anointed therewith. *Epicharmus* wist  
heve the Application of it a sufficient Cure for the Bite of a  
mad Dog ; bur it is more effectual with Laser and strong Vine-  
gar. It is alfo. said to kill Dogs, if given to them in Flesh.  
The Seed, roasted, is a Remedy against the Venom of Serpents,  
and the poisonous Effects of Mushrooms, and Bulk Blood.  
The boil’d Leaves are given in Food for Disorders of the Spleen;  
and are applied crude, with Sulphur and Nitre, by way os Ca-  
taplasm, to the affedled Part, with good Success; as also to a  
Hardness of the Breasts. The Ashes of the Ront cure a Swell-  
ing of the Uvula, by touching it, and, made into a Litus, with

Honey, repress the Parotides, and heal the Bites os Serpents.  
We shall here add one great and wonderful Argument for the  
Virtues of Cabbage, winch is. That if all your Veffeis, used For  
Boiling, have contracted a Cruft or Foulness on the Inside,  
to such A Degree, that you know not hew to remove it. Cab-  
bage boil'd in your Veffeis shall effectually scour it off, and  
leave them clean.

The Lapsana is a Species of wild Cabbage, a Foot high, with  
hairy Leaves, and very much resembling the Napus, but that it  
has a whiter Flower. It is eaten in Food, and gently mollifies  
the Belly.

The Sea Cabbage purges with more Violence than any of the  
**rest: It is** dress'd with fat Flesh-meats on account of its Acri-  
mony, and is very offensive to the Stomach. *Pliny, Lib.* 20.  
*Cap.* 9.

Cabbage twice boil'd, if it he eaten, binds the Belly ; but  
Cabbage once, and not much, boil'd, and then taken in Oil,  
Garum, or Salt, is rather looserung than binding; and the Juice  
thereof is also more purgative than that os Lentiis: But the  
*Brassica marina,* or Sea Cabbage, is more manifestly os a purg-  
ing QPalitya whirch may be known by its saltish and bitter Taste.  
*P. Alginet. Lib. s. Cap.yt,. ..*

. Cabbage is of a drying Quality, whether eaten or outwardly  
applied, without any manifest Acrimony; for which Reason it  
' conglutinatos Wounds, and cures malignant Ulcers, and Tu-  
mors which are difficult to be discuss'd. It has also somewhat of  
a detersive Property, by which it heais the Lepra. The Seed,  
especially .what grows in *Egypt,* being drank,, destroys Worms.  
The Ashes of the burnt Stalks are a Caustic ; and, mix'd with  
Fat, are effectual in removing an inveterate Pain in the Sides.  
The wild Cabbage is stronger than the Garden Kind upon all  
Accounts, and is therefore not to he taken inwardly without  
. Injury. *Idem, Lib. y. Cap.* 3.

The Juice of Cabbage has somewhat of a purgative Quality,  
tho', according to the common Notion of Dryers, it should  
rather bind, than dispose to Excretion. Cabbage is, indeed, as  
much a Dryer as Lentiis, and therefore dulis the Sight, except  
the Eye be preternaturally moist. However, it is not so whol-  
feme a Green as Lettuce, but contains a bad and stinking Juice.  
*Qrihasius, Med. Coll. Lib.* 2. *Cap.* 5.

**The** same Author recommends a Decoctinn of the Root of  
Cabbage as a Diuretic and Emmenagogue, *Synops. Lib.* i.  
Cop. 22.

*' A Way of preparing* **CABBAGE,** *quoted hy* Oribasius,siroz7r

' . Mnefitheus Cyalcinus...

. Cut up a Cabbage with a Very sharp Knise; then wash it,  
and throw away the Water. After this, pound the same  
with a sufficient Quantity of Rue and Coriander; then  
fprinkle it well with Oxymel, and throw over it some fine  
Scrapings of Silphium. '

Half a Quarter of a Pint Or this Medicine, being taken,  
will suffer no Collection of noxious Matters in the Body, and  
expels them, if already gather'd.. Besides, it helps Dimness of  
Sight, Shortness of Breath, and all manner *of Disorders* **in the**Region of the Diaphragm and Hypochondria, opens Obstru-  
ctions of the Spleen, and extenuates.that Part, when increased  
**to an** enormous Size ; and is wonderfully effectual in Difor-  
tiers proceeding from the Atra Bilis, by purging the Veins,  
jin Diseases of the Joints, there in nothing, of such Efficacy as  
this Preparation of Cabbage, taken in the Morning sassing, ι

For the Gripes it is prepared in the following, manner : ..

Let the Cabbage be first macerated in Plenty of Waterthen  
.put imo hot Water, and boil'd till it. be much wasted.  
This done,' the Water must be all thrown away, and Oil  
.put to it: Let them boil together, and then he put into  
a Veffel. It is to be eaten alone cold, or. .with other Food,  
not once only, but every Day in the Morning, sor many  
Days together; but not.much of it must be taken at a  
Time, lest it should do more Harm than Good. *Qribasi.*

*Med. Coll. Lib. An Cap .An. - : sc*

*. Simeon Sethi,* an Author amongst the lower *Greeks,,* and  
who. lived about the Year loyo. writes thus of Cabbage. .. .

*Cabbage* generates depraved and melancholic Juices, weakens  
the Sight, and interrupts Sleep with frightful and disagreeable  
Dreams. Its Juice is purgative, but the Substance of thetiohy  
*hage* itself is binding; for which Reason, when we intend .to  
stop Diarrheas, we pour out the Water in: which the Cabbage  
has boil'd for some time, .and add fresh Water to it immediate-  
ly; and,, after it has bam thus boil'd, it is to he used without  
being exposed to the Air, or put in cold Water io cool it. Its  
Juice is more prejudicial in the Summer than in .the Winter..  
time. It provokes Urines kills Worms, and removes the bad  
Consequences arising from a .Surfeit Of Wine. It is said to  
render the Sight Of sound EVeS dim a and, on the other.hand.

to remove that Species of Dimness which arises from a siuper-l  
fiuous Humidity. It loses much of its noxious and hurtful Qua-  
lity, by heing boil'd with fat Flesh, its Seeds, applied to the  
genital Parts, by a certain peculiar occult Quality, corrupt the  
seminal Juices, and hinder Women from conceiving ;. they **ure**also prejudicial to the Lungs. It is reported, that *Cabbage* is,  
of all other Foods, the most proper for preventing Intoxication,  
by Liquors ; and that its Juice, .exhibited in Honey, wonder-  
fully restores the Voice when lost or disorder'd; Ir applied **to**Wounds, it conglutinares them; and cures malignant Ulcers,  
and scirrhous Inflammations. *Simeon Sethi.*

From these Observations of the Antients it is obvious, that in  
Cabbage we are to consider two kinds of Substances, on which i  
the different Effects produced by it depend : The one is a solid  
and terrestrial Principle, from which it derives its drying, astrin-  
gent; and obstructing Qualities, and its Tendency to generate  
depraved and melancholic Juices. The other is its Juice, to  
which its abstergent, opening, and deobstruent Virtues are to  
he ascribed. This. Doctrine is also inculcated by the *Schola.  
Salernitana, Co csp.* in these Words:

*Jus Caulis solvit, cuyus Substaatiastringiti*

But as the Sentiments of Dr. *Heffernan* will, in all Probability;  
he of greater Weight with the present Age, I shall here give  
his Opinion *os Cabbage,* in a Tranflation os his own Words.

Common red *Cabbage,* says he, is evidentiy possess'd of **a**medicinal Quality; and abounds with a Juice, which, by its ..  
nitrous, sweet, emollient, laxative, aperitive, attenuating, and  
stimulating Qualities, promotes thofe Excretions which are ab-  
solutely neceflary to the Preservation of Health. For this Rea-  
son it is not only a Preservative against Diseases, especially of  
the chronical Kind, but also contributes Very considerably to  
their Cure. *Bartholine,* in *Libr. de Medicina Danorum Dornest..  
Dessert.* I. extols *Cabbage* in these Words: " The common  
" Cabbage Of the Country-people is justly preferable to other  
" Pot-herbs, since, both raw and boil'd, it is possess'd of such  
" salutary Qualities, aS to prevent Occasions for the Medicines  
" used in the Shops. For this Reason, when a certain foreign  
" Physician came into *Denmark* with a Design to settle, and  
" saw the Gardens *of the* Country-people so well stock'd with

*Cabbage,* he, with good Reason; prognosticated small En-  
" couragement for himself in that Part of the World. It keeps  
" the Belly in an easy and soluble State, and a Decoction of  
the Tops of its tender Shoots discharges such an incredible  
" Quantity of Bile and Phlegm, that no Medicine proves R  
" quicker, a safer, or a more efficacious Purge, Hellebore and  
iC Scammony not excepted." In the Shoots os the common  
red Cabbage, cut longitudinally, when the Autumn is pretty  
sar advanced, there is a Juice whose Taste resembles that of  
Honey Or Manna, -which stows from them when laid in a cool  
Place for some time, and which I have often experienced to he  
of a purgative Quality. It is a bad Method of. preparing Cab-  
,bage, first to boil it. for some time,- and pour out the Water ;  
and then to boil it again with fresh Water; since,, by this  
means, its salutary and medicinal Juice is in a great measure  
lost. For this Very Reason I cannot help commending the Me-  
shod of preparing it used by the Inhabitants os *Westphalia,* and  
the Duchy of *Brunfwick*; for they do not throw away the  
Broth, which is impregnated with the more noble and salutary  
Virtues Of the Plant; but, adding Salt and Fat th it, prepare it  
in such a manner, as that it becomes not only agreeableIo she  
Taste, but wholsome and salutary-to the Constitution. Of  
the Tops os red Cabbage, Water-crefles, Ground-ivy,-Spinage,  
-Asparagus, Succory-root,' and.Dead-nettie, boil'd in Beef or  
Capon Broth, a Food is prepared, far preferable to-an other  
Medicines in phthisical and scorlIutical jDisorders. *Hoffman da  
Prssestantid Medie.Domestic^- - sis ' ζγ' si dur -*-. The Juice of Cabbage is of such a Nature ass not only **to**afford a sufficient Supply of Nourishment to the Body-στ lint **alfo**th correct the acrid-Salts1 Of the'Juices; allay the Acrimony of  
the Blood, cleanse the Intestines,, and scour-the Kidneys. For  
this Reason, Cabbage is -highlysalutary in Disorders of .the  
Breast, if baked in a close Vessel in an Oven, adding.Sugar oT  
Honey to it, after it is taken outs fur thy this means'it will, -in  
the Space of half-an Hour,- become' a Jelly, or thick Juice,  
winch, used as as Lambative,- is of fingular Efficacy in day  
.Coughs, excoriated Fauces in old Men; and Cases where a pu-  
rulent Matter is-expectorated. . - A. Decoction of Cabbage, with  
an Addition of Raisins, in used by; Preachers and Pleaders in  
Hoarseness, and'Defects of Voich,'arising from top Tong Speak-  
ing. Its Juice, used forordinary Drink, proves an excellent  
Remedy for the SeurVy; and this was,- in all Probability, **the**Reason why. the foreign Physician, mention'd by *Bartholine,*promised himself so poor Encouragement in *Denmark,* where  
the Scurvy is endemial, when he saw their Gardens so swell  
stored with-this Plant. *Trae Italians* put the young Tops of the  
*Brassica fimbriate,* or Boor-cole, into theirBallads, Id order to  
render the Body .soluble; and provoke Urine. *Kgriigsui* gives

t

tis an Account Of a dropsical Patient, who, after despairing of  
-Relief from the Physicians, was at last happily cured by a  
Quack, by means of Cabbage infused in Wine, with proper  
Correctors. The Plant itself, a littie boil'd, with an Addition  
.of Lemon-juice, and new Butter, is an excellent Remedy in  
phthisical and hectic Disorders. The red Cabbage is preferable  
to the white, in Cases where the Body is afflicted with Ulcers,  
.since, in such Constitutions, the white soon assumes a putrid  
.Quality, and becomes fetid. J am-of Opinion, that the mo-  
derateUse of it may, in some Coses, produce salutary Effects;  
but can't persuade myself to believe, that large Quantities of it,  
frequently taken, supply the Body with laudable nutritious  
Juices. Where Urine is to he provoked, or the Body render'd  
soluble, it, by its stimulating Muriatic Acid, proves effectual,  
with such as are not accustom’d to take Physic. Many People,  
especially in *Poland,* use pickled Cabbage *for* dissipating the  
Remains of a Debauch, which Intention they find it answers  
.very well. Besides, it has been observed, that the Pickle of  
Cabbage plentifully drank, by the Country.people, has removed  
continued Fevers, cured Dropsies, and carried off the most ob-  
stinate Tertian Agues. When the Peasants of *Croatia* are seiz’d  
with Fevers, they successfully apply Cataplasms os pickled Cab-  
bage to their Foreheads. The Pickle of Cabbage is said to he  
yery effectual in Burns, Gangrenes, and the Beginnings os  
.Inflammations in the Fauces, where the intention is to re-  
frigerate and repel, especially with an Addition of Lemon-juice.  
Nor is unpickled Cabbage less useful for Various external Pur-  
poses, fince it refrigerates, repeis, opens, and deterges. Thus  
'tis usual, after Veltcatones are taken off, to apply the Leaves  
..Of whine Cabbage, anointed with Butter; but they ought to he  
removed every two Hours. According to *Etmullen,* they may  
also be Very properly laid upon Issues, in order to carry on the  
Discharge os the Matter, and prevent Consolidation. Nurses  
also apply the Leaves of Cabbage to their Breasts, in order to  
prevent Coagulations of their Milk, and hinder it from being  
accumulated in too large a Quantity. Some apply them to  
Abscesses of the Breast, in order to prevent Inflammations, and  
promote the Consolidation of the Ulcer. The Country-people,  
in order to cleanse Wounds and Ulcers, either pour the Juice  
Of Cabbage into them, or lay its Leaves bruised to them. Some  
use red Cabbage-leaves, aster having shipp'd off the outer Skin  
and Ridges, by way of Plaister, in inflamed Wounds, and  
itchy Ulcers. The Leaves, anointed with Rape-oil, are, in  
pestilential Disorders, Very successfully applied for the Matura-  
tion of Ulcers and Carbuncles. *Diemerb. de Peste.* The Leaves,  
boil’d up into a Cataplasm, with Butter, maturate and break  
Impostutnations. It is said, that when the Achors of.Chil-  
dren are repel'd, the Leaves of the *Brassica Capitata,* ap-  
plied to them, never sail to make the Discharge of the Matter

. return. *Simon Pauli* telis us, that he himself knew a .certain  
Girl, who, in the Space of fourteen Days, had an incredible  
Number of Warts taken off one of her Hands, by anointing  
them with the Juice of Cabbage, winch shrf allow'd to dry on  
them. In feverish Heats the Leaves are applied to the Soles of  
the Feet, with Salt, instead of Vesicatories. *Etmullen* informs  
us, that an antipleuritic Ointment is prepar'd of the Root of  
Cabbage, mix'd with Clove-gilly-flowers and Honey. *Bartho-  
letus* gives Directions with regard to the Method of using it in  
Pleurisies, and affirms, that he has known many restored by its  
means, without the Concurrence of Venesection. Others  
make it thus: /

Take fresh Hogs-lard, and Cabbage-juice, each two Ounces;  
anssof Cumin-seed, three Drams. Mix up into the Form  
of an Ointment, to be applied to the Part affected. ET-  
**MULLER.**

The Efficacy of Cabbage, so much extoPd by the Antients  
in arthritic Pains, was happily experienced by a certain stroll-  
ing Quack in *Holland,* by whose Prescriptions many were sen-  
sibly relieved from the most racking arthritic Pains and Swell-  
ings, in.the^Feet, Hands, and Knees. The Leaves of red  
Cabbage, for this Purpose, are to be warm'd at the Fine; and  
.applied, to the Parts affected. Some use them anointed with  
mew *May* Butter. *Forest. Obso Med. L. 9.s). Obs... IQ:* The  
Seeds of the red Cabbage, arid especially the black Seeds of  
the *Brassica Fimbriata,,* are possess'd os .an' anthelmin-  
.susc Quality; and, when bruised, with. Sugar, contribute  
.to invigorate the Organs of Speech, and render the Voice  
.dear, strong, and sonorous, : Bur when they: are grofly  
.pounded, boil'd in Flesh-broth, and drank with the Broth,  
.they are said to give certain herd immediate Ease in Colic Pains.  
.When reduced to the Form of an Emulsion, with Succory-  
water, -they ate also an excellent Medicine in nepbritic Pains,  
. and scorbutic Cases i If they cannot he had, Turnep-seeds are  
used as a Succedaneum to them.

. The *Syrupus Erassecat rubra,* in the *Pharmacap. Argentora-  
Aensis,* Jo made of the Juice of that Plant mjXeij up with 3u-  
.gars and is highly recommended in Disorders 0f che Breast,  
f especially Coughs and Asthmas, The ευσίνρσίν ***de caulibus Gor\****

*flonii in the Pharma cop. Augustana,* and *Antwerp,* is prepared  
of the Juice of red Cabbage, with Saffron, Sugar, and Honey,  
and is highly extol'd in Hoarseness, and in Coughs, which  
arise from Cold. The same Medicine is, by *Me sue,* prepar'd  
of the Juice of the Cabbage, with Sapa and Honey. Cab-  
bage is a; flatulent Species of Food, and of hard Digestion ;  
for which Reason it is a good, as well as an antient Custom,  
to boil it with sat Flesh, that it may become tender, and easi-  
ly digested, and to eat it with gross-pounded Pepper, in order  
to prevent Flatulencies. That Cabbage is of a hard Substance,  
is obvious from its being render'd more sweet and tender by  
Frosts, and nipping Colds; for 'tis probable, that its corn-  
pressed and constricted Fibres are by the penetrating Cold *sof*chang'd and alter'd, as to hecome softer when boil’d, and  
consequently more easily digested by the Stomach. With re- .  
gard to the Method of preparing-Cabbage, I shall here give  
the Advice of *Bruyerinus.* " I must, *fays he,* expose an er-  
" ror which is no less common, than pernicious, in preparing  
" Cabbage. Most People, in consequence of the. Ignorance  
" of the Cooks, eat it after it has been long boil'd, a Cir-  
" cumstance which does not a little diminish both its. grateful  
" Taste, and salutary Qualities. . But I observe, that those  
" who have Amore polite and elegant Turn, order their Cab-  
" bage to be gently boil’d, put into Dishes, and season'd with"  
" Salt and Oil, by which Method they assume a beautiful  
" green Colour, become grateful to the Taste, and proper for  
" keeping the Body soluble. This Circumstance ought not  
" to be forgot by those who are Lovers of Cabbage.'' The’  
Antients boil'd their Cabbage with Nitre,' which - render'd it  
at once more grateful to the Palate, and more agreeable to the  
Eye. Hence *Martial, L.* I 3. *Epigr.* 17. gives the following  
Advice. . ... '. .

*Ne tibi pallentes moveant fastidia caules.  
Nitrata viridis Brassica flet aquile*

Among the Antients it seems to have been a Tradition  
commonly receiv'd, that Cabbage not only carried off the  
troublesome Consequences of a Surfeit, but also guarded against  
intoxication, is eat before a Drinking-match was undertaken  
For this Reason, the *Egyptians* were esteem'd a debauch'd and  
intemperate People, because they used previoufly to eat heil'd  
Cabbage, that they might indulge themselves the more freely  
and immoderately over the social Bowl. The Seeds os the  
Cabbage were also previousty taken by many, with a View to  
prevent intoxication..Besides, the Antipathy between the Cab-  
bage and Vines was believ'd to he fo great, that the latter  
yielded a poor and weak Wine, if the former happen'd to grow  
near them. See *Athen. L.* I. *C.* 25. *Alex. Trallian. L.* I»  
*C. IQ. Pallad. . R. R. L.* 9. *C. ζ.* This Antipathy  
they accounted for, by a Fable almost too ridiculous to he  
mention'd. They affirm'd, that the Cabbage sprung from a  
Tear shed by *Lycurgus-,* for, said they, when *Bacchus,* heing  
afraid of *Lycurgus,* enter'd into the Sea, *Lycurgus* in the  
mean time, begirt with the pliant Branches os the Vine, dropt  
a Tear, from which the Cabbage rose; and ever fince there  
was an Antipathy betwixt the Vine and the Cabbage; for, say  
they, when the Vine and Cabbage happen to grow near each  
other, the Cabbage itself either decays immediately, or causes'  
the Twigs of the Vine to do *so. -They* affirm'd also, that in  
Consequence of this Antipathy, when the Uvula or Columel-ί  
la was too much relaxed by a Destuxion of Humours, the  
Juice of raw Cabbage applied to the Head drew it bach. They  
maintain'd in like manner, that if Cabbage and Vine were  
Planted near each other, the springing Shoots of the Vine,  
when beginning to approach the Cabbage, ceased to come  
forth in their former Direction, but were turned backwards,  
as if they had been .conscious of the mutual Antipathy he-  
tween themselves and the Cabbage, in like manner they  
said,' that when the least Quantity of Wine was pour'd up-  
on Cabbage when it was boiling, it would after that hecome  
incapable of being boil'd, and have its Colour spoil'd. - *Geopon.  
L. 12.. Co.IJ.su ... ..i. .*

*Aristotle, L.* 3. *Prob.* I 7. starts the Question, why Cabbage  
removes the Consequences of hard Drinking; and seems, to  
account for it, from its sweet and discutient Juice. Whether  
what he advances on this Head is consonant to Philosophy,  
and good Sense, or not, 'tis yet certain, that aqueous Liquids  
possessed of an abstergent Quality, as the Juice of Cabbage is,  
not only dilute the-Humours of Our Bedies, and allay, their  
Fervor, hut also make a Revulsion from the superior to **the**inferior Parts, and. consequently carry off a Crapula, by free-  
ing the Head from the offensive Matter; and that Cabbage,  
eaten previoufly to a Debauch, dilutes the spirituous Liquors  
drank, and blunts their . Strength, so as to make them act less  
powerfully than : they .would otherwise do. But Experience  
convinces us, that the Efficacy of Cabbage is not so great in  
this respect, as. entirely to prevent the Effects of immoderate  
Drinking. - ; ... -

As for the innate Antipathy hetween the’ Vine and the  
Cabbage, firme of the Moderns have endeavour’d to account  
.for it from the Nature of these two Plants, by faying, thar  
they are both fo fond of nutritive Juice, as greedily to fuck  
.up the Moisture of the Earth; from which it happens, that  
when they are planted in the Neighbourhood of each other,  
the one must languish and decay, because the other robs it of  
a sufficient Supply of Moisture. *Levin. Limn. Mir. L.* a.  
C. 3i. *L.* 4. *C.* IO. And *Baca. Hi Na Cent.* 5. *Exp. east),*480.

This Account however ingenious, labours under a terrible  
Disadvantage, which is,, that it is contradicted by Experience,  
since we find, thet Cabbages thrive no-wherc better than among  
ryoung Vines, which in their Turn thrive as well as if there  
.was .no Cabbage near them. See *Eph. Fl. C. D. 2. as* 7.  
*o.* 64.

υ The several Species of Cabbage best known, and most ofed,  
are the following.

BRASSICA SATIVA, *Caulis,* Ossic. *Brasseca capitata  
alba,* or white Cabbage Cole. Ger. 244. Emac. 3I2. C.  
Β. Pin. III. J. B. 2. 826. Chab. 268. Raii Hist. 1.794.  
Tourn. Inst. 2I9. Elem. Bot. I8S. Boerh. Ind. A. 2. 2I.  
Hist. Oxon. 2. 200. *Brasseca capitata.* Park. Theat. 268.  
*Brasseca capitata .vulgaris.* Park. Pared, 503. WHITE  
CABBAGE and COLEWORTS.

This Species of Cabbage is among the *Germans* most fre-  
quently used for Food ; and of it they make their celebrated  
pickled Cabbage, called *Sauer Kraut,* of which *Gofner* says, that  
if *Cate* had only tasted it, be would have pray’d. *Totum ut fe  
facerent Dii Palatum,* that the Gods would convert every Part  
of him into the most exquisite Organs of Taste, that he might  
regale hirnress with so delicious Food.

BRASSICA CAPITATAi RUBRA, Offic. Ger. 245.  
Emaci 313: J. B. 2. 83I. Chab. 270. C. B. Pin. In. Raii  
Hist. I. 794. Hist. Oxon. 2. 207. Park. Parad. 204. Tourn.  
Inst. 2I9. Elem. Bos. I88. Boerh. Ind. Α 2. Io. RED  
CABBAGE. *Dale.*

This Species of Cabbage is cultivated in Gardens, and its  
Leaves are only ufed, a Decoction of which, sweeten’d with a  
litfle Sugar, and drank at medicinal Hours, is an excellent  
Medicine for promoting a Discharge of the purulent Matter in  
Empyemas by Urine. *Dale* from *Etmul.*

It bears the Winter better than most others ; and is for me-  
dicinal Purposes esteem’d preferable to,the white; for which  
Reason it is ofed in the Preparation of Syrups and Lo-  
hochs. .. ..

CAULIS RUBRA, Ossic. *Brasseca rubra,* C. B. Pin. III:  
Ger. 244. Emac. 3I2. Tourn. Inst. 2I9. *Brasseca rubra  
vulgaris,* J. B. 2. ,83r. . Chain 270. Raii Hist. I. 796. *Brase  
fica fativa rubra aperta laevis.* Hist. Oxon. *1.* -207. RED  
COLEWORTS.

This Plant is cultivated in Gardens, and its Leaves are  
only in Use, a Decoction of which, sweeten’d with, Sugar, is  
a celebrated Remedy in Asthmas. *Dale* from *Riverius.*

This Species of Cabbage hears the Cold of the Winter very  
well. ’ In the Kitchens ’tis'principally used in the Winter Sea-  
son, after st is expofed to the Frost, in the Beginning of the  
Spring the Tops of its Shoots are by many thought a choice  
Ingredient in.their Sallads. . : .

BRASSICA SABAUDA, Offic. Ger. 247. Emac. 315.

Park. Pared. 504. *Brasseca alba, capite longs, non penitus  
clausa,* C. B. Pin. nr. Tourn. Inst. 2I9. Elem. Bot. I88.  
Hist. Oxon. 2. 207. Boerh. Ind. *A. 2.* II. *Brasseca Italica  
tenerrima glomerosa, store albs, I.* B. 2. 827. Chab. 268.  
Raii Hist. 1.795. SAVOY. CABBAGE. . . .t

. In the Gardens of *England,* this Species of Cabbage is only  
cultivated for the Kitchen. *Dale.*

. The Savoy Cabbage is very delicate and tender, for which  
Reason it is much sought after by those who have nice Palates;  
anil are acquainted with its.agreeable Taste. ..c - ., .

BRASSICA FLORIDA, Ossic. Park. Theat. 269. Ger.  
246. Emac. 3I4. Raii Hist. I. 795. *Brasseca. caulistora,* C.  
B. Pin. III. Hist. Oxon. *2.* 208. Tourn. Inst. 2x9. Boemi  
Ind. A. 2. II. *Brasseca. multisura,* J. B. 2. 828. Chain 269.  
*CaulisfioriquiPztk.P3xt.su* 505. THE COLLIFLOWEEx?  
. This Species of the Cabbage is cultivated in Gardens, and  
is much used in the Kitchen. *Dale.* j

The Use of the Collifiower is well enough known to  
Cooks, whe prepare, it much aster the same manner they da  
the other Species of Cabbage. .In Conjunction with, other  
proper Ingredients, they also add. it; to Pyes and. Sauces, which  
are very agreeable both to the Sick, and to the Healthy.. . .

BRASSICA GONGYLODES, B. *Brasseca eaulcrapa,  
Ropecaulis vulgo., and Brasseca caule rapum, gerens.* The  
TURNERCABBAGE. , \_ . : -dur.

The Heart of the Stock of this Cabbage, hessd in sat Broth,  
is eat in the fame manner Tutneps usually are...

, In *Egypt* the Eunuchs eat this Cabbage cut into small Por-  
tions, and boll’d in fat Broth; sometimes they. aim ofc in

boiled in Water, preparing it with Oil, Sait, and Vinegar.

*-Profp. Alpin. -*

The Seeds of the Tarnep Cabbage yield an Oil by Expres-  
sion, very proper for Lamps, and for the Purposes of those  
concern’d in the Woolen Manufactory ; After the Oil is ob-  
tain’d, what remains is allotted for Food to the Cattle.

BRASSICA FIMBRIATA, B. *Brassica tpphofaBrase  
Jica crispa laciniosa.* The BOOR-COLE.

This Species, both for Fond, and medicinal Uses, is not in-  
ferjor to the *red Cabbage. .*

Its Sceds are of a blackish Colour, ah acrid aromatic Taste,'  
and of a Smell sufficiently grateful, tho’ not strong.

BRASSICA CAMPESTRIS *perfoliata, store albo, C. Β.  
P. Persaliata Jiliquofa;* Persoliated wild Cabbage, with a  
white Flower:

This Species grows spontaneously in *Spain,* in some Parts  
*of Austria, Provence in France,* and in the Corn-fields,about  
*Morbach,* in the Duchy of *Wortemberg.* It flowers in the  
Summer, and brings its Seeds to Perfection, It is thought  
to be possefl’ed of singular, if not more powerful Qua-  
lities, than the other Species of Cabbage; for which Rea-  
son it is by some called *Brasseca rastica.,* it is not used as  
Fond. It is by other Authors distinguish’d by the Epithets,  
*Perfoliata, Napifolia. Bonds. Msrif Garidel. Baccler.* and *Cluse.  
Hist. Morisen* thinks, that it is the Κρἀμβη αἰγεία of *Diofco-  
rides,* and the *Brasseca Sylvestres of* the *Latins,* for the Virtues  
of which, fee the Passage already quoted from *Pliny, L. io.  
C.* 9. and that from *Diofcorides, L.* 2. *C.* 114.

BRASSICA CAMPESTRIS *perfoliata, sure purpureo,  
C. B.P.* or, *Peofoliatastliquofa purpurea.* Persoliated wild Cab-  
bags, with a purple Flower. .

Its Seeds, Root, and medicinal Virtues, agree pretty much  
with those of the persoliated wild Cabbage with white Flowers.  
. BRASSICA RADICE NAP1FORML *C. B. P.* or,  
*. Brasseca Sylvestres,* called *Napobrasseca.* TURNER-ROOTED  
CABBAGE.

This Species of Cabbage is principally cultivated in the  
colder Parts of *Germany,* in the Mountains especially, and to-  
wards *Bohemia.* Its Root may he eaten, and some pickle it,  
like the Colli Hower. -

BRASSICA ASPARAGODES CRISPA, *Brasseca Epla  
phyllitis,* C. B. P. *Brasseca thyrseides.* ν CURLED COLE-  
WORT. . :

This Species lasts a long time, and endures the Rigors of  
the Winter jo *England.* It was by the *Greeks* called *Aspara-  
gules,* from its fending forth stnall Shoots like Asparagus, which  
are preper’d in set Capon or Mutton Broth. *Pay.*

BRASSICA SATIVA ALBA, *vel viridis ; vulgaris aperr  
ta lamis*; or, *Brasseca vulgaris sativa. Brasseca laevis Theo-  
phrasti, Catonis, et Plinii,* the last of whom allo called it  
CAULODES. ------

.' BRASSICA ALBA CRISPA; and *Brasseca Sabauda ru-  
gose.* WHITE CURL’D CABBAGE.

t This Species is cultivated in Gardens, but does not endure  
the Winter. *Morison. ...*

. BRASSICA CAPITATA ALBA MINOR MUS-  
COVITICA, Hi Ac The RUSSIAN CABBAGE. - \

. This Species was formerly in much greater Esteem than at  
present, since Sis now only to be found in particular Gentle-  
mens Gardens,. who cultivate it for their own Use, but ’tis  
rarely *ever* brought to the Market. *-Miller.*

BRASSICA CAPITATA ALBA COMPRESSA, *Beer.*

*Ind. The* 'flat-sided Cabbage. '

BRASSICA *- capitata - alba pyramidalis.* The Sugar-loaf  
Cabbage. - .......

BRASSICA *capitata alba praecox.* The early *Battersea*

Cabbage. .. .... - -

BRASSICA *Sabauda hyberna. Lab. Ic.* The white *Sa-  
voy* Cabbage. .' . νύ - ..

BRASSICA *capitata viridis Sabauda, Baer. Ind.* Green  
*Savoy* Cabbage.— *s. ----- - .*

BRASSICA *capitata virescens Italica crispa,* Munt. Hist.

The green Broccoli ; -

BRASSICA *peregulrus rnosehurn olens,* Η. R. Rar. The

Musk .Cabbage.-1 t.'.j.I - -st i". - - -

BRASSICA *maritima arborea,ofeu procerior ramose, istior:*Hist. Branching-tree Cabbage'from the Sea-coast. ,

ἰ BRASSICA *rugosa, longioribus foliis,* J. B. Brown Broc-  
coin ,'-.υ-,. ... .--.-.-.s.;. . ' '

ol BRASSICA *arvmsts,* G. B. P. Common Colewort. - . .

*t* BRASSICA *Alpina perennis,* Tourn. Perennial Alpine Cole-  
wort. a; i .r . - - s::.. . ......

. SOLDANELLA, *Brasseca murina,* Offic. Chab. I2S' *Soldier'  
nella,* Merc. Bout. 72. . Phys. Brit. II;. *Soldanella marina,*SEA BINDWEED,..Ger. 690. Emac. 838. Mer. Pin. *t-tes.*SEA COLEWORT, Raii Hist. I. 726. *Soldanella maritima  
miner,* C. B. Pin.' 293. *Soldanella vulgaris volubilis marina.*Park. Theat. *iby..iioBraJstca. marina, sate Soldanella,* J. B.  
a. I00. . *Cenvolvulus maritimus Soldanella dictus,* Bini Synop.

3- *rests. CcmAvulus maritimus nostros rotundifolius,* Hist.  
Oxon. 2. it. Boerh. Ind. A. 245. Tourn. Inst. 83. Elem.  
Bon 73. SCOTTISH SCURVY-GRASS, or SOLDA-  
NELLA.

It is produc’d in the most sandy Parts of the Sea-coast, and  
Sowers in *June.* The whole Herb is in Use, and, as it is ex-  
cellently calculated for discharging Water, rt contributes very  
much to the Cute of Dropsies and Scurvies. *Dale from Schrod.*

Of this Plant *Miller* enumerates the three following Species.

I. The *Soldanella Alpina rotundiselia,* C. B. P. Round-  
leav’d Soldanella of the *Alps. -*

*‘ a.. Soldanella Alpina retundifoyia, store niveo,* C. Β. P,  
Round-leav’d Soldanella of the *Alps,* with a Snow-white  
Flower.

3. *Soldanella Alpina, folio minus rotunda,* C. B. P. Solda-  
faella of the *Alps,* with a Leaf less round. *Miller’s Dictionary.*

What they east the Sea Cabbage is, in all respects, different  
from the cultivated Kind, as producing numerous thin slender  
Leaves, like these of round Birthwort, each proceeding from  
a very red Spray, and standing upon a single Pedicle, like those  
of Ivy. Its Juice is white, but not copious., and tastes saltish,  
with a kind of Bitterness, and is of a fat Consistence.

The whole Plant is hurtful to the Stomach, and acrimonious;  
and, if boil’d and eaten, is extremely opening to the Belly.  
Some boil fat Flesh-meats with it, because of its Acrimony.  
*Dioscorides, Lib. R. C.* I48.

The Root of Soldanella is small, white, and stringy, sending  
forth long weak trailing Branches, climbing on any thing it  
lays hold on, like the common Bindweed. The Leaves grow  
nitemately on the Stalks, in Shape and Bigness like the lesser  
Celandine, feton long Foot-stalks. The Bell-fashiould Flowers  
come forth at the Joints, with the Leaves in Shape like the  
common Bindweed, os a reddish-purple Colour. The Seed is  
black and corner’d, contain’d in a round Capsula. The Root,  
Stalk, and Leaves, afford a milky Jnice.

It grows upon the Sea-heach, in many Parts ofthe North of  
*Tnglonde,* and flowers in *June.*

Sea Cabbage evacuates watery Humours very powerfully, and  
is by some given as a good Purge in the Dropsy., but it works  
very ruggedly, and very much disorders the Stomach, and there-  
fore needs good Correctives. It is given likewise in the Scurvy  
and Rheumatic Cases; tho’ it is but seldom us’d. *Millers  
Bat. Oss. ' " et ' .- . ..'*

.. BRASSIDELLICA *Are.* A Way of curing Wounds in  
*Paracelsus, Lib. 2. de Vita longa, cap.* 14. by applying the  
Herb Brassidella, or *Ophiogiosseum,* to the Place.

BRATHU, βραβὑ, in *Qribastus* and *Aetius,* is the Heth  
Savins.' See SABINA- ..... ..

' BREGMA, βρέγμα, βρέχμα, βρυχμὴς, from βρέχ0. toirri-  
gate, or moisten. The middle and fore Part of the Head,  
situated above the Forehead, and extended on the Sides as far as  
the Temples, call’d'siy *Cal. Aurelianus, Tard. Pajse. Lib.* I.  
*cap. 4. Medium Testa. Xgryusz* is expounded in *Hefychius* by  
τ,ὅ μέσον τῆς κεφαλης, " the Middle of the Head ” by others  
the *Sinciput.* Thus *Harner, Iliade* 3. ,ένεργέός ἔκπἱσε δίφρου,  
φύμβαχος έν κονίηοτν ἐπὶ βρἱχμον τε καὶ'ἅμα, “ he fell forward  
“ out of his magnificent Ghetiot into the Dust, upon the Sin--  
\*" ciput and Shoulders. ”. Where *Eustathius,* on this Place,  
writes, that the Part is call’d βρέγμα, hecause, in infants, it  
is not only tender, but very humid, so thet it may feern  
βεβρέχὕαι, “ to he irrigated..’’. *Hippocrates, Lib. de cap. Vuso*says,-that "\* the thinnest and weakest Bone of all.the Head, is,’\*  
τὸ κατἀ βρέγμα, “ thet at the *Bregma.* ” SAgain, in the same  
Treaofe, he. says, ."\* the Brain is very tender,, and quick of  
«" Sense, in Wounds which assedi the Flesh and Bone, ” *-quid  
risuiysfcae,* " about the Bregma ; *καὶ. b: lepriiO.* εγκέφαλος  
ὑπὸ το βρέγμάτι κεῖται, " and that great Part of the Brain  
" stes; under the Bregma, .’r s'.'" '' *s'*

BRELISIS. The Caranna (a fort of Gum). . *Rulandus.*

BRENTHUS, βρέφος/a Species, of Duck or Moor-hen,  
accounted delicious Fond by the *Bastians. Aldrovandus One.*

*. nithoiog. Lists.* -9, mi.mi '..’-I

BREPHOS, τὸ βρέφος, whether from τρέφω, to nourish, by'  
changingTinto β/or from φέρβω of thesiuneimport, by a Meta-  
thesis of the Letters ε and p, let Philologists determine. An  
.Infant. *Castellus. ' .*

BREVE VAS, or *VasaL.revia.* These are form’d by some  
Branches of Veins from the Coronary Veins of the Stomach,  
which join with the splenic Veins at the Spleen. .S o

Thro’ these Vessels,the'Anflents theughe thalonrhelanctiolic  
Humour was convey’d .from abe .Spleen to the Stomach, .which  
served to vellicate the Membranes of it, and to excite Appetite.  
Butthis Fancy is refuted by the Discovery of the Circulation  
of the Blond, which, bus, demonstrated, that nothing cornea  
thro’ thofe Vessels from the Spleen to the Stomach - bUt that,  
on the contrary. Blond is Convey’d from the.Stomach intothe  
Splenic Vein, and by that to the Vena Porta. *Drake.*

. BREXANTES, βρέξαντες. An Epithet of a kind of fmast  
green Frogs, *iaGHlen, Lib.* Io. *de San. tescnd.* whore hetx-.

polos the Vanity of a Remedy, prepar'd of the Blond of those  
Frogs, for hindering the Regeneration of Hain. The Word  
*. Brexantes* is made by an Onomatopoeia **take**n from the Sound of  
the Voice of these Animais. *Castellus.*

BREYNIA. A Plant so nam’d in Honour of DI. *Breynius,*a learned Botanist at *Dantiorck.* It has a Rofe-fiower, con-  
sisting of many Petals, which are placed in a circular Order,  
from whose Flower-cup rises the Pointal,. which afterwards be-  
comes a Fruit or Pod, which is soft and sieshy, in which are  
several Kidney-shap’d fleshy Seeds. There are two Species of  
this Plant, which are, the *Breynia* with broad Almond-leaves,  
and thet with Leaves like those of the wild Olive. It grows  
very common in *Jamaica,* and several other Parts of *America,*heing a Tree thirty Feet high, with a Trunk of the Bigness of  
a Man’s Thigh, . *I* find no medicinal Virtues ascribe to in.  
Α/ίἰἰςτ’ι *Dict. . . ...*

BRICUMUM. The Name by which the *Gauls* call’d the  
Herb *Artendsta. Marcellus Empiricus, cap.* 26.

- BRIN DONES. *Indici Fructus rubentes acidi,* J.B.

.'7 In *Goa,* in the *East-Indies,* as *Garcias* relates, there is a kind  
of Fruit, which they east *Brindones .,* it is a llttle reddish on the  
Outside, but the Inside is as red as Blood, and of a very sour  
Taste. Sometimes the Outside is blackish, which Colour it  
contracts by Maturity ; and the Fruit is not near so four as the  
other, but altogether as red in the inside. This Fruit is very  
agreeable to many Palates, but not to mine, says *Garcias, he-*cause of its excessive Sourness. The Dyers use it, and the Rind  
is preserved, and transported to make Vinegar, for which Put-  
pose it is used by some in *Portugal. Pan Hist. Plant:*

BRISTOL WATER. These Waters, in rtioecl to Heat,  
are the fourth in Degree amongst the Waters which are esteem’d  
warm. Thofe of *Bath* are the first, *Buxton* the second, *Mat.,  
lock* the third, and *Bristol* the next.

As to the Virtues of, the *Bristol* Water in particular Cased,  
the Physicians, upon the Spot are the best able to adapt them  
properly ; but, thet I may not omit, some general Account of  
their U ses, I shall insert the subsequent Extraci from DI. *VVyn.  
serf Cyclus Metasencritiores. 'st s.*

In speaking of the Differences betwixt *Bath* Waters and those  
of *Bristol,* I would willingly, fays he, do stridi Ju slice to heth,  
with the utmost impartiality : But since they can never prove  
Rivals, but on the contrary, Friends, .and, by, reastnj of their  
Vicinity, of mutual Good to each other, there can arise no  
Emulation, no Competition, much less Contention. Some,  
indeed, have endeavour’d to raise the Repute of the one, by  
lessening and denying the other: But this Practice, so dishonest  
in itself, must sail to the Ground; after I have made in appear,  
thet they are of Qualities and Effects altogether different; that  
where the one is useful, the, other is improper; and thet therefore  
they are to be us’d in different Cases.

I shall likewise observe one Caution more, that I will not,  
with almost all the Writers who have gone before, make  
each Water to cure every Disease, and thereby render either  
suspectsd of having none, when each has manifestly so many  
good Qualities.

- Dr. *Guides,* indeed, has made these two Waters of one Kind;  
and then fays, *Bristol* Waters cannot do the seme as the *Bath,*as heing impregnated with arfar less Quantity of Salts than they ; -  
but drank in greater Quantities, and for a longerEime, their  
Effects areinotunlike there of the *Bath* Waters..

Who is there, that fees not the Dedlor has hereby, with.great  
Address, render’d the *Bristol* Waters of no Ufe at All? For  
who would chuseto drink more Water, or continue.sick  
longer, than Necessity obllges him ? But this insinuation happens  
to be as fasse, as it.is artful;. and, indeed, I cannotfothear ap.  
plying the Charaoler a certain great Man gives DE *Maxton’s*Performances on another Subjedi,. to Our Author: He often  
wants Methnd, Clearness, and Judgment; is-tedious, .without  
instructing; :andarguing, like the other, from chimerical Prin-  
ciples, draws not only, trifling, but absurd and wrong -Conclu-  
sions. - --7 .rcedT .-..mi .............. .. ...u.i.

../The learHed Professorfeivainrehas laid.it down.as.axertain  
Maxim, That due Secretions from the Blond, And their proper  
Distributions, are as/ necessary to the Preservation of Life, .as.  
the Circulation itself, andthat.thegreatcstPart of Diseases take  
their Origni'from the glandular Secretions being too ; much in-  
creased or diminished. Whether this iDoctsiae will hold in  
acute or epidemic Diseases, the1 Cause -of. which theAntlents  
ascrib’d to.the-Anger .of the Gods, and: the wisest of /the Mo-  
dems profess themselves ignorant of, iI shall not-inquire : but it  
seems to he evident,.' thet chronical Diseases arc-owing to one or  
other of.thofeCaines. - --

The Blood is sometimes too thin, and then too-great a  
Quantity of-its serous Part is separated either by the Glands of  
the Skin, Guts, or Kidneys; as in colliquative Sweats, Fluxes  
of the Belly, land DiabetesThe Blond grown too viscous, -oc-  
casions Obstructions not only.in its own Canids, thet in the  
Glands ; and then the Secretions are less than they: should he in  
a State ofHenith, and hence various- Miladies.

Again, there is, . in some Cases, too great Fulness; in  
others. Deficiency of Blond. Both these interrupt due Se-  
cretions.

*Bath* Waters, then, are beneficial, where the Secretion is  
dinIinish'd; *Bristol,* when too much increas'd. *Bath* attenuates  
powerfully; *Bristol* incraflates\*.. *Bath* is spirituous, and helps  
Defect *, Bristol* is more cooling, and suppresses Plenitude, with  
its Consequences, Inflammation, and Haemorrhage.

The Medicinal Waters of *Bristol* are by no means so modem *sc*Discovery, nor is their Use of so late a Date, as is generally ima-  
gin’d. *DP. Penner,* near seventy Years ago, writes professedly  
of them, and recommends .them internally in all the Diseases  
sor which they are at this time fo deservedly celebrated, the  
Diabetes excepted, which was not known'till near thirty Years  
after. From the Doctor's so full a Knowledge of their Quali-  
ties, we may infer, that they must have been in Repute and  
Use song hefore. Indeed,: in his Time, and some Years after,  
they were not so much frequented, which might have been ow-  
ing intirely to their inconvenient Situation, and want os Ac-  
commodation, which heve been but of late sufficientlyremedied.  
The incomparable Dr. *Maplet,* the Ornament of his Age,  
in the Year I665. confirms their Virtues in the Stone  
and Gravel, Ulcers of the Kidneys and Bladder ; and adds  
their external Force in curing cancerous Ulcers, in a Very short  
time, which the Doctor thought incurable, by washing and  
fomenting them therewith; And, , in a Letter to the Dean of  
*Wells,* I669. he says, *Ad rapem Vincentiananttih i 'corffugiendum  
esse arbitror, e qua prosiliunt: aqua renibus, et lhesica, five  
calculosis, sive exulceratis succurrere, nemati lsusigpifiis massam  
contemporare, etolb illasegiregandamUrinarn lenire, et 'edsdeorarc  
'aptae nata:*

. Thus, you see, the Virtues of *Bristol* Waters, and the seve-  
ral Diseases in which useful, were known to the Learned'long  
ago : But that they are at tins time so universally known, so  
successfully administer'd ; that they are so much frequented by  
Persons of all Ranks in our own Kingdom, and in such Esteem  
abroad, is owing to Dr. *Mead* and Dr. *Lane,* who heve so  
establish'd their Reputation, that it seems of an equal Period  
with their own;

**I** find myself again oblig'd to retire to my old Sanctuary, Ek-  
perience; for it will he demanded, I should give an Account of'  
**the** Contents and Cause of Heat in these Waters ; and from  
thence, by an easy Hypothesis, deduce their Effects as a neces-  
sary and natural Consequence. SutT had rather give the Aster-  
tions of others, than my own Conjectures, in Matters so abse  
**truse\* . -** ς . o’.

Dt. *Vinner* tells us, this Water receives its medicinal Facul-  
ties from Sulphur and Nitre, and from heth but in a small De-  
gree : He adds also. Iron; from winch, he is persuaded, it  
has some Tincture ; because a Patient of his, troubled with  
Gravel, and- subject to Obstructions in the Spleen, in the Use  
of is, voided black feculent Matter by Stooh ‘ “ Ἀ

Dr. *Guides* says, their Impregnation is from iron, a\* small  
Proportion of a nitro-fulphureous Salt, and Lime-stone: He  
informs us, that they can have hut Very littie of Iron, because  
they neither turn purple with Galls, nor curdle Milk: .But  
what I- am: surprised at is, how the Doctor came to find out  
they had any Iron Particles at all, since they give not the least  
Sign Of it, torture them as you will. '

I have taken the Courage now to add my Conjecture, which  
is; that if we may judge of their Contents from their Effects, '  
which are exceedingly-detersive and; healing,, they partake chiefly.  
of Chalk, Lapis Calcarius, and Calaminaris, the Virtues Of  
which, we know, are to dry, to cleanse, to incarn, or fill  
Ulcers with Flesh, and cicatrize them.

But, whatever the Substances are that, impregnate them, **if**is Very plain they are Very subtile, and that there in but little of~  
^.terrestrial Part inthem,-from their specific-Lightness above ast  
other Waters ; winch is of itself so excellent a Quality» as hy  
no means to he overlook'd 4 and also from Experiment ; for,,  
after Evaporation, I found only three Drams two Grains of  
the mineral-like Substance in five Gallons’; and, after Di-i  
stillation, no- more than- one JD'ram and a half of a white1Powder,.^ like levigated -Pearl\*. So that the highest Proportion  
the Vital Part bears- to the elemental, is as 7' to 68T4 hr each  
**Quart. -** . S.i - - . - ..so.su

But when we consider hew agreeable toime Sight, Smell,  
and-Taste; how-clear, pure, and soft, .they are; their gentle  
Degree of Heat, so adapted to sundry Diseases;'we cannothut  
conclude, that thefe Waters- have imbibss sorne salutary Par-  
ticles in their Passage thro' the Earthssimd, fromfthe many  
Cures yearly wrought by them; chat they haver an undoubted  
Title to a Place in the first Classi of'Medicinal-Waters. -si

Nor is it necessary, that Medicinal Waters should contain-  
so-large a Quantity os the ParticleRthey have-inibib’d, as may  
he evident to our Senses e for we know, by Experiment, that.  
Regulus of Antimony,frequently macerated in Wine, losesmo-,  
thing of its-Weight orSubstance, tho’ the Wineprove strongly  
Emetic: In Vain, therefore, do many Physicians erect Labora-’

feries, and take great Pains, to discover what that adventitious  
Matter is, which these Waters carry with them.

The Diseases in which *Bristol* Waters are more properly pre-  
scrib'd, are internal Haemorrhages and Inflammations, Blood-  
spitting. Dysentery, and immoderate Fluxes of the Menses,  
purulent Ulcers of the Viscera : Hence in Consumptions, Dro-  
psy, Scurvy with Heat, call'd by Dr. *VVillis, Scorbutus sulphureo-  
falinus.* Stone, Gravel, Strangury, the Habitual Gout, thet  
kind of Rheumatism which Dr. *Sydenham* terms Scorbutic, Din-  
betes, flow FeVers, Atrophy, Pox, Cancer, Gleets in both  
Sexes, and King’s-evil, in these Disorders *Bath* Waters are  
not only improper, but hurtful; they rouse the too languid, and  
quicken the too lazy Circulation ; these allav the Heat, and  
restrain the too rapid Motion of the Blood : Those impregnate  
the phlegmatic; these attemperate the choleric Constitution.  
*Bath* Waters seem to he adapted to the Maladies of the Sto-  
mach, Guts, and Nerves; *Bristol, to* those of the Lungs,  
Kidneys, and Bladder. Again, *Bath* Waters are at Variance  
with a Milk-course; and the *Bristol* can never be judiciously  
directed, but where that may he joined with Reason and Suc-  
cess. This is so great a Truth, that it holds even in the Dia-  
betes, in which Milk is of great Service, and prescrib’d as early  
as the Age of *Aretaus,* whe, say the Learned, is at least aS an-  
tiebt as *Galen :* Tho' that this Disease was little known to An-  
tiquity, is certain, since it is not once mention'd by *Hippocrates .♦ .  
Galen says* he never saw it but twice ; and Rabbi *Moses* assirms  
the Diabetes is Very seldom seen in the Western Parts of the  
World, but Oftener in the het and Eastern Countries, insomuch  
that, in *Egypt,* in ten Years Practice, he saw more than twenty  
Patients of this kind ; but we fee a greater Numher, almost  
every. Year, in our Western World. . '  
♦ Perhaps some may he surpris'd to find *Bristol* Waters pre-  
scrib'd in Dropsies, in which Authors order also those of *Bath?*but which of the two, with hest Judgment, is worth while to  
inquire. That diuretic and drying Medicines are of great Ser-  
vice in this Disease, no one can doubt; that *Bristol* Waters  
have these two Qualities in a greater Degree than the other, is  
also as evident. For which Reason I should prefer the *Bristol* to  
*Bathe* in this' Instance, unless where it happens, as it too often  
does,' that a Jaundice attends it; and here *Bath* claims the Pre-  
cedence, from its great Efficacy in opening Obstructions of the  
Viscera, where there is no formidable Inflammation.

But there is another Question of more Importance, and that  
is. Whether *Bristol* Water be specific in the Diabetes ? A spe-  
cific Remedy for each Disease would prove in Physic, what  
finding the Longitude must in Navigation: We should go di-  
rectly to the Cure, without the Circle of the alteratiVe Course;  
But, at present, there is as littie Probability of discovering the  
one, as the other. We know but One Specific^ and but one  
Disease cur'd by it, unless I can prove this to he such in the  
Diahetes.-

The Diabetes, then, is defin'd to he the too quick and-large  
Excretion of crude, unalter'd, and sweet-tasting Water, ex-  
seeding the Proportion of the Fluids taken into the Body, ac-  
companied with intolerable Thirst: And a specific Medicine is  
that which cures a Difeafe, without promoting any sensible  
Evacuation.

Suppose then a Person labouring under a Diabetes, voids a  
given Quantity of fuch Urine, (for Example, four or five Quarts  
in twenty-sour Hours) let him drink as many of this Water,  
and he shall\* excrete less daily ; from whence it is manifest, that  
it proves no Evacuant. Another Argument to prove it specific  
is, that, in this Instance, we need not observe the Rule  
of drinking Mineral Waters in small Quantities ; - *for* 'tin  
specific, and may he taken in as: large Doses as. the Stomach  
will bear ; and this is no bad News to a Person dying with  
Thirst. In all other Disorders, where it acts by its contem-  
perating, alterative, and healing Qualities, the Rule holds  
good. A third is, that'we see, by daily Experiments, its Ef-  
fect in Diahetes more quick and sudden tharrin any other Dis.  
temper,.the Patient being certain ofa- Cure in a.veryfhort  
time. -si - . . - -

. The proper Seasons of drinking *Bath* and *Bristol* Waters  
are generally known. *Bath* Waters may he drank, with Benefit,-  
the whole Year ; L think hest in the cold, or,- at least, the  
cooler Months of *April, May, Septembcr,* and *October.* The  
*Bristol use* to he taken medicinally, only during the hotter  
Months, as from *April* to *September. lvyntePs Cyclus Meta-  
. fynertiicus.* s - ' .

BRITANNICA. Βρἐτανράρί.-

- The Bretianica, or Bettonioa, is an Heth with Leaves like  
the’ wild Lapathus, but blacker and more hairy, and of an  
astringent Taste. . It sends forthhe-great Stalk, and its Root is  
but short and (lender. The Juice is expressed srom-the Leaves,  
and inspissated mine Sun; or by the Fire-side. .

It has an astringent Virtue, and is particularly accommodated  
to eating Ulcers of the Mouth- and Tonsils. It is effectual also  
to all those Purposes for which Astringeuts-are required. *Diosc  
corides, LilnAdurGopi* 2

: Not only Beasts, bin even Waters and Places, shew their  
Malignity to Mankind. *VrhtnGermanicus Caesar* hed removed  
his Camp heyond the *Rhine* in *Germany,* they hed only one  
Spring of fresh Water in that maritime Tracti of Land, by  
drinking of which, within the Space of two Years, thefr Teeth  
fell out of their Heads, and the Joints of their Knees were  
enfeebled and relaxed. The Physicians call’d these Disorders  
*Stomacace* and *Scelotyrbe.* There was a Remedy at length dis-  
. cover’s, which was the Herb *Britannica,* a most salutary Me.

dicine not only to the Nerves, and in Diseases of the Mouth,  
but also against an Angina, and the Poison of Serpents. It  
has oblong black Leaves, the Juice of which they express, as  
. also from the Root. They call the Flowers *Vibones,* which,.

being gather’d and eaten hefore Thunder is heard, secures the  
Person from being thunder-struck. The *Fristans* who were  
in the Camp, shelv’d it to our Men; and I cannot but wonder  
how it came by. its Name, unless the People who are Bor-  
derers on the *Britannic* Sea, gave it the Name of *Britannica,*out of Respect to, the neighbouring Bland, of *Britannia.,*for it is certain, *Britannia* now lying open, that it does not  
take that Name because that Island abounds with it. *Pliny,  
Lib.* 25. *Cap.* 3.-

The Virtues attributed to this Plant agree pretty well with  
those of the *Hydrolapathum,* Offic. *Hiydrclapatbnm magnum.*Ger. 3 I 2. Emac. 389. *Hydrolapathum majus.* Park. I 225.  
*Lapathum aquaticum, folio cubitali,* C. Β. I I 6. Hist. Oxon.  
2. 579. Tourn. hist. 504. Boerh. Ind. A. a. 85. Dill. Cat.  
III.- Buxb. I78. ' *Lapathum palustre maximum,* Schw. 218.  
*Lapathum maximum aquaticum, five Hydrolapathum,* J. B. a.  
986. Raii Hist. I: I7I. Synop. 35. *Lapathum maximum  
aquaticum,* Chab. 309. *Britannica antiquerum vera, sue.  
Lapathum longifolium nigrum palustre,* Muns. Herb. Brit.  
150. GREAT WATER DOCK. *Dide.*

It has a thick, round, broad, juicy Root, spongy when old,  
about a Hand’s Breadth in Length, divided below into several  
pretty thick Parts, and furrounded with fibrous little Roots;  
the Colour of it, when newly taken out of the Ground, is:  
black on the Outside, and white within, but soon alters into a\_  
reddish-yellow, like that of.the true Rhubarb; and the Root,  
when dry, turns quite brown. The Leaves are not many; but  
the longest of all belonging to any of the kinds of Docks, situated,  
near to one another, the’ not olofely joined, but separate, always  
pointing upwards, of a Foot and half, or two. Feet in Length,  
and three or four Fingers broad, being widest in the Middle,;  
and running up to a sharp Point, like the Head of a Spear, of.  
a deep Green, or Sky-colour, inclining to a dark Green above,,  
het paler underneath, with pale-green Fibres, of a pretty  
thick, hard, dense, close, and firm Substance, the Edges some-  
times, especially of those which grow to the Stalk, a little  
curl’d, they .stand inn Pedicles which are of a moderate;  
Length and Thickness, and sometimes red near the Ground  
they heve also an Astringency, with something of an Acidity,  
and fall off towards the End of *August.* The Stalk is single,  
or multiply^, according to the Age or Bigness, of;the Plant,,  
two, three, and sometimes sour Feet in Length;, strait, round,  
green, hollow, adorned on both Sides with lesser Leaves, which.

, hend a little upwards as well as downwards, from whose *Alagi*here and there, procced little Sprigs, lad err. with little, short,  
and tender pendulous Leaves, and pale Flowers,- which open  
towards the End of *July,* and 'are thinly dispos’d, about the :  
Joints, but notion the manner of Whorlec The three outer  
Petals of the Flower are conspicuous on both Sides, for two.,  
hairy Pale-whitish Gernmuhe-, but these are.ostfery’d in tio;  
Species of the *Lapathum,* but the *Virginian Britannica*The  
Seed is small,; triangular, and of a spadiceous Colour. ci

*: Abr. Muntingius* is. persuaded, that this Plant is the true and  
genuine Britannica os the Antients, since both its Figure andi  
Virtues answer, in all Points, to the Descriptions which they  
have left usof IL He endeavours also toprove,; that the Word  
*Britannica-is* of *Frisian* Original , for it is. not likely that this..  
Plant took that Denomination from the Island of *Britain, to;*which, as a respefted neighbouring Land, the *Fristans* dedi-i:  
cated it; as *Pliny* conjectirres. *- Brit,* in thefeffma Language,  
signifies to consolidate, render firm and compass; but *Tan is Λ .*Tooth j and dur, or.Rlon famines Ejection. Hence *Britanr  
nica* is as miicti.as to fay, the Herb which consolidates and con--,  
firms the.looserddi,Teeth, ofcnres the.Disease that makes the\_  
Teeth (assgut. .' ; f 'i . ' "I . -' .τι. . . μ *' i st*

Every Part of this Herb, as the Stalks, Leaves, Flowers,  
Seed, but principally the Roots, are powerfully astringent,  
consolidating, and conglutinating.; for which Reason it restrains  
and heals all Sorts of Putrefactions, as Erysipelas, ulcerated or -  
not,.Herpes,..Phagedenic Ulcers, and Gangrenes. It stops :Hasmotrhagas-from any Part, as alfo the Haemorrhoids and  
Menses, and is essectiral for nil. those Purposes in which other .  
Cold Astringents are requir’d, ι -r "et Vsi ” I'  
\_ \_It cures all rnanner of Diseases of the Nerves, as Twitch-  
jogs, .Contractions, Tremblings, Convulsions, Passes, febrile  
Heats, or Rigors. It chafes away Serpents-and Asher venom-

ous Animals, and heals their Bites ; for which Reason it is  
reckon’d among Alexipharmacs. It gives Relief under all  
Species of the Angina, Relaxation of the Uvula, Swelling of  
the Tonsils, and other like Diseases Of the Mouth, Fauces,  
and Stomach, which require Astriction; as allo Abfcesses, Tu-  
mors, and Ulcers. It removes .various sorts of Deflexions ;.  
and, lastly. Diseases which procced from hidden Causes, as the  
*Stomacace,* the *Scelotyrbe,* (the Scurvy affecting the Mouth and  
Legs) and Ulcers in the Legs.

The green Leaves arc apply’d to ulcerated Parts for twelve  
Hours, and then changed; the Juice asso harden’d by the Dog-  
days Sun, or inspissated by the Fire, is used to anoint the Sore.  
. Now because the Scurvy, says, *Mocntingias,* has taken fuch  
deep Root in some Persons, that they can receive het llttle Be-  
nefit from a Decoction of *Britannica* alone, I am willing to  
communicate the Preparation of a Medicine, never yet, that I  
know of, made public, that all may have the Knowledge of  
so useful a Medicine, and be able to prepare it for themselves ;  
for the Remedy is more precious than Gold, and ought he kept  
in Houses, as an inestimable Treasure, in Reminds against all  
Attacks, or bare Suspicions, of the Scurvy.

Take of Saffron, two Ounces; Mace, Liquorice, the best;  
Cinnamon, black Pepper, Gentian-root, each three .  
Ounces; Britannica, six Ounces ; Pulverize them all  
grofly, and infuse them in sixteen Pints of *Spanest* White-,  
wine, together with three Pints of Elder Vinegar, or some  
other very strong Vinegar; and add thereto three Yolks  
.of new-laid Eggs. Let them lie macerating together in a  
glafed Stone Vessel, well closed, for seventy-two Hours,  
in hot Ashes, 'Horse-dung, or hot Sand, but with no  
greater than a tepid Heat; after which set it aside for

Let the Patient take , of this Decociinn three, four, five, or  
even six Ounces, according to the Nature of the Subjeci, in the  
Morning fasting, for fourteen or twenty Days together, or more.  
To quench his Thirst, let him drink every Day of the best Rhe-  
nish Wine ; or, if he he accustomed to Beer, let him take it.  
not'new, but defecated, and well helled; and as often as he  
drinks it, he must also heve three Spoonfuls of this Wine. : . ..

But it is here to he observed, that if the Patient labours under  
a. Dryness, a violent Cough, or is suspectsd to he in a Con-  
sumption, instead of the Pepper, let six Ounces of Liquorice  
he added ; when the Wine is almost consumed, an equal, or  
twice the Quantity Of Wine, may be pour’d to .the Ingre-  
dieted.-' - ' -."‘-i..-: .... n'f

. By the Use os mis Wine, not oniy an inveterate Scurvy,  
especially if it he without a Fever or Inflammation, but also all-  
other scothutical Disorders, inveterate Hernia’s, Palsies, and  
Luk Venerea, are most successfully cured. *Raii Fiest. Plant. :*

Its Leaves are stymie, a little hitter, and give a deep Tin-  
ctirteof red to blue Paper. The Root gives it a little fainter;  
it alio, is very styptioand bitter. Its Bark is thick, of a Flesh-I  
colour, streaked ; its Heart is soft, and of a pale Yellow.-,

It is probable, that the Salt of this Plant may he composed:  
of Alum and dur Ammoniac, mix’d with a great deal of setid.-  
Oil. ι,*Martyn's Toumofesrt. ' . ..... -. ..*

I believe this Plant is very esseolualin scorbutic Symptoms;.  
and am convinc’dctiy Experience, that.it will effedfually cure  
bleeding of the Gums, st.chew’d in a Morning. . /

*Muntingrus* has wrote: an intine. Volume in 4to. on the Sub-  
jeio of this Plant'. ,δ᾽ἐν.. - .... r.'. : ’ ', χ ' .,

\_BRlTHOS,;apiher[X Weight, a Lord, *Lib. ι.* περὶ γυναικ,  
καὶ βρίὕος εν τί γαστρὶ εγγενεεται, ἐν and, there he a (Sense of)  
“0 Weighejo;.theBelly;’ And.in the fame Book, καὶ ῥαδος  
*yapifyu iv* τῆον γήτρίοτ,.ς,ς-ηηἀ there he a Heaviness in the Uterus.”.;  
Hence the Veth sifiher, which, in, many Places; of *Hippocrates,;.*carries much the seme Sense., τ ww y- r'-" - - .r-77.--.i-.,

ERIZA, Ostie.! *sirisca mmococcos.* Ger. 67. Emac.;73.:Ζι.ο *striga diseajAar.manecaccas Germanica,.*C. B. Pin. art:  
Tbeau4.I5. Hist. Oxon. .3. 2O5. *hAeae mqnocofc»s,stvestmplex,.  
seoestriza,* park. Theat. I I!24, *... Ana inonocaccos Brmajquibuse  
orrir fo* B'. 2‘ 4r3. -hail Hissa a-: Ζοσ *fieapie». se mancae.*

οοιοοι Rritat, Chab.. 174. *Hordeum distichum, /pica peisistdc.  
Zea seu Bsiza nuncitpatumi* Tourn. Inst. 5I3. Boerh. lnd. -As;  
tio:I5^ -ST. PETER'S CORN.:- / .-:υ.:-τ rfss

It u cultivated inGTtatauy ; :aud ame siced .is.used,-;which:.-  
agrces in Virtues, with the *Zea, Bt Spesia-* . o.

B.ROCHOS, 'βροχος. Thefartatas *Caqueus,* Band age.,! her-j  
L4ninEUs,.and FAspher. π Smi end’Ἀστ mists ni .miiir  
j BROCHTHUS, *surHiippocr. Tip. 2. de Mnrb\_. is?*a final! kind of Drinkirig-vessel, νἐνόγήος allo signifies theYames  
34-βρογχος,. " the. Throat;; ” : whence \*ἀταβρογχἱξμ.;.-^ηδ  
κατμὲνοχβίτω,είαά^ἐνῖ are botioused to exprefs the Action of  
Deglutition, *‘. '“rc .si -:n oA* r iin-S - . Γ- λ:-ν

BROCHUS,*siquisiN- ~* One who μὲν a prominent upper  
Lip; *ot,* as othqui would here lriosijigiwiih a full .Mouth, anil  
prominent*Tcsm.scscostellus.*

BRODIUM. A Pharmaceutical Tenn, signifying the seme  
as *Jusculum* ; or the Liquor in which some solid Medicine is  
preserved, or with which something else is diluted. *Castellus.*

BROMA, βαίμα, Food, any thing eatable, by way of  
Distinction from πομαι Drinkables. *Galen, Lib.* I. *de Alim.  
Fac.* expounds βρώμα by τἀ έσοιομενα, η ἔδεστα, « τροφἀς, ί οντία,  
which are different Words for Eatables, *in Hippocrates, Lib.* **a.***Epidern.* τά βρώμάτα καὶ τά πὄματα πείρης δοῦ. έι επι τὸ ίσον μένει,  
“ whetherMeats and Drinks are of equal Continuance, (equally  
“ long in Passage) must be judg’d from Experience:” And  
*Lib.* 6. *Epid. Sect. ζ. Aph.* 35. μόώιιατα τἀ *μίν raeyfai* κρα-  
τεἰται. τά μεν έναἠίως, " of Foods, some arc soon overcome,  
*" (digested)* with others the contrary happens/’ And *Aph.*3I. ψυχρὄτατον βρῶμα φακοἰ. κέγχρον, κολοκὑντοι, " Lentiis, .  
" Millet, and Gourd, are very cold Foods.” *Lib. aeast durt. .*ιατρ. ἱχνρά β’ώμάτα are strong hard Meats, which require **a -**strong Digestion , and, in the fame Book,, *urilica. signi- -*fies strengthening Foods, in the lame way of speaking, βοώματα  
are said to indicate πληρωσιν. ‘"a Plenitude.” Βρώμα also,  
*L.ib. 4. Epid,* signifies an Erosion of a Tooth ; as it does also '  
, in *Galen, Lib. rav* έυπορίστων,- where he says κατάπλαβτε τὸ  
βοωμα, " apply firme Cataplasm to the corroded Tooth.”

BROMION, βρομιον. , The Name of a Plaister, in s  
*P. Aigineta, Lila* 7. *Cap.* I9. „ ; ... .......

BROMUS, Offic. *Promus sterilis,* or WILD GATS,  
Ger. 69. Emac. 76. Mer. Pin. I6. *Brsntus herba five Avena .  
sterilis.* Park. Theas. 1147. *.digitlops.* Chain I 77. *Algilops  
Matthielo spate,* J. B. 2. 439. *Festuca avenacea sterilis elatior,  
seu Erernes Dioscoridis,* C. B. Pin.9. Theat. I46. Raii Hift. -  
2. S289. Synop. l.3. 4I2.-Hist. Oxon. 3. 2I2. ; *Festucae A  
Avena Graeca,-Mete.* Bot. 1.35. Phyu Brin4.I.. *Grapienave.  
rtaceurn, panicula sparsa, lecastys majoribus et aristatis, Tousn.*Inst. 526. Buxb, I42. *Gramen.Festucasterile elatius,* Tourn.  
Hist. Plant. naI. 9r.; DRANK, ior WILD OAT-GRASS.

The Bronins, is a Plant; much like .the AEgilops,, being of a'  
drying Quality ; for which Reason, if it be helled with the'  
Roots in Water to a third Part, and then strained, and mixed i  
with an equal Quantity of Honey, and again polled to the Con- :fistence; of liquid Honey, -it makes: a good Remedy for an  
Ozaena,- by dipping a linen Cloth in. the Defection, .and then -  
putting it up the Nostrils.. ThisTsseci it her byritielf; but,;  
some, mix Powder, of Aloes with.it,-and ofe them in the same :  
manner, :: Boiled in Wine with dty’d Roses, jo amends a fetid  
Breath. *. Diascsrides,*.Like4. Cap. I4b. . ’ . ; .

Ἀ DeeperloRofthe Ront; is recommended for. the Worms in ;

Children, ..SDestesstJSee.4. T-mird-of. r.:

BRONCHIA, βρογ/ίβ. Sb .ffippirruris.calis^ths great  
Artery, *ILilr. .peifi drat*ομής) 4πὸ δέ καρδιαςε,ές. ,ηπαο βρογ-  
χίη-πολλη καθήιοει,. καὶ μετά βρ.ογχίις.,φλέψ μεγάλη καλευμένη: δι’.  
- ης.οὗλον τὸ *aplasu atiisque. -* Fhtat.the Heart to the Liver:" extend'numerous Branches of the Bronchia (Aorta) ; and.  
"". wish them, the great Vein,.r;,as:in is'.called,., *{VinaCava)*\*\* by which the whole Body is nourished.” This Place *Galen,*In his Exegesis, feerns to have, in his Eye, when.he expounds  
βρογγής by τής.βρογχώδουί ἀῤτηρίας. "lute bronchoidal Artery ; ”  
where-for βῥεγγής» I suppose should be redd βρ^χίης. See  
BRONCHOs.”’ ’ ’ ‘ ’ -1;-r ί:ε' ' y '

BRONCHOCELE, ἐνογχοκίλη? from βρογχδς, the Wind,  
pipe, and κηλη, a Tumor. A Tumor in the Neck, principally  
in Womeq,.-frequently called: *&. Derby, Nack,--*probably jon  
aotount. of the Inhabitants-of-that Town, or. rather Comity,  
heing much subjeci: to in ;cwhich is mot unlikely to happen Tor  
the seme Reasons, that the Inhabitants aheutthe Valleysofshe  
*Alps,* and other motattninous Countries, are so muchsrdhered  
withe these Turnon, as herimikeherp Jnicen.hlotio4. of pro-  
verhinily'C oth isand LI ad ἀ if' ibisiA

*-- Quislumiriidum Guftur'rnindrar in Alpibus?'*

Whether\_whis.progeeds from-thejCniosiefs of.theWaters which  
they drink, ..of sipm some Minetill with whiamthdr Watsirstate .  
impregnated in the Boweis of these Mountains, I will not pre- ,  
tend to determine.. \_ . - . . . ....

'Tn the’Necjiss-between chofSklru and' the'Asperae Arteria,  
there rise? aTiimoir; lasted by'the'Grnihi βροπὸαἄέλη'; *(pron.  
cliocikjgi* wh#ch”ineloseS-sometimts- anofnersoEndtiof Flesh;  
sometimes a sort of Humour, resembling Honeyof Water ;  
anil fometiniey-hisdre mixed 3with small rBonms thim whatever  
mayube the’Contents within the Coat of this Tumor, they may;,  
heureaced -witheCaustic Medicines; whichif penetrating the  
outer Skinf wini.the fjojacamTinnied,. sir float, mike a Way\*  
for the included Matter, if it he aHninour, to vupyrutyor if if  
be of a denser Substance, .to.heilniwn out with tileTingers ;  
which done, the Ulcer j&,healed up with,Pressings of Line'  
hat the shortest, why of Cam. felly the Knife.,;.:τΠμ.Tumor»  
is laid open by one strait Incision in the Middle, edsir as the,  
Tunica. Themithe corrupt Sinns, .Being separated Jrdm the  
found Patio whisYhejFingea, isjjakep out entire together with its .  
Tunica; aster winch the Tsepegni washed out with. Vinegar,  
with which, some mia Sain of Nine εἴ and. the Lios, of .the

Wound are joined hy a single Suture, upon which must he and  
plied whet is usual in other Sutures; and the Whole must he  
hound up in a gentle manner, so as not to bear hard upon the  
Fauces: If the Tunica cannot he taken out, you are to .  
sprinkle the Cavity with Catheretics, and dress the Wound with  
Lint, and other Suppuratives. *Celfus, Lib. y. Cap.* **I 3.**

There is a large and round Tumor of the Neck, which takes  
its Name from the inward Parts, and is called *Bronehocele, of .*which there are two Kinds, the *steatomatous,* and the *eurysena-  
tous fnvsuafjjf/sasns ).* This letter is known by the fame Marks  
as an Aneurystn; and the Cure of it, for the same Reafons, is  
look’d upon as desperate; for as almost all Aneurysms are dan-  
gerous in the Operation, st, especially is an Aneurysm about the  
Neck, because of the Largeness of the Arteries. The steato-  
matous Tumor is to be treated like a Steatoma, by separatiog  
and passing beyond the Vessels, in the fame manner as we arc  
directed in strumous Cases, *P. Acginet. Lila* 6. *Cap.* 38.

*Albucasts,* treating of a Bronctiocele, or a Rupture in the fore  
Part of the Neck, which, he fays, is most frequent in Women,  
is fuller then the *Greeks* or *Celsos* ; and he very rightly distin-  
guishes hetween .that which is natural, and that which is acci-  
dental. The first Sort is not to be touch’d. Of the second  
there are two Species; one like a Tumor, which contains some  
gross Substance ; the other like an Aneurysm. But though hs  
is fo held in using the Knife, he advises the Operation only in  
the former Case;i-and even not there neither, unless the Tu-  
mor he loose, and ilittle, and inclosed in a Cystis. This Sort  
of Swelling may, no doubt, he removed by Art. Sometimes  
these Excrescences are full of Water, sometimes they heve no-  
thing in, them but Air; and these Cafes may likewise be reme-  
died. by. Incision, .Friction, or Compression. Sometimes they  
turn to a fleshy Substance, which, lying hetween the Skin and  
the Wind-pipe, resembles a Flap or Dew-cap banging out,  
just like that of -a- Turky-eock, when he is angry. This is a  
frequent DistemperLin. those Countries where they drink great  
' Quantities of cold Water; especially where they do not cool  
i their Water in Snow,, *zs* in other warm di mates; but pour Ico  
: into it, as the . way: is with the ordinary People, who live upon  
the bleak Mountains, *osGenoa* and *Piedmont.* **The** Matter of  
Facti is as true, as that they themselves attribute it to the drink-  
’ rug this Water j and from the Nature of Cold, it is not dissi-  
: cult to account for . thisEffeet : For the Liquor in going down,  
must, needs, chill .the-Muscles of the Throat, thet is, it con-  
tracts the-Vessels,-,and. thickens the Humours which circulate  
' through them at :the same time; from whence must follow **a**' Stagnation or Obstruction, and, after a while, a Swelling, in  
ν thofe Parts., And-jt.is remarkable, that Tumors, which owe  
their,.Origin- roimis,Came,.are And always continue, fleshy ;

- whereas other,. Broncjgvceles.. which proceed from Strains,  
f Bruises, and. such.like Accidents, Offen suppurate, or turn to Ἀ  
; Melicoris, Steatoma, *etc.* as *Albucasts* observes. Among the

*Spapiqrds,* Swellings in the Glands of the Throat are very:,fre-  
?Lient,-.who indulge themselves immoderately in the Use os cold  
iquors. And that: the Coldness not only ofctie Liquors, but  
of, the.Gliinate itself, may produce these Effects, seems to be  
plnin, from: the Observations we find in Writers, that there.  
Swellings about the Throat and Head are much more frequent  
ainong the Northern Nations, than the Southern.

-Turners very osten' happen in the Thyroidal Glands ; but  
fuctiS Swelling is not properly a *Branchecele,* though sometimes  
. so miscalled, shut*A Struma* or *Scrsphula Colli.* In morbid Bo-  
: dses I have seeri these Glands enlarged to an extraordinary Big-  
nest, jo tat to ruactidown almost to the Clavicles ; and in such  
o Cases they generally ^turn scirrhous. When the Swelling here  
.3 is thus confirm’d, we may easily learn from Anatomy, were  
we rior tyarn’ss of it, \_thet the Distemper is in its own Nature  
incurable; for, I helievc neither any.inward Medicine, nor.  
outward. Application, can dissolve it; and Repellents would  
rather, do Mischief, and throw the Humour upon some other  
Pint.' Neither would any prudent Surgeon, I presume, attempt  
to. extirpate such a large Tumor, for fear os Cutting an Artery  
or Vein, or the \_ recurrent Nerve.: ’And yflonrascs gives us **a**sufficient Caution, in telling the Story of an ignorant Operator,  
wsi9,:sn. this Case, by. wounding the Arteries of the Neck, .kil-  
led. the Patient upon rhe Spot. *Freind’s Hiijlary .of Phyjic.*

.The *Aronchocesc. m'sy-* Tumor simate, upon the rnvestrng  
Membrane of the windpipe, or hetwixsthai and the Mofolea  
of-the saidPart I where it sometimes takes so large a Compass,  
as 40 extend itself from, one Jugular to the other, lying high  
and prominent, ithe a hemisphere, or half Globe, or at least  
oLaspheroide Figure.. .v 2.-:.. , ..

tile -takes its Rise commonly from loud Crying, Coughing,  
and Vomiting ; as also from a fiidden jerk, or hasty Turn of  
the Neck, as I have heen inform’d by some therewith assectsd.

It is called also *Herma Bronchialis* ; but if there be a Rup-  
ture in the Case, as that.Name will imply, it is most likely  
to he that of some lymphatic Vessel, diffusing or shedding its  
Contents hetwixt the Membranes, of the Aspera Arteria, and  
the Mufcle? incumbehr, where being leisurely accumulated, it

distends the containing Parts, and, from the broken Fibres  
thereof, makes itself a Cover, which grows along with it in  
like manner, as the other Capsulate Tumors.

There are others who derive their Origin from some nutri-  
tious Juice extravasate, and turning into a Flesh-like Substance,  
after the manner of certain other -Sarcomata; and indeed both  
these may be right, since we Often find the Body thereof  
made up partly of a fluid, and partly of a more firm and  
glandulous Substance t But to proceed to the Prognostic and  
Cure thereof.

The *Bronchocele,* by reason of its unhappy Situation among  
the large Blood-Vessels, the recurrent Nerves, and Windpipe itself  
therein concern'd, at least its investing Tunicle, affordsa.Very  
hazardous and uncertain Issue ; and if it admit not of Dis-  
cussion, there is little Encouragement to meddle farther: For  
if it suppurates, there is left commonly a Very fordid and sinu-  
ous Ulcer, which fince you cannot dilate so conveniently as in .  
other Parts might he done, nor have any Advantage by rolling,  
which the same will not allow, you may he put upon risquing  
your Patient's Life, or leave him in a Condition worse than  
you found him, with an incurable gleeting Fistula, or Dys-  
epulotic Ulcer; so thet if any thing he done in order for the.  
Cure, it ought always to be attempted first Of all by some pro- .  
per Discutient. For this Use alfo serves the Ernpl Anti-  
moniale of Dr. *Fuller,* to he met with in his *Pharmacopoeia  
extemp,* but indeed these Tumors are most Commonly left to  
themselves; the great Danger by incision on account of  
their Situation, and the Difficulty of healing when they come  
to suppurate, having Very much discourag'd their Undertak-

' ing. Wherefore the much greater Number now content  
themselves without any Surgery, when apprised of their stub-  
born Nature, and the Uncertainty of Success.

'Tis much more rare to find these Tumors in the Necks of  
Men than Women, or at least-wise, being less obvious to Sight,  
they pass unheeded, and we are not so often consulted about  
them. I am sure, to one that I have observed in our Sex, I  
have met with half a Dozen on the Throats os Women.

That the Nature Os this Tumor may he the hetter appre-  
hended, I will here transfer an Account thereof, presented by the Ύingenious Dr. *Douglafs* to the *Papal Society,* in these Words,

I had lately *{faith he)* the Opportunity of opening 2  
Woman about fifty Years old, who had. a Very large  
Tumor, or hard Swelling, in the fore Part of the Neck, pos.'  
fessing all the Space between the whole Extent of the lower  
jaw, and the upper Part of the Sternum, with a Consider-  
able Rising in its Middle, laterally its Point inclining to the  
Left Side, though the biggest Part of the Tumor was on  
the Right. The Skin on the Apex of this protuberating  
Part was thin and shrival'd, of a Colour, different from  
**the** rest, and look'd as if the Swelling would have broke in  
that Place.

**The** Skin was exceeding thin, having no Fat under it, only  
in a Cavity between two Lobes, to he afterwards describ'd.  
On its Right Side there was a small Appearance of some; for-  
the Skin heing less stretch'd there, the Celis of the Membrana  
Adiposa were not quite emptied. The fleshy Fibres of the :  
*Latissimus Colli* were scarcely Visible, the *Mastoidaeus* and  
*Coracohyoidaeus* were extremely thin, and in their Ascent they  
adher'd Very firmly to the subjacent Turnon The *Sterno-  
hyoidaeus,* and the *Stcrnothyreoidaeus* that run up the fore Part -  
**es this** Swelling, were distended so thin, that it was difficult,  
to separate them, especially the last named. The Right Carotid '  
Artery, in its Ascent to the Head, ran along the outer Edge, -  
which increasing, much obstructed the Current of the Blond  
that Way. - .

The internal Jugular, the Par Vagum, and the Intercostal’'  
Pain, went also over some Part of this Swelling, in their De-  
scent to the Thorax ; two of the Lymphatic Glands Of the Jti-.  
gular Vein were swelled to the Bigness of littie Eggs, being  
placed at some Distance one from the other, with a Hollow  
between, where some Fat was found; these two Lobes made'  
the Tumor very uneven alfo on its Right Side. -

These Muscles, the Jugular with the Glands adhering to  
it, and the rest of the forenamed Vessels, being remov’d on  
both Sides, I could easily observe the Bigness, the Figure, anth  
the Circumscription or Limits of this preternatural Tumor,.  
with all its Adhesions to the adjacent Parts. In Magnitude it χ  
seem'd to exceed that of two FistS join'd together: Its Figured  
was almost triangular, with a broad Basis under the Chin,  
stoping a littie on each Side, as it descended to the upper Part  
os the Sternum,, where its Point was pretty narrow; its Sur- S  
face was made uneven by three Risings, of which the largest  
was turn’d to the Leftside, the other being plac'd on the  
Right, as above remark'd. It adher'd by membranous Fila-  
ments to the maxillary Glands, to the *Digastric* Muscle, and  
to the *Stylohyoid ecus,* under which, on the Right Side, Ἀ small  
Portion of it, in the Form of a Nipple, did intrude itself, as  
it were, under the Tongue; in the upper and sore Part in  
also adhered to the *Os Hyoides.*

Laterally it was connected to the *Levator Scapula,* and  
lower down to that Part of the *Cucullaris,* which terminates  
in the Clavicles backwards, to all the fore Part of the Aspera  
Arteris, hetween its third and fourth cartilaginous Rings, and  
the OS Pectoris, as also to that Muscle of the Head called  
*Rectus internus major,* and to some Part of the *Scaleni*; its  
lower Part was engag'd under the Jugulum, or lunated Part  
of the Breast-bone to which it adhered. It was easily freed  
from its Connexions to all these different Parts, but not so  
from the Glandulae Thyreoidae, to which it adher'd after A  
sar different manner; for where the Thyreoidal Glands are  
Joined to One another, a little helow the *Cartilago Cricoides,*on the fore Part of the Aspera Arteria, there was no separating  
of it without cutting its Substance; whence it plainly appears,  
that the Union of these Glands was the Root or Beginning of  
this Tumor; and yet, which is very remarkable, the Glands  
themfelves kept their usual Figure, and were no larger than  
Ordinary. '

This Tumor was hard; and very firm, heing exactly of the  
Consistence of a Cowss Udder when boiled; yet in a few  
Places it was softish, containing a liquid and thick Juice. Its  
Calour was chiefly of a whitish-yellow, only in some Places it  
was exceeding red, from its having a greater Store of Blood-  
vessels, and in others it was very white; I. pared off all the  
soft Part, and the hard Substance; that remain'd; I bod'd, and  
then clear'd it very well, having left sticking to it at one Cena  
tre a soft cartilaginous Body, which possibly, had the Patient  
lived longer, would have acquir'd the same Degree of indura-  
tion. It very much resembles a Piece of white unpolish'd  
Rock Coral ; het whether it may he reckon'd osseous, or if it  
he rather the viscid Humour of the Glands, hardened and eon-  
creted into this irregular, chalky or gravelly Substance, or  
whatever else it may he, I leave to hetter Judgments.

The first Appearance of this- large Swelling was about thirty  
Years ago, caused hy the breaking of a Vein, as the good  
Woman used to express fr, in a hard and very difficult La-  
hour. It increased very flowly, not arriving to any consider- '  
able Bulk, till a few Years hesore she died: It was never very  
painful, heing a true Scirrhus. Many Things by several Per-  
sons had bee» used, and applied unsuccessfully: Its Bigness af  
length became very troublesome, in impeding her Swallowing  
and free Breathing, and at last it quite choaked her, by com-  
pressing the Windpipe, upon which it lay. *Turner’s Surgery:*

I was formerly acquainted with a Woman who was in greaf  
Reputation for resolving, these Tumors. Her Secret consisted ‘  
in anointing the Part frequently with the Oil of Chamomile,  
made by Infusion.

But the most celebrated Remedy for this Disorder is ono-  
which is sold at *Coventry,,* and, which is kept as a Secret by..  
the Preparer. It is orderfd to he laid under the Tongue every  
Night going to Bed. - ' : . :

I am pretty well inform'd, that this secret Remedy is thus  
prepar'd.. ἐν

. Take of Spunge,. Cork,, and Pumice-stone calcin’d, each  
equal Parts. - Hals a Dram of this is mix'd with Sugas,  
and, with the Addition of some SynIp or Conserve, is.  
made into a Bolus, and laid under the Tongue every  
Night. ’ . ... - . si-

What makes me the more inclinable to believe this the '  
true *Coventry* Receipt is, that *Masttanus,* as I remember, has  
one much like it, which he directs to he used- in the same  
manner for such Tumors. And I remember there-is -al Re- r  
ceipt in some of the old GerrnanDispensatories, nor Very dif-  
ferent from this, with an Addition of *ffiCPila Marina,*which is order'd to he said under the Tongue, aS- a Remedy *ad  
Botium,* for the Bronchocele ; - hntl cannot at present recollect  
the Authors. - ss

*Ronodaeus* also gives a Receipt for the same Pnrpose, which-  
he intitules. *Pulvis pro BotioD. D. Wolfgpngsi Gabelchoveri, -*as thus.- - - ----- ... ..... -- ...'*-l ,* .~n

Take of Sponge and Lapis Calaminarisualcin’d, each two  
Ounces; of Pumice-stone, and Lapis sponghe, each four  
Ounces;;, fine Sugas, three Ounces-; Mix,. and nuke a.  
Powder. . . 7 ἐν.. .. . . ... . ς ,

..... .... ........ ..... ..V - . . ι .\* .. . . - - . δι

But they all agree in making the Sponge'-aTrincipal Ingre--  
dient. - ἔ - ;

**BRONCHOTOMIA,** *fytepXidoselae,.* **from- βμγχος, the**Throat, and τέμνω, **to cut,. BronChetomy- See ANGINA. -1**

BRONCHUS, βρογχὸνλ βρόγχηἱ The Word ;

βρόγχος, according to *Galen,* in the Beginning of: his seventhjBook *de Co M. S. L.* is the Aspera Arteria, which reaches,  
from the Larynx to- the Lungs, consisting of a - Multitude ofl  
cartilaginous' Bedies, called- βρόγχια- (*Branchias.* ; The same’1Author, *Corn.* 3. *in Lib: de fAnt. seys that fytyyepi* is put for  
the entire Aspera Arteria, oronlyfor the Fauces. Ἐρογχοςοὐρ  
*in Hippocrates,* signifies the Throat, whence. *Lib: de Artic.*ἐξεχέβρογχοι « expounded by- *Galen,* τους ἐξέχοντα εις τὸ πρβσω'  
τὸν βρογχον ἔχοντας, " those who have a prominent Throat.

And Lab.-5. ***Epid, oesnuct.*** ὑπὸ τὸν βρόγχον, " a Tumor under  
the Throat." And ***Lib. de Rat. Vict.iit Morb. acnt. Za-xip a  
Jiatisofdtrees*** τὸν ίένογχον, " dilate, as it were, with expanded  
" Wings the Throat." See PULMONES. .

The ***Branchia*** or ***Bronchi,*** as now understood, are the Ra-  
indications of the ***Afpcra Arter lai***

BRONTE, βροντή. Thunder; see ToNlTRU. I don't  
know,' that this relates to Medicine, farther than as it purges  
some People by the Fright. - '

: BRONTIS, from ιοροιτή,. Thunder. The Thunder-stone.  
See BELEMNITES, and CERAUNIA. Ἀ *-s'. . .. ; .*

. BROTOS, βροτός, from: βοώσκω, Ἔο feed. Ah Epithet of  
Man, signifying his Necessity.of earing and drinking, and con-  
sequently his Mortality ; but the Word is more in Use among  
the Poets than the Physicians. . . . .-

BRO UILLA MINI. A Term given by. the ***French*** to such  
Masses , of .Bole, winch are aS thick and long as a Finger.  
They also-call these ***Bolen Bille.: . : .*** ὓ si .. -

BRUCHUS. A sort of.Gaterpiller.. ***For efl us*** in his Ob-  
servations relates, that a ***Bruchus*** was thrown up by Vomiting  
as big as a little Ball, inclosed.in a Bit of Flesh as in.a Pod.  
***Hartman,*** in his ***Praxis Chymiatrtia,*** writes ***sttRt Bruchi,*** that  
is, ***May-vjorrns*** dry'd, and given to such as are mad hy the  
Bite os a mad Dog, will in a short time cure them of their  
Madness. But I am afraid.he is mistaken. . -

BRUMA. The same aS HYE.MS, Winter;, but especially  
that Part of Whiter which is about the Solstice, when the  
Days are shortest. . ...

BRU MAS AR, a Spagirical Term, signifying ***Silucr,*** or,  
the ***Moon. . Castellus.***

BRUMATI ***terreum.*** An. glased Vessel. ***Rulandus.***BRUNELLA. . The same as PRUNELLA, which see.  
BRUNSFELSIA A Plant which takes its Name from  
'Dr. ***Brunsselsius,*** a famous Physician. , - .

The Hower consists of one Leaf, shap'd like a Funnel,  
which is tubulous, and cut into ninny Parts at the Top, from  
whose Calyk arises the Pointal, which afterwards hecomes a  
round, soft, fleshy Fruit, containing roundish Seeds hetween  
the Rind and the Flesh.'. 7- . \ ,

There is but one Species of this Plant, which is,.

BRUNSFELSIA ***Flore albo. Fructu croceo molli.*** Plum.  
N. G. Brunsselsia with ‘ a white Flower, and a Loft Saffron-  
colour'd Fruit.

It is Very common in ***Barbadoce*** and ***Joamaica,*** but **.1** find  
ho Medicinal Virtues ascribed to in.

' BRUNUS, ***Ignis facer,*** St. ***Antonsts*** Fire, or Erysipelas.

***Rulandus. - . ' \***

BRUSATHAER. The Name of a Tree that grows in

***China. Rafis Index to his Hist. Plant.***

BRUSCANDULA. The same . as LUPINUS, a Lupin,  
’ which see. ***Blancard.***

BRUSCUS, ***Ruseus,*** Offic. ***Paisiusfive Brufcus, or Knee-  
holme.*** Ger. 752. Emac. 907. Mer. Pin. Toy. ***Ruseus, J.***B. I. 579. Chain 46. C. Β. Pin. 47O. Park. Theat. 253. Ran  
Hist. I. 664. Synop. 3. 262. ***Ruseus myrtis.olius aculeatus,***' Tourn. Inst. 79. Elem. Bot. 7o. Boerh. Ind. A. 2. 63. Ruse  
***cus, Bruseus, Oxymyrsine,*** Merc. Bot. I. 65. Phyt. Brits IO7.  
BUTCHERS-BROOM. ***Dale.***

***Ruseus, as*** the wild Myrtle, has a Leaf like the Myrtle,  
only broader, and pointed at the Top like a Spear; a round  
Print, winch sucks to the Middle of the Leaf, and is red  
when ripe, with a stony Inside.' From one Root proceeds a  
Multitude of twiggy Stalks, hard to break, a Cubit in Height,  
and cover'd with Leaves. The Root is like that of the ***Agro-  
' stis,*** and is of a tart and bitterishTaste; it grows in rough  
' and craggy Places. \* ’

The Leaves and Berries, drank in Wine, provoke Urine,  
’ and the Menses, and break the Stone in the Bladder. They  
also cure the Jaundice, Strangury, and Head-ach; a Decoction  
of the Root in Wine, if drank, produces the same Effects.  
The young Stalks, when they heve just begun to shoot, are  
eaten instead of Asparagus, or other Greens ; they are diure-  
tic, and of a bitter Taste. ***Diofcorides, Lib. 4. Capo***146.

The Roots of Butchere-broom are white, thick, and knob-  
bed, matted together, and sending down large Fibres. The  
Stalks grow to be about a Foot high; they are tough, pliant,  
and hard to break, striated and thickly heset with small, stiff,  
rigid, nervous Leaves, about the Bigness and Shape of the  
' small Myrtie, ending in a sharp and prickly Point, and stick-  
ing close to the Stalks. The Flowers grow on the Backs of  
the Leaves, being small and purple, made up of six Leaves  
apiece; and aster them come round red Berries, like the Berries  
of Asparagus, containing two Seeds. This Plant grows in  
Hedges and Thickets,, as on ***Eppingoforest*** ; . plentifully flower-  
ing in Summer.

The Root of Ruseus, which is the only Part in Use, is one  
of the five opening Roots. It opens Obstructions of the Li-  
ver and Spleen, and helps the Jaundice and Dropsy. It is a  
strong Diuretic, provoking **Urine, and** helping **the Stone and**

Gravel; and brings down the Catamenia. ***Tournefort*** com-  
mends a Conserve of the Berries to stop a Gonorrhea. ***Mii-  
leofs Bot. Off.***

What ***Diofcorides*** has said of the Ruscus, does not disagree  
with the Plant now called by that Name: the Seeds in the  
Berries are Very hard ; so I believe we must read in ***Ceefalpsu  
nus, quasi cornea substantia,*** instead of ***carnea:*** The Root is  
one of the five opening Roots, good to remove Obstructions  
of the Boweis, and to evacuate by Urine. For the Dropsy,  
Cachexy, Jaundice, Stone, and Retention of Urine, it is  
/prescribed in Broths, Ptisans and Apozems. For serophulous  
Tumors, they give to drink, for several Days, a Pint os White-  
wine, in which a Dram os the Powder os the Roots of But-  
cherS-broom, with the same Quantity os those os Figwort and  
Dropwort, have heen infused. The Conserve of the Berrios is  
good for Heat of Urine : the Seeds are used in the ***Benedicta  
laxativa.***

The Flower is monopetalous, three Lines in Diameter,  
greenish, divided into three larger and three smaller Segments.  
It has a Violet-colour'd Sheath, instead of Chives, which sus-  
tains six Summits, and is raised with six rounded Ribs running  
lengthwise. ***Faill. Martyr?s Tournefort.***

BRUTA, is that Virtue of the Celestial Influence winch is  
manifested hy brute Animais to the rational ; as the Virtue ***of***Celandine communicated to Mankind, by reason of the Swal-  
low ; the Use os Salt in a Clyster,, taught by the Stork. ***Ru-  
landus.***

BRUTIA. An Epithet for the fattest and most resinous kind  
of Pitch, which was therefore thought fit to be used in making  
a factitious Oil, called ***Oleum pisinurn, Pliny, Lib.*** I5. ***Cap.  
J.*** We often meet withpmi ***Brutis,*** in the antient Physicians,  
which was so called from strains, a Country in the extreme Parts  
of ***Italy,*** where it was produced.

The ***Brutii*** were a People Of ***Calabria,*** over-against ***Sicily,***beyond the ***Lucani. Pliny, Li*** I6. ***C.*** II. gives the antient  
Method of making this Pitch, from the ***Tada,*** Mountain-pine.

BRUTOBON. A barbarous Name for some ***Greek*** Oint-  
ment, the Preparation of which is unknown. ***Castellus.***

BRUTUM, ἄλογον. An Epithet for Animals Void of Rea-  
son, signifying the same aS ***irrational, Galen. Orat. Suasor, ad  
Artes.*** He also calls them βοσκήμάτα ***CBoscematap,*** 4. ***de R. Vi  
I. A.*** In the ***Theatrum Chyrticum, Vol.*** 4. the Philosopher’s  
Stone is call'd ***Cor Brutorum. Castellus.***

BRUXANELI, H. M. ***'Bacciscra Indica, flosculis umbella-  
tis, baccis umbilicatis dicoocis.*** It is a tall Tree, about the  
Bigness of an Apple-tree, growing in the mountainous and  
woody Parts of the Kingdom of ***Malabar :*** It flowers in ***July***and ***August,*** and the Fruit is ripe in ***November*** and ***December.***The Tree lives a long time.

Of the Juice of the Leaves, mix'd with fresh Butter, is  
prepared a Liniment, which is used jn the Cure os a Carbuncle.  
A Decoction of the Bark of the Tree is held to be diuretic.  
Of the Bark of the Root, min'd with Ginger and Turmeric, in  
Butter-milk, they make aPoultis, which is highly commended  
for arthritic Pains. ***Rusis Hist. Plant.***

BRYCHIOS, βρὑχιος. Deep, sunk; the same as ὑποβρύ-  
χιος. ***in Lib. xiei oricev plats, we*** read, ἀ.τἣ o διὰ τῆς ἐπιγουνί-  
δος ἐς τὸ ἐντὸς διὰ τῆς κνήμης τοῦ μυός, βρυχίη τέταται\* " This  
" (Vein) extends itself by the Patella, and, passing by the  
" Muscle of the Tibia, runs deeply into the inner Parts."  
Βρύχιον, in ***Erotian*** upon ***Hippocrates,*** is expounded ὸιονεἴ βήθιον,  
καὶ κατὰ βάθος λεἴμενον, " as it were, submerged, and lying in  
" the Deep.'' ***Hes.ychius*** expounds βρύχιον and ὑποβρήχιον, by  
βυθιζόμὲνἰον, " submerged, and sunk in deep.''

BRYGMUS, βρυγμός, is expounded by ***Galen, in inis Exe-  
gesis,*** ό οἐντὸ τίὑ οδοιτων συγκρουομένων ψόφος, " the grating Noise  
" made by the Gnashing os Teeth.” ***Erotian*** makes βριιγμὸς  
to he ἰδίωμα ποιου ψόφου, “ a peculiar Kind of Noise that is,  
such as is made by the Gnashing or Collision of the Teeth.  
***Hes.ychius*** expounds βρυγμὸς by τρισμός όδοντων ἤ ἀκόνησις μύλων\*  
" A ***Stridor Dentium,*** or a Grinding of the large Teeth, or  
***" Dentes Molares.” Bplayifer, Lib.*** περὶ γυναικ. φυσ. signifies a  
Stridor Dentium ; as καὶ πυρετὸς ἀυτἤν καὶ βρυγμὸς λαμβάνει, " a  
***“ Fever*** seizes her, attended with a Stridor Dentium." And  
it has the same Signification in many other Passages of ***Hippo.,  
crates.***

BRYON, βρὑον, is a Moss which grows to the Barks of  
Trees, being the grey Hairs of Trees, aS ***Pliny*** expresses it.  
***Lib.*** I2. ***Cap.*** 23. which appear most remarkably upon Oaks.  
Βρήον, and βρύα, are used by ***Hippocrates, Lib. reel yuveuR. quia.***and ***LibsL. crcciyuvajR.*** in Suffumigations for the Uterus.

***Bryon Thalassium, βρύαν eccrdaotor,*** in Ihe Alga, or Sea-moss,  
which ***Hippocrates*** applies, by way of Cataplasm, to Women  
labouring under an inflammation of the Uterus, ***Lib. xr.ed  
ytjvcuL.*** calling it βρήον θαλάσσιοι, ο ***iati*** τῆς ίχθήας όπβάλλουτε’

Sea-moss, which they cast over Fishes.'' ***Galen, Lib.*** S.  
***Meth. Med.*** directs the Bandage of an Ulcer to be βρυῶδες καὶ  
μαλακὸν, " soft and yielding, like Alga to which is opposed  
ἥτως σκλημάν ώς θλίβειν, " one so hard as to press or squeeze  
46 the Part."

I ltave given an Account of what is at present ineant by  
*Bryum,* in the Explication of Botanical Terms.

*Bryon,* by some call'd *Splachnon,* is found upon Cedars,  
white Poplars, and Oaks; that upon Cedars is the best, and  
that upon Poplars is next to it in Goodness. The white and  
fragrant is the most Valued, but the blackish is not so good.

*Bryon* has an astringent Virtue, is temperate in Quality, he-  
tween Heat and Cold; and the Decoction of it makes a good  
Insession for uterine Affections, 'and iS mix'd 'with Unguenta  
Balanina, and with Oiis or Litufes, because of its inspissating  
Quality. It is also an useful Ingredient in the Preparation of  
Suffumigations, and Medicines call'd *Acopa. Diofcorides, Lib.*I. *Cap.* 20.

*Bryon Thalassium,* Sea-bryon; grows upon Stones and Shells  
by the Sea-side. It is a capillaceous Plant, stender, without  
Sulk, of a very astringent Taste, and effectual in Inflamma-  
tions, Gouts, and other Disorders in which Astringents are pro-  
per. *Idem, Lib.* 4. *Cap.* 99.

*Bryon* must be reckon'd among 'Sea-herbs: It has Leaves  
like Lettuce, but shrunk and shriVel’d. It grows mostly on  
Rocks and Shells, which stick in the Ground. It is of a re-  
markably drying and inspissating Quality, by which it represses  
all Collections of Matter, Inflammations, Gouts, and other  
Disorders which want Refrigeration. *Pliny, Lib. 2.y. Cap.* 8t  
See ALGA.-

BRYONIA ALBA, Offic. Ger. 72o. Emac. 869. Rati  
Hist. I. 659. Synop. 3. 26I. Merc.Tint. I. 24. Phyt. Brit.  
I7. Mer. Pin. I6. *Bryonia alba vulgaris.* Park. Theat. I78,  
*Bryonia afperasive alba, baccis rubris,* C. B. Pin. 297. Tourn.  
Inst. Io2. Elem. Bot. 85. Boerh. Ind. A. 2. 6I. *Bryonia  
afpera incana alba, baccis rubris.* Hist. Oxon. 24. *Vitis alba  
vel Bryonia,* J. B. 2. x43. *Vidic alba Bryonia,* Chab. 12o.  
WHITE BRYONY. *Dale.*

This Bryony has a large thick Root, frequentiy as big as a  
Manis Arm, growing very deep in the earth, of a light Brown  
on the Outside, and White within, of a bitter unpleasant Taste.  
In the Spring it sends forth a great many rough and hairy (len-  
der Stalks, winch have curl’d Tendrils at the Joints, which  
climb to a great Length upon the Hedges near which it grows.  
The Leaves are, in Shape, like Vine-leaves, whence it is call'd  
*Viiis alba,* the white Vine ; they are rough and hairy. The  
Flowers grow several together, on a common long Foot-stalk,  
each of a fingle Leaf, cut into five Segments, of a whitish-  
green Colour; after which follow red small Berries, full of  
Seeds. It grows in Lanes, and by Hedge-sides, flowering in  
*May,* the Berries being ripe in *Septembcr.*

*Paulus AEgineta, Lib. y. Co* 3. informs us, that the young  
Shoots of white Bryony are used as a Fond grateful to the  
Stomach. But in this he himself has either heen in an  
Error, fince it only holds true os black Bryony, or the Hands  
.thro' winch his Works have pass'd, have made him say a thing  
which is absolutely false. Neither can I comprehend how white  
Bryony should generate Milk, unless, with *Bauhine,* we fay,  
that it may accidentally produce this Effect by purging such  
Nurses aS are Valetudinary, and in a had State of Health; for  
all the Parts of the Plant are of an acrid exulcerating Quality;  
which *Mefue, R.* III. Z.2. Co 25. seems to have had in his  
View, when he uses these Words: " Its young Shoots, when  
" they first appear, are principally used with Aromatics, and cor-  
" rect the fetid and disagreeable Smell of the Breath, especial-  
" ly when that Misfortune proceeds from a Corruption of the  
" Humours lodged in the Stomach." For, by the Addition of  
the Aromatics, the drasho purgative Quality of the Plant must,  
in some measure, be corrected and balanced. The same Au-  
thor, sor a Purge, prescribes from one Dram to two DramS of  
the Juice of its Root; and os isself, in Substance, from one  
Dram and an half to three DramS. Later Authors have ob-  
served, that not only the Roots, but also the young Shoots and  
Berries, are possess'd of a very drastic and powerful purgative  
Quality, and must consequentiy he proper for removing Ob-  
structions. The Root alone is, at present, used for medicinal  
Purposes ; and Authors, I believe, are sufficiently agreed, that it  
is intolerably acrimonious and nauseous, that it provokes Urine,  
purges Violently, and vomits briskly. It is generally class'd  
among the phleginagogue and hydragogue Medicines; and is,  
on account os the Violence with which it operates. Call'd *Rusti-  
corum Purgatio,* the Purge of the common People. The Dose  
os the Roos, reduced to Powder, is from two Scruples to one  
Dram : Hals an Ounce of itS Juice may he given; and three  
Drams of infusions or Decoctions of it may be used. But to  
whatever internal Purposes it is used, *Tournesert* thinks it expe-  
dient to correct its strong and drastic Qualities, by the Addition  
os a proper Quantity os Cream *us Tartar, or Tartarus Tartari.,  
sutus.*

According to *Le Mort,* an excellent Purge is prepared Of  
' Bryony in the following manner:

Take os fresh Bryony, a sufficient Quantity; after having  
bruised it, and express’d the juice, let it he well dried.

Then bruise it a second tithe; and to one Ounce of the  
shied and pulverized Root, add three Drops of the Oil of  
Cloves, and half a Dram of distil’d Vinegar: Mix all to-  
gether ; and lastly, *dry* the Whole, either over a Very flow  
Fire, or by the Heat os the Sun. Thus will you have an  
excellent and efficacious Purge in Cachexies, and all Ob-  
structions of theDterus. The Dose is from five Grains  
to One Scruple. *' Coll. Deyd.*

*.\_ BauhinesrAGtrns us,* from *Ju. Stofsielius,* that if we cut the  
Bryony-root close. by the Surface of the Earth, and excavate  
that Part of it which is left in the Ground, covering it over  
.with that Part of the Root which was cut off, in order to hin-  
der Dust and Earth from selling into the Cavity, we shall next  
Day; upon uncovering it, find it full of a certain milky Juice,  
which continues in it till the third Day; and that a Spoonful of  
.this Juice purges a Man no less safely than speedily.. *Kay* also,  
from *Dolaeus,* informs us; that by taking from one to. two or  
three Spoonfuls of this Juice every:Morning, many dropsical  
Patients have been cured; provided the Juice has been gather'd  
.in the Spring of the Year, when the Moon is increasing.

*Hoffman* acquaints us; that *Platerns* took the white Bryony-  
root before it germinated ; and, after pulling off the Bark, and  
.cutting it into Sbreds, pass’d a Thread thro' it, and hung it up  
to dry, either by the Heat Of the Sun, or that of the Fire ;  
.and that; when it was sufficiently dry, he infused it in generous  
-Wine, and dried it a second time. This Method he repeated  
several times, and affirm'd, that, when thus prepared, it purged  
.excellently, and without, creating any Uneasiness. The same  
Author prepares Troches of white Bryony in this manner:

He reduces the Bryony, thus corrected, to a Powder; and,  
. aster sprinkling it with *Malmsey* Wine, in winch Ginger

has been infused, he forms it into small Cakes, which;  
when dry, he reduces to a Powder, and uses,in Infusions:  
When thus prepared, it purges, according to that Author,  
in the same manner the Troches of Agaric do.

Now since this Root, when used internally, acts by its stimtr-  
lating and resolvent Acrimony, 'tis obvious, that it may be ex-  
hibited with Success in Cases where heating Medicines are indi-  
cated, and when the Intention is to stimulate the Nerves  
strongly, and give a Concussion to the whole System. To this  
Quality it is also owing, that it is so much extol'd in Intermit-  
ting Fevers, in provoking the Menses, curing those uterine  
Disorders to which young Women are subject, and in killing  
and diflodgingWorms lodged in the Intestines; for; being pos-  
sess'd of a highly drastic V irtue, it powerfully incides the tena-  
cious Juices, and surprifingly opens and removes Obstructions.  
Thus *Ray* informs us, that the Bulk of a Nutmeg of the Con-  
serve made of its Root, taken twice a Day, and persisted in for  
a long time, often proves the happy Means of removing and  
entirely curing Epilepsies, and hysteric Passions; and that the  
same good Effect is produced by continually putting a Piece of  
its Root into the Cup, out of which the Patient drinks. *Bau-  
hine,* from *Arnaldus de Villa Nova,* gives us the History of a  
certain Patient, who, in the Space of three Weeks time, was  
completely cured of an Epilepsy, only by purging himself with  
depurated Juice of Bryony, edulcorated with a little Sugar.  
*Matthiolus,* in his Commentaries on *Diofcorides,* informs us,  
that he knew a certain Woman, who, for several Years, had  
been daily subject to hysteric Fits ; and who was at last advised,  
by a common Herb-man, once a Week, when going to Bed,  
to drink White-wine, in which an Ounce of Bryony-root had  
heen boil'd; by which Medicine, Continued sor a I ear, her  
Disorder was entirely removed. *Forestus, Obs. Chir. L. 6. Obs.*22. *Schol,* informs us, from *Avicenna,* that Patients render’d  
delirious by dangerous Wounds, are in a great measure restor'd,  
either by drinking Bryony-root for some Days, in some refri-  
gerating and diluting Liquor, Or using it in any proper Fond,  
capable of obtunding and blunting its Taste. The Root, ex-  
ternally applied, has, in many Cases, given incontested Proofs  
of its resolvent Catalines. When newly bruised, and min’d up  
with Salt and Vinegar, it resolves cold Tumors, and removes  
the discolour'd Marks arising from extravasated Blood, if ap-  
plied to them. *Helmont* affirms, that in Contusions, where a  
black discolour'd Blood is lodged under the Skin, Bryony-root  
alone, shaVed down and applied, will, in a few Hours, resolve  
the Blood into Water, and draw it thro' the Pores os the Skin.  
According to *Etrnuller,* Bryony-root not only cures the Dropsy,  
when exhibited internally, but also evacuates the Waters col-  
lected in the Abdomen, when applied externally, by way os Co-  
taplasm, to the Region os the Loins, either bruised by itself, or  
made up with the Dung of a Cow, the Pigeon’s, or Goat's. It  
is also applied to oedematous Swellings Of the Feet and Legs, a  
Hydrocele of the Scrotum, and other Disorders of a similar  
Nature, in wlrich Cases it carries off the Serum, and conse-  
quently discusses the Swellings. It is also properly applied to  
fcrophulouS Swellings, whether cxidcerated or otherwise; for  
Which intention.

Let half aPound of the Roos,\* cut imofinalT Shreds, he fried  
in a Pan 'till the Shreds are shrunk and shrivel'd up: Then  
det the Liquor, strain'd off, be reduced to the Consistence  
of an Ointment, with half a Pound Of Resin of the Fir-  
tree, and Eve Ounces of Wax. Det this Ointment he  
applied Yo the strumous Swelling every Morning and Night,  
upon a Piece oflinen Cloth.

This Medicine either dissolves the *Struma,* or brings them to  
Suppuration, and heals the Ulcers, as *Tiacittus Lasitanus* affirms  
from Experience. If the Root of the white Bryony is exca-  
vated in'the:Ground, 'and cover’d with soine proper Covering,  
the Liquor collected in it proves an excellent Medicine for arth-  
ritic Pains, if applied immediately to the Parts affected. The  
Root itself also, fresh bruised, mix’d up with linseed-oil, and  
applied warm, removes sciatic find arthritic Pains: This Medi-  
cine must he repeated ’ till sue morbific Matter is resolved/and  
dissipated. It is also excellent for Contusions, and for dissolving  
grumonsand coagulated Blood. The Leaves of Bryony also,  
if bruised, and applied to'livid arid difcolour’d Spots in the Skin,  
powerfully discuss the grnmous Blood. For this Reason, io  
Gangrenes, and other Tumors, *Tackias* made Trial of the  
Root fresh bruised, or cut down, either alone, or'mix'd with  
Chervil, by way of Cataplasm. It is also thought good for  
curing wandering arthritic Pains, by Transplantation, aS it is  
commonly call'd. The Method of doing this is to hang the  
Bryony-root sor some time to the Member or Part affected,  
and to bury it, when taken'away, in any Garden or fruitful Soil  
where it grows. In ine last Place, when the Uterus is to he  
purged, white Bryony-root may either he used aS an uterine  
Pessary, or by way os Fumigation. See *Etmuller, Lib.* I. ,

According to *Bauhine,* the Root is by some highly esteem'd  
in arthritic Pains; and their Method of thing it is to cut it  
down, and macerate it in Brandy, which they afterwards distil,  
and steeping Linen Cloths in the Water, when warm'd, apply  
them to the Parts affected. Dr. *Hopper, in Eph. N. C. D.* I.  
ir. 4l *App. p.* 47. informs'us, that Warts, on any Part of the  
Body whatever, are safely and. effectually destroy'd by Ashes of  
Bryony-root; inix'd with the Juice of the same.

.. It is not, on this Ochasion, improper to inquire, whether,  
from a Knowledge of the component Parts of Bryony, we can  
account for its Effects, and ascertain the particular Form in  
which it Inaythest answer the Intentions of a Physician, when  
prescrib'd *sor* internal Purposes ? *Tournefont* insorins us, that  
Its Leaves are insipid, contain a Viscid Juice, and do not, in the  
least, tinge blue Paper with a reddish Colour; whereas it is con-  
Iiderably tinged by the Root: From which Circumstance, he  
says, we may reasonably conjecture, that the Acid of Sal Am-  
months. Winch, in this Plant, is superior to jts other Principles,  
is free and disentangled in the Root, in consequence of which  
it is left at Liberty to act agreeably to its own Nature ; whereas  
in the Leaves this Acid is sheath'd up in a larger Quantity of  
Sulphur ; and that the Root, subjected to the Fire, yields alarge  
Quantity of an acid Liquor, a great deal of fetid Oil, and a  
Considerable Portion of a volatile concreted Salt. Mrt *Boulduc*affirms, that the Root consists of saline, without any. Mixture  
Of resinous Principles; that it acts more powerfully when taken  
in Substance, than in any other Form whatever; and that, for  
a Dose, one Dram of the dried Root is sufficient; ‘whereas,  
“when fresh gather'd, sour Drams of it are'requir'd, because it  
then abounds with a superfluous Moisture. ’But as it is to he  
dreaded, lest too Violent Effects should be produced by the Bry-  
ony-roor in Substance, he thinks' it inore safe and expedient to  
have recourse to Infusions, Decoctions, and Extracts of it. He  
also prefers Infusions to Decoctions of it; and approves more of  
infusing it inWine than in Water. When the precise and only  
Intention is to discharge the Waters from the Abdomen, he  
maintains, that Extracts prepared from its Juice, are preferable  
to those obtain'd by Insuston or Decoction, *Hist. Ac. Ray. des  
Sci. A.* I7I2. It is to be observed, that the Roos, when  
fresh gather'd, is thought tn act inore powerfully, than when it  
is dried ; for which Reason, according to *Pomet,* it is call'd, by  
the Country-people os *France, Nouveau enrages In Lemcry’s  
Pharmacopoeia,* the *Aqua Bryoniae Composita* is directed to he  
prepared in the following manner:

Take of the Juice of Bryony-root, sour Pofinds; of the  
Juices of the Leaves of Rue and Mugwort, each *two*Pounds; of dried Saxin-leaves, three Handfuis; of Fever-  
few, Catmint, and Penyroyal, each two Handfuis; of sweet  
Basil, and Dittany of *Crete,* each one Handful and an  
half; fresh Orange-peel, four Ounces; Myrrh, two  
Ounces ; Castor, one Ounce; and rich *Canary* Wine,  
twelve Pounds. Digest for four Days in a proper Vestel ;  
then subject it to Distillation *in Balneo Maria.* About  
the Middle of the Distillation express and strain ; and then,  
by continuing the Distillation, and inspissating the Tincture,  
make an Hysteric Extracti

**R E M A R K 6.**

The Bryony-root must he fresh gather'd, rasp'd down, and **the**. Juice express'd. The Leaves of the Rue and Mugwort must  
he also fresh gather'd, and bruised in a Mortar,'and the Juice  
express'd, in. the common way. The Savin-leaves must he  
dry. The Dittany of *Crete,* together with the other Leaves,  
must he bruised and min'd with the Orange-peel, the Myrrh,  
and the Castor. When all together, are put into a large Cu-  
curbit, the Juices and *Canary* Wine must he pour'd upon  
them, andthe Cucurbit must he close stopp'd, put jur a warm  
Place, and the Ingredients allow'd to digest for sour Days.  
Then distil *in Balneo Maries*; and when half os the Quan-  
tity is drawn over, express what remains in the Alembic,  
and distil the express'd Liquor as before, till, there remain  
. hut littie in the Still; and then evaporate the Humidity till  
it acquires a pretty» solid Consistence. . Thus you will have  
an Extract to be kept for Use. Mix. the distil'd Waters to-

\* gether,. and thus you will have the COMPOUND BRYONYv  
*cr. 'WAT* ER, which, must be kept in a well-smpp’d Bottle.

This Water is antihysteric, aperient, good for the Vapours,  
and proper to excite the Menses, resist Poison, fortify the  
Brain, corroborate the Nerves, and eliminate noxious Hu-  
inours by Transpiration. Its Dose is from half an Ounce to

... three Ounces.

The Extract is also antihysterical, and proper to promote the  
Menses. *Lerners.s Pharm. Universe*

\ in the *London Dispensatory,* from which Mr. *Lemery-tools.*the above-mention'd Recipe, Spirit os Wine is order'd sor the  
Distillation. In the *Edinburgh Dispensatory* Spirit os Wino is  
also used for that Purpose, but the Castor is rejected. Instead '  
of the Extract, *Tournefort* recommends an Infusion of the Root  
in Wine, winch he orders Io he inspissated. In the *Collect.  
Leyd.* there is an Extract os Bryony prescrib'd, which, in the  
'Opinion of Mr. *Le Mort,* thss a Medicine of a low Price, is yet  
a Purgative of great Value and Efficacy. It'is prepared in the  
following manner:

Take of dried Bryony, one Pound ; of the Herb Fumitory,  
two Pounds; and of Senarleaves, four Drams: Boil all  
together for two Hours, in a sufficient Quantity of Water;  
and let the express'd Liquor be reduced to the Consistence  
of Pilis'. The Dose is from half a Scruple to half 4  
Dram.

**The** *Electuarium Diabrycnias Democriti, in Mesue,* **is said**to be wonderfully efficacious in Epilepsies, Palsies, Vertigoes,  
and other cold Disorders of the Brain, and Spinal Marrow, **find**of the Nerves which arise from them. It is prepared thus;

Take of Bryony-root, cleansed and triturated, five Pounds;  
of the Rob of Grapes, four Pounds; roasted Squills, and  
the Kernels of Pine-nuts, each half a Pound; Agaric,  
three Drams; Nutmegs, Cardamoms, Mace, and Ginger,  
each two Drams; Cloves, Long-pepper, and Stoechas,  
each one Dram and a half; Seeds of Hartwort, Sal Gem,  
and the Trochisci Galliae Mofchatae, each one Dram; and  
of Spikenard, half a Dram: Mix up into an Electuary, ac-  
cording to Art. After it has stood six Weeks, the Dose is  
from two Drams to five or six; tho’ *Lemery* orders an  
Ounce and a half.

AS Mr. *Lemery* thinks the above Preparation very sanity in  
several respects, he proposes the following in its stead, under  
.the Title of *Electuarium Diabryonias Emendatum,* which he  
'.prepares thus:

Take of the juice of cleansed Bryony, fresh extracted, four  
Pounds; of the best Honey, two Pounds r Let them be  
boil'd to the Consistence of Honey; then add, of tho  
Powder of Turbith, HermodactylS, Jalap, Agaric,.and  
Salt of'Bryony, each fix Drams ; and of the *Fcecula Bry-  
onia,* half an Ounce. Make up into an Electuary, ac-  
cording to Art. The Dose is from one Dram to one  
Ounce. *Lemery Pharm.Untvers.*

. By the above-durtoted *Mesue* a Syrup is ascribed to the said  
*Democritus,* which is compounded of the juice of Bryony,  
Aromatics, the Rob of Raisins, and Honey. This Syrup is said  
to he aS efficacious as the former Electuary, if two Ounces of  
it are taken for a Dose.

In the *Dssepensutorium Borusse-Brandenburgicum,* there is a  
*Syrapus de Bryonia,* prepared of the jutce οτ Bryony-roots,  
with Honey and Sugar, which may he given to asthmatic and  
hysteric Patients ; and in Cases where Animals are suspected to  
he lodged in the Stomach or Intestines. *Faber, in Myroth. L.***6.** *C.* Io. prepares a Syrup of’Bryony, from a Decoction of its  
new-pull’d Roots, infpistated, and Sugar; to which he after-  
**wards adds the finest of the** salt procured **by** drying the Root,

and reducing it to -white Ashes, allowing half an Ounce of the  
Salt for each' Pound of the Syrup. He informs us, that this  
Medicine gently purges all serous Hu incurs, powerfully pro-  
motes the Menses, and safely cures most of the Disorders to  
which young Women are subject, because it opens all Obstnr-  
ctions, and purifies the Blood.’ Hals an Ounce, of it, or in  
strong Constitutions a whole Ounce, is exhibited sor a Dose, in  
some proper Broth, early in the Morning, with an empty Sto-  
mach: A Regimen must at the same time be observed, as in  
other Cases. - -

An Ounce of the *Faecula Bryoniae,* or the Powder which sub-  
sides in the express'd Juice of its Root, is by many exhibited as  
a Medicine safer than the Root itself, or its Juice, and is ex-  
firefly class’d among the Openers of the Uterus; but, as *Luda-  
vicus* in his *Pharmacop.* well observes, it is a Very ineffectual  
Preparation, unless assisted with Chaly beats ; since, according  
to *Etmulkr,* it is a dead Calx, of no manner of Use nor Effica-  
cy ; besides, what is commonly sold is for the most part adul-  
terated. The *Nectar Succosum* of *Clesseeus,* which, in *Schroder’s  
Pharc* is directed to be prepared *of one* Ounce of the express'd  
Juice os Bryony, mix’d with one Dram os the Oil of Vitriol,  
or Sulphur, is, in *Etrnuller’s* Opinion, a Very fafe and proper  
Purge, provided the Dose does not exceed one Dram.

But, that we may see how prone some People are to Fraud  
and Imposture, I shall here recount some Circumstances men-  
tion'd by *Morison.* " Mountebanks, fays he,'and some Bota-  
" nists, form Very strange Monsters of the Bryony-root ; upon  
" which, is bifurcated when taken from the Earth, as it fre-  
" quently is, they with a Pen-knife form the genital Parts of a  
" Boy; and endeavour, by a proper Fissure, to imitate those  
" os a Woman, by *Laurentius* call'd the Sacred Cave. Aster  
" they have taken these Measures, they bury the Root for some  
" time in Sand, or rather in a sandy Soil, till the wounded or  
". factitious Parts have assumed a Skin; aster which they const-  
' " dently expose it to Sale, as the Male and Female Mandrakes.  
"We daily observe, that many Roots, such aS Carrots, and  
*" some* others of the umbelliferous Kind, grow spontaneoufly  
" bifurcated ; and I boldly assert, that, if sufficient Art is used,  
" they may be caused to grow in the Shape of other Parts of the  
" human Body. Now, when the Bryony-root happens to he  
" old, thick, and bifurcated, these trifling Forms may easily he  
.“ obtain'd. But to complete the Farce, and render, as they  
" think, the Imposture heyond the Hazard of a Discovery,  
" these Wonder-working Botanists put the Seeds of Oats into  
" the Wound made in the Bryony-root, which germinate in  
" the Earth, and make an Effort to send forth Leaves ; but.  
" wanting sufficient Nourishment, and being shut up from the  
" Influence os the Air, they degenerate into small capillary  
" Fibres. This Piece of Fraud may easily he detected by a  
" skilful and quick-sighted Botanist. I myself rememher to  
." have seen such forced Productions carried about by strolling  
" Mountebanks, both at *London* and at *Paris,* where their  
' " despicable Proprietors did not scruple to expose them to Sale

" sor the genuine Roots of the Mandrake."

*Dioscorides* gives the following Account of the white Bryony.

The *rwhite Vine,* otherwise call'd *Bryony, Ophiostaphylum,  
Chelidonium, Melothrum, Psilothrum, Archeooostis, A grasses,* and  
*. Cede esses,* in its Branches, Leaves, and Tendriis, resembles the  
cultivated Vine, only is more hairy, in every Part. It twines  
about the neighbouring Shrubs, taking hold of them by its Ten-  
drils. Its Print grows in Clusters, of a deep Yellow, and is  
used by the Tanners in taking off the Hairs from their Skins.

The tender Shoots of the first Budding, being boil’d and  
eaten, loosen the Belly, and provoke Urine. The Leaves,  
Fruit, and Root, are of an acrimonious Quality; and therefore  
proper, being made into a Cataplasm with Salt, for *Chironian,*gangrenous, and phagedenic Ulcers, and for putrid Ulcers in  
.the Legs, The Root, with bitter Vetches, Earth of *Chios,*and Fenugreek, absterges and clears the Skin from Wrinkles,  
Sun-burns, Freckles, and black Marks. Boil'd in Oil till it  
be liquesy'd and dissolved, it works the same Effects. It takes  
off the livid Marks of Blows in the Face, and represses the  
*Pterygia of* the Fingers. Applied in a Cataplasm with Wine,  
it discusses Inflammations, and breaks Abscesses; and the  
Powder of it, in a Cataplasm, extracts Splinters of Bones:  
It is a proper Ingredient in septic or suppurative Medicines.  
A Drain thereof, drank every Day for a whole Year, is a Me-  
dicine sor the Epilepsy ; and is good for those who are subject to  
' an Apoplexy or Vertigo. Two Drams of it, drank, are  
effectual against the Bite os the Viper, and kill the Child in the  
Womb. Sometimes it (lightly disturbs the Reason. Being  
drank, it provokes Urine ; and, apply'd as a Pessary, extractis  
both Birth and Afterbirth. It is made into an Eclegma with  
- Honey, for the Use of thofe who am oppress’d with a Strangu-  
lation, or a Dyspnoea, and sor Coughs, Pains in the Sides,  
Ruptures, and Convulsions. Half a Dram of it, taken in  
Vinegar, sor thirty Days together, wastes the Spleen; and,  
applied by way of Cataplasm with a Fig to the Place, is effec-  
, tual for the same Purpose. Its Decoction is proper sor Insessions,  
\* heing a Purger of the Uterus, and expelling the dead Foetus.

The Juice is expressed from the Root in the Spring-time, and  
is drank in Hydroinel Tor the foremention'd Purposes,’ being a  
Phlegmagogue. The Fruit, us'd by way of Unction, hr Cata-  
plasm, is os efficacy against the Psora and Lepra; and the Juice  
of the Fruit, supp'd with boil'd Wheat, causes Milk to flow in  
Plenty to the Breasts. *Dioscorides, Lib. An Cap.* 184.

*Pliny,* in the first Chapter of his twenty-third Book, ascribes  
the same Medicinal Virtues to white Bryony, with those now  
enumerated from *Diosc otides. -*

\_ .There are several other Species of Bryony, such as, .

I. The *Bryonia ^leylanica, foliis profundelaciniatis,.* Β.  
This Plant is frequently us’d in Dropsies, by the Inhabitants of  
*Ceylon,* an Ifland in the *East-Indics,* where it grows spontaneoufly  
on ruinous Walis, and in other uncultivated Places. *Boeder,  
i Ί.* The *Bryonia alba vulgaris procerior, folio cucurbitae.*This agree5 in Virtues with the other white Bryony.

3. The *Bryonia Indica* or *Americana.* The same with ME-  
CHOACANNA, which see. Λ .μ. . .. - - ’ .... -

4. The *Bryonia Africana glabra, f iliis in profundas 'lacinias  
divisu, flore luteo.* Olden. Smooth *African* Bryony, with  
deep-cut Leaves, and yellow Flowers.

*esc* The *Bryonia Amcricana, ciliva fructu rubro.* Plum. Cat.  
*American* Bryony, with red Olive-shapin Fruit.

6. The *Bryonia Africana, fructu variegato,* Hort. Elfin  
*African* Bryony, with a Variegated Fruit.

7. The *Bryonia Africana laciniata, tuberosa radice, floribus  
herbaceis.* Par. Bat. *African* cnt-leaV'd Bryony, with a tube-  
rose Root, and herbaceous Flowers.

BRYONIA NIGRA, Offic. Gen 72I. Emac. 87I. Rail  
Hist. I.A60. Mer. Pin.. I6. *Bryonia fylvestris nigra.* Park.  
Theat. I78. *Bryonia louis sue nigra racemosa,* C. B. Pin.5297. Hist. Oxon. 2. 5. *Bryonia nigra, sigillum Beatae Maria  
officinarum,* Merc. Bot. *i.* 24. Phyt. Brit. 17. *Vitis nigra  
quibus.dam, feu Tamnus Plinii folio cyclamini,* J. B. 2. I47.

*‘ satis nigra five Bryonia nigra quibusdam.* Chain I 2o. *Tamnus  
racemoso, store minore luteoepallescente,* Tourn. Inst. I03. elem.  
Bot. 85. Boerh. Ind. A. 2. 62. Raii Synop. 4. 262. BLACK  
BRYONY. *Dale.*

The black Vine, which some call black Bryony,' others the  
*Chironian* Vine, has Leaves like Ivy, but more nearly resem-  
bling those of the Smilax, only larger; their Stalks also are  
alike. This Plant, as well aS the white Bryony, takes hold of  
.the neighbouring Trees by its Tendriis. The Fruit grows in  
Clusters, and is green at first, but black when ripe. The Root  
is black on the Outside, but of the Colour of Box within.  
. The Shoots of the first Budding are eaten as other Greens.

They provoke Urine and the Menses, waste the Spleen, and  
are good for epileptical. Vertiginous, and paralytical Persons.  
The Root has the same Virtues as that of the white Vine, and  
performs the same Effects, but in a less efficacious manner.  
A Cataplasm of the Leaves with Wine cures the gall'd and  
ulcerated Necks of Beasts of Burden, and is apply'd also to  
Luxations. *Dioscorides, Lib.* 4. *Cap.* I 85.

The *black Vine,* properly call'd *Bryony,* is by some named  
*Chironia,* by others *Gynecantbe,* or *Apronia-,,* it is like the  
*white Vine,* except in Colour. The tender Shoots of it, eaten  
as Food, are preferr'd, by *Dioclet,* hesore Asparagus, for pro-  
voking Urine, and diminishing the Spleen. It delights to grow  
among Shrubs and Reeds ; the Root is black on the Outside,  
but of the Colour of Box within, and is more effectual in ex-  
tracting Splinters of Bones, than the white Vine; but it has  
a peculiar Virtue of curing the gall'd Necks ofBeasts of Burden.  
They say that if a Farm-house be mark'd with it. Hawks will  
not approach it, and so the Poultry will be kept in Security. The  
Plant, bound aheut the Ancle of Man or Beast, cures a Defluxion  
of Phlegm or Blood upon the Part. *Pliny, Lib.* 3. *Cap.* I.

The Root of the black Bryony is less then that of the white,  
blackish on the Outside, whitish within, more solid, but flimy  
withal The Branches grow as long as the white, climbing and  
ramping upon the Hedges in its Way, but without Tendriis or  
Claspers; they are smooth aS well as the Leaves, which are of  
a dark-green Colour, and shining, in Shape of an Heart inverted,  
but longer pointed. The Flowers grow among the Leaves in  
long Clusters, much smaller than those of the white Bryony, of  
a greenish Colour, of one Leaf cut into six Parts; after which  
come red Berries, as in the former. It grows in the same Places  
with that, and flowers about the fame time.

Some Authors affirm, that the Root of this Bryony is a strong  
. Purge ; but *Hoffman* could not find any purgative Quality in it,  
no more than Dr. *Lister,* tho' both try'd it several times. It ι  
provokes Urine, and cleanses the Reins from Gravel. A Cata-  
plasm of the Root, with Vinegar and Cow-dung, helps the  
Gout. It is but rarely us'd. *Miller\*s Bot. Off.*

There are several Species of the black. Bryony, or *Tamnus-,*such as,

I. The *Tamnus racemoso,flore minore luteo-palles.cente* of Tour-  
*nes.ort.* The common black Bryony mention'd above.

It flowers in *fane,* and its Root is only in Use. It incides  
and attenuates Viscid Phlegm, especially in Disorders of the  
Thorax. *R. Hi p.* 661. It provokes Urine and the Menses,

find discharges Sand from the Kidneys, if drank in a proper  
liquor, ***label.*** Concerning its purgative Quality, I heve as  
yet found nothing. ***Co Hoffman. Ges.ner*** affirms, that it is  
possess'd of an exulcerating Quality. It.is possess’d of very vio-  
lent Qualities, and is said to have something ofa poisonous Na-  
- ture in it.; .for which Reason it is Very improperly us'd insh-ad of  
the white Bryony. Dassfrom the above-quoted Authors.

2. The ***Tamnus' Cretica, Arisida folio,*** Tpurru .Cor. Black  
Bryonyof ***Crete,*** with a trifid Leaf. \_ χ

3. The ***Tamnus Americana stubisera, radice sitrngiformi.***Plum,. ***American*** Bryony, with a Rootresembling a Mush-  
roOffi.-. . : ... ....jo ’ 'Ἀ

4. The ***Tamnus Americana racemosa*** minor, ..Plum. \_ Smaller  
branching ***American*** black Bryony.

- 5. The ***Tamnus Americana racemose mayor.*** Plum. Greater  
branching ***American*** black Bryony.

6. The ***Tamnus Americana, amplis foliis,- subtus purpureus,***plum,:; ***Americansblack: Bryony,*** with large Leaves, winch are  
purple on their under Sides. ...

7. The ***Tomnus Americana, angariafolio.*** Plum. ***American***brack Bryony, with a Water-melon-leaf.-.τ ... - - v

. BRYOPTERIS, or DRYOPTERIS, -froth ***pnsios,*** Moss,  
or δρὓς, an Oak, and πτέρις. Fern. White Fern of the Oak,  
which grows on Moss of the Oaks ***Biancard.*** See DRYO-  
PTERIS... t... ἐν εἴ' \-

BRYTHION, a Malagma so call'd, the:Composition os  
which:is describ'd by ***P.dEgineta, Lib.*** 7. ***Cap.*** I8.  
ι BRYTIA, βρυτια. , The solid Parts os Grapes, remaining  
after the Must is expressed.. ***Galen, Lib. 2. de Alim. Fac.  
Cap.*** 9. . ... so -  
. BRYTON, βρύτον., A kind of Drink, made os Parley,  
which ***Aristotle*** calls πῖνον ***(Pinon).*** They who get drunk with  
it, do not sell indifferently any way, as with other Liquors,  
but always supine, and on their Backs. ***Hellanicus*** says: the  
***Bryton*** is made of Rice.; and it.may he also .made of Millet,  
***as Athenaus*** informs us; who also says, that τὸ βρὑτον, " the  
" Bryton,'' is by some call'd κρίθινος όινος, " Barleywine  
and tells;ns, In the same Place, that this κρίθιρος όινος is call'd  
πόνον. ; But ***Eustathius,*** says there is this Difference, that the  
πόνον is made of Barley, but the βρήτβν also of, Poots. ***siGorsc  
rceus.*** . . . ... τ ."

BUBALUS, Offic. Schrod. 5. 272. Gesh de Quad. I22.  
***Pubalus,: Italis Bufalo,*** Raii Synop. A. 72. ***Puffelus,*** Bellon.  
Obs. edit. Clusi I02. Jons, de Quad. 38.\_ ***Busselussive Buba-  
lus vulgaris,*** Aldrov. de Quad. BisuL 365. THE BUFFAL.  
***Dale. ... ;***

The Parte us'd in Medicine, are the Horns, Hoofs, Tallow,  
and Dung, of winch the Horns and Hoofs are good against  
.Convulsions; and the other Parts are reckon'd to be endu'd  
with the same Virtues as those of the Ox.

These who have wrote.-the History of Quadrupeds, deny this  
Animal to be the ***Bubalus*** Of the Antients, but rather the wild  
***'Indian Bos,*** describ'd by ***Aristotle*** without a Name, and said to  
he sound among the ***Arachota.*** But the learned ***Ray*** is strongly  
Of Opinion, that the Name of the ***Bubalus*** came into ***Italy*** with  
the Animal to which it belong'd, and which, consequently,  
took its Name ***Bubalus*** from its native Country in ***India*** or  
***Asia., Bellonius, Observ. Lib. 2.. Cap.*** 50. takes the ***African  
Bos*** for the ***Bubalus*** os the Antients. ***Idem ibidem.***

. BUBO, βουβών. A Bubo.

A ***Bubo, Phyrna,*** and ***Phygethlon,*** are Affections of the  
Glands. A ***Phyrna*** is an Inflammation of a Gland ; a ***Bubo is***the Inflammation os thet Gland, hastening to a Suppuration ;  
but the erysipetalous Inflammation of that same Gland is call'd  
a ***Phygethlon. Actuarius, Meth. Med. Lib.*** 2. ***Cap.*** I2.

According to ***Galen,*** a ***Bubo, Phyma,*** and ***Phygethlon,*** are  
Affections of the Glands ; and a Bubo jo an Inflammation, but  
a Phyma an Inflammation of a Gland tending to a Suppuration.  
But, according to others, all preternatural apostematous Tu.  
mors, in whatever Part they arise, are call'd ***Phymata. Hip-  
pocrates*** says, that they who are molested with Phymata in their  
urinary Passage, are freed by the Suppuration and Breaking of  
the same. Buboes which owe their Rise to Bruises, other  
Ulcers, or Pains, are not dangerous ; but such as proceed from  
a Fever, as it usually happens in Pestilences, are of a Very ma-  
Iignant Kind, whether they be near the Thigh, or in the Arm-  
pit, or about the Neck, -so

Buboes ***of*** the first or milder Sort are to he treated, like all  
other Inflammations, with Refrigerants and Astringents, and  
.fuch Medicines as have a repelling virtue; such are Applications  
of Sponges dipp’d in Oxycras, or Wool moisten’d with Wine  
and Oleum Omphacinum (ἐλαίου όμοτριβῆς). Oil of Roses, Oil  
.of Quinces, Oil of Mastich, Or Oil ***of*** Myrtle. After these,  
.discusiive Remedies are to he us'd ; but, if the Body abounds  
with Humours, they are first to be evacuated. If there he no-  
thing that requires Purging, we are to apply ourselves to the  
Cure of the Ulcer from whence the Bubo was generated, winch  
must he treated like other Ulcere. The Inflammation in the  
Glands must he mitigated by Applications of Wool moisten’d  
with some laxative kind os Qi], and the same must also he

wrapp'd about the Pars, The Tumor, when suppurated,. Is  
not hastily to he open’d, but we must try to resolve it by. Me-  
dicines made into Cerates, particularly the Cerate nam'd ***Diapy-  
ranon,*** and that call'd ***Botanicon.*** If the Resolution does not  
succeed, we must endeavour to break it by the same means as  
are us’d for other Abscesses 7 and the Cureisthe same. In Buboes  
proceeding from.PeVers, or a mere Redundance of Humours,  
.-Repellents are to .he avoided, lest .we should repel the blatter  
upon the inward Parts; but we must begin with DiscutientSl If  
the Age and Strength os the Patient will permit. Bleed is to he  
first taken from the Vein of the Cubit ; alter which we must  
.use Fomentations os the Decoction os Chamomile, Dill, and  
suchelilee Herbs. The other Medicines are such as.we heve  
recommended as proper for the Parotides, and for Inflamma-  
tions. . ***Aster Atticus,*** call'd also ***Bubonium,-*** from, its Virtues in  
this Distemper, in said to cure it, not only if it he apply'd to  
the Sore, but worn as an Amulet.. ***P. AEgineta, Lib.*** 4.  
***Cap. 2.Q.. .. ...;***

There are some sorts of Tubercles, or Tumors, which never  
appear but in certain Places, which are in a manner appropriated  
to them. To these kinds belong what we call Echoes,:: which  
infest no Parts but . he Groin and Armpits, -and ***dioror he***divided; into the ndZd:and the ***malignant.-,*** which Distinction,  
hecause it includes a different Method of Cure, requires a little  
Explication. . ***N mild*** Bubo is so nam'd, first, when it rises,  
. as it were, fpontaneoufly ; that is, when the Patientis in a State  
Os Health, and wholly free from any. contagious Tor pestilential  
Disease, in the same manner-as a Furunculus, or Phlegmon;  
arises, especially on infants ; .thossfor.the most Tint, without  
Danger: Or, secondly, a Bubo, is said to be ***mild,*** when it  
makes its Appearance at the End of some mild and. favourable  
kind of Fever, the Violence of the Disease heing,' by the  
Strength os Nature, diverted that Way. A ***malignant*** Bubo is  
one which owes its Rise to some pestilential Contagion, or the  
Lues Venerea, and is therefore usually call'd a ***pestilential*** or  
***venereal*** Bubo.

As to the Causes of a mild Bubo, I must remark, that this,  
.as well as. all other Inflammations proceeding from internal  
Causes, takes its Rise from the Stagnation of some glutinous  
arid inspissated Blond, and, consequently, no way differs from  
Other inflammations, except its Place, which is in the Groin or  
Armpit, where much Fat, and many Glands, are situated.

A mild Bubo is not difficult to be distinguish'd, if we consider,  
that it is nothing but a Tumor, with an Inflammation, in the  
Parts above-mention'd, without any pestilential or Venereal  
Contagion. ...Ἀ .. .

This kind of ***Bubo*** also is Very seldom of dangerous or per-  
nicious Consequence, heing commonly resolv'd, or brought to  
a Suppuration. But this Resolution or Suppuration is sometimes  
brought about with Difficulty, especially in Persons of a bad  
Habit of Body, insomuch that these suppurated Tumors heve  
sometimes ended in stubborn Fistulas. A Bubo in the Armpit  
is more easily brought to a Suppuration than one in the Groin ;  
but neither os them. is so difficult os Suppuration as the Pa-  
rotides. ' .

For Buboes which happen without any other Distemper,  
especially in Infants, the best way is often to administer fre-  
quentiy some purging Medicine, mix'd with Mercurius dulcis,  
thet the glutinous and coagulated Blood may be drawn by Re-  
.Vulfion from the affected Part, and, at the same time, dissolv'd.  
Then other Medicines, which attenuate the Blood, are to be  
prescrib'd, as Decoctions of the Woods. If the Bubo be at-  
tended with a flight Fever, a Physician ought to be .consulted,  
. /or administring some antifebrile Medicines.

Where the inflammation is but moderate, and, consequently.  
Resolution may be hep'd, it will be proper to apply digestive  
Plaisters, such as those of simple Diachylum, Sperma Ceti,  
Galbanum, DiasaponiS, or De Ranis com Mercurio; for  
these sorts of Tumors are often resolv'd by such external Ap-  
plications. .

. If the Inflammation be Violent, and the Pain intense, or if  
Outward Digestives heve no Effect, we are immediately to have  
recourse to Suppuration, by applying a Plaister of ***Diachylum  
cum Gumrni,*** which is of excellent Service in this Case. If  
the Pain be Very great and intolerable, digestive Cataplasms,  
applied warm to the affected Part, and often chang'd, are usually  
of Very great Efficacy, not only in mitigating the Pain, but  
resolving the Tumor.' Cataplasms for this Purpose may be com-  
pos'd of Crums00s wheaten Bread, and Milk, bod’d to a  
Poultis, with an Addition of some Saffron ; or of Meal, with  
Honey and fresh Butter, work'd to a Cataplasm bv the Fire-  
fide; to which may conveniently be added a small Quantity of  
***Venice*** Treacle. This is to be apply'd hot, and often chang'd.  
’ When, by these and such-like Medicines, we have reduc’d  
the stagnating Matter to Maturation, we are to make use of  
some Caustic, or of the Knife; bet all imaginable Care is to  
be taken, that, in making an Incision, we do not injure the  
axillary Vessels under the Armpit, or the crural Vessels which  
lie under the Groin, and, by that means, excite a Very dan-  
gerous Haemorrhage. The Abscess, when open'd,, is to be

treated according to the general Method of Seating Abscesses ";  
the'we ought to observe, thet a Plaister of Diachylum is of  
extraordinary Use in this Cose, aS heing extremely well adapted  
*to* the mollifying or resolving any Hardnesses or'Callosities about  
the Edges of the Ulcer. *Heister.*

ι *Gulielmus de Saliceto,* an Author whe wrote before the Ve-  
aereal ^Disease was imported from *America,* mentions a Bubo  
*propter concubitum cum iferda muliere,* This Dr. *Fresnd* does  
not think was a Venereal Bubo, because all Buboes are not  
Venereal; and both these, and Tumors, and Abscesses in any of  
the genital Organs, maybe contracted by conversing with Wo-  
men, who, without having the Leprosy, or the Venereal Dis-  
ease, are 'affected with Ulcers and Iinpostumations in those  
Parts. ' : Ο.ἰ.'ψ-

*'. Hippocrates* takes Notice of a sort of *Bubo* arising on account  
of a Suppression of the Catamenia, and coming to Suppuration,  
in his Treatise *de Natura Pueri.* He calis it φῦμα κατὰ τὸν  
βουβῶναπιένν γενόμενος. ...

**PESTILENTIAL BUBOES..**

.Pestilential Tumors are, by Professors Of Surgery, generally  
- divided into *Buboes,* and *Carbuncles,* or *Anthraces.* . Under the  
Name of *Bubo* they comprehend all inflammatory Tumors  
from a pestilential Cause, which arise not only finder the ears,  
in the Armpits, and in the Groin, but alfo in the Neck, on  
the Breast, Arms, Feet, or any other fleshy Part of the Body  
the corrupt and pestiferous Matter heing, by the Benefit of  
Nature, driven to the external Parts.

A pestilential. Bubo may be known from other Tumors, by  
its appearing commonly just at the Time of a Pestilence, and  
its being accompanied with other pestilential Signs. For it is  
to he consider’d, that the best of our later Writers; who liv’d  
in the last pestilential- Times, have assijrdd us, that Persona  
seiz’d with the Pestilence, unless they died on the Spot, were  
every-where observ'd to have an Eruption of fuch Tumors.  
This Eruption happens sometimes quicker, sometimes flower;  
for some perceive them before they are sick, or have any Sense  
of the pestilentis! Poison ; on others they appear not till the  
second, third, or fourth Day after their being seiz'd with the  
Contagion ; but they are Very rarely observ'd to come forth  
later. Sometimes these Buboes are accompany'd with a Car-  
buncle. Or Anthrax, but are more frequently without them ;  
whereas a Carbuncle Very seldom happens without a Tumor.  
. It is an old Observation, and confirm'd in the last Pestilences,  
that most of those on whom Tumors appear'd; if they were  
not attended with Very severe Symptoms, or an Accession of  
other Disorders, had the good Fortune to recover. Therefore  
our later Physicians have come into an Opinion, and not with-  
out Reason, that the principal Part of our Business in managing  
the Pestilence consists in promoting, by all imaginable means,  
the Growth *os* the Tumor, or Bubo, without the Benefit of  
which there is no Preservation of Life under the Pestilence ;  
and that the Physician, who takes a right Method of curing the  
Bubo, at the same time cures the Pestilence. This being  
granted, digesting, dissolving, or repressing Medicines, Phle-  
botomy, or Purging, are so far from conducing to the. Cure of  
the Pestilence, that, by retracting the Poison into the Blond,  
they destroy the Patient. The principal Bufiness therefore of  
the Physician, or Surgeon, in this Case, is, to assist provident  
Nature, by promoting the Expulsion of the Tumors forming  
in the Body, and reducing them as soon as possible to a Suppu-  
ration or Maturity.

For the more ready Accomplishment of this End, it is much  
the safest way for the Patient, as foon as he perceives the Erup-  
tion of a Tumor, to confine himself to his House, and avoid the  
Air, and even to hetake himself to his Bed; for, by this Me-  
thod, he may be the more successfully defended from the exter-  
nal pestiferous Air, and the Buboes, by the right Administration  
both of internal and external Remedies, he the more easily ex-  
pel'd, and brought to Suppuration.

As to external Management, it will he extremely proper to  
rub the swelling Part, with some Vehemence, both with the  
Hands, and with Linen Cloths; ‘ and, what is most effectual to  
the Purpose, after that to apply some emollient and maturating  
Remedies, to promote a speedy Eruption. A Very good Re-  
medy, in particular, is a Malagma compos'd of Ferment of  
Bread hot, alone, or mix’d with Salt and Mustard-seed bruis'd.  
By Virtue of this Medicine the constricted Parts are wonderfully  
mollisy'd and stimulated, till the pestiferous Matter, being at-  
tracted from the Blond toward the intumescent Parts, pastes  
into a Suppuration. Of the same Virtue are Cataplasms, sup-  
purative of other Tumors; especially one compos’d of Onions,;  
roasted under the Ashes, and work’d with Treacle and Butter ;  
or a Cataplasm prepar'd of the Inside of a wheaten or white  
.Loaf, and well boil’d with Milk and Saffron. There are some  
Surgeons, who, to avoid exposing the Body to the Air, because  
of the frequent Change of Cataplasms, by which Transpiration  
may he disturb'd or hinder'd, are rather for applying emollient  
Planters, particularly a Plaister of Diachylum, simple or Com-  
pound, instead of Cataplasms. .

*. Darhettd,* a very noted Physician,-in his Book of the Pedin  
lence, prescribes the following, which seems a Very good one.

- Take Plaister of Diachylum and de Mucilaginibuai each half  
. a Pound;: Mustard-seed pulveriz'd, four Ounces;. Un-  
guentum Basilicum, four Ounces :- Mix them, and make  
them into a Plaister. This must he laid -upon the swelling

- Part, which must first he well rubb’d, and renews every  
Day, or every other Day. .si:..’ ~ ..... ,

*. . - s' - . ......* e— ...... . ..»- . .

i *Hodges,* a famousEvestessi Physician, in the Description of  
that terrible Plague which rag'd at *London* in the Year 1665.  
very much commends the following.

.- Take Plaister of Oxycroceum, three Ounces; Gum Galba-  
num strain’d, and Caranna, each one Ouncecommon  
Pitch, two Drams. With Oil of Chamomile melt and  
make them into a Plaister according to Art, which must be  
applied in the same Method as the former.

Nor does that Plaister deserve to be despis'd, which consists'  
os Honey, Meal, and Yolks of Eggs. The Remedies winch  
most of the antient Physicians us'd to accelerate Suppuration,  
aS Vesicatories of Cantharides, and dry Cuppings, are almost  
wholly rejected by the Moderns, and those the most experienc'd  
Physicians in during the Pestilence.

But whet is much to be admir'd, and deserves a deeper Con-  
sideration, is, that the Very celebrated *Blent ema.* Physician to  
the Emperor, in his *Latin* Treatise of the last Pestilence, as.  
sures us that pestilential Buboes were often safely and success-  
fully resolv'd and cur’d by the bare imposition of hot Ashes.  
But tho'there, he hardly any besides this Author, whe advises  
the Resolution or Cure of Buboes in a Pestilencessit will not he  
amiss here to observe, that the pestiferous Venom was not, by  
the Resolution, repressed and repelled into the Blood , but rather  
extracted out of the BodyX by means of the hot Ashes, and  
quite subdu’d. . ...~ 'sc-.se

To these external Medicines it will be proper to add the Use  
of internal Remedies, by whose Assistance the latent Venom  
may he expel’d by gentle Sweat; but immoderately heating and  
Vehement Sudorifics have heen always found to be noxious and  
dangerous, by Physicians of later Times ; whereas supping of  
small Liquors het has heen experienc'd to have a Very good  
Effect, as heing excellently accommodated to excite a gentie  
Sweat, and to temper the Blood. Medicines of this Nature,  
among others, are Potions of Tea, min’d with a little Saffron,  
or of other alexipharmic Herbs, as Sage, Scordium, Rue, Mil-  
lefolium, or Betony ; Ptisan also, prepar’d with, or without,  
the Root Of Scorzonera, and drank hot, in order to maintain a  
Continual, but gentie Sweat. And as Vchernent Sudorifics, so  
cold Liquors are not a little dangerous; for they not only repress  
the Sweat, but, in a remarkable manner, restrain the Eruption  
and Growth of the Buboes, on whose kindly Promotion and  
Increase the Fate *of* the Patient so much depends. The Ain of  
the Chamher in which the Patient lies, must be kept in a tempe-  
rate State, neither too het, nor too cold; the Bed also must he  
kept in the same Temperament, and as commodious aS possible.  
If the Patient be weak and low, but without any remarkable  
Degree of Heat, it will, not be improper to give thirty or forty  
Drops Of Elixir Proprietatis, or the Mixtura Simplex, the Be-  
zoartic Tincture, Essence of Myrrh, Essence of Scordium,  
two or three times every Day, in some warm Liquor ; or exhi-  
bit some good Bezoartic Powder. On the contrary, for thefe  
who are os a hot Complexion, or are molested with immoderate  
Heat, nothing is more proper than Nitre depurated, with Crabs-  
eyes, and testaceous Powders, or temperate Acids, such as the  
Juices of Citrons, Currants, and Pomegranates, or the Syrup  
and Water of Borage, Bugloss, or any Other temperate and  
cooling Simple, often exhibited, instilling at the same time,  
if the Heat be Vehement, some Drops of sweet Spirit Of  
Vitriol

The Remedies above prescrib'd are of sufficient Virtue to expel  
all the Poison of the Contagion from the inward and noble Parts,  
on the Authority ofthe most learned and experienc'd Physicians,  
who have written on the late Pestilence in *Poland, Prussia, Den.,  
mark, Austria, Hungary, and Ratiston.* These, then, are to  
be frequentiy repeated, till either the Tumors are digested and  
resolved, which, they tell us, sometimes happens without Sup-  
puration, or, what more generally happens, are brought to  
Maturation." in some Cases the Tumor immediately inclines  
to Suppuration, sometimes it remains for whole Weeks, with-  
out being in the least mollisy'd. When this happens, the Use  
of the above-prescrib'd Medicines is to be continu'd till the Tu-  
mor either breaks of itself, or is open'd with the Incision-knife ;  
and the pestiferous Matter, heing thereby prohibited from re-  
turning into the Blond, is evacuated, and the Wound tho-  
roughly cleans'd.

The Abscess being open'd, we must immediately set about  
cleansing it, which being completed, the Wound must be  
heal'd by means of some Vulnerary Balsam. For the Purpose of

cleansing, we have a most noble Remedy, which is, the digest-  
ive Ointment, (Tnrpentinewith the Yolk of an 'Egg) mix'd with  
. a small Quantity of *Fenice* Treacle, and Balsam os Sulphur with

Oil ofTurpentine. At every Dressing the Pus is to he gently ab-  
sterged from the Ulcer, which is afterwards to he dress'd with  
the hesore-mention'd Ointment, but pot tented, except the Ori-  
fice he too narrow; and a Plainer-must he laid thereon , and the  
Place carefully bound up. Some of the best Plaisters in this Case  
are Diachylon, or whet is compos’d of Meal and Honey, and  
these may Very properly be apply'd till the Wound is heal’d,

As to the most convenient Time for making, the Incision,  
Physicians are not agreed. Many Authors, especially' among  
the Moderns, who have given us Precepts concerning the Pesti-  
Ience, are utterly against opening a pestilential Bubo till it he  
perfectly ripe, and thoroughly Jost. For, beside that these  
Buboes, as some have observ’d, almost constantly break os them-  
selves, there is Very great Danger,' is we may believe these Au-  
shots, lest a too hasty and precipitate Incision of a Bubo should  
he succeeded by a Fistula of a bad kind, by an Immobility of  
the Limbs, and even by a Gangrene. Others, on the contrary,  
affert that the. immediate incision of a pestilential Bubo in the  
Beginning is not only safe, but the most likely"means to pre-  
serve the Patients, find - the surest, as well as speediest, way to  
free them from the Contagion. - " ".si . . .

Tho' some of the antient Physicians have' directed the niter  
Excision of pestilential Buboes, in order to extirpate the Ve-  
nom, later Authors, for good Reasons, have been of a contrary  
Opinion. For such a Method of Cure is esteem’d not only too  
violent, but . eVen Very dangerous, especially in . some Parts os  
the Body.- ‘ : -ἐν.ἐν

‘ Thus also Cathartics and’Emetics Of ail kinds. Phlebotomy,  
and internal healing Medicines, such as a Beaoartic Tincture,  
distil'd Oiis, with het Volatile antipestilential Spirits, *Venice*Treacle, and Mithridate, are almost unanimousty rejected by  
later Physicians, tho’ former Physicians laid a great Stress upon  
them. *Heistcr Chirurg. -- :* i - ' /

**ssy VENEREAL BUBOES. - τ**

Venereal Buboes are painful, hard, renitent Tumors ofsthe  
Conglobate or Lymphatic Glands, which are situated in the  
Groins, and which tend flowly to Suppuration, arising mediate-  
ly or immediately from impure' Venereal Commerce. ‘ There-  
fore when this Species off the Venereal Disease affects either  
Male or Female immediately after inmure Embraces, or in a sew  
Days after, some or more Glands,-in either or both Groins, give  
some flight Pain in walking ; and, upon seeling them, it may  
he perceived, that they are somewhat turnery’d. . The Tumor  
increases faster or flower, and grows herd, tense, and renitent ;  
hence the Pain imthe Part increases, a Sensation of preternatural  
Heat is perceiv’d, but the Skin still retains its natural Colour;  
the Patient finds more Difficulty in walking; at length a mani-  
fest Bubo appears, which are different in Figure, as orbicular,  
oblong, or round ; sometimes of the Size of a Pigeon's Or Hen's  
Egg, sometimes as large as a Man's Fist.

Venereal Buboes admit of a threefold Distinction. I. They  
may Ke distinguish'd by the Manner in winch they make their  
Attack; for some proceed immediately and solely from impure  
Embraces, and Constitute *2D. essential* Disease; others accompany  
a Gonorrhea which is suddenly suppress'd, or has but a small Dis-  
charge ; or esse attend chancrous Ulcers of the Penis, and form  
a*fymptomaiieal* Disease; lastly, others arise spontaneoufly with-  
out any immediate previous Embraces, and constitute a Patho-  
gnomonic Sign of a latent Pox. -

2. They may be distinguish'd hy their Qualities ; for some  
are attended with great Pain, Heat, and Pulsation, and are of  
the Phlegmon kind; others have but little Heat, Pain, Pul-  
sation, and Hardness, but are rather soft, and retain the Marks  
. of the Fingers after Pressure, and are of the oedematous kind ;  
lastly, others being quite Void of Pain, Heat, and Puliation,  
are Very hard, and are call'd *scirrhous.*

3. They may he distinguish'd by their manner of terminating,  
which is Various ; for some, either spontaneoufly, or by the  
Force of the Remedies applied to them, are dispersed by De-  
mees, and disappear ; others come to Suppuration, and, after  
-Evacuation of the Pus which was collected in them, at an  
Aperture made by a Caustic or Incision, form a Cicatrix; lash.  
Iy, others, eluding the Force both of Ripeners and Emollients,  
persist in their Hardness and Renitency.

**CAUSES of VENEREAL BUBOES.**

The inguinal Glands cannot he tumefy'd after impure Em-  
braces, and indurated into a Bubo, unless the Lymph, which  
is convey'd to them from the neighbouring Parts, as to  
a common Reservoir, and ought to flow thro’ these Celis or  
Vesicles, in order to be carried off again, stagnate there, and  
be accumulated in them. But the Lymph cannot stagnate, and  
he accumulated in the inguinal Glands, unless it he thicker, ant  
more Viscid than usual. It follows, therefore, that the Lymph,  
which circulates thro' the inguinal Glands, is render'd tot

thick and Viscid by impure-Embraces,' and, by heing aectiniu-  
lured in those Glands, produces Vendrhel Buboes. \_ .

But nothing new happens to the Body from impure Embraces;  
except the simple Admission of the Venereal Infections That  
Infection, therefore, heing admitted into the Body, and blended  
with the Lymph of the inguinal Glands, renders it too Viscid  
arid think; for the producing os which Effect it is Very well  
adapted, since it is.os a salso-acid .Nature, and is, for that  
Reason, effectual in coagulating sulphureous Humoiirs, of  
which kind the Lymph is. ' . Ἀ.Ἴ

The. infectious Matter, when once receiv'd, can he conimti-  
nicated to .the inguinal Glands two ways ; the one a long and  
intricate one, that is, by the Circulation οΓ the Blood ; the  
other much shorter and more expeditious, for Instance, by the  
Lymphatic Vessels,-, which are sent to the,inguinal Glands.  
The first we reject, /asssot fit for resolving thin Question, fince  
that .being once admitted, all the conglobate Glands‘in the  
Body areoqually .liable to he affected with , the inguinal Glands,  
since they derive their Lymph from she same Mass of Blood:  
Bin this contradicts Experience. Therefore, in the preseni  
Case, we are of Opinion, that the later’Way jo only to he  
admitted. . . ' -- " ῖ

τ But since these are three Species of Buboes, as we said shove,  
consider'd With respect to the Manner in which they originally  
appear, the Diversity of she Manners imwhich they .areieon-  
tractetis deserves to he farther explain'd. - -. " \*

During the-Act or Venerea) Conimerce, the external Parts  
os the Pudendum Muliebre, together with the Vagina, are  
irrigated with *ύίϋLiquor Genitale* os the Male. Is thisj.theresore,  
should be corrupted, the Infectious Matter will be imbib'd Josh  
the spongy Substance os the Parts, and mix'd with the Lymph  
which direulates in them; but this is sent by peculiar Lyinphe-  
ducts to the. inguinal Glands. The infectious Matter, there-  
fore,.which is admitted, will he Carried with it, at the same  
time, .to those Glands.’ *i"*

In the fame manner the Pudenda Mafcula, and Pubes itself,  
will be affected, by the Communication with the other Sex.  
Therefore, is the Humours there are corrupted, the infectious  
Matter, penetrating the Pores of the Parts, will insinuate itself  
into the Lymph which flows thro' them, but this Lymph con-  
tinually flows from thence to the inguinal Glands. Therefore  
the Venereal Matter, which is mix'd with the Lymph, tends to  
the fame Parts;

./ ' In a suppressed Gonorrhea, or a Gonorrhea where the Dis-  
charge is too small, the seminary Vesicles, Cowper's Glands,  
and Testes, in Men, but, in Women, the Prostates, Cowper's  
Glands, and the Botryform Glands of the Vagina, will be .  
turgid with a corrupted Fluid. Some Particles, therefore, os  
the Virulent Humour exhaling from thence will he taken tip by  
the. refluent Lymph, which stows from those Receptacles, or  
from the Parts which lie Very near them in both Seres, and  
will be carried with it to the inguinal Glands, where they will  
produce Buboes, unless a Passage be instantly open'd, by which  
the putrid Humour, which has heen confin'd, may be dis-  
charg'd.

' After the same manner the Lymph which returns from'the  
Pudenda in either Sex, when they are affected with chancrous  
Ulcers, conveys with it several Particles of Virulent Matter,  
from’the ulcerated Parts, to the inguinal Glands, which by in-  
spiffating the Lymph, and obstructing the Glands in which it is  
contain’d, frequently occasion Buboes.

Lastly, in a latent Pox, when the Contents of the Testes,  
Prostates, Vesiculae Seminales, and Cowper's Glands, in Men,  
but, in Women, of the Prostates, Botryform Glands, and  
Cowper's Glands, is infected with the Venereal Tains, the  
Lymph of these Receptacles themselves, and of the Parts ad-  
jacent, will be so Vitiated by the .contagious Matter received  
from thence, that, being convey'd into the inguinal Glands,  
and infecting the Lymph collected there with the same Disorder,  
will produce Buboes, if the Infection has Virulency enough to  
produce such an Effect But let the Bubo arise from whatever  
Cause, either from impure Embraces, a suppressed Gonorrhea,  
chancrous Ulcers, or, lastly, fromia latent Pox, if it happens,  
that the Lymph in each Groin be equally infected with the  
Venereal Poison, a Bubo will certainly arife in each Groin ;  
but if there should be any Disparity in either Part, it will only  
happen on one Side.

This Disparity may arise from three Causes.

I. From the Disorder of the Part from whence the Poison  
is convey'd. So it appears, that the Glands of the Right or Lest  
Side receive more infection, as the Prostates, seminary Vesi-

\* cles, Cowper's Glands, or the Testes, in the Man, but the  
Prostates, Cowper's Glands, or the Botryform Glands of the  
Vagina, in the Woman, shall be more turgid with virulent Hu-  
mours on either Side, hecaufe the Lymph that returns front  
thence, and is convey'd into the Glands of the fame Side, will  
be more Virulent.

2. From the Disorder of the particular Part, to which the  
Poison is communicated. Thus it appears, that the' inguinal  
» ra]..

Glands on either Side axe more affected, as they ard.hy their  
natural Conformation mote full of Windings, more intricate,  
more cellular, in a Word, as they are less pervious, andthere-'  
fore the more easily obstructsd with inspissated Lymph. 7~...

3. From external Causes, or, asthey.term. it, from Acci-'  
dents; Thus it appears, all other Circumstances "heing alike,  
and the Glands of either Side equally infedsed'with the Poison,  
that a-Bubo maylonmised on either Side by Pressure or Contii-  
sionof either Groin; by which’ the Congestion of the irifectied  
Lymph will be promoted ; and this wifi sometimes happed by.  
only lying .on one. Side, by which means the Regress of ,the  
Lymph is rendered flower,'and more difficult, the Declivity of  
its Passage heing diminished. , '.6 *‘ so’.J*

**SYMPTOMS** *attending* **VENEREAL EUBoES. .:i i-th -**

**i.** The Lymph whiith, is concey’dinto the inguinal" Glands,  
heing inspiflated by; the’ Venereal Poison,' will he inclin'd to  
stagnate there, from the Multiollcity of Windings and Celis  
whrehtO'mmunicate with each other,'whichwill he so many  
Gbstsicies to its Discharge, Frosh hence, therefore, in the  
Beginning of the Disease, will arise a- sinall Tumor of the Ina  
guinal Glands, *s'-- '.Also*- t 2. The Glands of the Groin cannot swell, without heing  
upon the Stretch ; nor can they suffer Distention .without  
Pain, more or less, according to the:Degree' of the Tuniori  
Hence, therefore, upon .the Increase of the Bubo, Pain will  
arise in the inguinal Glands., ' / - ..

3; It is impossible to walk, unless the Muscles of the' Leg  
and Thigh pull them forward ; but .these Muscles cannot ahi  
without pressing upon she tumefy Ἀ Glands of the Groin, and,  
by this Pressure, Pain will be excited. The Action of Walk-  
ing, therefore, cannot be perform’d without raising Pain in the  
Venereal Bubo.

. 4. The Glands of the Groin, being once obstnicied, will  
dally be more and more fwell’d by the continual Accession of  
fresh Lymph, till, at last, the-Force with which the Glands  
resist farther Dilatation, will be equal to the Force with which  
the fresh Lymph is impel’d. Therefore the Bubo will dally  
Increase, grow harder, and, becoming prominent, tend to a  
Point, 5 extending itself obliquely, according to the Situation of  
the inguinal Glands; more or less, however, in proportion to  
the Magnitude and Extensibility of these Glands, and the dif-  
ferent Impulse of the Lymphi which arrives at the Pars.

- 5. Upon the Increase of the Bubo, the Blood-vessels which  
creep thro’ the Middle of the Substance of the indurated Gland,  
must necessarily be compressed. But the'Bloed which stows  
thro’ thefe compressed Vessels, must 'stagnate and he retarded  
. in them, and, by that means, increafe the Heat of the Part,  
till it has found itself a Passage. Hence, therefore, the Heat  
of the Bubo will increase.

- 6. But if the Tumor of the Gland increases exceedingly fast,  
and suddenly restrains the Course of the Blood ; if the Pulsation  
of the Arteries is very strong, from the natural Make of the  
Body, or from a Fever coming on ; lastly. If the Blood, being  
naturally-hot, rarefies much; several sinall Drops of Blood will  
force their Way into the lateral Lymphatic Vessels, from whence  
**a** new Circulation of the Blood, deviating from its Course,  
being begun, the Bubo will increase in Heat, Pain, Puliation,  
’ and Resistance; in a Word, will become a true Phlegmon.

7. But because the Blood-vessels of the Skin, which is **free**from any Disorder, are not at all, or very little, streighten’d, the  
Blood flows there as usual, and the Skin is not at all inflamed,  
and scarcely changes its Colour, but preserves that which is ria-  
tural to it, or assumes one'very little different from it.

. 8. If the. Tumor increases stowly, if the Pulsation of the  
Arteries is flow and weak, if the Blood of the Panent is natu-  
rally aqueous, and inclin’d to Diflolution, the Blood will'be  
driven languidly and slowly into the Vesseis of the obstructsd  
Gland, and in them it will flow still flower, and therefore  
will he less restrain’d ; it will not stagnate, therefore, or will  
stagnate very little, in the neighbouring Vessels; and therefore  
will bring on hut a moderate Degree of Heat and Pain, and a  
weak Pulsation of the Arteries ; but it will, by Degrees, so di-  
late the Pasiages theo’which it passes, that the Streightness which  
was brought on upon the external Parts, will give very little  
Trouble ; or it will open itself a new Passage into the intend  
Vesseis, leaving only its thinner Serous or lymphatic Parts  
with which it abounds, in the Substance of the Humour.  
Hence therefore thc Bubo in rhe inguinal - Glands will be  
attended with moderate Heat, Pain, and Pulsation; and,  
being soft, at least externally, will easily receive and retain the  
Erint of the Finger upon Pressure; ina Word, it will become  
oedernatous.

9. Lastly, if the Blond is more thick, and inclin’d to Dry-  
ness, and secretes a thick and less fluid Lymph; if thet Lymph  
is collected very stowly in the inguinal Glands, the Bubo which  
arises from thence will be scirrhous, that, is, hard and renitent,  
hecause it is occasion'd by a Collection, of. very thick Lymph,  
indurated by Length of Time ; it has neither Heat, Pain, or

Russatiori, ha it is attended, **with no** Stagnationof ameJstood j  
hecaufe, as the Colloftion of Lymph in the Glands was sonn’d  
very, slowly,, the neighbouring Vesseis were compressed in pro-  
portions by which means the more remote Vessels, with which  
they communicated, were dilated, by Degrees, sufficiently to  
keep a free Passage open. \_ . TV.ss\_\_.dur. - .. . -..

i To. The Bubo of the Phlegronn'kendintat, be easily and per-  
fectiy resolv’d ; for-the Blond, by whose Stagnation it is prin-  
cipally broughtain, is easily restor’d to its natural Fluidity  
but theTiyinph which is retain’d in the obstructed Glands, pre-  
serves Its Fluidity, and is strongly urged on to a circulatory  
Motion,, by the intense Heat, and violent Vibrations, of the  
Arteries, which are proper, to this kind of Buholiand there-  
fore it is the more easy io be resolv’d. - . . . τ . V,, ?. „ , -  
II. But is it sices not resolve, it. is , on the same Account,  
not difficult to be brought to Suppuration ; for the Blood, by  
whose Stagnasion it is principally supported, is naturally sub-  
jeol to Putrefaction ; the Lymph, with which the Glands  
are stuffed, is easily disposed Io,.Suppuration, by the' violent  
Heat, anssby the Pulsation, of.the Arteries with which it is  
agitated.. V'.. SY .. *-i. "'"so. /. :- ἐν*

I2. The oedematous Bubo is, indeed, easily resolv'd, as  
far as it relates to the thin Serum which fills the Vessels which  
surround the Tomor, becailse st is easily'restor’d, by thelym-  
phatic Ducts, to its usual Course of Circulation;, but it is im-  
perfectiy resolv'd, because the thick Lymph coliectid in the  
Celis of the Glands not being supplied with a Degree of Heat  
sufficient μτrender it fluid,, and not being agitated by the Vi-  
brations of the Arteries, which would urge it forward, both  
of which natural Assistances are wanting in this kind of Bubo,,  
it is very difficult to he entirely resolv’d,, on which Account a  
hard Nucleus always remains. ’ ~ ----- ....

I3. For the fame ReaIon also, it is not easily brought **to**Suppuration, hecause the infpissated Lymph, both from its na-  
tural want of saline and active Parts, and from the Defeci of  
an intense Heard by which it might be render’d fluid, and of  
the Vibrations of the Arteries by which it might be divided, is  
very unfit to form a Suppuration.

.. I4. Lastly, The scirrhous Bubo is. never either resolv’d, **mr**suppurated, without great Difficulty, but generally grows daily  
harder; as well because the, Lymph which stagnates in the  
Cells of the Glands, is thicker and more vifcid, as becaufe the  
preternatural Heat and Vibration of the Arteries are wantiog,  
by which it might be brought to Resolution or suppuration.

**DIAGNosTICs** *and* **PROGNosTIcs** *relative ta* **VENEREAL  
BUBoEs; χ**

Venereal Buboes agree with simple, pestilential, scorbutic,  
and strumous Buboes, with respects to their Situation and Fi-  
gure ; bur are distinguishable frorn them by peculiar Marks;  
I." From simple and pestilential Buboes, , because in these the  
Skin is red and inflamed, different from what it is in the Ve-  
nereal Bubo. 2. From strumous and scothutical, because from  
the known State of the Patient manifest Signs of strumous or  
scorbutical Disorders are collested. 3. But they are most cer-  
tainly distinguished from all others by the Relation of the Pa-  
trents, who confess, that they have been guilty of unclean or  
suspeoled Venery ; or that they are affectid with a Gonor-  
rhea, orchencrous Ulcers..’: .

Venereal Buboes bear no very small Resemblance to the Bu-  
bonocele, or inguinal Hernia ; yet we have known them forne-  
times confounded with it, not with that kind of Bubonocele  
which is occasioned by the falling down of the Omentum,  
and is called Epsploccle, in which the Tumor is foster, but  
with that which is occasioned by the Intestine, and is called  
Enterocele, in which there is: greater Resistance, and is for  
thet Reason more like a Bubo ; but it cannot readily be mis-  
taken for thet Species os Enterocele, in which the Intestine  
slips through the oblique Rings of the Epigastric Muscles, he-  
cause the Place in which the intestine falis down, and where  
the Tumor is raised, is at a Distance from the Inguinal Glands,  
and of Consequence *from* the Venereal Bubo ; but it may be  
confounded with that Enterocele, in which the intestine, falls  
.into the Groin through the Foramen in the Peritonaeum,  
through which the crural Vessels pass, which in them Situation  
differ not much from that of the Inguinal Glands, or Buboes.

But a Bubo may be easily distinguished from an Enterocele  
Of any kind, by the following Signs. ... ...... ...

I. In the Enterocele the Tumor is smooth upon the Super.  
sicies, and pretty nearly of a spherical Figure ; the Superficies  
is pretty broad, but the Basis stender, equal to the Sine of the  
Foramen, from whence the Intestine is fallen, and adheres to  
the Groin, as it were by a Stalk: the Bubo, on the other  
Hand, has an unequal Superficies, and is generally of an. oh-  
long Figure, and has a wide expanded Basis.

2. In the Enterocele the Tumor easily yields upon Pressure,  
but, upon taking off the Finger, it instantly recovers itself:  
on the contrary, the Bubo resists Pressure, as the Bubo of the  
Phiegnlon and scirrhous kind; or, if it yields to Pressure, it **re-**

tains the Print of **the** Body impressed upon it, as the oedema-  
matous'and suppurated Bubo.

3. In the Enterocele it appears by Its giving Way to Pres-  
sure, and easily rising again, that either Flatuses alone, or  
.'mixed with a liquid Matter, are the Contents of the Tumor:  
But in the Bubo no Flatulency is to he discover'd; or if by any  
' obscure Fluctuation it shall be discover'd, that any Fluid is  
contained therein, it is but in a very small Quantity, and lies  
deep, and is'only contained in the Middle of the Tumor, as  
it happens in the suppurated Bubo.

4. The Enterocele brings on Very had Symptoms, as Fever,  
colical Pains, total Astrictions of the Bowels, Vomiting of the  
intestinal Feces upwards, and Iliac Passion, which never at-  
tend the Bubo. Besides, it is an exceedingly rare Thing, that  
the Use of impure or suspected Venery, by which the Bubo  
is produced, shall so aptly coincide with a Fall from on high,  
a Blow, upon the Belly, or Violent Motion, by which the  
Enterocele is brought on, that it shall make it a Doubt of  
which kind theTumor of the Groin is, and to which Cause  
it ought to be ascribed. ' ' si

AS soon as eVer it appears, that there is a Venereal Bubo,  
it is easy enough to find out the Differences by which it is di-  
stinguish'd, by the Signa which we have laid down in its De-  
scription. For if theTumor is intensely hot, painful, has a  
Pulsation in it, and resists pressure, it is a Bubo of the Phleg-  
mon kind ; but . if the Heat, .Pain, Pulsation, and Resistance  
are in a moderate Degree, or if it is os a softer Nature, and  
‘ retains the Print of the Finger impressed upon it, it is cede-  
matous ; lastly, if it is hard, makes great Resistance to Pres-  
sure, is quite free from Heat, Pain, or Pulsation, it is mani-  
fest, that it is a Bubo of the scirrhous kind.

Lastly, The Causes' of Venereal Buboes are to he inquir’d  
into, either from the Relation of the Patient, or from the  
Knowledge os what has preceded ; from whence it will ap-  
peas, whether the Venereal Infection was communicated to  
the Inguinal Glands immediately by impure Coition, or by  
the Suppression of a Gonorrhea, or by chancrons Ulcers of  
the Penis, or from a latent Pox.\*

As to the Prognostics, the Venereal Bubo, if it is treated  
with Caution, is attended with tho Danger ; it is, however, a  
Very troublesome Disorder, since it always requires a tedious  
Method of Cure, and oftentimes a Chisurgical Operation.

A Bubo may nevertheless be accounted dangerous on this  
Account, that it frequentiy brings on the Pox, unless the  
Poison’ that it receives is evacuated by Suppuration, or repeat-  
ed Purging, and the Relicts, if any such should remain in **the**Blood, are diligently corrected by specific Remedies. But  
there is less Danger of the Ροχ to be apprchended from **the**Bubo which' arises from impure Embraces, or from a sup-  
pressed Gonorrhea, or from Ulcers of the Penis, than from  
rhe Bubo which arises without any present manifest Couse ;  
for the first arises from the Infection, which is just admitted,  
and which, as it has not been communicated to the Blood,  
may be discharg'd or cojrected ; but the latter depends upon  
the Infection which has been already conceal’d a long time in  
the Blood, and therefore has throughly tainted it.

- The Bubo of the Phegmon kind admits of a much more  
easy Cure, than that os the cedematous, or of the scirrhous  
kind , for aS the first may be easily resolv'd, or brought to  
Suppuration, it in either way, by observing proper Cautions,  
quickly admits of a perfect Cure: but the latter frequentiy  
ends in a truly scirrhous Tumor, which for a considerable time  
eludes the Force os all Remedies, and at length frequentiy de-  
generates into a cancerous Nature.

**\_. CURE.**

The Cure of the Venereal Bubo may he undertook in three  
.Cases. I. Ise it has come on without any manifest Cause.

2. If it is accompanied with a virulent Gonorrhea, or chan-  
crous Ulcers of the Penis. 3. If it is unattended with any  
other Disorder, and arises immediately after impure Embraces.

In the first Case, when the Bubo is an Evidence ofi a la-  
tent Pox, it is proper without Delay to heVe recourse to Mer-  
curial Unction, by which both the Bubo, and the Pox, by  
which it is occasion’d, may he perfectly cured. But, if the  
Patient cannot, or will nos, make use of this salutary Advice,  
you may try other specific Remedies, according to the Me-  
thods laid down- below, cautioning the Patient, as it is the  
Duty of every ingenuous Physician, that by this Method the  
Disease will not have a complete, hut a palliative Cure  
only.

. In the second Case, the same Remedies in like manner are  
to be applied aster the same Methods, but joined with others  
which may be proper for rhe Gonorrhea or Ulcers, in such a  
.manner, that by the Joint Force of the Remedies both Dis-  
. orders may be perfectly cured at the same time.

. Lastly, in the third Cafe, (which, as it is the most simple,  
may be a Rule sor the rest) the utmost Endeavours should he  
used to destroy or discharge the Infection which is just ad-  
mitted; and, is any Relidfe remain in the Bloed- which may

renew or bring on the Pox, they should be diligently cor-  
rected.

Custom has established two Methods, by which all these  
Effects are equally produced ; one by which Venereal Buboes  
are cured without Suppuration, or any Application of ripen-  
ing Medicines, that is, only by the Use of Mercurials and  
Cathartics, till the Tumor, being dispersed, disappears by De-  
grees. ... .

The other consists in curing Buboes hy Suppuration, which  
is promoted by the Application of ripening Topics to the Part,  
and is so united with the internal Use os Mercurials, that the  
morbid Infection is by both destroyed.

The first Method requires no Operation to he perform'd, is  
shorter, free from Pain, -and equally safe, and therefore, in  
the Judgment of many, seems preferable to the other. But  
at the same time it has this inconvenience, that the Patient must  
he confin'd to his Chamber, during the whole Time of the  
Cure, if he would avoid the Danger he may incur from the  
Coldness of the Air. The later Method generally takes up  
more Time, is Very tedious, and, as it requires the Performance  
of an Operation, is painful; but, as it generally permits the  
Patient to follow his usual Business, it is not yet quite neg-  
lected; but sometimes things come to that Height of themselves,  
when the Suppuration is once begun, that the Physician is ob-  
liged to follow this Method, though it be ever so much against  
his Will. Therefore, lest I should seem guilty of an Omission,  
I shall defcrihe both Methods, but as briefly aS I can.

I. Therefore first according to the former Method.

I. In the Beginning vou should bleed, that the Glands may  
be unloaded, and the inflammation of them prevented. Tho  
Blood should he drawn freely, if the Bubo is of the Phlegmon  
kind; but Very sparingly, tf it is cedematous, or scirrhous.  
Therefore the Practice of the old Authors is not to he regarded  
in this Cafe, who, led by Prejudice, which Experience proves  
to be false, were afraid os opening a Vein in curing a Bubo,  
as if the Infection would by this means be thrown into the  
Blood, and produce a Pox.

2. After this, the Patient should he purged, hath that the  
Way may be prepared for the Use of other Remedies and that  
Part of the infectious Matter may he carried off \* Mild and  
Cooling Purges should he Prescribed, if the Bubo is attended  
with Inflammation. These may consist of the Pulp of *Cassia,*Decoction of Tamarinds, some purgative Salt, with a mode-  
rate Dose of *Mcrcurius Dulcis,* or *Calomel.* Proper Formulae of  
this kind are these following.

Take fifteen Gsains os well prepar’d *Mercurius Dulcis,*and of the Pulp of *Cassia* newly extracted, one Ounce ;  
mix up into a Bolus, to he taken with an empty Sto-  
mach. Or,

Take Of Tamarinds, one Ounce and a half; and of Vege-  
table Salt, one Drain. Boil them in a Pound and an half  
of common Water. Let the Liquor, when strain'd, be di-  
Vided into two Doses, to be taken at three Hours Di-  
stance from each other, having first swallow'd a Bolus, .  
consisting of fifteen Grains of *Mcrcurius Dulcis,* mix’d  
up with a proper Quantity of Conserve of Roses.

But stronger Purges should he Order'd, if the Bubo should  
he cedematous or scirrhous. These may consist of Jalap,  
Diagrydium, large Doses of Calomel, adding also, if neces-  
sary, the *Trochisci alhandal.* Proper Formulae for answering  
this Intention are these following. .

Take of Calomel, twenty Grains; of Jalap, and sulphurated  
Diagrydium, each twelve Grains. Make up into a Bolus,  
with a sufficient Quantity os Conserve Os Roses. Or,

Take os Calomel, twenty Grains, Or one Scruple; os sul-  
phurated Diagrydium, ten Grains; os the *Trochisci asu  
scandal,* sour Grains; and os the Oil of Anife, three  
Drops. Make up into a Bolus, with a sufficient Quan-  
tity of Conserve of Roses.

3. Mercurial Preparations, which have no purging Quality in  
them, are now to he prescribed, because they continuo longer in  
the Blond, and have greater Efficacy in throwing oubrthe Vene-  
real Taint. Of this kind are.

The Mercurial Panacea sublim'd twelve times ; the Mercu-  
rius Violaceus, or Antimonial Flowers of Mercury well  
wash’d; yEthiops Mineral, either triturated with Mer-  
cury and Sulphur, or prepar'd by Ignition; or, which  
is still better, the other .dEthiops Mineral, triturated with  
*Peruvian* Balsam, or that of *Canada.* The Dose of  
these is from fifteen to twenty or thirty Grains, which,  
.being mixed with Conserve of Rosies, may he taken  
twice every Day, Morning and Evening, or only once

every Day, or every other Day, as it shall have a quick-  
er or flower Effect, persisting in this Methnd, till the  
Gums begin to swell, the Mouth grows hot, and a Ptya-  
lism seems to he coming onl

*An But then,* as soon as a Ptyalism is apprehended, yoti must  
immediately have recourse to Purging, aster the manner we  
just now prescribed, that Part of the morbid Venereal Taint may  
be carried downwards, which otherwise would be discharged by  
the Salival Glands. That this may succeed the better, you  
must entirely abstain for some time from the Use of Mercurials,  
and rest till all is quiet again ; if it shall seem proper, the  
Purging should he frequently repeated, that the Salivation may  
he the more powerfully restrain’d.

5. The Tendency towards a Salivation heing ejiilte res  
mov'd, you must return to the Use of Mercurials aster **the**same Method, and the Ptyalism is to he again provok'd, which,  
as soon aS it appears, is to he again restrain'd, aS before, by  
repeated Purging, and refraining from the Use of Mercurials ;  
repeating this Course alternately till the Bubo, being dispersed,  
by Degrees disappears.

6. Emollient and resolving Topics conduce much to this  
End, as the *Emplastrum de Ranis,* either with or without  
Mercury; the *Emplastrum de Mucilaginibus,* and the *Empla-  
strum de'Spcrrnate Ceti,* or, which are still more powerful;  
gentie Unctions of the Buboes and Groins, with mercurial  
Ointment, from one Scruple to half a Dram daily, or every  
other Day, or every third Day, aS it shall seem requisite,  
or as the Danger os a Ptyalism is greater or less. For by this  
means the Lymph, which from its Thickness stagnates in the  
Inguinal Glands, is render'd more fluid, and is therefore more  
easily dispersed.

7. It has been the Practice for forne time, to lay aside the  
internal Use of Mercurials, which load the Stomach, or Vi-  
tiate the Blood, and in their room to order external Inuncti-  
**ons** with the mercurial Ointment, from half a Dram to one  
Dram, upon the Nates and Inguina, sometimes every other  
Day, sometimes upon every third Day, according to the dif-  
ferent Degree of the Disease, and the different Effects that  
are produced. But upon the first Signs Of a Salivation coming  
On, you must not only abstain from farther Use of the Oint-  
ment, bur the Patient must he instantly purged, that the Mat-  
. ter may he diverted downwards, as we have Observ'd above.  
But the Hurry being over, the Frictions are to he repeated,  
and **the** Salivation taken down again upon its first Appear-  
ance, proceeding in this manner till the Bubo is perfectly di-  
spersed.

8. .There is no manner of Danger from this Method, that  
the Venereal Infection should he sent into the Blood with the  
refluent Lymph, and produce a Pox; because the Poison  
which is again mixed with the Blood, is corrected by the  
Power of the Mercury, and therefore has lost its Virulence;  
and because, although it should retain its Virulence, it does  
not remain long enough in the Blood to infect it, since it is  
carried off by pinging Medicines, as fast as it is sent into the  
Bleed.

9. During this whole Course of Cure, the Patient is to he  
confin'd to his Chamber; otherwise there would he Danger,  
lest the cutaneous and salivary Glands heing suddenly contract-  
ed by the Coldness of the Air, and by that means Perspira-  
tion and Spitting being suppressed, the Thorax or Brain would  
he in Danger of heing loaded.

Io. A thin, diluting, moist Diet should be prescribed, of  
Puddings,. Panadas, Creams of Rice, Jessies, Broths, and at  
most poached Eggs, forbidding, or very sparingly admittingof,  
. the Use os Flesh, though it he ever so young or light, as Pul-  
lets or Chickens. Lastly, Care should he taken, that the Patient  
should abstain from Venery, Exercise, Passions of the Mind,  
and especially from Wine, and drink plentifully of Ptisan,  
that the Particles os Mercury may have the freer Admittance in-  
to the Blood, and have the greater Power to divide the inspis-  
' sated Lymph.

IL Hitherto we have treated of the first Method; but if the  
Patient shall he better pleased with the other Method, as not  
being able to absent himself fo long from Business as the for-  
mer Method requires, or if the Physician shall find, as soon as  
he is called, that the Matter in the Bubo is tending to Suppu-  
ration, the later Methnd may **be** prosecuted in **the** following  
manner.

X. Universals should be premised, that is. Bleeding and  
Purging, with. the same Cautions that we have already laid  
down.

2. Then, during the whole Course of Cure, mercurial Pre-  
parations should be order'd, which aro free from any purging  
Faculty, in a smaller Dose, and at longer Intervals, than in the  
former Method, but rn a sufficient Dose to destroy the Vene-  
real Poison. But if a Ptyalism should be threaten’d by this  
Method, it should betaken down by Purging, as we advised  
before.

3. Topical Applications are at the fame time th he made use  
Of, by which the Matter of the Tumor may he soften’d, and  
brought to Suppuration. The following Cataplasms are Very  
serviceable to this End.

\_ Take two Ounces of Onions roasted under the Ashes, of  
black Soap, and Diachylon with the Gums, each an  
Ounce and a half; and os Basilicon, an Ounce: Beat all  
together in a Marble Mortar for a Cataplasm. Or,

Take of the Roots of Marsh mallows. Bryony, and white  
Lily, each an Ounce; cut them all downs, and boil them.  
Add of the Leaves of Mallows and Brank-ursine, each  
one Handful; boil all to a kind of Mucilage, and let  
them he bruised in a Mortar, and passed through a fine  
Sieve. To the Pulp thus passed through, add os old Lea-  
ven arid .Basiliconὸ each half an Ounce, or an Ounce ;  
one white Onion roasted under the Ashes, and Oil of  
Lilies, a sufficient Quantity. Make up into a Cataplasm  
to he applied to the Part affected, and. to be frequently  
renew'd, ,

4. In the room os Cataplasms you may order ripening Plai-  
stere, which adhere to the Part, and are therefore more conve-  
niently carried aheut. Of these the best are.

Simple Diachylum, Diachylum wish the Gums, or that  
which is mix'd up with Galbanum, Guin Ammoniac,  
Sagapenum, and Opopanax, Diachylum diluted with the  
Oiis of Galbanum and Ammoniac, Diachylum mix'd  
with an equal Quantity of black Soap, and common Pitch  
mix'd with an equal Quantity of Burgundy-pitch.

5. Though it should appear by certain Signs, that Matter  
is found in the Bubo, yet you are not too hastily to open this  
Buhe, but should wait for some time, till the greatest Part os  
the Buhe is suppurated, that by this means the callous Parts of  
the Buhe being destroy'd, the Cure may be perfected with the  
greater Ease and Safety. .

6. The suppurated Bubo may he laid Open two different  
ways, either with an Incifion-knise, Or by the potential Cau-  
tery : If the former way is made use of, the Incision should  
be deep ; if the Buhe is small, one Wound will he sufficient;  
but if it is large, two Incisions should be made in the Form of  
a Cross, the Corners of which should he taken off with the  
SeifiorS. If you chuse the latter way, the Buhe, according  
to its Size should have a large Eschar made upon it with the  
Caustic, guarded hy a proper Plaister, which if it does not  
penetrate as sar as the Abscess, another Caustic should he laid  
On, or whet remains should he cut through.

7. It is plain, that, in laying open a Bubo, the Ufe of the  
Caustic is preferable to Incision, both because the Caustic makes  
a larger Opening, by which means it is easier to inspect and  
dress the internal Parts of the Buhe; and more particularly he-  
cause ‘the Caustic, hyssts Catharetic Faculty, destroys the cal-  
lous Bodies, and harder Parts of the Glands; by winch means  
the Suppuration, Detersion, and Union Of the Ulcer, are **the**more happisy brought On.

8. The Pus heing discharged, the Cavity of the Buhe is to  
he instantly silled up with dry. Lint; which being removed the  
next Day, the Wound is to he dressed with common Digestive,  
prepared of Turpentine, the Yolk os an Egg, and Oil of St.  
John'S-wort; to which, if the Fouiness of the Ulcer shall re-  
quire it, you may add some Of the Unguentum .ZEgyptiacum,  
Or Tincture of Myrrh and Aloes. Lastly, the Suppuration  
going on, the Ulcer may he Cured with the liniment of  
*Arcaus.*

9. As soon as ever the Inflammation shall he remov'd by the  
Suppuration, the Cavity Of the Ulcer should be diligently  
examined; and if any Sinuses should he discovered, they must  
he laid open by Incision, if possible; or at least dilated in such a \*  
manner, that they may easily he deterged and healed. But if  
any callous Bodies remain, as is commonly the Case, they are  
to he consumed by Degrees with corrosive Medicines, as some  
Caustic Powder sprinkled upon a Pledget, or red Precipitate  
mix'd with Basilicon.

Io. Lastly, the hard Basis of the Buhe should he softened and  
relaxed by the repeated Use of a mercurial Ointment; the Flesh  
with winch the Ulcer is filled, should he made firm with the  
*Balsamum Viride Metenstum.* If it is too luxuriant, it should he  
taken down by Dressings of dry Lint, or burnt Alum. At  
length the Tumor of the Glands being quite subsided, **the**divided Parts are to he united.

II. During this whole Course of Cure the Patient has fewer  
Restraints laid upon him, as to his manner of Living, than in  
the former Meshed, unless a Fever should come on at the time  
of Suppuration in this Case it will be necessary to forbid the  
Patient the Use of Meat for some few Days. Nevertheless it  
will be proper to abstain from Wine, Venery, Exercise, Salt,  
Or high-season'd Meats *3* and he should be cautious of exposing

himself to the Lnclemency of the Ain, especially as long as he  
takes mercurial Preparations.

From what has heen said, it will he juo hard Talk to solve  
the following Problems :

I. Whether Venereal Buboes arise in any other Parts besides  
the Groin Γ

It appears by Experience, that Venereal Buboes, or Tu-  
mors os the same Kind, sometimes appear in the Axillae, the  
Throat, or upon the Sides of the lower Jaw, which are Very  
like the Inguinal Buboes, come on in the same manner, take,  
the same Course, and are cured by the same Remedies.

2. From what Cause should Venereal Buboes arise in those  
Parts?

From a twofold Cause, as we just now said of the Inguinal  
Buboes: (i). From an old Venereal Insection, which in the  
Pox insects and inspissates the Lymph ; by winch means there  
will be an easy Descent upon these Glands, whenever the  
external Cold, a Blow, Attrition, or strong Pressure, shall  
afford an Occasion. f2). From the Venereal Insection just  
admitted, which being absorbed in certain Parts, is carried  
with the refluent Lymph into the Glands, to which thet Lymph  
is determined by the Laws of the Circulation.. So Nurses who  
are infected by the Infants which they suckle, have most fre-  
quentiy Buboes either in the conglobate Glands, which are situ-  
ated at the Basis of, their Breasts, to which the Lymph fust  
flows; or else in the Axillary Glands, to which it is afterwards  
carried. So Children which receive the Infection from their  
Nurses, or the Lover who receives it from his Mistress, or the  
Mistress from her Lover, by kissing, are subject to Buboes in  
the Maxillary or Jugular Glands ; whence the Lymph is con-  
veyed that returns from the Tongue, Cheeks, and Gums, and  
from the internal Parts of the Mouth, into winch the fust Par-  
ticles of Infection penetrate, blended with Milk or Saliva.  
‘ 3. How are these Buboes cured ?

After the fame Method by which the Inguinal Buboes them-  
selves are cured, since they agree with them in all Points.  
Therefore by Bleeding, Purging, and Mercurial Unctions,  
they are to he dispersed, if possible ; but if these Methods do.  
not answer the defined End, they are to he brought to Suppu-  
ration, laid open, deterged, and cicatrized, according to Art,  
as we have advised above.

4. Do Venereal Buboes ever arise in the internal Lymphatic  
Glands ?

I never Observed any Venereal Buboes of this Kind myself,  
nor do I remember to have read of any one that ever did observe  
them. But it is common enough for hard and scirrhous Tuber-  
cles to he sound in the Lungs of pocky Persons; and hard scir-  
rhous Obstructions in the Mesenteric Glands, which if they  
do not go off in the same manner with Buboes, yet they ac-  
knowledge the same Cause.

5. Whence arises this Difference, fince, on the Other hand,  
in the Pex, the morbific Matter being equally mixed with the  
whole Mass of Blood, and in the same manner with all the  
Lymph, ought to produce the same Disorder in each of the  
Glands ?

Perhaps, from hence ; because as the internal Lymphatic  
Glands are situated in Places that abound constantiy with a great  
deal of Heat, the native Fluidity of the Lymph is the more  
easily preserved in them. Thence a Stagnation of the Lymph  
must be an uncommon Cafe in them; and if it should by  
chance happen, it will he less, make a flower Progress, and he  
more easily dispersed, than in the external Glands, which are  
subject to the Coldness of the Air., Besides, the internal Glands  
are guarded from Blows, Attrition, and Pressure, by which the  
Lymph is frequently invited to stagnate in the external  
Glands.

6. Lastly, whether Venereal Buboes are formed in Catamites  
and Pathics; and if they are produced by this means, in what  
Parts is it usual for them to appear ?

*As to* the first Question, I never observed myself, nor did **I**ever meet with any one that eVer observed Buboes upon Cata-  
mites, which could certainly he determined to arise from the  
Infection just contracted: For I do not imagine, that there are  
any Catamites who are so fond of playing thePathic, that they  
never attempt to play the Agent ; but it is enough to heve once  
played the Virile Part, to make it Matter of doubt whence the  
Bubo arises, is it shall follow this Action.

As to the later Question, I scarcely believe, that the Bu-  
boes which are formed in Catamites, if such do ever proceed  
from unnatural Venery, sail upon the Inguinal Glands, to  
which Parts the Lymph is never carried, or at least in exceed-  
ing small Quantities, from the Extremity of the Rectum, and  
the neighbouring Parts os the Anus; but they will rather arise  
in those Lymphatic Glands, which are situated ini the Cavity  
os the Abdomen, near the Division of the descending Aorta, to  
which Glands the Lymph of these Parts is carried: And this,  
perhaps, is the Occasion that Buboes of this Kind are never, or  
Very rarely, produced ; because as these Glands are situated in  
the Cavity os the Abdomen, the Heat of the neighbouring Parts  
resists the Inspissation of the Lymph, aS was just now Observed,

But let not these Wretches congratulate themselves upon *this*Account, fince, besides many Very grievous Disorders, which are  
peculiar to their filthy Vice, they are intitled to Buboes of aS  
bad, if not of a worse Kind, than inguinal Buboes ; *for* it fre-  
quentiy happens in them, that the Lymph, winch returns from  
the Extremity of the Rectum, and the Pans near the Anus,  
heing inspissated by poisonous Panicles, enlarges, distends, and  
swells the Lymphatic Glands, which are Very fmall, but situated  
in great Numbers in the Fat about the Podex; whence arises at  
kind of an annular Bubo, with which the Podex is incircled,  
attended with Heat, Redness, Hardness, and excessive Pain,  
especially at the Time of the Excretion of the Foeces. This is  
to he cured with the same Remedies, and treated aster the'  
same manner, with the Inguinal Venereal Buboes.

Thus sor Mr. *Astruc.* But with respect to the Cure os Ve-  
nereal Buboes, I must remark, that the: Method of Cure by  
Suppuration is preferable on all Accounts to that by Resolution  
for the former is much less Trouble to the Patiens, supposing  
the Cure by both Methods to he perfected ; and not by far so  
subject to he followed by other Venereal Symptoms, and those  
of the Very worst Kind, which I have seldom fail'd to see con-  
sequent to the Resolution of a Venereal Bubo.

Histor, I am sensible, is of a different Opinion ; hut I am  
inclined to believe, thet the general Practice of those most con-  
cern'd in Venereal Cases will determine it against him. I he-  
sieve, however, that it is possible to cure a Venereal Bubo by  
Resolution ; but with less Ease and Safety. But as *Heister* is an..  
Author of Reputation, I shall specify the particular Method of  
Cure, which he recommends, as follows.

As to the Cure, there are many Physicians who will not ad-  
mit of resolving this any. more than a pestilential Bubo ; for by  
such a Method the Venereal Venom, contrary to the Intention,  
of Nature, would return into the Veins, and, by infecting the  
Blood, excite a Lues Venerea. For the same Reason they *for..*bid the Use of Cathartics and Phlebotomy ; and direct a Suppu-  
ration to be forwarded as much aS possible. But, sor my part,  
though with due Respect to these Authors, I am for a different  
Way of Proceeding ; for fince the Method by Suppuration is  
not only very flow and tedious, but subjected to several other  
InconVeniencies, it is much the hetter and safer Way, as I heve  
often found by Experience, to begin immediately.with Purging,  
and other Mercurial Medicines, and Purifiers os the Blond, fuch  
as Decoctions of the Woods, and other things os the like Na-  
ture. By these means the Venom is expefl'd by a far more  
expeditious Way than by the Method of Suppuration ; and **the**Tumors themselves may also he resolv'd without Fear or Dan-  
ger of the Lues Venerea, or any other Distemper.

Whether, therefore, the Buboes he attended with a Gonor-  
rhoea, or not, the most proper Way,' certainly, is to purge  
the Patient with large and frequent Doses of Mercurius dulcis,  
as is usual in a Gonorrhoea; sor the internal Cure of a Gonor-  
rhoea is usually the Cure of the Buboes, which can never he  
perfectly healed hefore the Venereal Poison be quite expelled  
from the Body. If there he a considerable Inflammation, it will  
he necestary, especially if the Patient he young, and os a san-  
guine Constitution, to take away some Blood, and afterwards  
administer some mercurial Cathartics, with Essences that purity  
the Blond, and Decoctions of the Woods. Outwardly, to the  
Tumor, must he apply'd digestive Plaisters, such aS those of  
Melilot, de Ranis cum Mercurio, Diachylum, and such-like.-'  
At the same time the Patient must observe a Very strict Regimen  
in his Dint, and Way of Living, confining himself principally  
to Liquids, prepared of Water, Barley, Oatmeal, and the like.  
His common Drink may he Ptisan, prepared of Barley, Li-  
quorice. Anise, or Fennel, or a second Decoction of the Woods,  
or Very, small Beer. Wine, Brandy, and all Kinds os generous  
Liquors, are carefully to he avoided, as exasperating the Inflam-  
mation. By observing strictly these Rules, the Venereal Bu-  
hoes, if not inveterate, may Very commodioufly he resolv'd  
without Fear Or Danger.

When the Assistance of the Physician is call’d late, or the  
Buboes are too malignant to he cured by way of Dissolution,  
or it may he thought proper, for some other Reasons, to  
attempt the Cure by Suppuration, our chief Care, in order to  
the expelling and subduing the contagious Matter, is to he  
directed to the promoting and accelerating as much as possible  
the Suppuration. ' And hesides suppurative Piasters, it would  
not be amiss, either .wish Linen Cloths, or the.Fingers anointed  
with Butter, or Oil, to rub these Buboes frequently and  
strongly, till they become red, and then immediately to apply  
a maturating Planter ; sor this is an admirable Means of accele-  
rating the Suppuration. And these Kinds os Plaisters, that is.  
Diachylum cum Gummis, or a Plaister of Galbanum, and the  
like, are fittest to he apply'd while the Patient is yet able to  
walk without much Inconvenience, and may he taken off twice,  
thrice, or four times a Day, as Occasion requires, that the  
Bubo may he as often strongly rubb'd. Violent Exercises also,  
such as Dancing, Fighting, Fencing, and the like» are very  
proper Means to accelerate the Suppuration. But is the Patient,  
aS it often happens, is no longer .able to walks because of the

Pain, some maturating Cataplasm, of more Force and Efficacy ;  
than the Plaisters before-mentioned, may be apply'd. Cata-  
plasms very convenient for this Purpose are 'those composed os  
Onions roasted under hot Ashes, or of Honey and Meal, or os  
Ferment ; or, to mention no more, of Crums of white Bread  
boiled with Milk and Saffron : These Cataplasms must be apo  
plied every now-and-then aster Friction.

With the Use of these external Applications; internal Rome-  
dies must also be administer'd. Thus the Patient is to take a  
Draught of eight, ten, or twelve Ounces, os a warm Deco-  
ction of the Woods, two or three times every Day, together  
with thirty or forty Drops of the Essence of those Words,  
white Burnet, Fumitory, Germander, and the like, and some  
Grains of Mercurius dulcis, every Day. Thefe Medicines, by  
greatly attenuating the Blood, and forcing it towards the Skin,  
. and correcting the Venereal Poison, are Very conducive to Di jo  
solution, as well aS Suppuration.

This Course must be follow’d till the Matter be either dif-  
solved, or brought to Maturity. In this latter Case the Knife  
is to be used, and an Incision to be made ; but with a great  
deal of Care and Circumspection, lest the larger Blood-Vessels of  
the Groin or Armpits, which he near, should be wounded,  
and a dangerous Haemorrhage thence occasioned. The best  
Precaution you can use in this Case, is to take the Head of the  
Bubo between your Fingers, and pull it upwards. As to the  
Time when the incssion is to he made, this one Observation is  
necessary., that it be not too soon nor too late, since both are  
dangerous. For as too much Haste pracures Pains, dangerous  
Inflammations, and other Mischiess, so too long a Delay, as  
*Hildanus* assures us, has almost constantiy given Occasion to  
the Matter of the Bubo to mix again with the Blood ; and by  
Corrupting the whole Mass, to induce the Lues Venerea.

If the Patients be timorous, and dread the Knife, the Buboes  
must he open'd by some corroding Medicine, aS the Practice is  
in Abscesses. When the Pus is evacuated, the Ulcer must be  
throughly cleansed by some Digestive, mixed with a little Ve-  
nice-treacle, and red precipitate Mercury. After this a Plaister  
of *Diachylum cum Gummie* must he apply'd, in order to mollify  
\* the Margin of the Bubo ; and when the Ulcer is sufficiently  
deterged, it is to he healed up with some vuinerary Balsam and  
Lint. . . .

Sometimes thefe Ulcers are so stubborn, as not to he dry'd,  
nor conglutinated, by the Help of Medicines, but continually  
run with a plentiful Effusion of Sanies. In fuch a Cose, and  
when neither the above prescribed Medicines, nor red Precipi-  
tate, nor burnt Alum, are of any effect, there is no other  
Way, at least in my Opinion, but to cauterize the corrupted  
Part with a hot Iron, by which means the Lymphatic Veffeis  
by searing are often effectually Closed.

From the Premises, if I am not mistaken, it plainly appears,  
that it is always the heft and most commodious Way, is it can  
he done, to discuss Venereal Buboes as soon as may he; or to  
attempt the Cure by Resolution, rather than Suppuration. But  
when the Blond is so sar infected and corrupted by the Venereal  
Poison, as to shew manifest Symptoms os the Lues Venerea,  
another Way of Treatment, Proper to that Disease, is required.  
*Hoister.*

*Of the Accidents which sometimes accompany a Fenereal Bubo;  
and, first, '*

*Of the* **FISTULOUS BUBO.**

. When a Bubo is Once opened, if it is neglected, the Lips  
uniting, and the Orifice contracting, it degenerates into a  
Fistula, that is, into a sinuous and callous Ulcer; for both  
these ate implied in the Nature of a Fistula.\* There are some  
Differences in this kind os Fistula.

\* I. With respect to the Aperture, which is sometimes wider,  
and therefore constantly gaping ; sometimes narrower, and  
' then it is sometimes covered with a Crust, or thin Skin.

2. With respect to the Sinuses which are concealed within,  
which are either wide or narrow, many or few, cutaneous or.  
deep, strait or curve, *etc.*

3. With respect to the Fluid which is discharged, aS It is  
either in ineat or small Quantities, purulent, sanious, or only  
simply ichorous.

4. Lastly, with respect to the callous Bedies which line the  
Sides of the Sinuses, and greatiy differ in Size, Numher, and  
Hardness.

As to the Causes, the Buhe, after it is laid open, may dege-  
nerate into a sordid and obstinate Ulcer, by the bad Disposition  
Of the Bleed, but more especially if the Venereal Poison  
‘ should he latent in the Blood, by which the PuS will he render'd  
more acrimonious; but it will never degenerate into a Fistula,  
but by the gross Neglect or Ignorance of the Surgeon.

. i. For Instance: If an uniktlful Surgeon has made too small  
an Aperture in the suppurated Buhe, either with the Knife or  
Cautery ; for by this means the Bottom of the Ulcer not heing  
Open to the View, nor easily reached by Medicine, it will he  
\* difficult to discover what Alterations are made within, or to

apply proper Remedies ; so the internal Parts os the Ulcer  
remain foul, whilst the Lips of it," which are more exposed to  
the Force Of the Remedies, and are well deterged, hasten to a  
Union, by which means a Fistula is necessarily formed. .

c 2. Is he unwarily Permits theUlcer (though the Opening he  
sufficiently large) to tend too soon to a Cicatrix, before the ul-  
cerated Gland he perfectly suppurated, or at least, whilst a fmall  
Portion of it at its lower Part, which occupies the Centre of the  
Ulcer, or several Membranes by which it adheres, and which  
are fo many Pedunculi to it, are lest unsuppurated. For we  
know Very well by Experience, that no Ulcer can he ever per-  
fectly cured, unless its Bottom be well deterged ; nor can the  
Bottom be ever well deterged, as long, as the least Portion of  
the ulcerated Gland, or of the Membranes by which it ad-  
heres, remain unsuppurated.

' 3. If from want of due Care he omits taking Notice of PuS  
being secretiy discharged into the Bottom of the Ulcer from any  
neighbouring suppurated Gland, or from the Parts which lie  
between the neighbouring Glands ; for. unless this Fountain of  
Pus he speedily remov'd by dilating the Passage with the Knife  
or Cautery, a perfect Union of the Parts will be expected in  
Vain ; for though the Lips may seem to tend to a Cicatrix, yet  
the Ulcer will necessarily end in a Fistula.

AS to the Symptoms; whichever of these Errors the Surgeon  
is guilty os, it will follow from thence,

I. That the Bottom of the ulcerated Bubo, if it is not de-  
terged by proper Remedies; if it is lin'd with putrid Portions  
os the Gland, or its Membranes ; if it is continually kept moist  
with a purulent Discharge ; it will neither he cleaned, nor filled  
up with good Flesh, nor unite; but being continually eroded  
with a foul Exulceration; will form a larger or smaller Cavity.

*2.* But the Lias of the Ulcer, which, as they lie open to the  
Force of the Remedies which are applied, and are free from  
the other Incorrveniencies which have been related, will be  
perfectly cleansed, deterged, and filled with new Flesh, which  
will by Degrees so contract the Mouth os the Ulcer, that there  
will remain a Very small Opening into the Cavity, which will  
he wider or narrower, or covered with a Crust or thin Skin.  
~ 3. In the mean time the Pus, being confined in the Cavity’  
of the Ulcer, and exercifing its Force upon the adjacent Parts,  
by distending their Fibres, and inspissating the Lymph, will, in  
a short time, produce hard callous Bodies all round, which Vary  
with respect to their Numher, Size, and Hardness, in proper-  
tion to the different Qualities of the Pus, the different Firm-  
ness and Density of the eroded Fibres, or the different Degree  
of Inspissation of the circulating Lymph. , '

- 4. And if it is retained for any time, and is of an acrimo..  
nious Nature, the Erosion being by Degrees promoted, it will  
shortly form itself new Sinuses in several Places, many or few,  
wide or narrow, in proportion to the Degree of Acrimony  
which it possesses ; strait or curve, deep or cutaneous, as the  
adjacent Parts afford more or less Resistance to the Force os the  
acrimonious Pus.

5. The Discharge from the Ulcer will be of a different Na-  
ture ; ichorous, if pure Lymph flows from the eroded Lympha-  
tic Ducts ; but sanious, if Blood be discharged from the  
wounded Veffeis, and mixed with the Lymph in the Cavity of  
the Fistula; purulent, if by Delay the Lymph and Blood acquire  
the Form of Pus; lastly, in great or small Quantities, in pro-  
portion to the Flux of Humours to the Part.

As to the *Diagnostics ;* the State of the Fistula into which an  
ulcerated Buhe has degenerated, lies open to theEye; the Si- -  
nufeS which are form'd, are discover'd by the Probe; callous  
Bedies are distinguished by the Touch; lastly, the Couses are  
easily found out, if you are acquainted with the Method in  
which the Bubo has been treated.

As to the *Prognostic*; a Fistula in the Groin, arising from a  
Bubo, is a Very bad Disorder, and never to be made light of,  
fince it generally supposes the Pox, by which it is brought on  
or supported ; and it always requires a long, difficult, laborious,  
chirurgica! Treatment. . It is attended with Danger, (I.) if it  
. has Sinufes which penetrate deep to the Crural Vessels, or their  
larger Ramifications. (2.) If some of the callous Bedies, which  
. are concealed in it, are attended with acute Pains, and approach  
to the Nature of a Cancer.

AS to the Method of Cure; if you are certain, or indeed if  
there are only strong Reasons for Presumption, that the Fistula,  
. into which the ulcerated Bubo has degenerated, is accompanied  
with the Pox, by which it is aggravated, mercurial Unction  
should be advised, hefore the Cure of the Fistula be attempted.  
Nor are there any Hopes that the Effect shall ever perfectly  
cease, unless the Cause he first removed. . Towards the End of  
the Ptyalifm, when the Blood has now been well depurated,  
the Fistula is to be cured according to the Rules of Art, that by  
this means the Cure of the Pox and the Fistula may proceed  
equally, and at last he completed together.

But if it shall appear, that the Bubo has hecome fistulous,  
wholly by the Unlkilfuiness of the Surgeon, and that there is no  
Suspicion of a latent Pox; in this Cale, if the Season of the  
Year wall permit, you should lay aside all manner of Delay,

and proceed, to the Cure of the Fistulas after the following  
Method. ,

I. The Patient should he prepared for the Method of Cure,  
hot only by universal Remedies, that is. Bleeding and Purging,  
which should be repeated according to the Strength and Consti-  
tution of the Patient, and the Nature of the Disease ; but, he-  
fides, he should drink diluting and cooling Broths; made of  
Chicken or Veal, with proper Herbs and Roots ; cbalv heated  
Whey, Asses or Cows Milk ; or, if the Season of the Year  
renders it proper, he should bathe in warm Water, or drink  
proper mineral Waters. ’

2. Aster this, having first examin'd the Number, Length,  
and Direction of the Sinuses winch oorrimunicate with the  
Mouth of the Fistala, you must lay each of them open ; and,  
if they are cutaneous, and not Very callous, you may perforin  
the Operation with the Knife or. Scissors, which are to he intro-  
duc'd upon a Director, and the tips should he carefully taken  
**off,** that the Bottom of the Sinuses may he exposed to View ;  
and then, according to Custom, it will he proper to fill up the  
Wound with' dry Lint, in order to stop the Blood ; which  
Dressing being taken off the next Day with a light Hand, the  
Ulcer should he treated for some time with a simple Digestive,  
‘and afterwards with the Liniment of *Arcaus.*

*" u,.* But is the Sinuses should he Very deep or callous, it will  
he more adViseable to make the Aperture with the Cautery, as  
we advised above. Therefore, laying a Plaister upon the Fistula,  
with an Opening in it, in fuch. a manner that the principal  
Part of the Sinuses may be immediately under the Opening in  
the Plaister, apply soine Pieces of the caustic Stone to the Part,  
sufficient to procure a deep Eschar. Is they do not reach to  
the Sinuses, scarify the Eschar to the Quick, and apply another  
Caustic ; or, which is the quicker Method, cut away the half-  
rotten Tlesh with which the Sinuses are cover'd:

Aster this, promote the Falling off of the Eschar as soon as  
possible, by emollient and relaxing Applications; as Butter, the  
Yolk os an Egg, either alone, or heat up with Oil of St. John's-  
.wort. Basilicon, or Turpentine, and laid upon Lint.

The other Eschar heing fallen off, the Ulcer is to he treated  
with common Digestives, till the Decrease of the Pus indicates  
the Use os the Liniment of *Arcana. z ‘*

5. The Lips, and the neighbouring Parts, of the Ulcer being  
now relaxed by the Suppuration, it will he proper to examine  
all the Parts diligently, by pressing them with the Finger, by  
examining them with the Eye, and with the Prohe, to find

\* whether any Sinus, or considerable Callus, be conceal'd any-  
where, which will be necessary to he remedied hefore the Ulcer  
**can he** united, and form a Cicatrix, lest the last.Error be worse  
than the first; and another Fistula he broughton. . . .

6t Therefore is any Sinus should he discover'd, but in a Part  
which will admit os Incision without any Danger, the Aperture  
should be made according to the whole Length ds it, is possible;  
or, at least, the Mouth of it should be so enlarg'd; by thrusting  
in an Escharotic, that the Bottom may lie sufficiently open to  
he freely deterged, and perfectly cured, by the Application of  
proper Medicines. . . \_ .

7. But if the Sinuses should reach so near to the Crural Ves-  
sels, or any of their larger Branches, that an Incision would  
not be free from Danger, Cathaeretics alone thirst he us’d, and  
those os the milder Sort, which act moderately, -and, hy a gra-  
dual Erosion, dilate the Part in such a manner, that you may  
daily form -a Judgment of their Effects ; it will also he worth  
while diligently to takeoare,‘that the Cathairetic Medicines may  
be applied only to that Month of the Sinus which is at the  
greatest Distance from the Crural Veffeis, and which may be ex-  
posed therefore to their Force with the greater Safety.

8. Is the harder Callosities should escape Suppuration, they  
are to be consum'd, hy. Degrees, with Cathaeretics, as the Larr  
pis Infernalis, or any other Caustin, or red Precipitate mix’d  
with some Ointment; and, to render them the inore efficacious,  
it wili.be convenient to rnake’light Scarifications upon the Sut-  
iace of the callout Bedies with the Point of a Lancet. ‘ ψ

9. - The Sinuses heing once agglutinated, the callout Bodies  
consumed and suppurated, is the new Flesh, which springs up, is  
firm, thick, granulated, and rosy-colour’d, the Ulcer, is to he  
brought to a Cicatrix, to which End epulotic Medicines are of

. Service, which, by.drying the Superficies os rhe Cicer, bring  
on a Cicatrix s of this kind are the Green-balsam, Pompholyx,  
burnt Lead, Ceruss, or Plaisters in which theseare ingredients ;  
day Lins, burnt Alum ; Or-Agglutinants which guard the Rti-  
diments of the Cicatrix, upon its first Formation, from heing  
eroded by the Air ; amongst which the best are Turpentine,  
dry'd and powder'd, Sarcocolla, Frankincense, and Myrrh. "

io. Lastly, from the Very Beginning of the Cure, a proper  
Regimen of Diet should he prescrib'd ; at should he light, con-  
sisting ’of Pudding, Panadas, CremorS of Rice, or, at most,  
. the Flesh of Chickens, when every thing is going on well; but  
very fight., and only of the smallest Broths, if the Patient is  
afflicted) with a Fever, if the Suppuration is in great Plenty,  
and Very fetid, if the Lips of the Ulcer ate inflam'd, if the  
Flesh is spongy, fungous, and luxuriant. 1 '

*- Of the* **SCIRRHOUS BUBOi**

It sometimes happens, that the Veneres! Bubo, evading **the**Force os all Remedies, is neither dispers’d, nor brought to Sup-  
puration, het entirely, or almost entirely, by Degrees, hecomes  
thicken'd and indurated, and turn'd into a hard ScirrhuS,  
which chiefly happens to the cedematous and scirrhous Bubo.

Scirrhuses, form'd in this Manner, differ,

I. With respect to their Figure and Sine; in which there is  
great Difference. .

2. With respect to the Number and Situation, os the Glands  
which .they possess ; for some occupy only one Gland,, and are  
call'd *Conglobate*; others occupy more, and are dispos'd either  
in Clusters, or after the manner of Links in a Chain, and are  
said to be *congested* either *racematim* .or *catenatim: .*

. 3. With respect to their State of Mobility, aS some adhere  
loofly to the subjacent Parts, heing moveable either Jo one Side  
or the other; whilst others adhere so immediately to the Part  
beneath them; that they can by no means he brought to Vary  
.their Situation. ; . -

am Lastly, with respect to their Sensation ; as some are with-  
out Pain, and truly scirrhous, whilst others produce ah obtuse  
Pain, and approach near to the Nature *os* a Cancer.

As to the Causes, a Bubo is converted into a ScirrhuS,  
when the Lymph, stagnating in the Celis or Vesicles os the In-  
guinal Glands, is more than ordinarily inspissated ; by which  
means the Parts being stuffed up, and, by Degrees, brought  
ho a inore intimate Contact, it acquires, as it were, a cheesy  
Hardness. Rut the Lymph is thicken'd in/this maimer by  
several Causes.

I. By itsinatural Vitiated Thickness, by which means, upon  
the Accession of the Venereal Poison, it is inspissated, *catcris  
paribus,* more than it would he otherwise.

2; By ithe too great Quantity or Energy of the Venereal  
Poison which is receiv'd ; whence it happens, that the Lymph,  
into which it is admitted, is, *catcrisparibus,* so much the more  
coagulated. . . Ἀ

. 3. By either of the foregoing Causes concurring with the  
other; whence it happens, that the Lymph, being naturally  
too thick, meeting with too great a Quantity, or too Virulent  
a Portion of the infection, is Violently coagulated.

4. *By* the preposterous Use of topical Repellents, such aS are  
frequentiy applied upon the first Appearance of the Bubo, but  
Very unadvisedly, since, by this means, the Thickness of the  
Lymph heing increas'd, the Bubo becomes scirrhous, which  
might otherwise have dispers’d of itself.

- 5. By the Abuse of topical dispersing or ripening Applica-  
tions, which, if they are, unequal to the Office of rendering  
the Lymph staid, increase its, Thickness, inasmuch as they  
dissipate the thinner and more fluid Parts of it. , - \*

6; Lastly, by the Abuse os stimulating topical Applications.  
Of this sort, are the ripening Cataplasms, with which bruised,  
Miistard-seed is ihix d, which, by their Irritation, solicit the  
glandular Texture to frequent systaltic Constrictions ; which is  
useful enough, if the confin'd Matter is fit to be dispersed ; but  
Very hurtful, if it is of a hard Nature; fince the finer and  
thinner Parts heing forcibly thrown out, the thick Part which  
remains will form still a harder Mass.

As to the Symptoms, it appears, that according to the dif-  
serentNature, Disposition, and Insection os the Lymph in **the**different Glands of the Groin, or according to the different  
Tension, Texture, and Permeability of those different Glands,  
sometimes one Gland only, of a different Size or Figure, is  
affected; whence,

\* Τ. A Conglobate Bubo, and so a ScirrhuS, different in Figure  
arid Size, is produc’d; sometimes more together disposed in  
Clusters or Links, whence a Bubo, and so,a Scirrhus *congested  
rfloematirn Dt astenatim. .*

sustici According to the different Striatiori. of -the obstructed  
Gland, whether it he more or less deep, or according to the  
different Length, andDegreeof Softness, of the tendinous Fibres  
or Membranes, by which the Gland adheres to the neighbour-  
ing Parts, a Bubo, find so a Scirrhus, is produc’d, sometimes  
moveable, sometimes, on the other hand, fix'd and ty'd down  
To the subjacent Part.

r 3. As the LYinph which stagnates in the Gland, is either  
quiet without Motion, or, from any Cause, is rarery'd and ex- \*  
panded, the containing Membranes of the Glands will some- ’  
times remain unmow d, whence the Tumor will he without  
Pain, and truly scirrhous; sometimes they will be distended  
painfully, whence the Tumor begins to have an obscure Pain,  
. and so to degenerate into a Cancer.

Lastly, in the former Case, where the Blood and Lymph  
have either dilated their Veffeis hy Degrees, or made themselves  
new Passages into the collateral Vessels, since, by the Matter of  
the Scirrhus being unmoV'd, no new Pressure of the Vestel is  
broughton, nothing hence will arise new, with relation to **the**Colour or Heat of the Part., but, in the latter Case, things  
fall out differently, ai will hereafter appear.

As to the Diagnostics, the Presence of the Inguinal Schrhns,  
and the Differences into which it is distinguish'd, are fufficientiy  
evident to the Sight and Touch ; the Causes by which it was  
brought on, may he collected from the foregoing ./Etiology.

As to the Prognostics; the Prognostic is always bad, fince it  
is no easy thing to disperse or suppurate a Bubo, which is dege-  
nerated. into a Scirrhus.

But it is worst of all, if it begins to he painful, since by that  
it is manifest, that, by Degrees, it is becoming cancerous.

As to the Methnd os Cure, it is exceeding difficult, as we  
observ'd hesore, to disperse or suppurate a scirrhous Buhe.  
Some advise dry Cupping upon the Part, to he dally repeated  
for a Quarter of an Hour ar a time; that, by the Flux os Blood  
to the Part, the Matter os the Scirrhus may he heated,, and,  
by that means, yield more readily to the Force os topical Dif-  
cutients Or RipeneIs. But Experience has taught ns, that this  
Method is almost always fruitless, and frequently eVen dangerous;

' fince the Scirrhus, heing heated by the Conflux os Blood to the  
Part, at length becomes frequently cancerous, Λ

Others-advise the scirrhous.Gland to he consum'd, by **De-**Frees, with Cathaeretics,. if it refuses to yield to the Force of  
Discutients and Ripeners or making an Incision into the Sirin;  
to extirpate it with the Knife. . But I should never advise the  
undertaking of Operations of this kind, which are tedious,  
difficult, and full of Danger, as-long as the Scirrhus is without  
Pain, and brings on no InconVeniencei I would have this more  
particularly understood ofCatbreretics, since, by the preposte-  
jous **Use** of them, a Scirrhus is frequently converted into **a**Cancer.

Therefore it is better to have recourse to Mercurial Unction, .  
from which you may expect a happier Event. For, as the Parts  
**os the** Mercury, which are convey'd into the Blood by this  
means, not only Very powerfully attenuate and divide the stag-  
nating LympK, but correct alfo the Particles of the Venereal  
Infection which Coagulate the Lymph, they are the most effica-  
cious Remedies that can be made use os to disperse gradually the  
scirrhous Buhe, fince it is produced by the too great Viscidity  
**of** the Lymph, and the Inspissation of the Venereal Poison.

But two things are diligently to he observ'd in the Admini-  
stration of the Mercurial Unction.

I. That the Patient he duly prepared with the Use of diluting  
and relaxing Remedies, as well UniVersais as Particulars; Uni-  
versals to liquify the Blood and Lymph, that they may yield  
with the greater Ease to the Particles os Mercury ; Particulars,  
or Topics, to soften and relax the Texture of the Buhe, that  
the Lymph may have a more free Passage thro' it.

The first Intention is answer'd by warm Baths Of River-watCr,  
coolingBroths, orApozems, chalyheated Whey, Asses Milk, aci-  
dulated or chalybeate MineralWaters; the latter by Cataplasms of  
**the** Crums of Bread, or of the Palps os emollient Roots and  
Herbs, Or by the Mucilage-plaister, or that osSperma.Ceti, **the**Use of which must he long persisted in.'

2. That the Mercurial Unction he us’d in finall Quantities  
at each Friction ; that the Frictions he perform'd at long Inter-  
Vais, in order to permit the Mercury, which is min'd with the  
Blood, to be retain'd in it for a long time, to the end that the  
Particles of'Mercury circulating fora considerable time with the  
Blood, may the more forcibly divide the Lymph which stagnates  
in the Inguinal Glands, and so procure a perfect Resolution of  
' the scirrhous Buhe. . ‘:

By this Method, it is certain that the inguinal *Scirrhi,* which  
succeed the Buhe, are, at least, so much lessen’d, if they are  
not perfectly dissolv'd, .(which is rarely the Case) that the rev  
maining Tumor is scarcely equal To the Size Of an Almond or  
Hasel-mat. But I would, by no means ί promise .thin as the Cer-  
tain and undoubted Effect of it, since 1 have known scirrhous  
Buboes To stubborn sometimes, that they have obstinately Tee  
main?d,' notwithstanding the utmost Caution has been us'd id  
administring the Mercurial Unction. If this shouldbe the Case,  
and the Bisho has dot yet acquir'd a stony Hardness, nor is inr  
Din'd to turn cancerous,” it will he proper to visit the warm  
Mineral Springs, and frequently to pump those Waters upon  
the Part, covering it afterwards with the Slime that remains at  
the Bottom os those Waters; thy winch means the coagulated  
Lymph may, by Degrees, he render'd fluid, and dispers'd.

But here also some Caution is necessary;’ for is the Buhe he-  
gins, by this means, to rarefy, grow hot, arid painsus, the Pa-  
tient should instantly leave off the Use Of these Waters, lest the  
*Scirrhus* should degenerate into a *Cancer,* in this "Case, all Re-  
medies being laid aside, the Whole is to he lest to the Strength  
os Nature, advising a proper Regimen to he observed in Diet,  
and applying a Plaister to the Tumor, compos'd os equal Parts,  
os the *.Emplastrum Diabotanum,* andinr *Mucilaginibes.*

*Of a* **CANCEROUS BUBO.**

’ The scirrhous Buhe, whilst it is becoming cancerous,

**I.** Grows hot, has an obscure Pain upon Pressure, swells,  
and grows Very hard, sometimes shoots, but seldom ; and then  
it is call'd ah eginning Cancer.f.

2. Then all the Symptoms **increase, the shooting Pains are**

more frequent and acute. It changes its Figure? and rises to an  
Apex, which is cover'd by a tense, smooth, shining, reddish  
Skin; and now. it is call'd a confirm'd, but occult. Cancer.

3. Lastly, the Skin dividing upon the Apex, it forms *an-*Ulcer, frorn whence Blood, Ichor, and Sanies, are discharg'd  
Drop by Drop; the Ulcer spreads flowly, the cancerous Bedies  
are expanded and enlarged, the Lips Of the Ulcer turn hack,  
fungous Flesh arises. Ichor, Blood, and Sanies, are discharged  
plentifully, a tearing, shooting, burning Pain comes on in **a**violent manner, the Parts whrch are situated near the Tumor  
Sow livid ; in a Word, it is now a Confirm'd ulcerated

**meet.. ... . . \***

But, as was said before Of the Scirrhus, the Cancer differs -  
-with relation to its heing fix’d, or moveable ; for sometimes it  
as moveable, and sometimes it firmly adheres to the subjacent  
Parts. . . .. . δ᾽ ; /

~ The whole ^Etiology of the *Canccr* depends upon one Prin-  
ciple,. which has been hitherto unregarded, however- true.;  
which, is. That the Lymph, stagnating in the scirrhous Body, is  
rarefiable by Heat ; and, being once heated, expands itself with  
so much the greater Force, as it is increased in Thickness and .  
Inspissation.. This is abundantly demonstrated from hence, that  
a scirrhous Tumor, when it begins to degenerate into a *Canccr,*.swells without any Suppuration ; that, upon the Increase os **the**-Swelling, Part of the Scirrhus forms an Apex ; lastly, that the  
Skin being once broke, the cancerous Matter which is conceal'd  
within, rismg up, and, as it were, pouring’ out as soon as  
Room is allow'd for its Expansion, by Degrees enlarges.the  
TJlcer, and, as it spreads more and more, turns out the Lips of  
ine Ulcer all round δ᾽ . . . . ’

From hence it follows, that the preternatural Heat which **the**' Matter, confin'd in the scirrhous Body, conceives, is the proxi-  
mate Cause by which the Scirrhus is converted into a Cancer.1But it appears, that this kind of Heat is conceived by .the scir-  
rhous Matters I. ' .

I. Whenever the Blood which stows near the Partis render’d - f**too** hot, by an acute Or hectic Fever ; by an acrimonious, salt,  
piperine Diet; by the immoderate Use of Wine, or spirituous  
Liquors; by immoderate Venery, Exercise, or Watching.

2. Whenever the Blood, tho’ it may not he too het, is  
forc'd to stagnate in the neighbouring Parts of the Scirrhus,  
from the too great Plenty of it, as it happens by too frequent  
Application of Cupping,Glasses, or hy a Contusion upon **the**Schrhns.

3. Lastly, whenever the scirrhous Tumor is heated heyond  
**measure, by the** Application of Topics, which are actually or  
potentially hot, or by the imprudent *Use os* Escharotics.

Therefore all these are to he reckon'd as remote or procatar-  
ctic Causes of a Cancer. .

As to the Symptoms;

**I.** It appears from whet **has** heen laid, that a Scirrhus heginS  
**to he** chang'd into a Cancer, because the contain’d Matter is  
heated and rarefied. Therefore a Scirrhus, degenerating into a  
Cancer, Ought to increase **a** little in Heat, Tumor, and **Re-**sistance. - ‘ '

**. 2.** The Matter in the degenerating Scirrhus enlarges: **The**containing Celis, : therefore, and external Coverings of the  
scirrhous Gland, are, by this means, strongly distended, and.  
produce Pain.

3. The same Matter still rarefying more, and with greater  
Force, from any external Cause, presses strongly upon the  
neighbouring Vessels. The Arteries, by thin means, becoming  
inore turgid with Blond which is confin'd in them, will he pro-  
vok'd to more frequent Vibrations, and shake the neighbouring  
Parts with the greater Vehemence, from whence will proceed  
a shooting Pain. “ ’ \* Ἀ

am In the same Proportion that the Matter of the degenerating  
Scirrhus increases in Heat and Rarefaction, the Pain, Tumor,  
Resistance, and Shooting,'will increase daily.

*sil As* the scirrhous Matter is not perfectly homogeneous and  
uniform, but more or less prepar'd for Expansion in different  
Celis of the Tumor; and as the Celis in which it is contain'd  
do not equally resist its expansive Force, To *Cine* or . other Part  
of the degenerated Schrhns, from one or heth os these Causes,  
.will enlarge itself heyond the rest, and, changing its Figure,  
by Degrees protuherate into an Apex. ' τ

6. As one or other Part os the Tumor is more enlarg'd into  
an Apex, the Skin which covers it will be more distended ; **the**Top Os the Apex, therefore, will he cover'd with .a tense,  
smooth, shining, thin Skin, of a darkish-red Colour, hecause  
the Blood meets with Difficulty in passing thro' her Vessels,  
which are too nshch distended. . ’ ' '

*η.* The Skin, being render'd thin by Violent Straiming, is, at  
last, divided by the contain'd Matter. Hence, at first, pro-  
heeds a small superficial Ulcer, which, by the Continuance of  
**the** same Causes, by Degrees increases, and is dilated.

8. Blond flows froth the ulcerated Cancer, if any of the  
larger Blood-vessels are divided ;. Lymph or Ichor, if'the Blond-  
Vessels remain unhurt, and only the Lymphatics are’ injured  
**purulent Mattes, if the sungous Flesh,** with which the Ulcer

is cover’d, putrefies . lastly, Sarnes, or lymph, mined with  
Blond or Matter, if any of the foregoing Circumstances concur at  
the fame time: But never true, unrnikid, laudable Pus, since the  
scirrhous Matter, as well from its lymphatic Nature, as from  
its too great Inspiflation, is render’d unfit to form a perfed  
Suppuration.

9. The Expansion Of the cancerous Matter increasing, aS  
the Circumference of the Skin cannot be extended in the same  
Degree, the Lips of the Ulcer will, consequently, he turned  
hack, and look very ill.

Io. Lastly, the Veins being compressed on every Side, the  
Blood not only stagnates in the Parts which are situated neat  
the Tumor, but, by this Stagnation, puts off its natural red  
Colour, and contracts one more black, from whence procced  
the livid and varicose’Branches of Vessels, with which the Can-  
cer is surrounded. . ' . -

The Nature, State, and Differences of the cancerous Ruho',  
readily appear from the Description of in. But .the Causes *of*it may be discover’d, by examining the Way of living which  
has preceded it. ...

As to the Prognostics, the cancerous Bubo is a terrible and  
dangerous Disease, which is seldom cur’d, and.hever without  
the Knife, and actiral Cautery. .

If the Bubo strictiy adheres to the subjacent Parts, since It  
an neither he extirpated with the Knife or Carhserptios, it is  
evidently incurable, and can only be treated with Palliatives,

But if it is moveable', and not firmly united with the sub-  
jacent Parts, it may he perfectiy cur’d by Extirpation, if it is at  
. .a sufficient Distance from the Crural Vessels, that the Operation  
may he perform’d without Danger.

In general, the larger cancerous Bubo is of more dangerous  
Consequence than the smaller; the painful; than thet which is  
attended with but little Pain, the ulcerated, than the occult.  
. The Method of Cure is differens, according to the different  
Condition of the Tumor ; that is, curatory, if it is moveable ;  
but palliative only, if it is fix’d.

.. I. In the first Cafe, the present Indication- requires, thet the  
cancerous Tumor he speedily taken out, lest the neighbouring  
Tarts be brought into Consent, or lest, by being increased in  
Size, it should adhere to the neighbouring Parts.’

Therefore,

I. The Patient should he prepar’d for the Operation by urir-  
verfal Remedies, as by Bleeding and Purging, by alterative  
Troths or Apozems, by Alles or Cows Milk, or Whey, by  
tnineral Waters, and by Bathing, which should be varied ac-  
loording to the Constitution, State, and Age, of the Patient,  
and the Season of the Year. Mercurial Unction should even be  
premised, if there is any Suspicion.of ,a concealed Venereal In-  
section, as is frequently the Cafe. :

2. In the Opinion of some, Cathaeretics should he mid,  
especially Preparations of Arsenic, corrected, or calcin’d, with  
which, they assert, the whole cancerous Gland will he mor-  
tify’d, as they term it, and .fall off with little Trouble. Of  
this Opinion are *Fallopius, Sennertus, Vigierius, Faber,* and  
*Johannes Baptista Alliot.*

3. But this Method, the’ perhaps it may he attempted upon  
small cutaneous Glands, with a very sparing Hand, yet we  
Think it dangerous, and not safe, in larger or deeper Cancers:  
(I.) Because Cathaeretios applied liberally, by Irritating, Sti-  
inulating; and Corroding, bring on an Inflammation, attended  
by a Feyer, . which is never free' from Danger. ,. (2.) .Because,  
by the acuteTain whicti they Occasion, they change the neigh-  
touring Parts, which were found,.into a cancerous Nature, by  
which means the Cancer increases, and adheres to the subjacent  
Parts, from whence it was before, free. (3i) But principally,  
because I could never think the Use’of Arsenic safe, however  
prepar’d, calcin’d, or correctsd. For It, has heen known more  
than once, that a miserable Death has been broughton by the  
external Use of Arfenic. Concerning this see *seertseliuriMelhod.  
'Medendi, Lib.*”I6. *Cap.* I8. where he tells yosisethat Arsenic  
and Mercury Sublimate bring applied to s cancerous Breast, de-  
stray’d the Woman in sixl^ys, tio‘the7faine niniinerras if it  
had been taken by the Mouth. "r -'.I. 7 sissamet’ ”, ’

4. It is better, therefore, to extirpate the moveable Cancer  
"hy the Knife instantly. TnthisEndlet the cancerous Gland be

taken hold of with the Fingers; S Ligature, or a circular Pain of  
Forceps : then divide the Skinand theRafis of,the Tumor all  
.round with a Knife. arm’d hair the Way up withJjnt wrapt  
.round it, till' thei Cancer is wholly extirpated, taking great  
.care, that nothingbe left which -maybe fuspeoled to he of acan-  
herous Nature. The Flux of Iflood .may he stopp’d either  
with a Ligature, if the Vessels from whence it slows are serge,  
of only by the Application .of a small Piece ofVktiol, The  
Wound may be silled up with dry Lint, which should be pressed  
down for some time with the Hand, till the Blood.is stopp’d.  
Then, upon the second or third Day, when the Lint finis off,  
the remaining Ulcer is to the treated-with common digestive  
Balfamum Arca-i, or Ballatnum Viride, according to the Rules  
of Art. ’' .. .' , ς ’

**5. But ir is neeesliny, that, tile Surgeon autod diligently in**

the following Circumstances; (I.). That if ony small canceror.tr  
Gland, or Gland of a cancerous Nature, t—nain, it ssionld he  
carefully extirpated ; for a Cancer is of the Hydra kind, which  
will constantly spring up again, unless all its Heads are taken  
ossa (2.) That he should carefully provide for the Regenera-  
tion of goed Flesh, by treating the Ulcer with the greatest  
Caution, lest it degenerate into a Fistula, which is too frequent  
in cancerous Ulcers. \_

*6.* Lastly, the Ulcer heing healed, or tending toform a Cica-  
trix, the vitiated State of the.Blood, which was brought on by  
the Cancer, and which afterwards aggravated and kept .up the  
Cancer, is to he correctsd by proper Remedies; lest a fresh  
Cancer should arise in another Part. To this End thepalllative-  
Methnd, which ole .shall describe below, wist he of Service;  
for all thofeEemedies which conduce to the Mitigation of the  
Cancer, .are-of Use in preventingin.-,

II. In the other Case, that Is; if the cancerous Ttftnor  
adheres to the neighbouring Parts, and therefore cannut possi-  
Tly be extirpated Ivy the Roots, you must refrain from all Ope-  
ration, as ufeIess, and even pernicious, and only insist npon the  
Ure of palliative Remedies.

*. i.* Bufthere are not wanting these .who will promise aper-  
fedl Cure', even in this Cafe, by theUse of Catlueretics, **thofe**especially of the arsenical Kind; but the Patients, who rashly  
trust to their great, Promises, will. suffer a most miserable and  
cruel Death for their'Credulity: For there is no Reason to  
expedi, that this Method of Treatment should he serviceable  
in a fix’d Cancer, which we just now demonstrated tobepreju-  
diced in one which is moveable.

. 2. It is best therefore, in this Case, for the Patient to look  
for no Cure, and, laying aside ail vain and dangerous .Credu-  
lity, only to take all. possible Care in prevent the spreading  
of the Cancer: Let the vitiated State of the Blond he correcied,  
and the Pains, which cruelly torment .the Patient, asswaged :  
Lastly, let Life be prolong’d as much,‘and upon as *easy* Terms,  
as possible j and to thofe Ends the palliative Method wholly  
tends. - . ...... - , - -

3. Therefore let the Patient be,’ every tiow-and-then purged,  
not with strong Cathartics, as some Tastily advise, but with the  
milder Sort, as Manna, Casias Rhubarb, or Syrup of Peach-  
flowers, which gently carry off the ill-digested Chyle, and  
Foulness of the Bile, which lies .in the first Passages, without  
giving any violent Stimulus. .

' 4. A Vein also should he sometimes opened in either Arm,  
if the Pain and Heat are violent; for by this Method, like Ves-  
sels being emptied, .the Arteries which run near the Tumor  
will sie less turgid., and therefore, vibrating with less Force,  
will bring on less Heat and Pain.

5. The Patient mam be forbid the Use of Wine, Venery,  
.‘immoderate Exercise, vchement Passions of the Mind, salt,  
spiced, sharp, Or preserved Meats of any Kind ., and be pre-  
fcribed a thin, moist, cooling Dies, of Barley, Rice, Padding,  
ligni Broths, or Jellies, or at most Chicken or Veal in Sub.  
.stance. - soso '

6. Cooling and diluting Broths or Apozems are to he used  
'at the seme time, and light chalybeated mineral Waters5 Bathe  
orSemicupia in warm Water, Asses or Cows-rnilk, or Whey,  
or, whet is hetter, Cows-rnilk, for constant Diet, or used very  
'frequently at least ; and, lest it should offend the Stomach, you  
.may add to the Morning Dose Lime-water, from one Ounce  
to three Ounces; or of the bitter Decoction of the Leaves of  
Wormwood, Centaury, and Germander, to three, sour, or  
five Ounces; or,, before the Morning Dose, you may give.a  
Bolus of red .Coral, , Crabs-eyes, *Peruvian* Bark, Blood-stone,  
.seal'd Earth, Chalk, or any of this Kind which may he pre-  
fcrib’d. Of each one Scruple, if you mix two or three of them  
.together.

*spy.* Is the Cancer is an occult one, no topical Remedies are  
to he applied to it; neither **warm**, sharp, dispersing Medicines,  
which, by their Heat, aggravate the Disease; not cooling,  
anodyne, fatty, softening Medicines, which, by stopping up  
'the Pores, and obstructing insensible Perspiration, increase the  
.Heat of the Tumor, ano by thet means forward its Progress.  
.It is.sufficient therefore to guard it from Cold, or any injury  
.that in may receive from the Moisture of the external Air;  
.whichrs no difficult Matter, if you consider the Part which the.Tumor occupies. ς , . r

8. On the other hand, if the Cancer is ulcerated, then. it  
.will be necessary to dress the Ulcer dally, to clean it gently  
with dry Lmi, and .to wash it with Decoction of Agrimony, or  
Herb-Robert ; and to mitigate the Acrimony and Fierceness of  
the defluent Humour with Topics, which are poffeis’d of an  
.anndyne or abforhent Quality, so that they are not of an unctir-  
hiss Nature. Various, kinds of Remedies are recommended to  
.answer this intention, but the following seem to he preferable to  
jherestt .si-. si.

Ointment prepared of the sresh.eTpreis’d Juice of the Gan.  
den Nightshade, beat with a Leaden Pessil, in a Leadon  
Mortar, with the Sugar, or rather Magistery, of Lead.

Fresh Oil of Eggs, heat in a Leaden Mortar till it grows  
blaclc.

A thin Plate of Lead, either alone, or rubb'd over with  
Mercury.

. The Flesh of common Snails, or of Cray-sish, boil'd much,  
and nibb’d in a Leaden. Mortar.

Slices of Veal’, just kill'd; Or young Puppies, flit thro’ the  
Middle, and applied hot to the Part-

Oil of green Frogs, distil'dprr *Descensom,* with an Addi-  
tion of powder'd Frogs, Toads, or Craw-fish.

All Preparations of Tutty, Pompholyx, and Lead.

9. If the shooting Pains are very Violent, Narcotics should  
be min'd with the foregoing Remedies, aS Opium, from one  
Grain to two or three. They should also he given internally in  
a proper Dofe, that the Pain by this means may he more power-  
'fully affwaged ; which we would heve understood of the move-  
able Cancer, if it is attended with acute Pains, and also of the  
Occult. 'si-

Io. Lastly, it will be proper at the same time to restrain the  
Luxuriancy of the fungous Flesh with a mild cathaeretic Me-  
dicine, of which Sort we have found the *Balsiamurn Chalybis* to  
'exceed all others; for this kind os Balsam destroys the fungous  
Flesh by corroding it, but. in a Very gentie manner j for the  
'corrosive Points of the Spirit of Nitre are rubb'd down by Fer-  
mentation, and blunted by theOlive-oil. But, if it shall seem  
necessary, that Balsam may he render'd still weaker and weaker,  
and by that means less corrosive, if, by repeated Ablutions, the  
acid Points of the Spirits of Nitre are wash'd off *Astrues*

***.The BAseSA.MVM..CHfntTEfS iosthus wade .***

Take of double Aqua-fortis, three Ounces: Put into this  
Needles, made of the purest Steel, winch may he known  
by their Brittleness, till a small Ebullition is raised. Then  
add three or four Ounces of the best Olive-oil. Mix them  
to the Consistence of a Balsam.; When cold; dulcify it,  
by repeated Washings withWater; by which its corrosive  
Quality may be takenoff to what Degree the Compounder  
pleases. . ' - ἐν ; ..-

BUBONIUM. See ASTER ATTIcUS.  
so BUBONOCELE, βηβωνοκήλὴ, from βουβῶν, the Groin,  
and κήλη, a Tumor, is a soft Tumor in the Groin, caused by  
a Wound or Rupture of the Peritonaeum,' which was never  
conglutinated.. Is it arises about the Navel, the Patient has  
the Epithet of *Exomphalios* bestow'd upon him by some Phy-  
sicians. .... \_

The Falling down of the Intestines, occasion'd by a Rupture  
of the Peritonaeum, is a difficult Case ;.brit is it he owing to  
the Thinness of its Contexture only, it is more easy to be cur'd,  
especially in Children, as they abound with Humidity.

While the Intestine continues above the Groin, the Disease  
is named *Bubonocele*; but, when it descends into the-Scrotnin,  
it is called an *Enterocele. P. AEainet. Libi 3. Cap.* 53.

An *Enterocele,* occasion'd by Distention or Stretching of the  
Part, is preceded by a *Bubonocele*; for the Peritonaeum being  
distended, the loosen'd Intestine salis .upon the Groin, and  
; constitutes a *Bubonocele. P. AEpinet.Lib. 6. Cap.* 66.

Dr. *Freind* has the following Remarks upon - the .‘Bubono-  
cele,, or Inguinal Hernia, which are Too curious in be omit-  
♦teda -. ...... . ‘E/ ss‘

An Inguinal Hernia, according to all Authors, is onlyThe  
Beginning of an Intestinal; the Gut,, they fry, must‘descend  
by the Groin first, before if can pass *into* the Scrotum ;. and  
.. therefore *Paulus* says, that a Bubonocele always precedes ah  
Enterocele. Accordingly all Anatomists, as well as Surgeons,  
have agreed, that in a Bubonocele the Gut comes down thro’  
-the Rings or Perforations of-he Abdominal Muscles. Put  
tho\ no doubt, this be often the Case, yet perhaps, if we exa-  
mine the Matter a littie more nicely, we shall find, that the  
Gut may. take another Course, hitherto unobserved, foe pro-  
duce a Bubonocele. The Cavity, in the Thigh between the  
Muscles *Pectineus* and *Sartorius,* wherethe Crural Vessels de-  
scend, is very remarkable : And the Tendons of the Abdomi-  
nal Muscles lie so -loofe, that there is nothing but a little  
Fat, and some membraneous Fibres, which separate it from  
‘-the Abdomen ; so 'that we see how easy it is for the Perito-  
naeum to he forced down by any Pressure, thro' this Interstice  
into the Cavity we have describ’d; especially since, consider-  
ing-our erect-Posture, .it lies in a Iriore direct Line than even  
the Rings of those Tendons. And if we compare the Ac-  
counts of those very Authors, who think that a Bubonocele is  
always formed in the Processes os the Peritonaeum, we shall  
-find them often agree to this Place only. J - S ;

*Aquapendente*-remarks, That-a-Bubonocele, and *i Vitri\** of

the Crural Vein, have often been mistaken for a Bubo; in  
which Case, upon incision, the Vein or the Gut has been cusp  
so aS to endanger the Person's Lise. Buboes, we all know, are  
always in those Glands which he upon the Crural Vesseis; and  
therefore 'tis plain, he thinks,’ in many Instances, that a Bubo  
and a Bubonocele are in the same Place, that is, in the Place  
we have taken Notice oft Upon thin'Account too it seems  
io be, that *Celsius* called a Bubonocele a *Parin Inguinis.*

The late Mr. Serjeant *Bernard* was concern'd in a Cose,  
where the Gut reach'd under the Skin down to the Middle of  
the Thigh; in which Instance it must descend through the  
Interstice,’ under the Tendons of the Abdominal Muscles;  
for, if it had come down through the Rings, it must heve  
gone directly into the Scrotum, and not turned down the  
" Thigh. And *Barbette* seehis to imply this Way, tho' he has  
expressed it with the fame Obscurity as other Writers do,  
when he lays, *E aperimur etiam proccfsicm Peritonaei ita pesse dise  
rumpi, ut Intestina non in Scrotum, sod inter Cutim et Museu-  
slos, versus'Femur', sese urgeant.* Where" by the Words, *pro-  
. cefsum Peritonaei,* if he means the Productions which arise  
from the Vaginal Coat, we have sech, that the Gut cannot  
get into the Situation he describes. Perhaps it may give us  
a little more Light into the Matter, if we consider the Ingui-  
nal Hernia in Woinch. *Fallepius* deduces it from the round  
Ligaments of the Womb, winch make the same Perforations  
in the Tendons of the Abdominal Muscles of that Sex, aS are  
in those of Men. - 'Tis very true, they do, but not in the same  
Place; sor these Rings in Women lie just upon the Os Pubis;  
and the Ligaments, as soon aS ever they are passed through  
them, are strongly inserted with the Tendons into the Bone.  
So that, by the Streightness os the Passage, there seems to he  
little room for a Hernia here: and is there were, the Gut  
must he just forward upon the Os Pubis, as indeed we find  
sometimes it does, even as sar aS the very *Labia Pudendis*But I believe in such Ruptures it will be found generally to  
take its Course much more aside, towards the Os Ilium. Arid  
therefore *Celsius* exprefly says, that a Hernia in Women *sit  
preecepue circa Ilia.* That the Peritonaeum may be distended  
in this Place, is plain from the Account *Nuck* gives us of a  
Dropsy in this Membrane, which spread itself, he says, and  
form'd a Sack in the Thigh, *per vacua musculorum scpatia.*And *Hildanus,* in explaining the Reason of a *Hernia Uterina,*thinks the Extension of the Peritonaeum happen'd *circa fora-  
mina illa, circa qua Bubonocele sit in Mulieribus:* and if we  
compare these Words, which are ambiguous enough, and per-  
heps left so off: Purpose, with a Description os the Posture  
which is given os the Tumor, we shall find them only appli-  
cable to the Interstice we speak of. How capable the Perito-  
naeum is os a large Distention, an Ascites alone will sufficient-  
ly convince us; and that such a Distention aS there is gene-  
rally in the present Cafe, without any Rupture, may happen,  
not only at its Productions in the Groin, or the Navel, we  
may find sufficient Proof in the Writers of Surgery. *Barbette*gives Instances of such Hernias in the Back, above rhe Navel,  
below the Navel, *longe supra Ilia,* he says, which have been  
by Mistake cut sor an Abscess. *Paulus* indeed distinguishes the  
Intestinal Hernia, as it proceeds either froth a Rupture, or a  
Distention of the Peritonaeum; and says exprefly, that the  
. Operatinn hy the Knife is only, to be attempted in the latter  
Case. .But .whoever with Attention considers the Anatomy of  
these Parts, must, I think, be of a quite contrary Opinion;  
Tor in a Rupture of the Peritonaeum, if the Operation be per-  
form'd, and the Gut once reduced, we may conceive how ail  
the Parts of the .Peritonaeum, aS well as the rest, may he so  
‘ healed and *. united,* aS not to give way to’ any Descent of  
the Got Tor the future; But in the Case of Distention, Is,  
after the Operation, the Peritonaeum remains distended, as in  
"miss, show, is the: Return of the Hernia prevented ? To forth  
Ἄ right. Notion of such a Distention, one ought to see the cti-  
ssious Preparations os that diligent’ and accurate Anatomist Dr.  
*[Douglases,* who is she first whe has given us any . true Idea of '  
"the Peritonaeum, a Part which jo fo /much; concern'd, and  
whose Structure should be so much consider'd, not only in  
;this Operation, but in the High-way.for cutting for the Stone.  
*. Freindls 'History of Physic.:* See the Account of *the Hernia*

*Cruralis,* in the fatter Part of this Article.

**Ά** Tumor proceeding from the Falling down of the Inte-  
stines, or Omentum, or both; together, through the Procelles  
**of the** Peritonaeum, towards the Groin, is called by Physi-  
cians a *Bubonocele,* taking its Name from *Bubo,* as resembling  
that Disease.. Some, with *Celsius,* have called it a Rupture of  
the Groin, or a *Hernia inguinalis.* Others have named it an  
inroryp/durHernia; distinguishing it from that perfect Hernia,  
which in.Men is form'd by the Falling down of the Intestines  
into, theScrotum; tho', to speak the Truth, the former *lai*these Disorders wants nothing to make it a *complete* Hernia.  
Commonly there is a Prolapsus, or Falling down, of the small  
Intestine only-;\* him sometimes- it is attended with thet of the  
*Coion,* and the *Caecum,* especially on the Right Side of the  
**-Groin 4. of which T have known some** Examples. " And-not

senly Men, but Women also,' are frequentiy affected with  
fuch Ruptures, and that to so great a Degree, that the pro-  
lapsed Intestines have sometimes penetrated to the Very Labia  
Pudendi. And not Only *Ruyfch,* but *Petit* and *Arnaud,* have  
observ'd a Prolapsus of part of the Bladder; and *Hildanus, as*well as *Ruyfch,* mention a Falling out of the Uterus into the  
Groin. We ought therefore to he extremely cautious, lest by  
mistaking a Bubonocele for a Buhe, or any other likeTumor or  
Abscess, we make an Incision in the Pars, and so, by per-  
forating the Intestine, destroy the Patient. This is a Caution  
given by *Fabricius ab Aquapendente,* as well as by many mo-  
dern Authors.

A Bubonocele arises from two different Causes ; for some-  
times the Perforations in the Muscles of the Abdomen, through  
which the Processus of the Peritonaeum, and the spermatic  
Veffeis, pafs, or those which transmit the Crinal Vein and Ar-  
tery, are by Degrees, and almost insensibly, by various Causes,  
relaxed, in such ' a manner, as to give occasion for the inte-  
stines, together with the internal Membrane of the Peritonaeum,  
to break through. Sometimes on a sudden, and by Violent  
means, as Leaping, a Fall, a Blow, Overstrainingin moving  
or lifting great Weights, or any other way, a Cough, Voci-  
feration, blowing a Wind-instrument, Riding, Violent Gesta-  
tion, eager and immoderate Venery, Vomiting, or any other  
forcible Way, the Peritonaeum, in the Places before described.  
Is either lacerated, or, according to the general Opinion of the  
Moderns, fo sar distended, as to make way for a Falling thro'  
of the Intestines,, sometimes with, and sometimes without the  
Omentum. Sometimes only one Side of the Intestine, op-  
posite to that which joins the Mesentery, is engag'd in the  
Perforations or Rings, as *Morgagni* and *Ruyfch* observe, and  
of which Mr. *Littre* relates a History in the Memoirs of the  
Academy of Sciences for I 7 00.

When this Disorder comes on flowly, and by Degrees, the  
Patients for the most part feel no great or frequent Molesta-  
tions or Inconveniencies; but if they become sensible of the  
Distemper on a fudden, or, after they have long been afflicted  
with it, expose themselves too much in the Cold, use Violent  
Motion or Straining, sail into a Violent Fit of Anger,' aS I  
have observ'd, or make too plentiful a Meal, especially on  
gross Aliments, and such as are of bad Juice, they commonly  
suffer very severely from it. For not only the Intestines are  
miserably distended by the Faces, but sometimes the Open-  
Ings or Perforations, through which the Intestines fall, are  
straighten'd to such a Degree, as to compress the Intestines in  
an extraordinary manner, so as to hinder them from transmit-  
ting any of their Contents, and even to. stop the Circulation os  
the Blood in their Veins. Such a Case must almost necessa-  
rily he attended with a great Inflammation of the intestines.  
Pains, Inquietude, violent Vomitings, and the Iliac Passion,,  
commonly called the *Miserere mei,* just mine same manner as  
these Symptoms are excited by an *Omphalocele,* or *Gastroceleb*and so there is form’d a sort Of *Hernia incarcerate,'* as Phy-  
sicians call it. Here take Notice by the way, that they who  
labour under a Hernia of the Scrotum, are often exposed to  
the same Inconveniencies; for which Reason all Persons afflict-  
ed with a Hernia, whether it he of the Navel, the Groin,  
or the Scrotum, ought never to go without a proper Girdle,  
Fillet, Bandage, Bracers, or Truss; and, aster they have worn  
them, should be Very cautious os leaving them off, for fear of  
exposing themselves to the Danger of a *Hernia incarccrata,*which Very often destroys the Patient ; tho’ it\* cannot be de-  
ny'd, that such Disorders may sometimes happen to those whe  
are secur'd by Bandage or Trusses, on occasion of hard Ride-  
ing, or any other Violent Commotion of the Body, - by which  
the Truss is broken, or mov'd out of its right Place, or  
loosen'd in such a manner, that the Intestines force a Passage  
out of the Abdomen. Such an Accident once happen’d to the  
Duke *de Villeroy,* a Marshal of France, , while he was hunting,  
*as Dionis* telis us in his Book of Surgery, where he treats of  
Hernias. Persons therefore under such an Affliction, should  
either ride not at all, or he Very cautious in riding.

A *Bubonocele,* or *Hernia Inguinalis,* is commonly known  
by the following Signs: There is a Tumor in the Groin,  
which extends itself to the Ring of the Muscles of the Abdo-  
men, and, when it is not incarcerated, is sometimes Visible,  
and then again disappears, according to the different Situations  
and Motions of the Body. When we apply our Hand, we  
plainly perceive an equably hard Prominence, not unlike an  
inflated Intestine. AS the Disorder gradually increases, the  
Tumor, when gently depressed with the Hand, and especially  
when the Patient lies upon his Back, quite. Vanishes,, retiring  
into the Abdomen with a fort of rumbling Noise. But when  
there is only a Prolapsus of the Omentum, the Tumor is com-  
monly softer, and like Fat to the Touch, and not mutable  
in Bigness, like that of the intestinal Hemia, but, for.the most  
parts constantly appearing the same. When there is a Pro-  
lapsus of both the Omentum and Intestines, there is almost  
.Constantly a soft kind of Tumor, which remains after the  
Intestines are replaced. A *Homia* which happens suddenly.

and an incarcerated *Hornia,* are known by the fellowing  
Symptoms: The external Tumor, sometimes when only ex-  
cited by the Omentum, is remarkably red, with a Hardness  
and Inflammation. The Patients suffer most intense Pains,  
both internal and external, attended with a Vehement Heat,  
or a Fever; and commonly Violent and obstinate Vomitings  
quickly succeed, first of the Aliments, and natural Contents,  
and at last of the Excrements, with extreme Anguish and Agi-  
tations, under which the Patients are Very much weaken'd,  
and saint-at every Turn, till, sailing into a cold Sweat, and  
Refrigeration of the whole Body, they at last expire, unless  
seasonably reliev'd.

As *Hernias* in general are accounted shameful Diseases, so  
especially are those which affect the Pudenda regarded as  
such, and therefore usually kept secret. The EVent also of ,  
this Distemper is usually doubtful and dangerous, especially  
when it is degenerated into an incarcerated *Bubonocele.* If  
the Intestines are not as yet intercepted or engag’d, and the  
*Hernia* comes on gradually, the Disease is the milder, and less  
dangerous, especially when the intestines, after being replaced,  
are secur'd and restrain’d by some proper Truss or Bandage,  
winch must be constantiy worn for a long while. The Disor-  
der, however, is Very troublesome, and renders the Patient un-  
fit sor many kinds of Bufiness; besides, it is to he fear'd, thet  
the *Hernia,* tho' never so savourable, should by too streight a  
Constriction of the Tumor by the Truss by little and littie,  
or perhaps on a sudden, degenerate into a *Hernia incarccrata,*attended with all the soremention'd dreadful Symptoms. In  
a *Hernia incarccrata,* if the intestines be not seasonably re-  
placed, commonly after the second or third Day, and some-  
times sooner, a Violent Inflammation seizes the Parts, which  
in a Very short time destroys the Patient; for which Reason we  
must he speedy in our Assistance, and if the Distemper he too  
stubborn to yield to Medicines, and the Symptoms are Very  
threatening, we are not to delay the. Operation, but enter  
upon it sometimes before the Eno os sour-and-twenty Hours ;  
for when the Strength of the Patient is exhausted, and red  
and black Spots appear on the Tumor, a Sphacelus is indi-  
cated, and a cold Sweat, and total Refrigeration of the Body  
bring on Death in a Very sew Hours. In such Circumstances,  
therefore, not only all Assistance from the Surgeon is useless,  
but it is greatiy to he feared, lest the Patient should expire un-  
der an Operation sufficientiy dangerous of itself, and so the Cause  
of his Death, which ought rather to he ascribed to a Sphace-  
lus of the Intestines, should be rashly and inconsiderately  
imputed to the Operation. But when the Symptoms are more  
mild, and less urgent, and the Patient is yet sufficientiy strong,  
the Use of the Knife may be deferred. When the Omentum  
salis Out with the Intestines, there is commonly less Danger,  
than when there is an incarceration or Coarctation of the bare  
Intestine, the' sometimes a Prolapsus of the Omentum alone  
has excited the Symptoms os a *Hernia incarccrata,* as is Ob-  
serv'd by several Authors in Cases where after Section they dis-  
cover’d nothing but a *Prolapsus* of the Omentum. But as  
soon as the Tumor, the Redness and Hardness of it being in  
some measure diminish'd, begins to grow black, with a kind  
of Softness, or appears with red, livid, or blackish Spots, as  
we said before, and has lost the Sense of Feeling, and a con-  
tinual Vomiting, with a Fever, afflicts the Patient; if **the**Pulse be weak, and the Eyes look disturb'd, and, as it were  
corneous, we ought to consider these Symptoms as manifest  
Indications, that the Intestines are already seiz'd with a Spha-  
celus. If the Inflammation be communicated to the interior  
Parts, which is conjectur'd by the Distention of the Belly,  
and the Elevation of the Navel, there is little or no Hope  
of Life. And in the last Place, where there is a Coalition of  
the prolapsed Intestines with the other Parts, the Method of  
Cure by the Knife usually proves Very doubtful and difficult,  
because the intestines can very seldom or never be replaced  
within the Belly, unless by means of the Knife they are se-  
parated from the Parts to which they adhere, which is some-  
times impossible m he effected, especially in a *Hernia femora.,  
lit,* when the Intestines have made a Coalition with the Cm-  
ral Vein or Artery, as *Garengeot* has observ'd. They may  
therefore he thought to be in the right, who are of Opinion,  
that the Antients never undertook a Chirurgica! Operation of  
this kind ; for neither *Celsus,* nor *Paulus AEgineta,* nor any  
Other of the Antients, as far aS I know, have mention’d it.  
However, because this Method of Cure has been often found  
to he of Service, tho' attended with many and great Difficul-  
ties, we think that in due Season it ought by no means to be  
neglected. '

ε. There are, in general, three Methods of Cure, which are  
to he chosen according to the Degrees and Age of the Distem-  
per. Where the prolapsed Intestines may he commodioufly  
restor'd, the Method of Treatment may be as follows: The  
Patient being said upon his Back, with his Thighs somewhat  
bended, that the stretched Skin may have Liberty to relax,  
the prolapsed Intestines, with all that belongs to them, are to  
he taken with the Hand in th/» softest manner imawinahle. and

repressed into their proper Situation with all possible Gentleness ;  
after winch a glutinous Plaister, with a Bolster, must be laid on  
the Part which transmitted the Intestines, and fasten'd and se-  
cured by a fit Bandage, or Truss, furnished with its Bolster,  
Or Escutcheon, Various Sorts of which are represented *Tab.*

This Instrument by keeping the Belly, and the relaxed Parts,  
in a firm and proper Constriction for several Months together,  
is the Patient he a Child, and oftentimes in adust-Persons,  
effects a Conglutination, and a perfect Cure, or at; least so  
contracts and frreigheens the Aperture, shat the Intestines no  
more falling out, the Abdomen, and the relaxed Part, are in a  
great measure restored to their former Tone and Vigour. It is  
certain, that Infants, Children, and young Persons, or such as  
are not much above twenty Years of Age, may for the most  
Part by this Method, with the greatest Ease and Success, he  
restored to a perfect Soundness ; and consequently, there is no  
Necessity of immediately subjecting them to a cruel Section  
under the Hands of strolling Quacks and Mountebanks, since  
a much milder Treatment would heve done the Business; be-  
sides which it ought to be consider'd, thet the sole Aim of  
these Pretenders is to extort aS much Money as they can for  
the Cure, which costs the Patient a Testicle, and oftentimes  
his Life. Elder Persons, who have once experienced the Me-  
thod of Cure by Trusses, ought to be Very cautious how they  
leave them off during their Lives, unless they have a Mind to  
run over a new Course of Pain and Trouble; and they ought  
no less to avoid all Violent Agitations of the Body. Numbers  
of Persons, who have formerly labour'd under a Hernia, with  
due Caution, and the Help of a proper Bandage, have heen  
enabled to follow Business, and live to a good old Age. AS  
for young Persons of twenty Years of Age, or mure, if the  
Disease he but newly contracted, I have Very often known  
them to be happily cured by wearing proper Bracers *fBrache-  
ria). Heister. Chirug.*

**BUBONOCELE, or HERNIA INGUINALIS, INCARCERATA.**

If the Hernia he incarcerated, or intercepted, whether it he  
by the Ring-of the Muscle of the Abdomen, or, as *Le Dran*observes, by the upper Part of ths Sack itself, which contains  
the prolapsed Intestines; and the Circumstance is such, that not  
only the Patient suffers most acute Pains, but the Intestines  
cannot convenientiy he reduc'd; some immediately hetake.  
themselves to the Knife, for enlarging the Opening thro' which  
the intestines are thrust out, in the fame manner as is directed  
for the *Omphalocele.* However, because the Cure of a *Hernia  
incarcerate* principally consists in restoring the prolapsed Inte-  
stines, or Omentum, with all that belongs to them, to their  
former Situation, it is the Part of a prudent Physician first to  
try milder Remedies, before he proceeds to so painful and dan-  
gerous an Operation. Therefore, hesides Phlebotomy, which  
is often of Very great Service in this Case, and the same, if  
necessary, repeated, there ought to be frequent Applications of  
mollifying Oiis, Ointments, or Cataplasms; and the Belly is  
to be evacuated by Clysters, till both the Intestines, and the  
Openings thro' which they burst, being sussicientiy mollisy'd,  
all that is removed from its proper Situation may, by means os  
the Fingers, be reduced to their proper Place within the Abdo-  
men ; and the most convenient Way os Operation for this Pur-  
pose is as follows: The Patient, having first made Water, is  
to lie on his Back, with his Head depressed, his Hips pretty  
much erected, and the Thigh os the affected Side a little hent:  
then the Intestines, by Application of the Fingers upon the  
. Tumor, and, aS it were, circularly agitating the same, are to  
be repressed towards the Os Ileum, and restor'd to their proper.  
Situation. This done,, that Part of the Abdomen whence the  
Intestines burst forth, is to be Very carefully held by an Assist-  
ant, that the reduc’d Parts may not break out again ; and, in  
**the** last Place,, a proper Bandage is to be made, hy. applying a  
glutinous Plainer, with a thick simple or double triangular Bol-  
ster, upon thedefective Part, and securing their firm Adherence,  
bringing over them a kind of Fillet, which they call *Spica In-  
guinis,* or Straps os Leather, This Bandage must not he lest  
**off** without the utmost Caution, but must, be worn Tor a long  
while, and, is the Age os the Patient requires it, during Life;  
But if the Intestines cannot he reduc'd by the foregoing Met  
. thod, it will not be amiss to attempt the Cure by means of a

Clyster of the Smoke of very strong Tobacco, continually In-  
jected into the Anns for a. sufficient Time; thy Help of a pechr  
- liar Machine, represented in *Tabriz. Fig.* 13. ‘ By Help of  
tins Instrument I have .cured several, and, among the rest, a  
**Man** upon whom all other Clysters hed no Effect, and wsio,  
for three Days, had suffered the most tormenting Pains from an  
*Hernia incarcerate* ; and, on account os the intolerabse Foetor  
of his stercoraceous Vomitings, and the extreme Weakness of  
**his** Body, was given over by all who attended him. And I **heve**fince restor’d several others by means of this Fume of Tobacco,  
fo that hitherto I have had no Occasion to make use of the Knife  
in these Cases. *Cladus* supposes, that the prolapsed Intestines  
**may Very Commodiousty he. restored, by. means. Of frequent**

Applications of Linen Cloths, dipt in cold Water, to the Tu-  
mor. This Method, while the Disease is recent, I believe,  
may not be altogether ineffectual; but, where the Inte-  
stines have contracted .any Corruption, I am of the contrary  
Opininn.

When the prolapsed Intestines cannot he reduced by the fore.,  
going Method, which is sometimes the Case, as when the Tumor  
is grown too hard, and the Inflammation, with **the** Paisq, and  
stercoraceous Vomitings, are come to a great Height, it is the  
Part of a prudent Physician to inform the Friends and Relations  
of the Patient, of the great Danger os the Case, and of the  
Necessity of having recourse to the Knife, not forgetting to re-  
present also the Difficulty of an Operation of this kind. And  
this is to he done in Season, before the Parient be grown too  
weak, or the Intestine corrupted, and the ^dubious Hopes os  
Life, by Delay, converted into Fear of present Death, that  
the Destruction of the Patient may .not be imputed to the  
Surgeon, when it was impossible to save him. When, there-  
fore, the Patient, with the Consent of his Friends, is willing  
to submit himself to the Operation, he is, first of all, to empty  
his Bladder, lest, being distended with Urine, it should hinder  
the Regress of the intestines, or be hurt with the Knife. The  
Urine, then, being discharg'd, the Patient is to be laid on his  
Back, on a Table, or the Side Of a Bed, and the Groin, if  
hairy, shav'd, that the Hairs may not be an Impediment to the’  
Operator. Then, the Head being depress’d, and the Hips  
rais'd, the Patient is to be firmly held by some of the strongest  
Assistants, the Thigh adjacent to the diseas’d Part being a littie  
hent, in order to avoid too great a Distention of the Skin. Aster  
this, the Surgeon takes up the Skin, together with all the Fat,  
on one Side of the Tumor, whilst an Assistant does the same on  
the other, and, raising it as much aS possible, makes a strait In-.  
cision with the Knife thro' the Middle of the Tumor, and  
afterwards widens the Wound, both upwards and downwards,  
as much as he thinks sufficient. But if, by reason of the Vio-  
lence of the inflammation, the Skin cannot he taken up in **the**manner aforesaid, as it sometimes happens, the Operator takes  
hold os the Tumor with the Thumb and middle Finger of his  
Left Hand, and, with the greatest Caution, and Steadiness of  
Hand, drawing the Knife downwards, makes a strait .Incision  
over the Middle os the Tumor; but so flight a one, as only to  
divide the Skin, which, in these sorts of Tumors, is usually  
very thin, for sear of cutting the Intestines, which sometimes zhappens, and endangering the Life of the Patient. The Skin ‘  
being a littie divided, in the manner directed, a groov'd Prohe  
is to he introduc'd between the Skin thus divided and the Tumor,  
and the Wound enlarg'd, with the Knife or Scissars, above and  
below. After this, the Lips of the.Wound heing kept asunder,  
by Hooks, on each Side, and the Knife said aside, to avoid in-  
juring the Intestines, whatever Portion of Fat, or of the Mem-  
brana Cellulosa, may be found cohering, must he carefully sepa-  
rated, by means of the Prohe, the Spathula, the Handle of **a .**Knife, or the Nails of the Fingers, till the Intestines, or, what  
more frequentiy happens, their Integument, which is a Dilata-  
tion of the Peritonaeum, and call'd the *Bag,* appears in View.  
The modern *French* Surgeons, as *Garengeot* allures us, gently  
and warily divide the Laminae of the Membrana Cellulosa, thet  
this Part of the Operation may the sooner he over, not with  
a blunt Instrument, but with the incision-knife, which they  
draw along, not in a perpendicular, but oblique. Direction,  
till they come to the Bag before-mention'd, when the utmost  
Circumspection is requir'd, in order to avoid wounding the in-  
testines with the Knife. While we are cutting this Integument,  
or Bag, it seems necessary, for the Security *of* the subjacent in-  
testines, to pinch it up a littie between the Thumb and fore  
Finger of the Deft Hand, and, with the Knife, or Sciffars,  
warily applied, make a Very flight Incision, or only a small  
Perforation. While this is doing, the Surgeon ought not to he  
terrify'd,\_ if any thing like Serum, or Water, should happen  
to gush Put, as if he had wounded an Intestine, (for some sort  
of aqueous Liquor almost constantly occurs) but must go on  
with the Operation, in cutting upshe Bag, till he comes to the  
Perforation, or Annulus of the Abdomen, which is done  
by means of a Pair of Prohe-scissiarS, or a Knife, either shait or  
crooked, introduc'd by Help of a groov'd Prohe, .or a Knife  
arm'd with a Button, (see *Tab.* 26. *Fig.* 3. 4. and. 5Ἕ winch  
*GArcugeot* prefers before all other Instruments,, or by the Scisr  
.sars. Or Knife, introduc'd upon the Finger. If, during this  
Incision,, any littie Blood-vessel should happen to he cut, and,  
by bleeding plentifully, hinder, the Operation, it must he com-  
press'd, by an .Assistant, with his Pingers alone, or a. Bolster  
under them, or a. Ligature maybe made on the Vessel with **a**Needle-and .Thread, and the Blood must be absterged with **a**.Sponge, or Linen Rags. Thin heing done according.to Art,  
-the next .thing is, .by a gentie Compression of the Fingers,, to  
tforce back the Intestines, if they have escaped sound, thro\* the  
-Ring of the Muscles of the Abdomen, in this XArtempt, if  
the Surgeon he hinder'd by the included Foeces or Flatus, he  
must first try to remove them by gentie means ; but, if such a  
**Method, prove ineffectual, the .Place of the Prolapsus, that is.**

the Opening, or Ring of the Muscles of the Abdomen, must  
he ’enlarg'd to a sufficient Breadth with the Knife, but with  
Caution, and inwardly, or towards the Linea Alba, sor fear os  
cutting the Epigastric" Artery’, which runs along the Outside,  
arid thereby causing an immoderate Effusion os Blood. But is  
this should happen, the Blood must he stop'd by a Pledget of  
lint, arm'd with a styptic Liquor, and by Compression against  
**the** Os Ileum. If there be an Adhesion os the prolapsed Parts  
externally, they must be loosed with the greatest Caution. The  
Instruments proper for dilating the Annulus are the Knife, or  
the before-mention'd Instruments; and, for Defence of the in-  
testines, are the Probe, with a Plate in the Figure of a Heart,  
*{scab.* 45. *Fig.* 8.) or *Morandus's* Knife, *(Tab.* 45. *Fig.* 9.)  
or that os *Le Dran, siFab.* 45. *Pig.* Io.) inclosed in a Sheath,  
as in a sort of hollow Probe. For some time those Knives,  
which are delineated, *{Tab.* 46. *Fig.* I. and 2.) and are in-  
closed in Sheaths, were very much in Request for this Purpose.  
The first of these is here represented, (Fry. I.) conceal'd within  
its Capsula (A. C.), which, aster its being introduc’d into the  
Place os the Prolapsus, by pressing the Plate (B.), comes out  
of its Capsula, as isJshewn, *{Fig.* 2. A.) and makes an Inci-  
sion in the Place of the Prolapsus, whether it he the Ring of  
the Muscles of the Abdomen, or the upper Part of the Bag, in  
which the Intestines suffer a Strangulation. But,’ because the  
interior Parts are more subject to be cut and wounded, when  
the Point of the instrument first comes forth and cuts, than the  
Part which compresses the Intestines, the former Instruments  
are now justly look'd upon as the most convenient. But lest the  
Intestines, as heing remarkably lubricous, should happen to  
rush out, and fall upon the Knife, while we are busy in using  
the simple groov'd Probe, or *Morandus's* Knife, *{scab.* 45.  
*Fig.* 9.) they ought to be carefully repressed, and held down by  
an Assistant. For the same Purpose, under the Instrument  
represented *(Nab.* 46. *Fig.* 2.) is a Plate (D.), which after-  
wards Messieurs *Patit* and *Le Dran* imitated, and endeavour'd

to correct; the first in a Probe, represented *[Tab.* 45. *Fig.* 8.), l  
and the other is figur'd *Nab.* 45. *Fig.* IO.). The Place of the  
Prolapsus heing dilated, the Intestines are to be replac'd, and  
secur'd with Linen Compresses, triangular Bolsters, and  
the Bandage call'd the *Spica* (see FASCIA). Some first scarify  
the Annulus, in order to raise a firmer Cicatrix, by which the  
Return of the Hernia is the more easily prevented. This  
Practice I judge not to be altogether amiss, especially in a lax  
State os those Parts. And some there are who introduce a long  
Tent into the Opening of the Abdomen, and apply Bolsters  
upon it; which Method, in a recent and simple Disorder, I  
think is needless, or rather hurtful; as, on the other hand, in  
an inveterate and complicated Disease, where the Humours are  
vitiated and putrefy'd, and there is an inward Abscess, it may  
he convenient to use a Tent.

Tho' the prolapsed Intestines may be successfully replac'd by  
the Methods before proposed, it will not be amiss to give a De-  
scription of other Ways, which some eminent Surgeons heve  
fry’d. Some, in Imitation, and by the Advice, of M. *Amaud, 2*famous Surgeon of *Paris,* having perforated the Skin, gently  
introduce a groov'd Prohe, shut at the Extremity, as is repre-  
sented *seTati.* 22. M. and NJ, under the Skin, and, cutting  
upon it with blunt-pointed Scissars, enlarge the Wound to a  
sufficient Wideness. Then taking held of the Lips of the  
Wound with the Fingers of either Hand, with one Finger, of  
the other they gentiy separate the Skin from the subjacent Tu-  
mor ; and then cutting with the Knife, or Scissars, upon the  
Finger, divide the same as the Bulk of the prolapsed Intestines  
requires. After this, putting the middle Finger and Thumb  
Of the Left Hand upon the Tumor, they take a sharp crooked  
Knife in their Right Hand, and, holding it a littie on one Side,  
for the sake of better Light, and the more easily to avoid  
wounding the Intestines, or their Bag, they very cautiousty cut  
thro' all the Tunics whichinclose the Bag, which are sometimes  
more, sometimes fewer in Numher, in proportion to the In-  
veteracyof the Tumor. If any Blood-Vessels occur, they tie them  
in two Places, hefore they cut them, that they may. heve no  
Impediment from an Haemorrhage; and whatever Blood hap-  
pens to stow from the Wound, is carefully wip'd away with  
Linen Cloths. Whatever Pieces or Scales of the Tunics ad-  
here, on either Side, to the Bag, they are either pull'd off with  
the Fingers,, or cut away by the Probe-scissars, introduc'd upon  
**a** groov'd Probe. This done according to Art in every Parti-  
. cular, the next thing is, with the Thumb and fore Finger, to  
take firm hold of the upper Part of the Coat of the Tumor, or  
the Bag of the intestines, and distend it upwards. Near this  
Bag, separated from whatever, adheres to it, and left entirely  
imperforated, the famous M. *Petit* introduces his groov'd Prohe  
.with a sheathed Point, under the Annulus, by which the In-  
testines fall out, and enlarges the Passages by the Method hefore  
prescrib'd.. Then, taking hold of the lower Part, of the Bag  
with his Hands,, he gentiy depresses the intestines therein con-  
tain'd towards the Os Ileum, and so, by Degrees, reduces them  
.to their former Situation. The Intestines being thus reduced,  
**for their: better Security against a future Hernia,. he represses**

dso the Bag, being first doubled, thra’ the same Opening, Tim  
which, as he assures us, it afterwards hardens by Degrees, and.  
firmly closes it up) applying upon it a Linen Ball, made of:  
Linen Thread, and cover'd with Linen Cloth, 'call'd by-the  
*French* M. *Pecills* Pellet, which is first well moisten'd with the  
White and Yolk of an Egg, beaten up with a littie Spirit of  
Wine, and afterwards squeez'd, and roll'd within the Hands  
into a cylindrical or oval Figure. By the Sides os tins Ball, and  
also upon it, are plac'd other very small Linen Balls, or Lint;  
and, in order to their firm supporting and keeping in the dis-  
eas'd Parts, they are cover'd with three or sour triangular Eoi-  
stars, one larger than another, moisten'd with Spirit of Wine;  
and the Whole is Very exactly secur'd with the Bandage call'd  
*Spica inguinalis.*

But, if we may speak the Truth, this last Method of Cure;  
winch does not permit the Bag to be open'd, is not approv’d of  
by me, nor by those who are better Surgeons than myself; and  
that, first. Because there is commonly a Coalescence on all.  
Sides of this Bag with the Spermatic Vessels, which are easily  
injur'd in their Separation from it. (2.) Because the prolapsed  
Omentum, or intestines, frequently contract a Corruption,'  
which, if the Bag be lest closed within the Abdomen, can  
neither be known, nor convenientiy remedy'^, and, confe-  
quentiy, may be the Cause of the Patientis Death. (3.) Some-  
times the Bag includes a large Quantity of fetid Ichor, which-  
cannot be repell'd into the Abdomen without most manifest In-  
jury ; sor *Cheselden,* a modern and Very celebrated *Britiss).* Sur-  
geon, writes, that he has found about two Pints of fetid Mat-  
ter, like Lees os Oil *(Amurca),* in. a Hernia os this kind,.'  
which, if repel'd, and clos’d within the Belly, would doubt-  
less heve proofd mortal. (4.) The Intestines; and Omentum;  
in these Cases, often grow to the external Parts, and, if the  
Bag be not open'd, can neither be separated, nor reduced within \*  
the Belly. (5.) The Bag left entire, especially is it. be Urge,  
nay easily give Occasion to a.new Hernia,, and . he a fit Recep-  
acle for it. (6.) This Method, in case of a Rupture Of the  
?eritonaeum, is altogether unsuccessful. These, . and other  
Reasons, were Very fitly objected to M. *Petit* by *Manchartus,*Professor of Physic in the University of *Tubingen,* and formerly  
a Pupil of ours. And *Le Dran,* fo often quoted, a Surgeon  
of *Paris,* does not at all approve of this Method ; first, be-i  
cause no particular Advantage can he perceiv’d to attend it -  
and, secondly, because, if the Hernia be incarcerated sor seve-  
ral Days, the Intestine is often corrupted with a Sphacelus, in  
which Case the vitiated Parts of the Intestine are .separated,,  
and fall off, as it often happens, or at least ought to happen, if  
the Patient recover; and the Chyle and Excrements would then  
he discharg’d into the Cavity *os* the Abdomen, and so necessarily  
destroy the Patient. For these Reasons I think it a hetter Way,  
for the most part, especially if the Disease be inveterate, and  
**the** Tumor large, to oped the Bag, than to leave it entire; anth  
J am of Opinion, that *Petit\* s* Method can' safely be used only  
when the Disease is recent, and where there is no Corruptiori  
of the intestines, no Concretion,: and no Abscess s and *Garen-  
geot* himself, in the second Edition of his Chirurgical Works,.  
confines this Meshed of Cure within , the Limits os these  
Observations. j ... . ...C

*- Cyprianus,* an eminent *Dutch* Physician and Surgeon, **who**spent the last Part of his Lise in *England,* and to whom I am  
oblig'd in Gratiude, for what I there I earn’d os him, practised  
much in the same manner as *J* heve directed above for this Dis-  
temper, by opening the Skin, and Bag:Of the Peritonaeum;  
bus, instead of a Probe, or Conductor, he us'd his Finger as the  
best Conductor, in order to enlarge the Wound in the Bag and  
the Skin. But when the Opening, or Ring of the Muscles of  
the Abdomen, was not large enough for reducing the .prolapsed  
Intestines, he first introduc'd a groov'd Probe, with a Knife,  
*for* dilating the Ring;.and thenoutting.upon his Finger with **the**Scissars, divided the Skin, Fat, Muscles, and Peritonaeum,- till.  
he had made a Passage wine enough for reducing the Intestines  
without any manner of Violence. For he much recommended  
wide Incisions in.this.Case, so sar aS were sufficient for restoring  
the Intestines, without much Trouble, and almost .without any  
Pressure; fince,.if theDilatation were-too narrow, ..there would  
be too greata Compression and Collision *of* the In testi nesfers our  
endeavouring.to reduce themwhich mighteasily gihe Occasion  
for dangerous .Inflammations,: -Gangrenes, Rud’ Death itself.  
Whenever he discoverloia. Coalition of the: great an’d. sinall In--  
testines with the external Parts,- he Very dexterously separated  
.them with the Kniher and then -repladd them. in.the.'.Bdlly;

-after which he closed and conglutinatedsthe. Wound,, *bise*means  
os the knotted Suture,- aS is practised: is GastrutainIyss And not  
only. *Celsius* has recommended This-Suture in the Cure of this  
Disease, butthe samous-Roiserhas directed it ma Hernia incar-,  
cerata; and the Very learned *Germ arc* Physician and' Surgeon  
*Rjoolsuuiies,* a hundred Years ago, practised - the-same with  
Success, in the like Disease. . .. . \_ ... ‘ rsi *.s'- . . .. so".*

That celebrated *Brtiisu* Surgeon,. *Cheselden,* after the Exam-  
ple os *Rouset,.* .in curing an *Hernia incar cerata,* whermithe-In-  
**(testines** and Omentum were fallen ous,--open’d the Bell/,: thet

**V, the** Skin, Fat, Muscles of the Abdomen, and the Perito-  
Isaeum, with the Knife, by making a great and strait incision  
above the Ring of the Muscles of the Abdomen, aS sar aS the  
Place of the Prolapsus, and thro' this Wound introduc’d the  
prolapsed intestines with his Finger. AS for the Omentum  
which adher'd, he perforated it with a Needle carrying a double  
Thread; then ty'd it, and cut it off, and, by these means,  
happily restor'd the Patient. He has publish’d the whole Pro-  
cess in his Book of Anatomy, and illustrated it with Cuts ; but  
whether he conglutinated the Wound by a Suture, aS I suspect.  
Or by any other Way, he does not inform us ; and it were to  
he wish’d, for the sake of the Public, that he had given a fuller  
Description of so extraordinary an Operation and Cure, for the  
Improvement of the Art of Surgery.

The Intestines being, by some way or other, restor'd to their  
former Situation, aS was directed, some use to make frequent  
Incssions and Scarification with the Knife, or Scisiars, in the  
upper Part of the Ring, with this View, that a more firm and  
solid Cicatrix may be rais'd upon the Wound, in order to pre-  
vent a new Hernia; but a great deal of Care is to he taken,  
during this Operation, that the Intessines do not fall out afresh,  
or he cut. For avoiding these Accidents, they ought, in the  
first place,'to be carefully held, and kept in with a warm Towel;  
after this, the Remains of the Tunic of the Bag are to be sepa-  
rated, then ty'd with a Thread near the Ring, and cut off be-  
low the Ligature ; what is superfluous in the Skin must also be  
taken away. The Wound is then to be dress'd with Pledgets os  
Lint, and particularly the Ball or Pellet *of Petit* ; and these are  
to be secur'd with thick triangular Compresses, and the Bandage  
Call'd *Spica inguinalis.* When the Wound is thus dress'd, the  
‘Patient should be put to Bed, and some Hours aster he should  
lose some Blood, unless already Very weak. During the whole  
Course of the Cure, the Patient should lie Very still, with his  
Head somewhat low, and his Diet should be spare, and easy of  
Digestion, as in other large Wounds. Then, if the Patient  
should not have sufficient Stools naturally, they should be every  
Day procur'd by emollient Clysters; and, if the Patient should  
continue without any bad Symptom sor four or five Days aster  
the Operation, we may reasonably expect a Cure will succeed;  
to promote which, it will be prudent to purge the replaced In-  
testines of all vicious Humours, by some proper laxative Medi-  
cine, administer'd during the first Days; but if Hiccoughs, and  
a Fever, supervene, we may be certain, that the Patient is in im-  
minent Danger, and, perhaps, not to he sav'd by the most  
effectual Remedies, tho’ immediately apply'd.

With respect to the Dressings, the following Cautions are to  
he observ'd: First, the Dressings should not he remov'd, with-  
out urgent Necessity, during the two or three first Days, unless  
any noxious Humours contain'd within, or any other sufficient  
Cause, render it proper to open it the second Day; but when  
the Wound is open'd, it may be cleansed of its Sordes with warm .  
Wine, or Spirit os Wine; and the Remainder of the Cure is to  
be perform'd as in other Wounds: But care should be taken at  
every Dressing, .winch ought to he but once a Day, or once  
every other Day, to place the Patient with his Hips elevated,  
and his Head depressed, whilst an Assistant compresses the upper  
Part of the Wound, to prevent the intestine from sailing out  
again, and this till the Cure is perfected. When the Wound  
is heal'd, if the Patient be young, he should wear a proper Truss  
for a Year or two; but if an Adult, or old Person, the Truss  
should he wore during Lise. . But I must not omit taking No-  
tice, that some think fit, immediately after the Operation,  
hefore the Wound is dress'd up, to anoint the whole Abdomen  
with warm Oil of Roses, and then to cover it with warm Linen  
‘Cloths, which does not appear to be absolutely necessary.

’ Many of the most considerable Surgeons os *Paris, as Dionis,  
Mery, Arnaud, Thibet,* and others, advise the Use of a large  
Linen Tent, after the Operation and Reduction of the Inte-  
stine, which heing of a considerable Length and Thickness, and  
fasten'd to a Thread, is to be introduced into the Abdomen, to  
keep open a Passage for the Vent of such Humours as may he  
contain'd within.. *Widenman,* a modern *Gorman* Surgeon, and  
*Dionis,* direct the Tent to he made about an Inch and a half  
long, and an Inch tlrick; and tell us, that it ought not to be  
extracted, but to be left in till it falis out spontaneoufly by Sup-  
puration ; but *Petit* condemns the Use of them as pernicious,  
by irritating the Parts, and admitting the external Ain, which  
may do Injury in the Abdomen: Yet I cannot forbear thinking  
the Use of them very proper, when there is, as it frequentiy  
happens, a Discharge of putrid Humours to be made from the  
Abdomen, in which Case *Le Dran* also approves them; other-  
wise the Tent may he omitted, and it may he sufficient to apply»  
according to *Petifs* Method, a thick Pallet or Ball only, for the  
-more speedy Agglutination of the Wound, together with the  
, above-mentionlu Bolsters and Bandage.

. If in the Operation, upon Opening the Bag, the Omentum  
appears to be suppurated or enlarged, so that it cannot be re-  
. placed, a Needle, with a double Thread, is to be pass'd round  
.the sound Part, and tied on each Side, and the Vitiated Part  
afterwards is to he cut off, but the sound is to be returned.

leaving the Thread hanging out of the Wound. The rest os  
the Treatment must be the same aS in other Wounds of the  
Abdomen, attended with a Suppuration of the Omentum. But  
if the Omentum is only corrupted, but not thicken'd, the cor-  
rupted Part may be left out of the Wound without a Ligature,  
and the sound return'd ; and the corrupted Part will separate,  
and fall off spontaneoufly by Suppuration.

But if the prolapsed Intestine itself be found already morti-  
fied or corrupted, as sometimes happens when the Operation  
has been too long delay'd, the Patient is then in the utmost  
Danger; for, under these Circumstances, the Patients generally  
die either under the Operation, or soon aster. For this Reason  
they are usually deserted by the Surgeon, upon a Supposition of  
the impossibility of doing any Service, and the Apprehension of  
putting them to further unnecessary Pain: But as it is better to  
attempt a doubtful Cure, than abandon the Patient to certain  
Destruction, and as replacing the Intestine in this mortified  
State would he attended with certain Death, the Surgeon  
should cut off the mortified from the sound Part of the Intestine,  
and stitch the superior Part os the latter to the Edge of the  
Wound, in the manner specified sor Wounds of the Abdomen ;  
by which means many have been known to survive the Disor-  
der, and regain Health, tho' there was little or no Hope of  
their Recovery. We are encouraged to this Practice, not only  
by our own Experience, but also that of others: Besides, we  
are told by *Mery,* that a Man was happily cured, who had sour  
or five Feet of his intestine cut off, which was mortified in this  
kind of Rupture, and the sound Part joined to the Lips of the  
Wound in the abdominal Muscles. *Garengeot* also takes No-  
tice of a Man, whose Intestine being found mortified upon  
opening the Sack, and return'd by the Surgeon,, in that Condi-  
tion, into the Abdomen, he had soon aster a Discharge of his  
Excrement by the Wound ; and a Month afterwards the Flux,:  
by the Wound, not Only lessen’d, hut the Lips of the Wound  
itself, heing stopp'd with a Pellet or Ball, tied with a Thread,  
gradually heal'd in such a manner, that by untying the same,  
when there was Occasion, the Man survived, and had the na-  
tural Function of the Parts perform’d as usual, with but littie  
more Trouble.

*Le Dran* observes, that it is a common Calamity among poor  
People, who have had the Misfortune of an incarcerated Rup-  
ture, to mistake it for an Abscess, and to treat it accordingly,  
without calling in the Assistance of any Physician or Surgeon ;  
by which means they bring the Part to Suppuration, aster into-  
lerable Pains; and upon its discharging Foeces orWorms, which  
I have sometimes observed, they then implore the Help of the  
Surgeon. These, he says, generally require nothing more than  
the Ulcer to be cleansed daily, and treated with some vulnerary  
Medicine, cover’d with a Plaister of the same Kind ; by which  
means many such Patients have been recover’d, more by Nature  
than Art, the Ulcer heing entirely agglutinated and heal’d ;  
whereas in others it has left an Aperture in the Groin, through  
which the Foeces, and sometimes Worms, are discharged, as it  
were, by a new Anus. In Imitation of Nature therefore, whe,  
in this Case, often produces a happy Effect of her own Accord,  
*Le Dran (Obs.* 6ο.ὰ does not return the corrupted Intestine  
into the Abdomen; since by this means the . corrupted Parts,  
and the Foeces, sailing into the Abdomen, would bring on the  
most dreadful Symptoms, and perhaps Death itself: Nor does  
he cut it off, but only, by Incssion, dilates the Place, whose  
Narrowness occasions the Strangulation, that the Blood may  
have a free Course; and opens the corrupted Part of the inte-  
stine, that the contain'd Sordes may have a fine Discharge.  
Thus having applied Vulnerary Medicines, Clothe dipp'd in  
camphorated Spirits of Wine, and proper Bandages, to **the**Parts, he waits a Separation of the corrupted Parts, and spon-  
taneous Agglutination of the found Intestine with the LipS of  
the Ulcer, since by this means a great deal of needless Labour  
may be avoided; but *if* the Surgeon should have injured **the**sound Intestine in the Operation, he then thinks it necessary **to**stitch the Intestine to the LipS of the Wound, winch, insiam-  
ing, will more intimately unite with each other. .

- Thet the Parts will thus agglutinate, or join together, is  
confirm'd by a late Observation of *Ramdohr,* present Surgeon  
to his Serene Highness the Duke of *Brunscvick,* who, some  
.Years ago, cut off a large Part of a mortified Intestine in a  
Woman, who had an incarcerated Rupture, which broke of  
itself; and, joining the two found Parts of the Intestine toge-  
ther, he inserted one into the other, and tied them together  
loofly with a String; and, replacing them in the Abdomen,  
drew them by the String to the Mouth of the Wound; by  
winch means the divided Intestine inflamed, and surprisingly  
united, the Woman discharging her Foeces afterwards not thro\*  
-the Wound, but by the Anus, as before. The Woman aster\*  
wards lived in a State of Health, till, in about a Year's time,  
she died of a Pleurisy; and, upon opening her, the divided  
Intestines appear'd to be united with each other, of which **he**made a Present to me, together with Part of the Abdomen,. m  
which they adhered ; and I now keep them in Spirits, to con-  
Vince such aS are incredulous, and of a different Opinion. .

If the Intestineishould he prolapsed into the Scrotum, and so  
contorted or intercepted, that it cannot he reduced, or return'd  
into the Abdomen, the Surgeon must, in this Case, heve re-  
course to the Operation. The Reader may he furnish'd with  
more useful Observations upon this Subject in *Sauiard, Obs.  
Chirr* Io. and 2o. *Nourtial, Obse Pag.* I50. also *inLeDran,  
Obs.. Chir..* and three other .Di(serrations or Descriptions of  
Cases, in *Commere. Dtterar. Norirnb. AcussisySa. 'Pag.* 3. bsi  
*ipicrlhosi.* Physician to the King of *Great Britain,* which are  
Very learned, and worthy os the Reader's Perusal.. *Hesster. ’*

Mr. *Sharp* informs us, that the *Hernia Inguinalis,* and *Her-  
nia Scrotalis,* are both call'd by the common Name of *Bubongul  
cele,* tho' this Appellation is only proper to the first. As this  
Author makes some Observations pot taken Notice of above,  
and as the Opinion of' our Own Country Surgeons, whose  
Judgment is, I believe, *inferior* to none,T will have some  
Weight in so nice an Operation as that now treated of, I shall  
give his Sentiments.; and .am persuaded, that the few Repeti-  
tions of what, has been said, before will he of no Disservice to  
whoever reads this with a View os being susorm'd. .

. The Rupture os the.Croin, or Scrotum, as the.most Coin-i  
mon Species os Hernia,..and inyoung Children is Very frequent ;  
but it rarely happens in Infancy that any Mischiefs arise from its  
For rhe most partsThe Intestine returns of itselfinto the Cavity  
of the Abdomen, whenever the Person lies down ; at least, a  
small Degree of Compression will make it. To secure the In-  
testine, when return’d imo its proper Place, there are Steel  
Trusses now-so artfully made, that, by being accommodated  
exactly to the Pars, they perform the Office of a Bolster, with-

\* out galling, or even sitting uneasy on the Patient. These  
Instruments are of so great Service, that were People who are  
subject to Ruptures always , so . wear them, I helieve Very sew  
would die of this Distemper ; fince it often appears, upon In-  
quiry, when we perform the.Operation for the *Bubonocele,* that,  
the Necessity of the Operation is owing to the Neglect-of  
wearing aTrnssi .

in the Application of a Truss to these kinds of Swellings, a  
great deal of Judgment, is. sometimes necessary; and for want  
of it we daily see Trusses put eVen on Buboes, indurated Testi-  
Hes, Hydroceles, *etc.* But, for the Hernias., I shall endeavour  
to lay down two or three Rules, in order to guide more posse  
tively to the Propriety os applying or forbearing them.

Is there is a Rupture os the Intestine only, it is easily, when  
return'd into the Abdomen, supported by an Instrument; but if  
i of the Omentum, notwithstanding it may be return'd, yet I  
have never found the Reduction to her of much Relief; sor the  
Omentum will he uneasy in a Lump at the Bottom of the Bel-  
ly, and, upon Removal of the Instrument, drop down again  
immediately; upon which Account, seeing the littie Danger ’  
. and Pain there is in this kind of Hernia, I never recommend  
any thing but a,Bag-truss to suspend the Scrotum, find prevent,  
possibly by that means, the Increase of theTumor. The Dis-  
ference of . these Tumors will be distinguish’d by the Feel;  
that of the Omentum sealing flaccid and rumpled, the other  
more even, flatulent, and springy.

Sometimes, in 4 Rupture of both 'the Intestine 'and Omeni  
tum, the Gut may he reduced; but the Omentum will still  
remain in the Scrotum, and, when thus circumstanced, most  
Surgeons advise a Bag-truss only, upon a Supposition, that the  
Pressure of a Steel one, by stopping the Circulation os the Blood  
in the Veffeis of the Omentum, would bring on a Mortifica-  
tion : But I heve learnt, from a Multitude of these Cases, that,  
if the Instrument be nicely fitted to the Part, it will be a Com-  
press sufficient to sustain the Bowel, and at the same time not  
hard enough to injure the Omentum; so that, when a great  
Quantity os Intestine salis down, tho' it is complicated with a  
Descent of the Omentum, the Rupture will conveniently and  
safely admit of this Remedy.

I have, as yet, consider'd the Rupture aS moveable; but it  
happens frequently, that the Intestine, after it has pass'd the  
Rings os the Muscles, becomes inflamed; which, enlarging **the**Tumor, prevents the Return of it into the Abdomen; and,  
becoming every Moment more and more strangled, it soon  
tends to a Mortification, unless we dilate the Pastages, through  
which it is fallen, with some Instrument, to make room for its  
Return; which Dilatation is the Operation for the Bubono-  
cele. .

It rarely happens, that Patients submit to this Incision hesore  
the Gut is mortified, and it is too late to do Service; not but  
that there are Instances of People surviving small Gangrenes,  
and even perfectly recovering afterwards. I myself heve been  
an Eye-witness os the Cure os two Patients, who, some time  
aster the Operation, when the Eschar separated, discharged them  
Fceces through the Wound, and continued to do so *sor a few*Weeks in small Quantities; when, at length, the Intestine ad-  
herfd to the external Wound, and then was fairly heal'd.

. In Mortifications of the Boweis, when fallen out of the Ab-  
domen into the Navel, it is not very uncommon sor the whole  
gangrened Intestine to separate from the found one; so that  
the Excrement must necessarily, **ever after,** he discharged **at**

that Orifice : There are likewise a few Instances where the  
Rupture of the Scrotum has mortified, and become the Anus,  
the Patient doing well in every other respect. These Cases,  
however, are only mention'd to famish Surgeons with **the**Knowledge of the Possibility of such Events, and not to mislead  
them so far as to make favourable Inferences with regard to  
Gangrenes of the Boweis, which generally are mortal.

Before the Performance of the Operation sor the Bubono-  
cele, which is always to he done in Extremity os Danger, **the**milder Methods are to be tried; these are, such aS will conduce  
to sooth the Inflammation ; for, as to the other Intent of soften-  
ing the Excrements, I believe it is much to be question'd, whe-  
ther there can he any of that Degree of Hardness in the Ileum,  
which is the Bowel diseased, as to form the Obstruction: And,  
in Fact, those Operators who heve unluckily wounded the In-  
testine, have proved, by the thin Discharge *of Foedes* which has  
follow'd upon the Incision, that the Induration we feel is **the**Tension of the Parts, and not the harden'd Lumps of Excre-  
ment. .

Perhaps, except the Pleurisy, no Disorder is more immediate-  
ly relieved by plentiful Bleeding than this. Clysters, repeated  
one after another, three or four times, if the first or second are  
either retain'd too long, or immediately return'd, prove very  
efficacious: These are serviceable, not only aS they empty the  
great Intestines of their Excrements and Flatulencies, which last  
are Very dangerous, but they likewise prove a comfortable Fo-  
mentation, by passing through the Colon, all around the Abdo-  
men. The Scrotum and Groin must, during the Stay of the  
Clyster, he bathed with warm Stoops wrung out of a Fomenta- .  
tion, and with these on the Part you must attempt to reduce  
the Rupture: For this Purpose let your Patient be laid on his  
Back, so that his Buttocks may he considerably above his Head ;  
the Boweis will then retire towards the Diaphragm, and give  
way to those which are to be push'd in. *Is,* after endeavouring  
two or three Minutes, you do not find Success, you may still '  
repeat the Trial. I heve sometimes, at the End of a Quarter  
of an Hour, return'd fuch aS I thought desperate, and which  
did not seem to give way in the least, till the Moment they  
went up; however, this must be practised with Caution, for  
too much rough Handling will be pernicious.

If, notwithstanding these Means, the Patient continues in  
Very great Torture; tho' not so bad as to threaten an irnrne-  
diate Mortification, we must apply some sort os Pultice to the  
Scrotum : That which I use, in this Case, is equal Parts os Oil  
and Vinegar, made into a proper Consistence with Oat-meal:  
After some sew Honrs the Fomentation is to he repeated, **and**the other Directions put in Practice; and if these do not suc-  
heed, I am inclin'd to think it adviseable to prick the Intestine  
in five or six Places with a Needle, as recommended by *Pet or  
Lowe,* an old *Englisih* Writer, who says, he has often expe-  
rienced the good Effects of this Method in the Inguinal Hernia,  
when all other Means have fail'd. :

After all, should the Pain and Tenseness of the Part,con-  
tinue, and Hiccoughs and Vomitings of the Excrements suc-  
heed, the Operation must take place; for if you wait till a  
languid Pulse, cold Sweats, subsiding os the Tumor, and em-  
physematous Feel come on, it will be most likely too late, as  
they are pretty sure Symptoms of a Mortification.

To conceive rightly of the Occurrences in this Operation,  
it must he remember'd, that in every Species os Rupture the  
Peritonaeum salis down with whatever makes the Hernia; for  
the Contents of the Abdomen heing immediately inveloped in  
this Membrane, they cannot push thro' any Orifice, but they  
must likewise carry a Part os it along with them : So that, in  
the Bubonocele, the Situation of the Tumor will be. in the  
Cavity of the Scrotum, upon the Tunica Vaginalis, and Sper-  
matic Cord.

The best way of laying your Patient will he on a Table of  
about three Foot four Inches high, letting his Legs hang down;  
then properly securing him, you begin your Incision\*above the  
Rings os the Muscles, heyond the extremity os theTumor,  
and bring it down about half the Length os the Scrotum, thro\*  
the Membrana Adiposa, which will require Very little Trouble  
to separate from the Peritonaeum (call'd the Sack of the Her-  
nia), and consequently will expose the Rupture for the farther  
Processes of the Operation; but I cannot help, once more, re-  
commending it as a thing of great Consequence, to hegin the  
external Incision high enough above the Rings, fince there is  
ho Danger in that Part of the Wound; and sor want of the  
Room this Incsston allows, the most expert Operators are  
sometimes tedious in making the Dilatation. If a large Vessel  
be open’d by the Incssion, it must .-he taken up hesore you pro- ’  
ceed further. ,

When the Peritonaeum is laid hare, you must cut thro' it  
carefully, to avoid pricking the Intestines ; though, to say the  
Truth, there is not quite so much Danger of this Accident aS is .  
represented ; sor, generally- speaking, the Quantity of Water  
separated in the Sack of the Peritonaeum raises it from the In-  
testine, and pretents any such Mischief This Discharge of  
Water, which follows upon wounding the Peritonaeum, and.

the Ignorance of the Structure of the Tunica Vaginalis, have,  
made it so generally thought, that Ruptures were received into.-  
the Cavity of that Tunin ss '

*. It has* lately been consider'd by some as an Improvement in  
the Operation, to forbear wounding the Peritonteum, and to’  
return the Sack entire into the Abdomen, thinking by this  
means to make a firmer Cicatrix, and more surely to prevent a  
Relapse sor tite future: But, hesides that this Practice is not  
founded on Reason, in the very Particular it is recommended  
for, the seeming Necessity there is of letting out the Waters,  
that are frequently fetid, of taking away the mortified Part of  
the Omentum, which we cannot come at without the Incision ;  
and lastly, to leave an Opening for the Issue of the Excrements  
out os the Wound, in case an Eschar should drop from the In-  
testine ; put out of Dispute, in my Opinion, the Impropriety of.  
this new Method.

The Peritonaeum being cut thro', we arrive to its Contents,'  
the Nature of which will determine the next Process; sor, is  
they be Intestine only, it must directly he reduced; but if  
there he any mortified Omentum, it must he cut off; in order  
towinch, it is advised to make a Ligature above the Part-  
wounded, to prevent an Haemorrhage; but it is quite needless,  
and in some measure pernicious, as it puckers up the Intestine,  
and disorders its Situation, if made close to it. For my Part,  
**I** am very jealous, that Wounds of the Omentum are danger-  
ous ; on which Account I cannot pass over this Part of the  
Operation without cautioning against cutting any os it away,  
. unless it is certainly gangrened; and, when thathappens, I think  
It adViseable to cut off only some of the mortified Part, and  
leave the rest to separate in the Abdomen, which may be done  
with as much Safety as leaving the same Quantity below a Li-  
- gature. . '.

When' the Omentum is removed, we next dilate the  
Wound ; to do which with Safety, an infinite Numher of In-  
struments have heen invented; but, in my Opinion, there is  
none we can use, in this Case, with so good Management as a  
Knife ; and I have sound thy Finger, in the Operation, R much  
hetter Defence against pricking the Bowels, than a Director  
which I intended to employ: The Knife must he a little  
crooked, and blunt at its Extremity, like the End of a Prohe.  
Some Surgeons, perhaps, may not he steady enough Io cut dex-  
reroufly with a Knife, and may therefore perform the Incision

with Prohe-sciffars, carefully introducing one Blade hetween the  
Intestine and Circumference of the Rings, and dilating upwards.  
When the Finger and Knife only are employ'd, the manner of  
doino the Operation will he by pressing the Gut down with the  
sore Finger, and carrying the Knife hetween it and the Mus-  
cles, fo as to dilate upwards about an Inch, which will he **a**Wound, large enough. ἐν.

The Opening being made,'the Intestine is gradually Io he  
pushed into the Abdomen, and the Wound is to be stitch'd up ;  
'for this Purpose some advise'the quill'd, and others the inter-  
rupted Suture, to be pass'd thro' the Skin and Muscles ; hut as  
there is not so much Danger of the Boweis falling out whan  
a Dressing and Bandage are applied, and the Patient all the  
while kept upon his Back, but that it may be prevented by one  
; or two flight Stitches thro' the Skin only, I think it by all means  
adViseable to follow this Method, fince the Stricture of a Liga-  
ture in these tendinous Parts cannot but be dangerous.

Hitherto, in the Description of the Bubonocele, I have sup;  
posed it loofe or separate in the Sack and Scrotum ; but it hap-  
pens sometimes in an Operation, that we find not only an Ad-  
hesion *of* the Outside of the Peritonaeum to the Tunica Vagina-  
lis, and Spermatic Vesseis, but likewise of some Part of the  
Intestines to its internal Surface; and in this Cafe there is so  
‘ much Confusion, that the Operator is often obliged to extirpate  
the Testicle, in order to dissect away and disentangle the Gut ;  
tho', if it can be done without Castration,- it ought. I believe,  
however, this Accident happens rarely, except in those Rup-  
tures thet have been a long time in the Scrotum without return-  
ing ; in which Case the Difficulty and Hazard of the Operation  
are so great, thet, unless urged by the Symptoms ofan inflamed  
Intestine, I would not have it undertaken. I have known two  
Instances of Persons so uneasy under the Circumstance of such  
a Load in their Scrotum, tho' not otherwise in Pain, as to  
desire the Operation, but the Event in both proved fetal;  
which,. I think, should make uS cautions how'we expose a'  
Life for the sake os a Convenience only, arid teach our Pa-  
' tients to content themselves with 4 Bag-truss, when in this  
Condition.

' The Operation of the Bubonocele in Women so exactly  
resembles that perform'd on Men, that it requires no particular  
Description ; only in them the Rupture is form'd by the In-  
, testine or Omentum falling down thro’ the Passage of the Lissa\*  
‘ mentum Rotundum into the Groin, or one of the Labis Pu-  
dendi, where causing the fame Symptoms as when obstructed  
in the Scrotum, it is to be return'd by the Dilatation of that  
Passage. *Sharp.*

*Os. the* **HERNIA CRURALIS. ’ . - ἐν -**" Whet bears a Very near Resemblance to the *Bubonocele, is"*the Disease which modern Physicians usually call a *Hernia Cru-  
ralis,* or *Femoralis*; for it is seated in the upper and exterior  
Part of the Thigh, near the Groin, where the Crural Vein and  
Artery descend from the Belly to the Thigh. And tho' this  
Disorder he pretty common, especially to the weaker Sex, yet,  
which is strange. Very few have taken the Pains to examine or  
descriheit ; but it has almost universally pass'd, without Distin-  
ction, for a *Bubonocele,* or *Hernia Inguinalis. Fcrhey'en* was  
the first, that I can find, who wrote any thing about *R Hemia  
Cruralis-,* tho' *Barbette* has some obscure Indications of the  
same thing. After *Virheyen, Palson* treated this Subject in a  
more explicit and copious manner ; as did also, after him, *Ga-  
rengeot,* in his Chirurgical Works,. Chapter os the *Hernia,  
Koch,* in! his Dissertation on the *Hernia Cruralis*; and *Le Dran,*in his Chirurgical Observations, Tomeithe second. *Garengeot*pretends, that *Paulus* was long ago acquainted with -this Dis-  
temper, hut does not tell us the Place in that Author where it  
is described ; and, for my Part, 1 could never sind any thing in  
him about it? On the same Occafiofrhe adds .some Words, as  
taken from *Barbette,* winch yet I do not find in that Author's  
Chapter of an *Hernia. -*

Tor the better understanding thegenuine Nature and Proper-  
ties of this Disease, it will not the amiss briefly to remark, from  
Writers of Anatomy, that the Place where the *Musculus Psoas*

- and *foliacus,* and over them the Crural Vein and Artery, pass  
from the Abdomen to the Thigh, is not sufficiently fortified to  
sustain .the Renitency of the Intestines, heing inclosed only  
with the Peritonaeum, the Fafcia Lata, and with the Fat and -  
Skin. Moreover, in Viewing a Sceleton, we may observe in  
the OS Ileum, above the Acetabulum, a small Depressure,  
which is cover'd by the lower Part of-the *Musculus Obliquus  
Descendens,* in manner of a .Ligament extended archwise,  
which some call the Ligament *CA-Vifalius,* others the Ligament  
of *Poupart.* Thro' this small Opening,.or Arch, .the Intestines  
or Omentum sometimes force their Way, and so excite a pecu-  
liar Kind of *Hernia. Garengeot* is ofOpinion, that this Species  
of *Hernia* happens more frequently than others ; but, sor my  
Part, I have seen and cured Multitudes of *Hernias* of all kinds,  
but scarce ever met with two instances of a *Hernia Cruralis.*

Tho' there he a Very considerable Agreement between the.  
*Fiemia Inguinalis* and the *Hernia Cruralis,* it is easy chough to  
distinguish them by a careful Inspection of the peculiar Place»  
in which they are situated: For a *Hernia Inguinalis* is form'd  
not far from the Pudenda, where: the Ring of the-Muscles of  
the Abdomen, and the *Procesi* osthe Peritonaeum, the Anato-  
my of which Parts is necessary to he known, descend to the  
Scrotum, and the Tumor extends itself from the Ring towards  
the Scrotum. But a *Hernia Cruralis* affects the outer Parts of  
the Csioin, usually arising in the uppermost, outer, and fore  
Part of the Thigh, above the *Acetabulum,* or at the Juncture of  
the Thigh with the *Acetabulum.* This Species os *Himia* is also,  
for the most part, lesser and rounder than the *Inguinalis,* and  
consequentiy sar more subject to be confounded with a Bubo ;  
sor the *Inguinalis* is usually somewhat oblong in Figure. How-  
ever, fince the *Hernia Cruralis* has yet no peculiar Word, that  
**I** know of, in *Germany* to express it, I think it would not  
be amiss to constitute two Species of *Hernia Inguinalis,*one of which should be the *Hernia Inguinalis interior,* and  
the other, which would be the same with the *Hernia Cruralis,*should he call'd the *Hernia Inguinalis exterior.*

AS to what respects the EVent and Cure of this Disorder, it  
Very littie differs from what has heen before observed and  
directed concerning the *Hernia Inguinalis gi* only take Notice,/  
that thofe who labour under, a *Hirnia Cruralis* sometimes run  
a far greater Hazard of their Lives than under the *Hernia Jngusc.  
nalis.* It is to he observed also, in the Cure of the *Hirnta Cru-  
ralis,* that in restoring the prolapsed intestines we take care to  
force them gentiy back more towards the Linea Alba, but by  
no means towards the OS Ileum, as in the Case of the *Hernia  
Inguinalis.* If the prolapsed Intestines can he replaced by the  
Hands, the best Method to establish them in their proper Situa\*-  
tion is by applying a conVenient Plaister, with a Bandage over  
it, as we directed for the *Hirnta Inguinalis:* But if the Inte-  
stines are *incarcerated,* or *intercepted,* in such a manner, that  
neither Oiis, nor Ointments, nor Cataplasms, nor Clysters, nor  
the Fumes of the strongest Tobacco injected, nor any other  
Medicines of this Kind, which have heen before recommended,  
'are os any Effect, but dreadful Symptoms begin to appear, we  
must next have recourse to the chirurgical Operation, aS directed  
for the Bubonocele. The Bag heing laid open, in the manner  
above described, the Passage by which the Intestines burst forth  
is to be somewhat enlarged; and if the Disease he recent, the  
Bag itself, according to the Example and Advice of *Petit, is*to he replaced whole and untouch'd, together with the prolapsed  
Intestines and Omentum, as gentiy as possible. It is not diffi-  
cult, for the most part, to force hack and restore the Intestines,

-because, aS ***Pcrheyen*** tn his Anatomy rightly observes, most com-  
monly a very small Portion of them, and sometimes only the .  
outer Side, or even but a sort of ***Appendicula,*** appear prolapsed :  
aheut the Thigh. -The Intestines being thus replaced; tho-  
Wound must he very exactly bound up, in the same manner as  
aster the Operation sor the ***Bubonocele,*** which is the ready way l  
to have it happily and speedily conglutinated.- If a more corr- .  
siderable Part of the Intestines be fallen out, if there be a C02.--  
lition os the prolapsed Intestines with the next adjacent Parts,  
or is there he any other Circumstance which hinders the con-  
venient Restitution of the prolapsed Parts, -without Incision of.  
the Bag'; - er if.the Disorder, by its long Continuance, has oc--  
casion'd a Corruption of the Intestines ; in these Cases we must  
proceed, but with the greatest Caution, to cut the Bag in the.  
manner above directed ; then, if the Intestines are sound, they  
must be gently put back in their proper Place ; and if they are -  
connected with the adjacent Parts, a Separation must be made, -'  
tho’ with great Circumspection, for fear of wounding the sub- '  
jacent Crural Vein and Artery, and so expofing the Patient to’  
the Danger of present Death. When the Intestines or Omen- '  
rum are sound to be corrupted, you are to proceed in the man--  
ner above directed-in that-Case. ***Hiistcr, Chirurgi.*** See HER-/  
KIA. - si

BUBULA is used as a Substantive, that is, without ***Caro,***by ***Scribonius Largus,*** Ne. 188, I89. and by ***Celsius*** in several  
Places, particnl.rly. ***Lib.*** 2. ***Cap.*** 18. where he says. ***Inter  
domnsticas squadrupedes levissima Suilla est, gravissima Bubula:***" Os tame Quadrupeds, Swines Flesh is the lightest, and Beef  
. " the heaviest.’' -..’et:

Sir ***Theodore Mayence*** recommends the following Preparation  
of the Flesh os the Ox, in Coses where obstinate Gonorrheas  
have degenerated into habitual Stillicidiums. '

Take, says he. Beef indurated by the Smoak of a Fire ; and  
after having taken off the external black Part, divide it  
into Filaments, which must be carefully freed from the Salt:  
by repeated Washings. Then cleansing them well with a  
Towel, let them be put into an Oven, when the Bread  
is taken out of it, and dried till they are capable of being  
reduced to a Powder; of which let two Parts be intimate--  
ly mix’d with one Pari of the Powder of ripe Ivy-berries:  
Let one Dram of thin Powder he taken for many Morn-  
ings successively, drinking a Glass of simple Hydromel, or  
a Draught of the Decoction of Eryngo-root. For Con-  
stitutions abounding with Phlegm, it is sufficient to dry  
the Beef without washing it at all. -

BUBULCA, in ***French, Bouvier, oi Peteuse,*** is a small  
River-fish, three or four Fingers-breadth in Length, and one  
and a half in Breadth, flat, and of the Colour of Silver. It  
commonly keeps in the Mud, and is always dirty when taken.’  
It is cover'd-with large broad Scales, has a small Mouth, and  
no Teeth, and has a forked Tail.

The Flesh is aperitive. ***Lemery des Drogues.***

BUCCA, γνάθος. The Part that lies under the Ball of the  
Cheek. ***Galen, Corn.*** 2. ***de Artic.***

It is also taken for the Cheek itself, and sometimes for the  
Mouth. ς- -

BUCCACRATON, βουκκάκρατον. ***A Buccea, ότ Buccella,***that is. ***Morsel,*** of Bread sopp'd in Wine,, which served, in  
old Times, for a Breakfast. ***Castellus. . -***

BUCCATUM, Glased. ***Dulana.***

BUCCEA, BUCCELLA, βἐν.κα, ψωμός. A ***Graco-bar-***torpor Word, signifying such a Fragment of any thing as a  
Man can put in his ***Bucca,*** or ***Mouth,*** and-eat at one Time.  
***Castellus.*** See BOLUS. .

***Paracelsus*** calls by the Name ***of. Buccella*** the carneous Ex-  
crescence of a Polypus in the Nose ; because he supposes it to  
he a Portion of Flesh parting from the ***Bucca,*** insinuating itself  
into the Nose. ***Lib. de Apostem. Cap.*** 2o.

***Buccellare, in Rulandus*** and ***Johnson,*** is to feed or cram with  
Bits and Morsels.

BUCCeLATON, ***Bticcella purgatoria, Buccellatus purga-  
torius,*** βουκκἐλατον. A purging Medicine, made up in Form of  
a Loaf, consisting of Scammony prepared, with its Correctives,  
and put in fermented Flour, and so baked in an Oven, accord-  
ing to ***Aetius, Tetr ah.*** I. ***Serm.*** 3. ***Cap. loo.*** But ***Paulus Alsu-  
net a*** directs it to he made into a solid Kind of Electuary with  
Honey, or like a Cheesecake, after it is baked. Consisting of  
roasted Scammony, with the Seeds of Smallage, Anise, Fenel,  
and Pepper, ***Lib. y. Cap.*** 5.

BUCCELLA. See BUccEA.

BUCCELLARE. See under BUccEA.  
BUCCELLATUS. See BUCcELATON.  
BUCCINA, κήρυξ. The same as BUccINUM, which see. .  
BUCCINATOR. The Name of a Muscle, which, by its  
Substance, constitutes the ***Bucca*** or Cheeks.

This Muscle is so call'd, because, in Trumpeters, it forces  
the Breath. This Muscle does not spring from the Gums of  
the upper, and end in those Of the nether Jaw; nor is it of

that Figure which vulgar Anatomists would persuade us; Ur in-  
terwoven with various Orders of Fibres, as others pretend. It-  
arises broad and fleshy, from the fore Part of the ***Procofsus Core:,  
nae*** os the lower Jaw-hene; from hence proceeding with direct  
Fibres, it adheres to the Gums of both Jaws,, and is so inserted,  
th the Angle of the Lips. ‘ .......

'Through the Middle of this Muscle passes the ***DuctusJSali-  
valissupcriorse*** winch ***Placentinus*** observed, and call'd ***Vinculum  
robustum sad Caspar Bauhine writes).*** Besides the Use Trum-  
peters make os this Muscle, it also pulis the Lips or Mouth to  
one Side. ***Cowper: '***

BUCCINUM,. Offic. . ***Buccinurn album laevi maximum, ’  
septern minimum spirarum.*** List. H'tst. A. A. I35. ***Buccinurn  
rostratum maius crasisum, orbibus paululum pulvinatis,*** Ejusd. Hist.  
Conch. ***An Sect.*** I4. N. 4. THE WHELK. ***Dale.***

Whelks, calcin’d, work the same Effects as the Purple-fish,  
but are of a more caustic Quality. Fill'd with Salt; and then  
burnt in a crude earthen Pot, they make a good Dentifrice, .  
and are applied with Success in Combushons, where it must be  
left alone to harden like a Shell; for, as soon as the burn t Place  
is brought to a Cicatrix, this Medicine salis off os itself. A  
Quicklime is made of them. ***Dioscorides, Lib. st. Cap:***5.

The Whelk is a Sea Shell-fish, os which there are many  
Sorts; but they all seem to agree exactly as to their Medicinal  
Virtues, tsting Alcalies and Absorbents; and, by Calcination,  
they are converted into Lime ; and these Properties they possess  
in common with all other Shell-fish.

BUCCULA. The fleshy Part under the Chin. ***Castellus.***BUCELLATIO. A way of stopping the Blood, by apply-  
ing Lint upon the Vein or Artery. ***Castellus.***

BUCERAS, BUCEROS, βήκερας; βουκἐρως. See BoUcE-  
RAs. ' - - -

BUCRANION, βχκραἰνιον, from βῦςς an Ox, and κράνιον,  
a-Head. The Herb ***Antirrhinum, so*** call’d because the outer  
Face os the Flower resembles an Ox's Head. ***Blanc ard.***

BUCTON. A Name in ***Severinus Pinaus, de Notis Virgsu  
niiatis, Lib. i. Cap.*** 5. for that Part, in Virgins, otherwise  
call'd HYMEN, which see. - '

BUFFELI. A Ring made of the Hom of a Buffalo,  
which; heing worn upon the Ring-finger, is said to cure the  
Cramp. ***Johnson. ' - .***

- BUFO. The Toad. A well-known Animal, thus distin-  
guished. - ’ / .

BUFo, Offic. Seined. 5. 272. Mer. Pin. I69. Rondel de  
Aquat. 2. 22I. Aldrov. de Quad. OVip. 6o9. Jonsi de Quad.

I 3I. Charlt. Exer. 27. ***Bufo sive Rubeta,*** Raii Synop. A. 252..  
Ind. Meth 23. ***Bufo terrestris major,*** Schw. Rept. I 59.' ***Rana  
rubeta, tum palustris, tum terrestris,*** Gefn. de Quad. OVip. 64\*  
THE TOAD. ***Dales***

. This Animal was by the ***Latins*** also called ***Rubeta,*** by the  
***Greeks φξνν&*** and φήσαλος, and by the ***EngUJh*** a ***Toad.*** It is  
among the Number of those Animals which have only one  
Ventricle in their Heart, and is of the Frog-kind, tho' some-  
what larger ; for which Reason it is by some called ***Rana ter-  
restris, omnium maxima, et grenenofa.*** Its Body is thick, its  
Back flat and broad, its Belly turgid and inflated. Its Skin is  
full of Tubercles of an unequal Bulk ; and so strong and tough,  
that it can hardly be pierced with a sharp-pointed Piece of  
Wood. It is of a cineritious Colour, with brown, blackish,,  
and yellowish Spots intermixed.- - This Animal moves siowly,  
is of the amphibious Kind,' copulates and disposes of its Eggs  
in the same Manner with other Frogs, if we except that ***Ame-  
rican*** Species of ***Surinam,*** call'd the ***Pipa,*** the Female of which  
lays her Eggs on the Back of the Male, in order to be nourish'd.  
The Toad lives upon Insects and Vegetables, but not Earth.-  
It does not croak like the Frog, but makes an indistinct, ob-  
scure kind of Noise, somewhat resembling the Word ***Gru,*** or

I rather ***Bu*** ; from which Circumstance, some are of Opinion,  
it received the Name ***Bus.o.*** In the Winter, and in the Day-  
time, especially when the Sun shines, it is found lurking in  
shady Places, Fens, Stables, Collections of Stones, and in  
Garden-beds, especially under Sage. It is also sometimes  
found in the Hearts of Stones, but these are Circumstances  
winch come more properly under the Consideration of the Natu-  
ral Historian; than os the Physician. The Toad is by some  
affirmed to he a Very long-liv'd Animal. Some are of Opi-  
hion, thet the Toad is called ***Rubeta,*** from ***Rubus***; because  
they are sound among the Bramble-bushes in Nurseries and  
Hedges. Others think it receiv'd the Name ***Rubeta*** from **the.**reddish Spots sometimes found on its Belly. But these are Con-  
troversies of too trifling a Nature to deserve our Attention or  
Regard. .

\ The Toad is killed by heing covered over with Tar, by  
sprinkling Salt of Tartar upon it, or by being said upon com-  
mon Salt; ***seeOligerus Jacobaus de Ranis, Eph. N. C. D.*** or  
by the Juice of Tobacco. ***Etmuller*** observes, that Toads, up-  
on having Oil of Tartar per Deliquium apply'd to them, express  
. the most exquisite Sense of Pain by their Gesticulations, and  
soon after die. Gardeners commonly banish Toads from their

Ground, her fronting old Leather upon it; see *Jo. Baptista  
Farrarius, de Florum Cultura.* Concerning the Antipathy he-  
tween Toads and Serpents; see *Eph. N. C. D. eta.* i. o. I37.  
The 'Antipathy hetween them and Spiders is so commonly  
knownT that Itis sufficient only to mention it ;but it will not  
he improper to add a .Circumstance mentioned by *Hilmont,*which is, titat when the Toad perceives itself wounded by the .  
Spider, and hexins to swell, it has immediate Recourse to the  
narrow-leav’d Plantain, in order to prevent its own Death.  
But *Valsirterui* seems to doubt of the Truth of this Observation.  
See ARANEA.

Whether it is owing to this Antipathy, that the Toad, in  
dry .Weather, and when the Sun shines, does not come Abroad  
without heing arm’d with Rue, sor sear os meeting with the  
Spider, as *Fircherus, Mund. Subt. T.* 2. asserts, I leave others  
to determine ; only of this we are certain; thet most Gardeners - ‘  
think Rue disagreeable to the Toad, fince they plant their Sage '

\* in alternate Rows with Rue, in order to save it from the Poison  
os that Animali It is repugnant to Experience, that Toads are  
produc'd from the Bedies of Ducks when buried, as is reported ; -.  
'because, when alive, they were fond os eating Toads ; see *Kir- ’  
cherus.* From this Circumstance, however, we learn, that  
Toads devour'd by Ducks do not prove poisonous to them..  
Neither do Ants sustain any Harm from them, since,faccording-  
to the same Author, a Toad thrown into a Nestos these Insects  
is soon consumed and eat up by them. Now 'tis certain, that:  
neither Ducks Flesh, nor Ants, are possess'd of a poisonous  
Quality; but’that the *Toad* proves hurtful and poisonous to  
Mankind is sufficiently plain, from numberless Instances ; and  
the Toad which lives in dry Places is said to he more hurtful and

. poisonous thin that sound in moist and marshy Places; and  
those found in dark and cold Places are thought to he more  
noxious than others. Authors inform us, that Strawherries,  
and other Vegetables, contaminated by the Saliva or Urine of  
the Toad, have, is used in Fond without being wash'd, pro-  
duced Very bad Consequences by their poisonous Quality ; see  
*Francisei Juelis Opera Medica.* Concerning the poisonous  
Effects produc'd by frequentiy handling a Stone, with winch a  
Toad had been struck, see *Eph. N. C. D.* 2. *a.* I. σ. I34..  
*a. c. App. p.* 29. *a.* 6. o. I I3. '

That theWater in which Toads live, when warm'd, produces  
poisonous Effects on the Persons who bathe in it, we are told.  
in *Eph. N. Co Cent.* 3. p. 256. That the Ain also in Places  
much frequented hy Toads, does Harm to the Lungs, we are  
told by *Valentinus,* in his *Pandect a Medico-legales.* VVhen the  
Toad is enraged, he is said to discharge his Urine in the Eyes of  
his Persecutor ; and by that means make Reprisals for the In-  
jury done him, fince it is thought to he possess'd of a Quality  
highly prejudicial to the Eyes. But *Brown* doubts of the Truth  
of this Fact, and is of Opinion, that the Toad cannot properly  
be said to piss, but, like Binds, discharges its Urine and Foeces  
from one and the same Passage ; *Brown’s Fulgar Errors.* Ac-  
cording to *Fallifnerus,* the Toad discharges its Urine, which is  
yellow and oleous, from a Passage allotted solely for that Pur-  
pose. But 'tis known from incontested Facts, that this Urine  
is not of a poisonous Quality, whether exhibited internally, or  
apply'd externally. Besides, an Ophthalmic Virtue is ascrib'd  
to the Urine of the Toad ; and’ this a certain Physician informs  
us he experienc'd on himself 7. for, whilst he look'd at a large  
Toad, which he had run through with his Sword, the Toad,  
with a Violent Impetus, discharged his Urine in his Face and  
Right Eye, by which Accident a troublesome Itching was ex-  
cited for about the Space of half an Hour ; after which his Eye  
was not only as well as it was before, but rather clearer, and  
Its Sight stronger; for it had formerly heen subject to Redness  
and Dimness ; see *Eph.. N. C. D.* 3. *a. J. a. sg.* Another  
Physician calis the Ophthalmic Virtue of the Toad's Urine in  
Question ; hecause the Quack at *Venice,* who provok'd a Toad  
to piss in his Mouth, paid for his Folly, by losing his Life half  
an Hour after, though he immediately made use of his boasted  
Antidote, in order to prevent the fatal Consequences that might  
ensue; and this Physician is os Opinion, that the Liquor dise  
charged by Toads, when attack'd by Men, is not their Urine,  
but a Liquor darted from their Eyes, which, when a certain  
Person who had struck a Toad, receiv'd into his Left Eye, he  
immediately felt an Itching in that Fye, winch was soon aster  
seiz'd with a burning Hear, an inflammation, a Swelling, and  
a kind of Blindness, accompany'd with a darting Pain. But  
these Symptoms were at last removed by repeated Instillations  
of the express’d Juices of the greater Houfleek, and the broad-  
leav'd Plantain ; see *Eph. N C. Cent. An o. ICrJ.* Others  
ascribe a Venomous Quality both to the Blood, and to the Sa-  
liva, os the Toad, but more especially to the latter ; see *Forest,  
Obs. Med. L.* 30. *Obs.* 6. *et y. ia Schol.* Some are of Opi-  
nion, that Nature herself has wisely distinguish'd Venomous  
Animals by their ghastly and horrid Colour. Some have also  
asserted, that the Person who gazes long on an ill-colour'd  
Toad of. an herrid Aspect, becomes pale, and assumes an icte-  
ritious Colour. If 'tis true, that this Circumstance really hap-  
pens, I am of Opinion, that it is not to be accounted for from

any Effluvia passing from the Animal to the Person, but from,  
his being struck with Terror upon reflecting on the poisonous  
Nature of the Toad, and his entertaining a Notion, that it can  
exert its hurtful Qualities at a Distance ; for a.Toad is com-  
monly call'd the *dofagnetic Purfe* of Poison, and contagious  
Vinulence. *Diofcorides, L.* 6. *C.* 3I. says, thet a Toad swal-  
lowed excites Tumors ; and that by such a Misfortune the Skin  
hecomes pale, and at last as yellow as Box-wood ; the Patient  
is rack'd with a Difficulty os Breathing, his Breath becomes ill-  
scented, he is afflicted with the Hiccough, and sometimes an  
involuntary Effusion of the Semen ensues. The Patient is re-  
liev'd by Vomiting, by liberal Draughts of Wine, and *by* take-  
ing two Drams os the Root Of common Reed, or an equal  
Quantity of the Cyperus. By-and-by the Patient must he  
forc'd to walk herd, or run, in order to carry .off. the Torpor  
with which he is seiz'd. He must also be wash'd every Day.

*.. Paulus AEgineta, L. ζ. C.* 36. .fays the same things. *Caspar.  
Caldera R&rrsss,* that .the Eggs of the Toad, swallow'd, kill  
Very suddenly, And produce most violent Pains of the Stomach ;  
and that such aS have the Misfortune to swallow them die,.  
with their Bellies prodigioufly inflated.. According *ta.Bartho-  
line, in Act. Iiasset.* a Toad held in the Hand, cures it, after it  
has been hurt by another Toad. *Bocrhaave,* in *Net Instinct tones  
Medica,* § II44. classes Toads among the heteroclito Poisons, .  
destructive of Life, whose Virtues are not aS yet sufficiently  
understood, which kill in a manner not easily to be accounted  
shr; and which, besides the general Antidotes, such aa Vomits,  
aqueous, emollient, laxative and oleous Substances, call sor ini-  
rituous Acids, saline Substances, and such as resist Putrefaction.  
Among the Poisons most remarkably possess’d of a deleterious  
Quality, is the *American* Toad, by the *Brasilians* call'd *Cururu,*and by the *Portuguese Capo,* which has Excrescences from both  
Sides of its Head, resembling large Warts. This Species is  
Very large, and swell'd as big again as the *European* Toad. It  
is of a cineritious or bay Colour: Its Urine and Saliva produce  
dismal Consequences, whether internally used, or externally ap-  
plied ; but still more terrible Effects are brought about by swal-  
lowing its Blood, its Fat, and especially its Gall; -The most  
wicked and abandon'd os the Inhabitants, and some others aster  
their Example, tonify these Toads, and reduce them to aPow-  
der, of which they prepare poisonous Draughts, which, exhi-  
bited in the smallest Quantity, immediately bring on Inflamma-  
tions, and Dryness os the Fauces and Throat, Difficulty os  
Breathing, Hiccoughs, Vomitings, Dysenteries; Paintings,  
Dimness of Sight, Convulsions’, Deliriums, and Paleness. If  
there is room left to hope any thing from Medicines, Evacua-  
tions are to he made by Vomit and Stool; and the. Remains of  
the Poison are to he eliminated by Exercise and the Path, and  
by putting the Patient into an hot Oven, or into the Belly of  
a fresh-kill'd Animal. The general compound Alexipharmics  
are to he exhibited for some Days, and the Patient order'd to  
drink Infusions or Decoctions of such Roots as are produced in  
the Country, and look'd upon aS Antidotes against Poison. But  
above all, the Herb by them call'd *Nhambi* is to he exhibited,  
fince it seems to have received from bountiful Nature a Quality  
capable of curing, or at least allaying and mitigating, so formi-  
dable a Disorder. The most profligate and wicked of these  
*Barbarians* hang up this Species of Toad in the Sun, collect its  
Spume and Gall, and keep them as secret and flow-killingPoi-.  
sons. *Pise, L. ζ. C. sS.* The Figures *os* the *American* Toads  
may he seen in *Albinus Seba. ..*

*Turner* gives the following Account of the Toad. ,

.. Among us, some, helieve, we are more afraid os them than  
there is Occasion for; and there have heen found those who  
have been Very familiar with them ; and that upon some Wager  
OrFrolick have eat them, and commend them for as great Dain-  
ties aS the Frog. But let not Peoples foolish Presumption, who  
have by some fingular Accident, as a full Stomach beforehand,  
or some Idiosyncracy, escaped freed, induce others to take the  
like Freedom, lest they pay dearly for their Folly, as did a Per-  
son I knew many Years ago, who putting the Head of one os  
them into his Mouth’ for some time, whether by the Bite, or  
Slaver only, of the Creature, communicated to hts Tongue and  
Lips, had that Night, and the. next Day, both so swelled,  
that he could not pronounce any Word plain for several Days  
after, and was in no small Danger os heing famish'd, by reason-of the said Tumor affecting the back Parts of hinTluoat, with  
the Muscles subservient to Deglutition. : .

*Redi,* instancing in some who eat these Creatures without  
Harm, subjoins, that though the Toad may happen to prove no  
Poison in the Whole, yet may It envenom outwardly ; an Ex-  
ample whereof he gives in a Boy, who stumbling on a Toad,  
and after throwing Stones at it, some Juice from the bruised  
Toad chanced to light upon his Lips, whereupon they swelled  
each to about the Thickness of two Thumbs; and he neglect-  
ing to use what might he proper to restore them, they have  
continued in rhar mis-shapen Size eVer fince, *Philos. Transe Abr.  
fool. sc. .*

*Ardoynus* observes, that as be came from the University of  
*Bologna in Italy,* **(where he had newly taken his Doctor's De-**

gree) to *Pesaro,* he saw a young Man, who having killed a  
large Toad with his Lance, he fell into an absolute Stupor of  
his whole Body, and lay shorting for two Days together with-  
out Pulse. Had I known, says he, as much then as now, I  
make no doubt, but I could have recovered him'. From whence  
we may suppose the young Man dy'd.

As remarkable is thet of *Ferdenandus Pontellus,* of a Person  
going over his Grounds with a Reed in his Hand, and therewith  
transfixing all the Toads he met with, throwing them out into  
the Highway: When, on his Return home to Dinner, he  
threw up all he eat ; nor did his Vomiting leave him 'till he fed  
himself with the other Hand, that had not held the same Instni-  
ment. But more tragical yet is the Story which *Mexaldus,* in  
this first Century of Rernarkables, recites, of a Gentleman  
sporting with his Sweetheart in the Garden, hear a large Bed  
os Sage, who, inadvertentiy pulling off some Leaves, fell to rubl-  
bing os his Gums and Teeth ; which so soon aS he had done,  
he dropt down dead. The young Gentiewoman, heing carry’d  
before the Magistrate, upon Suspicion of. poisoning the Man,  
told the Judge he had only rubb'd his Teeth with such a Leaf as  
she had brought with her, and desperatesy in the Court began  
to use the same, with the like Event, she dying also there-  
upon, that she might not be thought to have deprived him of  
Life, without whom she could not live herself Upon which,  
by Order of the Magistrate, the Sage was order'd to be dug up  
and burnt; when, turning the Ground, hehold, a large and  
ghastly Toad appears; which Creature is said to be much de-  
lighted with this Plant ; and which he, says our Author,  
should have first Consider'd, who compil'd that Verse,

*Cur moriatur Homo, cui Salvia crescit in Horto?*

*This Effect of Sage is however 'more rationally attributed to  
the poisonous Eggs of Insects lodg’d on the Leaves.*

Though Toads want Teeth, saith *Parey,* yet with their hard  
and rough Gums they so streightiy press the Part they take hold  
on, that they will force their Poison thereinto, and fo over the  
whole Body, by the Pores of the pressed Part. Moreover they  
cast forth their Venom by Urine, Spittie, Vomit, or Slaver,  
upon Herbs,- but chiefly upon Strawberries, which they are  
reported greatly to affect. Hence many have suddenly and  
ignorantly caught their Deaths. A sad Instance whereof he lays  
down, in the Cases of two Merchants near *Tholouse,* who,  
whilst the Dinner was getting ready, walking into the Garden  
belonging to their Inn, and gathering some Sage-leaves, put  
them unwash'd into their Wine. After which, before they  
had fully din'd, they were seized with a Vertigo, and lost their  
Sight, fainted; and had Convulsions ; they stammer'd with  
then Lips, and their Tongues appeared black, looking fright-  
fully, continually Vomiting, with cold Sweats, the Forerunners  
of Death, which quickly ensued, their Bodies becoming  
afterwards exceedingly swell’d, by reason whereof there was  
just Suspicion, that they had been poison’d ; and the Host, with  
all the Servants and Guests at that Time in the House, were  
apprehended; and, being examin’d, they all constantly, and  
with one Voice, asserted their Innocence ; affirming, that they  
had all the same Provision with the dead Parties, of which they  
had eat and drank, only the Deceased had put Sage into their  
\* Wine. A Physician was afit’d the Question, whether Sage  
might be poisoned: He answered affirmatively. But, to  
come to the Purpose, it must appear whether any Venomous  
Creature hath poisoned the Plant with her Spittie or Sanies.  
This, which was lightly pronounced, and only by Conjecture,  
was by the Eye sound true; for, at the Root of this Bed of  
Sage was sound a Hole in the Ground, full of Toads, who  
coming out upon pouring in hot Water, made it credible, that  
. the Herb was poisoned by their Slaver, or Venomous Urine.

Whereby you are to understand how indiscreetly they act, who  
devour either Herbs or Fruits fresh gather'd, without well  
washing or rinsing of them. \* " ' . \*

*Parey,* amongst the Symptoms consequent upon receiving the  
Poison of a Toad, reckons the turning Yellow, Swelling, diffi-  
cult Breathing, Vertigo, Convulsions, cold Sweats, Syncope,  
*etc.* to which *Sennertus* joins a growing pale and wan. Vomit-  
ing, involuntary Discharges of the Semen, falling of the Hair,  
and sometimes dropping out of the Teeth, with great Stupor,  
saith *Hajsenroffer,* which she communicates not only by her  
Urine, Spittle, or Vomit, but her Very Breath or Halitus  
emitted will affect those who stand too near her.

As to the Cure, if the Poison was receiv’d inwardly. Vo-  
miting is proposed for the immediate Discharge of the same, to-  
gether with proper Clysters ; and afterwards the common Alexi-  
?harmacs, fuch aS Ven ice-treacle dissolved in a Glass of good

Vine, whereby the Patient may . he disposed to sweat ; for  
which others propose some brislc Exercise, or the Use of warm  
Baths. *Scrtncrtus* treats the Hurt outwardly much the same  
way with *Parey,* ordering the Part to he well washed with  
Man’s Urine, Water, and Salt, after anointing with Oil of the  
Ἴ olks of Eggs, or Oil of Roses. The reputed Antidotes are  
juice of Betony, of Plantain, and Mugwort. *Pliny* writeth,  
that their Heart and Spleen resist Poison; but the bruised Toad,

Von. I.

or some Preparation thereof, lihe those of other venomous Ani-  
mals, rightly apply'd, will sympathetically (as reported) extract  
their own Poison.

*Ronaeletius,* in his *Tract, de Piscibus,* affirms the fame things  
os the deleterious Property of this Creature, with others; yet  
he - says they seldom bite, but cast forth either their Urine,  
which they gather in a large Quantity in a great Bladder, or  
else their Venomous Spittle, or even Breath, against those they  
meet with, or assail. Besides, the Herbs which they taint with  
their said Breath, but much more fuch as are imbued with the  
Slaver or Urine, are sufficient to destroy those whe eat them.

The aforesaid *Hitssenressecr* asserts, in general, that the Bites  
and Stings , of the *Reptilia* are to be treated much alike with  
those of the Viper, and serpentine Kind. The Spittie, Urine,  
or Sanies of the Toad, fays he, must be cleansed well away with  
Urine, or Salt-water ; or if the Poison was taken inwardly,,  
you are to procure Vomiting , and farther, to take off all the  
Symptoms, he extols the *Confectio Diasulphurti,* thus describ'd  
by *Scrapio : .*

Take of yellow Sulphur, of the Seeds of white Henbane, of  
Cardamoms, Storax, and Myrrh, each one Ounce ; of  
Opium, and Saffron, each-two Drams; os Cassia Lignea,  
fix Drams; and os white Pepper; two Ounces: Let them  
he triturated, pass'd through a Sierce, and made up into  
a Confection with Honey.

For this Use he also takes Notice of the *Craysijh,* and *Gen- .  
tian-root,* exhibited internally, whilst-the Place is dress'd exter-  
nally with the following Medicine:

Take three Heads of Garlick; and of Castor, one Dram :  
Let them be trimrated, mixed with old Oil, and apply'd  
by way of Plaister : Or,

- Take Of Gum Sagapenum, Castor, Asa foetida. Pigeon’s  
. Dung, Calamint, and Penyroyal, each three Drams ;

Oil of Olives, and Pitch, each a sufficient Quantity:  
Make up into a Plaister.

- Squills also helled with Meal, and Meal of the Orobus mix'd  
with Vinegar, are properly apply'd to the Part; Or,

Take Nitre, Mustard, common Salt, and Sal Ammoniac j  
make into a Liniment, with strong Vinegar: Or,

Take Garlick, Salt, and Pigeon's Dung, each equal Parts:  
Mix all together, and apply by way of Plaister. *Turner,  
de Morbis Cutaneis.*

Since from whet has been said \*tis obvious, that in ail Na-  
tions Toads are look'd upon as poisonous Animals, it now re-  
mains, that we take Notice of some other Circumstances rela-  
five to this Animal. That Toads, then, may he safely eaten,  
provided them Sweat, Spit, or Urine, are not swallow'd, is  
asserted by *Borelli, Cent.* 2. *Obs. 7sp.* People who have had  
the Misfortune to eat boil'd Toads instead of Frogs, have felt  
no more terrible Consequences from the Use of such a disagree-  
able Fond, than a gentie Excoriation of the Lips, Palate,  
Tongue, and Fauces ; from which Circumstance *Fallifncri*concludes, that the Flesh of Toads is by no means of a poi-  
sonous Quality, but abounds with a Volatile diuretic Salt,  
winch, when reduc'd to Powder, may he of excellent Service  
in the Dropsy. *Mundius* affirms, that the Toad, that hated  
Animal, has Flesh not altogether useless; for, says he, by eat-  
ing Toads, and by the natural Salubrity of the Ain, the Lues  
Venerea is in some *Antcrican* Islands most infallibly cured.  
In *Eph. N. C. D. 2. a.* 7. *o. tfysu rnc* have an Account of  
a certain Quack, who affirm'd, that the Whole of a Toad's  
Body might safely be eaten, provided the Head was only  
thrown away, assigning this Reason for his Assertion, that the  
-Toad, at once enrag’d and terrify'd at the the Sight of any Per-  
son, calis together the Force .of his Poifon to his Eyes, and  
rhe anterior Parts of his Head, by which means no Parts *of*the Poifon are left in the rest of his Body. If this is true. Im-  
postors and Strollers have no. occasion to counterfeit Toads,  
by filling the Skins of these Animals with Wine, in order to  
make the gazing Croud believe they have devour’d real Toads,  
aS we are inform'd they do by *Borelli, in Cent.* 2. *Ohs.* 74.  
*Fallifneri* also informs us, that the Excrements of this Animal  
are not of a poisonous Nature, but endow'd with a highly  
diuretic Quality. Upon the Whole, *sitmuller* concludes, that  
thetpoifonouS Quality consists entirely in its Fury, or in its  
Excrements, especially the Urine, which is impregnated with  
an acrid, caustic, volatile Salt, whose acrimonious Quality  
seems to he deriv’d from the Aliments on which the Animal  
lives, that is, the small Beetles found in its Stomach and  
Throat. If instead of the Urine, which, from the Circum-  
stances already mention'd, does not seem to he poisonous, we  
substitute^the venomous Liquor deriv’d from the Body to the

Head, and especially the Eyes, this Conclusion does not feem  
improbable. But the Toad does not for this Reason cease to  
he properly classed among the Venomous Animals; for tho’  
the Viper is not only eaten, but applied to medicinal Purposes,  
when the Head, which about the Teeth contains a Bag filled  
with a deleterious Liquor, is thrown away, yet the Viper does  
not on this account cease to he a poisonous Animal.

In what Cases the Toad is used sor medicinal Purposes, I  
now come to consider. *Etmullcr,* then, informs us, that a live  
Toad, bruised, proves an effectual Medicine sor the Bite of the  
Viper, and other poisonous Serpents, when applied to the  
wounded Part. In *Vilseh. Hecat.* **I.** *Obs.* 53. we have an  
Account of a Country-man bit by a Serpent, and that in so  
violent a manner, that his Hand and Arm immediately swell'd  
io a prodigious Bulk; and the Poison reaching his Heart, he  
was seized with frequent FaintingS, so that he seem’d to be on  
the Very Brink of Death. But, aster having tried all the ordi-  
nary Methods to no Purpose, he was speedily restored by the  
Application of entire Toads dried, which swelled wonderfully  
by the Poison they extracted. The Patient in the mean time  
had internal Alexipharmics exhibited to him. Some Authors,  
aS *Helmont* informs ns, order live Toads to be applied over  
both Kidneys, for removing the Dropsy, by a plentiful Dif-  
charge of Urine. *Paracelsus* affirms, that ToadS are of  
fingular Service in the Cure of pestilential Buboes in the Groin,  
and such as Women are afflicted with. His Method of pre-  
paring them is, to thrust a Piece of Wood thro' their Heeds,  
to hang them up till dry, and then to macerate and mollify  
them in Rose-water, after which they must be applied to the  
Bubo ; and he affirms, that they extract the pestilential Ve-  
nom, fince by applying four or five os them successively they  
all become wonderfully tumid by the Poison they have imbib'd.  
*Helmont,* when making mention of these Circumstances, con-  
fesses, that he has applied Toads to Buboes and Eschars in the  
Heads, Breasts, and other Parts of Men and Women, and  
that he always found they afforded a speedy Relief and Miti-  
gatiori *of* the Pain; but could never observe, that a Toad ap-  
plied in this manner became in the least tumid. I shall here  
enumerate the anti-pestilential Virtues os the Toad, in the  
Words of the learned *Eramerusr “* I know, *fays he,* several  
" Country-people, as also Mr. *Steikarte, 2.* Physician at *Vien-  
" na,* who, by attending People infected with \_ the Plague,  
" heve, if we except Carbuncles, been seized with all the  
" Symptoms of that Disorder, especially brimming Buboes.  
" And for a Cure they used no other Means than covering  
" themselves lightly with Bed-cloathS, and applying whose  
" Toads dried in the Air,’ and wrapt up in Cloths, to both  
" Arm-pits, to the Thighs, and to the *Perinaurn* hetween  
" the *Scrotum* and the *Anus.* They kept themselves easy al-  
" so during the Transpiration ofthe Matter, and, for carrying  
" it on more effectually, they kept the Toads at the above-  
An mention’d Parts till they would swell no more by the Poi-  
p- son they extracted. Aster winch they remov'd them, and  
" in these stead put other ToadS three or four times successive-  
*" \v,* till they felt themselves reliev'd."

*Francisius Joel* affirms, thet a Toad run thro' with a sharp  
Probe, dried in the Ain, and moistened in Vinegar, if applied  
Io pestilential Carbuncles, extracts all the Poison from the  
Body. *Helmont* also from the Toad prepared an Amulet for  
the Plague; and others, as *Etmuiler* informs us, prepare Amu-  
lets for the same Purpose of the Bones of Toads, or whole  
ToadS mixed up with Ising-glass, which they say. extract the  
Poison, and prove a Preservative, if hung about the Neck.  
Others bruise whole Toads, .boil them in Vinegar of Roses or  
Rue, and with Mucilage ofTragacanth make them up into Tro-  
ches, which they wear shout the Neck. Others order the  
Toad itself, thrust thm' in *June* **or** *fuse,* and hung up till  
dry, to be hung on the Region of the Heart, as an Amulet  
against the Plague. But the last Author immediately subjoins,  
that he was told by a certain skilful Physician, that in the Ap-  
plication of ToadS there was a Necessity for distinguishing  
Plagues: That if the Plague arises from a terrestrial and. in-  
coercible *Gas,* exhaling from the Mines and Caverns of the  
Earth, in such a Case Amulets prepared of ToadS were pro-  
per, because the Toad attracts such a Gas as a proper Aliment:  
But that, when the Plague arises from an unlucky Influx of  
the Stars, the most proper Amulet was prepared from Spiders,  
fince they attracted the Poison of the Ain See **ETMULLER.**

The learned *Fallisueri* thinks it probable, that a Toad, or  
its Skin, applied to Buboes, or other hard Tumors, may con-  
tribute considerably to their Resolution, and also to the deterg-  
ing sordid Ulcers; but he doeS nor believe, that it can defend  
the Person who wears it against the Plague. Besides, by eSt-  
*muller* we are told, that a dried Toad hung about the Neck,  
or in the Pit of the Stomach, or applied to the Arm-pits, or  
even held in the Hand, most effectually stops and cures all  
kinds of Haemorrhages, and more especially such as happen in  
.malignant Fevers, Small-pox, and some other Disorders of a  
like Nature.

***Willis* in his *Pharmaceutice Rationalis,,* has theso Words,**

" A Silken Bag, in which a dried Toad is contained, seems  
" to he an empirical and foolish Medicine, when wore on the  
" Pit of the Stomach in order to stop Haemorrhages, and pre-  
" Vent their Return: unless perhaps, according to theTheory of  
*" Helmont,* that Application so frights the *Ar chain,* that the  
" Blood shall forthwith he forced to recoil, or altogether desist  
" from flowing.'' The *Pulvis Bufonum siccatorum fox* the Powder  
Os Toads dry'd in the Sun, directed in the *Brandenburg* Dispen-  
satory, when carefully preserv'd in a dry and temperate Pisce, is,  
according to the Testimonies of a great Number of celebrated  
Authors, an excellent Remedy in several Disorders, whether  
.exhibited internally, but cautiously, and in some proper Ve-  
hicle; or externally used when inclosed in Bags, or mixed  
with proper Plaisters, Ointments, or Cataplasms. Thus the  
Powder of dry'd ToadS was the celebrated Secret of *Kyperus,*for the Cure of the Ascites. He prepar'd them in this man-  
ner.

Take Toads, and after having cut off their Hoads, and  
pulled out their intestines, dry them in the Sun, and re-  
duce them to a fine Powder ; Of which the Patient is to  
take ten or fifteen Grains, in an equal Quantity of Sugar.  
This Medicine may he exhibited three or four different  
times, but in such a manner, that three or four Days may  
intervene betwixt each time ; for it is a very drastic Pre-  
paration.

These Toads may also he dry'd in an Oven, and reduc'd to  
**a** fine Powder. *Etmullcr,* that the Medicing may produce its  
Effects the more infallibly, advises, that the ToadS should.  
be killed in the Month of *July.* A dry'd Toad inclosed in a.  
Silken Bag, with a proper Quantity of the Moss of the Sloe-  
tree, when applied to the Navel ofa Woman afflicted with a  
terrible Haemorrhage of the Uterus, stopp’d the Flux as soon  
as it was warm on the Part, as we are told in *Eph. N. C. D.* I.  
e.9.T. 366. ' \_

The *Bufonum Cinis Os* the *Brandenburg* Dispensatory, the  
*Bus.o praparatus* in that Of *Edinburgh,* and the *Pulvis AEthio-  
picus* of *Bates,* which he calk so on account of its Blackness,  
are no more but large live ToadS bunt'd to Ashes, in a new  
earthen Vestel. The Dose, according to *Bates,* is half a Dram  
and upwards, in the Small-pox. He affirms of it, that it re-  
lieves the Patients, tho' at the Point of Death; and says, that  
fome highly extol it for the Cure of the Dropsy.

It is by other Authors recommended to he put into a Silken  
or Linen Bag, and hung upon the Breast for Incontinencies of  
Urine, arifing from. a Violence done to any of the Parts..  
*Eph. N. C.* Vol. I. o. 227. *Musitanus* prescribes a Toad put  
into the Oven alive, that it may hecome dry gradually as it dies,  
to be reduc'd to Powder, and form'd into a Poultice, with.  
Barley-meal and human Saliva or Urine. This Poultice he or-  
ders to he laid on a Cloth, and applied to pestilential Carbun-  
cles or Buboes. Ina Quarter of an Hour after the Applica-  
tion, he fays, the Pain will be entirely remov'd, and in two  
Hours a perfect Suppuration will be brought about.

The fame Author proposes another very singular Benefit,  
which would accrue to the Inhabitants of *Naples from* the Use  
of this Cataplasm, which was, that by its means they might  
know whether Disorders tint, appear'd like the Plague were  
really pestilential or not. *" In* dubious Cases, *fays he,* let it  
" he applied to the Carbuncles, the Buboes, or any other  
." Tumors which shall happen to appear; and, if they are real-  
" ly of the pestilential land, the Pain of them will he re-’  
." mov'd in a Quarter of an Hour; within two Hours a per-  
" sect Suppuration will he form'd, and the Bubo or Carbun'-  
" Cle heing open'd, all the pestilential Venom diffused thro'  
" the whole Body will he drawn forth, if the Physician be  
“ duly careful. On the contrary, if the Tumor is not per  
" stilential, but malignant, tho' not of the contagious kind,  
" the Application of the Plaister will produce no Remission of  
" the Pain, neither will any Suppuration appear ; but the Tu-  
" mor will remain in its former State, and he attended with

the fame Symptoms that generally accompany other malig-  
" nant Tumors, which are not of the contagious kind.''

With regard to the Preparation of this Cataplasm, *Krame-  
rus* affirms, that the Urine of the Person to whom it is to he  
apply'd, is most properly used in its Composition. After-  
wards he goes on to inform us, Ist, Thet he was induc'd Io  
make Trial of the Cataplasm of *Musitanus,* by observing,  
that pestilential Buboes with Difficulty yielded to other To-  
pics. 2dly, Thet this Cataplasm immediately on its first Ap-  
plication to Buboes, produced such intolerable Pains, that  
many Patients entirely refused to bear them. 3dly, That this  
Cataplasm, as it hecomes dry, adheres so strongly to thedlu-  
hoes, and Parts adjacent, that it can scarce be torn from them  
with the Finger. 4thly, That when it is once become dry,  
it ceases to produce any further Pain. 5thly, That the Bu-  
boes do -not suppurate by its means in twenty-four Hours-  
6thly, Thet they require three or four Days sor that Purpose,  
whereas by other Topics the Very same Buboes could not be  
**soften'd, and** brought to **a** Suppuration, in less than a Fort-

night, or perhaps three or four Weeks. 7thly, That as soon  
a, the Cataplasm becomes dry upon the Buboes, and ceases to  
produce burning Heats, it is to be immediately renew'd, and  
its Renovation continued, till the Buboes are soften’d, at  
which time they are to be laid open. 8thly, Thet by the  
same Cataplasm, as *Kramcrus oncc* observ'd in a robust old  
Man, of a thick Skin, tho' the pestilential Buboes were not  
soften'd, and brought to a Suppuration, yet their Surfaces were  
so corroded, as to give a free Discharge to a certain Ichor.’  
9thly, That this Cataplasm, in Venereal and other Buboes,  
neither excites the above-mention'd Pains,, nor brings on a  
Suppuration. From all these Circumstances *Kramcrus* thinks  
he has just Reason to declare in Favour of the specific anti-,  
pestilential Virtues os the Toad. ' He recommends this Affair  
to the diligent Consideration of other Physicians, and refers  
his Reader to an Appendix he wrote to *Behrens,* Treatise on  
the Plague, published in the *German* Language in I7I3, in  
which Work he from his own Experience warmly recommends  
a. topical Preservative prepar'd of Toads, and Roots of the  
Carline-thistle reduc’d to a Powder, and inclosed in a proper

In the Cure of a Cancer, says *Etmullcr,* and more particu-  
larly unexulcerated Cancers in the Breasts of Women, Toads  
are of fingular Service, either calcin’d alone, or dry’d to such  
a Degree, that they may he reduc'd to a Powder. The Me-  
thod of applying this Powder is to sprinkle it on the Part af-  
fected. This Powder may also he mix'd with Orpiment and  
Soot, and apply'd, when spread, upon a Pledget moisten'd with  
*Saliva.* We are also told, that many Patients labour-  
ing under epidemical Dysenteries have heen happily recover'd  
by the Use of this Powder, winch operates as a Sudorific.  
Some prescribe half a Dram of it and upwards in the Small-  
pox. *D. Carlius* recommends the Powder of calcin’d Toads,  
mixed with the Powder of blue Linen Cloth burnt, in Epi-  
lepsies of adult Persons attended with an inspissation of the  
Juices; and affirms, that, as much of it. as may he taken at  
twice upon the Point of a small Knife, has in some epileptic  
Patients produc'd the most happy and furprifing Effects. He  
also informs us, thet a Dose from ten to twenty Grains of the  
Powder of calcin'd Toads, exhibited internally, wonderfully  
mitigates arthritic Pains, and more especially those with which  
Wounds are-attended. *Corn. Lit.* for the Year I733. *p.* 2Io.

In the same Work for the Year I 735, we heve an Ac-  
count. os two Boys, who towards the latter End of a pe-  
stilential Disorder, in which they had heen long afflicted with  
Carbuncles and Buboes, together with an universal Anasarca  
and Dropsy, were cured by a plentiful Diuresis excited by the  
Powder of Toads, mixed with Salt of Wormwood daily ex-  
’ hibited.

The diaphoretic Virtue of this Powder, by which it must  
of course contribute to the Cure of a Dropsy, was accidental-  
ly discover'd, as *Boeder* from *Solenander* informs us in the fol-  
lowing History. At *Fame* a certain Man had the Misfortune,  
to be afflicted with a Dropsy, and his Wife, thinking much of  
the Expences laid out for his Cure, maliciously resolv'd to poi-  
son him; for which Purpose she gave him a Dose of the Pow-  
der of a Toad calcin'd in an earthen Vestel, by winch means  
a very plentiful Discharge of Urine was occasion'd. But the  
Wile, heartily wearied of so useless and expensive a Husband,  
was exceedingly desirous to put an End to his miserable Life  
by a sudden Death. With this View she exhibited the fame  
Powder a second time, by which means the Waters were plen-  
tifully discharg'd by Urine, and the Patient Cured. Thus  
the Views of Lust and Avarice were disappointed, and what  
was hellishly intended for a Poison, happily proV'd a noble and  
efficacious Medicine.

AS for the Powder and Ashes of the Toad, 'tis highly pro-  
bable, that the Effects they produce in the Constitution, are  
- to he ascribed to an acrid Stimulus of a resolvent Quality, and  
of a falino-alcaline Nature. Hence Discharges of Urine or  
Sweat are excited according to the Constitution of the Patient,  
or the particular Regimen he uses. For this Reason many  
prescribe two Drams of the Powder of Toads to he taken by  
those who have the Misfortune to he seized with pestilential  
Disorders. .Some Authors of undoubted Learning and Vera-  
city also affirm, thet the same Powder is an excellent Medi-  
cine for expelling Poison. Hence the Powder of incinerated.  
Toads is by *Helvetius* called the Sudorific Powder. The su-  
dorific Quality of the Toad is sussicientiy confirm'd by the  
Case of- a certain Countryman, who, when seized with the  
Plague, boiled a Toad with all its intestines in Vinegar; and,  
. after he had boiled it, he eat the Whole of it, and drank the  
Broth. However terrible this Medicine might appear, it was  
followed with very happy Effects; for by its means incredible  
Discharges of Sweat and Urine were excited; and these con-  
tinuing for a whole Day,, the Cause Of the Pestilence was  
expelled, and the Patient's .Strength gradually returning, a  
. thorough Cure was brought about.

From these Qualities, I think, we are .also to account-for  
the Efficacy of the Toad's Heart, which, when dry'd, reduc'd

to-Powder, and exhibited an Hour before the Paroxysm, has  
in some Cases cured quartan Agues. I must not on this Occasion  
forget to mention another Cure of the said Fever, which is  
said to be an infallible one, and consists in drinking the Milk  
in which a dry'd Toad has heen boil'd. By this Medicine the  
febrile Matter is powerfully evacuated by Vomit, Urine, and  
Sweat. *Eph. N. C. D.* 2. *a.* 8. *o.* IO4. *a. 5. app. p.* 4O. The  
small Bones either of the fore or hind Legs of the Toad,  
which, when exhibited internally, produce,according to *Etmusu  
ler,* so surprising and happy Effects in the Cure of the Epi- .  
lepsy, feem also to act by means of their resolvent Quality.  
To this Quality it is also probably owing, that dry'd Toads are  
by some applied to the Soais os the Feet, by way of Epispa-  
sties in Fevers, and Disorders os the Head, *in Eph. N. C. D.*

*2. a. S. o.* 114. a dry'd Toad,, applied to the Crown of the  
Head, is said’to have allay'd the Violence of Madness, and  
at last to heve cured the Patienti But hew- the Ashes of the  
Toad, used aS an Amulet, can cure Incontinence os Urine, I  
must with *Schulzius,* in his *Pralectiones,* frankly acknowledge  
to he far heyond my Comprehension, I am equally in the  
Dark, and equally incredulous,- with regard to an Effect os  
winch *Helmont* affirms that he was an Eye-witness, and which  
is, that the Bone of the fore Leg of a Toad removes the  
Tooth-ach, immediately upon its touching the Part affected.  
Neither can I give an implicit Assent to a Story of *Etniulsm.s,*who tells us, that the same Bone, apply ’d to the Pulse in the  
Wrist of a Child seized with an Epilepsy, in consequence of  
having suck’d the Milk os its Mother aster she had receiv’d 2  
terrible Fright, instantaneoufly allay'd and mitigated the Pa-  
roxysm. The medicinal efficacy os the fame Bone, apply’d  
in the same manner in intermittent Fevers, is also what I do  
not well comprehend. \*

The *Oleum Bufonum,* in the *Brandenburg* Dispensatory, is  
prepar'd of Toads infused and boiled in Oil os Olives, or  
Oil of sweet Almonds. 'Tis generally believ’d, that Toads,  
by a kind of magnetic Quality, attract and draw the Poison  
out of the Body; .for which Reason the now-mention’d Oil is  
made an Ingredient in Cataplasms, intended for the Maturation  
of pestilential Buboes. The *Oleum Bufonum* in *Bates's* Dispen-  
satory is thus prepar'd. . .

Boil four live Toads in two Pounds of Oil of Olives, for the  
Space of an Hour, or till they burst ; then, straining off  
the Oil, keep it for Use.

This Oil is of great Service in Rustles Of the Lips, and Can-  
cers os the Breast. In Dropsies it is of singular Service, by ex-  
citing a plentiful Discharge os Urine, if -the Region of the  
Kidneys he anointed with it. According to *Schulzius,* in his  
*Praelectiones,* this Oil is highly beneficial in the Cure os poison-  
Ous Wounds. *Musitanus* asserts, that it is a singular Secret in  
curing the Falling-off of the Hair, and other Disorders to  
which it is subject. The Method of ufing it is to anoint the  
Head often with it, having .first purged the Body, and cut off  
the Hair. *Jucobaus* asserts, that it cleanses old Ulcers, removes  
Spots of the Face, and, more effectually than any other Medi-  
cines, carries off strumous Swellings. Concerning the Use of  
this Oil, in strumous Cases, *Borelli* writes thus: " The Scro-  
" phuhe are first to he excoriated by the Application of Arse-  
" nic; after which they must be corroded with Sublimate ;  
" and, last of all, .this Oil must be ufed, which will become  
" still more efficacious by an Addition of the Salt of Toads.  
" Hence, perhaps, it was, that, according.ro many Authors,  
" the antient Arms of *France* .were three Toads, since the  
" Kings of that Nation undertook the Cure of the *King's-evil,'*" for which Toads are accounted so efficacious and powerful a  
" Remedy." Others warmly recommend this Oil in Lepro-  
sies, and cutaneous Foulnesses. *Etmullcr* gives us the follow-  
ing Account of it: Some, fays he, prepare an excellent ano-  
dyne Oil, by infusing Toads in common Oil. Such an anodyne  
Oil is also prepared by.putting live Toads into Water, in which  
sea Salt, or common Salt, has heen dissolved, and allowing  
them to remain in it till they are dead. The Liquor is strain'd  
off, and then coagulated ; but the Toads themselves are to be  
calcin'd with Salt, and fused with Lime"; and, after the Fusion,'  
the Lime is to he dissolved in Water, that the Fceces may be  
carried off. Aster this it is to he mix'd with Oil of fweet Al-  
monds; this wonderfully removes Tumors, and mitigates  
Pains of every Kind, if the Parts affected are anointed with it.  
The *Oleum Bufonum Compositum,* also recommended for discuss-  
ing Tumors, and removing Dropsies, is, in *Schroder3s Pharma-  
cep.* directed to he prepared thus:

Take of the Oil of Sheeps Feet, any Quantity at Pleasure ;  
boil it with Sulphur reduced to Powder, till the Oil assume  
a reddish Colour: Then separate rhe Sulphur from the  
Ost, in which, whilst as yet warm, let Toads be im-  
mersed and suffocated ; and, after Expression, subject to  
Distillation.

**The** *Emplastrum ex Bufonibus* of *Enoffelites* is prepared  
thus:

Take of the Powder of the best Amber, half an Ounce; and  
of Toads dried, and reduced to a Powder, one Ounce r  
Mix these together in an Alembic, and add as much Spirit  
of Wine as rises a Finger's Breadth above them. Draw off  
the Spirit *in Balneo Maria,* till what is left in the Alem-  
bic acquires the Consistence of a Magma. Fresh Spirit os  
Wine must be added three different times ; and the Quan-  
tity remaining is most commodiou fly reduced to the Con-  
sistence of a Plaister, by being mix'd with Melilot-plai-  
ster.

This Medicine is of singular Service, when applied in proper  
Cases to any of the Emunctories. When applied to the Throat,  
it also contributes to the Cure, of spurious Quinseys. . Others  
prepare a *Ccrate of Toads, for* curing Incontinence of Urines  
Their Method of preparing it is thus :

Take one Pound of Toads, half a Pound of Oil of Olives,  
and three Ounces of Wax; let them boil, in a Pot, to the  
Consumption of half, or till it is of the Consistence os a  
Cerate, which is to be spread upon a linen Cloth, **and**applied to the Region of the Kidneys.

Some suffocate live Toads in Spirit of Wine, or in *Malmsey***Wine;** after winch they take them out of the Liquor, put  
them into a Retort, in order to obtain a Spirit, a Volatile Salt,  
and an Oil. This Spirit, rectified with the Volatile Salt, is an  
excellent Sudorific and Diuretic, and a Medicine highlv com.,  
mended in the Plague. The Spirit of Wine, on the other  
hand, or the *Malmsey* Wine, in which the Toads have been  
drowned, is accounted an excellent Alexiphannic, if used inter..  
nally. The Volatile, and not rectified, SpirisofToads, applied  
tepid, twice or thrice a Day, with two or three Folds of a  
Linen Cloth, to cancerous Tumors, is, in *Eph. N. C. Cent..  
An o.* 179. said to have cured many of that Disorder. *Faber, in \_*his *Myroiheciurn,* recommends

One Dram of the Salt of Toad-ashes, Calcined to White-  
ness, extracted either with the Water *of* Carduus Bene-  
dictus, or Scabious, or that of Lemon-peel, and mix’d  
with Treacle-water; to he taken in the Moming lasting,  
with Cinnamon-water, as an Antidote against all Poisons,  
whether convey'd into the Constitution by poison’d  
Draughts, or owing m the Impurity of the Ain Exter-  
nally used, this Preparation is said safely to cure pestilen-  
tial Carbuncles and Cancers, if anointed with it.

AS for the Volatile Salt obtain'd by Distillation, I Can’t  
think, that, when it is duly depurated, it differs from the Salts  
of other Animals of a like Class and Nature; but that a Salt  
can possibly he elixiviated from the Ashes of Toads, is whet I  
Very much doubt. AS for the Salt of Toads, and other Secrets  
prepared from them, *Daniel Lndovieus,* in his Treatise *de  
Pharmacia,* thinks, that such Preparations are, for the most part,  
handed down by Tradition, without having the Countenance  
and Sanction of Experiment to support them.

There is an anatomical Description of a Toad in *Valentinus's  
Amphitheatrum Zootomicurn..* It is much disputed, whether  
Toads can be form'd in the Stomachs of Men: Some maintain  
the Affirmative, and assert, that they are generated from **the**Sperm or Eggs of Toads drank in Water; or rather, that they  
are enlarged and nourish'd in the Stomach, and afterwards  
thrown up by Vomit, or discharged by Stool. .But *Fallis.nen*not only calis these Relations in Question, het openly pro-  
nounces, that Animals cannot be generated in the Stomachs of  
Men, by the Sperm of these Animals being convey'd into them5  
for thus, says he, according to *Aristotle,* the *PrimordiaNenitu-****rce,*** *or first Stamina of Gencration, would be concocted.* How-  
ever curious and subtile the several Reasonings on this Subject  
may appear, ’tis yet certain, that the Eggs of Animals, laid and  
impregnated with their Embryos, may he farther perfected  
without the concurring Care and Nourishment of the Mother ;  
as is obvious not only from oviparous Fishes, but from most  
Insects, from whose Eggs,'nourish'd in a proper Place, perfect  
Animals are brought into the World, without the Help and  
Assistance of the Mother. That Worms are generated in Our  
Intestines, in consequence of the Eggs or Sperm of these Ani-  
mals heing convey'd into the Stomach, is an Opinion univer-  
sally received in our Days : Neither, if we argue from Analo-  
gy, shall we find it improbable, that the Eggs of Toads, swal-  
low'd in impure and marshy Water, heve proved the original  
and immediate Cause os those Toads which have been generated  
in the Stomachs and Intestines of Men, and afterwards dis-  
charged ; unless, with *Fallisucri,* **we** asters, that the Worms  
sound in human Bedies are nourish'd and propagated in us by  
the Worms communicated to us in the Uterus.. The Observa-  
tions Concerning a live Toad, found in an Abscess of the human

Body; would not only favour, but absolutely confirm, this Opi-  
nion ; unless we had Histories of some Parts of Vegetables, and  
other Substances formerly swallow'd, being found in Abscedes  
of the Body. See *Eph. N. Co D.* I. *a.* 2. *o.* I03. There are  
Cases of live Toads swallow'd during Sleep, and Accounts of  
the Symptoms arising thence, in *Eph. N. C. Cent.* 3. *a.* I 63.  
and *Cent.* 8. o. 84.

BUFONITES, or *Bufonius Lapis.* It is also call'd *Lapis  
Rubetee,* and *Myoxolithus,* and *Batrachites;* but. the *Englijh*have no other Name for it than the *Toad-stone.*

. Some affirm, that these Stones are sound in the Heads of old  
Toads, which have lived in dry Places ; and that the Stone is  
far more Valuable when taken from the Toad immediately  
kill’d, than when it has been dead sor a great while. The  
common People affirm, that an old Toad, if laid upon a red  
Cloth, will Vomit up this Stone. Others, for obtaining the  
Stone; order a Toad to he exposed to the Heat of the Sun till  
it be parch'd with Thirst; upon which they maintain itwill  
Vomit its Stone, as too great a Burden to its Head. Others, in  
order to procure the Stone, order a very large live Toad to be  
put into an earthen Vestel, full of small Holes; and the Vessel,  
when close stopp'd; is to be buried among a large Collection of  
Ants, for the space of a Month; for then they affirm, that  
the Flesh of the Toad heing destroy'd by the Ants, nothing  
remains but the Bones, and the Stone which was lodged in the  
Headr I cannot forbear looking upon these Accounts as so  
many Lyes, too palpable and glaring to deserve our Attention,  
much less our Assent. Our leamed Countryman, Mr. *Brown,*in his *Vulgar Errors,* thinks; that People have some Reason to  
seek for Stones in the Heads of Toads, because stony Concre-  
tions are often form'd in the Heads of many other Animals, but  
more especially Fishes and Snails; but he doubts whether such  
a Stone is really found in the Head of the Toad ; and, is it is  
really there, he thinks it is the Cranium indurated or petrified;  
Others heve asserted, that this Stone was produced from the  
Viscid Spume deposited upon the Head os a large Toad by a Col-  
lection of Toads, lodged in a Cave in the Winter Season.  
Hence *Christephorus Salveldensis* informs us, that in *France* and  
*Spain* this Stone is only produced by a certain Species os horned  
Toad call'd *Borax,* and mark'd with Saffron-colour'd Spots,  
and blackish livid Streaks. *Lanranus,* from *Alb. Seba,* informs  
us, that the Origin of the Toad-stone is very uncertain, and in-  
Volved in a kind of impenetrable Obscurity; since, notwith-  
standing the large Number of Authors who have wrote con--  
cerning them, and endeavour’d by Examination to discover their  
Natures, not one has hitherto dar'd to assert, that he has, with  
his own Hands, extracted a Stone of this kind from the Head  
of a Toad, or even pretended to shew one obtain'd in that  
manner; for *Fallis.ncri,* after all the Pains he could take, coulth  
by no means obtain any Stone from the Toad; from which  
Circumstance, he thinks, he has Reason to conclude, that this  
Stone being found in the Toad is a Story, which, like feme  
other Pieces of Imposture, has met with a kindly Welcome from  
the Credulity of Mankind. *Metres,.* in his *Pinax Rerum Na..'  
turalium,* affirms, that the Stones call’d Toad-stones, and ac-  
counted Gems, are only certain Teeth, call'd the Grinders, in  
the *Lupus marinus,* or Sea-wolf. .

*Schroder, as Dale* informs us, recommends the Toad-stone  
as a most Valuable Medicine against the Plague, and all kinds of  
Poisons.

Some affirm, that the *Bufonites,* or Toad-stone, carried  
about any Person, preserves him against all kinds of Poison, and  
changes its Colour upon its coming near to a poison'd Cup. But,  
as these things are not found to hold in Fact, I think it enough  
just to have mention'd them ; only I must observe, with *Boe-  
der,* that the *Bufonites,* in consequence of its being an alcaline  
Substance, may absorb Acids, and contribute to the Cure of  
Fluxes.

BUGANTLE, Chilblains. *Castellus...* See **PERNIO.**

BUGLOSSUM, Offic. Park. Pared. 249. *Buglojsurn vul-  
gare,* Ran Hist. I. 495. Chain *515. Buglofsum vulgare masses,'*J. B. 3\* 57 S’ *Buglofsum angastifolium majus,* C. B. Pin. 256.  
Tourn. Inst. I34. BoerlL Ind. A. I88. *Buglofsum perenne ma-  
jus fatiuum.* Hist. Oxon. 3; 438. *Buglosia vulgaris. Ger.*655. Ernac. 7o8. BUGLOSS. *Dale.*

Bugloss is like Mullein, but has a rough and blacker Leaf,  
like the Tongue of an Ox, spread on the Ground. This, put  
into Wine, is supposed to promote Chearfuiness. *Dioscorides,  
Lib. An Cap.* I28.

*Buglofs,* from a long, thick, brown Root, sends forth large,  
rough, hairy Leaves, less prickly than *Barrage,* half a Foot  
long, narrow, and sharp-pointed. The Stalks arise to the  
Height of two or three Feet; full of short stiff Hairs, on which  
grow long narrow Leaves, set on without Foot-stalks. The  
Flowers grow several together, at the Top of the Branches, in  
long rough Calyces, os a single Leas, cut into five round Par-  
titions, of a purple Colour at their first appearing, and turning  
to a bright Blue as they stand, and are succeeded by sour-  
corner'd rough Seed.

*Buglos.s.* is usually planted in Gardens, and flowers *in jscitnc*and *July.* The Leaves, Flowers, and sometimes she Root,  
are used. ... - Ἴ he nxtthO so-so’'.

*.- Biiglos.s* is much of theNature Of *Barrage,*heing accounted  
cordial, and . good to exhilarate the Spirits, and drive away Me-.  
Iancholy; and is useful against Hypochondriac.“and Hysterio-  
Disorders.i..: . τις E.&W: .

. The Flowers are among the.Numher of the Four Cordial  
FlowerS.-. *MellePs Bot. Ossf.se sy \* ' i l ... .

The Roots are Very glutinous, and give-a deep Tinctureof  
Red to blue Paper; the Flowers give it hutsyery-littie; and the.  
Leaves hardly any at all: So that sprobably .the Sal Ammoniao  
in this Plain is involved in a glutinous Juice, in which the Earth  
and Sulphur predominate.-) The *Buglos.s-ttioi^aissicocAs,* and  
gives great Relies to melancholy Persons; it ingood to dissipate  
the Defluxions of the’ Breast, and an obstinate Cough. The  
juice is drank from three Ounces to six. The Ptisan 'is taken,  
by Glassfuls, i. The Roots and Leaves are used in coolingBroths,  
and this Plant cools no otherwise than by restoring the Motion:  
of the Blood, which stagnates .and heats the.Parts..wherein its;  
Circulation is retarded. *Buglos.s* Flowers dr ee .used after the  
manner of Tea. A Conserve is made ofstheFIowers. The'  
Syrup, made with the Juice of the *Leaves* -of*Jdetglosc* gives greaii  
Relief to melancholy Persons i This julceris- employ'd:in the'  
simple *Byzantine* Syrup, and.the compound One *ofe-Mesue.* Fit  
enters also as an Ingredient: in ErrHe/ithss Syrup Of Spleenwortir  
*MartyrstsTourrles.ort. . .-'.δ᾽*

*z* The Conserve, Syrup, and distipd Water of Bsigloss, are all  
highly extol'd by *Faber* in his *Myrothocium. .sEtmulldrcci&* of  
Opinion, that, from the Leayes or Flowesuoisslugloss, an oph-  
thalmic Liquor may he prepared, .not inferior to that obtain'd  
from the Flowers of the Blue-bottle, .or any other Liquor of:  
the same intention. . *Forostus* relis us, from *Allegorias,* that Peo-  
ple who have used a Decoctinn of Bugloss for thirty Days,  
, purging off the Superfluities, every seventh Day,!: wishCassiR  
sometimes alone, and sometimes with at. Addition of the *Cony,  
fectio Hamech,* have been cured of the *Lues Vencrea.. \* The *Pul-  
’ vis Diabuglojsi Mynsichti,* in *Lerners.s Pharma cops so* prepared  
of Stimulants and Absorbents, the Aurum Potabile of *Mynsicht,*and Sugar, mix'd with the Bark of Bugloss-root. - This Pow-  
der is said to. he possess'd of aoordial and cheating Quality,, and  
may he exhibited to.theQuanthyofaDram.1 ... t

**BUGLOsSUM SYLVEsTRE, Ossic.** *Buglojsum fyluostre minus,.***C.** B. Pin. 256. Park. Theat. 765. Tourn. fnst. r34. Boerh..  
Ind. A. I88. Elem. Bot. I Io. *Buglofsum fyboestre as.pcrum  
minus annuum, foliis undulatis.* Hist. Oxon. 3. 439. *Buglossea  
silvestris minor. Css,* SMALL WILD BUGLOSS, Ger.  
Emac. 799. Rail Hist. I. .494. Synop. 3. 227. Merc. Bot. I.  
24. Phut. Brit. 17. Mer.Pin. I7. *Ecrtium Puchsii feu Bora-,  
go fylvestris,* J. B. 3. 58 I. WILD BUGLOSS, v *Dale. zz*. This is a much less Plant than the Garden Kind, growing  
not above a Foot high , with a small whitish Root,, which dies  
yearly: The Leaves are long and narrow, but broader, and  
roundish-pointed at the End, rough and prickly, like *Barrages*The Stalks are thick, succulent, and prickly, cloathed with  
narrow and sharp-pointed Leaves, set on without Foot-stalks.  
The Flowers grow on the Tops of the Stalks, in Shape line the  
Flowers of *Garden Buglos.s,* but less, and of a light-blue Co- t  
lour ; the Seeds are also like the Seeds of that. It grows by .  
Hedges and Way-sides, and among the Corn ; and flowers in  
*May.*

This *Wild Buglos.s* is but seldom used, tho' it is said to **have**the same Virtue with the Garden, but in a lower Degree, and,  
for want of that, may serve to supply its Place. *Millegis Bot.  
Off. .. ... .. .*

*Tragus* made use of this Plant instead of *Barrage*; and the  
Apothecaries of *Antwerp* use it (according to *Label)* in the room  
**os** *Buglos.s. Martyn's Tournefort..*

The Other Species of *Buglos.s,* taken Notice of by Authors,  
are, . ... - - - i.. .... .

‘ The *Buglofsum latifolium fempervirens, B. Buglojsum folio  
Boraginis, .Hispanicum : Borrego fempervirens,* . or the ever-  
green Borrage.

This Plant is said to he possess'd Of an astringent Quality,  
which is stronger, in the Root than in the Leaves, winch, if .  
drank in Wine, stop Fluxes. -

*Buglojsum radice rubra. . :*

*. Buglofsum fyluostre, cauliculis procumbentibus.*

*Buglojsum orientale, store luteo, sT.* Cor. The Eastern Bu-  
gloss, with yellow Flowers. ' '

*Buglofsum Creticum verrucosum perlatum, quibufdam,* Η. R.  
Pat. Warted Bugloss from Crete.

*Buglosseum angastifolium mayus, store albo,* C.B. P. Greater  
narrow-leaved Bugloss, with a white Flower.

*Buglosseum angastifolium mayus, store rubro aut variegato,* **C.**B. P. Greater narrow, leaved Bugloss, with a red or variegated  
Flower.

*Buglofsum foliis sinuosis,* **C.** B. P. Bugloss with finuated  
Leaves.

*Pugiofsum s.ytssestri mayus nigrum,* **C. B. Ρ. Grenier wild**black Bugloss.- -. . . :: . .

*- Buglosseum Creticum mayus, store caeruleo puepurante,H.* **R. Pa**Greater Bugloss of *Candy,* with a bine Flower, inclining to **a**Purple Colour. . .

*Buglojsum Lasitanicum, Echiifolio undulato,* Inst. R. Η»  
*Portugal* Bugloss, with an undulated Viper's Bugloss-leafi

*Buglosseum Creticum minimum odorarum, store vario elegants,*Η. R. Par. - The least sweet-scented *Candy* Bugloss; with art  
elegant Flower of various Colours. - .: . S .

*' Buglesseem Creticum humifusum acaulon perenne, Echii Jolla  
angustissimo,* Toum. Cor. Perennial *Candy* Buglofs, lying  
spread upon the Ground, without Stalks, and with a very nar-  
row Viper's Bugloss-leaf.

*\* Buglosseum Samiumfruteseens, foliis roris.marini obscure viren-  
tibus, lucide hirsutis,* Tourn. Cor. Sbrubby Bugloss from the  
Ifland of *Sarnos,-* with Rosemary-leaves, of a shining dark-  
green Colour, and hairy.

*z Buglosseum orientale-erectum, foliis undulatis, flare amoenae  
coeruleo,* Tourn. Cor. Upright Eastern Buglossquiwith undu--  
lated Leaves, and-a Flower of a beautiful blue Colour.

*.. Buglojsum orientale angastifolium altijsimum,* Tourn. Cora  
The tallest Eastern Bugloss, with narrow Leaves.

BUGLOSSUS. A kind of Fish. The same with the Sole,  
**eSOLEA. ‘** - ἱ- .

BUGONES, βουγονες, βουγενεῖῆς from βῆς; an Ox; and γένος»  
μαι, to he bred or generated of. An Epithet for Bees, in Use  
among the Antients, who supposed these Insects to he bred of the  
Putrefaction of an Ox. *Farro de Re Rustica, Lib.* 2. *Cap.* 5.

BUGULA, CONSOLIDA MEDIA, Ossic. *Bugula\**MIDDLE CONSOUND, Ger.‘ 500. Emac. 63I. Merc.  
Bot. I. 24. Phyt. Brit. I7. Raii Hist.. I. 575. Synop. 3. 245»  
Mer. Pin. I7. Dill. Cat. Giff. 49. Buxb.- 4o. Rupp. Flor. Jena -  
iS7. Tourn. Inst. 2O8. Elem.- Bot. i77. Boerin Ind.A. I 84.  
Rivin. Irr. Mon." *Bugula vulgaris silvatica caerulea.* Hist.  
Oxon. 3. 39I. *Bugula vulgaris, store coeruleo,* Park. Theat.  
525. *Bugala Consolida media pratensis caerulea,* C. B. Pin.  
260ι *Consolida, media, quibufdam Bugula, J.* B. 3. 43o. *Conifer,  
lida media, fyrnphyturn medium, Bugula,* Chain 474. BUGLE.  
*Dale.’* V \_ ...

*Bugle* has a small stringy Root, fending forth several Stalks  
Of different Forms ; some roundish, and lying along, and creep-  
ing on the Ground, sending out fibrous Roots from the Joints;  
the other, which grow erect, and bear the Flowers, are square,  
.beset with but sew Leaves, standing in Pains opposite to one  
another; the lower on long Foot-stalks,She upper on Very short  
ones; they are oblong, somewhat crenated about the Edges,  
an Inch and half long, and an inch broad, of a dull-green Co-  
lour, and oftentimes with a Dash of Purple: The Stalks are  
eight or nine inches high, having the Flowers growing at the  
Top, in loose Spikes, whorle-sashion, with two small brownish  
Leaves under each Whorle. They are of a blue Colour, and  
Iabiated, but have the Galea so small, that it is hardly discernible.  
When the Flowers are past, they are succeeded by small longish  
Seeds, in five-pointed Calyces. It grows in Woods and Hedges,  
and flowers in *May.*

*. Bugle* is a noted Vulnerary Plant, and us'd inwardly and out-  
wardly for all kind of Bruises, Wounds, and Contusions, as  
likewise for Sores and Ulcers, for spitting of Bloed, and Hae-  
. morrhages from any Part. It is also aperitive and diuretic, **and**good to open Obstructions of the Kidneys, and provoke Urine.  
*Miller9s Bot. Osse. .*

This Plant is bitter, detersive, and gives a faint-red Colour ta  
blue Paper. It is employ'd in Vulnerary Potions, Ptisans,  
and Apozems; the Dysentery, Fluor Albus, and Diseases of  
the Throat, Ulcers and Thrushes in the Mouth. The clarisy'd  
Juice of *Bugle* has the same Virtues; it is us'd in Planters.,  
*Camerarius* and *Dodonaus* prescrib'd it for Obstructions of the  
Liver. ' It contains some Sal Ammoniac involv'd in Sulphurs  
*Mariynts Tournefort.. - - ......s.'-..*

On account of its abstergent Qualities, it is accounted air  
excellent Vuinerary, and is Very much us'd not only in vul-  
notary Potions, but also in Plaisters, particularly among the  
*French,* with whom it is a Proverb, that the Person who has  
Bugle and Sanicle has no Occasion sor a Surgeon.. In conse-  
quence of its abstergent Virtue, it is also said to be a present  
Remedy in spreading Aphthae, and Ulcers of the Mouth r That  
an Ointment made of the Leaves of Bugle, Scabious, and Sanicle,  
bruis'd, boil'd in Lard till they hecome dry, and then express'd,  
is excellent for the Cure of all ‘ Ulcers, Contusions, and  
Wounds, we are told by *Parkinson,* who recommended the  
Use of it to those charitable Ladies, whose Compassion for their  
Fellow-creatures prompts them to relieve the Disorders os **the**Necessitous. *Konigs* affirms, that, by means of its Bitter-  
ness, he has known it to heal scrophulous Ulcers in the Neck.  
From what has been advanc'd, we may easily perceive the Rea-  
son why this Plant is said to be diuretic, and why it is recom-  
mended inSpittings os Blond, Dysenteries, and the Fluor A i- .  
bus ; for, when. Coarse,, tenacious, and.Viscid .Substances are .

**attenuated, and Obstructions remov'd, inorder to make way**fora free Circulation of the Juices, the Emnnctories are rtoti  
Only open'd, but the spasmodic Contractions, which are the  
immediate Cause ofthe morbid Fluxions, heing remov’d, these)  
Disorders are cur'd. The Herb Bugle is most properly us'd in  
Decoctions, or its express’d Juice may he us'd, which is highly  
saponaceous and opening. The distil'd Water is not possess'd of  
Very eminent Medicinal Qualities. .. .. S

*. Poterius.* recommends a Decoction of Bugle, made with)  
Mutton-broth, as an excellent Medicine in a *Phthisis,*and internal Ulcers; affirming that it gentiy relaxes the Belly,  
wonderfully recruits the Liver, and fortifies other Parts. *Elum  
muller* informs us, that the" *Italians,* in the Spring, cleanse the  
Root and Leaves of Bugle, and use them as aSallad, which in  
not only grateful to the Palate, but acceptable on another AC-  
count, which is, that it seems calculated to prevent Cachexies,-  
The same Author also informs us, that its Juice is an excellent:  
Medicine in malignant Ulcers. *Rieger. ' .. ....*

TheTeVeral Spectes of Bugle mention'd-by Authors, besides '  
the preceding, are

*Bugula store cincreo vel albs,* Inst. R. H. Bugle with a l  
white or ash-colourin Flower.

*Bugula Alpina maxima,* Inst. R. H. The greatest Bugle of  
the *Alps,; .* \*. . I ..'7Ἀ i

*Bugula siylvostrti villose, store caeruleo,* Inst. R. Η. Hairy  
Wood-bugle, with a blue Flower. ' .. . \* ἐν

*Bugula fylvestris villose, store suauerubente,* Inst. R. H.  
Hairy Wood-bugle, with a sine red Flower.

*Bugula fylvestris villos.a,siore albo.* Insta R. H. Hairy Wood-  
bugle, with a white Flower. . τ. ' yss

*. Bugula Samia verna, boraginis folio, store inverse, et capru-'  
leofiavtsientesu*ourn. Cor. *Samian* Spring Bugle, with a Borrage-  
leaf, and an inverted Flower of a yellowish-blue Colour. .:

*. Bugula. orientalis villose, store invcrse cceruleo, Alba macula  
notato,* Tourn. Cor. Hairy Eastern Bugle, with an inverted  
blue Flower, spotted with White. ι

*. Bugula orientalis villosa, store irrvenso candida, cum oris  
purpureis,* Tourn. Cor. Hairy Eastern Bugle, withan inverted  
wltite-Flower, edg’d with Purple. - ... st si

*Bugula orientalis, flore ex violaceo purpurascente,* Tourn. .Cor.  
Eastern Bugle, with a purplish violet-colour’d Flower.

*- Bugula orientalis longis.olia,siore majore intense caeruleo,* Tourn..  
Cor. Eastern Bugle, with a long Leaf, and a larger Flower os  
an intense blue Colour.

BULAPATHUM,\* βκλἀπαθον, from the intensive Particle  
βῆ, and λάπαθον, a Dock. A Species of Dock, See **LAPA-,,  
THUM. ’** j

. BULBASPHODELUS. An Asphodel with a bulbous  
Root.. See **ASPHODELUS.** . .ἐν' χ. , ,- .,ϊ

BULBIN A, BULBINE. Diminutives from BULBUS,  
which see. .. - '

: BULBOCASTANUM, Offic. J. K 3. 30. Ger. 906.  
Phys, Brit. I7. Buxb.47. Rafi Hist. I. 44o. Synop. 3. 209.:  
Chab. 385. Mor. Umb. 5. *Bulbocastanurn rnajus et minus ,*.SMALL AND GREAT EARTH-NUT, Ger. emac.

I065. *Bulbocastanurn minus,* Mer. Pin. I7. *Bulbocastanurn  
majus,folia Apii,* C. B. Pin. I62., Hist. Oxon. 3. 274. Boerh.  
Ind. A. 70. Tourn. Inst. 307. Elem. B0t. 257. *Nucula ter.,  
rostris mayor et minor.* Park. Theat, 893. EARTH-NUT,  
KIPPER-NUT, PIG-NUT, and HAWK-NUT. *Dales*

. This Plant has a Root, as big as a large Nutmeg, hard, and  
tuberous, of a whitish Colour, shooting out Fibres from the  
Bottom and Sides; the lower Leaves are wing’d,, cut into  
several Divisions of Leaves; finer and smaller .than those of  
Meadow-saxifrage; the Stalk grows to be more than a Foot  
high, having one Leaf about the Middle, which is aS fine.and  
slender as Fennel, having the like Leaves at every Division of.  
the Branches; on the Tops of winch grow, thin Umbels of  
small white Flowers, each *os* which is succeeded by two smooth  
long Seeds. It grows in sandy gravelly Places, and flowers in  
*May. ’ . - . - ’ ' . - . ’*

- The Root, which is only us'd, and either roasted or raw,  
. is of a pleasant sweetish Taste, and is, accounted nourishing,  
and to he a ProVocatiVe to Venery. It is likewife commended  
against the Strangury and bloody Urine. *Millguls Bot. Off. . .*

The Root of this Plant, when the Skin of. it is taken off,  
proves a nourishing Fond, but is,subjectto produce Crudities and  
Flatulences, in consequence of its being with some Difficulty  
Concocted. It is also emollient, and inspissates the Juices; sor  
which Reason the Use .of it is often recommended to those  
whose Fluids are too thin, and to such as are phthisical,, con-  
sumptive,-and extenuated. *Alexander Trallianus, Lq. C.2.*informs us, that the Bulbocastanum, or earth-nut, is of great  
Service, prepar'd in the Food of those who are afflicted with a  
Spitting of Blood. *Bauhine,* from *Tragus,* telis us, that the  
excorticated Root of the Earth-nut, boil’d in Flush-broth,  
with a littie Pepper, is a Food which is not only sweet and  
. nourishing, but also proves a Stimulus to Venery. The Seeds  
of this Plant, are said to he possess'd of a diuretic Quality.

***. Milder* enumeratessix Species of the *Bulbocastanum:.***

.BULBOCODIUM *vulgatius,* J. B.. *Btabocodium,* The-  
ophr. *Co Ataman vel Codeuminum flare codii,* i. e. *Campanula,*Gesm Hor. *: Bulbus: fylvestris et Codiaminum,* Gesn. Hor.  
*Narcisseus lulcusfylvestris.* Doth *.Dfeudo-.narcijs.us,* Offic. *Et  
Anglicus,* Gero II 5.. Emac.. 113.. *Pseudo-narcissus Anglicus  
vulgaris.* Park. Parad. Ioo. *Narcisseus luteus,* Merc. Bot. I.\_  
53.1 Pbyt. Brit.ryo.. . *Narcisses sou Pseudo-narcisseus Anglicus,*Mer. Pin. 83. *NarcissussiylvestresspaUidus, calyceduieo,* C. B.  
Pim 52. Rali;Hist.:2. II3I. Synop. 3. 37 I. DiLCat.Giffi  
40... Tourn. Inst». .356. *Bulbocodium,* Chab. 2. 2. WILD’  
DAFFODIL.^ *Desnery:.. Dale: rs'*

*'..Bulbocodium* is.a Species Of wild Narcissus,, abouthalf a Foot,  
high, with long strait Leaves, hearing on the Top of he Stalk a  
beautiful, Inonopetalous, bell-shap'd, pale Flower, in a yellow,  
gold-colour'd, shining Calyx, which, is inclosed in a membra-,  
naceous Sheath, and surrounded with fix pale pointed. Leaves.  
The Flower in succeeded by a round Fruit, wish.three Emi-  
nences'; and its.Inside divided into three Capsules;, winch con-  
tain black, and almost round. Seeds. The Root in bulbous,  
and Viscid tocheTaste and Touch, with a kind of Sweetness,  
mix'd with allttle Acrimony. /It grows by the Sides of Fields,,  
in Meadows and .inoist Places, and in Woods and Gardens.  
The Plant abounds.with.Oil, and essential Salt. .

a'The-Root is .purgative and aperitive, and evacuates viscid  
Phlegm. The.Doseis two Drams in an Infusion;: *. Lemery des  
Drogues.* .. . f...

Tt has the .sainei Virtues as the NarcistuS, or common pale  
Daffodil.*...Dale.* -. ι-i -

- The Root is emetic, and hurtful to the Nerves; but, out-  
wardly, is said to he good forAinbustions, Wounds, and Her-  
nias. *Clusius* assures us, .that the . Root Of every Species of  
Narcissus exciteS Vomiting, as he has often experienc'dand .  
*Label* says, that the Peasants use so Vomit themselves with the  
Root Of Bulbocodinm. M. *Harman* says, the bruis'd Leaves  
are good for an Erysipelas. *Raii Hist. Plant.. .. . -*

- BULBONACH; Offic. Phyt. Brit. I8. *Bulbonac an..*

*nuurn, siliqua rotundiore-,* Rupp. Flor. Jen. 7o. *Bulbonac vul- '  
gatijsime, viola lunaris,, viola latifolia,. Phys, BriL ilu). Viola  
lunaris side Bulbonach,* Ger. 377. Emac,. 464. Park. Theat.  
1366. *Viola lunaris vulgaris, -.* Ejufd. Parad. 265. : *Fiola lu-  
naria major, siliquarotunda,* C. Β» Pin. 203. Raii Hist.I. 787.  
*Icunaria. maser, siliqua rotundiore so J.* B. 2. 88I-.. Toum. Inst.  
218. Elem.;Bot. I87. Boerh. Ind. A. 2. 5. *Leucoiurn luna-  
tum, feu Lunarium..latifolium majus arrnuum, Jilig.ua rotunda,  
store violaceo 'seu subcaeruleo,* Hish Oxon. 2. 245. Herm. Cat.  
368. SATTINhr HONESTY.'. *Dales \ \*. The Stalk of. it grows to the Height of a Cubit and a half,  
or more, and sometimes to the Thickness of the little Finger,.  
of an azure or dark-red Colour, and hairy. The Leaves are  
like the Nettie; but sometimes twice or thrice as large, hairy,.  
serrated, fituateth sometimes opposite, and sometimes single,  
where the Branches divide, and tasting like Pot-herbs. The.  
Branches, .and.the Summit of the Stalk, are laden with  
Flowers, disposed almost in the same Order as in the Cabbage,  
of a purplish or carnation Colour,: .of Ihe Size of those of the  
common Cabbage, 'and less than those of the *Leucoium,* but  
like them in other respects, of R saint Smell, with a. whitish  
and. remarkable *Unguis* on the Inside. .Four greenish Stamina,  
with yellow or pale Apices, but Just emerge out of the Calyx,  
which is of an oblong Form, red, and composed of two larger  
and two smaller Leaves, heing like the Calyx of the *Leucoium.*The Pods arc wide, roundish, flat, bivaledd, a filver-colourId  
Rim passing hetweenthe exterior Laminae on both Sides. They  
shoot forth a Filament at the upper End, and contain a double  
Row of flat orbicular Seeds. The Root is strumous, or glan-  
dulous, whence in-takes .its Name, *Bulbonach. Dna* Seed is  
of a dark Red, and Very large .for the Kind, and of a very acrid  
Taste, mix'd with some Bitterness. It. keeps its .Leaves during  
Winter. The second Year of its Planting, the Stalk drops,  
and salis to the Ground, and, when the Seed is ripe, perishes.  
It grows plentifully in several Parts Os *Germany ntsd-Iiungary i  
in England* it is cultivated in Gardens. γ "

It is os a hot, bitter, and acrimonious Taste, especially **the**Seeds, the’ the Roots are eaten, in Saflads. It absterges,  
moderately heats, and provokes Urine, like the *Ranunculus..*The Powder of the bitterest Seed is given, in a Water ap-  
propriated to the Distemper, for the Epilepsy. **A** Sur-

geon of *Swit rar land,* with-the bruis'd Leaves of the peren-  
nial *Lunaria,* or Bulbonach, and Sanicle, prepar'd.-a vulnerary  
Ointment of no contemptible Virtue, *Raii Hist. Plant. \_*

BULBUS. ' - - ; ( -

The *Bulbus osculentus,* being commonly eaten, isknowmte *e  
every Bckia.* The reddish Sort, which is brought *stutit Africa,*is agreeable to the Stomach and Belly ; but the bitter and squil-  
laceous Kind is more friendly to the Stomach, and helps Con- -  
coction. .

The *Bulbi* are all acrimonious and heating, stimulating to  
Venery, inducing a Roughness on the Tongue and Tonsils,.

nutritiae;-tindinncreasingtheElesh, but they generate infla-  
tions.- They /arc effectual, .in. Cataplasms, : fbr,.Luxations,  
Contusions, Darts, or other fuch. Weapons, . lodg’d in the  
Flesh, and for Pains of the Joints.-. They are, good' also in a  
Gangrene,. and . for the Gout, either alone, or mix’d with  
Honey. A Cataplasm of Bulbi, with. Honey and pounded  
Pepper, is successfully apply id to the cedematous Tumors of  
hydropical ePerfons, and to,thei Bite *of* a' Dog.: They-restrain  
Sweating, iandainitigate the.Parn of the Stomach..uMrx’d with  
roasted Nitre,., they absterge theSdurf and *Achores* of the Head.  
Alone, or mix’d with Egg-shells, they take oss the Marks of  
Blows, or Spots (ἀνδους) in the-Eace and,-, with Honey or  
Vinegar, they Hear the fame i Part: of Freckles;; Mix’d with  
*Polenta,* they heal Franmies (ὕλα'σματα) aboup-the Ears, and  
Contusions of the Nails. Roasted in hot Cinders,' and apply’d,  
with the Ashes of the calcinyoHeadsof Masoje,-(the\_Cacharel  
Fish, *Dale)* they remove ai Finns;-. Burnt, and: mix’d with  
*Alcyonium, it* clears the Skin of Sun-burning, and biack Cica-  
trices, iso rubbfil .on, the Parts exposed to the’Sun.,; Boil’d in  
Vinegar, and eaten, .they are essediual in Ruptures. , It is ad-  
vi stable to abstain from a plentifulJUse of them, because they  
assedi the tiecvousSystem., . *Diascirides, Lib. or. Cap.* 2oo.

There is. 2. Plant of the .-bulbous Kind, which, *zsAlpagus,*in his Lexicon, observes, is call’d, by the *Arabians, Arzi Alnil,*or *ArocArnil.* What it is; the explains from *fotne Arabian* Ex-  
positors; who -say. it .is a .Bulb. .of. th e. Oninn-kind,. of a fweet  
Taste, grows in the Mountains, and is call’d, by the People of  
*'Damascus, Axior Alail,* or *Ha soils,* and, that it is eaten in the  
Spring, on account of its Sweetness, *Alpagul* adds. That this  
Bulb was. of theShepe and Size, of the Pear commonly called  
theMofcadeh.and was surrounded with a fine hairy Tegument,  
in. manner of iNet, from which proceeded many long and fine  
Leaves ; that, it grows osi Mountains, and was called by the  
ofrahlon .Naturalists *Bulbus..* This is; the *Suibus* which *Avisena*call’d-by .that Name,, and fays.is the same as the *Bulbus escu-  
lentus of* the *Greeks,* and that it is of the Shape and Size of  
the Bulb of the Narcissus, has .a Leaf like a Leek, and a Flower  
likea Violet; . ; . : . ” i .- . . 1

*Diofcorides* has given no Desoription of the *Bulbus esculentus,*and, by that means, hasput all osir Botaniststoithe Trouble of  
searching it out, and they, have not yet iosind .it. . *Avisena*takes it for-what we have said, above ; the’he shews, at the fame  
time, thet: the Matter is no less doubtful among, the *Arabians.*Some, he fays, mink it to be the *Atcrcir,* which is a kind of  
-Onion, which has the same Virtues, he tells-us; as another  
Onion call’d *Bossed Alfar,* that is, the *Mouseruricri.* Others,  
-he fays, take it for the *Cepe Althalcair*; for so *Alpagus,* in his  
-Lexicon, tends the Words, and expounds them of a small ob-  
long Species of Onion, which , the *Venetians,,* commonly call  
*Scalogna,* and istheCper *Ascalonica* of the Antients.

Since there are so many Species os Bulbs, it is tio wonder  
thet the *Arabians* are not certain on which to six for the βολβὸς  
έδώδιμος, " *Bulbus esculentus,'* of the *Greeks^-... Avisena* takes  
it as above, and calis it also *Basal Macar. Basel* is a Name com-  
mon to all the cepacedus Kinds, from the *Hibrew* VYa, which  
signifies an Oninn. *Serapio* takes the *Basest. Atcasr* for the *Bul-  
bus,* and quotes the Place of. *Diofcorides,* concerning the *Bulbus,*unsicr thet. .Head, which he expounds by an *Onion without  
Coats.* But the *Arabian* Interpreters, whose Opinion is given  
us *\sy Alpagus,* have confounded the Bulb ofthe *Egyptian* Lotos,  
or Nymphaea *of Nile,* which was call’d *Ar^c Elmil,-* or *Hafnil,*with that eatable -Bulb, which was call’d by the *Arabians* abso-  
lutely tioilon. ; , ,. -7' ' f;

*. .. Diofcorides* seems to make.two Sorts of the*Bulbus esculentus* j  
one sweet, and the other, bitter, and savouring ofthe Sea-  
onion, or Squilla. *Avisena,* in his Chapter of the *Bulbus eseu-  
lentus,* towards the End, quotes the Wordsof *Diofcorides,* and,  
in like manner, makes.two Kinds, the fweet, and the bitter;  
the fweet, which is red, is good for the Stomach, but the bitter  
Kind is better. *Pliny* tells us, that the *Bulbi* differ in Bigness,  
Colour; and Sweetness. . Some Sorts are eaten raw, which,  
for thet.Reason, musubefweet; these grow, he fays, in the  
*Taurica Chersonesus.* Next in Goodness, of the fame kind,  
are the *African,* and, after them, the *Apulian.* The *African,*therefore, must he fweet. *Diofcorides* makes the *African*Bulbi red and fweet; on the contrary, *Heraclides Toren.,  
tinus, in Athenaeus,* says they were white and hitter.  
These are Contradictions, yet *Diosecrides* mentions *Hiraclides  
Tarentinus* aS one of his Anthers. The antient *Greeks* highly  
commend the Bulbus of *Megara. Theophrastus* writes, that  
Bulbs, in some Places, are so sweet, that they are eaten raw,  
as in the *Taurica Chersonesus..* At present we are ignorant of  
the *Bulbus esculentus of the* Antrents, as well of the sweet as  
the bitter Kind ; nor have our Botanists observ’d, thet *Diosc  
ccrides* makes two Sorts of *Bulbs,* besides the *Bulbus vomitorius,*which are the fweet and red, brought out Of *Africa,* and the  
common bitter Sort, which were known to every body.

There was also a sweet *Bulbine,* which *Theophrastus* doesnot  
recken.among the βολβοἱν *(BulbiJ* but the βολβώδη *(Bulbodea).*And, indeed, the βολβίεη is so call’d, from is Similitude to

the βολβοςι Thus .we meet with καρδαμίνη, ελλεβορἱνη, *(Car.  
idamine, Hilleborisey* and the like. *Hiraclides Tarentinus,*hesore quoted in *Athenaeus,* says, that what we- call the *BA.  
bine* is of better Juice than the *Bulbus,* bui not Io agreeable to  
the.Stomacti, because it had somewhat of a pinguious Sweet-  
ness. Perhaps this *Bulbine* was the sweet *Bulbus of Diosecrides,*which, the says, was less agreeable to the Stomach than the  
bitter Son. ... -' ’ . .

*Pliny, Lib. 20. Cap.* 9. writes, thet the *Greene* cass’d by  
the Name of *Bulbine* an Herb which had the Leaves of a Leek,  
and a red Bulb. On the contrary; *Matron,* in *Athenaeus,*makes it heve a Bulb whiter than Snow; and *Theophrastus*reckons the *Bulbine* among those bulbaceous Plants which were  
white, and not inclos’d within several Coats; such, he says,  
grew in the *Taurica Chersonesus. . -*

.... They who take the *Cepa Asealenica sor* the *Bulbus* of the  
Antients, are utterly in the wrong. The Antients. plainly  
distinguish between what was properly call’d βον βὀς, arid every  
thing of the cepaceous Kind ; and *Theophrastus* even reckons  
among the βολβώδη some things which were different from the  
*soapii,* properly fo. call’d. He calls them *Bulbodea,* from the  
Similitude, because they had a round Root like the *Bulbus,*tho’ not inclos’d in Scales or Coats. The *Bulbus,* therefore;  
consists of several Coats, one within another, in another Place  
he fays; of the Root of the Narcissus, that it was much like the  
*Bulbus, ordur i* λεπα.ώδης, " hut riot consisting of. Scales or  
μ Coats. ” The *Arabians* knew no more of the *Bulbus* than  
the Moderns, as appears from the Chapter of *Avisena* on the  
*Bulbus eseulentus*; and they retain’d the *Greek* Term βολβος,.  
because they knew not hew to give, a Name to a thing of which  
they were wholly ignorant. *Salmiestsa de Homonym. Hyl. latr.  
Cap.* II4. „ . . ... ..'I .......

*Paulus Atgineta, Li* I. *C.* 76i informs us, that the λ Bulbs  
" are of an ashingent abstergent Quality, and procure ah Ap-  
i" petite ; that they strengthen the Stomach, and promote the  
\*e Expedinration of viscid Humours; that, when twice toll’d,  
"".they, hecome more nourishing, but lose their emollient Qua-  
μ lity,- since, by that means,their,Bitterness is destroyed ς  
" that they increase the Quantityos the: seminal Fluid, and,  
" consequently, prove a Stimulus to Venery, if us’d in large  
μ Quantities; that they excite Inflations and Gripes, but that,  
." if eaten with Oil, Garum, and. Vinegar, they , are very  
grateful to the Palate, easily digested by the Stomach,, cease  
" to prove flatulent, and.nourish.v.ery,much. ”

*Matthiolus* informs us, thet *Galen'* accounted the *Bulbus  
eseulentus* cold ; and thought thet it render’d the Juices viscid,  
was with Difficulty concocied,. produc'd Flatulences, and .  
prov’d a Stimulus to venery ; but that, when it was apply’d by  
way of Ointment, it cleansed and agglutinated, inconsequence  
os its BitteYness. and astringent Qualities.- *Calfus, L. aisiC.* IS:  
reckons all the Bulbi among the Rot-herbs *valentissemi generis,*by which, in all Probability, he means fuch as afforss.a great  
deal of Nourishmentand, in the twenty-third Chapter of the  
seme Book, he asserts that they generate a ’thick Phlegm.  
-Tis no difficult.Talk to assign a Reason for the *Bulbi* being  
thought of hard Digestinn, and calculated to inspissate the Hu-  
mours, since they themselves abound with a tough and viscid  
Juice. That they were us’d by the Antionts in Food, as a  
Sumulus to Venery, is a Circumstance not to be doubted.  
Accordingly *Marcial,* in the seventy-fifth Epigram of his  
third Book, gives them the Epithet *Salaces,* in consequence of  
the Effects they produc’d in the Constitution; and, in the  
thirty-fourth Epigram ofthe same Book, he gives the following  
Advice: - ..

- ’ ' . .1 ... ' - - ‘ . j - ...if „ ,

*Cumsit anus conjux, et sent tibi mortua membra.*

*Nil aliud bulbis quam fatur este.pries.*

And *Ovid,* when prescribing for the Cure of Love, he enu-  
merates such things as are to he abstain’d from, he sings thin;

*Dauneus an Libycis bulbus tibi mijscus ab sris,  
An veniat Megaris, noxius omnis erit. " ' ‘ .*

.. BirLBUs voMIToRIUs, Ossic. ' *Mnseari Clastt,* ASH.  
COLOUR’D GRAPE-FLOWER, Ger. Io5. Emnd.-I2o.  
*Mufcari obsoletiore store,* Tourn. inch 348. *Museari majus,  
esiseletostore,* Elem. Bot. 288. *Museari cbseleticrestore ex pur-  
pura virente,* Boerh. Ind. Α. 2. I I 4. *Hyacinthus racemosus  
nusehatus, C.* Β. Pin. 43. Raii Hist. 2. I I 62. *Hiyacinthus  
raternofus feu hetryrides major, feu Mnseari majus, obseleto alba  
stere.* Hist. Oxon. 2. 372. *Hyacinthusbotryoidesmajcr.mofcha..  
tus, serve Museburistate cinericeo.* Park. Pared. I I 2. *Hyaciu...  
thus ndoratissemus, dictus Tibcadi et Museari,* J. B. 2.-578.  
*Hiyacinthus oderatisamus, Dipcadi et Museari Aldus,* Chab.  
207. MUSR-GRAPE-FLOWERi *Dale.. . ’*

The *Bulbus* called *vomitorius* has a Leaf as flexible as Lea-  
ther, and much longer than thofe of. the *Bulbus eseulentus .  
its* Root indeed is like the Root of-thet Bulbus, hut cover’d  
with a black Rind. ..

This Root eaten alone, or a Decoction thereof drank, is a  
Remedy for Defects of the Blander, and provokes Vomiting.  
*Diofcorides, Lib.* 2. *Cap.* 20I-

It produces five or six oblong Leaves, which spread them-  
selves on the Ground in a disorderly manner, and are oblique.  
ly inflected, chanelled, and sufficiently substantial and juicy,  
heing very like the Leaves of the larger tufted Hyacinth, and  
shewing their fine Stamina, even when they are broken, but  
not SU abundantly as the Leaves of the *Hyacinthus Eriophorus,*which, when first they bud, turn purple or whitish, and some-  
times become of a very beautiful Red. From the midst of the  
Leaves in the Spring-time shoots up a pretty thick, round, and  
naked Stalk, very weak in proportion to its Thickness, and  
surrounded with Clusters of Flowers, from the Middle almost  
to the Top. Thofe Flowers pretty well resemble a small  
Drinking-cup, and are at first purplish or green, afterwards of  
a Purple inclining to Green, or of a whitish-green, forne-  
times of a sort of Sea-green Colour ; sometimes they are black  
in the Beginning, or of a deep Purple, and afterwards torn  
pale or yellowish; or they are pale at first, and grow yellow  
afterwards, and, when they begin to wither, turn black, or  
dark-colouPd; and this kind are more bluntly mucronated than  
others: Sometimes, whin they begin to wither, they emit a  
most grateful Odour, almost like that of Musk or Spices.  
There are feme found of a Snow-white Colour, and of a most  
lively Red, but I had never the Fortune to meet with any  
such. They are all succceded by very large, triangniar, and  
as it were pinnated Heads, containing biack round Seed, os  
the Size of the *Qrobus.* The Root is large, whitish, peren-  
Iiial, .and compofed of many Coats like the Onion, and  
strengthen’d with many thick Fibres, which proceed from its  
Base, and are perennial, not withering and perishing every  
Year, like the Fibres of the Hyacinths, Narcissuses, Tulips,  
Lilies, and many other bulbous Plants. The Flowers heing  
to unfold from the Safe, as in other Plants of the bulbous  
kind, which bear their Flowers in Spikes or Clusters.

It grows in the Gardens about *Constantinople* plentifully,  
and heyond the *Bosporus \_in AJia,* from whence according to  
Caesius, it was originally imported into *Europe. Raii durst.  
Plans. so' \_ ' ' ' ?*

It flowers in the Month of *April,* and its Root is only in  
Ufe. When chew’d, or drank by way of Decoction, it cures  
Disorders of the Bladder.

See Bulbus, in the Explication of Botanical Terms in  
Botany.

BULEUMA, βίλευμα. The fame as *Censtlium,* which see.

BULIMIA, BULIMIASIS, BULIMUS. The same as  
BouLiMos, which see.

BULITHOS, βουλιθος. from βους, an Ox,\* and λίθος. a Stone.  
A Stone often found not only in the Gall-bladder, but alfo  
in the Kidneys and Bladder of an Ox ; so that *Aristotle* feems  
to be mistaken, *Sect.* Io. *Prob.* 42. where he labours to give a  
Reason, why Man only is afflicted with the Stone. *Castel-  
lus.* See Bos. ς . . .

BULLA, πομφολυξ. A Bubble. It is generated, according  
*to Galen, Com. in Lib. .j. Apla* 34. " by a Flatus included  
“ within a humid Substance.” This happens most frequently  
when this Humid has something of Tenacity, which renders  
.the Bubble more stable, and less liable to Dissolution. Πομφἱ-  
λυγες (Bubbles) in *Hiefychius* are expounded ἀιέν τᾶ *lisesii  
yisourieu oissaut,* η φυσηματα ὕδατος, " Tumors generated in

the Water, or flatulent Swellings of the Water.” In *Hip-  
pocrates, Lib.* 7. *Aph.* 34. οκοσοισι *Viari Tsiotv* ουροισιν έφίστανται  
πομφολυγες. νεφριτικα σημαίνουσι, καὶ μακρὴν ἀῥῥωστίην ἔσεσθαι.  
" Bubbles arising in the Urine indicate Nephiitio Disorders,  
" and a long Disease.”

*Bulla* is used to signify Pustules arising in the Eye, or  
proceeding from Combustions in any Part. *Galen, de Simp.  
Pac. Lib.* 6. et 9.

BULLIMENTA. A Word used by some Chymists to  
signify Gold and Silver Vessels, as they appear after Washing  
and Scouting, that is, with a glittering Brightness. *Castel-  
lus.*

BUMELIA, βουμελία, from β?, a Particle adding Great-  
ness, and μἱλια, an Ash. A Species of Ash. See **FRAxI-  
NUs.** *Blancanl.*

BUNA. See Coffee.

BUNIAS, *Napus dulcis,* Offic. *Napus,* J. B. 2. 842.  
Chain 272. Raii Hist. I. 80I. Park. Parad. 509. *Napus fa.  
tiva,* C. B. Pin. 95. Hist. Oxon. 2. II4. Rupp. Flor. Jen.  
67. Buxb. 23I. *Bunias* Ger. IS 5. Emac. 295. NA-  
VEW-GENTLE. *Dade. 3 P*

The boiled Root of the Bunias generates inflations, and  
affords het little Nourishment. The heed drank prevents the  
ill Effects of Poifons, for which Purpose it is mixed in Anti-  
dotes. The Root is preserv’d as a Pickle. *Diofcorides, Lib.*2. *Cap. last.*

Those Leaves of the *Garden-navew,* which sic on the  
Ground, are long and large, deeply cut in, and in Shape like  
»Turnep-leaf, but less, and very little hairy. The Stalks

grow to be two Or three Foot high, beset with'sinaller Leaves,  
smooth as well as the Stalk, and little or nothing jagged, cf.  
pecially those which grow higher upon the Branches, which are  
round and broad at Bottom, and encompass the Stalk, ending  
in a narrow Point of a bluish-green Colour. The Flowers  
grow many together on the Tops of the Stalks, made of sour .  
bright yellow Leaves, and are succeeded by long cylindrical  
Peds, containing small round black Seed ; the Root is white,  
longer and stendercr than a Tumep, hut much like it in Taste.  
It is sown in Gardens, and flowers in *April* the Root is ofed  
inFood, and the Seed in Physic.

The Seed is commenced by the Antients as good against  
all kinds of Poifons, and the Bites of venomous Creatures, to  
provoke Urine, and the Menses. *Adattkiolus* extols it against  
ell kinds of infectious Distempers, to expel Malignity, and  
cheat the Heart, as also to drive out the Small-pox and  
Measles. It is an Ingredient in the *Theriaca Andromache.  
Miller’s Bas. Off. . . . .. , ..*

These Seeds are said to he heating, drying, absterging, ape-  
ritive, and digestive; and to he Enemies to Venery.

Napus **SyLvEsTRIs,** Offic. C. B. Pin 95. Rail Hist.  
I. 802. Synop.3. 295. J. Β. 2. 843. Chain 272. Hist.  
Oxon. 2. II4. Rupp. FloI. Jen. 65. Dill, Cat. Gissi 51.  
Buxb. 232. *Napus, Bunias,* Merc. Bot. I. 52., Phyt Brit.  
79. *Bunias fylvestris Lobelia,* Ger. I8I. Emac. 235. *Bu-  
nias Jive Napus fylvestris.* Park.:Theas. 865. Mer. Pin. I7.  
RAPE. - ..ci . . . - . .

- It grows amongst Com, and on the Sides of Ditches. It  
flowers in Summer. TheSced is in Use. It agrees with the  
former in Virtues, but is somewhat more acrid. *Dale.*

This is a much less Plant than the Garden Navew, having  
along, siender, whitish, sticky Root, full of Fibres at the  
Bottom ; the lower Leaves are less, and much jagged, and  
round at the Ends. The Stalks are smooth, and beset with  
the llke smaller Leaves ; the Flowers and heed are much alike.  
*Miller's Bot. Oof* r. c :

**PSEUDO-BUNIUM,** Offic. *.Napus fylvestris Cretica,* Cb  
B. Pin. 95. Park. Thcat. 865. CANDY WILD NA-  
VEW. : . ? : : . -

The Herb is only in Use, and is found in .the Mand of  
*Crete.* According to *Diofcorides* it cutes Gripes, Stranguries,  
and Pains of the Sides. It also discussas scrophulous Tumors,  
if mix’d with Salt and Wine, and apply’d to them by way of  
Ointment. ' .

’Tis a Controversy hotly agitated among the Literati, whe-  
ther the Seeds of the *Napus dulcis,* or those of the *Napus spl-  
vesiris,* ought to be used in the Composition of the *Venice*Treacle. The Seeds of the former are for this Purpose used  
in out Shops. In this they imitate the *Greekss* for *Diofcorides*makes not the least mention of any of the *Napus fylvestris.  
-Andromachus* the elder, also, orders the Seeds of the *Napus  
dulcis*; and *Matthiolas,* in the fifth Bock of bis Epistles to  
*Balthaserus,* affirms, thet the Seeds of the *Napus dulcis* resist  
Poison more powerfully than thofe of the *Napus fylvestris,  
Andromachus the younger,* when enumerating the several Sim-  
ples which enter the Composition of the *Theriaca,* commends  
the Seeds of the *Napus sesuestris,* as being more acrid, and of  
Consequence more efficacious in promotiog the Intention of  
the Medicine. But *Galen,* in his first Book *de Accidetis,* dif-  
fers from both thefe Opinions, and recommends the Seeds of  
*the Pseude-Buniurn,* as most proper for composing the *Theria.  
ca. Dale. .*

BUNITES *Vinum,* βνὰτης Χινος, Wine of *Bunium,* is mad\*  
by putting two Drams *of.Bunium* into two Quarts of Must,  
and letting it stand for a Quarter of .a Year, and then strain-  
ingit off. ' -

- It is good in Disorders of the Stomach, and relieves fuch as  
are fatigu’d with Riding or Fencing. *Dioscorides, \_ Lila* **5.***Cap.* 56.

BUNIUM, βίνιον. Wild Parsicy. **SeeApIUM..**

BUPEINA, βουπεινα, from βί the augmentative Particle,  
and πεινάςο, to hunger. The same as BoULIMOs, which  
see. . . . - . . .

BUPHAGQS, βουφαγος. The Name of an Antidote in  
*Marcellus Empiricus, Cap.* 29. against the Colic. :

BUPHTHALMUM, Ossie. Chain 364. . *Buphthalmum  
cotula folia,* C. Β. I34. Raii Hist. I. 34I. *Buphthalmum  
peregrinum.* Alp. Exot. 22I. *Buphthalmum altenem, cotula  
folio.* Park. I 37 I. *Buphthalmum peregrinum Alpine,* Ejusd.  
I3yr. *Buphthalmum verum.* Ger. 607. Emac. 746. *Bu-  
phthalmum tenuifoliusn, folio Millefolii fere,* J. B. 3. I24. Hist.  
Oxon, 3. I6. *Chrysanthemum cotula folio.* Her. Cut. 145.  
*Chrysanthemum folio cetulae,* Flor. 2. 46. *Chrysanthemum al-  
torum, cotula latiori folia,* P. Al. *Cetula store luteo radiata*Elem. Bot. 396. Toum. Inst. 495. OX-EYE.

The *Buphthalmum,* by forne called *Cachlan,* sends forth ten-  
der, and .somewhat siender Stalks, with Leaves like those of  
Fennel, and yellow Flowers, larger than those of the *Anthemis,*and resembling an Eye, whence it took its Name. It grows  
in Fields, and about Cities and Towns

The bruised Flowers with Cerate discuss oedematous Tit-  
. mors and Hardnesses. They say, that *Buphthalmum,* drank  
. aster coming out os the Bath, restores, after some time ufing  
it, a good Complexion to those who are discolour'd with the  
. yellow Jaundice. *Dioscorides, Sab.* 3. *Cap.* I56..

.. Ox-eye is a Plant which has a great many shrubby Branches,  
whereon grow fine winged Leaves, like Yarrow, but shorter,  
. stiffer, and somewhat white and hoary: Each Stalk is termi-  
nated by one pretty large corymbiferous Flower, of a deep  
yellow Colour like a Marigold, but that the middle Thrum is  
.larger in proportion, and the Petala are much shorter and  
. fumer. The Root is small and fibrous. It grows wild in some  
. Parts of the North of *England,* and flowers in *Tune or July.*. It is seldom or never used: But that which .is helled the Ox-  
; eye in the Shops, is the *Bellis major. Milleuris Bot. Off".*

There is another Sort of *Buphthalmum* thus distinguish'd. .

**BuPHTliALMUM GERMANICUM, Offic.** *Buphthalmum  
.. vulgari,* Raii Kill. i. 34I. Synop. 3. 18. Ger. Emac.  
- 747. *Baphthalmum- tanaceti tninoris folio,* C. B. Pin. 134.

ChorneL 2. 692. Boerh. Ind. A. IO6. Tourn. Insh 44.  
.Elem. Bot. 3g6. Rupp. Flor. Jen. I36. Dish. Cat. Gissi  
’ IS9. Buxb.47. *Buphthalmum Matthioli sive vulgare, mille-  
.solli ismiis,* Park. Theat., I37O.. *Chamaemelum Chrysan-  
themum quorundam.* J. B. 3. I22. *Chamamelum Chrysanthe-  
mum quorundarn : Buphthalmum multis,* Chab. 363. *Chrysan-  
themum perenne, brevioribus et incanis foliis tanaceti instar  
alatis.* Hist, Oxon. 3. 20. COMMON OX-EYE.

This Herb is said robe aperitive. Vulnerary, and to he good  
for a Jaundice, but it is seldom met with in our Shops.

*Miller* takes Notice of five Species *os* this Plant.

BUPLEUROIDES, βουπλευροβδὴς, from βήπλευρον, Bupleu-  
v Ton, and οὐρδος, a Form or Shape, that is, a Plant much of  
the Figure of the *B'upleuron.* It is thus described.

The Leaves grow together by Twos and Threes in the  
fame Place. The End of the Foot-stalk bears an oblong  
'. Ovary, the Apex of which is crown'd with a naked, herba-  
ceous, pentapetalous Flower, the Petais heing rolled up, in-  
closing five Stamina. The Ovary *hep a* Tuhe cleft in two,  
the Apices of which are backwards, and rough. When ripe,  
it pastes into two longish Seeds ; the Flowers are disposed in  
the Form os an Umbel or Umbrella. It. as an Evergreen.  
*Millrtis Dies.*

I find no Medicinal Virtues ascrib'd to it.

BUPLEURON, βήπλευρον, fromgry, an Ox, and πλευρὰν,  
a Side, because it is said to cause a Crepitation of the Side of  
an Ox, but more probably, hecaufe it affords the Ox *a.* Bed»  
Or it may he supposed to he so called, hecause the Leaves  
bear some Resemblance to the Ribs of an Ox ; or of βῦ, great,  
and πλευρὸν. Side, as the *large Rib. Mellen's Dicts*

The Plant usually understood by this Name is thus distin-  
guished. ..

**BUPLEURUM,** Offic. Ind. Med. 23. *Bupleurum folio  
subrotundo, sive, vulgatissimum,* C. B. Pin. 278. Rupp. Finr.  
*Jen.* 226. Raii Hist.1.474. Tourn. Inst. 3O9. *Bupleurum  
angastifolium herbariorum,* Elem. Bot. 259. *Bupleurum an..  
gnstis.olium, 3uxb.* 47... *Bupleurum pcrerme angnstifolium,Nisa.*Ismb. 26. *Bapleurum pcrerrne, longis et angustis foliis incurves.*Hist. Oxon. 3. 30O. *Auricula leporis umbella lutea,* J. B. 3.  
2Ο0. Chab. 4o9. HARES-E.AR.

It grows in hilly Places ; flowers in *July* and *August.* The  
Herb is in Use. It is accounted a good Drier, Aperitive, and  
Discutient ; it expeis Urine and Sweat, and mundifies Wounds.  
*Awing. Theat.Dale.*

Its under Leaves are sometimes oval, and much larger than  
.the others S Both they and the Root are well drawn in *Tragus\*s*Figure. This Plant is Very well described in *Cordus,* who  
casts it *Hysophyllon,* and makes use of *Tragusts* Figure. The  
Figures os other Authors represent only the Leaves which ac-  
company the Stalk of this *Bapleurum,* and resemble those of  
DogS-grass: Winch is the Reason, that they very well express  
another Plant also of the same Family, which grows in *Pro-  
vence* and *Languedoc,* but is annual. *M. Magnol* has named  
it *Bapleuron annuum angastifolium Bot. Mons.p.* He observes,  
that it is the *Auricula Leporis Monfpeliensium, Plantaginis mi-  
noris folio. Gefn. Dodmauds* Figure represents it not amiss.

*C. Bauhine* has confounded *Gesurtis* Plant withthat of which  
we are speaking. *MartyofA Tourriefort.*

BUPRESTIS, Offic. Aldrov. de Insect. 487. Jons. de In-  
sect 78. Mouff. insect. I4I. Charlt. Exer.48. THEBURN-  
COW. *Dales . -*

The BupresteS, which are a kind of Cantharides, are cured  
for Use like Cantharides, and so are the *Erucae* of Pine-trees.  
But these last must he roasted, a little while in a Sieve hung  
over hot Ashes, hefore they are repofited.

They are all, in. common, of a septic, exulcerating, and  
heating Quality ; for which Reason they are mix'd up with  
Medicines adapted to the Cure of a Carcinoma, Lepra, and  
malignant Lichein Mix'd in emollient Pessaries, they provoke  
the Menses. Some affirm, that Cantharides mix'd with An-  
tidotes help the Dropsy, because they provoke Urine ; and

others have written, that their Wings and Legs taken inter-  
Daisy are an Antidote. *Dioscorides, Lib. so. Cap. 66.*

*Baprestis, ^smarts,* is deriv'd, from the intensive Parti-  
cle μή', and πρηστῆρ, a Burner, from πρήθω, to burn, because  
it is an Insect of a very inflammatory Quality ; or, as some  
will have it, from βῦς, an Ox, and the aforesaid Word ; for if  
an Ox, they say, swallow this Insect, he dies of an Inflam-  
mation and Tumor of the Abdomen. *Castellus. Blaraeard.*

*Pliny, Lib.* 30. *Cap.* 4. says, " It is rarely found in *Italy,*"sand is like a long-legged Beetle, and is most pernicious to  
" Black Cattle,, who devour it among the Grass, whence  
" it takes its Name; for it so affects their Gall, aS to cause  
" an Inflammation and Rupture of the Bladder.'' And the same  
Author, *Lib.* 22. *Cap.* 22. says, " that the *Greeks* by a  
" strange Inconsistency commend it in Food, and prescrihe  
An Remedies against it as a Poison, which its Very Name shews  
" it to he at least to Black Cattie, which, they confess, will  
" burst upon eating of it.'' *Vigetius, Artis Vitermariae Lib.* 3.  
*.Cap.AS.* says, " That if a Horse chance to eat a *Buprestis*so in his Hay, or at Grass, his Belly becomes inflated, he starts  
" back from his Fodder, he dungs littie and often, in which-  
fa Case you must immediately saddle him, and put him upon a  
/" Course.". . .

Βήπρηστις in *Galen’s* Exegesis is expounded, το τε ζῶον τὸ του  
. κανθαρίδι παραπλήσιον, ἔτι δέ καί τι λαχανον ἄγριον, *χ ssefnorjas*Λιοσκορίδης ἔντε .τῳ πρώτῳ τῶν ὑγιεςιων, καὶ εν τῳ περὶ λαχάνωνε  
," The *Buprestis* is an Animal much like Cantharides, and al-  
" so a wild Green, mention'd by *Dioscorides,* in his Book of  
" wholfome Things, and in his Book of Greens.'' The Bu-  
prestis, Animal, is often used by *Hippocrates, Lib.* I. περί  
γυναικ. and *Lib.* περ/ γυναικ. *quid,* in Pessaries, for a Strangu-  
lation of the Uterus, and to provoke the Menses. *Theophra-*stus mentions the Buprestis among Greens. *Hist. Plant. Lib.  
sp. Cap.* 8.

The Buprestis, μήπρηστις, is a kind of littie Animal like rhe  
Cantharis, which if an Ox happens to eat, he immediately  
Twelis and dies ; and from ..this Effect it takes its Name.  
.Βήπρηστις is *alfo* a kind of Green. *Hefychius,* ίόήπρηστις λαχάηστ  
ειδος, " The Buprestis, *etc st* This Green took that Name  
not from causing Inflations in Black Cattie, but because it was  
.a large Sort of *Presses,* a Green so called, for whet Reason *X*.know not. So βουλάπαθον (Bulapathum) is a great Lapathum;  
and βουσἐλινον (Buselinum) is a large Sort *of* Apium; and  
βήσυκα (Busyca) large Figs. *Pliny* did not imagine, that Bu-  
prestis was a common Name for two different Things; and  
therefore says. *Lib:* 22. *Cap.* 22. *Buprestim magna inconstan-  
tia Gr aici in laudibus, ciborum etiam habuere, iidemque remedia  
tanquam contra venenum prodiderunt. Et ipsum nomen indicia  
est boum certe venenum esses, quos dissilire degustata fatentur.*“ The *Greeks* with great Inconsistency, *etcP* (See hefore).

Here the want of Consideration in *Pliny* is much to he admir’d  
for blaming the Inconsistency of the *Greeks* with respect to the  
Buprestis ; for the Buprestis, which is Poison to Black Cattie,  
is quite another thing from the Buprestis, which the *Greeks*commend in Food:. This is a Green, that a poisonous Animal.  
When they therefore prescrihe Remedies against the Buprestis,  
it is against the Animal; when they commend it in Food, they  
mean the Herb or Green of that Name; so that there is the  
same Name, hut not the same thing, nor perhaps the same  
-Etymology of that Name. But the *Greeks* Very clearly di-  
stinguish the Buprestis by the Words following, βήπρηςτς τό τε  
*scaw, etc.* (See hefore). But *Pliny* confounds together not  
only Things which are really homonymous, but sometimes such  
as have some Similitude of Names, or where they differ only  
in Accent. Thus he makes ἀδίαντον (Αώ2ηηπη) a Topiarian  
Plant, when he intended ἄκανθα (or Acanthum); and the Herb  
ελξίνη to he the same with the ἐξίνη of *Theophrastus,* with an in-  
finite Number *of other* such Mistakes. *Salrnasii Prolegom. in  
Homonym. Hyl. Iatr. p.* 3.

It seems to helong to the kind os Cantharides, but it is  
more oblong in Body; and the .crustaceous Integument of its  
Wings appears outwardly of a green, inclining to yellow, or  
rather is of a Gold-colour ; it has also lunger Legs, and some-  
what thicker. The Eyes are globous and prominent, and  
from the Forehead, near the Eyes, proceed two oblong articu-  
lated Horns. The Head is but small, but the Mouth wide,  
hard, strong, forcipated, and armed with Teeth, with which  
it wounds and bites cruelly ; the Belly is not round, but runs  
out in Length. *Dale.*

BUR. A Term in *Helmont,* the Meaning of which may  
the best known by giving the entire Passage in which it occurs,  
which runs thus. " Water putrefying *ofracaseens)* in the  
Earth acquires either a local or a native *(insitum)* Seed; for  
" which Reason it either passes into a Liquor, winch I call  
*Lessees,* for the furnishing of all Plants, or into a mine-  
ral Juice called *Bur,* according to the Species chosen by

" the Direction of the Seeds.'' *Elementa,* 13.

BURAC. All kinds of Salts ; but some distinguish them  
into *Baurac, Denequat, Borago, Borax, Uritae,* and *Angar.  
Rulandus.*

BURDO, *Burdus.* A Colt, or young Mule, the Liver  
and Testicles of which last are recommended by *Aide ovandus,  
de suyad. L.* i. *C.* 4'. for their Medicinal Virtues. *Castelltis.*

BURDUNCULUS. The Name of an Herb in *Marcel-  
lus Empiricus,* otherwise, as he says, called *Lingua Bovis.*

BURIN A. Pitch.- *Rulandus. -*

BURIS. A Name given by *Avicenna* to a scirrhous Hernia,  
- caused by the Lapidosity os a hard Abscess. *Castellus.*

BURNeA. Pitch. *Johnson.* **I** suppose he means BU-  
**RIN A. -in. -**

BURRHI SPIRITUS MATRICALIS; or *Burrhus* Spirit  
for Disorders os the Matrix, is thus prepar’d

Take of Mastich, Myrrh, Olibanum, and Amber, each  
two Ounces: Bruise them together; and add twenty-four  
Ounces of rectisy’d Spirit ofWine : Digest for four Days,  
and afterwards distil to three Fourth-parts. *Pbarmacop.  
Leydens.*

*Bocrhaave* us'd this much in his Prescriptions.

BURSA PASTORIS, Offic. Ger. 2I4. Emac. 276. Men  
**Pin** I7. *Burfa pastoris mayor vulgaris.* Park. Theat. 866.  
*Burfa pastoris mayor,* Merc. Bot. I. 24. Phyti Brit. i8. *Burfa  
.pastoris mayor, solio sinuato,* C. B. Pin. IO8. Rupp. Flor. Jen.  
68. Tourn. Inst. 2I6. Elem. Bot. IS5. Boech. Ind. A. 2. *i).*Buxb. 48. *Burfa pastoris mayor, capsula cordata, foliis lacinia-  
tis.* Hist. Oxon. 2. 3o4. *Burfa pastoria, J.* B. 2. 936. Chain  
- 295. Raii Synop. 3. 306. Dill. Cats Gissi 45. *Thlapsifatuum,  
Burfa pastoris dictum,* Rali Hist. Is 838. Synop; 2. I76.  
SHEPHERD'S-PURSE. *Dale.*

The lower Leaves of*ShephcrcTs-pursc* lie flat on the Ground,  
in a round Compass, three or four Inches long, narrow,\* and  
cut into several Gashes, a littie hairy. The Stalk is {lender,  
about a Foot high, branch'd towards the Top, heset with a few  
whole Leaves, which are sharp-pointed, and set close on, with-  
out Foot-stalks. The Flowers are small, white, and sour-  
leav'd, and are succeeded by three square Seed-vessels, in Shape  
of a Purse, containing Very small reddish Seed.. The Root  
is whitish, woody, and full of Fibres, of but littie Taste.. It  
grows every-where among Rubbish, Banks and Walls, and  
flowers all the Summer. *Millen's Bot. Off.*

It is of an herby Taste, a littie saltish, and detersive. The  
Juice of its Leaves gives a saint-red Colour to blue Paper,,  
which gives us Reason to imagine, that, in this Plant, the Sal  
Ammonisc, which is natural in the Salt of the Earth, predo-  
-minates over the other Principles ; this Sal Ammoniac is dis-  
solv'd in a considerable Quantity of Phlegm, and is temper'd  
.by a good deal of Earth, and a littie Sulphur.

This Plant does not yield much Acid, by a Chymical Ana-  
lysis ; almost all that is extracted from it is Alcaline..

There are but few Plants which yield more concrete Volatile  
.Salt, fix'd lixivial Salt, and Earth. These Principles, mix'd  
together, render the *Shepherdicepurse* proper to dissolve **the**.Blood, when it is thicken'd by foreign Acids, which hinder it  
from passing, with its ordinary Velocity, from the Arteries  
, into the Veins; to which we may refer the greatest Part of De-  
.fluxions. Besides, the Earth, which is in this Plant, easily im-  
bibes the Serosities, which occasion a Relaxation of the Fibres ;  
thus, by the Consent of all Authors, it is Vuinerary and ashin-  
gent ; it is also believ'd to be febIifuoous and lenitive. The  
Juice of its Leaves drank, from four Ounces to fix, is an ex-  
cellent Remedy in all Losses of Blood, and in Defluxions at-  
tended with an Inflammation. They boil a Handful of it in  
lean Broth, and employ it in Ptisans, Glysters, and Cata-  
plasms. Its disol'd Water has littie or no Virtue ; it is nothing  
but the Phlegm separated from the other Principles.

It is found almost all the Year ; for it propagates itself by  
Seed towards the End of the Summer. *Martyn's Tournefort. ’*

Those People are mistaken, who imagine that the styptic  
and astringent Qualities of the Shepherd’s-purfe are owing to its  
Coldness; for, like *Alcohol* of Wine, it acts by a hot and acrid  
.Quality, either strengthening and constricting the Veffeis, by  
burning them, or coagulating the Juices by its Heat; when it  
is either bruis'd, .and apply'd to Wounds in the Surface of the  
Body, or when, in Haemorrhages of the Nose, its expressed  
Juice is drawn up the Nostriis, or a Tent dip'd in it put up, and  
retain'd in them. In discussing Cataplasms, and febrifuge Pre-  
parations,. to be apply'd m the Wrists, the Shepherd’s-purse is  
used in the same Manner, and with the same Intention, that  
other hot and stimulating Medicines are. When *Borelli, Cent.*3. *Obs. Qsp.* affirms that the Bulk of a common Nut of bruis’d  
Shepherd's-purse, put into the Ears, is an excellent Medicine  
for removing the Tooth-ach, I should think, that this Effect  
was not to be ascrib'd to the .Coldness, but rather to the Heat  
of the Plant, which stimulates -the Nerves, and dissipates the  
Cause of the Disorder. But whether, when apply'd to the  
Nape of the Neck, or to both Arm-pits, or pressed pretty  
hard in the Patient’s Hand till it hecomes warm, or put under  
the Tongue, it stops Haemorrhages of the Nose, are Points  
which can only be determin'd by Experience. The learned  
*Pauli* telis us he knew **a** Man cur'd of **a** Spitting of Blond by

mearis Of this Plant, which, during the Paroxysm, he used to  
grasp hard, and afterwards putting it between the Soals of his  
Feet and his Stockings, he walk’d upon it. But 'tis to be

’ observ'd, that, at the same time, the Patient receiv'd the Fume  
of the best native Sulphur into his Mouth and Throat. Shep-  
herd's-purse, applied to the Soais of the Feet,, is said to he an  
approv'd Remedy for Head-achs. According to *Etmuller,* its  
Juiced put into Ears from which purulent Discharges are made,  
heals them ; and, when mix'd with Vinegar and Houfleek, it  
allays Inflammations of all kinds, the Gout arising from a hot  
Cause, inflammatory Tumors of the *Pudenda,* and -Erysipelas.  
Four or six Ounces of its express'd Juice are recommended as a  
Medicine to be taken internally in Spittings of Blood, immo-  
derate Fluxes of the Menses, Discharges of bloody Urine,

' Diarrheas, Dysenteries, Lienteries, and Gonorrheas. ' De-,  
coctions Of it are also us'd, made with Red-wine, or common  
Water in which red-hot Steel has been extinguish'd; as also  
with lean Flesh-broth.. Clysters of the above Decoctions are  
also said to contribute to the Cure of Fluxes, in Gonorrheas  
*Etmuller* recommends One Ounce of the expressed Juice, or  
two Ounces os the Decoction of Shepherd's-purse, to be drank,

♦ with three or sour Grains os Cainphire. The *Aqua bursa pa-  
storis styptica, sb* much extol'd in Fluxes, and Hemorrhages of  
-the *Utcrus,* Mouth, and Nostriis, aS also for cleaning Ulcers,  
and allaying Heat, is, by *le Mors, dur* 2. 37; prepar'd thus :

Take of the Herb Shepherd's-purse, aS milch as you will;  
cut it small, and to each Pound of it add os Crude Alum,  
and Vitriol of Mars, each half an Ounce; and os Water,  
a sufficient Quantity; Infuse for ten or twelve Days, and  
then distil in the common Manner;

The *Burfa pastoris mayor, folio non sinuato,* agrees with  
the former in its Medicinal Virtues.

BURSA TESTIUM. The Purse or Bag of the Testes.  
See **SCROTUM. gni '**

BURSALIS MUSCULUS, μῦς βυρσοειδήςς The purse-  
-like Muscle, a Name given to the *Musculus obturator internus  
femoris. Castellus.* **Sep MARSUPIA LIS.**

BUSELINUM,’ βουσέλινον. The common Dancus so Call'd,  
the Word importing a large kind of *Apium. Blancard.*

.... BUSSII SPIRITUS BEZOARTICUS. Bezoartic Spirit  
Of *Bussius.*

Tins Spirit takes its Name from its Inventor, *Bujffiits,* an  
eminent Physician of *Drefden* ; and the Medicine itself is of  
universal Use in *Saxony,* and well deserves our Notice ; sor it  
is a powerful Sudorific and Diuretic, with due Management;  
.and is an excellent Antispasmodic, especially when mix'd with  
Our anodyne Liquor (See VITAE BALSAMUM). Besides, it  
recommends itself on account of its grateful Flavour, having  
nothing of a nauseous empyreumatic Smell.

The Foundation of the Preparation consists in mixing the  
volatile, urinous, and oily Spirits of Animais with highly  
rectify'd Spirits of Wine, and, with an Addition of balsamic  
Species, distilling them over a proper Fire; by winch means we  
Obtain a Spirit well impregnated with a Volatile Salt, an empy-  
reumatic Oil, and resinous, sulphureous, balsamic Particles,  
and of no unpleasant Smell and Taste. Tho' there are many  
different Preparations of this Spirit, our way of making it is as  
follows:

We take of Spirit of Ivory, saturated with a subtile Oil, and  
Volatile Salt, about two Ounces; Sal Ammoniac, four  
Ounces; Pot-ash, first dissolv'd in Water, eleven Ounces; .  
Amber, finely pulveriz'd, half a Pound ; genuine Oil of  
Cedar, or os Juniper, half an Ounce : All thefe Ingre-  
dients, being exquisitely min'd in a Glass Cucurbit, are  
to he distil'd in a Sand-heat, by which we extract a Spirit,  
endu'd with the aforesaid Virtues. A Volatile Salt first  
rises in the Alembic, which is afterwards successively dis-  
solv'd by the Spirit.

It is here to he observ'd, that the *Peruvian* Balsam, or **the**fresh Peel of Lemons or Oranges, or Juniper-henies, or any  
other balsamic and aromatic Powders, may be us'd instead of  
the Ingredients hefore-mention'd.

In the Process, a limpid Spirit, like Water, comes over ;  
but the longer it is kept in a Vessel exposed to the Air, the  
more yellow it turns, till its Colour he heighten'd almost to a  
Redness. If the Glass be silled with this Spirit, and covered  
with the Stopple, it will continue clear, and suffer no Altera-  
tion of Colour; whence we are plainly taught, that the Cause  
Of this Change is in the Ain. And I am or Opinion, that the  
original, and most simple. Acid of the Ain, which is of won-  
derful Virtue in exalting the Colour of Sulphur and Oil, Con-  
curs in this Alteration.

This Spirit abounds with an oily volatile Salt ; for the more  
a Volatile Salt is impregnated and intimately mix'd with an Oil,  
the more easily and readily it unites with highly rectify'^ Spirit  
**of Wine;** and that Salt may immediately be precipitated

from this Spirit, by mixing a sew Drops of Oil of Vitriol with  
it, which produce a Coagulation and Precipitation of the Salt  
to the Bottom, where it firmly adheres to the Sides of the.Glass..  
It is worthy our Observation, that this Volatile Spirit os *Bufsius.* is  
endu'd with an almost incredible Virtue, in subverting and ex-,  
pelling all kinds of Acids, tho'never so strong ; and these.Ef-  
sects .are attended with different Circumstances and Events.  
Thus, if one Part os Spirin os Nitre, or Aqua-fortis, he pour'd  
*to* three Parts of this Spins, all the Acidity is Toon.taken off,:  
without any remarkable Ebussition, and nothing is precipitated:  
to the Bottom; the Mixture acquires a mild nitrous Taste, and,  
being put into a Silver Spoon, and evaporated by the Heat of a.‘  
Candle, leaves a Salt of an exquisitely nitrous .FlaVour. This  
Mixture also, on account of the Volatile Nitre which it con-  
tains, is endu'd with excellent Medicinal Virtues ; for, in  
acute Distempers, ’ where volatile Medicines are of no Effect,  
because os’the violent Motion and Effervescence of the Blond,  
this Spirit, mix'd with Spirit os Nitre, and render'd more tem-:  
perate, gives all the Relief that can he wish'd, by gentiy carry-  
ing off the morbific Matter. ... ; τ. . : .

Is this Spirit of *Businas* he mix'd with Spirit of Salt strongly  
concentrated, there arises a greater Ebullition than in the.  
former Case ; but all the Acid is, in like manner, in a very  
short time, subdu'd, and the Liquor, turns salt, which, ,in  
Disorders of the Stomach, where the Appetite is lost, may be  
given with Success, for dissolving Viscid Crudities. When  
this Spirit is mix'd with distil'd Oil of Vitriol, there immediate-  
ly arises an Effervescence, the Mixture becomes turbid, and all  
the Volatile Salt is precipitated to the Bottom ; the Taste of the:  
Mixture has nothing of Acidity, but has a grateful Smell.

The Reason why there is a Concretion and Precipitation inf  
the Volatile Salt at the Mixture of concentrated Oil of Vitriol,  
but not with other Acids, seems to be as follows.

Oil of Vitriol, as being a Very strong Acid, unites with in-  
flammable Spirit of Wine, which is an oily Substante ; hence  
the Volatile Salt, which it contains, is precipitated ; hut, from  
other acid Spirits, which are weaker, and incapable of so.infi-  
mate a Combination with the inflammable Spirit of Wine, there  
follows no Precipitation.. . , . .

From these Experiments we may draw this Conclusion, winch  
is Very useful in Practice: That this Spirit, which abounds;  
with an oily Volatile Salt, shay he given in large Doses, without  
In convenience, in Distempers,. especially chronical ones,  
where a strong and copious Acid is lodg’d In the Sinuses os the  
Stomach and Intestines, and creates.Disturbancesdn those Parts,  
as it does more remarkably in Hypochondriacal Affections.  
*Fred. Hofsinan, Observ. Physico-chy.*

BUS1A. Boil’d with Poison. *Rulandus.*

BUTEO, Offic. Jonsi de AVib. II. Charlt. Exer. 72.  
Gesn. de Ayib. 39. Rail Ornish. 70. *Buteo vulgaris.* Will.  
Ornish. 29. *Buteo sive .triorchis,* AldroV. Ornith. I. 363.  
Bellon, des Oyse. IO9. Mer. Pin. I7I.. *Buteo vulgaris five  
triorchis.* Ran Synop. A. I6. *Accipitor, Euteo,* Schw. A.  
I87. THE BUZZARD. *Dales si*

The Testicles of this Animal are only us'd for Medicinal  
Purposes.

A Decoction of them, with Spring-water and Honey, is said  
to prove a Stimulus to Venery. *Dale* from *Johns.*

BUTIGA. An Inflation of the whole Face; call'd also  
*Gutta ruonia,* or *rubea. Rulandus.*

BUTLER, an *Liftman,* the Inventor of a Stone of wonder-  
ful Efficacy in the Cure os Very dangerous Diseases, in a Very  
speedy Manner ; he is also said to have been excellent at  
making Gold out of Lead and Quicksilver. However, it is  
ceatain, that he was in great Esteem with our King *James* L  
and *Van Helmont* did him the Honour to intitie one of hrs Tracts  
BUTLER, in which he relates several strange Cures perform’d,  
in all Appearance, by means of his Stone ; particularly, that  
when *Butler* was a Prisoner in the Castle os *Vilvorden in Bra-  
bant,* he took Notice, one Evening, of one *Batily,* a *Fran-  
ciscan* Monk, and a Very celebrated Preacher of *Bretagne in  
France,* who was his Fellow-prisoner, and had his Arm affected  
with a terrible Erysipelas ; and, taking Pity of the Man, he  
took a small Stone, and hastily dip'd it in a Spoonful of Al-  
mond-milk, immediately taking it out again ; then said to the  
Keeper, " Give this to that Monk, and, whether he rakes  
" more or less of it, within the Space of one Hour, at furthest,  
. " he shall be a sound Man. " Tins actually came to pass, to  
the Astonishment of the Keeper, the Sick not knowing by what  
means he came to he *so* suddenly restor'd to his Health, or that  
he had taken any thing for that Purpose ; but inis Left Ann,  
which was swell'd to an immense Degree, immediately fell to  
fuch a Pitch as scarce to be distinguish’d from the other. The  
next Day, says *Helmont,* I came to *Vilvorden,* at the Request  
of some Persons of Quality, that I might he a Witness of these  
Actions, where I contracted 4 Friendship with *Butler ,* and,  
soon after, observ'd an old Washer-woman, who, for about  
sixteen Years, had labour’d under an intolerable Hemicrania,  
cur’d in an Instant, white I was present. For he took the same

Stone, find Carelefly flipp'd it in a Spoonful of Ost'of Olives;'  
then taking it out immediately, lick'd it dry, and pussit into  
his Breast-pocket; the Spoonful of Oil he pour'd into. a\* little  
Flaggon os the same Liquor, and then order'd only one Drop  
of it to he put upon the Head of the old Woman, who recover'd  
her Health that Moment, and has remain’d well from that  
Time, which is some Years ago. I. could not help being Vastly,  
furpris'd; but he look'd at me with a smiling Countenance,  
and said, " My dear Friend,, unless you can arrive to such a  
" Degree as to be able to cure all Diseases with, only one Re-  
" medy, you are still het a Novioe in the Art, how many  
" Years soever may heve passtd overryour Head.'' I easily  
acquiesced in .what he said, because I had learn’d as touch from  
the *Arcana* of *Paracelsus,* and was further convinc'd of it by  
what I now saw, and expected to see ; - but this new Method of  
Curing, I freely confess'd, -was utterly strange \*and unknown’  
tome. I told him then, that therewas a young Prince in our  
Court, Viscount *Ghent* by Title,-, and Brother to the Prince of  
*Episuoy,* who was so over-run with the Gout, that he was able  
to lie only on one Side, and was -quite miserable, and deform'd  
with a Multitude of UodouS Swellings. Says he, taking methy  
the Right Hand,“ Are you willing that I should cure this  
". young Prince.? Twill cure him for.your sake." iC But, said!,'  
" he is so stubborn, that he will rather die than take one Dose'  
" of Physic. 'No matter,, answer'd *Butler s* all ! require  
so of him is, only every Morning to touch this little Stone,  
" which you see, with the Tip of his Tongue;\_ sor, aster  
". three Weeks from that Time, let him but wash the painful,  
" and the not-painsul Nodes .with his own Urine, and, in a  
" Very short time, you shall see him upon his Feet, and a  
Ci sound Man. Go, and tell-hiin with Joy whet I say. " So  
I returned to *Brussels* with these glad Tidings, and told whet  
*Butler* had said. . The Nobleman answer’d, " Go tell *Butler,*" that if he makes me sound, he shall have whatever he will  
‘5 ask ; let him but name hiS Price, and I will freely deposit  
" .the same in Pledge for his Security." When I return'd to  
*Butler* the next Day with this.News, it put him in a great  
Heat, and he said, Your. Prince-is mad and miserable, for

." which Reason I shall never do him any Good ; for I do not  
" want his Money,, but ainasgood aS himself " Nor could I  
ever afterwards prevail with him to perform whathe had promis'd.  
Wherefore I began to doubt whether what I had seen before  
ought not to he regarded as Things-passed in a Dream. But it ‘  
happen'd, some time after, that a-Friend of *Butlcr’s,* who was  
Master and Overseer of a Glass-house in *Antgricrp,* and of a very-  
gross Habit ofBody; earnestly hegg'd of *Butler* to be freed from  
the Burden of his Fat. *Butlcr* offer'd him a littie Bit of his  
Stone to lick once,' that is, to give it one quick Touch with  
the Tip of his Tongue every Morning; and, within three  
Weeks, I saw him shrunk a full Span at the Breast, and yet  
never the worse in Health. This Event inclin'd me to believe, -  
that he could have made good his Promise, and perform'd a  
Cure upon the gouty Person before spoken of But, in the  
mean time, finding myself poison'd by some secret Enemy, I  
sent to *Butlcr,* at *Vilvorden,* sor a Remedy. I was in a very  
languishing Condition, pained in all my Joints, my Pulse beat  
double, *sclicrotus}* and, at last, was intermittent, attended  
with a Lipothymy, and an utter Decay of Strength. *Butler,*who was still a Prisoner, immediately order'd the Mesienger,  
my Servant, to bring him a little Pot of Oil of Olives, and,  
dipping his Stone therein, as usual, sent the Oil to me, with  
Directions to put only one Drop of Oil upon one, at least, of  
the pained Parts, or one Drop upon each of them, if I pleased.  
I did according to his Orders, but receiv'd no Benefit thereby.  
In the mean time, my Enemy, heing taken sick, and upon his  
Death-bed, sent to ash my Pardon for the Injury he had done  
me, and so confirm'd my Suspicion, that I was poison'd. I had  
then mo more to do but to use the best means I could to put a  
Stop to the Operations of this flow-working Poison, and wholly  
to subdue it; and, by the Grace of God, I escap'd. But my  
Wife, for some Months, had heen afflicted with a Pain in hen  
Right Arm, fo that she could not so much as list her Hand,  
much less lift up a Weight, and, with Sorrow and Concern on  
my Account, contracted at last a dangerous oedematous Tu-  
mor in both her Legs, which, by Degrees, extended itself  
from the Foot as high as the Groin, as appear'd from the .  
Pits left by the impression of the Fingers; and, because  
her Distemper was owing, to Grief and Concern for my Trou-  
bles, she would take no Physic while her Sorrow lasted. In  
this Condition, my Wife finding that *Butlers* Oil had no  
Effect upon the, and being willing to pass a Joke upon my  
Credulity hefore some Ladies, put only one Drop of this Oil  
upon her Right Arm ; the immediate Consequence of which  
was, contrary to all Hope, the Restoration of that Arm to its  
free Motion, and former Soundness, ἐ We were all shuck with  
Wonder at so sudden and miraculous an Event, and she was  
encourag'd to anoint her Ancle-bones with the same Oil, on  
each of which she put only one Drop, drawing it round the  
Eminence os the Bone, and, within a Quarter Of an Hous,

the CEdema quite vanish'd,- and she is still living in good  
Health, tho' nineteen Years are past fince this extraordinary  
Event. "... ι . . . .

*Pan Hilmont* proceeds to. relate two more fuch .prodigious  
Cures ; one perform'd on a Maid-servant of his, who, front  
an Erysipelas, which had thrice afflicted her, and been as often  
III cur'd, had her Right Leg os aleaden Colour, and swell’d from  
the Knee to the Toes ; the other was on a Widow Gentle-:  
woman,, who, for some Months,, had not been able to lift her  
Hand. ... .. ...: . . - ε  
. Aster this, *says Hilmont,* talk'd *Butler* why so.many Wo-  
men could be suddenly cur'd, and I, who lay even at Death's  
Door, oppress'd with Pains, In every Limb and Joins, could  
not receive the least Relies. He desir'd to know what was my  
Distemper, and, when he understood, that it was the Effect of  
Poison, he said,That, fince the Cause had betaken itself from  
" the inward to the outward Parts, the Oil should have beep  
" taken, or the Stone dip'd ;. that Pain,. internally confin'd.  
" and nourish'd, could not be . topical or external. " I observ'd.  
also, lays *Helmynt,* that this Oil, by Degrees, lost its Efficacy,:  
because the Stone, which was (lightly dip'd therein, did not  
make a thorough Alteration in its Substance,; but only imparted,  
to it a Fragrancy, which in time went ossa Tor mis Stone,'  
to the Sighs, and on the Tongue, was like melted Sea-salt;  
and it is well known, that Salt cannot be intimately mix'd with  
Oil. *Butlcr* also cur'd an Abbess of sufficient Note, who,  
for eighteen Years, had her Right Arm swefl'd, with a deprav'd  
Motion, with the Fingers extended and immoveable; and this  
only with a Touch of the Tongue , upon the Stone. Multi-  
tudes of those who were Witnesses os these strange Events,'  
presently suspected there must he some Witchcraft, or diabo-  
lical .Compact, in the Case.; for it is usual with the Vulgar,  
and has been so of old, to refer those Events, in which they  
think it shameful to confess their Ignorance,: to the cunning  
Wiles of evil Spirits. But I am not inclin'd to their Opinion,  
because the Remedies are supposed to he natural, and have no-  
thing unusual besides the Quantity; for no Coremonies, Words,  
nor any other suspected Thing, was requir'd. Nor, indeed,  
is it lawful,, as sar as human Understanding can perceive, to  
transfer the Glory of God, manifested in Nature, to an evil  
Spirit. For none of the Women, who were thus cur’d, ever  
consulted *Bullen,* as one in the least suspected os Necromancy  
and even his first Essays met.with Laughter, instead *os* Faith  
and Confidence. However, the:Facility and Celerity of such  
away of Curing will, I know, remain suspected by many;  
for the fickle and lazy Disposition os the Vulgar, in arduous  
and unusual Events, prompts them to judge os all alike, hecause '  
it is the easiest Way 5 and they had rather ascrihe the Benefit of ‘  
so great Cures to diabolical Deceit, than to the DiVine Good- ῖ  
ness, to the Author, Lover, Saviour, and Restorer of human  
Nature, and the Father of the Poor.. And, in this Vain and  
weak Opinion, they are follow'd by those among the Learned, ‘  
who take a wrong Method of investigating the first Principles  
of curing Diseases, who are not yet instructed, or observe the  
Common foolish Rules. *Hilmont.* - i

These Relations, strange as they are, Mr. *Boyle* seems not  
to dishelieve. lie telis us. That a Gentieman in *France* was  
reported to have some Portion of tins Stone, and to have cured ’  
several inveterate Diseases, by suffering the Patients to lick it;  
and Sir *Kenelrn Digby,* upon Inquiry when in *France,* found  
no Reason to dishelieve these Reports. He farther says.  
That *Helrnonfs* Widow, many Years after her Hushand's De-  
cease, confirm'd to a Friend Of his the Story told above relating  
to herself. These Particulars, adds he, receive Confinmation  
from two-remarkable Circumstances ; for, first, *Hilmont* is the  
more to. be credited here, because he mentions Cures not per- -  
form'd by himself, but by a second Person, and that too with -  
Remedies unknown to him. Secondly, our famous Country-  
man Dr. *Higgins,* who lived familiarly in the same House with  
*Butler,* gives a strange Attestation to his Secrets.

.BUTOMIJS, Offic. Mont. Ind. 65. Caesi 553. RaiiSynon.  
3. 273. Elem. Bot. 235. *Butomus store roseo,* Tourn. Inst. -  
27I. Boerh. Inch A. 2oo. Buxb. 49- Rupp. Flor. Jen. I24.  
Dill. Cat. Gissi 77. *si uncus floridus,* J. B. 2. 524. Parle.  
Theat. I I 97. Rati Hilt. I. 7Oi. *Juncus floridus paludosus,\**Chain I98. . *Gladiolus palustris Cordi,* WATER GLA-  
DIOLE, Get. 27. Emac. *2g.* Met. Pin. 46. *-Gladiolus aqua-  
ticus flue palustris Corde,* Merc. Bot. I. 38. Phyt. Brit. 47.  
*Seda affinis juncoides umbellata to a lustris.* Hist. Oxon. 3. 468.  
WATER GLADIOLA. - y

It has two Roots; the more flender and black of which  
descends, whilst the thicker spreads itself transversty almost at  
the Surface of the Earth, with some Shoots, and many Fibres,  
adhering to it. The Roots have a sweetish Taste, and are glu-  
tinous in. the Mouth. The thicker Root is, in my Opinion,  
the last formed Part of the Root, and of one Year's Growth  
only. As this Root grows, it sends out Leaves above, and  
thrusts large white Fibres downwards. It raises many soft  
Leaves with a spongy or porous Medulla; and these Leaves are  
triangular, long, Concave at their Origins, and embracing some

Part of the Stalk with membranous Appendices; but they are  
more .flat towards their Points. The Stalk is two Cubits and  
more in Length. Tt is round, smooth,-and spongious, thut not  
concave; bare of Leaves; and on its Top bears several Flowers  
disposed in the Form of an Umhel,’ and supported by flender  
naked Pedicles, about half a Handbreadth in Length. The  
Flowers are hexapetalous, and of a carnation Colour, some-  
what inclining to Purple. The three exterior Petais are carinated  
and largest, and seem to helong to the Calyx; but the three  
interior ones are less. The small seminal Vessel conftsts of six  
purple-coloured CapfulaS, corniculated at the Top, and con-  
taining within them Very small Seed. About nine Stamina sur-  
round this Seed-Vessel in the Middle of the Flower. These  
Stamina are furnished sometimes with long purple Apices,' and  
sometimes with shorter. They stain the Fingers of those who  
handle them with a yellowish Kind - of Powder. Three  
remarkable acute small Leaves stand round the Basis of the  
Umhel. . ἐν . .

- According to *Cordus,* it grows in sat, flimy, and moist Places,  
which are overflow’d by RiVers. With us it is, for the most  
part, found in the Channels of Rivers among the Mud near the  
Edges. *Raii Hist. Plant.*

st flowers in *furies* and the Heth is only in Use.

It is os an aperient and deobstruent Quality. *Dale,* froth  
*Josephus Monti..* S'

BUTYRUM, βήτυρον, or βουτυρος. Butter, from βῆς, an  
Ox, or Cow ; and τυρατι Coagulation of Milk, or Cheese.

Good Butter is made of the fattest Milk, such aS that of  
Sheep ; it is also made of Goatss-milk, by stirring it in a Ves-  
fel, till the pinguious Part be separated. '

It is of a mollifying Nature, and has the Qualities of Oil ;  
hence taken in large Quantities it loosens the Belly, and is used  
as an Antidote against Poison, where Oil cannot he had.  
Mixed with Honey for a LituS it promotes Breeding of Teeth,  
and cures Itching of the Gums, and the *Aphtha* of Infants,  
Outwardly used it renders the Body smooth and florid, and free  
from Psydraeia *[little pustulous Eminences].* Provided it be nei-  
ther old, nor contract a j^nk Smell, it is effectual also in In-  
flammations and Hardnesses Of the Uterus. It is also administer'd  
in Clysters sor a Dysentery, and Ulcerations os the Colon. . It  
is an useful Ingredient in’ suppuratory Medicines, and especially  
in Wounds of the Nerves, Meninx, Bladder, and Neck.  
Moreover it 'filis, cleanses, and incarns 7 and is apply'd with  
Success to the Bite of an Asp. While recent, it serves with  
Meats instead of Oil, and for Pastry instead of Fat.

- They collect the Soot from Butter in the following manner:

They pour Butter into a new Lamp, and setting it on Fire,  
.\* cover it with an earthen Vessel, made like a Tube,  
which is narrow in its upper Part, and perforated at the  
Bottom with Holes like an OVen [κλίβανος] ; there they  
let it burn ; and as soon as iris consumed pour more But-  
ter, and continue so to do, till they have obtained as much  
Soot as they please; after winch they take it off with a.  
Feather, and apply it to a proper Use.

It is a serviceable Ingredient in Medicines for the Eyes, heing  
of a drying and astringent Quality. It stops Defluxions, and  
brings Ulcers speedily to cicatrize. *Dioscorides, Ltb.* 2.  
Cap. 81. ’ . .

*. Hippocrates,* In his fourth Book *de Morbss,* informs, us,  
that the *Scythians* make Butter of Mares Milk.

' There are as many Sorts of *Buttcr,* as there are different Milks  
of Animals whereof to make it; that of the Cow is most in  
Use. You are to make Choice of that which is fresh, of a  
good and pleasant Taste, such as has been well made ; but *May*Butter is esteem'd the heft.

*Buttcr* is nourishing and pectoral ;' it opens the Body, allays  
the Sharpness of corrosive Poisons, is of a dissolving and digest-  
ing Nature; and good to ease Pains, and remove Inflammations.  
It is used in Clysters against bloody Stools, and the Dysentery.  
They rub the Gums of Children with it, in order to their  
Breeding of Teeth the easier.

The mo frequent Use of Butter relaxes and debilitates the  
Stomach, takes away the Appetite, provokes Reaching^ to  
Vomit, and heats much, especially if it he old.

Butter contains much Oil, and a littie Volatile Salt.

It agrees at all times with any Age and Constitution ; those,  
however, who have a weak Stomach, ought to use it mode-  
rately, as well as young People of a hot and bilious Nature,  
because it inflames, and in these last easily turns into Choler.

Butter is nothing but the Cream of Milk, or the fattest and  
most oily Part thereof, which is separated from the Serum or  
Whey by Churning; the more sat or oily Parts the Milk con-  
tains, the more Butter it yields ; and therefore you have more  
from Cows Milk than any other.

Every body knows, that Butter is used every-where ; and  
there is hardly any Sauce made without it. The Northern Peo-  
ile make more use of it than any ; and 'tis pretended, that 'tis

(utter which makes them look so fresh and well

**The** newer Butter is, the more pleasant and wholsonle yosi  
wist find it; and the Reason is, hecause its olly ami saline Prin-  
ciples are then stnctiy united together; whereas, on the other  
hand, when Butter is a llttle too old, it has undergone a fort  
of internal Fermentation; which has exalted and disengaged  
thefe same Principles, which makes it a llttle sharp, and, at the  
same nine, oily and unpleafaur. Now, in order to prevent this  
Fermentation, and the better to make the Butter keep, they  
salt it; and the Acid of the Sult presetves its Textore.

The good Effects produced by Butter proceed from its oily  
and balsamic Principles, which are proper to restore the folid  
Parts of the Body, by sticking to them ; to qualify and emba-  
rass the sharp Humours they meet with, and several other the  
Iike Uses. When they ufe Butter to Excess, these same Prin-  
ciples so much moisten the Fibres of the Stomach, thet they  
lose their classic Virtue.

- Lastly, it is observed, that Butter used immoderately heats  
much; and the Reason is, because the oily and fat Parts where-  
with it abounds are easily inflamed ; and therefore this is not  
- good Fond for bilious Constitutions.

Buttermilk is a kind of Serum that remains heliind, aster the  
Butter is made. It is very cool and moistening. *Lemery on  
Foods. '*

- Butter, by the Texture and Nature of its Substance, tends to  
relax the Solids, and supplies the Juices with Particles fight and  
adhesive. Upon the first Account it may be good in dry and  
' costive Constitutions ; but must he hurtful in lax, moist, and  
corpulent ones. By the Levity and Tenacity of its Parts, it is  
also very subject to stop in the Glands and Capillaries, whereby  
it fouls the Viscera, but particularly the small Glands of the  
jSkin ; hence it is sobjedt to produce Blotches, and all cuta-  
neous Deformities. And this Opinion is much confirm’d by  
the Experience of all whole Businefs has made them conversant  
with young Children, they having much of this in their Diet,  
whereby they heve been observ’d to grow weakly, corpulent,  
hig-belly’d, and very fubjedk to Breakings-out, and to breed  
Lice, and such-like Uncleanllnesses; but upon restraining them  
' from it, without any other visible Means, they have outgrew  
**all** those Inconveniences. *Quincy.*

*Boerhaave,* speaking of express’d Vegetable Oiis, thus men-  
tions their bad Qualities, and compares them with Butter.

Thefe Oiis have one strange Property, whereby, with the  
Heat only of seventy Degrees, they presently degenerate, with-  
out any foreign Body being mixed with them, and thus become  
thin, sharp, bitter, rancid, yellow, corrosive, and inflamma-  
tory 5 whereas they were before thick, mild, sweet, almost  
infipid, white, anodyne, and relaxing. And these surprising  
Changes happen in a sew Days in the Summer’s Heat. Is it  
Dot therefore strange, that fresh-drawn Oil of Almonds should  
prove healing and suppling to the parched rough Mouth and  
Jaws in the Quinfey, and the fame Oil in a sew Days afterwards  
suddenly inflame the Jaws of a Person in Health.? And the  
sweeter it was when fresh, the sharper it proves when old and  
rancid. Hence Almonds, Walnuts, and Pistachos, become  
exceedingly nauseous when rancid, and subject to occasion a  
sudden Quinsey in the Throat, and excito a Fever, through the  
burning Effeci: they have upon the Mouth, Throat, Stomach,  
and Intestines. Physicians, therefore, should be cautious when  
they order Oil of Almonds in acute Distempers, thet it he fresh-  
drawn from Almonds that were not rancid ; and, in the Heat  
of Summer, not kept above twenty-four Hours. The fame  
thing is also found in Butter, Animal Fat, Bacon, Marrow,  
and the more perfeel: Oik hereof; all which, though innocent  
when fresh, become highly nauseous by standing uofalted in a  
hot Air, where they turn yellow,' blue, or green, hecorne  
rank, corrosive, and fatal in the Plague. Thus a great Acri-  
mony is sometimes found in Cheese that hes heen long kept,  
whereby I heve seen the whole Mouth violently inflamed.  
Whence we may easily conceive what Effects it.may have upon  
the Visoera. It is an obvious Experiment, thet Oil, by boil-  
ing, will soon torn yellow, red, black, bitter, sharp, and un-  
wholsome. And this shews us how Oils may in six Hours  
time become extremely hitter in the Stomach ; and, when  
vomited up, be erroneousty taken for the Bile, for this Matter  
takes Flame at the Fire. Thefe Observations upon the Nature  
of Oil may lead us to understand many Partioulars in Natural,  
Medicinal, Pharmaceutical, and Culinary History. *Boerhaave.*

Buttermilk is esteemed an excellent Food, in the Spring  
especially, and is particularly recommended for Hectic Fevers.

Butter has heen recommended as an excellent Application  
for the Teeth, in order to make them white.

In the Edition of *Schukins de Aversatione Casei,* printed at  
*. Groningen* I 664. ΐ2επο. there is a Treatise expresty upon Butter.

The Chymists have several Preparations which they style  
*Butters* ; as the *Butter* of. Antimony, the *Butter* of Arsenic,.  
the *Buster* of Wax, the *Butter* of Lead, and the *Butter of  
Tin.*

**The Process for making the Butter of Antimony is describ’d  
under the Article AN'TIMoNIUM.**

**RiirYRUM ARSENICI,** *Batter of Arsenic,* **is thus prepar’d .**

Tate of Arsenin, and corrosive Sublimate, equal Parts ; **re-**duce them to a Powder; and after miking them, put  
them into a Glass Retort plac’d in a Sand-heat; adapt a  
proper Recelver to the Retort ; and having luted the Join-  
- - ings, distil by a final! Fine a Butter-fike Liquor resembling  
the Butter of Antimony. When no more of this Liquor  
can he obtained, take away the Receiver, and in its Place  
put another full of Water; augment the Fire, and you  
-will see the Mercury defcend in the Water, Drop by  
Drop. Continue the Distillation till no more can he ob-  
tained.

This Mercury, when sufficiently wash’d and dry\*d, may he  
ifed for all the Purposes'to which other Mercury is apply’d.

The *Butter ofArfenic* is a very strong Caustic, and produces  
an Efctiar sooner than the *Butter of Acrimony.*

REMARKS; E si

In this Operation the seme thing happens as in the Operation for  
obtaining the Butter of Antimony ; which is, thet the Spirits  
of the corrofive Sublimate quit the Mercury, in order to unite  
with the Arsenic, which they carry along with them m a  
gumrnous Liquor. The Mercury heing afterwards disen-  
gaged, and not finding Sulphur for fixing itself, it comes  
oven in Vapour, and is condensed in the Water. *Lemery  
Cours de Chymie.*

**BuTYRUM Sr ANNI is thus made.**

Put a Mixture of one Part *of* Tin, and three Parts of corro-  
sivc Sublimate, both reduc’d to Powder, into a Retort;  
and by the seme Process used for obtaining the Butter of  
Antimony, we shall have the Butter of Tin, which is a  
thick Liquor, and. has this peculiar to it, that it fumes  
perpetually. *Lemery Cours de Chymie.*

**BUTYRUM CERA: SeeCBRA.**

**BUTYRUM SATURNI. See S.ATURKUs.**

BUXTON. A Place in the Peak os *Derbyseire,* celebrated  
for warm Medicinal Waters, the hottest in *England* next to  
*Bath.* As I have not had an Opportunity of examining these  
Waters accurately myself; I must-give the fullest Account I can  
meet with, which is that of DI. sihert, who begins properly  
enough with an Account of the usual Strata of Earth and Mine-  
rals, in the adjacentParts. . .

In the Coal-pits, a Mile and, an half South-west of *Buxton,*the Strata of Earth lle thus; First, Peat-moss; then blue Clay ;  
then Shale Tull of Marcasites of Iron, and Iron-stone; then  
fundry Beds of Iron-stone ; last of all a Seam of Coal, five Feet  
thick, mixt with much Sulphur and Brasil, several Lumps of  
Ocre and Rubric ; this Seam of Coal dips a Yard in three, its  
upper Part is very foft, open in its Texture, and fit only for  
burning of Lime-stone; -its lowest Part is harder, though still a  
very indifferent Coal, which melts on the Fire, and is formed  
into a Cake ; sometimes a Vein of Lead an Inch thick crosses  
the Coal. It is more beautiful, than other Ore, and fparkles like  
fined Silver; but bring it to the smelting Furnace, and you heve  
litde besides Sulphur; the Acid of the Coal having consumed the  
Lead till it reach its kindly Soil the Lime-stone and Greet-stone  
below the Coal. Fifty Yards below the Surface of the Ground  
is a strong thick Bed of blue Clay, whose upper Part is of **a**deep Ocre, or reddish Colour, still of black Lumps **like rusty**Iron, which, put into Aqua sortis, raise neither Heat nor Fer-  
mentation ; but in a little time several small Bubbles rise, and  
the Liquor turns green, which is occasioned by a Dissolution of  
the Copper contained in it; all the Water in the Coal-pits is  
very cold ; nor can Lime-stone and Coal consist together.

The Strata of Earths in the Lead Mines next to *Buxton* **are**first a thick-set fine Tutsi a Foot and an half deep; then ced  
twixt a Sand and a red Clay, or a reddish sandy Clay, or a hard  
Soil, half a Yard thick ; thirdly, brown Clay, from half a Yard  
to two Yards thick; fourthly, sine white Sand, half a Yard  
thick; fifthly, a very hard Rock of white Lime-stone, two  
Fathoms thick ; sixthly, redder Sand, from ton to twenty Fa-  
thoms ; this is of a hard Substance, and accompanies the Ore s  
seventhly, a black Lime-stone, from six to eight Yards thick j  
then they come to the fame Sand as hefore, if there is Ore; hut  
if no Ore, there is a reddish-yellow Bed of Clay, of the Nature  
of Math If they pursue this through the Clay, they come to  
a yellow Sand with Ore. These Strata lying in several degrees  
of Thickness, are from sixteen to eighty Fathems deep: Here  
is very much white Spar, but none of the green nor yellow ; it  
breaks into Rhomboids. If this he without a Laine-stone, there  
is very llttle or no Ore. But jf under the Lime-stone Clay  
appears, the Vein is sard to he ont, ced there remain no more  
Hopes of Ore, except they foon find the Lime-stone again below  
. the Clay. Most of the Orc lles in Cauke-stone three or four

Feet thiclc. Here is very little Shale *otBrastle* WhereaCnink  
heppens between the Greet-stone and Laine-stone, it is fill’d  
up with Petrefactions, between a yellow and a white Colour,  
-and yery bard, as Spar. The Workmen, afraid of Damps, are  
always well provided with Drifts or Levels, thet they may be  
supplied with fresh Ain, which, causing a *free* Ventilation, pre-  
vents heth the Stagnation of the Ain, and a Collection of Sul-  
pour, which might he fired with the Candles. The Lime-  
stone, in working, Irnells strong of Sulphur; and their Blasts,  
(which are Bores made in the Stones, mil’d with Powder, and  
-hlown.up) heing so very strong of,Sulphur, , extioguish the  
-Smell of the Gun-powder, i They have., here Spar-ore and  
Gauke-ore ; the last is much the richest, in digging for. Stone  
near the warm Waters, you find several surprising Masses of  
mix’d-Mineraisj-as' tho’-they had been artfully melted together,  
as of Lime-stone, Iron-stone, anmi Copper-ore, of Sulphur,  
;Iron-ocre, of Lead-ore, Iron-fulphur, and Lime-stone, s

The warm Waters, which I haveobserved there at present,  
are, first, the Bath, whicti takes in several warm Springs.  
Thirty-two Yards and a half North-east of it, is St. *Acne’s*Well, which is chiefly supplied i from a Spring on its North-  
side, rising out of a Rock os black Lime-stone, or Bastard Mar-  
ble, under a shelving Stone laid *so* on Purpose. Twenty Yards  
,-South-east of St. *Arends,* in another Close, is a hot and cold  
-Spring, heth rising up into the fame Receptacle. About sixty-  
three Yards, South and South-east of St. *Anne’s,* in the same  
Close.with the hot .and cold Spring, is *Bingham* Well, ordina-  
wily call’d Mr. *Leigh’s.* Water, a worthy Gentleman seven  
Mlles distant, who has made this Spring his Favourite for several  
Years, and reap’d: great Benefit by it. A little Way, East of  
this, on the East-side of a Stone Wall, is another small stow  
.hot Spring, which, mixes with a beautiful purling cold Spaing,  
that rifes up olose by it. Another plentiful warm Spring rises  
up in the Stream of the Level, that carries the Water from the  
Bath : This is thirty-four Yards Fast of St. *Anne’s.* Four Yards  
.farther East, on the South-side of this Stream, rise two or  
three other warm Springs.

*Bingham,* or Mr. *Leigh’s,* Well is a very strong Spring,  
rising out of the black Lime-fione, in a very dry Ground ;  
sometimes it throws forth six times more Water than at other  
"times. *October* 6. I 732. after much Rain, both on that and  
.the preceding Day, this Spring threw forth a prodigious Quan-  
tity of Water, whose Warmth raised the Spirits in the.Ther-  
Inometer only sour inches and six Eighths in the Forenoon; but  
it fell yet half an.Inch lower in the Afternoon. But St. *Amrs*.Well raised the Spirits five Inches above *Bingham* Well; but  
the fmall Spring beyond the last, lost veryhttle of its Heat: So  
thet *Bingham* Well is rather an uncertain than perennial Spring,  
But the above two Springs never aster, by Vicissitudes of Wea-  
ther, ; or Seasons ; nor. yet that Spring which rises up in the  
Canal from the Bath, all which three boll up with an impetu-  
ous Force in large Bubbles of heated Air, which break on the  
Surface. . I tried these Waters with the Hydrostatioal Balance,  
by immersing the Glass Bubble, whose Bulk was equal to the  
Bulk of fifteen Drams and a half of common Water, thet is,  
one eighth Part of fifteen Ounces and a half. I found several  
Variations ; for, certainly, to try the Weight of Water, is the  
most difficult and uncertain Experiment that attends a stricti  
Examination of Waters; it is never a whole Day the same  
txactiy, but differs according to the Expansion or Condensa-  
tion of the Aur in them, the Quantity *of* Water contain’d in  
the subterraneous Chanels, the. Rapidity or Slownefs of its  
Motion, whereby it brings more or less foreign Matters along  
with it, its Stagnanon, and some other Circumstances. *Sep-  
tember I5.* being a very clear hot Day, wish a small Breeze of  
Wind, till Two o’Clock of the Afternoon, then, at Three  
o’Clock, Thunder, Lightning, and a prodigious het fultry Air,  
St. *Amu’s* and *Bingham* Well weigh’d mice Grains and a half  
lighter than the River-water; thet is, near twenty-nine Grains  
.in a Pint; the Bath was sour Grains lighter than these, that is,  
thirty-three Grains in a Pine I put some of each of those  
Waters into three different Glasses, set them into the Air-  
pump, exhausted the Air out of the Receiver ; but scarce had  
we the least Bubble, only it was whitish, as is a little Flour  
had been mix’d with it j and tho\* I made what haste I could,  
lest the Water should cool in the Bath-room, yet it weigh’d  
two Grains heavier when I had done, thet is, sixteen Grains in  
a Pint. *March sy.* early in the Morning, heing a herd Frost,  
strong East Wind, and some Hall, Lmade a fresh Trial, and  
.the Bath was feven Grains lighter than the River-water, that is,  
near fifty-eight Grains in a Pint, St. *Annrs and Bingham* were  
each six Grains fighter than the River, that is, about forty-  
nine Grains lighter than common Water, and nine Grains in a  
-Pint heavier than the Bath.

*April vy* the Air being pretty temperate, the last two  
weighed only four Grains and a half .lighter than common Wa-  
**ter,** that is, thirty-six Grains in a Pint. I took up a Pot of  
each of those Waters, and a Pot of common Water, set them  
upon a Table in my Room, thet they might be of an eaadt

Temperature,next Morning.all three, weighed a-Grain and a  
half lighter, .the last, when taken upland allow’d to stand  
still, it-fettled, and let fall nil sirs grosser Parts, being heated to  
the seme-Degree of Warmth -with the.Bath, heth were nearly  
of the same Weight. u.d d-'r . - -

As to the Warmth ofthese Waters, I took a Thermometer  
whofe Tube was fifteen Inches long, and the Diameter of its  
Bore one Twenty-third of an inch, and fill’d -it only so high  
with Spirits, that on the fifteenth of *September,* (as above) **when**the Thermometer was set *ia'Buxton* River, the Spirits were two  
Inches and. one Fourth above the Ball. This Tube heing set in  
the Bath one Quarter of an Hout, the Spirits rofe sour Inches  
and six Eighths higher, thet is, to seven Inches. St. *Anne’s*Well brought the Spirits down one Fourth of an Inch in the  
Tube*,. Bingham* Well brought them still five Eighths of an  
Inch lower. On the same Evening the. Sky clear’d again, and  
all East, North-east, and North-west, up to the Zenith, was  
cover’d with *Aurorae Borcales,* or Streamers, the.Air at the same  
time being very culm ... Next Morning there was a gentle Frost,  
and the Spirits in the Thermometer were only-one inch above  
the Ball, that is, one inch and one Fourth, lower in the Tube  
than they were the Day before. I set the .Thermometerin-the  
Batli-roorn for half an Hour, and the Steam raised the Spirits  
one inch and feven Eighths higher: Then 1 set them **indine**Bath-room for half an Hour, upon which;, the Steam raised the  
Spirits one inch and seven Eighths higher: -Then I set them in  
the Bath for thirty-five Minutes, and they mounted uppothe  
fame Height they were the Day before. - *December* ια3φ,  
being, perhaps, the coldest Day that has been, known in *England*this Age, (for a strong North Wind blow’d,.and the ciear Frost  
was so violent, that in seven Hours time-the Ice. bore Horse-anil  
Rider, tho’ it rain’d and snow’d the Night..before. Dll **Two**o’Clock in the Morning) the Spirits in the common Theritio-  
meterS were at excessive Cold, tho’ the Glassed.observed, hsing  
in a Stain-ease between two Rooms, with continual great Fires,  
and the Door of one Room was never shut, nor was there any  
outer Door near. The Spirits in my small Thermometer were  
more, within the Ball, than would fill an Inch of the Tube-  
Both Thermometers being set in a Pitcher of River-water thet  
Moment taken up where\* the River was most frozen, the Spi-  
rits in the first Thermometer presently rose six Minutes or De--  
grees, and thofe in minejust fill’d the Ball., Three Fourths of  
a Pint of boiling Water, put to three Pints of this River-water,  
raised the Spirits in my Thermometer to the exaol: Height: that  
*Buxton* River did, on *September* I3. and one Pint and a Quarter  
more of boning Water, heing added, brought it just to the  
Warmth of *Buxton* Bath; that is, it raised the Spirits in the  
Thermometer to the very fame Height. So that I take these  
two for the great Extremes of Cold and Heat, all the rest being  
intermediate Degrees. *January* IO. being, cloudy Weather,  
sharp Frost, and some Snow, the Spirits in my'Thermometer  
fill’d not the Ball : I put it into *Bingham* Well, .and sire Spirits  
rose a little above the sixth Inch ; but being removed , thence  
into St *Anne's* Well, they ascended one Eighth above, the  
seventh Inch , and when carried thence, and. set in the Bath,  
they rose to seven Inches five Eighths, and there stopp’d. *May*27. being a very stormy Day, with a racing Wind, and great  
Rain, I tried two new Thermometers with fresh Spirits ; ;the  
Bore of the larger Tube was one Twenty-third of an Inch,  
thet of the lesser was one Twenty-seventh of an Inch : I put  
heth in the River, whicti was then in a Flood; the Spirits in the  
smaller were hid within the Ball, those in the larger, were one  
Inch and three Eighths above the Ball: I removed .heth into the  
small Spring beyond *Bingham* Well; upon which the Spirits in  
the finall Tube rose eight Inches, and those in the larger Bore  
seven inches, that is, to eight inches three Eighths. When-  
both were taken out of this, and put in *Bingham* Well, the  
Spirits in the smaller Bore rofe to eleven Inches, and thofe in  
the larger to nine Inches ; but when heth of them were set in  
St. *Annrs* Well, the Spirits in the smaller Tube rose to four-  
teen Inches five Eighths; and when heth were put into **the**Spring beyond the hot Bed, which rises up in the Level thet  
carries the Water from the Bath, the Spirits in both Thermo-  
meters rose one Eighth. ’ I carried them thence, and set them  
in the Bath , upon which the small Bore rose to fourteen inches  
three Eighths ; with this fast I stripp’d, and went into the Bath,  
and put it upon the Spring at Bottom, next the Pump, and it  
rose to fourteen and a half; Then I removed it into the fecond  
Spring, which rises out of the black Rock, and it yet ascended  
one Sixth of an inch higher ; hut here the Tube heing but six-  
teen Inches long, the Air above the Spirits was compress’d into  
so narrow a Compass, thet its Resistance was too forcible for '  
the Ascent of the Spines. Then I suspended the Spirits upon  
the Surface of the Bath, and the Spirits fell down to fourteen  
Inches one Tenth; fo that, when the Bath is full, the second  
Spring is a one hundred and seventeenth Part warmer than the  
first, even in this whole Mixture of Water; and the Bottom  
of the Bath is one fifty-sixth Part warmer than its Surface. It  
is pleasantly surprising to stand in the full Bath, and see the Ex-

halation of the compress’d and rarefied Ain, and sulphureous  
Steam, continually playing on the Surface of the Waterlike  
the Transition of the fiery Particles in scalding Water before it  
hell, and is yer calm and olear ; or Just as if a Cloud of small  
Flies were rilingurp, whofe Feet massed a small, - but general,  
-turbid Motion.. on the Top of-the Water : Common Water,  
when made of the same.Warmthwith that of the Bath, during  
the first thirty Minutes, tool’d fasterthan thet of the Bath by  
.an hundred and. twelfth Part'; but, , after that, the Bath-water  
.cool’d sooner by an hundred and eleventh Part,*r-"- -:-o*

Neither. DI. *Lister,* Sir *John Flayer, lum. Leighsonvr Allert,*in then treating of; these Waters, 'heve once attempted to give  
-us the Quantity of Water there Springs throwout inany'given  
Time. This I endeavour’d to satisfy myself in, and I sind it  
as follows: St. *Anne’s* Well throwhout three hundred and nine-  
**ty** Gallons of Water in, an Hout, dr .nine thousand three hun-  
dred and sixty Gallons in a natural Day and Night, of three  
millions four hundred sixteen thousand End sour hundredGallons  
**in a,**Year..- st —e awoimi ἰ. i.. ... -d . st

*, . Bingham* Wellrvariesi in its Stream, bring sometimes higher,  
sometimes lowerbut whenil examin’d it, in a great Drought,’  
it discharged seventeenihundred and fifty-eight Gallons of Wa-  
ter in an Houtio . Six Quarts.of this Water, exhaled, left thirty-  
three Grains of- Sediment,, twentywhereof were salt 2. So that  
this Spring sends; out thirteen millions six hundred: and forty-  
seven thoufandionectinndred and eighty Gallons of Water in a  
.Year, which carries ain.it forty-eightthoufand three hundred  
and; sixty-eight Poundof fix’d Sediment.; .near two Thirds of  
which being salt,:it must, of.coutse afford thirty-two thousand  
**two** hundred forty-five Pounds:five-Ounces:two Drams and  
two:ScruplesofSalt inthatTime; the rest -is' Enithe thefides a  
Fragment of twelve Oainces and a half of Sediment. 'The  
little Well of warm Water, thirteen Yards East *-ΌΓ. Bingham*Well,, affords sev.errty-cight Gallons and a half of warm Water  
in an Hour, or six hundred eightyssiinen. thousand fix hundred  
and sixty in a Year. . : -s.inq-,«ou intio.. ;  
εί All these four, warm Springs, together throw forth, in a  
*Taa,* ninety-seven millions six hundred- and eighty-one thou-  
sand eight hundred and sixty Gallons of Water; besides the  
waste Water that gets out of the Bath, and the strong Spring  
Tiling up in the.Middle of the Bath-level, heyond St. *Anne’s*Well, and the warm Water which rifes up in the hot and cold  
opting; and lastly,, the two small warm Springs which rise up  
in the low GroimtL. between the het and cold Spring, and the  
large Spring inthe.siquih, with several other Oufingsof warm  
Water in simdry other Places ; so thet the Whole, added- toge-  
**ther,** iwill be near double .this Computation. '' '

- : All thefe Waters-brighten the Solution of Gold ; and first  
intake the Solution of Silver white, then turbid ; after which it  
lets fall *2* large white .Sediment, ἱ They turn Solution of Iron  
and Mercury yellow.. Solution of Sublimate turns them first  
-of-iasaint Pearl Colour, and dear; shut, by long standing, they  
hecome muddy and biackish. . They presently become white by  
-Solution of Sugar of Lead, and then let fall a large Sediment.  
Oil, of Tartar makes.them first of a bluish White ; and,ain one  
Night and a Day, you have a Sediment of the fame Colour,  
half- an Inch high. Spirit of Vitriol, and the Oils osoSaltand  
.Sulphur, turn the Water rather clearer and finer, the’they raise  
a visible intestine Commotion, and the Sides of the Glafles-hang  
full of Air-bubbles. Spirits of Hartshorn,- or Sat Ammoniac,  
change it to a whitish Clear; and, upon standing twenty-four  
Hours, leave a small Sediment like Wool or Cotton: ssSyrup of  
Violets made it first blue, then greenish. Syrup of Cloves  
made it of a whitish Blue, and muddy;. Tinctsre of Fustic,  
of a pale Sack Colour; Tincture of Logwood, of a beautiful  
Red; Tinfiute of Galls, of a muddy yellowish Colour, which  
**in** four. Days time turn’d green. Green Tea-alter’d it riot.

Tiheture of red Rotes gave it a Brandy Colour. Rum, Bran-  
dy, Balaustian Flowers, Pomegranate-peel, and Oak-leaves,  
produced no Change in it.

The Water of *Bingham* Well, upon heing mix’d with the  
aforesaid Ingredients separately, in fandry Glasses, and allow’d  
to stand all Night, next Morning that Portion mix’d with So-  
lution of Silver was of a Pearl Colour, clear at Top, and let  
- fall a large Sediment. With Tinctirre of Rhubarb it assumed  
**a** yellowish-brown. Colour. With Solution of sublimate the  
Liquor remain’d clear, but the Sides and Bottom of the Gisis  
were blackish. With Spirits of Hartshorn it was changed into  
R bluish Greeni -..With Tinctirre of Fustic it became yellowish.  
.With Tinctirre of *Broftl* it was changed into a light saint Red.  
With Tinctirre of Logwood it assumed a deep reddish-brown  
Colour. With Tincture of Galls a deep purple Scum appear’d  
on its.Surface ; it was yellowish in the Middle, and of a bluish  
Pearl Colour at Top and Bottom. -With *French* Brandy it was  
clear, but darker than common Water.

The Differences hetween this and Sc υίππο’ε Well were very  
small ; the former made Solution of Silver of a bluer White,  
and afterwards of a more purple Colour, then- the latter. It  
also retain’dits reddish Colour longer with Synsp of Cloves ; it  
let fall more Sediment with Solution of Lead ; and its Sedi-

ment, left after ExhasiSon, was more pungent and saline, and  
at the same rime very white.:' Eleven Quarts of it, at .another  
tone, left thirty-three Grains of.Sediment; twenty-four'of  
which were a white Salt,- which changed Syrup of Violets to a  
beautifulsigni-green Colour ; but the sinit'of St. *Acmr.sMrofl*made little Alteration upon it. The fenner.xlso tumid Solution  
of Sublimate a litdeG range-coloured jo'and;mix’d with 'Sas  
-Ammoniac, sent forth'an urinous Smell. It crackled a little  
on a red-hotlron, but did nut swell much! It fermented strong-  
ly with Acids, but not withAlcaliespo-. i "-' *l i' -spsu* ψ

*Bingham* Well-water being fetch’d sitteen Miles, and kept  
-five Nights, I compared in with common Pipe-water, "which  
had stood two Nights in a Leaden Cistern.' ' Tinctirre ofRhiZ-  
barb turn’d common Water of a light-yellow Colour tiolithfesr-  
*ham* Water was by it changed into a reddish, ar reddish-bream  
Colour. Solution of Sublimate changed, notcornmon Water,  
but produced a Pelllcle on its Surface of a Red, Blue, and'Yel-  
low, according to the various Directions of the Rays of Light.  
*Bingham* Water became whitish, and had' a‘ Scum of. Yellow,  
Red, Green, and Blues’ Oil of Tartar made no Alteration osi  
this common Water; hut rbe other was first, white, then' pur-  
dled, and deposited7 large and whiter Flakes'at the Sides and  
Bottom of the Glass. ;Tbe acid Spirits raised a greater inte-  
stine Motion, and more Bubbies, intheMineral Water than'in  
the other. Spirits of-Haedhorri hed no Effect on the latter,.but  
changed the other white,-which became also greonerwith Syrup  
of Violets, than the common Water. . After standing four Days  
longer, Tinctirre of RrascZ Wood hed turn’d the *Bingham* Wa-  
ter ofa deeper Red than the other; and Tinitioe of Galls and  
Sumach had changed the former green throughout.' Solution of  
Silver had made it of alight Purple, but the common Water  
was a pale Pearl Colour. . :'’’ '’’τ -. : - ;

When I had kept the Bath-water,-that *or Bingham* Well,  
arid'that of the hot and cold Spaing, sor a Jong time, then,  
with Tincture of Nephritic Wood, they all became whitish  
fust, then pale, lastly curdled, and became green. The second  
of these, with Solution of Silver, was reddish . but soon chang’d  
to a Pearl Colour. With Tindture of Galls, both it and tho  
third were first of a muddy Clay Colour, then of a Leaden Co-  
lour, and cover’d with a variegated Scum; but that her the  
Bath, with Tincture of Sumach, became wholly green in five  
Days. Syrup of Violets, turn’d *Bingham* Well very green in  
two Days.

I exhaled each os those Waters several- times, and always  
found fome Difference in the Quantity, but never in the Nature  
*of* their Sediments, which was always the same : The former,  
thet is, the Quantity, was varied, sometimes by the Water,  
sometimes by the Fire, and sometimes by the Vestel. Not only  
'the Sediment, but also the Salts, fermented With Oil of Vitriol ;  
they alfo crackled in the Fire, and swell’d a little. But, final-  
ly, to be satisfied of both their Kind and Proportions, I set  
them to crystallize: The Bath-water afforded both Sea-salt and  
Nitre, but most of the former. The Salts of St. ArnisWdl  
were the same in Kind, only they yielded more Nitre then thet  
of the Bath. *Bingham* Well-water contains most Nitre of any  
of them, and less Marine-sals. I took the Crystais of Nitre  
from the Marine-falt, dissolved them, and set them to projecti  
into regular Crystals, that I mictit obtain their true Figures..

From the preceding History we draw the following Observa-  
tions: - . . . ’

That tho’ there is Plenty of Ocre, Iron-stone, and Sulphur,  
in the Coal-pits here, which are generally reputed the Caufe of  
hot Springs; yet the Water is so, far from being warm, that it  
is intensely cold; fo that, in order to caufe Warmth, there .  
must either be some other Materials, or there is a Mixture of  
other Ingredients, which prevent their Effeci in warming the  
Water; or these Ingredients are mix’d in undue Propor-  
tions. , ' " - ‘ τ ' ' \

Again, since we sind the Veins of Lead, crossing the Coal,  
corroded, it is plain, thet Vitriol acts upon and confumcsLead  
as well as other Metais. s - ‘Λ — 7/ ' . - .i : .

Since Lime-stone and Coal cannot agree, we fee, that -the  
alcaline Earth of the former is as hurtful to‘.the Acid of the  
letter, as this Acid is prejudicial to Lime-:stone ; for, thet it-is  
not the Nine in the Lime-stone that is hurtful rd the Coal, ap-  
pears fron-r this, thet most: of the Chalybeate or Vitriolic Wa-  
tors contain also a fix’d Nitre. : in-; . ; -

However homogeneous. *Bwcton* Waters they appear, or how-  
ever similar in their Nature to common Water, in all other  
refpects,. besides their greater. Heat; yet seeing, several of the  
above-mention’d tinfluring ingredients, produced in them Phe-  
nomena differing-from those produced in common Water by  
them, it must therefore contain fame other Principles then those  
of common Water. -

Thol it cannot he denied, that this Water has a Mixture of  
different Principles ; yet seeing it is still eight or ten Grains in  
a Pint llghter, when cold, than common Water, this shews,  
that it has fewer earthy or other gross Parts in it than River,  
water. .. ... .

Since common Water, made equally hot with *Buxton* Bath-  
water, cools sooner at first, but flower than it toward the lat-  
ter End, *Buxton* Mineral Water must of course either have less  
gross and foreign Matter in it, or this Matter must exist in  
Tmaller Particles in the Water, and so give less Resistance to  
the flying off of the less rarefied Particles of Heat. .. .

Seeing *Buxton* Water is so much lighter and warmer than  
common Water, before it has received any culinary or artificial  
Fine into its Pores, to rarely the Air contain'd in it, it is plain,  
it brings something along with it, which is equivalent to the  
fiery Particles in heated Water; which heing occasion'd by this  
Water’s washing Mixtures of several Minerals in its Course,  
we shall therefore call that a Mineral Vapour.

Since this Water washes so many Ingredients abounding with  
Sulphur, and since we find, that eVen gross Sulphur, by the  
Mediation of Lime-stone, communicates some os its Parts to  
Water; and also seeing there is constantiy such a Visible sul-  
phureous Halitus upon the Surface of *Buxton* Water; it is rea-  
sonable to think, that this Water, whilst warm, is impregn-  
ated with a sulphureous Steam or Vapour, as one Part of its  
^Mineral Spirit.

From the whole Processes and Experiments made on *Buxton*Waters, it is plain, that the Minerals, warming and impregn-  
ating these several Springs, are the same; only differing some-  
.what in the Proportion of their Ingredients.

These Minerals lie in a Stratum, or Bed; from West to  
East.

Since *Bingham* Well increases or decreases upon Vicissitudes  
of W eather or Seasons, 'tis hence probable, that its Spring is  
not supplied from any great Depth in the Earth, but chiefly  
from the Surface of the Ground, and the small Hill above ; and  
seeing both it, and the small warm Spring beyond it, (which I  
have seen quite dry) are so superficially provided, and yet warm,  
the impregnating Ingredients seem not to lie Very deep in the  
Earth.

Since these Waters continually bring up so large and nume-  
rous Bubbles, with an impetuous Force, from the Bowels of the  
Earth, then must their interstices be richly stored with a fine  
Air, which produces this Effect.

.. Seeing St. *Anatis* was known to he of the fame Nature, and  
.threw forth the same Quantity of Water before the Bath-leVel  
.was made, that it does fince; and since, from this Well to the  
Bath, there is a continued Rock of firm black Lime-stone, or  
a Substance hetween Marble and Lime-stone; and especially.  
Teeing the mainspring, which supplies this Well, rises up thro'  
a black Lime-stone on that Side next the River, and not on  
That next the Bath; and, in the last place,, since we find two  
Considerable Differences in its Contents from those of the Bath-  
water ; it is ridiculous to suggest, that this Spring has any Com-  
munication with the Bath.

Since there is such a Difference at sundry times in theWeight  
Of these Waters, it follows, that there is no certain Standard sor  
determining their specific Gravities ; only this, in the general,  
is certain, that they are lighter than other common Water, and  
that the lighter they are, so much the more are they impregn-  
ated with the Mineral Spirit, and the fewer extraneous Bodies  
they bring along with them; and the lighter they are, the  
warmer; and the wanner, the more medicinal.

The more the Pores of the Earth are lock'd up by Frost, or  
fill'd with Water, provided these affect not the Springs, the  
warmer and lighter is the Water; and the warmer it is, so  
much stronger is its Mineral Vapour, and therefore the more  
powerful are its Virtues.

From the Use of the Thermometer we fee, first. The  
different Degrees of Heat Contain'd in the several Waters.  
Secondly, We find that there are different Degrees of Heat  
contained in the same Water in the several Seasons os the  
Year, and according to the Various Temperatures of the Air.  
Thirdly, That these Waters are not relatively, but absolutely,  
warmer in Winter than in Summer, in Frost than when there  
is none, in a cold than in a hot Season, the Bath at least  
being one twentieth Part warmer in Frost or Winter, than in  
warm Weather. Fourthly, That, in a great Frost, four Fifths  
Of the coldest Water not frozen, and One Fifth of boiling  
Water mix'd, make the juft Warmth of common River-wa-  
ter in het Weather about the Autumnal Equinox. Fifthly,  
Thet a Quart of boiling Water added to three Pints of such  
cold Water, in an earthen Vessel, at two sundry times, about  
seven Minutes Distance from each other, gives the trueWarmth  
of *Bunton.*

*Or five* Eighths of a Quart of helling Water, added to three  
. Pints of common River-water in Summer, gives the exact  
Heat *os Buxton* Bath in that Season . and then whatever raises  
fuch a Thermometer five Eighths of an inch higher, shews you  
the Warmth of *Buxton* Water, in a strong Winter Frosh

By these Experiments we have the Quantity of Water each  
Spring sends forth in a given time. Secondly, The Propor-  
tion that the Vehicle and fix'd Parts have to each other.  
Thirdly, The Proportions of the Earth and Salts separately.

And, lastly. Which of the different Salts exceeds the others  
in Quantity. . . ;

From the small Proportion of the fix'd Parts in those Wa-  
ters Io these Vehicle, especially considering the small Quantity  
that should he drank, it is plain, these. Parts can do little to  
the Removal of any obstinate Chronical Disease. Suppose, for  
Example, a Man daily drinks four Pints of Water, at most he  
swallows not, with this Dose, above five Grains of Lime-stone  
Powder, which we shall call an Alcali orAbsorbent, and two  
Grains and an half of Marine-salt, and as much Nitre, which  
let tis suppose stimulant: Whet can these do ? If he should  
drink half that Quantity of common Water that comes from  
the white Lime-stone Hilis, he shall have as much alcaline  
Earth, is not some fix'd Salt, besides R Vegetable Salt : Yet  
who would call these Medicinal Waters ὴ Hence it is plain,  
that the Virtues of our Waters consist, first. In the pure,  
smooth, sine, common Vehicle; and, secondly. In their  
Warmth and Mineral Spirit. ../.i.-./...:.. -

is the Bath, when its Doors and Windows are shut, wanner  
than when open'd ? Is the Bath that is shut np on all Sides,  
warmer than St. *AnnPs* Well, winch is only shut up on three  
Sides ? IS this warmer again than *Bingham* .Water, that is  
wholly exposed to the open Air above and on all Sides? Then  
it is plain, that were these Waters kept cluse cover'd, and  
their Heat reverberated, they might still:he much warmer..

From the Experiments made with .the. Mixtures, we **see**first, from **the** intestine Motion excited by the acid Spirits,  
That the Water contains an Alcali. Secondly, That this Al-  
call heing precipitated by a Solution of Sugar of Lead, or the  
Water thrown into an Alembic and distilled, and that which  
comes over with a flow Fire tried, neither of these Waters fer-  
ment with Acids. Thirdly, Not only the alcaline Nature .of  
this Earth, but its Whiteness, shew it to he Lime-stone  
Powder, tho' it warm not the Water. after Calcination.  
Fourthly, This earth being calcined in a Furnace, which quick-  
ly melts Iron, and then applied to the Load-stone, it attracted  
this Dust or Powder briskly ; therefore I conclude it contains  
also Iron-stone. Fifthly, Seeing the Water precipitates the  
Solution of Silver, and a Part of its Salts runs into Crystals  
of a cubic Figure, like a Dye, a Part of its Salt must be-Ma-  
rine-salt. Sixthly, Since it lets sail a Sediment with Oil of  
Tartar, and Spirit of Hartshorn, and .also affords some long  
Crystals with six unequal Sides, terminating at each End in  
a Pyramid under several Triangles ; we conclude, it contains  
also Nitre. Seventhly, Seeing neither Galis nor other Astrin-  
.gents alter'd this warm Water, we cannot trace any Vitriol,  
either volatile or fix'd, in it, nor does it taste chalybeate;  
however the Credulity of some People may impose upon their  
Tastes, and tho' the Load-stone, attracts some of its calcined  
Earth, it does the same with most other Earths, which never  
afforded any Solution Of Vitriol, nor any Appearance of its  
Eighthly, Did *Bingham* Well, when putrified, and its Sulphur  
spent, become red with Galls, and purple with Solution of  
Silvers Then it must not only partake more eminently of Ni-  
tre, but also have more os. the Chalybeate Principle in it, than  
any of the rest. - - ss I

Did these Waters afford sundry Proportions of Sediment at  
different- times? Then they are not alike fraught with their **fin'd**mineral Principles at all times. Secondly, We may hereby  
observe, that when their fix'd Contents are least, their Vola-.  
tile Principles are most, as in Winter and Very cold Weather;,  
and when their Volatile Spirit is smallest or wealtest, their fix'd  
Parts are proportionably increased, as in Very dry and het  
Weather. Thirdly, Have several Authors examin'd the same  
Waters at several times, and found their Contents to differ  
in Quantity, but not in Kind ? Then are they not to he ar-  
raigned and accused about small Differences, as is too ordi-

3oes Dr. *Uster* tell us, that St. *Anne's* Water proves eme-  
tic upon swilling down large Quantities os it? This is nothing  
peculiar, but what it has in common with all other Water.  
Secondly, Does he affert a Quantity of Pit-coal to lie imme-  
diately under the Lime-stone, out os which this Water springs ?  
It is furprifing how so good a Naturalist could make, such a  
Blunder; sor, first. Lime-stone and Coal are found inconsist-\*  
ent with each other in the Peak-country. Secondly, Who  
eVer found warm Water in Coal ? Thirdly, Tho' the Sedi-  
ment of those Waters he Very small, yet it at least affords a  
Scruple to a Gallon ; tho' he obtained but one Scruple or two.,  
out of four Gallons, this must have heen owing to some Neg-  
lect or Mismanagement. Fourthly, He says the Sediment was  
all Salt, and no Stone Powder, whereas the *Bath* yields above  
one Half, and sometimes two Thirds of Stone Powder to one  
of Salt. Fifthly, The Salt,, he says, is chiefly marine. Tho'  
this he true of the *Bath,* yet St. *Annas* Well contains as much  
Nitre as Marine-salt, and *Bingham* Well more than either of -  
them. Nor, sixthly. Can I here overlook *Allents* Account  
*of* this Waterl For, first. He will have but three warm  
Springs here, *viz.* two for Bathing, and one for drinking :

Now the outer Bath is no Spring, but supplied from the inner  
Bath. Secondly, He fays, that it is as warm as Blood newly  
let out of the Veins; but, had he used a Thermometer in ex-  
amining both, he would have found the former much short of  
the Heat of the latter. Thirdly, He will have Lead, Iron,  
and Sulphur to be the Principles that medicate this Water; bur  
how can Lead communicate any of its Parts to the Water,  
without it he dissolved ? Where is the Solvent and Menstruum ?  
And, if it had a Solvent, it would he Vitriol, which would  
long ago haVe corroded and consumed the Lead, and left only  
a bright Sulphur; and fince Lead is the chief medicating Prin-  
ciple, the Springs would now he no more than other common  
Springs. But allowing (contrary to Reason and Experience)  
that the Lead did still impregnate this Water, it would be  
Poison instead of Physic, as we see from the Accidents that  
happen to thofe who sinell, and to the Animals that drink the  
Waters wherein there is Lead, how soon they are seized with  
a *Bellon,* and from the Effects os Sugar os Lead taken in-  
wardly.\* Nor, thirdly. Has the Water a sulphureous Taste  
or Smell, as he alledges. Nor, fourthly. Do Galls give  
this the same Colour aS they do the *Bath* Waters, nor a  
Leaden Colour, winch he will have to arise from Lead. The  
Sulphur he will have to be that of Lead, *fanes* is much more  
in the Right, when he thinks the Water is too pure, delicious,  
and fine, for any such Principles as Lead, Copper, or Alum;  
and contents himself with an impalpable Sulphur.

Now let us see what Medicinal Uses these Experiments and  
Observations will help us to make of these Waters: In this  
we shall receive some Assistance from *Nli.Martiofs* Account  
of the Effects of warm Bathing, whereby it is plain, first.  
That, by the Waters penetrating the Pores of the Skin, it gets  
into, and mixes with, the Bloed, and other Juices, on the Sur-  
lsace of the Body, and thereby increasesits Weight. Second-  
ly, That, by this Insinuation os the tepid Steam into the Pores,  
the Skin is relaxed, its Pores dilated, the Fluids in the Capil-  
lary Veffeis thinned, .their Motion made easier, and their  
Evacuation promoted. Thirdly, Tho' the Addition to the  
Weight of the Body by Bathing may seem small, yet we must  
allow a considerable Discharge by Perspiration during Bathing,  
both from the Pressure of the Waters added to that of the Air,  
upon the Body, and the warming relaxing Nature of the  
Water. But to proceed.

Since these Waters contain so much Air in their Inter-  
stices, they must greatiy promote Digestion, except they he drank  
too long; and then, from their Very Warmth and Nature,  
they must relax the Stomach, and retard all the Digestions,  
unless the Use of them in left off. But the Waters being  
warmed by Bodies of a different Nature, either brought to-  
gether, diflblv'd; or set in Action, by the Water, this Action  
cannot he without the Communication of some of their Parts,  
which littie Parts must be lodged, together with the Air, in  
the interstices of the Water; then not only does the Air  
(consider'd as a finlple Ether) promote Digestion and Atte-  
nuation; but heing springy, and fall of those subtile, invisi-  
ble, intractable Particles os Mineral Bodies, or Substances, of  
what a diluting, opening Nature must they he in Animal  
Bodies ? How near in Smaliness and Subtilty do they approach  
to the Particles of Light and Heat, fince we heve no Vessels  
that retain one more than the other ? And since they are not  
retainable in the cold Water, wherein we suppose the Ain in  
a stagnant, compressed State, how trifling is it to imagine or  
attempt procuring of them by Force of Fine in Distillation,  
whereby the Air is heated, rarefied, and expanded, and even  
their Vehicle, the Water, so rarefied, that it rises up ina  
Smoak, in both which they are at greater Liberty than be-  
fore to make their escape ! .

Since these Particles are so much less, and more-subtie, than  
the most Volatile Spirits obtainable by Art, such as those of  
Hartshorn and Sal Ammoniac, which may he shut up and  
preserved in so porous a Body as Glass, how impossible is it,  
that the smallest Vessels in human Bodies, tho' never so much  
obstructed, (if not grown, up, and become tendinous} should  
hinder their progressive Motion l Will they not eVen find a  
Passage between the Interstices of the Fibres that constitute  
the Sides *os* the Vessels, and, *a fortiori,* much more in their  
Cavities ? How well then must such a Water at the Spring-  
head, thus fraught with its subtile mineral Principle, be dis-  
posed to carry on the Work of opening and clearing the mi-  
nutest Veffeis in the remotest Extremities of Animal Bedies, or  
in the smallest Veffeis os the Periosteum, in either ofthe Coats  
of the Brain, or Spinal Marrow, or in the Brain or Marrow it-  
self, which contain the smallest Veffeis comprehensible by  
human Conception ? From tins it follows, that these Waters  
are better adapted to Obstructions from the twentieth-rate  
Vessels, to the smallest in the whole Body, than to those of  
the larger and first-rate: No Wonder then, if they produce  
such surprising Effects in Gouty, Rheumatic, Arthritic, and  
Scorbutic Pains, all which have their Seat in Veffeis so small,  
aS scarce th be come at by Medicines. Again, if we consider  
**this** Spirit aS wrapt up in **Air, it is not-only subtle and pene-**

stating, but also elastic or springy, so that, when the Heat of  
the Body is added to its Warmth, it will he fo much the more  
springy, and expand the smallest Vessels, relaxing them, and so  
making room for the obstructing Matter either to he expelled’  
from the Body, or so attenuated as to he thrown back into  
the larger Veffeis, till it is more attenuated, digested, and fit-  
ted for Evacuation by some of the common Outlets. But is  
the Water attenuating, and the Spirit elastic ? Then, not only  
does the former diflolve the gross Humours, but the Particles of  
the latter being got between them, and dilating themselves like a  
springy Wedge, will turn the attractive Force of these Hu-  
mours into a Repulsive, whereby they are gradually separated,  
broken, and mix'd with the intercurrent Fluid; but aS **the**Humours cannot be attenuated, and divided into smaller Par-  
ticles without increasing their Bulk, especially when at the  
same time there is a Quantity of this Water thrown into the  
Body, and mix'd with them, this Fusion of the Blood ‘dis-  
poses some of its Parts to get into improper Veffeis; sor one  
Globule being hereby divided into two or three, they are then  
capable of entering Veffeis that before would not admit nor  
receive them when only one ; and these Vessels being conical,  
the globular Parts thus divided must stop, before they can  
reach the Extremity of the Vestel; hence new Obstructions  
of another kind must he produc’d by this powerful Dilutes,  
which must remain, except either the Vessel relax, and give  
way, or the stopp'd Globule must he split into two or three  
others ; but, by this necessary Forde, the Action of the Vessel  
is increased, whereby the Blood’S Motion hecomes brisker:  
And now both the Quantity and Velocity of the Blood are  
increased, but the Coats of the Vessels not being hereby  
strengthen'd, but weaken'd, according to Thess greater Dilata-  
tion or Stretch, if they were weak before, and full of Blood,  
then Haemorrhages must necessarily follow, except prevented  
by due and timely Evacuation, or Reduction of the Humours  
to their former Standard, that the Veffeis may again be restor’d  
to their natural Dimensions, Strength, and Resistance. But if  
we are assur'd from Fact and Experience, that there is a mi-  
neral Spirit in these Waters, and want to know the Nature of  
this mineral Spirit, let us get' acquainted with the Minerals  
wash'd by the Water, and consider which of them are capable  
of having some os their Putts separated by the Water, and which  
these Minerals are that can neither have their Parts separated  
nor dissolv'd; and we are sure, that this Spirit must be from,  
the former; and not from the latter of these: But whet these  
Materials are, we have seen before; therefore the Spirit must he  
of the same Nature, as its Effects, as well aS Theory, proves

From the Whole we see, that the intention and Effects of  
those Waters are Relaxation and Dilution;and where-ever these  
are indicated, this Water will be of the greatest Service; which  
is, when the natural and necessary Secretions are lessen'd, from .  
whence arise Obstructions in the small Veffeis; but it is of  
the greatest Benefit in those Ohstructions which arise from a  
Sharpness, Saltness, or Earthiness of the Blond and Lymph, or  
from an accidental (where there is no natural) Disposition to a  
Rarefaction of the Bloed, some of whose Parts have mistaken  
their common Road, in all which Cases we suppose a Stimu-  
luS in the Veffeis from Pain; since it is impossible the fix'd  
Parts of this Water should prove a powerful Stimulus. Its  
Efficacy extends particularly to all Contractions, Stiffness, or  
Crispation of the Solids and Veffeis, when their Parte are so  
close, that the Fibres are inflexible by such Causes as in a na-  
tural and healthy State should bend them : Or where there is4  
Difficulty and indisposition sometimes in the Fibres and Ves-  
sels, preventing their ready and easy Distention and Contra-  
ction, aS is mostly the Fate of old Age, and hard Labourers; .  
winch is evident from a more difficult bending and contract-  
ing of their Joints and Muscles, and from their greater Li-  
ableness to Rheumatic and Arthritic Pains; and if young  
People be herd plied betimes in Life, their Fibres are sooner  
stiffened, become stronger, and are at their Growth, or pre-  
vented of their full Growth, sooner; for by whatever means  
Growth is hastened and finished, the Period of Lise is so much  
shorten'd. Hence such as are os the slowest Growth, provided  
they live regularly, and escape Accidents, live longest, sor the  
same Space of Time they sake to Growth, they stand still as  
long, and decline the like Time; for should one Man grow  
till thirty Years of Age, from that he is at a Stand to sixty,  
and grows back again or declines to ninety; then dies: If we  
suppose another, who has unnaturally hastened his Growth at  
sixteen, he cannot outiive forty-eight or fifty at most : Hence  
it is plain, that such aS rejoice at their Childrens early Growth,  
and such as are uneasy at their flow Growth, are equally  
foolish. It is judicioufly observed by *Sanctorius,* that from the  
time Men begin, to decline and grow old. Perspiration is .di-  
minished, and the gross Parts of the Blood are retain'd; which,  
being gathered to the Thorax or Breast, are expectorated by  
Coughing, or they are heaped up at the Extremities of the Vei-  
sels, the increasing Stiffness os the Parts still occasioning a Waste  
of the more subtie Parts, and a Collection of the grosser -  
Hence Diseases from mucous or flay Humours, laid up in one

Part or other of the Body, as Catarrhs, Rheumatisms', Pains  
of the Joints, Atrophies, Marasmus, and a gradual diminish-  
ing of the Actions depending on the small Fibres, aS Hearing,  
Seeing, Memory and Judgment; for the Vesseis of the Brain  
being then partiy shut up, and partly become callous, so as to  
he unfit for the more noble and elevated Actions, then the  
Person becomes childish, and wears out of Lise without much  
Pain or Uneasiness, and all from a Stiffness induced oh the  
Fibres, and diminished Perspiration.

. Upon the Whole, *Buxton* Water being warrh, highly im-  
pregnated with a mineral Steam, Vapour, or Spirit, contain-  
ing a most subtie and impalpable Sulphur, and being the Pro-  
duct osLime-stone, it is therefore rarefying, heating, relaxing,  
attenuating, sweetening, and a little drying; hence it is signal-  
Iy beneficial, and surprisingly successful, in the Gout,. Rheu-  
Inatism, scorbutic and arthritic Pains, wandering or fix’d Pains  
inveterate or recent; Cramps, Convulsions, dry Asthmas  
without a Fever or quick Pulse, bilious Colic, want of Appe-  
tite, and Indigestion from Intemperance and Hard-drinking, as  
also in Contractions, Stiffness and Lameness arising therefrom  
in any Part, Barrenness from a Constriction and Indilability of  
the Fallopian Tubes and Uterus ; Painsuiness, a total Want  
or other Irregularities os the Menses froth the same Cause;  
in all Stoppages, and heginning Obstructions, and in preterna-  
tural Rigidities of the Vesseis, or where external Tumors com-  
press the small Vessels, or where there is an Over-growth, or  
too great Strength, of the Vessels resisting the Fluids; in St.  
Antony’s Fire, Tetters, Ring-worms, Scab, Itch, and Mor-  
phew; it is also useful in the Beginning of the Swellings on the  
Pones or Periosteum, which are soft, yielding to the Touch,  
er of the Consistence of soft Wax called Gummata and To-  
phi, as also in Nodes, in chalky Tumors in any Part of the  
Body, inward or outward. In all hard callous Swellings it  
eases the Pain, and softens considerably; in old Strains or Pains  
afflicting People upon Change of Weather, whether they be  
Originally from broken or disjointed Bones, Distortion of the  
Parts, or pulling them out of their natural Position ;. in any  
Withering or Pining of the Parts; in want of Perspiration  
from Cold, without a Fever, or Load of Humours; *sor  
Heat, Stranguries,* and Stoppage of Urine ; in too great a  
Contraction of the Urinary Passages and Strainers ; for scour-  
ing *off* Sand, Gravel, and Mucus, out os the Kidneys; in  
Hicoughs and Vomiting, from a saline Matter, stimulating and  
contracting the Stomach or Midriff ; in a Dysentery, from  
fait Humours, raising Violent Gripes, and convulsive Pains.

I might here subjoin several secondary Uses os this Water ;  
but the common Vehicle being the only Physic in them, in this  
Case I shall advise both drinking and bathing; but by no means  
the last in a Pit of the Gout, inward Inflammations, Fevers,  
Dysentery, large inward Tumors, '"Vomiting or Purging of  
Blood, or where-eVer an outward Pressure os the Body may do  
Mischief. ' ; j

As to the Age, Sex, and Constitution os the Patient, the  
particular Lightness and Purity os those Waters recommend  
their Use, as safe and successful, to all Ages and Sexes, Chil-  
dren, Youth, Men, Women with or not with Child, except  
in the first and last Months. No Caution or Difference is here  
to be regarded; onsy I would not advise young Persons, Very  
full of Blood and Juices, which run with a rapid Course in  
their Vesseis, to be too free with them, from the twenty-third  
Year os their Age, till the thirtieth. Bilious or choleric Con-  
stitutions, phlegmatic, and melancholic, may use them at Dis-  
cretion, provided they do not overdo the Matter ; but the  
Sanguine must be a littie more upon the Watch; sor, since they  
rarefy the Blood, and increase both its Belk and MotIory, aS  
well as add somewhat to its Quantity by bathing; so that their  
Vesseis, being pretty well fill’d already, aS often appears, from  
their low brisk Pulse, and florid Countenance, here the Waters,  
shay distend the Vessels more, drive the Blood forward till it  
cause Obstructions, Stagnation, Inflammations, Fevers, or a  
Discharge os Bloed, by some Evacuation, from a Rupture of  
the stretch'd and weaken'd Vesseis. Neither should I he fond  
of assessing phlegmatic gross Bedies, after the Meridian os Life,  
to continue it long, except for a sew Days bathing, to open the  
Pores of the Skin, attenuate the fizy Humours in its small Ves-  
sels, and discharge a Part of them, and so fit them for a colder  
Path, of greater Pressure and Stimulus; nor that I am fond of  
Cold-bathing in old Age, when the Spring os thePibres is almost  
worn out, but I mean between the Meridian of Life, and old  
Age. As to the Season of the Year for using these Waters,  
aster so strict an Examination and Investigation of their Parts,  
excuse me if I differ from the common Opinion, and prefer  
early in the Spring, and late in the Autumn r For, if we con-  
sider, first, the. Luxury of the Age in Eating and Drinking,  
simple plain Food, that was the delicate Dish of our long-liv'd  
healthy Ancestors, is no longer relish’d ; our Meat must he  
higher season'd; we cannot dine but upon several Dishes ; weak  
plain Liquors are no longer us’d for Drink; wo mush have  
Wine, os, which in worse, (aS it is more viscid) strong Aje, or  
perhaps Brandy and Water. Do nofall these heat and inflame:

the Body ? Secondly, Does not the Water of itself raresy the  
Bloed, and relax the Vesseis ? And, thirdly. Are not the Juices  
of the Body more rarefied ? Take they not up more Bulk, and  
are not the Vesseis more relaxed, in Summer than in Winter?  
Is this then a fit Season to send young People of plethoric and  
sanguine Constitutions to those Waters ? Either they must use  
them for some time, or not; if the latter, why come they to  
them ? What Design will a mere complimenting Visit of the  
Waters, and, perhaps, tasting them, or going into them,  
answer? Sure no valuable End. Is they use them for any con-  
siderable Time, are they not exposed to the Mercy *of* Inflam-  
mations, Faintness, Palpitations, and Fevers, especially of the  
hectic Kind ? And will not the Waters answer the same Inten-  
tion, with much greater Safety, from the latter End of *March*to the Middle of *Map,* and from the first of *September* to the  
first of *November ? It* is true, the Coldness os the Place may be  
objected; but is there not a good House, dry warm Rooms,  
Plenty of Coals, sor the most part some Company, and a.plea-  
*sunt, dry* Country ? Where then is the Harm, even in the Middle  
of Winter, upon urgent and necessary Occasions.? Are not the  
Waters considerably warmer ? Does not their Efficacy, chiefly  
depend upon their Warmth, and what causes it ? And, the  
warmer they, are, are not they the more efficacious and  
successful ? Nor is the Bloed so apt to be rarefied, seeing the  
Ain contain'd in it must be *in mquilibrio* with the external Air.  
This is not Speculation; I mention it from Experience, having  
Order'd Patients there in *March* in great Frost and Snow, and  
never Observ’d hetter Suhcess than the Water had upon them  
all. ‘ . Ἀ .. . \ .. ..

AS to the Method *of* using the Waters, except the Body be  
Costive, and the first Paflages furred up with gross Humours, I  
declare myself a profess'd Enemy to whet is call'd preparing the  
Body for them, by strong Purging, which often causes Pain in  
the Bowels, Windiness, Looseness, and Dejection os the Ap-  
petite, the chief thing to be regarded, and kept up, in a Coruse  
os Mineral Waters, especially of the warm Kind. There-  
fore I content myself with simple plain Laxatives, which unload  
the Intestines without Sickness, Pain, Confinement; or Prostra-  
tion of Strength or Appetite, as Lenitive Electuary, Rhubarb,  
Manna, and Cream of Tartar \* Or, if the Stomach is loaded  
with Phlegm, pall'd and relax'd, to prevent this being sent  
down, and carry'd into, the Body with the Water, and there  
doing a great dim of Mischief, I would give a gentle Vomit, as  
of the Infusion of Ipecacuanha, or that in Substance to strong  
Bodies, and neither order Drinking nor Bathing for thirty  
Hours after at least. Young People, full of Blood, or who  
have a meagre and quick Pulse, I would order to he blooded  
before they begin. Such as are liable to the Gout should neither  
he blooded nor Vomited, except there were strong Indications  
to the contrary; but let them have *Tonctura Sacra,* or *Elixir  
Salutis,* for a Purge. When they begin to drink the Waters, a  
Pint hesore Breakfast, and as much after, is sufficient for the  
first two or three Days; then half a Pint more sor the two Days  
following, and, at most, three Pints in a Forenoon ; for this  
Water, not being an Evacuant, hut an Alterative, must not  
be thrown into the Body in large Quantities, whereby a great  
deal more Hurt may be done than the Good we expect. At  
best, we thereby turn *it* to an Evacuant by Urine, or receive  
certain Mischief AS to Diet, if it be seasonable, healthy,  
and temperate before, I. would have no great Change to be  
made in it, from what was the Person's ordinary way os Life ;  
only, as the Water heats and rarefies, beware of Pepper, Mus-  
tard, Onions, Shallots, Horse-radish, and, all aromatic and  
hot Seasoning, and osall inflaming Liquors ; Claret, or White-  
wine, arid Water, sor Drink, are hast ; and, when the Design is  
to relax, I would allow Fish, but no salt Meats, especially those  
dry'd in the Smoak, nor salt Fish, Goose, nor Duck.. Take  
Breakfast; hetween Eight and Nine o'Clock in the Morning,  
Dinner at one, and Supper as Seven ; let the Supper be light,  
and easy of Digestion. Go to Bed at Ten, rise at Five or Six in  
the Morning. Go into the Bath, continue there from seven  
Minutes to half an Hour, according to the Strength and Cose  
Of the Patient. When you come out, if you go not to Bed to  
sweat, (which is seldom uS'd) dry the Body well, and dress  
presently; and, is the Weather is cold, go to a warm Room,  
use geptie Exercise, walking about, arid drink your Water.  
Beware os ungovernable Passions, Moroseness, sitting up late.  
Revelling, and unseasonable Hours ; shun Violent Exercise and  
Intemperarice; be chearsul. Is the Body is costive, drink Ta-  
marshd-broth, or take, a Clyster. Is the Stomach is weak,  
raw, and belching, take a little bitter, aromatic Wine hesore  
you begin your Water-drinking ; and, when you have drank  
ten or twelve Days, intermit sor four or five Days. Let me  
add, once for all, that, as this Water is of such a Nature aS I  
have mention'd, so it is not to be trifled with; for, if it be. un-  
necessarily us'd, it will certainly do harm.

But it may, with Justice, be objected, if these Waters are  
had for nothing, they are good for.nothing. Weshall, therefore,  
give not only their Advantages, but Disadvantages. Their Use,  
therefore- is unsafe and unadviseable, where there is too great an

Impulse of the Fluids into the lateral Veffeis ; as they relax the  
latter, and make more way for the former, and rarefy them :  
Nor are they to he meddled with in Tumors from an Impulse of  
the Fluids, with a Dilatability. of the Solids heyond all Re-  
covery os their natural Tone, and in Swellings from an Extra-  
vasation of Blood, Serum, or Lymph, into any of the Cavities  
Of the Body, or Interstices of the Muscles or Membranes ; nor  
are they safe in a .natural Fuiness of Juices, and a Disposition  
of the Body to generate Blood too quickly; nor are they ad-  
- viseable in any inward Inflammations, as of the Stomach, Liver,

Lungs, Kidneys, or Pleura; nor ought they to be drank in  
large outward inflammations of the Glands, fince they heth in-  
crease the Motion and Quantity of the Blood, and dispose it to  
run more impetuoufly upon those Parts, whose Spring and Re-  
sistance is impaired or lost; nor is it to he liberally us’d in out-  
ward Impostumes. They are of no Effect in those Tumors  
call'd Meliceris, Steatoma, Atheroma, and Talpa. They are  
also mischievous in Consumptions attended with a rapid Motion  
os the Blood, and weak pulmonary Veffeis, and in too copious  
Perspiration. Os, in a Word, where-ever strengthening and  
bracing up the Solids, and thickening and cooling the Fluids, are  
indicated, these Waters must be refrain'd from. Or where **the**animal Secretions are to be lessen’d.

Hence observe the following Mistakes in the Use of these  
Waters: First, Does their chief Efficacy depend on their volatile  
Parts, which only consist of a Steam or Vapour; and are they  
hetter adapted to Diseases of the smaller than of the' larger Ves-  
sels ? Then it is an Error to imagine, that all the Bufiness is  
done by drinking large Quantities of them, and so turning them  
to evacuants, at least powerful Diuretics ; whereby they are  
hurry'd out of. the Body before they heve done their Work,  
which lies in much smaller Vessels, and requires longer Reten-  
tion. Secondly, IS Evacuation inconsistent with all the inten-  
tions os the Waters ? Then how imprudent are those who use  
evacuant Medicines along with the Waters, whether Purga-  
tives or Diuretics, which expeditioufly carry *off* the Waters,  
and, together with them, the thinner Parts of the’Blood, out of  
the larger Veffeis, and the Lymph, which is pour'd into the  
chylopoetic Organs for diluting the Chyle I But allow they  
should drink so much more Water in proportion to the Increase  
os the Drains : In this mending the Matter, and not making  
it worse ? For hereby there is a greater Pressure and Quantity of  
-Water laid upon the Intestines, or Organs destin'd for. the Se-  
cretion of the Urine, the Fluids in these Glands thinn'd, and  
their excretory Ducts widen'd and laid more open, and all  
every way fitted for a larger and freer Vent of the more serous  
Parts os the Blood, which should dilute: the grosser in the smallest  
Vessels. Hence Obstructions are more riveted there, or at  
least not removed, . ἐν ’ ...

Thirdly, Does the Water heat and rarefy the Blood.?-It it  
then rational to send young Persons thither, especially in the  
Heat of Summer, whose Blood is capable of Rarefaction, .when  
the Warmth of the Water, by the Presence -os its mineral  
Principle, join'd to the Heat of the Blood, and the het Season,  
has relax'd the Solids, and widen'd the Vessels, and the Blood is  
in its greatest natural Rarefaction? One would think this Cau-  
tion needless, to fuch especially as consider the fatal Conse-  
quences of a Very rarefied State of the Air, by Lightning, to  
animal Bedies ; for the Atmosphere heing suddenly raresy'd by  
the Flash, the sudden Expansion of the Air in the Blood, to a  
-Balance with this Atmosphere,, quickly bursts the Vessels,  
mingles Solids and Fluids together, asina Mortification ; and  
the hardest Parts, which give the' greatest Resistance to this Vio-  
lent expansion, are burst into a thousand Pieces, the Spring of  
' .the Air being so much superior to the Cohefion-os the Parch.

Fourthly, Does the Water rarefy the Blood ? Them how in-  
.consistent is violent Exercise with, their Use, as Dancing and  
Revelling to unseasonable Hours, strong Bowling in'the Heat  
of the Day, galloping on Horseback, instead of and easy Trot,  
or an ambling Pace l These Violent Exercises heat, the Blond  
too much, and are often of bad Consequences. Fifthly, Is **the**Design of this Water Relaxation and Dilution ?- Then hew do  
such promote these Ends, who. deal all: the while in Dramas  
Spirits, and.Punch, all which contract andsurivel up the Solids,  
at.the first two Very remarkably coagulate the Fluids f Sixthly,  
Do the Waters rarefy the Blood,: and.increase its Bulk-and Mo-  
tion ? And is it safe and ad viseable for-those whohave a natural  
Fuiness or Superfluity of the Juices, or for such as heve natu-  
rally a quick Pulse, large Secretions, thin Bodies, and weak  
Vessels ? For once more give me Leave to say, that these  
Waters are not to be trifled with ; fince, if their Use is not  
wanted, and does no Good, they certainly do Mischief; and  
whoever says the contrary. Votes these Waters good for littie or  
" nothing; and, if he understands the Waters rightly, may as  
'well advise the *Peruvian* Bark in continual Fevers, or during  
the Fit of Intermittents, or Steel Medicines in a Plethora, or  
Sugar os'Lead in a Dropsy or Palsy, or Camphine in the De-  
clination of a hot Fever, which has parched up and dried the  
Body, and almost worn out the Spring of the Vessels. But,  
seventhly. Are these Waters warm, and impregnated with a

very volatile penetrating Part, wherein lies their chiefest Essi-.  
cacy ? And is this Principle gone when they are cold .? Then  
they must he drank warm at the Spring to answer any End ;  
sor, when they are cold, they only serve instead os common  
Water, heing purer and hetter than that. Eighthly, is the  
Nature of these Waters relaxing and attenuating? Then special-  
Care must be taken, that a suitable Diet, heth in Meat and Drink,  
he observ'd, and that the Patient refrain from every’ thing that  
is opposite to their Use, and gave Birth to his Distemper, tho'  
never so much his Favourite, and seemingly opposite to Nature.  
Ninthly, Is the chief Design of these Waters Relaxation and  
Dilution? Then are they improper in Obstructions from a Sizi-  
ness os the Juices, and a Relaxation os the Vessels, as in Ca-  
ehexies and Dropsies. Tenthly, But, say some prejudic'd Per-  
sons, is you can find out the Nature os this Mineral Spirit, in  
which you. assert the Efficacy os these Waters to consist, why  
may they not he imitated, and so People sav'd much Labour,  
and Loss os Time, and Expences? Answer. First, Imitate it  
with what ? Whether with fix'd or volatile Bodies ? Where  
will you furnish me with Matter divided into, and existing in,  
such small, subtile, incoercible Particles ? Or where is the Art  
that can reduce Mineral Substances to such a volatile, fugitive.  
Mineral Spirit, a Spirit that cannot be retain'd .? A Substance os  
almost as minute Parts as those of Light and Heat ? A Steam  
fitted to pass the smallest Crannies in Nature ? But, secondly.  
So exquisite is the Mixture, and so great the Difference between  
divine and human Compositions, that the former are inimitable.  
What. Anatomist, that knows the Structure of a human Body  
the best, will undertake to make another like it ? Or what  
Chymist, that can separate the Principles of a Plant to the  
greatest Exactness, will yet have Assurance to boast os his Ca.\*  
pacity so sar, as to reunite even the same Parts again, in the  
same Form and Condition, with a vegetable Life? Even .io  
different are the'Compofitions of God and Man. Hence we  
see, that he who made these Bedies and Veffeis at first, is  
best able tojudge os their Diameters, and knows best how to  
prepare Substances suited to their Dimensions and Diseases.  
Therefore, could we pretend to mimic these Waters, yet the  
Counterfeit would he so much, inferior to the Natural, as a  
Piece, of Painting, tho' never so fine, is to the Original Life.  
*Short’s History of Mincrasi lNatcrs, .*

. BUXUS, Offic. Ger. I226. Emac. I4io» Jo IL I. 496.  
Raii Hist. 2s I693. Synop. 3. 445. Chain 38. Mer. Pin. iS.  
Merc. Bot. I. 25. PhyL Brit. I8. *Buxus arboreseens,* Co-B.  
Pin. 471. Tourn. Inst. 578. Elem. Bot. 450. Boerh. Ind. A\*  
2..Ἰ72. Rupp. Flor. Jen. 264. *Buxus arbor vulgaris.* Parks  
Theat. I428. THE BOX-TREE. *Dales*

*Box* seldom grows to he a Tree of any great Bigness; in *Eng-\*  
land’,* the Wood is hard, solid, and ponderous, of a yellow  
Colour, cover'd with a whitish Bark. The Leaves are small  
and roundish, of a firm Texture,' and a shining green Colour ;  
it is perennial, keeping always green: The Flowers are small,  
of a yellowish Colour, each composed of five Leaves. The  
Fruit is small, roundish, and tricapsular, with three Points or  
Horns on the Top. It grows wild in some Parts *as Kent* and  
*Surry,* as about ὰδοκἤιΖΖ near *Darkiag. Miller's Bot. Osse.*

; The Leaves of the *Eox* are bitter, have an ill Smell, and  
give a saint Red to blue Paper. We. obtain from the Wood a  
little acid Spirit, and a fetid Oil. *Npcrcctan* esteems this Oil  
yery much for the Epilepsy, the Vapours, and the Tooth-acb.  
Being rectified, and circulated afterwards with a third Part of  
goed Spirit os Wine, it is Very sweetening.and aperitive. They  
giyefi steen or twenty Drops of it, mix'd with Sugar or Liquo-  
rice-powder. They mht. thin Oil, unrectified, with melted But-  
tes, to anoint Cancers. \_ A Liniment is made of it, with Oil of  
Si. -Jo.im’S-wort, for the Rheumatism and Gout. *Eimullcr,*and several other Authors, maintain, that one may substitute  
thesherr In the room Of the Guaiacum, Juniper, or Sassafras,  
and the Roots of Bntterbut and Bennet, in the room os **the**Sarsaparilla. *MurtynsoToorneforti .*

Ϊ r *Bdegny,* in his *Zodiacus Medico-Gallious, An.* 2. telis us, that  
he knew three Persons, who, from their own Experience, had  
'sound,; that a largo Quantity of tender, Box-leaves, infused in  
Aimte Quartets of. a Pint of White-wine, proved -an imalhble  
Cute for; pituitous.' and. flatulent Colics, is the strain'd Liquor  
was, dfimk warm.. *Dale,* in his *Pharmacologies,* informs us,  
that it is at present littie used in Medicine; but that, according  
some, from the Wood distil an Oise which is highly  
narcotic, and which they wonderfully extol in Epilepsies, Tooth-  
achs, and Rottenness of the Teeth. He also telis us, that *Fer-  
nelius* classes the Leaves of the *Box* among the Purgatives. In  
*Eph. N. Co D. st. a.* 2. o. I55. we are told, that a Lotion,  
prepared of a Lixivium in which the Leaves and Branches of  
Box heve heen boil’d, not only makes the Hairs grow, but also  
gives them a yellowish Colour. A Decoction of the Flowers of  
Box is by some said to be sudorific; and others inform us, that  
one Dram of them proves a Violent Purge. *Rondo Hints,* in  
*Forest. Obs. Med.* says, he by no means doubts, but that **the**Shavings of Box, in consequence of their sudorific Quality,  
**would Cure the *Lues Venerea*; but that they are not used sor**

that. Purpose, hecause they excite Head-ache, arid are os a fetid  
Smell, and disagreeable Taste. However, *Amatus Lusitanus*used a Decoction of this Wood, more than once, with wonder-  
ful Success. The same Author, *Cent.* 3. *Cur.* 36. by a Deco-  
ction of Box-woed, aster all other Medicines hed proved inef-  
fectual, in the. Space os twenty Days cured an *Hemicrania,*brought on by a Consent of the Parts. A Decoction os the  
Wood, in Red-wine, has by some heen sound to do great Ser-  
vice in Tooth-achs arising from cold Defiukions. Besides, a  
singular anodyne Quality is ascribed to the Wood, for which  
Reason many recommend Tooth-pickers made of it. The Oil  
also, distil'd from the Box-wood, is accounted excellent against  
the Tooth-ach, Fevers, Vertigoes, the Falling-sickness, find  
the Haemorrhoids, *Schulzii Prcelectiones,* and *Simon Paulliscs  
Ssuadripartitum Botanicum.* The Wood alone, subjected to  
Distillation from a Retort in a Sand-heat, yields an acid Spirit,  
and a fetid empyreumatio Oil,' just like those yielded by Guaiac-  
word; when treated in a like manner. That this acid Spinis,  
when rectified, dissolves Coral, and produces other Effects,  
which prove the Similarity of its Nature to that, of penetrating  
Acids, may be seen in *Boflests Chyrnifla Scepiicus.* If this em~  
PyreumaticOil, which is by some thought to be the *Oleum He-  
raclium* of *Rulandus,* is put into the Hollow of a carious Tooth;  
and applied immediately to the Nerves-, it removes the Tooth-  
ach, by burning them, just like Oil of Cloves, or any other  
acrid and caustic Oils. When mix'd with melted Butter, it is  
recommended to be used by way of Liniment in Cancers;. and,  
when mix’d with Oil of St. John’s Wort, it is used in the  
same Form in the Rheumatism and Gout. But if it is rectified,  
and digested for some time, with a third Part of good Spirit of  
Wine, it affords an anodyne and aperient Medicine for internal  
Uses, of which fifteen or twenty Drops may be exhibited with  
Sugar or Liquorice-powder. The Smoak of the kindled Box-  
wood seems to be justly recommended against the Plague, not  
sh much on account of its highly fetid Smell, which at once in-  
duced *Bauhine* to the Affirmative, as hecause it abounds with  
an acid Salt, which, when drawn in with the Air, resists that  
Putrefaction of the Juices, to which, during the Time of the  
Plague, they are always disposed. It is worth while to inquire  
into the Origin of the Persuasion of some, that the Virtues of  
the Box-tree may not only contribute to extinguish the Sense of  
.Venereal Pleasures, but also to banish the Devil himself. All  
fetid Substances, then, possess a Power of stimulating the  
-Nerves into Motion, removing the disorderly Sallies of the ani-  
mal Spirits, and consequently of curing those hysteric Indispo-  
sitions produced by such a Cause. Now, hypochondriac and  
hysteric Passions are generally attended with surprising spasmodic  
Motions, by ignorant People ascribed to the *Devil,* and his  
Influence on the human Body; but the Box-tree is possess'd of  
a Quality capable of removing these Disorders, and their conco-  
mitant Symptoms. Therefore, fay they, it banishes the Devil,  
whom they as salfly as foolishly suppose to he the immediate  
Author of these Symptoms.

- It is also possible, that this Persuasion of the Power of the  
Box-woed to banish the Devil may heve been owing to a Cu-  
stom of consecrating its Leaves on *Palm-sunday* in some Coun-  
tries ; where, at that Season, no other Leaves are to he found :  
Whether it is really so Or not, 'tis nevertheless certain, that,  
from this .Circumstance, -the *Dutch'* call the Box-tree *Palm-  
boom,* and its Wood *Palrnndjout.* I must not, on this Occasion,  
forget a Story told by *Levinus Lemnius* in these Words: " I am  
" acquainted, fays he, with a certain Priest in our own Coun-  
" try, who has the Misfortune of a weak Judgment, and a  
\*c whimsical Mind, who exhibited the Ashes of burnt Box-  
" wood, consecrated on *Palm-sunday,* a Ceremony used in the  
*“ Roman* Church, to a young Boy, to be drank in holy Wa-.  
" ter, performing at the same time a certain ridiculous Exor-  
" cism. All this Apparatus, as he told the By-standerS, was  
/c to remove the Fever, and dislodge the Worms with which  
" the Boy was afflicted. Soon after, indeed, the Fever was  
\*\* carried off, but the Patient unluckily died ; upon which I  
" advised my Countryman Io heware of the like Practice, for

the future; fince the Leaves of the Box-tree are possess'd of  
" a deleterious Quality, highly prejudicial to the human Con..  
" stitution, as is obvious from their rank and disagreeable  
..\*\* Smell, and their harsh and bitter Taste, so ungratesus to the

" Palate.? - ?

*Millen* enumerates seven Species of the *Buxus,* of which the

*Buxus humilis* is possess'd of the same Medicinal Virtues with  
the *Buxus arborefcens. '*

BUYO BUYO. The Name os a sort of Pepper, so call'd  
in the *Philippine Isiand. Ray* calis it *Piper Longum Mo.,  
nardi. . .*

BYNE, βυνἤ. Malt, which *Aetius* thus describes.

Barley moisten'd with Water, then suffer'd to germinate,  
and afterwards dried in a Kiln, with the Shoots upon it, is  
call'd *By nr.*

. BYRETHRUM.. An arbitrary Word coin'd by *Forestus,*to express a fort of *Cueupha,* or Cap, prepared with Cephalic  
Ingredients.

. BYRSA, βἀρσα. A Skin of Leather, frequentiy ufed to  
spread Plaisters upon. ...

BYRSODEPSICON, βυρσοδεψικὸν, from βήρσα, a Skin,  
andssssdin, to curry Leather.*, Coelius Aurelianus, Chronic. L.*4.Ὤ.3. recommends, for those Persons whom he calls *Ventri-  
culosi,* or *Cceliaci,* amongst other Applications to the middle  
Parts of the Body, Wool sprinkled with *Ruiherginartion,* which  
the *Greeks* call βυρσοδίψικὸν, meaning SUMACH, which see.

BYSAUCHEN, βυσαήχην; from βήω, to hide, and aoxitv,  
the Neck. People are properly call'd by this Names, who hide,  
as it were, their Necks, by elevating their *Scapula,* Shoulder-  
blades; But it is used, in general, to express a Person who  
labours under a morbid Stiffness of his Neck;

BYSMA. See BYzEN;

- . BYSSUS, in Botany, is the lowest Species of Moss, of  
which twelve different Sorts are mention'd in the last Edition of  
*Ray’s Synopsisy* See the Explication of Terms under the Arti-  
cle BOTANY. .-

Byssus also signifies *Pudendum Muliebre.*

Byssus, moreover, imports a fine fort of Linen; wore by  
People of Condition among the Antients ; but applied to no  
Medicinal Purposes that I know. of. Some are of Opinion,  
that our fine Cotton, imported from the *East Indies,* is the  
true *Pysins* of the Antients. . ’

ΒΥ8ΤΙΝΙ ANTIDOTUS. An Antidote frequently men-  
tioffd by *Aretaus,* of much the same Virtues, as it should seem,  
with the Mithridate.

BYTHOS, βυθὸς, Depth, Profundity. Thus it signifies  
in that Passage .of *Hippocrates (io 'lsustAeyysK.)* ἐν βυθῳ ἀτεχνίης  
εοντες\* - qui (Physicians) who are in the Depth of Ignorance of  
" the Art.'' And thus, in several Places os his Epistles, par-  
ticularly in that from *Democritus* to *Hippocrates, ascci quiazoc  
atiigdurra,* or concerning the Nature os Man. (Βρογήχος) ἐιςβυθὸν  
- κοιλίας τροφῆν πραπέμπει. " (The CEsophagus) conveys the

Aliment to the DepthOr Bottom Of the Stomach."

. BYZEN, β’ήζην, *iDGalersts Exegesis,* is expounded ἀθρῥας ἤ  
πυκνῶς, " in a Heap, in a Croud, or Throng.'' The'Word  
is used by *Hipstocrates, Lib. i.* περὶγυναικ. speaking of the  
Catamenia, χορεοντα βύςην, " stowing in abundance," or, as it  
were, thronging for Passage. Again, *(Lib.* περὶ φήσ. παιδἰου)  
αιμα βύζην άπίον κατὰ μῆνα εκαστον, " stowing abundantly  
." every Month for βήζην, in *Hes.ychius,* is expounded also  
by ικανῶς, and δαψιλῶς, " abundantly, plentifully.'' The.  
Word βήζην is derived from the Verb βήζω, orsidin, which is, to  
fill by stuffing, to condense. Thus, *(Lib.* I. περὶ γυναικί  
ἐιμα καθαρίν καὶ βεβυσμένον, is a clean Garment of a dense or  
close Contexture ; to which are there opposed τὰ ἔιρια ἀραῖα  
τε καὶ μαλθαμα " thin and soft Woollen Cloaths." And in  
the same Book, είμα πλῆρες ἐὸν καὶ .βεβυσμένον, is a full well-  
stuffed Garment.

. . From Beheralso, or βυῶ, which signifies to stop up, to oh-  
struct, fill up, stuff, constipate, comes the Word βήσμα,  
*Pysina,* in the Expression βήσματα dini ελαιηρῶν κεραμίων,  
" the Covers or Stopples of Oil-Vessels." These *Byfoeata*are order’d to be mix'd with the Sordes, or Filth,, collected  
from Fullers Shops, in order to make a Suffhmigation in a par-  
ticular fort of Haemorrhage mention’d. *Lib.* 2. περὶ γυνικικ.  
Some take the *Bysina* to he the fame with the *Amurca,* which is  
recommended by *Diofcorides, Lib.* I. *Cap.* I35. as useful in an  
Infusion for Exulcerations of the Anus, Pudenda, and Uterus.  
**The** *Byfmata,* hefore quoted, are probably such things as, by  
Intrusion, stop, fill, or close up Oil-Veflels, as appears from  
those Expressions of *Hippocrates, {Lib.* περὶ ξυνικυήσιος) ιάμάβἀκ  
σας τὸν δάκτιιλον, " thrusting in the Finger,'' and διαβύσας ἐς τὸ  
στομα, " intruding it into the Mouth.''

C in the Chymical Alphahet, signifies Salhepefre. 1

ος CAA-APIA. 1 . I

' Some People having imagined, that our grey Ipeca- I

cuanha was the same with the *Caa-apia* of *Pise,* Mr. *Geoffroy,*as the most natural way of deciding the Question, and re-  
moving the Doubt, compares these two Roots with the Descri-  
ptions Authors have given of them.

The *Caa-apia Pisonis, Histor. Brasilians. Cda-api Brasi-  
liensibus dicta, G. Marcgravii,* is a small low Plant, with a  
Root about a Finger's Breadth or two long, as thick as a Swan’s  
Quill, and sometimes as large as one's little Finger. This Root  
is knotty, and has its Sides, and its Extremity, furnish'd with  
Filaments three or four Fingers Breadths in Length. It is of a  
yellowish-grey Colour externally, but white internally. It is  
insipid when first put into the Mouth, but afterwards discovers  
a Taste somewhat acrid and pungent.

From this Root arise three or four Stalks or Pedicles, which  
are stender, round, and three or four Finger-breadths in Length.  
Each of these Pedicles bears a Leaf, about a Finger-breadth in  
Broadness, and three or sour Finger-breadths in Length. This  
Leaf is of a shining-green Colour on the superior, but a little  
whitish on the inferior Side. It is furnish'd with a Nerve  
throughout its whole Length, and intersected with small rising  
Veins on its inferior Side . - \_ . '

. The Flower has a Pedicle peculiar to itself, and is round,  
' radiated, and resembling thet of the Bellis. It is composed of  
several Stamina, and bears round Seeds smaller than those of  
Mustard. - .

The Root of this Plant is possess’d almost of the same Virtues  
with the Ipecacuanha, which has induced some to call it by that  
Name, thss without any Ground, as *Pise* himself informs us in  
these Words: " It is, says he, of the same Worth and Essica-  
" cy with the *Pecacuanha,* for which Reason it is by fome  
" falfly call'd *PecacuanhaP* It stops Fluxes, and is as good an  
Emetic as Ipecacuanha, tho' not so strong; for which Reason  
It may be exhibited in larger Doses. The Dose is from half a  
Dram to one Dram, in Powder, in Wine, Broth, or any other  
proper Liquor. - - - - -

The *Brasilians* bruise the whole Plant, express its Juice, and  
eat it. This Juice they also use with Success in the Cure of  
Wounds, made by poison'd Darts, and the Bites of Serpents.  
Their Method of applying it is to pour it into the Wounds.

*Pise* adds, that there is another Species of the *Caa-apia,*very like this, excepting that its Leaves are somewhat denticu-  
lated about their Edges, and villous aS well aS the Stalks.

From this Description of the *Caa-apia,* from the Descrip-  
tions of the white and brown Ipecacuanhas, which *Pise* and  
*Mark-grave* gives us in their natural History of *Brasil,* and from  
the express Observation of *Pise,* that some call’d the *Caa-apia*Ipecacuanha, it is obvious, that *Pise* did not intend to describe  
the *Caa-apia* under the Name os Ipecacuanha. It is much  
more probable, that what he calis white Ipecacuanha is a Species  
resembling the grey Kind brought by the *Spaniards* from *Peru,*under the Name os *Bexugurilli* ; and that the Ipecacuanha Fusca  
is that Species os brown Ipecacuanha which is at present so  
common, and comes from *Brasil* by the Way os *Portugal.  
Memoir, de scAcad. R. des Sciences,* ss.1700.

CAA-ATAYA *Brasiliensibus,* Marggs. *Euphrasia affinis,  
Br asili ensis siliquosu.*

From a stender white Root it shoots up a square Stalk a Foot -  
in-Height, of a pale Green, stender, geniculated, partiy erect,  
and partiy incumbent on the Ground, and taking Root where  
it touches it at the Joints. At every Joint grow two small  
Leaves, opposite to one .another, of the .Size and Shape of  
those of the *Nummularia,* (Moneywort) or rather os German-  
der, or Male Speedwel, os a pale Green, and serrated at the  
Edges. At every Pair os Leaves comes forth a very small white  
Flower, in a manner galeated, which is succeeded by a Pod, of  
the Size and Figure of the Grain of Oats,- which, opening  
spontaneoufly, sheds a Very small round Seed, of a dark-yellow  
Colour, and less than the Seed of the smallest Poppy. The  
Plant has no Smell, but a bitter Taste.

The Plant bntised, and boil'd in Water, and the Decoction  
drank, purges much, both upwards and downwards.

In its opposite serrated Leaves, its galeated Flowers, and its  
Seed inclosed in Vefiels, it agrees with the *Euphrasia,* whither  
it might have been reserv'd. *Raii Hist. Plant.*

CAACHIRA. See ANIL.

CAACICA *Brajilianie, Herba Colubrina Lusitanis,* Marg-  
' grave.

From a small Root, and full os Filaments, it sends forth  
numerous Stalks, near to one another half a Foot, and some..

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times a Foot in Length, of a reddish Green, a littie hairy, t  
geniculated at intervals, of a Pingeris Breadth, and having at  
each Joint two Leaves finely serrated, much of the Size and  
Shape of those of the *Veronica,* .(Male Speedwel) somewhat  
hairy, green above, and whitish underneath. At the Joints  
hetween the Leaves proceed Multitudes of little Flowers, of 2  
green Colour, mix’d with, a very littie Red, and disposed in the  
Form of an Umhella. The whole Plant is full of a milky  
Juice.

The Herb bruised, and applied, is a most effectual Remedy  
against the Bites of Serpents ; and is good also sor otherWounds.'  
*Raii Hast.*

CAACO; A Sort of aeschynomenous Plant, which grows  
*in Brasil,* of which Mr. *Ray* mentions two. The first is the

*Caaco Brasiliensibus, Herba Viva vulgo,* Marggrav. *AEsehyno-  
mene fpinos.a* 2. *feu foliolis Acacia latioribus, siliquis longis hir.,  
futis,* Breyn. *An Mimos.a spinos.a Fcrnambucensis,* Zanoni.  
THE SENSITIVE PLANT.

The second is the .

*Caaco feu Herba Viva tertia fpocies,* Margg. *AE.schynomene  
fpinos.a tertia, sive foliolis Acacia angustioribus, siliquis parvis  
echinatis,* Breynli.

I find no Virtues attributed to either of them.

CAAETIMAY *Brasiliensibus,* Marcgr. *Senecio Brasi lien..  
sis,stolio angusto ferrato.*

It grows to the Height of three Feet, with a green Stalk,  
full of a medullary Substance, and, at Its first springing up,  
surrounded with numerous Leaves, four or five Fingers Breadth  
in Length, - narrow, jagged at the Edges, somewhat hairy, as is  
also the Stalk, and a littie hoary, with a soft Down. The up-  
per Part of the Stalk spreads itself into four, five, six, or seven  
Branches, cover’d with small Leaves, like those of Hyffop.  
The small Branches bear Multitudes of Flowers, like those of  
Groundsel, and ending in Down, winch is blown away with  
the Wind. 3

- The Leaves of this Plant have a hot and acrimonious Taste .  
and heing boiled, or bruised, and the Part rubb’d or wash'd with  
the same, cure the Itch, where-ever it breaks forth. *Raii Hist.  
Plant. . \_ J*' CAAGHIYIJYO *Brasiliensibus,* Marcgr. Pisi *Frutex bac-  
cifer Brasiliensis, fructu racematim congesto Myrtilli.*

It is an Under-shrub, of the Bigness of the Raspbeny-bush.  
The Stalk is quite woody and hairy; the Leaves grow in Pairs,  
and always opposite, are hairy, soft to the Touch,ssightly ser-.  
rated, distinguish’d thy three eminent Fibres running lengthwise^  
and interwoven with many small Veins, winch run across, are  
greener above than underneath, and are also set with Tubercles  
over the whole upper Surface, but underneath are full of littie  
Pits ; every Tubercle has a whitish Hair. It bears two, three,  
four, or five white pentapetalous Flowers, which cluster toge-  
ther, and, falling off, are succeeded by black Berries of the  
Bigness os Juniper-berries, of a sweet Taste, winch are eaten  
by the Negroes, and yield a Juice much like Myrtie-berries. It  
grows in several Parts of *Brasil.*

The Leaves pulverized, and sprinkled upon Ulcers proceed-  
ing from a hot Cause, are an excellent Cure for them. *Raii  
Hist. Plant.*

CAAGUA-CUBA *Brasiliensibus,* MarcgraV. *Arbor baccsu  
sera Brasiliensis, floribus umbellatis tiliee.*

- . It is a small Tree, with an upright Trunk, not thick, but  
.without Branches, and having its Top cover'd with numerous  
large Leaves, a Foot and half in Length, and above a Foot in  
Breadth ; and conspicuous for Fibres, which are soft to the  
Touch,, and hairy, and greener above than underneath. It  
bears small Flowers, disposed in the Form of an Umbella, re-  
fumbling the Flowers of the Lime-tree, white, pentapetalous,  
with a yellow *Umbilicus* in the Middle, and smelling also., like  
the Flowers of the Lime-tree. The Bark of the Tree is of an  
Ash Colour, and the Wood brittie: The Fruit is black when  
ripe, and is eaten by the Birds.

I have met with no physical Virtues ascribed to this Tree.  
*Raii Hist. Plant.*

CAA-OPIA, MarcgraV. Pifon. Pao de Lacra. *Lusitanis. .  
Arbuscula gurnrtis.era Brasiliensis, fructu cerasi magnitudine  
gummi. Gutta Jornou, simili.*

It is a Tree of no great Bigness, with a Bark of an Ash Co-  
lour, inclining to Red, with brown Strhe, of a tough kind of  
Wood, and spreading itself into many Branches. The Leaves  
are solid, of a Green, incfining to reddish in the under Part,  
and of a paler shining Green above. The Flowers, which form  
an Umhella, take their Beginning from brown Globales of the  
Size of Lentils, which, in Process of Time, protrude Flowers

composed of sive Petals, of a Green inclining to yellow, cover’d  
On the Inside with a white woolly Substance, and well stock'd  
with fine yellow Stamina. The Flowers are succeeded by Ber-  
ries, which are fust green; of the Size of a Cherry, round,  
cover'd with a soft Shell, out os winch, heing cut, they'dis-  
charge, by Exhalation, a liquid Substance of an elegant yellow  
Colour\* Within the Bark it contains a white Pulp, composed  
merely of cylindrical Bodies, placed near, and adhering to one  
another. At the Extremity of the fructiferous Branches there  
are always two acuminated brown Leaves, which are com-  
pacted, and, as it were, half glued together, in fuch a manner  
as to represent the Figure of a Spear or Hunting-pole, and,  
heing Cropt from their Pedicle, emit a Saffron-coloured  
Juice. .

It generally flowers in *November* and *Decembcr,* and the  
Fruit is ripe in *Jonuary* and *February.*

- If an Incision be made in the Bark of this Tree, especially  
when it begins to blossom, and let alone for a Day or two, it  
will discharge a Tear of a Saffron-colour, inclining to Red,  
which coagulates at first into a soft Mass, which hardens by  
Degrees. It agrees in Colour and Consistence with the *Gutta  
Gamba,* and dissolves and purges in the same manner j it is a  
littie redder, almost of a Saffron-colour, and gives a Tincture  
of a littie deeper Gold-colour. It is diflolved in Spirit of Wine,  
and gives it a Saffron-colour'd Tincture.

Formerly they cured the *Impetigo* by rubbing the Part with  
this Refin, dissolved in Water. Tho' it be not so effectual as  
*Gutta Gamba,* which *Pise* knows not whether to impute to its  
natural Want of Virtue, or to the Way of preparing it, yet  
- from half a Dram to a Dram of it, macerated a whole Night  
in Vinegar of Squills, or Spirit of Wine, and given in Wine,  
is a strong Purge. It is better taken in Pilis than in a liquid  
Form, because it is very difficult to he dissolved, on account of  
its Tenacity. *Raii Hist. Plant.*

CAAPEEA. A Name for the PAREiRA BRAVA, which  
see.

. - CAAPOMONGA. The Name of a Plant which grows  
*in Brasil.* Mr. *Ray* calls it *Caapomonga Brasiliensibus dicta,  
Lusitanis Erva de Vina,* Marggr. *Campanula Brasiliana, floribus  
'minimis.*

. I find no medicinal Virtues attributed to it.

CAAPONGA. The *Brasilian* Name for a fort of Sam-  
phire, call'd also *Trifolii Spica Crithmurn maritimum non spino-  
sum Brasiliense,* Pison. *Perexyl Lusitanis,* Marcgrav.

. The Leaves and young Stalks of this Plant are boil'd, and  
pickled with Vinegar, and eat with Flesh or Fish. They are  
said to excite an Appetite, to provoke Urine, and to open Ob-  
structions of the Viscera.

*. Pise* also mentions another *Caaeporga,* which is a sort of  
*Brasilian* Purflane, which is used, like Samphire, sor a Pickle.

- CAAPO-TIRAGUA *Braftlianis,* Marcgr. *Rukia Bra..  
siliensis, floribus verticillatis albis.*

*. Ray* informs us, that this Plant agrees with the Rubea in  
forne respects, but is not a true and genuine Species of *Rubia.*

CAAROBA, *Pison.* A Tree Very common in *Brasil.*

. It is found, in the greatest Perfection, in the richer Soils  
aheut *Parnamhuc*; but where it grows in less fertile Ground, it  
scarce exceeds a small Shrub in Bulk. Its Flower, which it  
fends forth in the Month of *fane,* is of an aaure-blue Colour,  
with a purple Cast. Its Seeds, winch are ripe in the Month of  
*September,* are of a blackish Colour. Its Pod, tho’ rare, is yet  
of no Use. It resembles the largest Species of the Kidney-  
bean, and, when ripe, it opens, and remains empty.

Its Leaves are oblong, shaped like a Tongue, and os a faint-  
green Colour:. They have a Nerve running thro' all their  
. Length, with oblique prominent Ribs distributed from it.

They are of a bitter Taste; and, when dried and bruised,  
are said to be highly proper for Fomentations and Baths. The  
Medicines prepared of them, when exhibited internally, are of  
a drying, cleansing, and healing Nature; which *Pise* says, he  
has happily experienced in the Cure of many chronical and  
arthritic Disorders, but more particularly in thet of the *Lues  
Venerea.* The Leaves, when triturated, form'd into a Plaister,  
and applied to Ulcers, are of singular, Service, and often remove  
them entirely; especially if, aster due Purgation, a Decoction  
of them is drank sor some Days, and a Diaphoresis promoted.  
Os the Flowers a Conserve is also prepared for answering the  
same intention. *Ray* from *Pise.*

‘ CAB signifies Gold. *Rulandus.*

. CABALA, or CABBALA; call'd also Kabbala, Kabals,  
Cabalia, Cabalistica Ars, Cabula, and Gaballa.

This is deriv'd from a *Hebrew* Word,, which signifies *to re-  
ceive by Tradition.* It signifies a Science which consists in the  
mysterious Explication os the Scripture, either receiv’d by Tra-  
dition, communicated by Angels, or learn'd from some imagi-  
nary Import of Words or Letters. This is the *Jowijh Cabalas,*hut the Word, from this Original, has been apply'd to any  
sort of mysterious or magical Knowledge or Explication of  
Things. Thus the Medicinal or Hermetical *Cabala* is a Science  
which discovers the most conceal’d Knowledge of Bodies, and

Mysteries of Nature, either by a Communication with ineora  
poreal Beings more knowing than ourselves, or by their myshcal  
Characters, in this *Paracelsus* seems to repose a great deal of '  
Faith.

CABALATOR, or CABULATOR. Nitre. *Rulandus.*

CABALLI, CABALES. I take these to he the incorpo-  
real Beings, mention’d under the Article **CABALA.** *Rulandus*says, they, are The astral Bodies of Men, who come to an im-  
mature Death hesore their predestin'd Period, and which are  
fuppos'd to wander aheut the Earth, as incorporeal Spirits, so  
long as they were to have liv’d upon itembody'd. As these, pro-  
hably, only exist in the imaginations of the Mad orWhirnfieal,  
and aS the Doctrine which depends upon a Supposition of their  
Existence is highly extravagant, a farther Account of them  
would be superfluous.\*

CABBALLICA *Ars, RapSaKKccit,* according to the *Lacede-  
monian* Dialect, for καταβλατικῆ, from καταβάλλω, to throw  
down. This is a Term in Gymnastics, importing, amongst  
Wrestlers, the Art of foiling, or throwing down an Ad-  
Versary. *Galen, Lib. ad Thrasybulum.*

CABEBI, or CABER Scales of Iron. *Rulandus.*

. CABELIANUS. A Sort of Fish, of the Cod or Pike  
Species. *Castellus.*

' CABULATOR. See **CABALATOR.**

CABUREIBA PISON. This Mr. *Rap* thinks the Tree  
which affords the Balsam of *Peru.*

CACAGOGA, Χεζανάγκα, Ointments, which, apply'd  
to the Fundament, procure Stools. *Paulus Algineta, Lib.* 7.  
*C.* 9. directs to take Alum, mix.it with Honey, and boil till  
they acquire a tawny Colour. . With this, says he, anoint the  
Fundament ; it procures a great many Stools, but not without  
Pain. ‘

CACALIA, Offic. κακαλία, Diosi *Cacalia quibufdam,*J. Β. 3. 569. *Cacalia incano folio.* Ger. Emac. 8i5. Ran  
Hist. i. 29I. *Cacalia folio rotundo incano. Park.* 1221. Ca-  
*calia foliis crassis hirsutis,* C. Β. I98. Hist. Oxon, 3. 94-  
Tourn. Inst. 452. *Cacalia sive Leontice veterum quibufdam ;  
aliis vero Tussilaginis species.* Chain 51a. STRANGE  
COLTSFOOT. *Dale. . so*

The Characters are;

It hath a flosculous Flower, Consisting of many Petals, di-  
vided into four Parts, fitting on the Embryo, and contain’d in  
an almost cylindrical Ernpalement. The Embryo afterward  
becomes a Seed, furnish'd with Down.

It grows by the Sides of Woods, and amongst Shrubs in  
shady Places.

*Cacalia,* which some call *Leontice,* has Very large white  
Leaves, from the Middle of which there shoots up a strait  
white Stalk, bearing a Flower like that of Bryony ; it grows  
on Hills.

The Root macerated in Wine, like Tragacanth, and made  
into an Eclegma, or chew'd by itself, cures Coughs, and  
Roughness os the *Aspera Arteria.* The Berries, which succeed  
the falling off of the Flowers, pulveriz'd, and made into **a**Cerate, and the Face anointed therewith, renders the Skin  
smooth, and free from Wrinkles. *Dioscorides, Lib. An -*Capi I23.

I find no other Virtues attributed to it by the Moderns.

*Miller* takes Notice of seven Species of this Plant.

CACALIANTHEMUM. A Plant originally brought from  
the *Canary Isiands,* but now common in the Gardens of **the**Curious. It has been call’d the Cabbage-tree, and Carnation-  
tree, and Dr. *Dillenius* gave it the Name of *Cacalianthemum,*because the Flower and Seeds nearly agree with the *Cacalia.  
Mellen* has added a second Species.

The Characters are;

It hath a flosculous Flower, consisting of many Florets, like  
those of Groundsel; but the Florets are cut into four Segments,  
whereas those of Groundsel are divided into stye Parts: The  
Cup of the Flower is also flenderer than that of the Groundsel.

The first of them in call'd the

*Cacalianthemum folio nerii glauco.* Host, Elfin *Cacaliartihe-  
mum* with a glaucous Oleander-leaf, commonly call'd the Cab-  
bage-tree.

*Cacalianthemum Africanum, sicoidisfolio. African Cacallan..  
themurn,* with a Ficoides-leaf.

This Sort was originally imported from the *Cape of Good  
Hope* into *Holland.*

The Leaves, when broken, emit a strong Scent, somewhat  
like Turpentine ; from whence some Persons have given it the  
Name of Balm of *Gilead,* tho' Very improperly.

It has been commonly known by the Name of *Senecio. Misu  
legis Dictionary.*

CACAMOTIC TLANOQJJILONse *feu Battata Pare.,  
gsuna,* Hernandez. The Cathartic Potato.

This grows spontaneoufly in the warmer Countries of  
*America.*

The Roots, taken in the Quantity of two Ounces going tn  
Bed, purge with great Gentleness and Safety. It is find to he  
sweet, and of a Very agreeable Taste, not interior to 0ur Pears.

**&AC ANGELI A. ζακαγγελια, and, in** *Hippoceases,*κόεκαγγελίη. This, according to the Derivation, should signify  
**a** Message conveying bad News; but, by *Hippocrates,* it is  
he'd in a different Sense, in his Treatise περί τέχνης,

" There are some, says he, who make, it their Bufiness to  
" speak ill os Sciences, without any other View than that of  
" making a Parade os their Knowledge. But, in my Opinion,  
the Tendency and Use os Knowledge is to discover things os  
" some Use, when sound out; or to perfect Discoveries al-  
" ready made to which those do not in the least contribute,  
" who endeavour to traduce the Discoveries os the Skilful he-  
" fore the Ignorant, without making the least Amendment.  
" These, instead of acquiring the Reputation they alm as,  
" only betray their own Malevolence Ἱκακαγγελήί) and Igno-  
" rance. '\*

This, amongst many other Passages, shews *Hippocrates* to  
have been a Gentleman, and an honest Man ; for Candor is one  
of the Characteristics of these, as the Malevolence here spoken of  
is that of a Scoundrel and a Villain.

I must remark, that in all the Copies I heve seen of *Hippo-  
crates,* this Word is printed καταγγελίη’ but *Galen,* in his  
Exegesis, explains κακαγγελίη by κακολογία. and most of the  
Commentators are of Opinion he has a View to this Passage.  
. CACANUM, κάκαινον. The Name of a Plant mention'd  
hy *Paulus AEgineta,* in his Catalogue of simple Medicines,  
X. 7. *C.* 3. As he ascribes the Very same Virtues to the Root,  
which *Dioscorides* attributes to the *Cacalia,* I suppose he means  
the same Plant.

CACAO, Offic. Ger. I 364. Emac. i55o. Ran Hist. 2.  
1670. Cat. Jam. I 34. Hist. 2. I5. Ind. Med. 24. Mont.  
Exot. 9. *Cacao five Cacavate,* THE PEAR-BEARING  
WHOLSOME ALMOND-TREE, Park. Theat. I642.  
*Cacao America, sive Avellana Mexicana,* J. B. 29 I. *Amygdalis  
similis Guatirnalensis,* C. B. Pin. 442. *Arbor Cacavcra,* Pis.  
Mant. A. I 97. *Cacaoja squahvitl five Arbor Cacant cacavi fera.*Hern. 79. *Cacaua seu Arbor Cacai, Nuremberg, sou Arbor  
. tacarifcra Mexiccmorum,* Jons. Dendr. I 24. *Cacaua ssuahvitl,  
sive Arbor Cacai,* Nieremb. 344. *Arbor cacarisiera. Camel.  
Syllab. Cacao Arncrica, seu Avellana Mexicana, Cacavata quo-  
rundam,* Chab. *Cacao fructus,* Calceol. Mus. 606. Worm.

19 I. *Arbor cacauifera Americana, cujus fructus folliculo inclusus  
amygdalorum spectem refert,* Pluk. Ahnag. 4O. Phytog. 268. f. 3.  
THE CACAO-TREE. *Dale.*

The Tree which bears the Chocolate-nut, grows to be pretty  
big, full of large Leaves, standing on long Foot-stalks, broad  
and round next the Stalk, growing narrower, and ending in a  
Point, among which grow large five-leaved yellow Flowers,  
follow'd by a roundish Capfula, or Pod, of the Bigness of a  
small Melon, but growing narrower at the End, which termi-  
nates ip a long sharp Papina. It is pretty tough, of a reddish-  
brown Colour, and incloses about twenty or thirty Of the Cocao-  
*nuts,* closely compacted together.

This Tree grows in several Parts of the *West-Indies, as Mar-  
iinico, farnaica,* and some others ; but the. best come from  
*Caraccao in New-Spain.*

The Nuts are of a brownish Colour on the Outside, about  
as big as an Almond, but rounder and thicker, cover'd with a  
thin Shell, under which lies the Nut, of a dark reddish-brown  
Colour,- easily crumbling into several Parts, of an oily and  
somewhat bitterish Taste. Os these, roasted, and separated  
from the Shells, is made Chocolate, so much us’d os late, and  
which is made either with, or without. Sugar; some adding  
Vanelloes, or whet else they like. *Millen\*s Bot. Off.*

The Juice, express'd from the mucilaginous Pulp contain'd  
in the Hulk os the *Cacao-nuts,* is a Substance resembling Cream,  
of a grateful Taste, and cordial Quality. It is of a detergent  
Nature, and, when us’d externally. Very proper for removing  
cutaneous Spots and Roughnesses. The Nuts themselves, in-  
eluded in the Husk or Shell, are said to be of so nutritive a  
Quality, that one Ounce os them contains more real Nourish-  
. ment than a whole Pound of Beef. But, that we may at once  
receive the greater Light, with regard to the Truth of this As-  
sertion, and be enabled to form a juster Judgment of the Medi-  
cinal Virtues of *Chocolate,* of which this *Nut* is the Basis, we  
must inquire whet Substances it yields, and *of* what Principles it  
feemS to be compos'd, when subjected to a Chymical Analysis.

Two Pounds, then, of crude Cacao yielded various Liquors,  
mix'd with an acid and acrid Salt; that is, fourteen Ounces and  
an half, and half a Dram of Oil, and half an Ounce and ten  
Grains of a lixivia! Salt. *Du Hamel Hist,* and *Hist. Ac. R. Sc.*T. 2. *p.* 26. The pinguious and oleous Part of the Cacao was,  
hy Mr. *Hornberg,* separated from the rest, in three different  
Manners: First, by Distillation, he obtain'd from one Pound  
of *Cacao* three Ounces and a Quarter of Oil, which is much  
about the fifth Part os a Pound. Secondly, from one Pound of  
the *Cacao,* made hot, and bruis'd in the ordinary Manner, he  
obtain'd, by Expression, two Ounces of Oil; and from the  
Fences, afterwards, boil'd in Water, he expressed half an  
Ounce of a like Oil; from the same Foeces, mix'd.with com-  
mon Water, and subjected to Distillation, he obtain'd two

Ounces and an half more; so that She whole Oil, obtained,  
amounted to five Ounces and an half Lastly, grinding the  
*Cacao* with a warm Stone, as when the Chocolate is prepar'd of  
it, he mix'd thirteen Ounces of this subdu'd Mass with eight  
Pounds of boiling Water, which, when cold, exhibited no  
kind of pinguious Substance on its Surface. But after this  
Matter, put into the Water, was hell'd, and inspissated to the  
Consistence of a thick PoultiS, then a pinguious Substance was  
observ'd to float on the Surface, which, being collected by littie  
and littie, till no more appear'd, became gradually so thick and  
tenacious, that it could not commodiousiy be handled with **a**Spoon, and was, at last, indurated like Tallow, but retain'd  
the Smell of the *Cacao.* Six Ounces and somewhat more of this  
Fat were taken off, and, by Distillation, the Foeces yielded an  
Ounce and three Drams more ; so that from thirteen Ounces of  
the Mass seven Ounces and three Drams of Oil and Fat were,  
by this Method, extracted. The Reason of this Difference,  
according to the Conjecture of Mr. *Homberg,* is, that **the***Cacao* brought from the *Indies,* being much dry’d, and long  
kept, loses much of that native Humour, from which Part of  
the Fat is obtain'd. For this Reason, when put into the Re-  
tort dry, in the first Analysis, by a simple Distillation, it yields  
little Oil; but, in the second Operation, the Fat being sepa-  
rated by Expression, and the Foeces being impregnated with  
warm Water, the pinguious Matter remaining in the Fences,  
and which had, by being too much dry’d, lost a Part of its  
Moisture, recovers it again, and then yields as much Oil by  
Distillation, as it had before done by Expression. In the third  
Process, after a large Quantity of Water had been added to the  
*Cacao,* reduc'd to a kind of Mass, and, aster they had boil'd  
together, on a gentie Fire, sor five or six Hours, the pinguious  
Particles heing, by this time, sufficiently impregnated with  
Moisture, united, and thus, by this Method, more than three  
times aS much Oil was extracted, as was obtain’d by the fust  
Distillation. *Hansel Hist.*

*Ray* gives us the following Analysis of *Cacao-nuts :* Eight  
Ounces, says he, of undecorticated Cacao-nuts, reduc'd to a  
Powder, and committed to the Retort, discover'd themselves  
to he of a Substance so fix'd and dissicultiy resoluble, that, by **a**moderate Fine, they yielded nothing but a small Quantity of a  
certain whitish Liquor, clear and transpurent like Water, and  
which tyas taken for Phlegm. Then, increasing the Fire to  
that Degree which is requisite sor extracting the Spirit os Vitriol,  
in the Space of seventeen Hours, there was a Spirit rais'd in tho  
Form os Exhalations, of a milky Whiteness. This Spirit, con-  
trary to the Custom os all others, subsided in Phlegm to **the**Bottom of the Receiver.. At last, upon the Application of the  
most Violent reverberating Heat, a Practice not usual in **the**Distillation of Vegetables, there ascended an Oil highly red,  
and, aS it were, of a Blood .colour, but, at the same time,  
pretty transparent. This Oil, when cold, thickens like other  
Oil, or like Butter of Wax; the Caput Mortuum weighed  
two Ounces seven Drams, the Spirit two Ounces, the Oil  
three Ounces and a half. The Spirit was not Very hot, but  
highly penetrating, neither was it ungrateful to the Smell, as  
those Spirits generally are which ure drawn from Blood or Flesh.  
The Oil is, in like manner, wonderfully pungent and pene-  
trating, before it is separated from the Volatile Salt, of which it  
contains a large Quantity ; it is also highly aromatic and cor-  
dial. The Spirit soon becomes acid, a Circumstance which  
sufficiently proves, that it contains a great deal of an acid Prin-  
ciple. From what has been said, 'tis obvious, that the *Cacao*contains a large Quantity of Oil, and this Oil is found, from.  
Experience, to be highly excellent sor some Medicinal Purposes,  
when it is neither alter'd by Distillation, nor spoilin by Express  
sion, but obtain'd pure, only by boiling in Water. For this  
Reason the *Okum e Nuclais Cacao* is one of the Oils in the  
*Pharmac.. Paris.* For obtaining this Oil, the Nuts, when  
roasted, and clear'd of their Hulks and Buds, are levigated upon  
a Stone with Fire under it,, and then boil'd in Water, till the  
Oil appears on the Surface, which, when the Water is cold,  
may be gathered from it concreted and thick like Suet, of a  
brownish Colour, which is chang'd into that of white, by  
washing it with warm Water whilst liquid. But it seems to he  
a preferable Method, by which the Oil is extracted from the  
Nuts by boiling, aster having taken off their Husks and Buds,  
and bruis'd them without roasting them. Sixteen Ounces of  
the Nuts, thus treated, yielded three Ounces and an half of a  
very beautiful Butter,. of a white Colour, with a Cast of  
green and yellow. This Butter, as to its Consistence, had  
a nearer Resemblance to Suet than to Oil ; but it had a most  
fragrant and delicious Taste. *Comm. Lit.* for the Year I737.  
From its Consistence it is call'd *Butyrum Cacao,* or Butter of  
Cacao. In *America* this native Oil, when separated and pure,  
is said to have no Smell, but a pretty grateful Taste. 'Tis also  
said, that, in Process of Time, it acquires the Consistence **of**Cheese, which may be kept for a long time without becoming  
rancid or corrupted, and which may afterwards be liquified  
with a Very gentie Heat. A certain Quantity of this Oil,  
distil'd from a Cucurbit, plac’d in the Heat of Ashes, yielded

on unctuous Liquor, which concreted as it drop’s, and seem’d  
to differ in nothing from the Butter or Oil itfelf, except in its  
being somewhat empyreumatic,' and depositing in the Bottom  
of the Receiver a few Drops of a olear Liquor, of a somewhat  
acid, and highly grateful. Taste. This Butter of Cacao, when  
not rectify’^, may not only supply the Place of the best Oil of  
Olives in Food, but ’tis alio extol’d as a highly anodyne Me-  
dicine, and proper for correcting the acrimonious Humours  
which prove uneasy to the *Afpera 'Arteria.* The Method of  
using it is, to make it up into Troches with Sugar-candy, to  
he held in the Mouth to melt gradually. Painful Haemorrhoids  
are also much reliev’d by being anointed with it, when reduc’d  
to the Form of a Liniment, with pounded Scoriie of Lead, or  
mix’d with Powder of Millepedes, Sacctiarum Saturni, Pom-  
pholyx, and a small Quantity,of Laudanum. Some, with Suc-  
cess, apply a Linen Cloth, dipp’d in the Oil, warm, to the  
Parts affeoled with arthritic Pains, applying a warm Cloth over  
It. It is also recommended as a proper Basis for the apoplectic  
Balsams; and may be substituted, if not preferr’d, to the Oil of  
Nutmegs. It is allo highly proper for anointing instruments of  
Steel or Iron, in order to preserve them from Rust. In *Ame-  
rica* the Women use it for rendering the Skin smooth and even,  
without leaving any shining uperuous Gloss behind it. But  
since, in *Europe,* it is of too firm and hard a Consistence for  
this Purpofe, it may be mix’d with Oil of Ben, or with Oll of  
sweet Almonds, express’d without Fire. Where the Butter of  
Cacao, prepar’d of unroasted Nuts, is to be us’d internally,  
’tis to be dreaded lest it prove of too bard Digestion, and bring  
on those Symptoms mentionin in *Comm. Lit.* where we have  
an Account of a Woman, who, after a *Haemoptoe,* became  
phthisical. This Patient, in the Space of seven Days and an  
half, us‘d fourteen Drams of the Butter of *Cacao,* taking  
scarce a Dram for each Dole, Morning and Evening; but,  
next Day after the Use of it, she was affiicied with Head-achs,  
and Loss of Appetite ; to which, on the ninth and tenth Days,  
were added Weaknesses, and paintings; and, upon injecting  
a Clyster, the Patient discharg’d indurated Globules, of a  
greenish Colour, form’d by the Coagulation of this Butter of  
*Cacao.*

But the Circumstance which, of all others, renders the  
Cacao-nut most celebrated, is, its being the Basis of Chocolate,  
a factitious Substance, first brought from *America,* into *Europe,*by the *Spaniarde,* about the Beginning of the last Century. It  
is a solid Mass, form’d either into round or fquare Plates, or  
made up into Cylinders of a dark-brown Colour. This Sub-  
stance is friable, and, for the most part, of a grateful arornatio  
Smell. It is sometimes dissolv’d in Watet, sometimes in Wine,  
and sometimes in Milk; at other times Sis eaten dry, or mix’d  
with other Food. It is drank either with a View to nourish,  
or regale the Stomach, to provoke to Venery,' or to answer  
some Medicinal Intention. The Effects of Chocolate on our  
Bodies, whether produc’d by its nutritive or stimulating Quality,  
ought to be determin’d from a joint Consideration of the aro-  
matic Ingredients which enter its Composition, and of the Na-  
tore of the Liquor in which it is dissolv’d for Use. Its nutri-  
tive Quality is diminish’d by the Addition of a large Quantity  
of Aromatics, since by thet means it becomes too hot. It is  
else too hot when dissolv’d in Wine, except in those remote  
Northerly Regions, where the Inhabitants are accustom’d to a  
hot Regimen. When prepar’d with Milk, it nourishes more  
than in any other Form ; but it - seems, at the same time, to  
load the Stomach too much. By the Addition of an Egg or  
two, which is the Custom with feme People, its nutritive  
Quaility is augmented. Water, therefore, seems, of all others,  
to be the best Vehicle for Chocolate, since, by its Dilution, it  
must, of course, promote the Distribution of its nutritive Prin-  
ciples. in the hotter Countries of *Europe,* it is generally pre-  
par’d with Water; and, because it is drank hot, and must, os  
courfe, relax the Tone of the Stomach, it is customary to take  
a Draught os cold Water either before or after it, with a View  
to assist the Contraction of the Stomach. The *Americans*drink Chocolate, as a Cooler, at their Feasts and Entertainments.  
Many also of the *Italians* and *Spaniards* drink it, cool’d with  
Ice or Snow. Chocolate is particularly proper for cold Con-  
stitutions, for old People, for such as have their Strength im-  
pair’d by continual Watchings, and for those whetravel in cold  
Mornings. It is also, by some, commended in Cases where  
the Digestion is weak ; but the *Cacao-nut* is of too oily and  
tenacious a Nature, to be digested by a weak Stomach. For  
which Reason *Cheyne* thinks, that the Weak and infirm should  
Dot use it, either as Food, or as a Medicine; but rather re-  
commends to them, for common Food, farinaceous Substances,  
such as Pease, Beans, Millet, Oats, Barley, Rice, Wheat,  
and other Substances of a like Nature, host’d in Water or Milk,  
but he owns, that Chocolate may produce all the salutary Ef-  
fects of a whossotne Food, in vigorous and robust Constitutions;  
in which it may allo bo us’d, as an anodyne Medicine, in Co-  
lles, and Nephritic Pains, since, by its Viscidity, it sheaths  
up and blunts the salt, acrid, and irritating Humours, that

thus, by the lively Impetus of the Viscera, they may be dis-  
charg’d thro’ proper Passages. *Cheyne’s Essesy on Hiahh.*

It is confirm’d; by the Experience of many practical Phy-  
sicians, that, in hectic, scorbutic, and catarthous Disorders,  
Atrophies, malignant Itches, and Chin-coughs, Chocolate has  
prov’d a divine and miraculous Remedy., and that, in these  
Disorders, when other Remedies have prov’d ineffectual, the  
Physician has been oblig’d to have recourse to Chocolate, as  
the last and most effectual Medicine.

According to *Meisuer,* in all Disorders arising from an  
amid Salt, whether bilious or acid, austere or muriatic. Choco-  
late may afford the miserable Patients a singular Relies. From  
this Class of Disorders we do not exclude the *Lues Venerea,* the  
Gutta Rosacia, the Gout, and wandering arthrinc Pains. " Ef.  
*J. Kenig* asserts, that a small Quantity of Chocolate, with .a  
few Aromatics in its Composition, wonderfully relieves the Hy-  
pochondriac, and corrects the Acrimony of their Juices, espe-  
cially is exhibited with the Spices Diatragacanthi frigidi; and  
the celebrated *Hioffman,* in his Consultations, asserts that Cho-  
colate, prepar’d with Water, and drank at proper Times,  
may conduce very much to the Cure *os* melancholic Disorders,  
arising from too weak and lax a State, of the Nerves, especially  
if a sew Drops of the Essence os Amber are mix’d with it;  
for he affirms, that he had, from Experience, sound it to con-  
tain a kind of Oll, highly friendly to the nervous System. But  
hecause Chocolate is frequently recommended in Weakness of  
the Stomach, we must observe, drat, according to *Meiseer,*" Chocolate is only proper in such Weaknesses of the Stomach  
“ as arise from Inanition or Deleft, either in Consequence of  
“ using such Aliments as afford little Nourishment, like those  
“ in *America,* in Consequence of the Constitution and Sto-  
“ mach being too much exhausted by fome previous Evacua-  
" tion, or in Consequence of the Aliments being too speedily  
" dissipated hy the excessive Subtllty of the Atmosphere, as  
“ generally happens in cold and mountainous Countries, where  
" the Appetite is always keen. Bus. in such Weaknesses of  
" the Stomach as arise from other Causes, Chocolate is far  
" from being proper. ” Thus we find Chocolate possessed of  
two Qualities which it derives from the *Cacao-nut*; that is, a-  
nutritive Quallty, and that by which it corrects the Acrimony  
of the Juices. Hence ’os obvious, that the learned *Stubbs suscs*in the right, when he affirm’d, that well-prepami Chocolate  
was an excellent Diet, not only for such as are scorbutic,  
afflictsd with arthritic Pains, or the Stone; .for Women in La-  
bour ; and for preventiog Convulsions, and expelling the Me-  
conium of Children., but also for hypochondriacal and chronical  
Disorders. *Philoscph. Transect.* Its alexipharmic or poison-  
resisting Quality, or rather its oleous Nature, adapted to obtund  
and sheath up the Spicuhe of Poison, is sufficiently conspicuous  
from a Case in *Eph. M. C. D.* I. *a.* 3. ο. 4o. *D.* 3. *a.* 5.  
αρρ. *p.* Io2. where, thro’ a Mistake, Arsenic was us’d instead  
of Sugar, for edulcorating roasted Cherries, and, at the same  
time, for sweetening Chocolate ; and it was observed, that  
those who drank the Chocolate were afilidled less terribly, and  
struggled longer with the Poison, than thofe who eat the Cher1ries. That Chocolate contains a large Quantity of Oil, is  
alfo plain from this Circumstance, that it does not keep long  
before it acquires a kind of Rancidity. *Caldera* is of Opinion,  
that Chocolate justly deferves a Pjace among the aperient Me-  
dicines ; and, indeed, ’tis certain, that every nutritive Sub-  
stance, whether eatable or drinkable, adds those Degrees of  
Strength to the Body which are necessary to carry on Perspira-  
tion. Besides, Chocolate must be useful for opening 0b-  
structions, on account of those Ingredients, which, being of an  
aromatic and stimulating Nature, increase the oscillatory Mo-  
tions of the Vessels, and promote the Circulation of the juices ;  
*so* that it must, of course, contribute to carry on the proper  
Secretions, and excite the various Excretions, in proportion to  
the Regimen us’d, provided the Patient is not too much  
accustom’d to drink it ., for such Substances as we are not habi-  
tuated to, only operate as Medicines on our Constitutions:

It would be too tedious to give an Account of the different  
Methods used by different Nations in preparing the Chocolate.  
*Benzo,* in his *Nov. Orb.* gives us the Recipe commonly fol-  
lowed by the *Americans. Li Fevre* gives us an Account of the  
Method used by the *Mexicans .,* and, in short, different Authors  
inform us of the various Methods used by different Nations’.  
According to *Herman,* the richer and more opulent inhabitants  
of *Spain* prepare it in the following manner:

Take of excorticated clean and roasted Cacao, fix Pounds ;  
of Cinnamon, haff a Pound; seven Vanelloes, dissolved  
in Syrup; fix or seven Cloves; Meal of/minin'Corn,  
half an Ounce; of *Spapi/k* Pepper, one Dram ; ofArnotto,  
in order to give it a reddish Colour, two Drams, .dissolved  
. in Rose-water, or Syrup of Roses , of Sugar, a sufficient

Quantity, or about three or four Pounds : Beat and mix  
all together in a Vessel placed over a gentle Fire ; flit  
them constantly, till they are intimately mix’d; reduce to

a Mass; and if you have a Mind, add a proper Quantity  
of Musts, or of the Essence of Amber. (

In *Meisucr* we have the Receipt of *Barthol. Marraden,* that  
celebrated *Spaurijh* Physician, which is as follows :

’ Take seven hundred Cacao Nuts ; of the finest white Sugar,  
half a Pound ; of Cinnamon, two Ounces ; of *Mexican*Pepper, fourteen Grains; of Cloves, half an Ounce; of  
Vanilloes, half a Scruple ; or, in their stead, two Ounces  
of Anise-seeds ; and of Arnotto, the Bulk *of* a NUt: TO'  
these some add a littie Orange-flower Water, and Ong

. Grain of Mush or Amhergrise.

. In the Memoirs of the Royal Academy of Sciences at *Pares*we arc told, that Chocolate is prepared of

A Pound os Cacao, roasted after the HuikS are taken' off,  
with an-equal Quantity of Sugar, two Drams.of Cinna-  
mon, and half a Dram of Vanilloes. -

This Composition, when subjected to Distillation, ylelded  
eight Ounces and sour Drams of Oil; and whet remained after  
Distillation yielded two Drams and eight Grains of a lixivial  
Salt. *Hamel. Hist. Peg. Sciinc. Academia.*

*Lae Fevre* prefers, the following Recipe, taken from *Lemery,*to all the other Methods of preparing Chocolate, used in  
*France.*

Take two Pounds of Cacao Nuts decorticated; roasted, and  
reduced to a Paste ; with these mix one Pound and an half  
os Powder-sugar; to these are added a Scruple and an half  
ins Vanilloes, sour Cloves, half a Dram of Cinnamon, one  
Grain os Amber, and half a Grain os Musk,..reduced to  
Powder. *Lemcrs Alim.*

At present the Pepper and *Indian* Corn are for the most part  
rejected hy the *Europeans* in making Chocolate; and in *Spain*and *Italy,* that Species, which is prepared without-the Vanilloes,  
is called *Chocolata Sanitatis,* because it is thought less hot than  
the other Rinds, in the *American* Illands belonging to the  
*French,* the Vanilloes, though there, produced in great Plenty,  
are not used in preparing Chocolate. But hecause many love  
Chocolate of a pungent Taste, some in the room os the Vanil-  
loes substitute other acrid Aromatics,. such as Pepper, Ginger,  
and others of a like Nature; The most simple of all the Me-  
thods of preparing Chocolate used in *Europe,* is directed in the  
*Pharmacap. Augustan, thus:*

Take CacaoNuts, gentiy roasted, decorticated, and.reduced  
' to a fine Powder ; let two Parts of this Powder be reduced  
to a Paste, with one Part of white Sugar, and dry'd in a  
gentie Heat.

Whoever has a mind to inform himself more stilly of the vari-  
ous Ingredients.used in preparing Chocolate, let him consult  
*Meisucr, Caldera, Du-Four,* and Pise. As for the Goodness  
of the Chocolate commonly sold, that is generally thought best  
which is intirely dissolved in the.Liquor with which it is made,  
without leaving any Sediment. Th *Spain* the Chocolate is  
thought heft which is pierc'd by Worms, who are said to he  
fond of none hut what is good. *Saaumur. sc.* ί .

It now remains, thet we say something concerning the Me-  
jhod *of* reducing Chocolate to a proper Liquor for drinking.  
The most ordinary manner os doing this is to put.heiling Wa-  
ter, or, in its stead, .Milk or Wine, in a proper Vessel; then  
the Chocolate, being cut down,. is added to the Liquor; and,  
during the boiling, the Mixture is well agitated with a denticu-  
lated or notchedPiece os Wood,; commonly called a *Mill,* 'till  
it froths; then the frothy Liquor is poured into-a Cup or. Bowl,  
and drank warm or tepid. Tt is also a Custom with many to  
eat toasted Bread or Biscuit soak’d in lit. What remains of the  
Liquor is, before it is poured into the second or third Cups, to  
he again agitated as before, till sat last the Whole, is converted  
into Froth.' Some allow the Chocolate to boil shr some time  
with the Liquor, hesore .they attempt to raise fit into a Froth.  
But 'tis to be Tear'd, that, hy this Method, it !may lose too  
much of the subtile Aromatic it contains. They who do mot  
think the Chocolate before sufficiently impregnated with Sugar,  
add of that Ingredient whatever they, have a mind.. The Pro-  
portion of-the Chocolate to the Liquor, with regard to Weight,  
ought, according to *Mundius,* and some other Authors, to-he  
as one to eight. But the Proportion is always varied, according  
as the Chocolate is wanted strong or weak.

As for the Dose or Quantity of Chocolate to he drank at a  
time, it is commonly determined by the Person who drinks it.  
*Colmenero de Ledefma,* a celebrated *Spaniard,* affirms, that be-  
tween five and six Ounces of it may he drank, without doing any  
Injury to the Constitution. And that larger Quantities’are not  
prejudicial to such as are not accustomed to it, is plain, from daily

Experience, especially in Cases where the Stomach becoming  
empty requires fresh Supplies. *‘They* who drink the gross Sub-  
stance which subsides to the Bottom, imagining it to be the most  
nutritive Part os the Chocolate, are grofly mistaken, and by  
that Practice considerably injure their Health ; since, according  
to the last quoted Author, it is only the terrestrial Part os the  
*Cacao,* which, by creating Obstructions, disposes to melan-  
cholic Disorders. The Dose or Quantity must also be const-  
derably Varied, according to the Strength or Weakness of the  
Chocolate, and according as it is made with Milk or Wine. A  
Man in perfect Health may drink as much as he has an Appetite  
for, provided he finds himself refresh'd, and his Stomach not  
overloaded by it. But he ought to remain in a State of Rest  
for half an Hour, or an Hour, after he has drank it, lest Con-  
coction and Digestion should he interrupted, or irregularly car-  
ried on. He ought also to abstain from Food for some time aster  
he has drank Chocolate, lest by a contrary Practice he should  
injure his Stomach ; for Chocolate is itself Very good Matter of  
Nourishment. For this Reason the most proper Time sor usings  
it is when the Concoction- is finish'd, whether in the Morning,  
or in the Afternoon. And since in a hot Air the Powers of  
Digestion are fainter and more languid than in a cold State of  
the Atmosphere, 'tis hence obvious, thet Chocolate ought to be  
used in smaller Quantities, and less frequently, in Summer than  
in Winter, as *Colmenero* has justly advised ; though he adds,  
" That in *Amerioagi* and eVen in *Spain,* Chocolate may be  
" drank at all times ; and that this is owing, first, to Custom J. -  
" and, fecondsy, to the excessive Heat of these Countries, by  
winch, in Conjunction with an abundant Humidity, the  
6C Pores of the Inhabitants are- open'd, and a great Dissipation  
“ of the Substance os the Body is caused ; so that Chocolate  
" may there be safely drank, not only in the Morning, but at  
*" any* Hour of the Day. Now; fince by the intense Heat the  
" natural Heat of the Body is dissipated; and since the Heat of  
" the Stomach, and other Viscera, retires to the Circum-  
or ference of the Body, the Stomach must of course he Ten-  
" dered considerably weakened ; so that the *Americans* and *Spa-  
" niards* find themselves refresh'd, and the Tone of their Sto-  
" machs restor'd, not only by Chocolate, hut also by pure  
" and unadulterated Wine." The aromatic Ingredients os  
the Chocolate recruit the languid Stomach; as also generous  
Wine, by restoring a due Degree of Contraction to the nervous  
System, and raising the Spirits to a proper Motion: But lest,  
in Consequence of a Dissipation of the aqueous Liquids, the  
parched Vesseis of the Body should receive a Heat which would  
farther inflame the Humours; to the no small Detriment of  
Health, *Caldera* advises, " That if, during an excessive Heat,  
" the Person who intends to drink Chocolate is thirsty, he  
" should a little hesore take a small Draught of cold water,  
*or lest* the Chocolate produce a fresh Degree of Thirst, and ren-  
" der it more intense than it was before. But any Liquor  
*" drank* after Chocolate generally produces the most terrible  
" Symptoms, whether it he Wine or Water. I myself saw a  
." Vertigo produc'd by this imprudent Practice in a Citizen of  
*" Seville*; the Colic in another ; and a Privation of Voice in -  
or many others." Physicians are not fully agreed, whether  
without any Prejudice to Health cold Chocolate may he used aS  
a Cooler. Ginge affirms, " That it is so excessively cold, that  
" sew can ufe it safely ; fince it excites Pains of the Stomach,  
and other Disorders, especially in Women." According to

*Caldera,* when this Liquor is cooled with Ice or Snow, it is  
.equally Virulent and dangerous with cold Poisons: For, says he,  
when a sudden Cold seizes the Organs of Respiration, it affects  
.them with such a Numbness and Torpor, that they can no  
longer perform then proper Motions , and this Motion ceasing,  
a sudden Death ensues. -Now 'tis evident, not only from Rea-  
son, shut from daily Experience, that the same fatal Conse. s.quences must be produced, when at. intense and preternatural

. -Cold has seiz'd the Stomach, the Liver, the Uterus, and the  
extremeOrifices os she Veins; because such a Cold, by ohis

» structing these Orifices, puts a Stop :to the Circulation- of the\*  
: Blood, .which in this Case is so Coagulated in the Extremities of  
» she Veins, that the Functions of Lise cease. Syncopes ensue,.

iand rhe Patient dies suddenly, without any apparent Cause.  
To such as object, that .all who dally drink Chocolate thus  
.cool'd -do not die suddenly, *Caldera* makes this Reply, That  
neither do ail who are seiz'd with a Plague die of it ; hecause,  
though -the *Pomes* Os this Disease jo an Agent of wonderful  
-Force and Efficacy, yet it only operates on Subjects properly  
.disposed sor yielding to its Virulence; so that every one ought  
Io take cure of himself, and become cautious, by an Observa..  
aion os the Fates of others. *Colmenero,* according to *Meisucr,*as of Opinion, thatChocolate drank in the Dog-days by People  
osthot Constitutions, and fuch aS are afflicted with a Weakness  
and Debility of the Stomach, is most conducive to Health,  
when made with Endive-water. But since in Distillation what  
riles in the Alembic from the Endive does not partake os its  
Iaponaceous Qualities, .and since that Plant is found to contain  
no aromatic and Volatile Parts, I see no Reason why Endive-  
water should be more proper sor this Purpose than pure com-

.mon Water, or distil'd Water. Corroborating and stomachic  
Virtues are in vain sought for in Endive-water ; bur these may  
much more probably be found in a little Wine added to the  
Chocolate,, if no Circumstances concur to contraindicate such a  
Practice. When Chocolate is prescribed as a Medidne, the  
Physician must determine the Quantity, and six the proper Sea-  
sons os Exhibition. Such aS **are** become weak; in Consequence  
of Inanition, may judge of the Quantity from the Sense of Reh  
freshment they seel; but at the same time they ought to use it  
more sparingly than those who are vigorous and robust.

Having thus considered Chocolate as a Drink, we now home  
to view it in another Light; that is, when used in preparing  
Victuals. Many, then, add powder'd Chocolate to certain  
Foods; as an Aromatic, for the sake of a inore grateful Smell;  
and delicious Taste. They also mix it with Broths, and other  
Dishes, But 'tis obvious, that the more of it is used for these  
Purposes, the Food becomes not only inore fragrant to the  
Small, and grateful to the Taste, but also more nutritive.  
Others, especially on a Journey, in the Morning, eat Choco-  
late dry, without any foreign Mixture; this supplies the Place  
of an aromatic Confection, and defends them from the Injuries  
of the cold and damp Air; fince, by stimulating the Juices into  
4 somewhat brisker Motion, it in some measure prevents those  
unlucky Consequences which are generally produced by an ob-  
structed Perspiration. Besides, as Travellers are sometimes  
reduced toStmights for want of Fond, this Defect may,. in some  
measure, be fupply'd by Chocolate; of which are also made  
Sweetmeats, and other Delicacies, Very gratesol to the Taste,  
whose Virtues may he judg'd of from what has already been  
said of Chocolate, and a Consideration of the other Substances  
winch enter their Compositions. The *Royal Chocolate,* for  
Instance, prepar'd sor *Uladisiaus* the Fourth, King of *Poland,*and preserved among the *Arcana CAosseliana,* is made thus:

Take four Ounces of *Indian* Chocolate, reduc'd to a Powder,  
and pass'd through a Sierce ; of powder'd *Canary* Sugar,  
One Pound ; twelve sweet Almonds decorticated, and well  
heat in a Marble Mortar: Let thefe be sufficiently mix'd,  
incorporated with Whites of Eggs, and by a long Agita-  
tion converted into Foam ; then add between half a Drain  
and a Dram of Ambergrise, triturated with *Canary* Sugar ;  
and of Mush dissolved in Sugar of Roses, half a Scruple.  
Reduce the Whole into a Mass, of which form small  
Cakes an Inch square, to be laid upon Paper, and dry'd  
Over a small Iron Furnace.

The Rob of Chocolate, prepared with Saffron and Oil of  
Almonds, is by *Bruckman* recommended as a Specific in  
Coughs. The *Confectio Pacifica de Succolata Inda,* in *Myn -  
sicht,* is an Electuary, which, besides Chocolate, consists of a  
great Number of Aromatics, and other stimulating and nutri-  
tive Ingredients. It is recommended as a Secret of wonderful  
Efficacy in the Cure of Venereal Impotence, if, after proper  
Evacuations, a Piece of the Bulk of a Chesiiut is daily used.

I must here also observe, that 'tis customary for some to mix  
purgative, antifebrile, and other Medicines, with Chocolate,  
in order to render them more grateful and agreeable to the Pa-  
tient ; but whether, and in what Cases, it is a proper Vehicle  
for other Medicines, must be judg'd from what has already heen  
said concerning it.

From what has been advanc'd, we must he guided in our  
Judgment, whether Chocolate is proper for all those to whose  
Palates it is agreeable. When moderately used, it seems to con-  
tribute to the Health of those who are in no Danger of having  
their Juices stimulated into too brisk a Motion, or their Con-  
stitutions overheated by the Use of Aromatics ; as also of those  
whose Stomachs are able to concoct and subdue the pinguious  
and tenacious Substance of the Cacao Nut. Hence 'tis obvious,  
thet those People must abstain from the frequent and immo-  
derate Use of it, whe are in the full Vigour of- Youth; whose  
Juices are easily put into preternatural Commotions ; who have  
spare dry Constitutions ; and whose *Prima Via,* in conse-  
quence of having lost their Tone, are unfit for a due Concoction  
Of the Aliments. The Expressions then of *Piperus, Corall. ad  
Mynsc* where he calis Chocolate a *Panacea,* and an universal  
. Medicine ; and those of *Caldera,* when he asserts, that, like  
the Apples of the Tree of Life, it preserves from Death, and  
the Infirmities of *Saps,* are evidently hyperhelical and extrava-  
gant ; fince by one Medicine many Diseases may he remov'd,  
but no one is found capable of eradicating all the Disorders to  
which Mankind is subject, as has been demonstrated by the in-  
comparable *Bocrhaave.* Lest this should appear a random As-  
sertion concerning Chocolate, I shall, from *Caldera,* who  
bestows the highest Encomiums upon it, enumerate the several  
Cases in which the Use, and much more the Abuse, of it is  
to he avoided. *" Chocolate,\** says he, « is prejudicial to all  
those who labour undenFevers, or any other acute Disorders;  
" fince in these it is converted into Bile. It is also hurtful m  
" the Stomach, when disordered with Crudities, in Conse-

*p- quence of* Indigestion, It. is highly improper in all Dias-  
" rheas, espedialsy those of the bilious Kind, though it pome-  
iC times proves serviceable in Lienteries, by promoting the Di-  
." gestion of the Aliments. Jt is hurtful after Dinner and Sup-

*per, especially* aster Feasting in a luxurious manner. Be-  
" sides. Chocolate is attended with this Inconvenience, that if  
" carries .the crude and nncortcocted *Chyle* along with it to the  
" Blood-veffeis, which, if it there hecomes ‘putrid, lays a  
" Foundation for the most terrible Disorders ; and either  
" creates new, or augments old Obstructions, hefore too obsti-  
" nate to . he consistent with a State os Health." Then sub-  
joining some things relative to she had Consequences' arising  
from the Abuse of Chocolate, he adds, these Words: " Is it is  
" used in larger Quantities, or more frequentiy than is consist-  
" ent with preserving the native Heat of the.Stomach; it in  
" this Cafe creates a great deal ofTrouble to the strongest and  
fa most vigorous Digestion. The habitual Drinking of it proves  
" a Burden to the Stomach, when already full, especially when  
" it is drank with a View rather to provoke, than to remove  
" Hunger : For by fuch a Practice, Paleness of Colour is pro-  
" duc'd, and Crudities are generated, which bring on a Tre-  
" mor of the . NerveS and an extreme Leanness. . By this  
" Custom the Belly is distended, the Countenance discoloured ;  
" and sometimes Vertigoes, Hcsd-achs, creeping Pains of the’  
". Brain, and perhaps long-continued Fevers,, arid insuperable  
" varicose Obstructions, are form'd. Froth this Cause, and  
" the various Crudities inseparablefrom it, arise hypochondriac  
" Melancholy, and an incredible Complication of Disorders.

“ If,, says *BagliVi,* any one, especially of a sanguine and  
" hot Constitution, drtnks Chocolate immoderately, since it  
" inspissates the Blond, and renders it unfit for Circulation,  
" probably in Consequence of the viscid and tenacious Nature  
" os the Cacao; it produces Inflammations of the Viscera,  
" long Mesenteric Fevers, and Apoplexies; the Frequency Of  
" which is perhaps owing to the too liberal Use of Chocolate;  
" which too much inspissates the Blood ; for which Reason the  
" Drinkers os it become, excessively sat; aS I have observed in a  
" great many Instances." .

: According to *Meisner,* " Chocolate hot only generates Oh-  
" structions in those who drink it to Excess, but also when  
" used moderately in every Constitution previoufly disposed to  
cc them by the lacteal Veffeis heing too small, depressed, or  
" stuffed with a Viscid Humour; fince, in these, the terrestrial  
" Parts of the Chocolate stop, and either form or augment  
" Obstructions. For this Reason young Giris labouring under  
" a *Chlorosis,* and all others subject to Obstructions, ought to  
ci abstain from it.'' For this Reason also Mr. *fusesieu* disap-  
proves of its heing used by Students, since its oleous and  
pinguious Substance heing os difficult Digestion, disposes to Ob-  
structions Of the Viscera. He also observes, that Colics, Suffo-  
Cations, and intense luemorrhoidal Pains, are produced by it.

*Hoffman* affirms, that the more of it is drank by hypochon-  
driacal Patients, the greater Injury they sustain ; since Eructa-  
tions, Loss of Appetite, Pains and Uneasiness of the *Pracordia,*are produced by the Inflation and Distention ofthe Stomach occa-  
sioned by it; for the strong Acid with which the Primae Viae of  
the Hypochondriac always abound, meeting with the earthy and  
oleous Parts of the Chocolate, produces a tough. Viscid Mafs,  
which, adhering strongly to the Foldings os the Stomach and Duo-  
denum, lays a Foundation for the above-mentioned Disorders,  
in this Case I have observ'd, that a gentle Emetic has afforded  
present Relief, restor'd the Strength, and eas'd the Patient, by  
bringing up. a large Quantity of a blackish sordid Matter, which  
had been generating for some time. This happens most readily  
in Cases where the Tone of the Stomach is lost, and the Patient  
is costive. Such as indulge themselves to Excess in drinking  
Chocolate, should according to *Eonig,* take care, lest, like  
King *lVilliam* the Third, as appears from the History of his  
Disease, by an Accumulation of Viscidities, they destroy the  
Tone of the Primae Viae, and rashly bring on a Flux- That  
drinking Chocolate to Excess also contributes Very much to the  
Formation of Stones, especially in the Gall-bladder, has heen  
attested by the Observations of some of the best practical  
Physicians.. Thus at *Paris,* according to *Carolus Sponius,* the  
Body of a certain Man who indulg'd too liberally the Use of  
Chocolate, heing laid open, in the Gall-bladder were found  
above twenty small Stones, which, according to *Meisuer,* **were**justly ascrib'd to his immoderate Use os Chocolate. On account  
of the large Quantity of Sugar which enters the Composition  
Of Chocolate, its Use, and much more its Abuse, ought to he  
shun'd by Women labouring under uterine Disorders, and by  
those whe are subject to hypochondriacal Flatulences ; not fo  
much because the viscid and tenacious Humours, lodg'd in the  
*Primes Via,* and which are the immediate Matter of hypochon-  
driacal Obstructions, are increas'd by the Sugar, am because **the**Sugar, meeting with a peccant Acid, increases the troublesome  
Flatulencies. The Disadvantages arising from the Abuse of  
Chocolate, consider'd as made up of warm Water, are abunr  
dantly plain to every one who will allow himself to reflect, thet

the too frequent Use os warm Water relaxes the Organs os Di-  
gestion, and all the Solids in general, and must. Consequently,  
he pernicious. ' '

’Tis much disputed, whether a Composition resembling Cho-  
colate may not be made in *Europe,* without the Assistance os  
*Cacao.* Some maintain the Affirmative, fince, in the *European*Climates, Vegetables are produc’d os highly nutritive Qualities,  
which is the principal Property of the *Cacao,* and .which, heing  
reduc'd to Powder, and mix'd with other Substances, may he  
form'd into a Mass, and made up hhe Chocolate. Besides; the.  
*European* Vegetables, among many others, have this remarkable  
Advantage above the Cacao, thet they are less heavy .and burrdensome to the Stomach. *Grew* exprefly affirms, that Almonds,  
well trimrated, and fufficientiy mix'd with a due. Proportion of  
Sugar and Aromatics, make a Mass as pleasant to the Palate aS  
the finest *Chocolate* ; concerning which Composition. *Valentini*affirms, " Thet, in *Batavia,* he knew a Landlord who sold no  
" other kind of Chocolate than what was prepar'd after this  
" manner. " *Rismus Lentilius,* when speaking on this Sub-  
ject, has these Words : " *Blancard* orders a Substance, re-  
" fumbling Chocolate, to he made ..of our own Almonds,  
" sufficiently tri turn ted, with an Addition ofCinnamon, Cloves,  
" Anise, Sugar, and asinali Quantity of the. Balsam of *Peru.*

This Composition he extois Very much, and'affirms that.its  
" Taste is not greatly different from that of Chocolate; nor  
" do I in the least doubt, but a most elegant Composition,  
" possess'd of the same Virtue with Chocolate, may he pre-  
" par'd in the following manner.

" Take one Pound os’excorticated’ sweet Almonds,. Pines.  
" nuts well clean’d, and fresh Pistache-putS, each, half  
" a Pound; the best Cinnamon, halfan Ounce ; Cloves,  
" two Drams; choice Manna, four Ounces ; ofssugar,  
" a sufficient Quantity., Make into a Confection like  
" Chocolate, to which you may, if you please, add a little  
." Mush and Amber. This Confection drank in Milk\*,  
" with the Yolk of an Egg, is a celebrated Analeptic;  
" the Consectio Alkermes may also he added to it for  
" answering particular Intentions.'' *Ephe N. C. D.* 3.  
edS.epfe ss

" In like manner, according to *Bruchpiaan,* the Chocolate  
" of*Brunfwick* is prepar'd of: that sort os Ale called *'Murn,*" with some Yolks of Eggs, and Aromatics'; and this freer-  
" tainly no despicable Liquor. Besides, a Drink resembling  
" Chocolate is prepar’d of . the fine Wheat-siour of Halle,  
" roasted and mix'd with Yolks of Eggs, Sugar, Cinnamon,  
" and Milin" \_ . 4. .

The learned. *David Friedel,* in a Treatise which he calls,  
*Medicinische Bedencken,* prefers to Chocolate a Liquor pre-  
par'd of equal Quantities of bitter and sweet Almonds decor-  
ticated, and bruised with Sugar arid Aromatics. To these  
must he added a proper Quantity of warm Milk; Or thus:

Take of sweet and bitter Almonds, each an Ounce ; after  
having roasted them in~an Iron Pan till they have assum’d  
a brownish Colour, and wip'd them with a Linen Cloth,  
bruise them in a Mortar, and with a Spatula mix them  
with four Measures of boiling Milk, and to this Mixture  
add the Yolk of one or two Eggs, broken in a littie  
cold Milk; and, last of all, add a little Cloves, Cinna-  
mon and Sugar.-

CACAOTETL. An *Indian* Stone,' otherwise called *La-  
pis corvinus,* which when heated, is said to oive a Crack like  
-Thunder. ' ς ί

CACATORIA FEBRIS, a Name given by *F. Sylvius*to a kind of intermittent Fever, attended with copious Stools.  
*Castellus. F*

CACAVI, Monarch *Jive Caza bi,* Cluf. in *French, Case  
fave,* or *Pain de Madagascar,* is a kind of Bread which the  
*Indians* make of the Root Of a Plant railed *Yuca. Caspar  
Bauhine* calis it the *Manihot* of the *Indian, ex* the *Tuca* with  
hempen Leaves; and *John Bauhine,* the *Manihot Theueti,  
Yuca, et. Cassevi; in French* they call it *Manioc,* or *Mania-  
-que.* It is a Shrub which grows to the Height of five or fix  
Feet, the Stalk is woody, wreathed, abounding with Joints  
and Bunches, brittle, and full os Pith.. The Leaves-are of  
the Breadth of a Man's Hand, divided each into seven or eight  
Parts, always green, and resembling the Leaves ,of Hemp;  
the Flowers are monopetalous and BeU-shap’d, near an Inch  
in Diameter, and indented with five deep jags. The Poin-  
tal in the Middle becomes a Fruit almost round, and nearly  
as big as a Hasel-nut; it is composed of three Capsules, or  
oblong Celis join'd together, which inclose each a Stone or  
oblong Seed, a littie bigger than the Kernel of a Pine-apple.  
The Root is of the Size and Figure of a large Turnep, of a  
dark Colour without, and white within. This Plant is culti-  
vated in several Countries os *Amcrica,* where they set it in  
Farrows ; it is very fruitfid, but its Virtues are very different

according to the Climates where it is produc’d. Thus wha\*  
grows on the Continent is wholsome, and good to eat raw or  
dressed , but that of *St. Dominica, Cuba, Hayri,* and other  
Ifles, is Very pernicious, and a Violent and speedy Poison, is it  
he eaten taw *i* and yet it is of. this last that they make the  
Bread called *Cacaui,* or *Casisirve,* in Manner following.

They peel the Roots os the *Deca,* rasp them, and, putting  
them into Bags made of the Leaves of the Palm-tree, press out  
the Juice. After this, they take the Dregs, or pressed Mat-  
tes, and.fryrit in a Pan over a small Fine, Tossing and mining  
it from one Side ;to another, that it may thicken. When it is  
fufficientiy dresied,they make itinto thin Cakes, which they dry  
in the Sun, or over a Fire; and this is the Bread called *Cajsiaue,*which is- Very nourishing, and, when it is dry, will keep as  
well as Biscuit, without corrupting. The *Savages* of the *An-  
tilles,* and'all the Inhabitants or the *West-Indies,,* feed on it.  
». The Use of this Bread contracts the Gullet by its Asperi-  
ty, and causes ar Strangulation, is care he not taken to steep  
it in Broth or Water, or mix it with other Aliments: They  
who have not taken that Precantion, and are willing to eat it  
dry, ought always to have a Bottie of Water at Hand, to  
moisten every Mouthful they take. , .

- The expressed Juice of this Root would kill any Animal  
.which should swallow it crude ;-but ifit he boiled to the Con-  
. sumption of half, and suffer'd to cool, it will he converted  
into a sour Liquor, os the Taste, Use, and Qualities of Vine-  
gar ; being inspissated to a *Sapa* over the. Fire, it becomes  
sweet, and serves the *Indians* instead of.Honey.

Y. The *Tuca* Root of the IflandS, in order to produce the dif-  
ferent Effects before-rnention'd, must contain an acrimonious  
and conosrVe Volatile Salt, which is dissipated by Boiling, so  
that nothing remaining but a fixed Salt confounded and en-  
tangled with the Oil, it has only Strength enough to make an  
Acid like Vinegar; and even that Acidity is sor the most part  
destroy'd by Evaporation, and inspissating the Liquor to .a  
*Sapa,* hecause the Oil, being then much more collected toge\*  
ther, streightly binds and encompasses the Salts, and hinders  
them from making any other Impression upon the Nerves of  
the Tongue, than a fort of Titillation called Sweetness.

- The Juice of the *Raucou* is said to he a Counter-poison tor  
the *Manioque. Lemerydes Drogues..*

. CACCIONDEi The Name of a Pill, which has for its  
Basis the *Terra Japonnica,* or *Catechu,* and incommended by  
*Baglivi* against a Dysentery. *Castellus.*

CACEDONIUS *Tartarum,* is peccant Matter in the hu-  
man Body, generated from Separations by the secretive Facul-  
ty, which are not immediately succeeded by the Operation of  
the expulsive Faculty. *Rulandus.*

CACHECTICUS. One who labours under a *Cachexiae*CACHEXIA, καχεξία, from κακός, ill or had, and εξις, a  
Habit. A Cachexy, that is, an universal bad Habit of Body,  
proceeding from a Defect in Nutrition, which must arise, either  
‘ from a Depravation of the nutritious Juices; a Defect in the  
Vesseis which ought to receive these Juices; or a Deficiency .  
in that Action of the Animal Oeconomy, by which a Part of  
the circulating Juices is apply'd to the Solids for their Nutri- . -  
tion»

The nutritious Juices are deprav'd by Aliments which are  
superior to the Powers of Digestion, that is, which cannut  
he digested, and assimilated by the proper Organs. Of this  
Sortare all crude, farinaceous, and leguminousVegetables, which  
on a weak Stomach are subject to form a kind of tenacious  
Pasta. - Add to these, all Sorts of Food, winch are hard, fi-  
brous, sat, acrid, aqueous, and Viscid. . Among these may  
justly he reckon'd some indigestible Substances, which deprav’d  
Appetites sometimes covet, as Cinders, Chalk, Sand, or  
Lime.

It must, however, he remark'd, that the Aliments above-  
mention’d will not he subject to induce a Cachexy, provided  
the Organs of Digestion are sufficiently strong, and proportio-  
nal Exercise is used by the Person who takes them. Hence  
other Causes of the Depravation of the nutritious Juices must  
he jom'd to the preceding ; as a Deficiency with respect to  
Animal Motion or Exercise, and a Debility of the digestive  
Organs; the' a too great Tension thereof may have the same  
Effects, if sufficient to interfere with the Solution and Assimi-  
lation of the Aliment. If the general Mass of Blond also happens  
to he Vitiated extremely in any manner whatever, the nutritious  
Juices must in Proportion he deprav'd. These Defects in the  
Organs of Digestion are brought aheut in Various manners ;  
as by all profuse Secretions of whet kind soever, as Violent  
Vomitings,. Diarrhoeas, Dysenteries, or Haemorrhages ; by a  
. scirrhous Disorder of any of the Viscera; or by a Retention  
of something in the Body which ought to have been excreted.

It is evident, that these Causes united act either by diminish-  
ing the Solids, orhy distending them with Fluids not adapted  
to circulate thro' them. Hence arise two Sorts of Diseases,  
that is, a Consumption, and what is usually Called a *Leuco-  
phlegmatiis,* or an *Anasarca.* . r

According to the different Colour, Bulk, Tenacity, Acri-  
mony, and Fluidity of the stagnating Liquids, various Ap-  
pearances arise, which may he esteem'd Symptoms of a Cachexy.

’ Thus the Skin appears white, pale, yellow, livid, red, green,  
black, or tawny; the Patient perceives a Sensation os Gra-  
vity ; Tumors arise under the Eyes, and affect the more thin  
Parts of the Body. Add to these. Flatulencies, cedematous  
Tumors of the Parts remote from the Heart ; Palpitations of  
the Heart and Arteries, which are augmented by the least  
Motion ; crude and thin Urine; spontaneous, and evidently  
. watery Sweats; all which are succeeded hy Emaciation, or **a***'Leucophlegmatia,* and Dropsy.

No universal Defect of the Veffeis which ought to receive  
good nutritious Juices can be assign'd; but their too great Con- ‘  
traction or Laxity, and the Consequences thereof, may he ad-  
mitted as Causes of these Defects.

There is a Deficiency in that Action of the Animal Oeco-  
V nomy,. by which a Part of the Juices is applied to the Solids,  
whenever the Force os the Circulation is either too languid,  
or too violent. '

From whet has been said, a Cachexy may be easily distin-  
guish'd. And as to the Consequences thereof, they may he'  
foreseen by carefully considering the Cause, Standing, Effects,  
and Degrees os the Disorder. ...

To these also the Method of Cure must be carefully adapted ;  
for it is evident, that a Mitigation, and moderate Inspiration,'  
of the too acrid and too fluid Juices are sometimes requir'd ;  
and, in other Cases, the tenacious and adhering Juices must he  
dissolv'd, and render'd fluid. And aS a Dissolution, and an  
Inspissation, of the Juices may be induc'd by various Causes,  
it will be necessary to vary the Medicines, and the Manner of  
applying them, as the different Causes shall determine.

: Put the principal Rules to be observ'd in the Cure are.

First, To administer such Aliment as approaches nearly to  
the Nature of the healthful Fluids of the Body, which are  
easily digestible; which are in their Nature opposite to the  
Cause, of the Disorder ; and which are agreeable to the Pa-  
tient. ’ ' ' :

Secondly, To promote the Digestion of such Aliments, by  
seasoning them with proper Aromatics; by drinking proper  
Quantities of generous Wine; and by Exercise and Air.

Thirdly, To dispose the Organs of Digestion to perform  
their Duties, by proper gentle Digestives, Vomits, Purges,  
-and Corroborants. ' . . .

. Fourthly, As soon asthe Passages.are relax'd, and the morbid  
Matter is attenuated, to promote its Expulsion, by attenu-  
ating Diuretics and Sudorifics. . ;

.Lastly, To complete the Cure by ChalybeateS, alcaline  
rand saponaceous Substances, together with Walking, Riding, or  
other proper Exercises, Frictions, and .Baths. i

- The Cause however of the Distemper only can determine  
the Choice of all these, and the Manner of applying them.

. When a Cachectic Consumption arises from too great an  
Acrimony of the Juices; the particular Species Of Acrimony  
-must, if possible, be. discover’d.. .. χ

First, By investigating the Cause of the Cachexy.

r Secondly, By examining into the Nature of the Disease,  
.and the Constitution of .the. Patient.........

Thirdly, By the Symptoms. . \*.

.- Fourthly, By the Excretions. .

. And, when the.Nature of the prevailing Acrimony is known,  
-it must be corrected by Substances, of a contrary Nature.  
*.Bocrb. Aph.* . See ALCALI: and A'CIDUM... ... .I .. . -

. This Account,-which ΡσετΛσιηισ gives.*of* a Cachexy, in very  
distinct, and has the Appearance .Of being just. BuI.for.the  
farther Illustration of the Subject, I shall explain how. I. ap-

-prehend that.a' Cachexy rriay he, and generally is, .produced.

h Suppose then4.a Person of any .Constitution, whatever, has  
- his. Stomach and Organs . of Digestion impaired by: any Acci-

dent-; and that this Person takes one or more hearty Meals of  
any Aliment which is. superior to the Force Of the digestive  
.Organs; and that moreover, he . uses little or no Exercise.

Upon this Occasion it is not likely; that .the Aliment should  
. . be digested and assimilated, To as to produce good Blondbut  
.in proportion, as the Aliment is more or less dissolv’d, the  
; partially dissolv'd Portions will stagnate .in the first, ,or more  
. remote Series of Veffeis, That .is, in the larger or smaller  
: Veffeis;. and. will, cause various Disorders, according to the  
. Uses and Importance'of the Farts which they obstruct.

: .. Suppose the Aliment so little distblofd, that the largest Par-  
.. tides which the Lacteais nan possibly admit, are by these con-  
. vey’d to the Receptacle of the Chyle, and from thence to the

Mass *os* Blood, with which circulating till they arrive at the  
-Lungs, they eitherpass not.at all, or with Difficulty, thro’  
i : the minute.Vessels of that Organ,, on account of 'their Bulk :

Hence Difficulty of .Breathing, and Palpitations, arise. - And  
-as.the Bloed should be farther elaborated, and receive its red

Colour in the Lungs, this Impediment will in some Degree  
prevent both : Hence the Blood will he pale, and the Particles  
; of.which it consists, will not he so perfectly mix'd and united

together, as to form a Fluid adapted to the Exigencies of the  
Animal Oeconomy. For this Reason the watery Particles  
readily separate from the rest, and loiter, or stagnate in different  
Parts, where they cause soft Tumors, as under the Eyes»  
and in the Parts remote from the Heart. As these large Par- \*  
tides must, moreover, stagnate in the Glands, and obstruct them,  
the Secretions of their respective Fluids must be impair’d.  
For this Reason many of the aqueous Particles, which should  
either he separated for Expulsion, or apply’d to particular  
Uses, are retain'd in the Mass of Blood ; the Bile also, a  
Fluid os the. utmost importance in Digestion, as well aS the  
Pancreatic Juice, hecomes defective, inert, and languid ; and  
all the Solids are farther relax'd, and, amongst them, the Or-  
gaits of Digestion; whence every subsequent Meal lays a new  
Foundation sor an Increase os the Disorder, and all its Sym-  
ptoms. The Consequences of all this are, all the Symptoms  
related above from *Boerhaave. . . ; .*

-1 must add. That when Women have acquir'd such a Habit,  
the watery Particles of the Bloed loiter, or stagnate ; and the  
other Particles are too large to pass thro' the minute Uterine  
Vessels, and form the *Catamenia. -*

From what has been said, the Reasons are evident, why the  
eating Chalk, Cinders, Dint, unsermented farinaceous Vege-  
tables, aS Oatmeal, and other indigestible Substances, induce  
a Chlorosis. . . -

I cannot conceive it possible to adapt any Method of Cure  
to such a Disorder as has been describ'd, more likely to fucy  
ceed, than that which consists in supplying the Organs os Di-  
gestion with Aliments the most easy of Digestion, and which  
approach the nearest to the Nature of the sound and health-  
ful juices; in due and prudent Evacuations of the first Or-  
gans of Digestion; in corroborating these Organs,, and supply-  
ing the Deficiencies of Bile; by Aromatics, Bitters,, and at  
last by Steel ; in directing proper Exercise; and in expelling  
the Matter stagnating in the Glands,, and other Parts, by the  
proper Emunctories, when once sufficiently resolv'd, in the  
manner specisy'd above.

.. CACHIMIA. See **CAOHYMIAs ’ .**

CACHLEX, κάχληξ. A littie Stone or Pebble, particu-  
larly such as is sound in Waters, or by the Sea-shore, accortio  
ing to *Suidas,* who also makes it the Name of an Animal.  
*Galen, Lib.* IO. *de S. F.* says, that *Cachleces, naylumxas,* heat-  
ed in the Fire, and quench'd in Whey, endue it with an  
astringent Virtue against a Dysentery. *Castellus. . -*\_ CACHOS, J. B. *Solanum pomiferum folio rotundo tenui,*C. B. It grows only on the Mountains of *Peru,* being a Shrub  
of an extraordinary Greenness, and bearing a round thin Leas.  
The Fruit is like a Mad-apple, sessile on one Part, and turbi-  
Dated on the other. Of an Ash-colour, of a grateful Taste,  
and Void of Acrimony, containing a very small Seed.

It is in great Esteem among .the *Indians,* sor its extraordi-  
nary Virtues. Tor it .provokes Urine, expeis the Stone in the  
Kidneys, and, what is better, they fay that the Use of it di-  
minishes the Stone in the Bladder, while it is yet soft, and  
’Capable of yielding to any Medicine. .. *Raii Hist. Plant.*

CaACHOU. See.TERRA JAPONIC A. .

CACHRY. ‘ Ἀμάμά’ ’. ***r***

Cachry IS of a heating and vehemently drying Quality, for.  
which Reason it is a proper Ingredient in Smegma's, [exter-

. nal detersive Medicines] and makes a good Plaister sor the  
Head in Defiuxions upon the Eyes, provided it be taken *off*at the End of three Days. *Dioscorides, Lib.* 3. *Cap.* gg.

LCACHRY -is the. Seed Os the *Libanotis,*-which *Mrs Ray*calls. *-Libanotis 'Cachryophora.* It is not used .in rhe present  
Pharmacy; but is by some of the Antients recommended for  
its heating and drying Qualities; arid if taken with Pepper-and  
Wine, is said to he good sor the Epilepsy. *Pliny says,* it is  
the Seed of one Sort of Rosemary; I suppose by Mistake,  
because Rosemary is sometimes called *Libanotis.* See: LIBA-  
**.NOTIS, *e i.: τι.*** τ . μά δ᾽ δ᾽ . .. ' '. sc.su. ...

CACHRYS signifies sometimes roasted or parch'd Barley,  
*as Galen* explains it. . . . τι" s'-. . .

CACHUNDE. .; ry - 4. . :: si- μάμάἐν.

This is the Name of a Medicine highly celebrated among  
*ffiiorGhinese* and *Indians’,* hut asine DescriherS of Aromatics,  
and the later Authors, had made no mention of i't, *"Zsacusus  
Lusitanus* gives us the following Method of preparing it,  
which he says was with great Difficultyobtain’d of celebrated  
Physicians, who had the Health ofthe *East-Indian* Vice-  
roys, and other Princes, for many Years-committed to thefr  
Core. Ἕ th

Take, few As, of the Terra Cimolia, or of any other  
proper Earth, two Pounds; of Amber, one Pound ; of  
Mush and Amhergrise, each three Ounces ; of the best  
Aloes-wood, by the *Portuguese* called Calarnbac, ten  
Ounces; *of* prepar’d Pearls, three Ounces; of prepar'd  
Rubies, Emeralds, Granats, and Loin ths, each four

. Ounces; of red Sanders, four PoundS. of yellow San-  
ders, three Ounces; os Mastich, sweet Flag, Galangais,.

Cinnamon, Aloes wash'd with the Juice of Roses, the  
best Rhubarb, ***Indian*** Mirobalans, Belleric Mirobalans,  
, Wormwood, red Coral, and ***Armenian*** Bole, each two

Ounces; and os calcin'd Ivory, three Pounds and a  
- \* half. The Ingredients to be pounded must be reduc'd  
to a Very fine Powder, and aster having sprinkled them  
with odoriferous Wines and Balsams, and Water di-  
stilled from the Flowers of the Cinamon-tree, they must  
be dry'd in a Shade, and mix’d up with a sufficient Quan-  
tity os the finest white Sugar; then with a Mucilage of  
Gum Tragacanth, and Gum Arabic, the Whole is to he  
reduc'd to a Very tenacious. Viscid Mass, which is os a  
pretty red Colour.

Of this Mass Various Figures are fonn'd, which the Mer-  
chants convey to several Parts of the World, but principally to  
***Liston,*** the most celebrated Emporium of the whole Earth.  
The ***Indian*** Princes, and the Grandees of ***China,*** use this Anti-  
dote in the following manner: In the Day-time they keep a  
small Portion of it, about the Bulk of a Lentil, in their Mouths;  
from this Portion a sweet and fragrant Liquor gradually and in-  
sensibly drops from the Fauces to the Stomach, and gives the  
i Breath so agreeable a Flavour, that all who come near them are  
sensible os it. This Medicine is truly worthy to be used infe  
Kings and Grandees, for the Preservation os the natural Heat ;  
for it preserves and defends the Body from Corruption, prevents  
the bad Consequences of a pestilential Ain, removes Melancho-  
ly and Flatulencies, arid wonderfully relieves those who labour  
under melancholic Disorders. ' It removes Palpitations of the  
Heart, cures the Cardialgia, the Apoplexy, and the Epilepsy.  
It refreshes the animal and Vital Spirits, invigorates all the Fa-  
Unities, strengthens the Stomach, and resists Poisons of every  
Kind. It corroborates the Brain, and is the most sovereign  
Remedy in the World against a stinking Breath. It proves an  
Incentive to Venery, for which Intention it is much used by  
both Sexes in the ***Indies,*** in short, it is a truly royal Medicine ;  
for it protracts Life, puts Death at a Distance, and is conse-  
quently fold at a high Price. Whoever uses it, cannot help ad-  
miring the happy Effects produced by it. ***Zacutus Lusitanus de  
Medicor. Prindp. Hist. Lib.*** I. ***Observat.*** 37.

CACHYMIA, ***Cachimia, Kakimia.*** A Term in ***Para-  
celsus,*** by which he intends an imperfect metallic Body, or an  
immature metalline Ore, which is neither a saline Substance,  
nor Metal ; but almost metalline, since it has the first metallic  
Matter, and derives its Original from the three first Metal- «  
lies. . . .

CACH-ΥΜΐτε may be divided, first, into ***sulphureous, as***Marcasites, Bismuths,'and Cobalts; secondly, into ***mercurial,***or arsenical,, orpimental, and such-like; and, thirdly, into  
***feline,*** such are all Tales. ***Castellus.***

CACIA ***ferrea.*** An Iron Spoon. ***Rulandus. Johnsen.***

CACO A, See CACAO. ***Blancard,***

CACOALEXITERIUM, κακοαλεξιτήριον, from κακὸς,  
evil, and ἀλεξιτήριον, a'Remedy or Medicine, The same aS  
ALExITERIUM, which see, f ' '

CACOCHOLIA, κακοχσλτα. from κακὸς, ill, and χολἣ.  
Bile, An Indisposition os the Bile. ***Blancardo***

CACOCHROI, κακόχροοι, from κακὸς, ill, and χρίςα, Co-  
' lour. Such as are ill-colour3d in the Face, in which respect  
they differ from the ***Achroi,*** ἄχροοι. Colourless. ***Galen, Comm;  
deR.V.L Ac Castellus.' sm ' ’si/’***

CACOCIIYLIA, κακοχυλία, from ***lumccis,*** ill, and χυλός.  
Chyle, A depraved Chylification.. ***Blancard.et***

CACOCHYMIA, κακοχυμία, from ***Retrio,*** ill, and χυμὸς.  
Humour. A depraved State of the Humours. See Cfe-  
CH.ExIA/ '

CACODASMONUM ***Magla,*** from κακὸς, evil, and ***S'ai-  
pliav,*** a Spirit. Diabolical Magic, which uses the Assistance of  
evil Spirits; and is opposed to natural Magic, which is pro-  
moted only by natural Means. ***Castellus.***

CACODES, κακώδης, from κακὸς, ill, and ***οζώ,*** to smell,,  
jll-smelling, fetid. Thus κακώδης ἔμετος, in ***Coac.*** is ill-,  
scented Matter discharged by Vomiting, which, in ***Pro-  
gnost.*** is express’d ἐι όζέν δυσῶδες, " if it has an offensive  
Smell." -

CACOETHES, κακοιτθης, from κακὸς, ill, and ῆθος, a  
Word, which, when used with respect to Diseases, signifies  
Quality or Habitude, and is expounded in ***Galen*** by τρα'πος.  
Manner, Disposition. An Epithet applied by ***Hippocrates*** to  
malignant and difficult Distempers. ***Galen, Comment,*** I. ***in  
Prorrhet,*** says, κακοήθη νοσήμάτα καλῆμὲνι οσα κίνδυνβν άπείλοῦντα  
τοῖς κάμνσσιν, οῦκ ὸῦποκόπτικ τὴν τῆς σωτηρίας ἐλπίδα\* " We give  
" the Name of ***Cacoethes*** to Diseases, which, tho’ they threaten  
" Danger to the Patients, do not cut off all Hope of Reco-  
" Very." Κακοηθης,. when applied to Signs or Symptoms, im-  
ports what is Very had, and threatening. Thus ***Galen, Comment,***3. ***in Prorrhet.*** expounds κακόηθες by μοχθηρίν, " laborious,"  
under which the Patient labours hard sor Life. And in the  
following Passage, ***i. Prorrhet.*** τοῖισν ὸ^ισταμένοιος μίλαγχβλεκῶς

***clum*** τμάμοι ***lmrpirdilcu,*** κακοἱιθεστ. es If a Trembling seines those.  
" who rave thro' Melancholy, it is ***Cacoethes.” Galen, Com-  
ment.*** It ***in Prorrhet.*** explains the Word by εσχάτως ὁλἐθριον,  
" satal to the last Degree." In ***Coac.*** in the fame Cafe, ***raeccir***is used instead of κανμηθες. The Word, applied to a Tumor,  
Ulcer; or Erysipelas, or any other like Affection; denotes  
Malignity, as in ***Galen, Paulus,*** and thus in ***Epidemi 3. tWccire***θεα (ερυσιπέλατα) πολλὴς ἔκϊσινανν " a malignant (Erysipelas)  
" proved satal to Multitudes.'' Opposite toκακοὸθης is ὸσίνθης  
(Euethes).

CACONIAs, κακονίαι. Λ corrupt Word for CANONIjE,  
which see. ***Castellus.***

CACOPATHIA, κακοπαθίη, from κακὸς, ill, and πάθος, an  
Affection. An ill Affections an Affliction. The Word occurs  
***in Hippocrates, arlumi*** αρχ. ἰητρ.

CACOPHONIA, ***MKotavia,*** from κακός, bad, and φωνἤ.  
Voice. A Depravation of the Voice, of which there are two  
Kinds, ὰφωνία, and δυσφωνία, that is. Dumbness; and Diffi-  
culty of Speech. ***Gal. de discs. Sympti Cap.*** 3.

CACOPHRASTUS. A Name of ***Theophrastus Paracelsus,***bestow’d upon him, as he complains, by malevolent Persons,  
tho' he calls himself by the fame, ***Praescit. ad Paragranum,  
Castellus. . '***- CACOPRAGIA, κακοπραγία, from κακὸς, ill, and πραίήῖω,  
to do or act. A Depravation of the Viscera, by which Nit tri-  
tion is perform’d. ***Blancard.***

CACORRHEMOSYNE, κακοῤῥημοσέν». The same as CA\*  
**CANGE LIA, which see.**

CACORRYTHMUS, κακοῥῥυθμος, from κακός, ill, and  
ῥυθμὸς. Order. An Epithet of a disorderly Pulses The same  
**aS ARvTHMUS, which** see. . ......

CACOS, κακός. Evil, bad. The Word is Very frequently  
used by ***Hippocrates*** in prognosticating; and, 2. ***Aph.*** 33. is op-  
posed to άγαθός. But whether ir always signifies the fame as  
***lethalis, ci*** deadly, mortal," is, with good Reason, doubted by  
***Galen. Castellus. - ; .***

CACOSINON, ***xadcetvw,*** signifies the fame aa Rakefi evil,  
hurtful. Thus κακοσινώτάία, in ***Galen’s Exegesis,*** is expounded  
by ἐνπβλαβέστατα, " most pernicious." In the same Sense is  
κακοσινώτεραν used in ***Hippocr. Lib. de Fracturis.***

. CACOSIS, κάκωοις, from κακόομαι, to be indisposed, or dis\*  
order'd. An Indisposition. Thus we read, in ***Hippocr, de  
interatis Affect. naRcani*** τι σώματος, "a Disorder or. Indispon .  
i( sition os Body." ***I .***

» CACOSITIA, κακοσιτία, fromκακὸς,-ill, and σιτίον. Foods.

A Loathing of Ford. ***Castellus.***

CACOSPHYXIA, κακοσφυξια, from κακὸς, ill, and σφύξιστ,  
from σφύζω, to leap, or beat, like an Artery. A Disorder of  
the Pulse in general. ***Galen, de disse Syrnpt. C. An ... -***CACOSTOMACHUS, κακοστομαχος, from κακὸς, ill, and  
στθμαχος, the Stomach, is spoken of such Food as is disagree-  
able or hurtful to the Stomach, and is opposed to ἐνιςομαχος,.  
***TEustomachus)*** " grateful to,, or good for, the Stomach?’  
***GorrOeusi- - ' . .***

CACOTHYMIA, κακοθυμάα, from κακὸς, ill, and θυμός,  
the Mind. Any Vicious Disposition of the Mind in general.

CACOTROPHIA, κακοτραφία. from κακός, ill, and τροφὴ...  
Nutriment, Any sort of Vicious Nutrition in general. ***Galen,  
de desist. Syrapt. Cap,*** 4.

CACTOS, Offic. ***Carduus eseulentus.*** Park. Parad. 5I9.  
***Carduus spinosissimus elatior Chardone dictus.*** Hist. Oxon. 3.

I58. ***Cinara spinofa, cujus pediculi esitantur,*** C. B. 383. Raii  
Hist. I. 3oo. Tourn. Inst. 44.2. Poeth. Ind. A. I39. THE  
CHARDON. ***Dale.***

This is a Species of the Artichoke. It is a culinary Plant,  
which is blanched like Celery, and, like that, eaten raw with  
Pepper and Salt in ***Itase.*** In the Medicinal Virtues it agrees  
with the Artichoke, CINARA, "which sees .

CACUBALUM ***quibus.dam vet Alsine baocisera, J.*** B. ***Alsine.  
baociifera.*** Ger. ***Scandens baocisera,*** C. B. ***Repins baccis.era.***Park. BERRY-BEARING CHICKWEED.

It is distinguish'd from the other Species of Alsine by its Ber-.  
ries, which are of the Siae of a Grain of Pepper, or an ordi-  
naryJuniper-herry; are green when young, and black when  
ripe, and full of small, black, shining, round Grains. It grows  
***in Italy,*** and the Southern Parts os ***France ,*** but I find no parti-  
cular Virtues ascribed to this Plant. ***Raii Hist. Plant.***

CACUMEN, άζρον. The Top os any Thing. See:  
**ACRON. ' :**

CADAVER, νεκρα'ν.’ A Carcase.

- CADEL AVANACU. A Species of Ricinus, growing in  
***Brasil,*** "and flowering and bearing Fruit twice in the Year,  
that is, in ***Junuary*** and ***July.***

The Leaves, bruised, and drank in Water, are purgative:.  
They help the Bite of the Serpent call'd ***Cobra Capella, is*** re-«  
duced to Powder, and put into the Wound, The same, mix'd  
with the Leaves of the ***Pandi Avanacu,*** the Flowers of ***Schein  
Pariti,*** (a sort of ***Indian*** Alcea) and .Honey, make a «proper  
Unction for Pustules of the Head. One Seed of the Fruit..

bruised,- and taken in Water, is the ofualDofe for a Purge,  
ln mineral this Shrub; in its tricoccous Fruit, agrees with the  
Rwinus, bur differs from it in other respects. *Bait Hist.  
Plant. ,*

.CADMIA. ,

t The best fort of Cadmia is the *Cyprian,* which is call’d *Bo-  
tntitis,* (cluster’d) and is of a dense Substance, moderately pon-  
derous, or rather inclining to Lightness, clustePd on the Super-  
ficies, of an Ash Colour, and, when broken, appears cineriti-  
ous and seruginous on the Inside. The next in Goodness to  
rhe fore-mention’d, is pretty much of an azure Colour on. the  
Outside, but whiter within, and distinguish’d by Veins, like  
thefe Onyx-stones which aredigg’d out of old Mines [Hence  
itisicall’d *Onychitis}.* There is also a sort of Cadmia call’d  
*Placitis,* (crusty) which is surrounded with Veins in the man-  
ner of Zones or Girdles, whence it is also call’d Ζουάιι. There  
is yet another Sort, which is call’d *Ostracitis,* (testaceous) which  
inofa thin Substance, arid, for the most part, black and earthy,  
or testaceous, on the Outside, but the white is good for  
nothing. , -

The *Botryitis* and the *Onychitis* are useful ingredients in  
Medicines for the Eyes ; and the other Sorts are put in Plaisters,  
or among Powders, [ξ«ρα] for cicatrizing of Ulcers. i The best  
for these Purpofes is the *Cyprian y* for what is brought from  
*. Macedonia, Thracia,* and *Spain,* is of little Value.

*Cadmia* has an astringent Virtue, fills up hollow Places, and  
deterges Filth, is an Obstruent, Dryer, and Efcharotic, re-  
strains carnous Excrescences, and cicatrizes old and malignant  
Ulcers [τἀκακοίίδη^δ ελκών]. . . : et -

*i-* There is allo a sort of *Cadmia* which is made of the Soot  
that sticks to the Walls and Roof of the Furnace, in boiling  
of Copper. There Furnaces, which, consist of Iron, and are  
very large, and call’d by the Workmen *Acestides,* are closed at  
Top, in order to intercept and detain the Corpuscles which fly  
**off** from the Copper; and, after adhering in great Quantities,  
they at fast thicken, and unite into one Body, constituting  
sometimes one, sometimes two, and sometimes all the forts of  
*Cadmia.*

*: .Cadmia* is also made by burning the Stone *Pyrites,* which is  
digg’d out of a Mountain which overlooks the City of *Soli, in*the fame Mountain are sound, as it were, Veins of *Chalcitis,  
Misty, Scry, Mnlantery, Caeruleum, Chrysocolla, Vitriol,* and  
*Dipbryges.*. Some say, that Cadmia may be found in Quandes  
of Stone, mistaking for it a Stone which is much like it; inch  
a Stone may be found *zt Cumae,* but void of all Virtue, and may  
be distinguish’d from *the Cadmia* by its being fighter, ungrateful  
to the Taste, and offensive to the Teeth ; whereas the *Cadmia,*readily yielding to the Impression of the Teeth, may be chew’d  
without Offence. They may he distinguish’d also by the fol-  
lowing Experiment: The *Cadmia,* when levigated in Vinegar,  
and dried in the Sun, concretes; which the Stone, after the  
like Management, does not. Besides, the Stone bruised, and  
-thrown into the Fire, heps, and fends up a Smoak nothing dif-  
ferent from that of the Fire itself; but the *Cadmia* remains,  
quiet, and emits a yellowish Fume, resplendent like Brass, and  
curl’d and variegated like a Girdle. Moreover, rhe Stone,  
heated in the Fire, and afterwards cool’d, changes its Colour,  
and becomes lighter; but the *Cadmia*,suffers no Alteration,  
except it be kept in the Fire for many Days together.

*Cadmia* is also produced from the Silver Smelting-furnaces,  
but it is whiter, and less ponderous, and not so efficacious.  
They bum the fore-mention’d Cadmia by covering it with  
Coals, till it becomes transparent, and bubbles like the Scoria  
of Iron ; and then quench it in *Aminaan* Wine, but, for the  
Psora, in Vinegar. Some, after it is thus burnt, levigate it with  
Wine, and torrefy it afresh in a crude earthen Pot, till it  
appears like Pumice-stone ; then levigate it again with Wine,  
and burn it the third time, till it be quite reduced to  
Ashes, retaining not the least Roughness, and Io use it  
instead of Spodium. It is wash’d by pounding it in a Mortar,  
and throwing away the Water till no Dross swims at Top; and  
is then made into Troches, and repotted for Use. *Dioscorides,  
Lib.* 5. *Cap.* 84.

The Name *Cadnda* has been applied to several Things.  
*Diascsrides* understood by καδμοῦα, the Recrements which arise  
from Brass, while melting in the Furnace. *Galen* applied it to  
two Substances, one which comes from Brass, which is the.  
same with the Cadmia of *Dioscorides,* the other a native Sub-  
stance in the lfland of *Cyprus,* which he terms λιθώδης, or.  
stony. *Pstici,* besides the factitious. Cadmia of *Diofcorides* and  
*Galen,* mentions another by the Name of *Lapis Airosas,* which,  
he says, was an Ore out of which Copper was made; and this,  
is, perhaps, the fame with the Cadmia Lapidosa of *Galen.* The;  
Dealers in Metals call by the Name of *Cadmia* the *Lapis Cala-  
minaris,* used in making Copper into Brass ; and the *Germane*heve given the fame Name to *Cobalt*; and therefore *Agricola,.*and the more modem Writers, distinguish three Kinds of Cad-  
mia, one metallic,. one. fossil, and the thin! that of the Fur-  
rsaces, which Division we shall here retain.

. The .metallis *Cadmia* **is a** fossil Substance, containing fome

Portion OfCopper, Silver, Or ofhethe and is of two Kinds;  
First, the native *Cyprian Cadmia,* which is a fossil Substance  
or Copper-ore. It is likewise sound in several Places of Apia  
and *Italy .,* and is probably the same which *Galen* found in the  
Island of *Cyprus,* tho’ he does not mention, thet Copper was  
obtain’d from it by Fusion. It is now altogether unknown, or  
at least confounded with other Copper-ores.. The other kind  
of metallic *Cadmia,* or the Cobalt of the *Germans,* is a metal-  
lic Substance, from which *Arsenic,* (see ARSBNICUM) *Zaffera,*and the *Encaustum Caeruleum,* are prepared.

This is distinguish’d, by Authors, by the Names

*Cobaltum,* Offic. *Cadmia Metallica,* Worrn. Mus. I28.  
Charlt. Fois. 51. Aldrov. Mus. Metal. 256. Matth. I338.  
Kentm. 74. Woodw. Att. 2. P. I. p. 50. *Cadmia Motaliaris  
astir, Cobaltum metallicis.* Schwa 370. *Cadmia fostilis ex qua  
prop. sLaffera,* Woodw. Art. COBALT.

The fossil *Cadmia* of *Agricela,* stony Cadmia of *Schroder,  
Lapis Calaminaris,* or Calamine of the Shops, is a fossil Sub-  
stance, of a middle Consistence between Stone and. Earth, of  
different Colours, fuch as a pale Colour inclining to White,  
.Yellowish, and a blackish Red. This last is full os'small ferru-  
ginous Globules, like Grains of Pepper, and mark’d with white  
Veins ; and is sound in great Quantities about *Bourges,* near  
*Saurnur* in *Anjou ior France,* and in many Parts of *England.*The others are dug in *Germany,* near *Asm la Chapcile* ; and all  
Kinds of it seem to partake of an Iron-ore, because the greatest’  
Part is attractsd by the Load-stone. This Species of *Cadmia.*was probably unknown to the. antient *Greeks,* or at least was  
nor used fly them in Physic, since it is nor mention’d either by  
*Dioscorides* or *Galen.* It is now prescribed, bysome Physicians,  
to dry running Ulcers, to heal the excoriated Parts of Chil-'  
siren, either in a fine Powder by itself, Dr mix’d with Oint-  
ments. It is an Ingredient in the Ophthalmic Ointment of-  
*Ponodaeus,* and in the red drying Ointment, the Plaister call’d  
*Manus Dei,* and in the styptic Plaister of *Charas.*

*The Lapis Calaminaris* is much ufed in cooling and drying  
Cerates; and is, in Powder, frequently sprinkled upon. Sores'  
and Ulcers, with a View of drying them, and disposing them  
to cicatrize. I have been told, that the Surgeons heve lately  
observed, ‘thet *Lapis Calaminaris,* reduced to a very fine Pow-  
der, operates as an Efcharotic , whereas in a more gross Pow-  
der it acts as a Dryer.

*Preparation of* **LAprs CALAMiNARis.**

Take any Quantity of *Lapis Calaminaris,* and levinate it  
upon a hard Marble, with Rose-water ., dry is, when re-  
duced into an impalpable Powder, in little Drops, as it  
will fall from a Spatula upon a Chalk-stone.

In the same manner are prepared Tutty, and all herd friable  
Substances of the like Kind.

**MAGISTERIUM LApIDIs CALAKriKAass:** *Magistery of  
Calamine.*

Take Calamine, sour Ounces; beat it into sine Powder, or  
levigate it as above : Put it into a Matrass, and pour upon  
it, of Spirit of Salt, one Pound. Let them digest upon  
warm Sand forty-eight Hours; filtre the Diflolution, and  
precipitate the Magistery with Spirit of Urine; free it  
from its Salt by several Ablutions, and dry it gently for  
Use. '

It is emetic and cathartic, and given - in the like Cases as.  
Antimonial Emetics. Its Dose is from three to seven Grains.

**CALAMINARIS DIAPHoRFTICUs :** *Diaphoretic Calamine.*

Beat four Ounces of Calamine into fine Powder , put it into  
a Matrass, which place in a Chimney; and put to it, hy  
three or four Ounces at a time, of Spirit of Nitre, one  
Pound: Let it there stand, cover’d from Dirt, for twenty-  
sour Hours, then decant the Liquor, which put into a Ro-,  
tort set in a sand-furnace, and give it a gradual Heat. to.  
the third Degree, and fo keep it till no Drops fall from it..  
When all is cold, take it out of the Retort, and keep it  
for Use.

Some say it is a good Sudorific, but it is little used. Its.  
Dofe is from ten Grains to helf a Dram. One Ounce of it,  
infufed in half a Pound of Spirit of Wine, makes an admirable  
Collyrium, and does great Service, by dropping it into the dis-  
order’d Eye three or four times a Day. Some likewise make a  
good Collyrium by quenching a Lump of Calamine, os about  
four Ounces, ten or twelve tubes in one Pound of White-wine.  
*Quincy.*

**CERATUM DE LAPIDE CALAMINARI :** *Cerate of Lapla  
Calaminaris,* commonly call’d *Turner's^Cerate.*

Take of fresh-made unsalted *May* Baiter, and of the best'  
yellow Wax, sufficiently defecated," each three ponndS

*and* an half; of pure and newly-prepared Oil os Olivas;  
sour Pounds; and os the best Colamine-stone, sufficiently  
triturated, and pass’d thro' **a** Sices, two Pounds and tea. Ounces: Let the Wax and Butter be put utro a proper

Vessel, with the Oil. and melted over a gentie Fire; then  
strain them thro' a Linen Cloth into another Vestel, and  
immediately sprinkle the Powder os the Calamino-stone  
into it by Degrees, continually agitating the Mixtures and  
stirring it from the Bottom os the Veiled, till it begins to  
cool, and becomes so thick, that the Powder, in conso.  
quence os its Weight, can no longer subside to the Bottom  
os the Vessel.

*Tomer* gives the following Encomium of this Cerate :

As I have had ampin Experience of this Cerate, I may he  
allow’d, I hope,- to judge of its singular Properties, and good  
Effects, in all cutaneous Ulcerations and Excoriations, either  
from Scalding, Burning, or Fretting of the said Partsthy means  
of salt, acrid, or sharp Humours ; upon which Accounts, not  
straining a tittle heyond its deserved Eulogy, I am bold to  
affirm, it will do more in all these superficial Hurts of the Body,  
than either *Unguentum Tulia, Diapompholyx, Nutritum, Desu-  
cativum Rubrum, Album de Calce, Rasurum,* or all the Epulo-  
tic Medicines now in Use ; and for which Cause I can, sor the  
public Benefit, sincerely recommend it to all the Professors of  
the Art; and do wish, that the Apothecaries would keep it  
made up in their Shops, to deliver, at a suitable Price, .to indi-  
gent or poor People, instead os their ridiculous *Lucatcllusts* Bal-  
sam, and other improper Medicines, which they call for igno-  
rantly to heal their Skin-deep Maladies.

I know the Medicine has heen imitated by several, and I  
have seen somewhat like it in some Gentlemens Salvatories 4.  
but I know not more than two Persons I. ever communicated  
it to, as I was wont to prepare it for my own Use.

The Medicine, thus prepared, is of a good Consistence, and  
a true *Cerate,* serving both for Pledget and Plaister, neither  
sticking troublesomely, nor running ost, or about, by the Heat  
of the Parts; hut keeping its Body, and persormingThings in-  
credible. Whoever thinks fit to take it into Practice, will  
. never repentit, nor perhaps (when he has experienced it as I  
have done) think I have said too much in its Commendation,  
This is the Medicine I have so often taken Notice of, under  
the Name of *Ceratum de Lapide Calaminari, uri[uCh,* that I  
might contribute my Mite to the Surgeon’s Treasury of Medi-  
dine, I here have publish'd,- and leave it to take its Fate: J am  
sure no ingenious Person will despise it for its .heing less com-  
pounded, and consequently less pompous, than some others, or  
for that it is only *tTretrapharmacum. Turner.*

Tho' the above quoted Author claims the invention of this  
*Cerate,* I have, as I remember, met with it in a Very old *Eng-  
li/h* Chirurgica! Author.

The greatest Quantity of Calamine is consumed in making  
Brass ; and *Agricola* describes two Ways of doing this, in the  
following manner; ; - . .. .:

They take some Pieces of the best Copper and Calamine,,  
first calcinId, and finely powder'd ; lay them in Strata in  
large Pots, each os which holds about fifty Pounds, Some  
add Glass likewise; and some use the *Cadmia* of the Fur-  
naces, instead of the fossil Kind. These Pots are set in  
an arched Furnace, on Iron. Stands, placed in the Middle  
of it, and the Fire iS kindled helow them. In the upper  
Part of each Furnace is a round Hole, cover'd with a  
Stone, hy which they regulate the Fire. When the Mix-  
ture in the Pots has heen thus exposed to a Very great De-  
gree of Fire, and continued in Fusion, for eight or nine  
Hours, it is changed to Brass, and increased very much in  
specific Gravity, the' it has not yet the Gold-colour..  
The Pots, heing cool’d, are taken out os the Furnace; and.  
the Brass, which is now of the Colour of white Embers,  
and cavernous like a Pumice-stone, is melted a second  
time, and thrown into a Mould, the Sides of which are  
Stone, and the Wideness or Distance between, these Sides  
equal to the Thickness that the Brass-plates,, now become  
os a yellow or gold Colour, are desired to he of. These  
Plates are afterwards beat upon the Anvil, to make them  
perfectly uniform.

**The other Way of making Brass is to**

Take a Vestel in which Silver is usually melted, to coat it on  
the Outside with Clay, mix'd with Filings of Iron ; and  
to line the Inside with the purest Honey. Small Copper-  
plates, of about a Finger's Breadth, are likewise rubb'd  
over with the same Honey, and then cover'd with fine  
Powder of Calamine, crude Tartar, and Charcoal made of  
the Lime-tree, min'd in equal Quantities. The Plates,  
thus prepared, are thrown into the Vestel, and the Vestal  
cover'd with a Brick, over which the Coat of Clay is like-.  
**wife Carried, a Hole being made, in the. Middle large**

enough to admit an Iron Rod; to stir the melted Metal:  
' The Vestel is then set in such a Furnace as the Refiners

use ; and, as soon as the Calamine begins to mix with the  
.) Copper, a red Smoak ascends, which afterwards becomes  
. partly red, and partly blue, and last of all yellow ; and this  
.. shews, that the Mixture is now perfected. The Vessel

heing then taken out of the Furnace, the Brass is found of  
a perfect Gold-colour. In this Operation the Copper  
takes up a third Part, or at least a fourth Part, of itsWeight  
- of Calamine, and yet remains as ductile as before; for **it**

may he drawn out into Very fine Wine, or beat into Very  
thin Leaves.

A much hetter Way of making Brass is now practised at  
*Bristol,* which, I am inform'd, consists principally in granu-  
lating the Copper, before it is fused, with the *Lapis Calarnina-  
ris*; but I am not acquainted with the precise Method of doing  
it. . . ’ .

*ADale* mentions two Kinds of *Lapis Calaminaris,* which do  
not seem to. differ in any thing, except that the first is gotfrom  
the *Mendip* Hilis, and other Places in *England* ; the second,  
*in France.. '*

' The first is.thus distinguish’d. . . ; ‘

**LAPIS CAL** a **MINARIS,** Ossie. Mer. Pin. **21I.** Dough Ind.

50. Schrod. .348. *Cadmia fossilis, alias, Lapis Calarninaris,*Worm. I28. Charlt. Fossi 5I. *Cadmia s.ofsilss,* Aldrov. Musi  
Metall/256. Worm. I28. Matth. I 338. *Cadmia Lapis,* Calc.  
M\_us.460v. CALAMINAR-STONE.

The second is call'd

*.. Calaminaris Lapis Biturigum, sett Cadmia suffetis,* Ind. Medi  
24. CALAMINE OP BERRY. 1

*Cadmia Fornacia,* or of the Furnaces, is os two Rinds ;  
the factitious *Cadmia* os the Antients, and *Cadmia* of the Mo-  
derns, or the Thirty *os* the Shops. But the first Kind of sacti-  
tinus *Cadmia, Diofcorides, Galen,* and *Pliny,* understood to be  
only the Recrements of Copper-ore, which is blown off by  
the Bellows in melting Copper, and sticks to the Sides os tho  
Furnace ; os which there are different Species according to the  
different Figures into which it is concreted, and the Fineness  
and Variety of its Colours. The finest Kind, says *Pliny,* sticks  
in the very Edge or Border of the Furnace ; and is aS light as-  
Wrod-ashes or Embers. The hest is that which hangs down'  
front the Arch os the Furnace, and is call'd βοτρυώδης, from the  
faint Resemblance it bears to Grapes hanging on she Vine. Thia  
is of a middle weight between the foregoing Rind and the  
following, being or two Colours, cne whitish like Wood-  
ashes, which is least esteem'd, the other purple, winch is.  
more valued. It is Very brittle, and much used in Medicines  
sor the Eyes. The other Kind sticks to the Sides of the Fur-  
nace, as being too heavy to rise to the Top. It is properly  
a Crust, and is used to destroy Cicatrices, or the remaining  
Marks of Wounds. From this, two other Kinds are obtain’d ;  
one of a bluish Colour and spotted, the other red. The best  
*Cadmia,* according to *Pliny,* was found in the Furnaces, of  
*Cyprus so* and he informs us further, that a *Cadmia* was like-  
wise sound in the Silver Furnaces lighter and winter; but,  
however, much inferior to the *Cadmia* from Copper. *Galen.*says, that a Sort os *Cadmia -was* made from one Kind os Py-  
rites.. But all these Kinds are now unknown in the Shops,  
neither do they seem to have heen known to the *Arabians ,*who were so little solicitous about the Substances called by  
the Name .of *Cadmia* by the Antients, and which were only  
to he found in the melting Furnaces of the Ifland os *Cyprus,*that they gave the same Names without Hesitation to other  
Substances ; whence a great deal of Confusion has arisen, and  
especially, because some of the latter *Arabians,* as well ajt  
those whe have come aster them, have endeavour'd to apply  
to these other Substances, what the Antients said of their  
true *Cadmia* ; and thus *Avicenna* says of the Litharge of Sil-  
Ver all thet *Diofcorides* has said of *Cadmia. (*

The modern *Cadmia, Cadmia Fornacum cd Agricola,* Tutia  
of the Shops, is a Recrement of Calamine melted with Cop-,  
per, and not of Copper alone, aS was thet of the Antients.  
The officinal Tutty therefore may be defin'd a Sublimation of  
Calamine from melting Copper to the upper Part or Roof of.  
the Furnace, where it concretes round Iron Rods placed there,,  
into a solid Crust, which is afterwards beat off into Pieces,  
like the Bark of Trees, of a yellowish. Colour, smooth, on:  
the inside, and sonorous ; of a bluish Astacolour on the Outside,,  
and powder’d, as it were, with Very small Grains os the same  
Substance.

. This is perhaps the same with the Tutty of the *Arabiansp,*for *Serapion* describes a kind of Tutty, which is produced and-  
collected in the Furnaces in which Copper is turn'd to a yel-  
low Colour. But it is not certain, whether they might not  
likewise mean the *Calamine* itself by that Words

The. *Cadmia Fornacia* is usually thus distinguish'd.

*Tutia,* Ossie. Dough Ind. g2. *Lapis Tutia,* Woodw. Att.  
T.2.P.I. p. 50, *Cadmia Fornacia,* Geoff. Pnelech I82.  
Schw. 37o. Worm. Musi. I 34. Charlt. Foss 55. Agricola.

*Cadmia Botryitis,* Aldrov. Mus. Metal. IS. *Cadmia Capnitis,*Kentm. 43. *Cadmia Factitia,* Schrod. 3.458. TUTTY.  
*Dale.*

Tutty is reckon’d among the principal ophthalmic Medl-  
cines. It deterges and dries without Acrimony, and is. there-  
fore prescribed with Success in Ulcers of the *Cornea, Adnata,*and Eye-lids ; and likewise in Itctiings of the Eyes, inveterate  
Ophthalmias, and to stop an involuntary Flux of Tears, and  
fistulous Humours.

It is seldom ufed without Preparanon, which consists in  
heating it red-hot, and then quenching it three or four times in  
Rose-water, and afterwards levigating it according to An on  
a Marble or Porphyry.

Take prepar’d Tutty, half a Dram ; Mouse-ear, Eye-  
bright, and Rofe-water, of each an Ounce; mix them,  
... and make a Collyrium. Or,

Take Succotrine Aloes, and prepar'd Tutty, of each sin  
Drams , white Sugar, a Dram; Rose-water, and any  
mild White-wine, of each six Ounces. Digest them  
in the Sun for forty Days, in a clofe glass Vessel, and  
keep the Liquor without straining it. It is apply’d, by  
dropping a small Quantity of it into the Eyes from  
time to rime. Or, '

Take of prepar’d Tutty, a Dram; fresh Butter, hiss an  
Ounce 5 make an Ointment, of which a little is to be  
apply’d to the Corners of the Eyes, and Edges of the  
Eye-lids. It is an Ingredient in the ophthalmic Ointment  
of Charas.

*. . Unguentum Tulia,* Ointment of Tutty.

Take of prepar’d Tutty, two Ounces; of Calamine burnt  
and quenched two or three times in Plantain-water, one  
Ounce ; let them be reduc’d to a very fine Powder, and  
mix’d with a Pound and a half of the *Vuguentum Rosa-  
ceum,* so as to make them into an Ointment.

*Nicolaus* was the first who gave a Prescription under this  
Title, which is in the *Augustan* Dispensatory; het tout is  
loaded with a great many unnecessary Ingredients, and differs  
but little from the *Diapcmpholygos :* But the College at first re-  
ceiv’d it in this more compendious manner, with the Liberty  
of making it either with HogS-lard, or the *Unguentum Rosa-  
ceum.* The Tutty is prepar’d by Levigation, but if the Stone  
upon which it is ground, be not extremely hard, it will carry  
a good deal along with it into the Medicine; This is not very  
often reserv’d to in Prescription, but is in great Esteem amongst  
the common People. *Quincy.*

The *Pompholyx* and *Spodas,* or *Spodium* of *Diascorides* and  
*Galen,* are now unknown in the Shops. . They tell us, that it  
was made two ways; the first by binning melted Copper to  
a white, stnooth Powder; and the other by blowing off with  
Bellows whet can be thus separated from *Cadmia. Dioscorides*mentions two Kinds of *Pompholyx*one nearly the Colour of  
Copper, and moist and fatty ; the other very white and  
smooth. This fast, he says, was made by the Copper-finithe,  
in endeavouring to meliorate that Metal, which they did, by  
throwing into it a greater Quantity than usual *of* powder’d  
*Cadmia* ; but it is uncertain, whether he here means New-  
ore, or the factitious *Cadmia* already mention’d. However  
this be, the fine Dust, or Flour, that arose from this Mixture,  
concreted into *Pompholyx.* It was likewise made by burning  
*Cadmia* alone in Furnaces, for having thrown it in final!  
Pieces into the Fire, near the Nozel of the Bellows, they  
blow the most fine and subtile Parts against the Roof of the  
Furnace; and what was refleited from thence was called  
*Spodium,* which is of a blacker Colour, and heavier, than the  
*Pompholyx,* and full of Earth, and other Filth; and indeed  
was no better than the Sweepings of the Shops and Furnaces,  
and therefore was much lefs esteem’d than *Pompholyx.* These  
Substances might probably still be had, where great Quantities  
of Cyprian or red Copper are melted; but they arc now  
unknown in the Shops.

The *Pompholyx* of our Shops,.M7, or *Nihil album* of some Au-  
thors, is a fine white Fleur, or Soot, which sticks to the  
Arch of the h urnaces and Covers of the Crucibles, in which  
Calamine and Copper are melted together. It is to be chosen  
very clean without any Mixture, and has the fame Virtues  
with Tutty. It dries, and is gently Ashingent without Acri-  
mony , it absorbs the corroding Acrimony of the Fluids,  
and from thence is reputed a Cooler.

- It is used with Success to dry old cancerous Ulcers, and to  
cute Defluxions of the Eyes. From this Substance is made  
*the Unguentum Diapompholygos,* wbicb is thus prepar’d.

. Take of Oil of Rofes, twelve Ounces; of rhe Juice of  
Garden Nightshade-berries, six Ounces ; of White-wax,

and wash’d Ceruse, of each four Ounces; of Lead thet  
has heen macerated three Days in the sharpest Vinegar,  
and then dried and powdered and prepar’d *Pompholyx,* of  
each two Ounces ; and of sine Frankincense, one Ounce.  
Let the Oil and Juice he, boiled together to the Con-  
sumption of the letter; then let the Wax be melted in  
the fame Oil, and the rest immediately added in Powder,  
and continually stirr’d about with a wooden Spatula, till  
the Whole is cold, and form’d into an Ointment.

This is afcrib’d to *Nicolaus,* and receiv’d into the *Augustan*Dispensatory, and the first of out College, with the Addition  
*of Nihil* to its Tine. The latter hath indced taken it with  
fome Alterations, which are conform'd to in this ., hut they  
are of no great Moment. It was designin for fait, hot, in-  
flarnrnatory Ulcers; but it is very rarely used for those, or any  
other Purpofes in the present Practice. *Quincy.*

We heve already faid. That the *Spedus* or *Spodium,* of the  
*Greeks,* was rhe Ashes, or rather the metallic Flour, col-  
lecied in the Furnaces and Sheps of Copper-smiths, and that  
it differ’d from the *Pompholyx* in being more heavy, and not  
so pure. *Pliny* has, however, distinguish’d several Kinds of it ;  
the *Spodium* of Copper, which is the best of all, that of Sil-  
ver, called also *Laurssa,* from Mount *Laurus,* where there  
were Silver Mines ; that of Gold, collated in refining that  
Metal; and thet of Lead, which was next in Goodness to the  
Copper *Spodium,* according to *Dioscorides. .*

The *Spodium* of the *Greeks* was never given inwardly, but  
was applled externally. Besides these Metallic Kinds of *Spa.  
dium,* the *Arabians,* abusing that Name, which in the *Greek*Language is very like the Word which signifies Ashes, added  
other Kinds, fuch as the Ashes of Plants and Animals. These ’  
Succedanea to the true *Spodium* were by the *Greeks* term’d  
ANTispoDA (See ANTrspoDA) ; fome of which are men-  
tion’d by *Diascorides* **j** such as the Leaves, Flowers, and un-  
ripe Fruit of the Myrtle, calcined and wash’d ., the Leaves of'  
the wild Olive; Balls Glue; new-shorn, rough, greasy Wool,  
Pears, or Apples, moisten’d with Water, and then burn’d,  
and such-like. The Ashes of fome burnt Roots were by  
*Avicenna* term’d *Tabaseir,* which Word the interpreters have  
render’d *Spodium*; and thet *Spodium,* which was brought from  
the Eastern Countries, was undoubtedly a kind of coarfe Su-  
gar, as is prov’d by very strong Arguments, by the learned  
*Salmastus*; and therefore it is no Wonder, that hy the *Ara.  
Viaus,* and thofe who follow’d them, the inward Use of *Spa-,  
dium* has been so much recommended.

The *Arabians* were deceiv’d by the Ash-colour of coarse  
Sugar, and the Merchants by what was related to them, that  
it was the Powder of fome burnt Reeds. Burnt Ivory is now  
commonly called *Spediam* in the Shops. *Geoffrey.*

The metallic *Spodiam* is thus distinguish’d.

*Spodium Graecorum, nihil gryseum,* Offic. *Spedium,* Match,  
Ed. I339. Aldrov. Musi Metall. I6. *Spodiam facticium, qui.  
dam cinerulern vacant.* Worm. Musi 135. ’ *Spsdes,* Kentm.  
*pl.fr^odiossuaitia, quibuselarn cinerula,* Charlt. Foss. 55.

CADUCUS, the Word stone put fubstantively, or, as an  
Adjective, with the Substantive *Morbus,* signifies the Falling-,  
sickness, ΟΓ Epilepsy. See **EPILEPsrA.** *Castellus.*

CADUS, καδοι, perhaps from χαδοῦν, which signifies to  
contain, or from the *Hebrew Cad,* a Measure mention’d in  
the Bible, and transsated ὑδρία by the *Septuagint.* It is a  
Measure equal to the *Metrites* (about ten Gallons two Pints,  
*Englise* Wine-meafure); for what *Diascorides, Lib.* 5. calls  
μάτρὑ/ὴν γλἱὑκους, *Pliny, Lib.* I4. Cap. I6. renders *Cadum  
Mast's.* It is sometimes writ with a double δ. as in *Pollux,  
Lib.* 9. where he tells, that ἀμφορεὑς was called κάδδος by the  
Antients. And the fame Author relates from *Philocborus,*thet ήμικαμφοριον *esse apindssiw.*

*Cadus ws* called κεράμιον. *Hiscychius* fays, κἀδος ἐστι κερατειον.  
He tells us also, κεράμιον τὴ οινου η ὕδατος σταμνίον, " a *Cera.  
“ ndum* of Wine or Water is a *Stamnium.\*’* So *Cadus* and  
*Stamniurn* are the fame. *Arbuthnot.'*

CAECILIA, Offic. Jons, de Serp. I9. Aldrov. Hist: Serp.  
243. *Caecilia Typhlops,* Charlt. Exer. 36. *Caecilia Typhlops  
Gracis,* Gefn. de Serp. 6o. *Caecilia Tsphlinus Gracis,* Raii  
Synop. A. 289. *Typhlops Caecilia,* Mer. Pin. 208. THE  
BLIND-WORM, or SLOE-WORM, *Dale.*

This is a fort of Serpent, whose Bite has much the same  
Effects as thet of the Viper; and is to be cur’d by much the  
same Methods.

*. Dale,* from *Gofner,* gives an Account *os* a Theriaca being  
prepar’d of this Serpent, and Treacle-water, for a Sudorific  
in the Plague.

CAECUBUM. Old *AmiaaanTline. Oribase Mede Cal.  
lect. L.* 9. *C.* 6. See **AMINJEUM.**

CAECUM *Intestinum.* What we now call the *Appendicula  
Caci,* is by *Rusas Ephesius* called the *Caecum.* But modern  
Anatomists divide the large Intestines, which form one conti.  
nu’d Canal, into three Portions. This Canal, begins by a

land of Sacculus or Bag, which is reckon'd the first *os* the  
three Portions, and called *Cacusn. .*

The *Intessenum Cacum* is then only a pound short Bag,  
the Bottom os which is turn’d downward, and the Mouth and  
Opening upward. It lies under the Right Kidney, and is hid  
by the last Convolution, of the *Ileum.* It is about three Fin-  
gers-breadth in Length, .and its Diameter is more than double  
that of the small Intestines.

Through the membranous or common Coat of the *Cacum,*we see three white Ligamentary Bands, which adhere Very  
close both to the outer and muscular Coat. One of them  
is hid by the Adhesion of the *Mesocolon* ; and all the three  
divide the *Cacum* longitudinally into three Parts, more or less  
equal.

They all unite on the *Appendicula Vermiformis,* and cover  
its whole outer Side, immediately under the common Coat.  
Tho' they appear exteriorly on the *Cacum* to he Ligamentary,  
they are made interiorly of fleshy Fibres, which accompany  
and strengthen the longitudinal Fibres of the muscular Coat.

The villous Substance of the inner Coat of the *Cacum is*Very short, and furnish'd in several Places with glandular  
Lacunae, or solitary Glands, broader than those of the small  
Intestines.

These glandular Lacunae, or Folliculi, are flatten'd and de-  
pressed in the Middle like the Pustules of the Small-pox. When  
we blow through a Pipe into these Lacunae without touching  
them; the Folliculi are inflated, and represent littie Caps with  
a Hole in the Middle of their convex Side; *Winsiwi.* See  
**INTESTINA.**

CEMENTUM. .

*Cement.* This is a Name given by Architects to that Sub-  
stance put betwixt the Stones of Buildings for fixing and secur-  
ing them. That tenacious Matter or Paste commonly used  
by Mechanics for making one Body adhere to another, is also  
\* called *Cement.* In a Word, Artists of different kinds have  
.their different *Cements,* prepar'd in such a manner as best to  
answer their respective Intentions ; but these are foreign to our  
Design. The Matter used by ChymistS for the Joinings of their  
Vessels, is by some also called *Cement',* but as that Substance '  
is more generally known by the Name of *Lute,* see the Ar-  
**ticle LUTUM.**

It now remains, that I consider the *Cement* used by the  
Metallurgists, and Astayers of Metals, fince by its Assistance  
the *Cornentatory Calcination* of Metals, as it is called, is per-  
form'd. This *Cement* then is prepar'd of the Dust of the  
reddest Bricks, Crocus of *Mars,* Crocus of *Venus,* plurnous  
Alum, Vitriol, Salt, Blood-stone, Nitre, Sulphur, Sal Am-  
moniac, Sal Gemmae, and some Other Ingredients. This  
Powder, either dry, or moisten'd with Vinegar, Urine, or  
Tome other Liquor of a like Nature, is alternately sprinkled  
upon Plates os Metal, either with an Intention of corroding,  
depurating, or exalting. These Metal Plates, together with  
the *Cement,* are committed to a Box or Pot, winch from its  
Use has the Epithet *Cementatory* affix'd to it. A Crucible  
may also he used for this Purpose. The Vessel carefully cover'd,  
is put upon the Fine, which is not to be raised to that Degree  
of Heat as to melt the Metal, but only increased so sar as to  
put the corrosive Salts in Action, for corroding the prepar’d  
Metal from which the *Laminae* are intended to be purg'd.

Hence 'tis obvious, that several Salts are proper for forming  
Cements; that is, those Salts which are of such a Nature, as  
to act like a Menstruum upon the particular Metal to be cor-  
roded and separated from, the rest Of the Metallic Mass, on  
winch they ought to have no Influence. *Cements* are used in  
the Depuration of the nobler Metal, and the *Cement* used in  
the Depuration of Gold is called *Crementum Regale ,* because  
it spares Gold alone, and destroys all other Metals. What, in  
*Schroder's Pharmacopeia,* is called *Camentum vulgare,* is pre-  
par'd thus.

Take of Brick-dust, eight Ounces; of common Salt pre-  
- par'd, four Ounces; os Nitre and Verdegrise, each half  
an Ounce: Mix together.

For depurating Silver from Copper, *Beguinus,* in his *Tyrociniurn  
Chymicum,qssves* ^ Receipt under the sameName, and consisting  
precisely os the same Ingredients, except that there is an Addi-  
tion of two Ounces *of* white Vitriol *Stahl,* in his *Opuscula,*excellently accounts for the Manner in which *Cements* act upon  
Gold. " When, says he. Gold is adulterated by an Inter-  
" mixture of other Metals, especially Silver, tho’ in a Very  
" small Quantity, by the Addition of corrosive Salts, reduc'd  
dur" to a kind of Vapour by the Influence of the Fine, it is so  
" thoroughly acted upon, that the Particles of the heteroge-  
" neouS Metal are corroded, whilst those of the Gold are not  
" in the least affected, by which means its Compages becomes  
" Very porous; and if a littie more of a foreign Metal was  
"" added, it by that means becomes sufficientiy friable. For  
" this Purpose Nitre is chosen, together with such Substances  
" as free its acid Spirit from its alcaline Parts, that the Spirit

*or itoy* have Access to corrode the Silver or Copper mix’d with  
or the Gold. Substances of this kind are Prick-dust, Bole,  
" and Vitriol ; sometimes a little Verdegrise is added, and  
." sometimes Blood-stone, or Crocus of Mars. But this is  
ic done principally with a View of heightening the Colour of  
" the Gold, Tather than promoting the Efficacy of the Corro-  
" from Bus, that this Bufiness may succeed the hetter, the  
" Gold must he prepar'd, that it may be fitly dispos’d for the  
" Reception Of these corrosive Steams. This is done by  
" beating the Gold into pretty thin Pistes, that the Vapours,  
" which are notable to penetrate very far, may pervade them  
" so much the sooner.."

But 'tis to he observ'd, that many how disapprove of she Use  
of *Cements* in the Depuration of Gold, because it generally hapil  
pens, that they carry off some of the precious Metal with them.  
The Reason of this seenis to he, that some Quantity os commofi  
Salt, winch is the Menstruum of Gold, is often lodg'd in the  
Nitre. ’Tis now obvious, that to *cement* is the same as to*stras.  
tisiy* ; that is, for some time to expose a metallic Body to the  
Fine, .along with *Cement,* Layer above Layer. ‘Hence the  
Reason is plain, why *Cementation* is called corrosive Calcination;  
From what has been said, we likewise understand, why that  
Operation is call'd *Cementation,* in which Antimony, mix'd  
with Nitre, and, pounded; is calcin'd, in order to obtain  
the Liver of Antimony ; and upon what Account *Kircher, in*his *Mundus Subterraneus,* affirms that the *Crocus of Mars is*prepar'd by Cementation, since, in that Preparation, Plates of  
Steel are laid. *Stratum super Stratum,* with a Pasta made up of  
QuickTime and Urine, and calcm'd in a cementatory Vessel;  
*Rieger. ; . .*

C.ERULEUM. A Name for the CYANUS, which see. ’  
C.ZESALPINA. This Plant was so nam'd by Father *Plus.  
rnier,* who discover'd it in *Amccica,* in Honour to *Andreas Car-  
sclpinus,* who was an eminent Botanist, and one of the first  
Writers on a Method of classing Plants.

We have no *English* Name for this Plant;

. The Characters are ;

It hath a Flower of an anomalous Figure, consisting of one  
Leaf, which is divided into four unequal Parts ; the upper Part  
is large, and hollow'd like a Spoon. From the Bottom of the  
Flower arises the Pointal, amongst many incurv'd Stamina,  
which afterwards hecomes a Pod, including oblong Seeds.

We.have but one Sort of this Pint, which is, *Ccesulpina  
polyphylla, aculeis horrida.* Plum. Nov. Gen. Many-leaV'd  
*Ctofalpina,* with large Thorns.

I find no Medicinal Virtues attributed to this Plant; *Mels,  
latis Dictionary. . ’ .*

CAESAREA SECTIO. \

By the *Cesarean Section* the Moderns mean Ho more than  
*that chirurpical Opcration, ruhcreby the Foetus, which can neither  
make its Way into the World by the ordinary and natural Passages,  
nor be extracted by the Attempts os. Art,* whether the Mother  
and Foetus are as yet alive, or whether either of them is dead, \_  
*is, by a cautious and wett-tiinld Section, taken from the Belly os.  
the Mother, with a Virus to save the Lives os. both, or either of  
them.* This Operation is, by some, call'd ὑστερατομία, or  
ὑστεροτημοτεκία, tho' these Words are not to be found in the  
Writings of the *Greek* Physicians, in order to draw an *Odiunt*upon this Practice, we are told, that some os the most expert  
and knowing Physicians and Surgeons have not only censur'd the .  
Operation as unsafe and cruel, but absolutely condemn'd it, as  
necessarily and unavoidably productive of Death. The Authors  
commonly alledg'd as favouring this Opinion, are *Pare, Guise  
lirneau, Palsincius, Hoorn, Mauriceau, Solingen,* and some  
others, who are asserted to he *siworn Enemies to the Cas.arean  
Section.* But, upon a careful Perusal of the Works of thefe  
Authors, I find none of them promiscuously condemning the  
Operation in all Circumstances, hut only in certain dangerous  
Coses; when, for Instance, *the Foetus is io be cut from the  
Uterus of the Mother, as yet alive*; in which Case, and others  
of a like dangerous Nature, the aboVe-mention'd Authors have  
observ'd the most fatal Consequences resulting from the Opera-  
tion. But, for the sake of Accuracy, I must here observe, that  
there are three Coses in which the *Caesarean Section* is necessary.

The first is, when a pregnant Woman dies, either hefore  
the stated Time of Delivery, especially in the last Months,  
when the Foetus is perfect, and suppos'd alive; or when she dies  
in Labour; or is cut off by a Violent Death, and the Foetus is  
perceiv'd alive in the Uterus, or at least is, upon good Grounds,  
presum’d to be so.

The second Case is, when the Mother is still alive, and **the**Foetus dead, but, at the same time, so unnaturally situated, as  
that it cannot come into the World in the natural Way, either  
by the Efforts of the Mother, or the Art and Skill of the Mid-  
wise or Physician, in winch Case the Life of the Mother is in  
the highest and most evident Danger.

The third Case is, when both the Mother and Foetus are still  
alive; but the Foetus, as in the former Cafe, can neither he  
expel'd in the natural Way, by the Efforts of the Mother, \*  
nor extracted by the Art of the Midwife, so that both the Mo\*

ther and the Foetus must he in the most imminent and unavoid-  
able Danger os Death, unless they are sav'd by the *Cafarean  
Section.*

In the first Cafe, that is, when the Mother is dead, and the  
Foetus reasonably presum'd to be alive, I find few or none of  
the more noted Physicians and Surgeons, who disapprove of  
the Operation, since, without it, the Foetus must necessarily  
die, aS well as the Mother. And, as Delays in this Cose are  
highly dangerous, they universally agree, not only that the de-  
ceas'd Mother should be laid open, but also that the Operation  
should be perform'd aS soon aS is possible; because, generally  
. speaking, the FcetuS does not long survive the Death of the  
Mother; tho' *Dolnes, in Encyclopced. Lib.* 4. *Cap.* 5. informs  
us, that he perceiv'd the Foetus to move in the Belly the Day  
aster the Death os the Mother. In consequence os the Opera-  
tion being perform'd in this Case, we have several Instances, not  
only in the remoter, but also in the latter Ages, of the Foetus  
being taken alive from the Belly *os* the Mother. Accordingly,  
among the Antients, this memorable Circumstance is recorded  
Or *Lycas,* mentiossd by *Virgil,* of *Alseulapius,* os *Scipio Asm.,  
canus,* thence denominated *Cafar,* of *Manlius,* and, according  
to some, of the Emperor *Julius Cafar* ; and, in latter Ages, of  
*Edward* the Sixth, King of *England,* of *Sanctius,* King of  
*Navarre,* arid several others mention'd by different Authors,  
and from that Circumstance call'd *Ccesures* or *Ccnsones.* When,  
therefore, the Mother is already dead, or when the Surgeon  
perceives her to be struggling with the Agonies of Death, he  
should take cure to have every thing prepar'd sor the Operation,  
that, when she is actually dead, he may be ready to save the  
Foetus, either by making a crucial Incision in the ..Abdomen,  
as in ordinary Dissections ; or, which is a safer and more cau-  
tious Method, by a large longitudinal Incision, and not a cru-  
cial one, as most advise, made on either Side, with a Razor or  
Incision-knife, without, any Regard to the Direction os the  
muscular Fibres, or the Course os the Blood-Veffels. The  
Operation may be perform'd either in the Bed, or upon a con-  
venient Table. Is the Foetus has fallen into the Cavity os the  
Abdomen, either in consequence os a Rupture in the Uterus,  
or by some other Cause, it must, in this Case, he taken out as  
soon as possible ; and fince, on the like Occasions, the Foetus is  
generally Very weak, a littie *Hungary* Water, or some other  
Liquor of a like Nature, may be held to its Nose, for the fake  
of the Steam. The Breath also, either simply, or after having  
drank a little Wine or Brandy, is to he blown into its Mouth  
and Nostriis, in order to chear it. The Navel-string must be  
. ty'd in the ordinary Manner, and, for Decency's fake. Bap-  
tism administer'd. But if the Foetus remains conceal'd in the  
Uterus, that Body must be cautioufly laid open, the Child ex-  
tracted, the Navel-string cut, and, if it is still alive, proper  
Methods must be us'd to cherish and support it; and thus the  
.Operation is at an End. If the Foetus is lodg'd in the Fallopian  
Tube, or the Ovary, which sometimes happens, the Abdomen  
is first to be laid open, and the Child carefully extracted ; pro-  
**- c** ceding in other respects aS before directed. But, in an Affair  
of such Vast Importance as the *Cafarean Section,* the Surgeon  
should carefully observe whether the Mother be really dead, or  
only in a Deliquium, lest he rashly perform the Operation on a  
live Woman, as we are told *Visialius* did. He should rather be  
thoroughly satissy'd of the Mother's Death, by observing  
whether there be any Motion of the Parts lest, especially os the  
Heart, Arteries, and Lungs ; and have the joint Concurrence,  
if possible, of the By-standers, aS to the Propriety of the Ope-  
ration, before he attempts the least Incision; tho', at the same  
time, we have no Instances of the Mother reviving under the  
Operation, aster she has been taken sor dead ; and tho' such an  
Accident should really happen, the Surgeon has no Reason to  
think, that he commits Murder, since, in consequence os his be-  
lieving the Mother to be dead, his Attempts to save the Foetus  
not only flow from a Principle of Humanity, but are also autho-  
riz'd by the Laws os the Land. In such a deplorable Case, as  
there are still some saint Remains os Hope, especially is the  
' -Operation has been perform'd by a simple longitudinal Incssion  
on one Side, the Surgeon must Hitch up the Wounds, and treat  
them in the most skilful Manner he possibly can, since live Per-  
sons, who have voluntarily submitted to have the Foetus ex-  
tracted in this Manner, have sometimes happily recover'd ; sor,  
if the Surgeon should delay too long, from a mistaken Terror  
*of* murdering the Mother, the Foetus may be lost, and the  
Operation perform'd In Vain. Some condemn the Operation  
altogether, hecause, say they, aster the Death of the Mother,  
we are not certain whether the Child is still alive; sor which  
Reason they are not, in the Phrase of the Vulgar, for disturbing -  
the poor Mother, aster she is dead. The' I do not deny, that it  
is often a hard Tash to determine certainly whether the Foetus  
he dead or alive, and that, in consequence os this, the Opera-  
tion must often he perform’d in vain ; yet, in my Opinion, it  
is still more adviseable to open ten, or even an hundred dead  
- Mothers in Vain, than to lose one five Foetus for want of the  
- Operation.

My Advice, in general, is, that the Operation should he

**Perform’d as foon as possible on all Women, who die either a**littie before,, or in the Very Pangs Of Delivery; partly that the  
Foetus may he extracted alive, baptiz'd, and rescu'd from the  
Jaws of Death; and partly for the better Information of Phy-  
sicians, Surgeons, and Midwives, to acquaint them with the  
Figure, Bulk, and Structure of the Uterus in pregnantWomen,  
with the Posture of the Foetus in it, the State of the Mem-  
branes, the Disposition os the Secundines, and their Connexion  
with the Uterus, that they may, at other times, be the hetter  
qualify'd for affording Relief in Circumstances of a like Nature;  
and partly, according to *Deventer,* that it may be discover'd  
whether the Death of the Mother was owing to the Unskilful-  
ness of the Midwife or Surgeon, or to some other Cause ; that  
they may be punish'd or acquitted accordingly, and arrive at a  
greater Knowledge in their Profession. We must not then de-  
lay performing the Operation upon a Woman who dies in these  
Circumstances, much less must we bury her with the Foetus in  
her Belly, which is too often the Case; since, on some Occa-  
fions, the Child may remain alive in the Uterus a long time aster  
the Death of the Mother ; sor I think it barbarous and inhuman,  
repugnant to Christianity, and inconsistent with Mercy, to  
bury the Child, as yet alive in the Uterus, with its dead Mo-  
ther. I therefore think, that not only among Christians, but  
also where-ever Humanity and Compassion have the least Regard  
paid them. Princes and Rulers should enact the severest Laws,  
injoining that all Women, who have died during Pregnancy,  
should not only be laid open hesore they are bury'd, but also  
that this should be done immediately after the Death of the  
Mother, by skilful Physicians and Surgeons, lest, by a Delay,  
the Foetus should be allow'd to die in the Uterus, or, by omit-  
ting the Operation altogether, it should he bury'd alive with its  
dead Mother ; fince, in this Case, they might justly he said to he  
murder'd, according to that eternal, immutable, and unalter-  
able Law of Nature, *llrhom thou didst not fave from Death,  
when it was in thy Power so to da, him thou hast bilfid.* The most  
antient of the *Roman* Kings, tho' .destitute of the Light of Re-  
Vest'd Religion, were mov'd with the highest Compassion for  
Insanis in this Condition, fince they made a Law in their Favour  
call'd the *Lex regia,* which may be justly dignify'd with the  
Epithets *Christian* and *Divine,* injoining. *That no Woman who  
died pregnant, soould be burfd before the Foetus was extracted  
from her, and making it a capital Crime to do otherwise*; adding  
this aS a Reason, *That he seems, by fo doing, to have destroy’dethe  
Life of the Pentus.* Their Intention in this Law, doubtless,  
was, that the Operation should be perform'd in due Season,  
that is, soon after the Death of the Mother; because the Foetus,  
aS we know by Experience, does not long survive. But, tho'  
most of our lawyers acknowledge the Equity and Sanctity of  
tins Law, yet, by some unhappy Fate, it is seldom or never  
minded any-where among Christians in our Times, but as  
much neglected, as if there were nothing relating to it inserted  
in the Body of the Law. *Hildanus,* indeed, telis us, that this  
Royal Law was, *for* the most part, observ'd in his Country,  
that is, in *Stuitzcrland*; but in other Countries, as far as I  
could leans, they make no Scruple to bury their dead pregnant  
Women without Section. Princes and Magistrates, indeed.  
Convict and punish Wheres, when their Infants perish for want  
of a Ligature os the Navel-string, or for some other Neglect;  
and, in my Opinion, justly ; for which Reason I cannot but  
the more wonder, thet they inflict no Punishment on those by  
whose Fault, or Negligence, the Children of those who die  
pregnant, perish in the Womb, when they might often have  
heen preserv'd ; since the Life os a Child is aS much concern'd  
in one Case as the other, and the Guilt in both Cases is alike.  
Pertinent to this Purpose is whet *Mauriceau, Observ.* 345. re-  
lates os a Man who would not suffer his Daughter's Womb,  
who dy'd without Delivery, to he rip’d open, and so wilfully  
occasion'd the Death of the Child ; a Crime which deserves to  
be severely punish'd: So here, at *Helmstadt,* a Man would not  
suffer me to make an incision in his dead Sister, but threaten'd  
to shoot me, if I came into his Doors upon such an Account *r*and so the Child also perish'd. I cannot but think, that Legislators  
would do nothing improper, or unbecoming their Office, by  
taking all due Care, and issuing strict Orders, that no pregnant  
Woman, who dies hesore or in the Time of Travel, should be  
interred before Incision of her Belly and Uterus.

When the Mother is still living, but her Child dead in the  
Womb, without any Hopes of its coming away, or being ex-  
tracted by the natural Passages, aS usually is the Case ; when,  
there are Indications, that the Child sticks in the Tuba Fallo-  
piana, or the Ovarium, or in the Cavity of the Abdomen, or,.  
perhaps, in a kind os Hernia without the Belly, of which *Sen.'  
nertus* and *Hildanus* have given us each an Example ; or *if the  
Passage be* obstructed by a Callus, a ScirrhuS, a Tumor, or an  
Exostosis about the Os Uteri, .or in the Vagina ; or *if there be  
too* great a Streightness of the natural Paris, occasion'd either by  
an incurable Coalition of the Vagina, or *as* Callus, or an ill.  
Conformation of the Bones of the Pubes, which is incident  
especially to Women of a dwarfish Stature, and thereby the  
Foetus is render'd ineapoble of Expulsion; and the Mother,

'thro' the Vehemence os the Pains, or Convulsions, or a violent  
Haemorrhage, or some other considerable Cause, should have  
her Strength exhausted, and, by that means, her Life endan-  
ger'd, I judge the *Ceefarean Section,* tho' never prescrib'd by  
the Antients for living Persons, and condemn'd by many of **the**Moderns, to be absolutely necessary for preventing the Death of  
heth the Mother and the Child ; for, in these Cafes, an Ex-  
traction by the natural Ways, which *Mauriceau* advises hesore  
**a** *Ceefarean Section,* in every preternatural Birth, can have no  
Place. Therefore, in all such Circumstances as render at im-  
possible to extract the Foetus by the ordinary Ways, (for about  
these are we principally concern'd) Incision of the Belly is,  
indeed, a severe and dangerous, but the only Remedy to deliver  
the Mother from the Foetus, and from imminent Death ; and  
we are not without Examples, in Various Authors, of this  
Section heing happily perform'd ; so that *Mauriceau* speaks  
against Reason and Experience, when he asserts, that this  
Section is always mortal to the Mother; sor which Reason he  
is also reprehended by *La Motte,* who was himself no Friend to  
this Operation, but rejected it on some Very proper Occasions.

However, tho' there be many Examples of this Operation  
heing perform'd successfully, and tho' there are Very sew but  
will admit of a Section of the Belly and Uterus, when **the**Mother is dead, and even while she is alive, if Nature points  
out the Way, by some Tumor, Pain, or Abscess, in some  
Part of the Belly, as on one Side, or aheut the Navel, in  
which Case this Operation is usually perform'd with Success, as  
several Authors have observ'd, because it is follow'd by little or  
no Haemorrhage, and the Foetus, on these Occasions, generally  
-sticks in the Fallopian Tube, the Ovary, or the Cavity Of **the**Abdomen; yet there are some Very eminent Physicians and  
Surgeons, who will by no means admit of it, and not only  
dissuade from the Practice os it, but utterly condemn it, as cruel  
and barbarous, and always destructive and fatal to the Mother,  
when the Foetus is detain'd in the Uterus, and no Abscess  
manifests itself. Some of the principal Gentiemen os this Opi-  
nion are *Guillemeau, Mauriceau, Rolsincius,* and *Solingen;*and for this Reason, hecause they always observ'd it to be sue-  
' ceeded by the Death os the Mother ; tho' that might often hap-  
pen from some other Cause. And some *of* them do not stick  
at branding those Physicians, who advise or undertake this Ope-  
ration while the Foetus is in the Uterus, and no Abscess is dif-  
cover'd, with the Titles os *cruel* and *rasui,* because, say they,  
**the** Foetus should rather be extracted, by the natural Passage,  
with the Hand, or by the Help of Instruments, and not by  
ripping up the Belly and Uterus, with the utmost Danger of the  
Mother's Lise, by the *Ceefarean Section.* But these Gentiemen  
are sufficiently confuted, heth by Reason, and the Experience of  
Tome of the most sagacious and approv'd Physicians and Surgeons,  
fuch as *Pesset, Bauhine, Sennertus, Hildanus, Fienus, Sculte-  
tus, Scipio Mercurius, Roonhuysen, Ruleau, Lancisi, Sa-  
. viand, fobert, La Motte, Toichmeierus,* and others, who all  
assure us, that the Mother has sometimes happily surviv'd **the**Operation.

I confess, with respect to the Mother, the Operation is Very  
. dubious and hazardous, especially when the Foetus is to be cut  
out of the Uterus, and no Abscess appears ; and, therefore, I  
am of Opinion, that it ought not to be undertaken without  
absolute Necessity; tho', from what has been said, and whet  
will further he remark'd, I cannot but think it, on some Oc-  
casions, useful and necessary. *Gouey,* indeed, one Of the latest  
Writers of Surgery among the *French, Resset, Scipio Mcrcurius,*and *iVielfchius,* endeavour to prove, that the *Ceefarean Section*has no more of Difficulty or Danger in it, than cutting for the  
Stone; and, *if* dexteroufly manag'd, ought to be frequently  
. undertaken, as appears from Examples winch they bring. But,  
for my part, I cannot consent to so great a Length, and that  
for weighty Reasons, added to the Observations of *Pare, Guil-  
lemeau, Rolsincius, Mauriceau,* and *Solingen,* shewing the fre-  
quent unhappy Events winch attend such an Operation ; and,  
particularly, because of the Danger of an immoderate Haemor-  
rhage, or a Gangrene, and the Hazard which accompanies  
Wounds of the Uterus, especially in pregnant Women, as was  
long ago well observ’d hy *Celsus, Lib.* 5. *Cap.* 56. *Mauriceau,*with some others, as I observ'd, is sor extracting the dead Foetus  
always by the natural Passages, with the Hands, or by the Help  
of Instruments, rather than have recourse to so dangerous an  
Operation as the *Ceefarean Section.* I heartily agree with this  
their Opinion, as often as the thing is practicable ; and utterly  
disapprove the Rashness of those Surgeons, who have Ventur'd  
upon a Section of the Belly, when the Foetus mtght have been  
extracted by the Vagina, tho' the Operation was sometimes at-  
tended with Success. However, since Cases often occur, such  
as I mention'd above, where it.,is impossible to extract **the**Foetus by the usual Passage, and the Mother is in utmost Dan-  
ger of perishing, on account of its Detension in the Uterus, I  
look upon it as a barbarous and impious thing to leave the un-  
happy Woman, who earnestly implores our Assistance, or at least  
extremely wants it, without Help ; and am of Opinion, that, in  
Cases os Extremity, the last or most desperate Remedies are te

he us'd ; and Certainly, according to the Judgments of *Hipfri.  
crates* and *Celsius,* the Venerable Fathers of Medicine, a dubious  
Remedy is better than none, and preferable, in such Cases, to  
leaving the poor Woman helpless in that most deplorable State,  
under the greatest Torments, and giving her up to inevitable  
Death, while there is still Hope of saving her, aS appears from  
happy Examples. Therefore I think thoso Physicians much in  
the wrong, who had .the Care of the Woman mention'd by  
*Saviard, Obferv.* I I4. who, when they found the Birth was  
impossible, hecause of the Narrowness os the Passages, would  
not undertake a Section, but left heth Child and Mother to  
perish together. And in his *Obferv.* 6o. we have an Instance  
of a Woman who beg'd for Section, but could not obtain **iti**Some there are, as *Mauriceau, Lamotte,* and others, who  
acknowledge, that there are Cases in which it is impossible for  
the Foetus to be brought away by the ordinary Passage, and yet  
advise, in such a Circumstance, to leave the Conduct of the  
Matter wholly to Nature, rather than expose the Patients to so  
dangerous a Section; because Nature often finds out Ways, by  
means of an Abscess in the Belly, Navel, Groin, or *Intestinum  
Rectum,* to expel the putresy'd Foetus with less Danger than it  
could he extracted by Section of the Belly. In this I agree  
with them, as often and as long aS the Mother is in no Danger .  
of her Lise from this Forheasance, which is sometimes **the**Case: But when the Danger is urgent, when by too long  
waiting we hurt, and in a manner kill the Mother, I think **we**ought to have recourse to the last Remedies, especially such as  
have been known to succeed, rather than give up the Patient,  
who might be under a Possibility of being helped, tho' by a du-  
bious Remedy, to an unavoidable and most miserable Death.  
For, certainly, a Physician seems to me then only to have dis-  
charg'd his Duty to the full, and satissy'd his Conscience, when  
he has done all things, and omitted nothing that he knows to he  
serviceable, and which he is sensible has done Good in other  
Cases of the like kind, without regarding whet some, perhaps,  
may object against his Proceedings,-especially when the Patient  
herself, whose Life is dear to her, and who had rather try a du-  
bious Remedy than none at all, defines it of him. Others there  
are, who confess that the Reason why they will not undertake  
this Operation, is the Disgrace they are like to undergo, if it  
should not succeed : But this seems to me a Very Vain and trifling  
Excuse in so serious an Affair, and hardly becoming a good  
Man, much less a Christian Physician, who, in the way of his  
Duty, ought to stand in Awe of no Man, much less to he de-  
terred by the Censures of the Vulgar, or the Calumnies of **the**Malicious. Tn short, all things are to be done by a Physician  
for the Preservation of his Patients in general, and especially  
those 'of the weaker and tender Sex, in this their most mise-  
rable and helpless Condition. And *Lamotte* himself has several  
times perform'd Operations on Women, and particularly **the**Extraction os the Foetus, eVen against the Mother's Consent ;  
to accomplish which, he order'd Women in such a Circumstance  
to be held by strong Men, that he might by Force extract **the**Child, when in an ill Situation, in what manner he thought sit;  
Now, if he thinks such a Proceeding to he fair and lawful, why  
may we nos, with a safe Conscience, use the same Violent Means  
for extracting the Child by a Section of the Belly, that, if **the**Mother will not Voluntarily submit to what ikilFuI Physicians  
shall judge necessary for her Preservation, she may he compel'd  
by Force to undergo it ? For my part, I see no Reason to **the**contrary. How much more then are we to lend our Assistance  
in the former Cafe, when it is not only Voluntarily desir'd, but  
earnestly intreated l .

If, then, the unhappy Woman consent to submit to Section,  
or Voluntarily desire it, the first thing to be consider'd is, whether  
she has sufficient Strength to undergo the Operation. For is she  
he Very weak and low, be hold in the extreme Parts, and in a  
cold Sweat, it is to he fear'd, that she will die soon after the  
Section, and so the Couse of her Death, by ignorant and mali-  
cious Persons, may be imputed to the Operation, and the Sut-  
geon. It is best, therefore, in this Circumstance, to forbear  
such an Undertaking, lest, as *Celsius* says. *Lib. 5. Cap.* I 6. we  
might be thought to kill the Woman, who, in reality, dies of.  
the Violence of her Distemper. But if she be.in good Strength  
and Heart, and there is Hope of saving the Mother, or Child,  
or heth," the Operation is to he readily undertaken; for the  
right Performance of which, we are to consider, first, what  
is to he done before the Operation; secondly, whet is to he  
done under the Performance; and, thirdly, whet aster it. Be-  
fore the Operation the proper Instruments are to be laid ready,  
which are, a strait Knife, firmly set in the Handle, and such as  
is represented *{Tab.* 32. *Fig.* 8.) ; or such a one as is commonly  
used in anatomical Dissections, or else a Razor, or some such  
Instrument; or one of the blunt instruments, represented *{scabs*26.) ; also a blunt-pointed Pain of Scissius, with crooked  
Needles, threaded with strong Threads, or Cords, aS for Gastro-  
raphy ; a clean Sponge or two ; hot Wine, or some hot Vul-  
nerary Decoction in a Vessel; with the proper Apparatus os  
Bandage, consisting of Lint; Plaisters, . Polsters, and Fillet?;  
not forgetting internal corroborative Medicines, and external

'ones, to he apply'd, if needful, to the Month and Nostrils.  
All these Things heing fitiy disposed out of the Woman's Sight,  
she is first to make Water, lest the Bladder, heing distended  
with Urine, might he exposed to the Knife ; she is then to he  
placed in a proper Situation, either on a Table, or Bed, in the  
midst of the Chamher, on her Back, in fuch a manner as that  
the Attendants may have convenient Access; and her Spirits are  
to be kept up by pleasing and pious Words, her Face being  
cover’d, that she may not be terrify’d at the Sight of the Instru-  
ments ; and her Arms and Legs are to he held by at least four  
robust Persons, that she may lie immoveable ; or, if you think  
fit, they may be ty'd.

The Surgeon then, standing at that Side of the Woman which  
seems most convenient, enters a strait Knife by the external  
Side of the Musculus Rectus, or in the Space between the Na-  
vel and the upper and fore Eminence of the Os Ileum, where  
Persons are now usually tap'd for the Dropsy, (winch seems to  
me, as yes, the fittest Place) making a strait Incision, first thro'  
the Skin and Fat, about eight or ten Fingers-breadth in Length,  
after thet, thro' the *Musculi Obliqui* and *Musculus Tranfuersus,*and, lastly, with the utmost Caution, thro' the *Peritonaeum*; where  
the principal thing to be observ'd by the Surgeon is, to make but  
a Very small Wound, or Aperture, with this first Knife, forfear of  
hurting something withinside. Then with another Knife,  
probe-pointed, *{silab.* 26.) or with the Sciffars, he is to dilate  
the Wound; or, if he has not the last Instruments in Readiness,  
or thinks sit to use but a sew, he may introduce his Finger  
thro' the Wound into the Belly, and by the Assistance and Di-  
rection hereof, with the first Knife, or with the Sciffars, in-  
large the Wound, till it seems wide enough sor the Extraction  
of the Foetus, taking all possible Care, that he hurts nothing else  
withinside, which may be readily avoided, by dexteroufly follow-  
Ing these Directions : A sufficient Aperture being made in the  
Belly, the Situation of the Child, and where it sticks, is to be  
thoroughly inspected. If it be found to lie without the Uterus  
in the Cavity of the Abdomen, as it sometimes happens, you  
are immediately to extract it, together with the Secundines. If  
It be situated in the Fallopian Tube, or in the Ovary, an Inci-  
sion is to be cautiousty made in these Parts, and the Foetus,  
with the Placenta, to be extracted thence. If the Foetus be  
detain'd in the Womb, the Cose is more hazardous, for fear of  
an immoderate Haemorrhage, or dangeroufly hurting the Ute-  
rus, the Wounds of which Part have, from all Antiquity, been  
observ'd to be Very pernicious, especially in pregnant Women.  
However, fince the Child cannot be otherwise extracted, an in-  
Cision is here also to he made, and afterwards in the Membranes  
Of the Foetus, wide enough for accomplishing the Extraction.  
This done, and the Foetus and Secundines being brought away,  
the extravafated Blood in the Belly is to be deterg'd with Sponges  
‘ expressed out of warm Wine, or some warm vulnerary De-  
coction ; and if the Effusion of Blood be immoderate, it should  
he restrain'd by Lint moisten'd with highly rectisy'd Spirit of  
Wine, and introduc'd into theWound of the Uterus; and the  
divided Orifices of the larger uterine Veffeis are to be compressed  
with the Fingers upon Lint, till the Haemorrhage ceases, or, at  
least, is Very much abated. We have here Occasion to take  
Notice, that Women, in Child-birth, and after it, often lose  
a Vast Quantity os Blood without Danger of Death ; and,  
therefore, the Surgeon ought not, on a sudden, to be terrify'd  
at a pretty copious Haemorrhage on this Occasion, especially if  
his Patient continues to preserve her Strength and Spirits. After  
some reasonable Space of Time allow'd sor the Woman to re-  
collect her Spirits, and to he refresh'd with some corroborative  
Medicine, the Lint is to he gently remov'd from the Wound,  
and the Belly again deterg'd with warm Sponges. The Wounds  
os the internal Parts are not to be sew'd, as some heretofore  
directed ; but, aster an Application of Balsam of Capivi, or  
Tomething like it, are to be left to Nature ; for, as the Uterus  
gradually contracts itseif, the Lips oftheWound come together,'  
and, at last, if nothing intervene to prevent the Cure, are  
Conglutinated.

But the Wound in the Belly is to be sew'd up with two or  
three Sutures, in the same manner as has been directed for  
Wounds of the Abdomen (See ABD0MEN) ; and a Tent,  
Pipe, or Canula, of considerable Bigness, is to be adapted to  
the lower Part of the Wound, in order to keep it open ; sor  
thro' this Aperture not only the noxious Humours, diseharg’d  
from the Wound in the Uterus, and remaining within, and  
thofe which continue to discharge themselves, may find a Vent,  
but by the Help of Injections, as is practis'd in other Wounds of  
the Breast and Abdomen, they may also be brought away. And  
this Method must he continu'd till the Lips os the Wound are  
conglutinated, and all Efflux of Pus, or any other Humour from  
the external Wound, ceases; an indication that the internal  
Wound is heal'd. Aster the Threads us'd in the Suture are cut -  
and extracted, omitting theTent or the Pipe, the exteriorWound  
is also gradually conglutinated by Vulnerary Balsams, and agglu-  
tinating Plaisters. Most, indeed, advise sewing the Wound of the  
Belly; but, after considering the Matter with inyself, and observing  
that other strait, or, aS they are Commonly call'd, longitudinal

Wounds of the Abdomen, for the most part, need no Suture,  
and, by the more modern Surgeons, are excepted from those which  
are to he sew'd, fince their Lips may, for the most part, be  
commodioufly join'd, and retain'd in Contact, by proper  
Plaisters, and a large uniting Bandage, I am of Opinion, that,  
in these Cases, we do not often stand in need of Suture, if  
proper Bandage is carefully apply'd. *Rjoufsis,* taught by Expe-  
rience, declares that, in this Case, he did not think Suture  
Very necessary: But, if Bandage should he thought absolutely  
insufficient for the Purpose, then Suture is to be us'd. Some,  
hefore the Section is made, mark with Ink not only the Part  
where it should be made, but also where, and in what Places,  
Suture should he perform'd ; but, as these Marks are quickly  
Obliterated, and effac'd by the Effusion of Blond, I think this  
Advice altogether trifling and useless. As sor the Situation of  
the Patient in Bed after the Operation, most Authors advise,  
that she should he continually on her Back ; but, to me, it  
appears more proper, especially if the Wound has been made  
on the Side, that the Patient should, as much as possible, lie  
with the Wound undermost, that some Part of the noxious  
Humours collected within may not only flow continually, and,  
as it were, insensibly ouse from the external Wound, but also  
that the Lips oftheWound may be the more easily agglutinated ;  
which Advantage is more easily procur'd when the Section is  
made in the Side, than when the Operation is perform’d in  
the middle or anterior Part of the Belly. *Roufsiet* also advises,  
that a hollow Pessary should be introduc'd into the Uterus, that  
the Blood may he the more easily convey'd from- it. Besides,  
the Physician must prescribe a proper Regimen, and suitable in-  
ternal Medicines, such as are, on other Occasions, order'd for  
those who heve receiv'd large Wounds; and these are to be  
persisted in, till the Patient is thoroughly recover'd, which, in  
*Lancisus* Patient, happen'd infix Weeks. .

From whet has been said, 'tis obvious to every one, that .  
this Operation, especially when a Very large Aperture is made  
in the Uterus, must be attended with the greatest Danger.  
But fince there are many Instances of Mothers being preserv'd  
hy this Operation, who must have otherwise died Very soon  
according to all Appearance, and fince there is often no better,  
and indeed no other. Method of relieving the miserable Wo-  
man, I think itadviseable, rather to attempt this hazardous  
Operation in Cases where all other Hopes of Relief are cut  
Off, than to abandon the miserable Patient, and leave those to  
the gloomy Prospect of unavoidable Death, who are often so  
fond Os Life, as to submit to the most cruel Measures for pre-  
serving it.

Enough I think has already heen said concerning the com-  
mon and ordinary. Method os extracting the Foetus from the  
Uterus. But as certain Coses now-and-then occur, in winch,  
the Operation is to be otherwise perform'd, these also deserve  
our Consideration. When, sor Instance, the Foetus can nei-  
ther be hern in the natural manner, nor extracted from the  
Uterus, there appears any Tumor or Abscess in some Part of ,  
the Belly, especially about the Navel, accompanied with Pains  
more or less acute, as happen'd in the Cases mention'd by *Roujsct,  
Bauhine, Hildanus* from *Albucasis, Alexander. Benedictus,* and  
others ; as also in the Instance recorded by *Cyprianus,* that ce-  
lebrated *Dutch* Physician, in *Epist. de Hernia uterina-,* and  
in the Case describ'd in the Annals of the *Julian* Academy, sor  
the Year I727; in which a Tumor and Abscess appear’d in  
the Musculus Rectus, hard by the Navel, as happen’d in most

- of the soremention'd Cases; and,- upon opening the Tumor,  
all the Bones os a perfect, but putrified Foetus were extracted.  
These Bones are in my Custody, and the Mother is still alive.

In Cases os this Nature, I think the most proper Pisce sor  
performing the Operation, is that which is indicated and pointed  
out by Nature itself; fince under it, for the most pars, are  
lodg’d heth the Foetus, and the corrupted Humours, which  
- create fuch intolerable Pains to the miserable Mother. If,  
then, such an Abscess should be already broken, as sometimes  
happens, and if the Aperture in it should be too small, it is, as  
in other Abscesses, to be sufficiently inlarg'd, either with a.  
groov'd Prohe, and proper Knife ; or, instead of the Probe,  
with the Finger and Knife, or with Scistars, or with that Knife  
delineated in *Tab.* 26. *Fig.* 3.

Then the Bones of the Foetus left aster the Putrefaction of  
the soft Parts, or whatever os a corrupted Nature is found  
in it, are to be extracted, either with the Fingers, or with a  
Pair of Forceps; the Vitiated Humors are to be evacuated, the  
Ulcer is to be deterg'd by proper Medicines, and then con-  
glutinated by such Balsamics as are in like Cases directed by  
skilful Surgeons. If there is as yet no Aperture in fuch aTu-

»mor of the Belly, but if Pains, and other bad Symptoms in and  
about it afflict and weaken the Patient; and especially is to the  
Touch there appears to be Pus in the Tumor as in Abscesses,  
lest the Patient should suffer thereby, we must, after con-  
sulting with other skilful Practitioners, make a sufficiently large  
Incssion in the Abscess or Tumor, extract the Foetus, or its  
Bones, if the Flesh he putrified, diflodge every thing of a cor-  
rupted Nature, deterge the Ulcer, and agglutinate it in the

fnanner already directed. In the above-mention'd Cases, these  
was no Occasion for Suture, but the Wounds gradually united  
and healed in the same manner Other Abscesses do.

If the Foetus should he lodg'd in a certain uterine Hernia,  
which rarely happens, tho' it occurred in the Case related by  
*Sennertus* and *Hildanus-,* a sussicientiy large Incision is to he  
made in the Henna or Tumor itself, first thro' the Integu-  
ments, then thro’ the Uterus, and, last of all, thro' the Mem-  
branes Of the Foetus. Then the Foetus is to be extracted,  
’and the Secundines are to he taken from the Uterus, which is  
to he replac'd in the Belly, either immediately, if it can he  
done. Or a few Days after, when it becomes less by its Con-  
traction. The other Steps to he taken are the fame with those  
already directed. In the Case related by *Sennertus* and *Hilda-  
nus,* the Surgeon did not replace the Uterus, but immediate-  
ly stitch'd up the Skin: Hence I believe it happen'd, that the  
Uterus could not afterwards be replac'd, but the Mother died  
a Month after, tho\* the Foetus was alive and sound. It  
had therefore heen hetter to heve omitted the Suture, and ret  
plac'd the Uterus in the Belly fome Days after, when it had  
become less by Contraction; for by this means the Mother  
might have possibly been sav'd.

If Pieces of Bones belonging to a corrupted Foetus seek a  
Passage hy the *Intestinum Rectum,* and *Anus,* which they some-  
times do, as is evident, not only from the Cases already  
mention'd, but also from one which happen'd a few Years  
ago in a neighbouring Village; upon such an Emergency,  
the Splinters which come not away spontaneoufly are to be ex-  
tracted cautinufly, either with a proper Hook or Forceps;  
and the Wound of the *Intestinum Rectum* is afterwards to be,  
agglutinated with Balsamics. But these are Circumstances  
which do not properly belong to the *Cas.arean* Section. But  
if Coses of this Nature should occur, I advise the Surgeon to  
read and compare what has been advanc'd upon this Subject,  
by the above-quoted Authors, that he may at once be appris'd  
of the Variety of Cafes of this kind, and qualified, for treat-  
ing them with the greater Skill and Judgment.

In the third Place, the *Cas.arean* Section is to be perform'd  
when the Mother and Foetus are still alive, but at the same  
time the Foetus, on account of some Impediments, can nei-  
alter be hern in the ordinary Manner, nor extracted, especially  
when a bad Conformation of Parts in the Mother prevents  
. the introduction of .the Surgeon's Hand for her Relies. . In  
this deplorable State of Things, both Mother and Foetus mint  
unavoidably perish, unless reliev'd by the Operation. Tho' in  
Cases of this Kind, many Physicians and Surgeons are too ti-  
morous, tho' many Women from a false Principle os Com-  
passion, or mistaken Notions of Religion, condemn the Ope-  
ration in these Circumstances as impious, tho' by it the Foetus,  
or the Mother, and often both, might he preserv'd ; yet I  
think it more prudent, and more agreeable to the Precepts of  
Christianity, to undertake the Operation, where no other  
Means of Relief can he found, than to destroy both Mother  
and Foetus, for want *of* it; especially on Queens and Prin-  
cesses, where the Peace and Safety of Kingdoms and Nations  
depend on the Preduction of a Successor, without which there  
would he an unavoidable Foundation laid *for the* most cruel  
Wars, Devastations of Cities, Robberies, Murder, and the  
Subversion of States; for, by this Operation seasonably under-  
taken, either the Mother, or the Foetus, or both, but most  
frequently the Foetus, is preserv'd. The Lives of a great Number  
of Soldiers are often exposed in the Field of Battle for the Good  
of the State, without any Hesitation or Reserve; and, is Cir-  
cumstances require it, why should not the Life of one Woman  
he risqu'd for the same End ? If therefore we think justly on  
the Point, we shall have Reason to condemn as cruel, barba-  
xous, and inhuman, thofe Very Physicians and Surgeons, who  
thro' mistaken Views either delay the Operation, or dissuade  
from it ;. especially when the Women themselves desire it should  
he perform'd. . . . "

*Mauriceau,* tho' a skilful Man-midwife, and an inveterate  
Enemy to the *Caesarean* Section, yet gives an Instance of the  
Foetus being preserv'd alive by it, tho' the Mother died ;  
whereas, without it, both Mother and Child had unavoidably  
perish'd; for, upon the Principles of common Sense, it is far  
more eligible to save one, than to destroy both. The Ope-  
ration is to he perform'd in the same manner, as when the  
Mother is alive, and the Foetus dead; only greater Caution is  
to he used, lest, in opening the Uterus and Membranes, the  
Foetus should be hurt or injur'd.

Bus, tho'. I heve only perform'd this Operation on dead  
Women, yet I am so fully apprised of the Danger that attends  
it, that I am sar from advifing it in Cases where there is the  
least Probability of bringing, the Foetus away by the natural  
Passages. *Mauriceau,* and others, seem to think, that some  
Physicians advise the *Cas.arean* Section, where rhe Foetus can  
he extracted thro' the common Passage; and, so far as I can  
understand, they seem to helieVe, that some Physicians prefer  
this Operation to the other gentle and natural Method. But  
#tis scarce credible, that .2 prudent Physician or Surgeon

should either adviie, or actually perform, the *Cas.arean* Section^  
which is so dangerous on a live Woman, when there is a Pos-  
sibility of extracting the Foetus thro' the Vagins, tho' it should  
only be brought away in Pieces, except in some particular  
Cafes upon Queens or Princesses, where Interests of State,  
and the manifest Good of the Community, require it. When-  
ever it happens then, that the Foetus, either on account of its  
unnatural Situation .in the Womb, its excessive Bulk, especi-  
ally that of the Head, the monstrous Conformation of its  
Body, or some other Cause, cannot he born, tho' at the  
same time it is contain'd in the Uterus, and when there is an  
evident Danger of the Mother's Death, as well as that Of the  
Foetus, in consequence of her Strength heing exhausted ; if  
on such Occasions there should arise a Dispute, whether, in or-  
der to preserve the Foetus, the Operation should he perform'd  
on the Mother, or whether the Foetus ought not rather to be  
extracted with Instruments, if it cannot otherwise be done 5  
I think the Mother is to be preserv'd, and the Foetus, even  
tho' alive, to be extracted by any Means. In this Sentiment 1  
am supported by the Judgments of many Physicians, Surgeons,  
and Divines, who, in Cases of difficult Births, where 'tis im-  
possible to save both Mother and Foetus, lay it down as a  
Maxim, that the Life of the Mother is to be preferrfd to that  
of the Child ; or, as they express it, the Tree before the  
Branch. I am also of Opinion with *Balingen* and *la Mattes*that if a Callus of the Vagina, or Mouth of the Womb, be  
the Cause why the Foetus cannot be brought away, and if  
these Parts can he sufficiently dilated, either by Section or  
Dilaceration, that this latter Method should\*be prefer'd *to*the *Caesarean* Section ; because by this Method the Belly and  
the Uterus itself are left entire, and the Blood discharg'd  
flows all thro' the Vagina, but in the other Cose is thrown into .  
the Abdomen, and considerably endangers Lise. Besides other  
Advantages attending this Method, the Wound is also more -  
easily agglutinated in it than in the other. I also think, that,  
when the Vagina is shut up by the Hymen, or any other  
Membrane, these are to be cut rather than the Belly and UteI  
rus: But when the Vagina is cover'd with too large and . hard  
a Callus to admit of a sufficient Dilatation, and especially  
where there is an originally bad Conformation of the Bones  
Of the Pelvis, then the *Cas.arean* Section is to be had recourse  
to as the only Method os Relief

In like manner; is; by the Pains and Efforts made during  
Labour, the Uterus should be broken, and the Foetus flip in-  
to the Cavity of the Belly, aS sometimes happens, the Belly is  
in - this Cafe to he laid open, fince without such an Operatiori  
the Foetus could not - be extracted, and consequently neither  
it nor the Mother preserv'd. It may be known by the follow-  
ing Signs, when this happens to be the Cose : If Violent Pains,  
by which the Child is not forc'd into the World, are remit-  
ted, or cease all of a sudden, the Mouth os the Uterus in the  
mean time not being open, or at least not sussicientiy oneri  
for the Purpose; a Circumstance which denotes the preter-  
natural Situation of the Child ; if a certain Rupture Or  
Fragor is perceiv'd in the Belly 5 if a Shivering succeeds ; -  
if a large Tumor afterwards appears, and the Foetus in.  
perceiv'd to he situated higher in the Belly, than hefore ;  
if the Parts or Members of the1 Foetus are more distinct-  
ly felt than when ft was in the Uterus, especially if it is  
felt in either of the Hypochondria, with Pains in another  
Part of the Belly than before; as also, if the Patient is  
seiz'd with fainting Fits, convulsive Motions, or perhaps Alie-  
nation of Mind. When these Symptoms attend a difficult  
Birth, when no Part‘of the Foetus appears externally, and  
when, upon passing the Finger thro' the Vagina, it is not  
sound to press so strongly on the Mouth os the Uterus, we  
may conclude, that the Uterus is burst, and the Foetus siipt into  
the Cavity of the Abdomen. If this should happen to he the  
Case, the Belly of the Mother is to be open’d in the most  
prominent Part, where the Child is sound to be lodg'd, with  
a View to save the Lives, if not of both, yet at least of the  
Foetus. When the Arm hangs out of the Rupture of the  
Uterus, 'tis a bad Symptom, and a Cure is in this Case very  
difficult, if not impossible; however, we must prognosticate  
from the concomitant Symptoms. I am surpris’d, that the  
Physicians and Surgeons belonging to the *Strasburg* Hospital,  
in which a Patient had been in Labour for five Days, and  
whose Case is recorded by *Pistor,,* should have delay'd laying  
her open, fince eVen during her Life they had the most mani-  
fest and incontestable Proofs, that the Uterus was burst; or, if  
they were afraid to perform the Operation on a live Woman,  
why did they not lay open her Belly after her Death, in order,  
if possible, to save the Lise of the Foetus? The Case of *Saw-  
ard* is also worthy of our Attention, when in the *sesotel  
Dieu* the Foetus, in consequence of a Rupture os the Ute-  
rus, had fallen into the Abdomen, the Secundines Jo the mean  
time hanging out of the Vagina. This he knew to he **the**Case, as he himself informs uS, by introducing his Hand in-  
to the Uterus by the Navel-string. Notwithstanding these Cir-  
cumstances, he did not open the Woman alive, in order to save

**the Child, and perhaps the Mother too, but suffer’d them to  
die together.**

If the Foetus should happen to be generated in the Cavity  
of the Belly, and not in the Uterus, (a rare Case) which  
Inay be known from the preceding general Signs of Pregnancy,  
from the Foetus being situated higher in the Belly than is  
Usual, and from the Mouth of the Uterus being clofed at the  
fcxpectsd Time of Dellvery, even when there are Pains, and  
some other Symptoms already mentioned ; in this Cafe the Cie-  
sarean Section ought to be performed, because the Ftetus can-  
,not otherwise he preserved; and, besides, the Mother is in less  
imminent Danger, because there is no Necessity for making an  
Incssion in the Uterus. Sometimes, in difficult Labours, the  
Uterus is burst in such a manner, that not the whole Foetus,  
but only fome Part of it, falls into the Abdomen, the rest  
remaining in the Uterus. The Arm, for Instance, may hang  
Out of the Vagina, whilst the Head-or Feet are fallen through  
the Rupture of the Uterus into the Cavity of the Abdomen; in  
this Cafe the Caesarean Section is not necessary. Thus I  
myself sound the Arms of a Foetus out of the Uterus,  
whilst the Head was in the Abdomen, and the rest of the Body  
in the Uterus. *Albinus* and *La Motte* faw a Cafe, in which  
the Head of the Foetus was duly lodg’d in the Vagina, whilst its'  
Feet had perforated the Uterus, and stuck in the Belly near the  
Diaphragm. Another Cine they make mention os, where the  
Arm was hanging out of the vagina, whllst the Feet were in  
the Abdomen. In both Cafes the Patients were excessively  
weak. *La Motte* brought away the Foetuses in the natural man-  
ner ; but both Mothers died a sew Days after. But an Instance  
directiy opposite to these was told me by *Rungius,* a Surgeon of  
*Bremen,* in which, after heving brought away the Fretus,  
- . though, through the Rupture of the Uterus, he plainly felt the  
Intestines of the Patient, and with his Hand kept them for  
some time from rushing into the Uterus till it contracted itself,  
yet the Patient happily recover’d.

But I must nor forget to make mention of the Difference  
between *Hysterotomy,* and what is commonly called *Embryulcia ;*or between extracting the Foetus, especially if unnaturally situ-  
ated, from the Uterus, through the natural Passage, and cut-  
' tiog it out, by making an Incision in the Belly and Uterus ;  
hecaufe often by the Vulgar, and even, which is more surprising,  
by fome of the Learned, as allo by Physicians themselves, these  
two Operations are confounded, and taken for each other, tho’  
nothing can be more different; for when the Foetus is extracts!  
from any Woman, nothing is more ordinary than to fay, that '  
her Child has been cut from her, though there was no manner  
of Section made, ’either on the Belly or the-Uterus ., but only  
the Child, on account of its unnatural Position, or its excessive  
Bulk, has been brought away by the Vagina, either by the  
Hands of the Surgeon, or fome proper instruments. This  
Operation, therefore, by which the Foetus is extracted through  
the natural Passage, is called *Embryulcia* ; but thet whereby it  
is cut from the Belly *Hiasterotomy,.* or the *Caesarean Section.*And if in this Senfe *Embryulcia,* or the Extraction of the Foetus  
through the natural Passage, is falsiy taken for *Hysterotomy,* it  
is, perheps, in some measure, true, which is advanced by  
*Scipio Mercurius, li* That Exsection os the Foetus was, in his  
" Time, as customary in *France,* as Venesection in *Italy* for

Head-ache.” Thus, when I was lately perusing the Other-  
rations of *Franciseus Valleriala,* I found one, concerning Mo-  
thers, who were happlly cured, and lived after the Foetus had  
been cut from them by the Hand of the Surgeon. I expected to  
sind many remarkable Instances of the Cndarean Section being  
happily and successfully performed, and perhaps a particular  
Method of performing it, not mentioned by others. But after -  
**I** hed run over the whole Observation, I found, indeed, several  
Cases where the Foetus had been extracted by Hooks, or the  
**Hand** of the Surgeon; but not a single instance of the true Cae-  
sarean Section being once performed. So that ’tis plain, thet  
not Only the Vulgar, but also learned Men and Physicians,  
have often mistaken one of these Operations for the other, as  
did alfo *C. Bauhine,* though they differ very widely from each  
ether. But by this unjust and unaccurate Way of speaking, a  
false Horror is often excited in Patients, aS if the Belly was to,  
be laid open, so soon as the Surgeon applies his Hand, in order  
to assist in a difficult Birth, though he sometimes performs his  
Business, without creating much Pain to the Patient.

As the monstrous Foetuses, with two Heads, or two  
Bedies, cannot, for the most part, he hern entire, without  
' performing the Caesarean Section on their Mothers, \*tis disputed  
whether, for their fakes, the Caesarean Operation ought to be  
performed, and the Life of the Mother thereby exposed to im-  
minent Danger , or whether the Foetus, if it cannot be had  
entire, ought not rather to be cut in Pieces, and brought away  
piece-meal, through the natural Passages, in this. Cafe,, be-  
cause these Monsters are either not alive, or, for the moshpart,  
horrid and uselefs Loads and Incumbrances to the Earth, I think  
the Mother is to be spared, and the monstrous Foetus to be ex-  
trailed by Instruments of wherever Kind. *Meili,* a late *Italian***Writer, condemns the Cssarean.Beitinn on a living Mother;**

and not sufficiently viewing the several Reasons thet may induce  
to this Operation, he inconsiderately asks, whether, for the  
sake of a Monster, the Life of the Mother ought to be exposed  
to the greatest Danger ; hut fof this very Reason he justly ad-  
viles, that the Monster should be brought away by any means,  
thro’ the natural Passage. But since there are other Cases which  
require this Operation, where the Fcetus cannot be brought  
away through the natural Passages, I think it cannot, with **a**safe Conscience, be neglected, as ! have already shewn:

If the Head of the Fcetus, either *by* its own Largeness, or  
the Narrowness of the natural Passage, sticks in the internal  
Mouth of the Uterus, or in the Vagina ; if from its long Con-  
tinuance there the Foetus dies, which generally happens in three  
' Days, though it sometimes lives longer ; and, in consequence  
of this Accident, the Lives both of the Mother and Fcetus are  
exposed to imminent Danger, because the Hand of the Surgeon  
can neither be introduced to alter the Position, nor the Foetus  
expend ; this is justly look’d upon as the most difficult and im-  
portant Case in Midwifery. As the Head of the Fcetus cannot  
he held, in consequence of its Sliopenness, and the Narrowness  
of the Passage, as the Hand cannot be introduced to alter its  
Position in the Uterus, and as no instrument can lay hold of it  
without killing the Fcetus, it is- by fome made a Question,  
whether the Caesarean Section ought to be'performed, in order  
to preserve the Fcetus ; for unless the Child.is quickly1 relieved  
from this Imprisonment, it must not only die very soon, but  
the Life of the Mother must he exposed to certain Danger; so  
thet with *La Motte,* and *Sigisenunda,* I must own this to he at.  
once the most deplorable and intricate Case that can possibly  
occur to a Surgeon. ’Tis the Opinion of most of the above-  
mentioned Authors, that neither the Cadarean Section ought to  
, be performed, nor the Child dismember’d, whilst either Mother  
or Foetus are alive; but, with the superstitious Cafuists of the  
*Raman* Church, they are for allowing both to perish, rather  
than for preserving one at the Expence of the other.. In this  
Case they absolutely condemn the Caesarean Section, r.otwithe  
' standing the many Instances recorded of both Mother and Foetus  
surviving the Operation, which, we are told, by *Roonhuys,.vtzs*performed seven times by *Sonneus,* a Physician at *Bruges,*upon bis own Wife, and both Mother and Foetus were pre-  
served each time. . The cclebtated *Glaus Rudbeck* is also faid to  
have performed the Operation with Success on his own Wife,  
the Foetus also surviving. *Hiister’s Surgery.*

. In the Case last-mentioned, there is no Possibility ofa Necese  
sity for the Caesarean Section. , The Methods of extracting the  
Fcetus under these Circumstances are specify’d in the proper  
Place.

*. Hicifier* proceeds to inform us, that, in his Opinion, it is  
both prudent and lawful to bring the Fcetus away, in order'to  
save the Mother’s Lise, though it should nor be really dead. It,\*  
however, requires great Judgment to determine when this is to  
be attempted, and when nor; though, to speak Truth, there  
feldom can be any -Necessity of destroying the Child in this  
Situation.

There is something extremely ridiculous, in the Advice given  
by several Medicinal Authors, of the Catholic Religion, as well  
as Divines, which is, to baptize ths Child’ in the Wornb, by  
the Help of a Syringe, when any Danger is apprehended of its \*  
dying in the Birth j as if it was worth while to keep the Mo-  
ther in Tortute a single Instant, for sear the Supreme Being  
should punish the Chi’d for the Omission or Crime committed  
by the Midwife, whether Physician, or old Woman. With  
whatever good Intent fuch Fooleries were originally introduced,  
*I* am afraid, that the Interests both-of Religion and Physic are  
not much promoted by them.

. CAESIUS. A Colour .frequently apply’d by Medicinal Ari-  
thers to the Eyes, and to the Excrements, as the Urine. It is  
the fame as GLAUCUS, which see..

CAFA, CAF, CAFAR Camphire. *Furiandus. John-  
sen. . -- /*

CAFFE. See **COFFEE.** *Caste* seems to be-the right  
Word ; but as *Coffee* is more in Use amongst us, I abuse to  
refer this Article thither. ’

CAGASTRUM. Α. Term used by *Paracelsus* to signify  
the morbific Seed, which is npt innate or hereditary, but adven-  
titious from Corruption ; and, upon thet Account, distin-  
1 guished from, the *Iliastrum. Diseases from the Cagastrum ate*the Pleurisy, Pestilence, Fever, and the like. *Paracelsus  
Labyrinth. Mad. \_ \_ ’*

CAHOS. A Term in *Paracelsus,* by which he intends not  
only the universal'Mass, or *Chaos,* but the Aur, and the *Ilia- .  
estrum. Johnston.* **SeeILIADUS. . . . ’ .**

**CAJACIA. The fame as CAACICA, which see.**

CAJAHABA. An *Indian* Plant, which adheres to Trees  
like Ivy. . The Natives bruise it, and bind it upon Ermiures.  
*Raii Hist. Plant. .. . .*

CAJAN *Arbor Indica, soliis trifolii bituminasti,. filiquis  
erobi,* Breyn. Prod. *\* Phaseolus Arbor ’Indicae incana, Jiliquis  
scrofis, Eayan dicta Thura Paercu,H.* Μ. *Pisum arborescent  
quibuselarn.*

. It is a shrubby Plant, bearing Pods which contain fond reddish  
Peas, which are good to eat. An Apozem of the heaves  
restrains the immoderate Flux of the Hzmorthoids. The  
Leaves bruised with Pepper cleanfe the Gums, and ease the  
Tooth-ach. The Seeds boiled in the Washings of Rice, and  
made into a Liniment with Butter, are a Relief to painful Las-  
situdes of the Jnints ; and they prepare of the fame a wholsome  
Liquor against the Small-pox. *Raii Hist. Plant.*

CAJEPUTI OLEUM. An aromatic Oil, imported from  
.. the *East-Indies* into fome Parts of *Europe.* It is mentioned by  
*Hoffman* in his *Observationes Phsiico-chyndca, L.* I. *Qbsc 4.*But he does not tell us from whet Piant it is procur’d.

CAINITO, [this is *slat American* Name by which the *In-  
dians* called this Tree, according to *Ovieds]* Star-Apple, *vulgcr.*It hath an open Bell-stsap’d Flower, consisting of one Leaf,  
and cut into several Segments towards the Top, from whofe  
Cup arises a Pointal, which afterwards becomes a globular or  
Olive-shaped, soft, fleshy Fruit, inclosing a Stone of the fame  
Shape. *Miller* reckons but two Species of this Tree, which are  
the Star-apple *vulgo,* and the *Cainito* with Olive-shaped Emit.  
I find no medicinal Virtues ascrihed to it.

CAJOUS. See **ACAJAIBA. -**

. CAIRION, καίριον, in *Hippocrates,* signifies mortal, or ‘  
very dangerous. Thus *Lib. de Are,* καίριοι πληγαἰ άι κροταφί-  
τιδες, " Wounds in the Temples are very dangerous, or  
“ deadly/’ The Word is used in the fame Sente by *Hamer,*as *Iliad* S', (Verse 84. and 326.) μάλιστα δέ καίριον ἔστι. " is  
" most mortal.” He speaks of the Top of a Ηorfe’s Head,  
where a Wound is most dangerous or deadly.

CAIROS, καιρὸς, in the same Author, signifies the Season  
and Opportunity for doing a thing; *zsAph.* I. *Lib.* I. καιρός  
ίξὑςν " Opportunity is fleeting; ” and the fame Sense it bears  
in many other Places.

Καιροι also signifies the proper Seasons and Opportunities for  
taking of Remedies ; as καιρους μἐν τοιίσδε ἔχει, " the proper  
" Seasons for using it are as follow; ” where *Galen,* on the  
Place, says, τὴς καιρὸς ὴτοιν *etc.* " He *(Hippocrates) lumsks*" of the proper Seasons of Use, according to Custom, or the  
" proper Seasons for receiving Benefit ; for in this latter Senfe  
' he sometimes uses the Word καιρὸς, as I heve shewn.”

Sometimes καιρὸς means the fame as τὸ προσῆκον, " con ve-  
" hient.” Thus, *Lib. da Rat. Vict. in More. acut.* ἔστι δέ  
ότε κάτακορεστέρων μᾶλλον σου καιρου καὶ άφρωδεστέρων, " sometimes  
" they (the Excrements) are deeper ting’d, and more frothy,  
" then is convenient, or than might be inspected.” So also  
in another Place of the fame, where *Galen* observes, that  
μᾶλλον *dis* καιροῦ is put ἀντὶ τὴ μᾶλλον προσηκοντος, " instead of  
Inore than convenient.”

Καιροι also signify the Times or Stages of Diseases, universal  
. and particular, the different Ages of human Lise, and the Sea-  
sons of the Year. , . . '

CAKILE. A Namefor the ERucA MARINA, which see.  
CAL. Yellow Arsenic ; alfo Vinegar. *Rulandus. Jobnsen.*CALABA, *Indian* Mastich-tree.

. It has a rosaceous Flower, consisting of several Petals, which  
are . placed in a circular Order, from whofe Flower-cup arises  
the Pointal,- which afterwards becomes a spherical, fleshy Fruit,  
including, a NUt of the fame Form.

This Tree grows to a great Magnitude in the warm Parts of  
*America,* where it is a Native. From the Trunk and Branches  
1 issues out a clear Gum, somewhat like Mastich, from whence  
it received its Name, the Gum being ofed in these Countries as  
Mastich. -

- CALAE, *Calaem, Calo emum.* Α kind of *Indian* Tin,  
which being subjected to the Fire, is tranfmutated into a kind

' of Cerufs, such as is made of Lead and *European* Tin.  
CALAE SeeOALLAF.

.CALAMAGROSTIS, CALAMO GR OSTIS, from  
κἀλαμος. a Reed, and ἀγρωστις, Agrostis. A reedy kind of  
Grass. *Biancand.* See ARUNDo.

CALAMBAC. A Name for the Lignum AGALLocHUM,  
which fee.

- CALAMBOUR. See **AoALLooHUM.**

. CALAMEDON, καλαμηδὸν, from κάλαμος, a Reed. A  
Species of Frndture, which runs along the Bone in a Right  
Line, but is lunated at the Extremity. It is otherwise called  
*its* όσυχα.

CAL AMINA. Lapis Calaminaris. *Johnsen.*CALAMINARIS *{Lapis).* **See CAD MIA.**CALAMINTHA.

*Calarnintha montana,* Offic. *Calamintba,* Chub. 4I7.\_ *Ca-  
larnintha vulgaris.* Park. Theut. 36. Rail Hist. I. 569. Synop.  
3. 243. *Calamintba vulgaris officinarum,* Gen Ernac. 687.  
Men Pin. I8. *Calamintba vulgaris vel officinarum Gennania,*C. B. Pin. *22S.* Tourn. Inst. I94. Elem. But. 169. Boerhi

Tnd. A. I75. Rupp. Flor. Jen. I87. Volck. Flor. Nor. 75.  
*Calamintba montana vulgaris.* Hist. Oxon. 3. 4I3. Merc.  
Bon i. 25. Phyt. Brit. 19. *Calamintba store magyu, vulgaris,*LB. 3. 228. CALAMINT. *Dale.*

The Sulks of this *Calamini* grow to be a Foot high, hairy.

and four-square, having at each Joint two broad,, somewhat  
roundish. Leaves, hairy, and a little indented about the Edges,  
fcarce an Inch long, and about the fame Breadth. The Flowers  
grow upon the Upper Part of the Branches, on each Side the '  
Stalks, but sew in Number, several growing on one common  
Foot-stalk; besides which, they have each a shorter of their  
own j they grow in long hairy Calyces, and are of a pale-purple  
Colour, labiated and galeated ; and are succeeded each by four  
smell Seeds, lying at the Bottom of the Calyx. The Root is  
fmall and fibrous. The Leaves and Flowers have a pleasant aro-  
matic Smell, somewhat like wild Mint; We have two Species  
of this *Calamint,* whereof one has Flowers almost as big as the  
other. They are both sound together by Hedges, and Highway  
Sides, especially in *Kent* ; and flower in *June* and *July.*

This Plant is full of an aromatic, oily, volatile Salt. It is  
stomachic, diuretic, aperitive, and provokes the Menses. It  
must be used after the manner of Tea. The Decoction of it,  
given in a Clyster, asswages the Colic, resolves oedematous Tu-  
mors, and strengthens the Parts. *Martyn’s Tournefort. .*

This Herb probably has its Name from the two *Greek* Words,  
καλἀ μίνὐη, which signify *good Mint ;* for the *Calarnintha vul-  
garis,* or *common Calandnt,* not only agrees with Mint in its  
Virtues, but also resembles it pretty much in Smell. *Calandnt*is an aromatic Herb, which, by the grateful Fragrance of its  
Effluvia, rouses the Spiriof, and gently warms the Nerves of  
him who sinells is. What grows in the Mountains has not only  
a more agreeable Smell, but is also thought more proper sot  
medicinal Purposes, than what is produced elsewhere. The  
Antients extol’d it for its heatiog, alexipbarmac, refolvent, and  
diseutient Qualities; and prescrib’d not only the external, but  
also the internal, Qfe of it, asserting, that it kill’d Worms.  
‘It is an Ingredient in the *Theriaca,* and such other Preparations,  
. as go under the general Name of Antidotes, internally, it is  
most properly ufed in "Infusions, in.Cases where a Snmulus is  
required. It is proper for phlegmatic Constitutions, and such  
as arc afflictsd with Flatulencies ; but it is principally conducive  
' to the Relief of Women labouring under Obstructions of the  
Uterus, a violent *Fluor albus,* or a catarrhous Disorder of the  
Womb. According to *Etmuller,.* it is so powerful a Provoker  
of the Menses, that it even excites them in Women big with  
Child, and kills the Foetus. It is also said to expel the Lochia,.  
Secundines, and Fcetus. It is an excellent and a mild Diuretic, -  
oleanfes Ulcers of the Kidneys, and cures Discharges of bloody  
Urine in Asthmas and Orthopnoeas, whether arising from a  
Defcft of the Stomach, or Ulcers of the Lungs, it is of excel-  
lent Service, if helled with Oxymel. But it ought not to be exhi-  
bited to fuch as have no Occasion for an additional Stimulus 5  
for it acts by producing a Heat, which, though small, is never-  
theless often found prejudicial to the Asthmatic, to such as dis-  
charge a bloody Urine; nor will it always agree in Ulcerations  
of the Lungs. But where the languid andtelaxed Fibres are to  
he stimulated, or the sluggish Humours roused into a brisker  
Motion, *Calamint* will be' found' of singular Use and Irnport-  
ance ; and,, upon these Considerations, it is justly rank’d  
among the several Classes of cordial, alexipbarmac, stomachic,  
carminative, uterine, and emmenagogue Medicines; for this  
Reason ’tis alfo used in Clysters, Cataplasms, Fomentations,'  
and such Baths, as are intended for the Purposes of Resolution,  
Discussion, and provoking the Menses. An Ounce, or an  
Ounce and an half, of the distil’d Water of *Calamint,* may be  
given for the same Intentions with the Herb itself; but ’tis  
rarely used, on account of its ungrateful Taste. The *Syrupus  
de Calamintba* os *Mesue,* in the *Pharmac. August,* together with  
Calamint, consists of other Aromatics, and Raisins, with  
which, after they are boiled in Water, Honey is mixed. This  
Syrup, being of an aperient Quality, is recommended in Ob-  
structions of the Vifccra; and its Dofe may he an Ounce and  
an half. Besides this Syrup, there are other two Preparations  
of *Calamint, in Mesae.* The *Species Diacalamintliae,* of the  
*Brandenburg Difp.* and of the *Louden Pbarenacop.* are in the  
*Pharmac. August,* ascribed to *Galen .,* and in the *Pharnjac. Ant-  
werp.* call’d *Diacalandnthum Galeni.* They are, indeed.  
Compositions, differing in the Proportions of their ingredients,  
but agree in this, that they consist almost of the fame Aroma-

. tics, or at least Anjmatics of the fame Virtues, pounded with  
Calamint, as are required for preparing the *Electuapium de Ca~  
lamintha.,* in which Case they receive an Addition *of a* sufficient  
Quantity of Honey, or dissolved Sugar. This Medicine is,  
by *Galen,* highly extol’d in many Passages of his Works, not  
only as serviceable to the Stomach and intestines, but also as  
useful in provoking Urine and the Menses j and curing chto-  
.. nical Diseases, by correcting the Chyle, and consequently pun-  
lying the Blood. But our Descriptions os this Medicine differ’  
from that of *Galen,* the Copies of whose Works seem to be  
corrupted in this Particular, since they require an excessive  
Quantity of Pepper. .1 do not doubt, hut the continued Use  
of' mis Medicine may he- of -some Service to old Men, and to  
phlegmatic and pituitous Constitutions. These Species to me  
appear pretty much to resemble the *PulvisAci compesitus.* One  
Scruple may be given for a Dofe. *Schulz- Prelect.* What in

*iaemerpla Pharmacfip.* is call’d *Puhis Diotcalarninthes Aeialai  
Alexandrini* has a smaller Quantity Of Pepper; for which Reason  
two Scruples of it may be given for a Dose. \* The *Species  
Diacalamintbes Mesuae,* in the *Pharmac. Augast.* by *Mesue*call’d *Diacalamintuin Descriptions Galeni,* differs very little from  
those aheve-mention’d. . . .

There is another Species ofCalamint call’d  
**'CALAMINTHA MAGNO FLCRE,** Cod. Med. 24. Bist.

1 Oxon. 3. 4I2. C. Β. Pin. 229. Tourn. Inst. I94. Elem. Bot.  
I65. Boerh. Ind. Α. I75. *Caiamintha montana praeestantior,*THE MORE EXCELLENT CALAMINT GeI. 556.  
Emac. 687.’ THE GREATEST CALAMINT, OR  
MOUNTAIN-MINT, Park. Theat. 37. MOUNTAIN-  
'CALAMINT, WITH A LARGE FLOWER, Raii Hist.  
I. 569. *Caiamintha montana,store magno ex calyce longo,* J. Β'.  
3. 229. *Caiamintha montana, store magno ex calyce magne.*Chain 4I6. MOUNTAIN CALAMINT.

This Plant is of a sweet and grateful Smell, and is cultivated  
in the Gardens of forne, not only on this Account, but also  
because this Sort is recommended for the *Theriaca.* In its  
Other Virtues it agrees with the *Caiamintha vulgaris.*

Another Species of Calainint is the

**CALAMINTHA,** Offic. *Caiamintha odore Pulegii,* GeI. .  
Emac. 687. Raii Hist. I. 569. Synop. 3. 243. Mer. Pin. I8.  
*Caiaminthastare minore, odore Pulegii,* J. B. 3. 229. Chab. 4I6.  
Hist. Oxon. 3. 4I3. *Caiamintha altera, odore Pulegii, foliis  
maculastis,* SPOTTED CALAMINT, Park. Theat. 4.6.  
*Caiamintha Pulegii odore seu Nepeta,* C. B. Pin. 228. Tourn.  
Inst. I94. Elem. Bot. I69. Boerh. Ind. A. I73. Rupp. Flon  
Jen. I88. *Caiamintha Pulegii odore, Napeta vcra Antiquorum,*Merc. Bot. I. 25. Phyt. Brit. I9. FIELD CALAMINT.

This *Colamint* somewhat resembles the *Caiamintha montana ;-*but the Difference between them is, that the Branches of this  
Sort incline more to the Ground; the-Leaves are smaller, and  
not so broad, but more triangular. The Flowers arc much  
alike; and the Smell comes pretty near that of Penyroyal. It  
grows in the like Places with the *Caiamintha montana*; hut  
flowers rather later.

This agrees with, the *Calandntha montana* in its Virtues,  
especially as to the opening, deobstruent Qualities, and they are  
used promisououfly : But this Species being to be bad in greater  
Plenty than the mountain Sort, the Apothecaries Shops are  
mostly supplied with it. *Miller's Bot. Oof.*

This Plant is of a more acrimonious Nature than the *Cola-  
mintho vulgaris,* or common Calamint. When bruifed, and  
applied to any Part of the Body, it acts llke a Vesicatory; for  
which Reason it is by feme ufed for removing rheumatic Pains.  
Others boll the Plant in Water, and apply it, byway of Cata-.  
plasm, for the same Purpose, in which Cafe it acts more mild-  
ly. This same Cataplasm is of Use for resolving Tumors, and  
Preventing Anchyloses.

**CALAMINTHA PALUSTRIS, Offic.** *Caiamintha aquatica.*Ger. Emac. 684. Merc. Bot. I. 25. Phyu Brit. IS. Mer. Pin.  
I8. WATER CALAMINT, WITH WHORLED CO-  
RONETS, Raii Hist. I. 53O. *Caiamintha arvensts ver-  
ticillata,* C. P. Pin. ’229. *Caiamintha arverests verticiliata  
five aquatica Belgarum, Lobelia,* FIELD CALAMINT,  
WITH WHORLED CORONETS, Park. Theat. 36.  
*Mentha seu Caiamintha aquatica,* Raii Synop. 3. 232. *Mentha  
arvensts verticiliata hirsuta,* J. B. 3. 2I7. Chab. 4I3. Hist.  
Oxon. 3. 369. Tourn. Inst. I89. Boerh. Ind. A. IS5. Dill.  
Cat. Gissi I45. Rupp. Flor. Jen. 185. Buxb. 2I3. *Mantha  
alba Officinarum,* Volck. Flo. Nor. 287. WATER CALA-  
MINT.

*Dale* imagines this io he the *Polycnemon prineuripmaj of Diof-  
ccrides.*

*Tsuis Calamint,* or rather Water-mint, grows to be about a  
Foot high, or more; with square and somewhat hairy Stalks,  
**on** which, at every Joint, are fet two Leaves, oppofite,.on  
short Foot-stalks, roundish, sharp-pointed, larger and longer  
than the common *Calamint,* indented about the Edges. The  
Flowers grow in very thick Whorles, with the Leaves on the  
upper Part of the Stalks they are labiated and galeated, heing  
small and purple. The Roots are small, flender, and creep-  
ing. The whole Plant has a strong Smell, like Water-mint.  
It grows in moist Places, and where Water has stagnated in  
Winter; and flowers in *June.*

As the Scent of mis Plant comes near Penyroyal, or the  
second *Calamint,* so it is concluded to partake of their Quall-  
ties. This is very rarely used. *Millers Bot. Off.*

**.CALAMINTHA INcANA,** *escymifbliis,* B. *Caiaminthafolio  
et sure parve, incana.* Hoary Calamint, with Leaves like  
Basil. ἐν

This Species is pofless’d of the fame Virtues with the *Cala-  
rnintha magno store,* or Mountain Calamint, with a large  
Flower.

*Toumefort* calls the *Hidera terrestris* by the Name of *Caia-  
mintha humilior, folio rotundiore.*

Some sew other Calamints are taken Notice of by *Beer.  
, heave,* as the

*Calandntha Hispanica frutescens, mari folia,* T. I94. ' *Sac  
turcia Hispanica frutescens, mari folia,* Elem. de Botan. H.  
R. D.

*Caiamintha montana praealta. Pulegii odere, dentatis foliis,  
storibus dilute caeruleis, ex longo ramose brachiato pedunculo pros,  
deuntibus,* Bocc. Muf. 2. 45.

*Calandnthapraealta, 'pulegii odere,* Ejusd, T40. ,  
*Calajnintha praealta, pulegii odore.* Icon. *Altera ex Sabandias*CALAMITA. An Appellation for the dry sort of Styrax,  
to distinguish it from the liquid. See STYRAx.

CALAMITAS, ἀπόοτυχία. from μόἀτυγχάνω, to he disap-  
pointed or unprosperous, signifies any calamitous or unfortu-  
nate Event. Thus the Word αἀπότυχία is used by *Galen,  
Comm. Ί. in* .K. *V.* Z. *A.* and applied to the Effects of Cathar-  
tics; and *Calamitas* by *Scribonius Largus,* N°. 23I.

CALAMITIS, καλαμῖτις. An Appellation of that fort of  
factitious *Cadrnia,* which, by adhering to Iron Rods, acquires  
the Figure of a Reed ; but the Word is ufed to express either  
*Pompholyx,* or *Lapis Calarninaris. Agricola* also gives this Name  
to a marine stony Plans, from its Form.

CALAMOCHNUS. A Name *for* theADARcss, which  
see. - . .

CALAMUS. The Reed, of which the following Species  
are omitted under the Article **ARUNDO.**

**ARUKDo FARCTA ATRO-RUBENS, Offic.** *Arando farcta  
maxima atro-rubens,* C. B. Pin. I7. Theat. 274. Rafi Hist. 2.  
I 286. Hist. Oxon. 3. 220. *Arunde nastossave surcta, crasser  
et major,* J. B. 2. 4S7. *Arunde nastos sale farcta, crajsca et  
major. Calamus Tccicus Theophrasti,* Chain I 93. *Arunde far.,  
cta decimo.* Park. Theat. I2I0. *Nastos Clusse,* GeI. 34. Emac.  
37. THE WALKING-CANE.

It is brought from *India* and *Syria. Dale. .*

**ARUNDO FARcTA** flava, **Offic.** C. B. Pin. I7. Theat.  
277. Raii Hist. 2. I277. Hist. Oxon. 3. 22I. *Arundo farcta,*GeI. 33. Emac. 37. *Arundo farcta nona,* Parin Theat. I2I0.  
*Arunde nastos five farcta, seu toxica, et gracilis plicatilis, ].* B.  
2. 487. *Arundo nastos, seu farcta, five toxica gracilis et plica-  
tilis Indica,* Chain 493. THE DART-WEED.

It is-brought from *Syria. Dale.*

**ARUNDO FARCTA INDICA, Oflic.** *Arundo farcta India  
Orientalis sanguinem Draconis manans.* Hist. Oxon. 3. 220-  
Raii Hist. 3. 6I5. THE DRAGONS-BLOOD CANE.

It grows in the *East-Indies.* The Juice of the Fruit is  
call’d DRAGONSELOOD IN DROPS.

The Method of making this sort of Dragon’s-blood is to  
macerate the Fruit in warm Water, till the red Matter subsides  
to the Bottom of the Vessel; then the Water is either evapo-  
rated, or pour’d off, and the red Substance remains concreted  
in the Vessel. Of this the *Chinese* are said to make an excel-  
lent Varnish. *Dale.* See SANGUIs DaAcOsiis.

CALAMUS AROMATICUS.' See AcoaUs vERUs.  
CALAMUS ASIATICUS. See AcoRUs AsIATIcUs.  
CALAMUS ODORATUS, Offic. Κάλαμος, Diofc. Ca-  
*lornus Aromaticus,* Chab. I 99. *Calamus Aromaticus verus qui-  
buselam,* J. B. 2. 528. *Calamus Aromaticus Syriacus,* C. B.  
Pin. I7. Theat. 255. *Calamus Aromaticus Matsuioli,* MAT-  
THIOLUSS AROMATICAL REED, Park. Theat.  
I 38. *Arundo Syriaca aromatica, foliis ex adverse jitis.* Hist.  
Oxon. 3. 22I. *Calamus odoratus.* Camel. Syliab. 22. ARO-  
MATIC REED, *Dide.*

Some imagine this to he the true *Calamus Aromaticus of Diosc-  
corides,* of which he gives the following Account.

It grows in *India -,* and the best is of a tawny Colour, full Of  
Joints, and, when broken, flies abroad into many thin Splin-  
ters, has its Cavity full of Cobwebs, is of a whitish Colour,  
and, being chew’d, is of a viscous, astringent, and somewhat  
acrimonious Taste.

*Calamus Aromaticus,* taken in a Poston, provokes Urine,  
‘ for which Reason, being bolled with Couch-grass, or the Seeds  
of Smallage, and the Decoction drank, it is good for the Drop-  
sy, Disorders of the Kidneys, the Strangury, and Ruptures :  
Drank, or used as a Pessary, it provokes the Menfes. The  
Smoak thereof, either stone, or mix’d with Refin of Turpen-  
tine, received into the Mouth through a Reed, cutes a Cough.  
The Decoction is used for infessions, and in Clysters, The  
*Calamus* is also an Ingredient in Malagmas ; and serves to give  
a Fragrancy to Suffumigations. *Diofcorides, Lib.* I. *Cap.* I7.

The true *Calamus, or* rather the bitter *Calamus,* is a Reed  
the Thickness of a Quill, of two or three Foot high, com-  
posed of Joints; from whence grow green Leaves, and little  
Clusters of yellow Flowers. This little Reed grows in several  
Parts of the *Levant,* from, whence it is brought, sometimes  
whole, but generally in small Bags of about half a Foot long.  
Chuse the largest which is fresh, cleansed from the final! Root  
and the Branches, and made up in Bags. It -is of a brownish-  
Red without, and whitish within, furnish’d with a white Pith,  
which when it is stale, the raid Pith will turn yellow. and  
after the Reed is broke, and,you put it into your Mouth, it  
has an intolerable Bitterness. It is chiefly used for *Venice Tseu.*CIC. *Pomet.*

CALANDRA, *Chalandra, Rde.et.vS^Ae. A* large sort of  
Lark, reckon'd among the most wholsome Foods. *Aldeovand.  
Ornlth.*

CALATLE, from *Caleo.* Wanton and shameless Persons.  
*Johnsen. ......*

CALAZIA. A precious Stone, with Spots like Hail.  
*Juhnsm.*

CALPIANUM. The Name Of a Plaister in *Myrepsus,  
Sect..* **IO.** *Cap.* **29.**

CALC ADIN UM, *Calcatar, Colcotar.* Red Ink, Vitriol.  
*Rulandus. .*

CALCA DIS. White Vitriol, or, according to others, Sal  
Alcali. . *Ruland. Johnsen.*

CALCANEUM;

The Calcaneum, or Os Calcis, is the largest Bone os the  
Foot, os which It makes the posterior Part, and, in some mea-  
sure, the Basis. It is oblong, and very irregular, and may he  
divided into a Body, and two Apophyses, one great and ante-  
rior, the other small, lateral, and internal.

The Body of the Os Calcis has fix Sides, one posterior, one  
anterior, one superior, one inferior, and two lateral.

The posterior Side is broad, unequally convex, and, aS it  
were, divided into two Portions ; one superior, small, and po-  
lish'd ; the other inferior, much larger, unequal, and rough,  
which, in Children, is an Epiphysis, and may be named the  
Tuberosity of the OS Calcis. The lower Part of it is bent  
downward, and terminates in two Tubercles, or obtuse Points,  
which belong rather to the inferior than to the posterior Side of  
the Bone.

The upper -Side may be divided into two Parts,, one posterior  
and unequal, having a small Depression; the other anterior,-  
convex, and cartilaginous, proportion’d to the great inferior  
Cavity of the *Astragalus.* This Side is turn'd obliquely for-  
ward, and by this Obliquity hecomes Part of the fore Side,  
the remaining Part of which is lost in the anterior Apophysis.

The lower Side is narrow, and behind it lie the two Tuber-  
cles, os which the internal is the biggest. They both serve for  
the Insertion of the Aponeurosis in the Soal of the Foot, but  
principally the biggest. ’ ...

The two lateral Sides are continued over the anterior Apo-  
physis. The external is gently convex and unequal, cover'd j  
only by the common Integuments and Ligaments. The internal  
is hollow'd and depress’d. . . w

The great or anterior Apophysis lies in the same Direction  
with the Body, heing a Continuation thereof. It has five Sides,  
*l* or remarkable Parts; and, were st not for the Body, it would  
have a sixth. .

The upper Side has an irregular and unequal Depression,  
which, together with that in the Apophysis of the *Astragalus,*forms a considerable Fossula. At its anterior Extremity there  
is a small cartilaginous Surface, answering to one of those in the  
Apophysis of the *Astragalus.*

The anterior Side of the Apophysis is broad, oblique, carti-  
. laginous, partly convex, and partly concave, and articulated,  
with a littie Surface of the *Os Cuboides.* This is the fore Side  
of the whole *0s Calcis,* when considered without any Divi--  
fion.

The Outside of the Apophysis is very rough, being a Con-  
tinuation of the outer Side of the Body, with a Tubercle or  
Eminence at' the Place where these two Sides meet, which,  
however, is not found in all Subjects. On the lower Part of  
this Tubercle is a cartilaginous Surface, for the Passage of the  
Tendon of the *Peronatus Longus :* Sometimes we see only some  
small Vestiges of this Eminence, and often none at all. We  
sometimes meet with another small cartilaginous Surface lower  
down, and more forward, near the anterior Extremity of the  
Apophysis, for the Passage of the same Tendon. The lower.  
Side is a Tuberosity, continued from the Side of the Body, and  
designed for the Insertion of Muscles.

. The lateral Apophysis is almost common to the Body, and to  
the great anterior Apophysis, and increases the Cavity on the  
Inside of the Os Calcis. On its upper Part it has a very smooth  
cartilaginous Surface, articulated with one of the inferior Sur-  
faces of the Astragalus.. This Apophysis is very low down,  
and its inferior Part is smooth for the Passage of Tendons.

The Os Calcis has four Cartilages, of which three are supe-  
rior, one large, and two small, for its triple Articulation with  
the *Astragalus* ; the fourth is anterior, for the *Os Cuboides.* To  
these must be added a small thin Cartilage, of a kind Of liga-  
mentary Substance, under the Tuhercle on the Outside of this  
Bone. *Winsiow. '*

The large Tendon, call'd the *Tondo Achillis,* is inserted into  
this Bone.

CALCANTHOS, *Calcanthum, in Rulandus,* are put for  
*Chalcanthum,* the same as VIT RIO LUM, which see.

CALCANTUM. A kind of ink. *Rulandus.'*CALCAR. The same as CALCANEUM, winch see.  
CALCARIA. A sort of calcining Furnace in Glass-houses,  
which is useful in making of Glass-worlc. *Castellus.*

The Calcar, or Fornax Calcaria, is made in the manner of

an Coven, ten Foot long, find seven broad, where widest, and  
two Foot deep. On one Sine thereof they have a Trench  
about six Inches square, the upper Part, whereof is level with'  
the .Surface of the Calcar, separated only from it at the Mouth, :  
by Bricks some nine Inches wide Into this Trench they put  
their Sea-coal, the Flame whereof paffeth into all the Parts of  
this Furnace, and reverberates from the Roof upon the Frit,  
over whose Surface all the. Smoak siieth very black, -and goeth  
out of the Mouth of the Calcar; and the Conciator, or Foun-  
der, never stirs his Frit till the Smoak is pash The Coais hern  
(as in other Furnaces) on Iron Grates, and the Ashes fell thence  
into the Ash-hole, which is level with the Floor. *Meratis Notes  
upon Antonius Neri.*

CALCARIS FLOS, is the fame as *Flos Regius,* or Lark-,  
spur; and so call’d because its Flower, in some measure, re-  
sembles *Calcaria,* or Spurs. *Blancardl*

CALCARIUS LAPIS, Ossic. Schw. 37O. Geoff. Praelecti '  
65. Aldrov. Musi Metall. 745. Schroff 348. Met. Pin- 2I3.i  
*Saxum Calcarium,* Worm. 45. Charlt. Fossi 2o. Boet. 522.  
*Calcaria, ~K.entm.* 55. LIME-STONE. See **CALX.**

*Castellus* seems to think this Stone is sometimes call'd *Asastus,*ἄσαιστος. hut I have never met with the Word in any other  
Author. . . - τι ι - - - .

CALCATA. Yellow Inks, *Johnsons/*CALCATAR. See CALCADINUM. / t

CALCAT ON. Troches of Arsenic. *Johnsons*CALCATREPOLA, *Matth.* The same aS **CALCITRA\*.:**

**BA; which see.**

CALCATRIPPA. **The same as DELPHINIUM, which '**see. *Dale.* . I . -

CALCeDONIUS, for CHAoCEDONIUS, which see.

CALCENA, *Calcenon, Calcenania,- Calcinania,* are Terms  
in *Paracelfus* to express a morbo us tartareous Matter, or tar-  
tareous Calx. *Paracels, de Tart. Lib. 2. Cap.* I. - . ~

CALCEOLUS *D. Maria, Sacerdotis, our* Lady’s, or Priest's  
Slipper, is a Species of *Alis.ma,* having, in the Middle of its  
Flower, a Concavity resembling that *of a Calceolus,* or Slip-  
per. *Blancard. si... -* . . .. t.

CALCETUS, *Calcenonius, Calcenos. Paracelsus, Lib.* 2.  
*de Tartar. To.* says, the Blood is *Calcetus,* by which he means  
impregnated with tartareous Particles. .

. CALCHITHIOS,. Verdegrise. Also a.Marcasite. \* *John»  
son. . - '*

CALCHOIDES *Ojsicula.* The same as **CUNEIFORMIS  
OSSICULA, which see.** *Blancard. ...* L :

CALCIDICUM. A Medicine prepared of Arsenic.

*Rulandus..* . . L.:, :

CALCIFRAGA, Breakstone. An Epithet given to the  
Herb *Scolependrium,* or *sipleenwort,* in *Scribonius Largus,.No.  
15°. :* . .Δ

CALCIGRADUS, πέερνοβάτης, from τ^έρνον, the Heel, and  
βαένω, to go, in *Hippocrates, os^el* ἄρθρων, is one. who, in Walk-  
ing, lays much Stress upon the Heeis. *Foeftus.*

CALCINATIO. See **CALX. . . ..**

CALCINATUM *mayus,* is whatsoever is dulcified by the  
Chymical Art, winch was not so by Nature j such are duldi-  
tied Mercury, Lead, Anima Plumbi, Salts, and the like Sub-  
stances, which are Very speedily consolidated. *Johnson.*

CALCINATUM MAJUS POTERII, is nothing but  
Mercury distolved in Aqua-sortis, and precipitated with salt  
Water. This Preparation *Potorius* used with great Success in  
the Cure of obstinate Ulcers. *Etmullen, Lib. ϊ. o. ζ 16.*

. CALCINATUM *minus,* is any thing which is sweet by  
Nature, without Edulcoration, and speedily cures; as Sugar,  
Manna, Tereniabin, Nostoch, (sorts of wild Honey) and the  
like, *Johnson.*

CALCINON. *Rulandus* and *Johnsen* seem *to make it*the same with *Calcinatio,* when all they say of it is, that *Calci-  
non,* by the Reverberatory, is two-sold; Calcination specially

, so Call'd, and Cinesaction.

CAL CITARI, Sal Alcali, Alkael. *Rulandus. Johnsons*CALCITEA, *Draganturn* (Vitriol), *Johnson. .*CALCITEOSA, Litharge. *.Rulandus..*

CALCITHOS, Verdegrise.. *Rulandus.*

CALCITRAPA.. Dass takes Notice of two Hants which  
are call'd by this Name. The first is the

I. *Carduus stellatus,.* Ossic. Ger. 1003. Emac. II66.  
Schw. 25o. Raii Hist. I. 317. Synop. 8y. *Carduus stellatus,  
foliis Papaveris erratici,* C. B. 387. Dilh App. i5. *Carduus  
stellatus stive Calcitrapa,* J. B. 3. 89. Chain 355. Tourn. Insta.  
44o. *Carduus stellatus sive Calcitrapa vulgaris,* Park. 989.  
*Jacea ramosissima, capite langis aculeis flellarim nascentibus ar-  
mato,* Hist. Oxon. 3. 144. . *Jucea stellata, folio Papaveris  
erratici,* Boerh. Ind. A. I4O. Herm. Flo. 2. 4o. *Crapina  
capitestellato, foliis Papavcris erratici,* DilL Nov. Plant. Gen.  
**I4O.** STAR-THISTLE.

The Root of the *Star-thistle* is single, about a Finger thick,  
long, and running deep into the Ground, of a whitish Colour,  
having a pretty thick cortical Part. The lower Leaves grow  
stat on the Ground, encompassing the Root in a Circle, much

dlst in, .orjagged toj.the middle Rib. The Stalk is divided into  
numerous Branches, spreading about, and seldom arifing above  
two Foot high, with , a few Leaves here-and-there at the DiVi-  
sion-of the Stalks. The Flowers grow.thick upon the Branches,  
consisting Of reddish or purple fistular Flowers, coming out of  
Heads, winch are composed os several Scales, each ending in a  
long, strait, hardLand sharp Thom.- The Flowers pass away  
in.. Down; containing white flatfish oblong Seed. The *Star-  
thistle* grows near Highways, and upon Commons; and flowers  
inTuim. ...... ..

.The-Root is commended by some as a singular Remedy  
against the Stone, .Gravel, or Colic, by giving it either in De-  
coction with Wine or Water, or in Powder, with a convenient  
vehicle.-. *Millees Bot. osse*

-Its Leaves .are very bitter, and give a saint Tincture of Red  
to the blue Paper; the Root gives it a deeper, and has the  
Tasto.of an Artichoke. The *Star-thistle* contains a Salt Very  
likeithat which is natural in the Earth ; for its Solution is Very  
bitter, and loaded with Sal Ammoniac and Nitro. It is likely,  
that the Sal Ammoniac predominates in thiSPlant ; for the Ni-  
tre vinakes no Impression upon the blue Paper, whereas the Sal  
Ammoniac reddens it considerably.:: That which is found in this  
Plant is join'd with a considerable Quantity of Sulphur and  
Earth ; thus the Star-thistle is sebrirngous,. vuinerary, and ape-  
ritive. For an Intermitting Fever .they give to drink, at the  
Beginning of the Fit, four or six Ounces of its Juice. It re-  
moves the Webs os the Eyes, and cures Wounds.

M. *De Lamoignon,* Intendant of *Languedoc,* has heen willing  
the Public should .enjoy the Benefit of a Remedy, by which  
he was cured of a troublesome Nephritic Colic, with which he  
was often afflicted. The Remedy, as it was printed *nt. Mont-  
pelier,* by his Order,., il’asifollows:. - , .

The 2SthDay of. the Moon, every Month, drink, early in  
tss the Morning, a.Glass of good White-wine, in which has  
. - been infused-a Dram of the first Bark of the Root os *Star-  
... thistle,* gather'd about the End of *September.* This Bark

is a small Skin, very fine, brown without, and white  
.' within. It is dried, in the Shade, and reduced to a very  
? fine Powder. The Evening hefore yon take this Medicine,  
put in a Gallon of Water a Handful of Pellitory, a Dram

. \* of Sassafras-wood, as much of Anise,: and a Penyworth of  
fine Cinnamon ; seeth it over a clear Fire sor half a Quar-

*c.* ter of an Hourthen remove it from the Fire, cover it  
well with its Lid, and with Papes, and set it upon hot  
Ashes.. The next Day set the Pot again before a clear  
Fire, and make it seeth sor half a Quarter os an Hour;

r ' aster which put two Ounces of powder’d Sugar-candy in a  
Silver Porringer, and pour upon it the Infusion, strain’d  
thro' a Linen Cloth, with the Expression of the Foeces

' ; when the Sugar is dissolved, let ' the Patient drink it aS hot  
. as he can, and take nothing else for three Hours ; which  
must be observed also after taking the first Medicine. The  
Use of these Medicines requires no particular Regimen. -

*Camcrarius* affirms, that at *Francfort* they make use of the  
Root of *Star-thistle,* instead of that of Eryngo: It is employ’d  
in aperitive Ptisans and Broths. One Dram of the Seed of  
*Star-thistle,* infused in a Glass of White-wine, takes away the  
viscid Matter winch obstructs the Urinary Passages. *Martyns,  
Tournesiort.*

A Water disus'd from the Flower, or the Seeds in Powder,  
are said to expel the Stone. The Root is said to be good in flow  
Fevers, and topurge the Body of ill Humours. *Dale..*

*-. Q.. Calcitrapa,* Ossic. *Carduusstellatus luteus, foliis Cyani,*Co B. Pim 38y. Raii Synop. 3. I96. Tourm Inst. 44O. Elem.  
Bot. 349. *Carduus Solstitialis,* Get. ΧΟΟ3. Emac. II 66. Mer.  
Pim 2I. *Carduus Solstitialis Dodonaei,* Park. Theat. 989.  
*Spina Solstitialis,. J.* B. 3. 9o. Raii Hist. I. 3I7. *faceastel-  
lata, Spina Solstitialis decta, foliis Cyani,* Herm. Flor. 2. 4o.  
Boerh. Ind. A. I4I. *Jucea lutea, capite spinoso minori,* Hort.  
Lugd. Bat. 332. *Leucacantha veterum. Carduus vel Spina  
Solstitialis,* Chab.. SAINT BARNABY'S THISTLE.  
*Dale. . . -*

*Ges.ner* affirms, that it is good for the Jaundice: *Camcrarius*fays the same thing ; and commends it. in all sorts of Obstru-  
ctions, for the Cachexy, Dropsy, Pleurisy, and Sciatica. *Mar-  
tyris Tournesiort. . . .*

It is esteem'd aperient, deobstruent, lithontriptic; and is said  
to asswage the Fervor of the Blood. *Dale.*

. CALCOCOo, Brass. *Rulandus.*

- CALCOIDEA *Ossicula.* Three little Bones belonging to  
the Ancle, so call'd by *Fallopius,* and are the same with the  
*Ossicula Cuneiformia.*

CALCOREUMENOS, Burnt Copper. *Rulandus.*

CALCULIFRAGUSs λιθοντριίςτεκός. Stone-breaking, -Li-  
thontriptic.

CALCULOSUS. Afflicted with the *Calculus,* or Stone.  
CALCULUS.

**The** *Lithiafis. in Greek, Calculus in Latin,* the Stone in *Eng..*

*list,* is usually understood of the Stone in the Kidneys, Ureters,  
or Bladder. Yet these are not the only Parts in which Stones  
are generated; for we find Stones, and stony Concretions, in  
many of the Cavities of the Body, and sometimes in other  
Parts. Thus *Hippocrates* takes Notice of a Stone in the Uterus,  
which render'd the Woman barren, and was brought away  
with great Pain when she was Sixty: *See the Article* AMPHI-  
POLos. Thus also it is notorious, that Stones are frequentiy  
generated in the Gall-bladder. . *Listcr* takes Notice of Stones  
generated in the *Vesiculae Seminales*; and I have taken small  
ones out of the *Prostata,* to the Number of twenty or  
thirty.

*Alexander Trallianus* relates a Case of a Person who cough'd  
up a Stone; and I know a Lady, now alive, who was thought ’  
many Years ago to be in a deep Consumption; but, upon  
coughing up *a* Stone, near as large as a small Nutmeg, she reco-  
ver'd her Health perfectly. Dr. *Frtind* says. That of such  
Stones,- cough'd up, he had seen several, and some aS big aS a  
Filbert, where no Signs of a Consumption appear'd, only there  
continued an inveterate Cough. One he knew, who had  
brought up sour or five such, at long Distances of Time.

We may therefore conceive, that if any small indissoluble  
Substance is fix'd in any Part of the Body whatever, a stony  
Crust soon forms itself upon it, either more or less. If such a  
Concretion os the earthy Parts os the Blood happens at the  
Extremities os the Urinary Ducts, where they open into the  
Kidneys, and forms a small Grain of Sand, hence arises the  
Stone in the Kidneys, which, increasing daily, in time grows  
considerable enough to incommode and obstruct the Kidneys,  
and bring away a Part of its Substance in the Form of grumous  
Concretions, PuS, Caruncles,. or Skins, till at last it corrupts  
the Whole, exciting bloody, pundent, and fetid Urine; and  
sometimes an Inflammation, and consequent Exulceration, of  
the adjacent Parts.

When this is by any Couse whatever remov'd from its native -  
Place into the Pelvis of the Kidney, and from thence into any  
Part of the Course of the Ureter, or itS Entrance into the  
Bladder, it frequentiy intercepts the Urine, and causes an acute  
inflammatory Pain.

\* When the Stone is convey'd into the Bladder thro' the Ure-  
ters, it is often esTel'd from thence, and discharg'd by the  
Urethra. But, is it remains in the Bladder, the earthy Parts  
Of the Urine adhere to it, and increase its Bulk, forming upon  
it Various Strata, which are sometimes red, sometimes white,-  
ash-colourfd, or azure, the Nucleus which sen from the Kid-  
neys always remaining red. And it appears, by Chymical Ex-  
periments made upon Stones, that those of an A2ure-colour are  
the most indissoluble, the Ash-colour’d next, the White next,  
and that the Red are most easily dissolv'd.

The Symptoms of a Stone in the Kidneys are, an obtuse  
Pain at. the Region of the Kidneys; a Discharge of bloody  
Urine after any considerable Motion of the Body, especially in  
a Coach upon stony Roads ; gravelly small Stones, Caruncles,  
or Filaments, discharg'd with the Urine. *Bocrh.Aph.*

AS the Account *Aretaus* gives of Nephritic Complaints is,  
perhaps, inferior to none, I shall give it in this Place, in order-  
to make up the Deficiencies of *Boerhaavds.*

The Kidneys are of a glandulous Consistence, and of a red  
Colour, in which respect they are more like the Liver than the  
Breasts or Testicles; for these, tho' glandular Substances, are 1more white. The Shape of the Kidneys is like that of the  
Testicles, only flatter, and more incurvated. Within them  
are small narrow Sinuses, which serve for the Percolation of  
Urine; and from them proceed two nervous Ducts, one from  
each Kidney, like Pipes, which are inserted into the Bladder,  
one on each Side, and convey the Urine, by equal Passages, on  
each'Side, from the Kidneys to the Bladder.

The Kidneys, and their Canals, or Ducts; before-mention'd,  
are subject to many and Various Disorders, some of which are  
acute, and destroy the Patient in a short time;. such are Hae-  
morrhages, Fevers, and Inflammations; others are chronical,  
but mortal and incurable, and, after long wasting the Body,  
come to one common Period with the Lise of the Patient.. Of  
this kind are Abscesses, Ulcers, Stone, and, from hence,,  
bloody Urine. Ulcers proceed from Abscesses, hut are always  
extremely tedious, and difficult of Cure.

The Generation of Stones is very flow, but the Fit Very  
painful, from the Obstruction os the Passages ; and, which is  
the most dismal Circumstance, the Urine is suppressed. If  
many small Stones,- compressed together, or but one great  
Stone, stop up the Passage, and this be the Case with respect  
to both Kidneys, Death must necessarily follow in a few Days,  
from the Suppression of the Urine, and the Distention of the  
Parts. Nature, indeed, has taken care to form the Sinuses of  
the Kidneys of an oblong Figure, and of equal Capacity with  
the Ureters, and larger than small Stones, with an Intent that  
if such Concretions should be generated in the upper Parts,  
they might find an easy Descent into the Bladder. For the  
same Reason the Stones are of an oblong Figure, fince they are  
generally found sucking in the Ureters 5 and such as are os an

uneven Bigness, are Sender in the sore Part, because of the  
Narrowness of the Ureters, but thicker in the hinder Part, he-  
cause the Kidneys discharge themselves downwards. The  
Stones are generated only in the Kidneys, and that when very  
much distempered with Heat, and have no Seat in the Ureters ;  
into which, however, the Gravel falling, is both a Sign, and  
the Matter, of the Disease, if the Sinus of the Kidney be ob-  
structed with a Stone of considerable Bigness, there arises a Pain  
**in** the Loins aheut the Muscles call'd *Psoa,* which extends itself  
to the middle Rib, so as to cause the Disease to be oftentimes  
.mistaken sor a Pleurisy ; there is a Sense of Weight upon the  
Hip ; the Patient bends forwards with Difficulty, and can scarce-  
**ly** move his Back; he labours under severe Gripings, which are  
attended with a Sensation of Heaviness, and remove from one  
Place to another, because of the Convolutions of the Intestine.  
If there be a Redundancy of Urine, the Parts are distended,  
and the Patient is tormented with a Desire to make Water, like  
a Woman in Travail. He becomes fill'd with Flatulencies,  
which are not readily discharg'd ; a biting and dry Fever seizes  
him; his Tongue is parch’d, his Belly constipated,, and his  
Body wasted ; he l oaths all Food, or, if he takes any Suste-  
nance, it is with great Difficulty that he digesta it, or receives  
any Refreshment from it. If a Stone salis into an Ureter, it  
raises a Shivering, aS from Cold, and the Progress of the Stone  
is felt, attended with a Violent Pain.. If a Stone sells into the

' Bladder, there is a plentiful Discharge of aqueous Urine, the  
Belly is evacuated. Flatulencies are expel'd, the Stomach is  
easy, there are Eructations, and the Patient is freed from these  
Evils which before molested him. If the Ureter be lacerated  
by the Stone, Blood sometimes passes off with the Urine. An-  
other Pain commences, when the Stone passes thro' the Ure-  
thra ; for, if it is larger than that Canal, it is there detained  
for a long time ;-mean while the Bladder is sill'd, and there is  
**a** total Suppression of the Urine, attended with a most torment-

- ing Pain ; for even the Ureters are full The crooked Stones are  
most painful in their Passage ; for I have seen some which have  
bended like a Hook, and have observ’d Callosities in the Ure-  
thra ; but these Stones are, for the most part, form'd into an  
oblong Figure, according to the Shape of the Passage. As to  
the Colour of these Stones, some are white, like Chalk, and  
these are commonly sound in Children ; others are yellow, like  
Saffron, and generally afflict old Persons, who are also most  
subject to the Stone in the Kidneys, as Children ure to the Stone  
in the Bladder. There are two Causes of the Concretion of  
these Stones: In aged Persons, the Coldness os their Bodies,  
andtheThickness of these Blood ; sor Cold soonest causes a Con-  
cretion of thick Matter. A Proof of this is, that the Waters  
of naturally hot Springs are by Cold congeal'd into a callous  
sort of Stone. In Children, -the Generation of the Stone is

- owing to much siimy Matter, which the Blond, like Fire, tor-  
refies, and reduces to a stony Consistence. Such are the Dis-  
orders which are consequent to the Generation of a Stone.

Some, at certain Seasons, make bloody Urine, in which re-  
spect this Disease is like the Haemorrhoids, and induces a like  
Habit of Body. Persons thus affected are of a pale Colour,  
lazy, unfit for Business, and have neither Appetite nor Dige-  
stion. After their periodical Haemorrhage, they become lan-  
guid and paralytic in their Limbs, but lighter and freer in their  
Heads: But, if they miss their usual Evacuation, they are  
troubled with a Pain in the: Head, a Dimness of Sight, a Sco-  
tomia,. and Vertigo; whence many hecome epileptic, others  
bloated, blind, and hydropical; others grow melancholy, or  
paralytic r And these are the Effects which proceed from a Re-  
tention of the Blood which used to be evacuated. If the Blond  
Sows from the Kidneys, it is usually discharg'd pure, and un-  
mix'd with the Urine, out of the Bladder. Sometimes it rushes  
on a sudden, in a full Stream, from a Rupture of the Kidneys,  
and congeals into Clots ; sometimes it congeals in the Bladder,  
as if it were out of the Body, and thereby causes a terrible Sup-  
pression of Urine. A Rupture is succeeded by inveterate and  
stubborn Ulcers. The Signs of an Ulcer are, the Vending of a  
Coat, or thin reddish Membrane, like a Spider's Web, or white  
Pus with the Urine, sometimes pure and.unmix'd, and, at other  
times, mix'd with the Urine. The Signs of the Formation of

. an Abscess are, a Fever and Shiverings in the Evening, with  
Pains .and Itchings about the Loins. An Abscess is known to  
he broken by the coming off of purulent fleshy Clots, and  
white Pus. The Ulcers are of the biting Kind, and sometimes  
pure, sometimes soul, which is known by the Pus, and from  
the Urine having sometimes an ill Smell, at other times none  
at all.

The Spring generates Haemorrhages and Abscesses; the  
Winter and Autumn, the Stone and Gravel. If an Ulcer  
succeeds the Stone, the Disease becomes incurable, and the  
Patient falis into a Consumption, which soon terminates in  
Death. *Areteeus reapi del.* καὶ σημ.χρον. παθ. *Lib.* 2. *Cap.* 3.

*From* **ALEXANDER TRALLIANUS.**

Stones in the Kidneys are generated of a thick and Viscid  
Mattes, too much bak'd or torrefv'd by the igneous Heat of

those Parts; so that the material Cause os the Stone is a gross  
Matter, but the efficient Cause an igneous Fervency ; for of  
fuch Matter, with che Help of Fire, do Potters make their  
Vessels, in fuch a manner aS to he indissoluble by Water. This  
being the Case, we must endeavour to prevent the Generation  
of this gross Matter in the Kidneys, and to preserve those  
Parts free from that igneous and intemperate Heat; for, with-  
out either of these, no such thing as a Stone can be generated.  
’ You ought to be Very careful in your Examination, whether  
a Pain proceeds from the Stone, or not ; for the same Sym-  
ptoms happen to those who are afflicted with the Colic, as to  
those who labour under the Stone ; and it is no easy Matter,  
especially in the Beginning, to distinguish one from the other  
by the Signs. In both Affections the Patients are molested with  
Vomiting and Costiviness, with Flatulencies and Distentions,  
which extend so far as to affect even the Stomach and Liver.  
But tho' they have the same Symptoms in common, a Man  
who is Master of his Business will know how to distinguish  
them ; sor, in the Colic, the Vomitings are more, and the  
Matter ejected crude and pitintous ; the Belly also is more  
bound, and the Flatulencies more retain’d : But, in the Stone  
of the KidneVs, it is otherwise; sor oftentimes they have the  
Benefit of a thool by the Use of proper Remedies, and some-  
times break Wind, and evacuate downwards, without the  
Help of Medicine, which never happens in the Colic. The  
Urine ought also to be nicely inspected, in which you will per-  
ceiVe a very considerable Difference; sor, in the Colic, it has  
a more pitui tous, as well as more copious. Sediment ; but, in  
the Stone of the Kidneys, it has less Sediment, and, upon **a**careful Examination, you may discover sandy Particles therein,  
which are not found in the Urine *of* those affected with the  
Colic. The Pain also under a Fit of the Stone is not only  
more severe, but fix'd principally in one Place, which does not  
happen in the Colic. *Alexander Trallianus, L.* 9. Co 4.

*From* **LoMMIUs.**

The Pain proceeding from the Stone in the Kidneys may be  
known by the following Signs: There is a most severe and pun- .  
gent Sensation in the Kidney, as if a Thorn were fix'd in it,  
which setties in that Part, without shifting, except that some-  
times it communicates itself thro' the Groin towards the Hip,  
or the neighbouring Testicle: There is no external Tumor:  
The Patient cannot bend his Back without Difficulty: The  
Leg on the same Side with the affected Kidney is sometimes  
contracted, sometimes, as it were, benumb'd : There are fre-  
quent Eructations, with a great Loathing of Food. When the  
Pains are very intense, the Patient is seiz'd with Vomiting;  
first of Phlegm, soon aster of yellow Bile, and, at last, of  
seruginous Bile ; afterwhich the Pain is mitigated. The Belly,  
in this Disorder, is constipated, and, by pressing upon the Kid-  
neywith the contain'd Faeces or Flatulences, augments the Pain:  
But, if it happens to be evacuated, a sort of bilious Matter, toge-  
ther with Wind, is discharg'd. When the Patient lies on the  
affected Part, or while he is fasting, the Pain is mitigated ;  
but, when he lies on the contrary Side, or after a full Meal,  
when the Food begins to descend towards the Intestines, the  
Pains and Disorder are exasperated.

\* At the Approach os the Fit, the Urine is little in Quantity,  
thin, and aqueous; and soon aster, as the Pain increases, is  
frequently utterly suppress'd, till the Stone being discharg'd .  
from the urinary Passage, which the *Greeks* call οῦρητῆρα, *(Ureter)*a great Quantity of thick Urine comes off, which deposits a  
good deal of Sand, and sometimes large rough Stones, or Frag-  
ments of Stones ; sometimes the Urine appears with Bubbles,  
and has an ill Smell ; sometimes comes away frequently, and  
in small Quantities, attended with a scalding Heat; oftentimes  
it brings away whet is like Blood with it, especially after Labour,  
or hard Riding. They who are obnoxious to this Disease, have,  
for a long time, discharg'd a thick reddish Urine, with a dense

’ and tenacious Spume, which sometimes deposits a red, sandy,  
and somewhat Viscous Sediment; sometimes it continues foul,  
and, .if strain'd thro'a Woollen Cloth, leaves a Substance like  
the Sediment before-mention'd. This kind of Urine often  
passes off, for many Years together, without any Inconveni-  
ence, without any Pain in the Kidneys, or any other Symptom  
of the Stone ; when, unexpectedly, and all on a sudden, the  
Kidney is seiz’d with a most acute Pain, and, at the same time,  
the Belly is constipated, and the Leg on the same Side with the  
affected Kidney taken with a Numbness. The Pain often re-  
mits, and returns at pretty long Intervals, and sometimes with-  
out discharging any Stone, but a thick and turbid Urine, and,  
perhaps, after hard Riding, a bloody one. And, indeed, the  
voiding bloody Urine often shews the Stone in the Kidneys,  
when there is no Pain, nor any other Mark by which it can be  
known, or so much as suspected. i

When the Pain is succeeded by an Excretion of the .Stone  
from the Kidney, the same, selling into the Head of the *Ureter,*causes a Discharge os thin waterish Urine, in a finall Quantity ;  
or, which often happens, totally suppresses the same. But if  
the Stone should happen to be repressed into the Cavity of the

Kidney, or, at least, if it penetrates into the Bladder, there  
follows an Evacuation os fuch Urine-as was hefore describ'd ;

\* fo that I am of Opinion, that *Hippocrates* was in the right, when  
he said, that a sudden Pain of the Kidneys, with a Suppression  
Of Urine, prognosticated a Discharge os Stones or thick Urine.  
The Stone is often so big as not to he expel'd from the Substance  
Of the Kidneys, in which it was generated, into their Cavity;  
and, during that time, the Patient seek littie or no Pain, but  
makes a thick, foul, reddish Water, as above describ'd.  
Put after Violent Exercise, or hard Riding, not only such kind  
of Urine is discharg'd, but a bloody Urine, winch deposits a  
grumous Concretion of a Substance like Blood. When the  
Stone is remov'd into the Void Space, or Cavity, of the Kid-  
ney, if it be large, and tend downwards, it stops the Ureter,  
and intercepts the Passage of the Urine, in such a manner that  
but very little, and such as is of a thin and aqueous Substance,  
can be discharg'd; such a Stone, at the same time, excites a  
Very sharp Pain. But when the Stone, tho' descended into the  
Ureter, is too small to cause a considerable Stoppage of the  
Urine, or when large, and newly remov'd from the Substance  
into the Cavity *of* the Kidney, and it has not yet applied itself  
to the Beginning of the Ureter, there passes off a thick, foal,  
red, or a dark, and somewhat livid Urine.

Smooth and round Stones are not so difficult to he discharg'd,  
as oblong and rough ones ; but all are not of the same Bigness,  
Figure, or Roughness. Persons whe have been long troubled  
with Pains in the Kidneys, and have their urinary Passages pretty  
oped, are, for that Reason, tormented with large Stones, but  
not with those of a moderate Size; whereas those who are but  
newly affected with this Disorder, or, at least, have seldom  
been pain'd, suffer severely from the least Stone.

The Stones of the Kidneys are, almost all of them, os a red-  
dish Colour, tho' purulent Kidneys discharge also white ones;  
black and pale Stones have also been observ’d. In this Affection,  
the more aqueous the Urine is, and the longer it so continues,  
and the less Sediment it has, the harder, you may assure your-  
self, are the Stones in the Kidneys, the more consum'd, and  
the more obstinate in resisting Remedies ; tho’ Urine seldom  
Comes off clear from these who are subject to great Pains os the  
Kidneys. Fat and aged Persons are most frequentiy afflicted  
with this Distemper; it seldom or never happens to Children,  
and rarely to adult Youth. f It seldom also molests those who  
frequentiy Vomit, and are not subject to be costive. . As all  
Disorders in old Persons are Very difficult to be cur'd, so this,  
of which we have heen speaking, admits os no Cure at all.  
The same is hereditary to a greater Degree than all other Dis-  
tempers ; so that a Man seldom or never escapes the Torment  
Of the Stone, who was, on account of his Parents, hy Nature  
subjected to this Disease from his Birth. *Lommius, Med. Obs.*

*From* **HOFFMAN.**

The Word *Calculas,* among the antient *Romans,* had a great  
many different Ideas affix'd to it: Thus it signisy'd a small  
Pebble or Gravel-stone, a Chess-man, a Counter, and, by a  
Metonymy, an Accompt or Computation, .a Doubt or Diffi-  
culty, a Sentence of Absolution or Condemnation, as also a  
Vote or Suffrage; but, by Physicians, this Word is appro-  
priated to Stones form'd and generated in the human Body.  
These are produc'd in various Parts ; in the Stomach, for In-  
stance, in the Gall-bladder, in the Liver, in the Lungs, and in  
the Interstices of the Muscles in almost every Part of the Body;  
but no-where do they produce such terrible Consequences, or  
excite such intolerable Pains, as when lodg'd in the Kidneys,  
the Ureters, and urinary Bladder.

AS the Pain, rising from a Stone flipping from the Kidneys into  
the Ureters, is the most intense and racking that can possibly  
afflict Mankind; so, upon its first seizing the Patient, it often  
happens, that it is with Difficulty distinguish'd from other acute  
Pains of the lumbar Region.

'Tis a Notion as false and absurd, as 'tis common and popu-  
lar, that when any one is seiz'd with Pains about his Loins, he  
must therefore be afflicted with the Stone in the Kidneys fince,  
in that Region, there are several Parts highly sensible of Pain,  
and susceptible of Injury ; such as the external and internal  
Muscles of the Loins, the nervous Ligaments of the lumbar  
Vertebne, the superior mesenteric Plexus of Nerves, a Branch  
of the superior meseraic Artery, and, in their Neighbourhood,  
the winding Extremity of the Intestinum Duodenum, and the  
Sigmoide Flexure of the Colon; in all which Parts, when either  
too much distended, or compressed, by the Stagnation of an  
impure bloody, or serouSHumour, very terrible Pains are excited.  
Sometimes also a Rheumatism, seizing these Parts, produces  
Pains so racking and intolerable, that the miserable Patient, aS  
is his Loins.were cut in the Middle, hendS forward, and cannot  
raise himself up. The same Symptom may also be produc'd,  
if by a Fall, or lifting any great Burden, the Vertebrae and  
Nerves are remov'd ever so littie from their natural and proper  
Situation. Too large a Quantity of Blood stagnating about the  
mesenteric Plexus, and emulgent Arteries, in plethoric Habits,  
and in those who are subject to the Haemorrhoids, or, in other

People, in consequence of neglecting Venesection, when they  
have been habituated to it, frequentiy excites a Violent Pain in  
the Reginn of the Loins, which is commonly, tho' salfly,  
ascrib'd to the Stone; fince it is often suddenly remov'd, either  
hy Venesection in the Foot alone, or by discutient nitrous  
Powders.

But it Very ostenthappens, that the Colic is mistaken for a Pain  
produc'd by the Stone; for, when the Flexure os the Colon,  
which lies near the Loins, is either too much distended with  
Flatulencies, Or spasmodically constricted, a violent Pain is not  
Only produc'd in the Region Of the Loins, but also pastes to the  
Praecordia, excites a Nausea and Reaching, prevents the Dis-  
charge Of Urine, renders the Patient costive, and racks the  
whole Abdomen with Pains as severe as those generally arising  
from the Stone. But smce this spasmodic Pain is not constant and  
fix'd, but rather wandering, and of such a Nature as to be  
greatly reliev'd by the Injection of emollient Clysters, the IkilsuI  
Physician may, from these Circumstances, easily distinguish it  
from tl.e Pain arising from the Stone, which bears down more  
powerfully, does not waste the Strength so much, and remits at  
Intervals, so that the Patient can frequently rise, and walk  
about, which does not happen in the Colic. Besides, if the  
Pain arises from the Stone, the Vomiting and Nausea are  
greater when the Stomach is empty than at other times; a Titil-  
lation, and pricking kind of Pain, are also felt in the Urethra  
and Glans; the Urine is loaded with Sand, the Testicle is re-  
tracted, the Thigh seiz'd with a Stupor, and the Side itself con-  
tracted ; none of winch Symptoms are observ'd to attend the  
Colic.

’Tis to he observ'd, that Stones of a Very large Size, with  
considerable Branches rising from them, may be lodg'd in the  
Substance of the Kidneys for some Years, without creating any  
great Pain or Uneasiness to the Patient; but, as soon as they  
are remov'd from their former Seat, and falling into those nar-  
row, nervous, and muscular Ducts, call'd the Ureters, seek a  
Passage thro' them into the Bladder, the most terrible Symptoms  
forthwith appear : So that the Ureters themselves may be the  
fix’d and genuine Seat of Pains arifing from the Stone; but  
these Pains are more or less intense, according as the nervous  
Coats of these Canals are more or less distended by the Bulk,” or  
irritated by the Roughness, of the Stones winch shall happen to  
be lodg'd in them. These Pains are sometimes so severe and in-  
tense, that, besides a Shivering and Refrigeration of the Extre-  
mities, they also excite a Nausea, a Vomiting, a spasmodic  
Constriction of the Praecordia, a difficult Discharge of **the**Urine, a Stricture of the Belly, an Uneasiness in Breathing, a  
Stupor of the Leg, a Retraction os the Testicle to the *0s Pubis,*Restlesness, incredible Loss of Strength, a Syncope, and even  
epileptic Fits; at other times they bring on a Suppression of  
Urine, which proves fatal to the Patient. I have sometimes  
observ'd Patients complain, that they felt fuch a Pain as if one  
was continually inflicting a deep Wound all along the Spine,  
near the Bladder; and, in these Cases, when the Patients were  
laid open after their Death, the Ureters appear'd distended and  
turgid like a Pudding, by the large Quantity of Urine winch  
had been deny'd aPaflage into the Bladder, on account ofaStonc  
lodged in the Ureter, near its Insertion into that Organ.

'Tis confirm'd by Observation and Experience, that a Stone  
has sometimes been lodg'd for a long time in the Ureter without  
creating any great Pain, or intercepting the Passage os the Urine;  
asterwhich the Pain has seiz'd the Patient unexpectedly, and  
brought along with it Loathing of Fond, Nausea, Vomiting,  
and Interception of Urine. This Phenomenon has, in all Pro-  
bability, been owing to the Situation of the Stone heing  
chang'd by some Accident, fo as, by its Roughness and Inequa-  
Iity, to prove more offensive to the nervous Coat of the Ure-  
ter. Nor is this Disorder universally accompanied with the  
same Train os Symptoms; for, as *Erasimus* says of the Stone  
with which he himself was afflicted, in his Epistle *to Perce-  
nt cy or us, “ It* transforms itself into Shapes so unlike those it  
" formerly bore, that one would really believe it to be another  
" Disorder ; one Set of Symptoms attends its Beginning ;  
" another appears in its Progress; it sometimes remains fix'd,  
" and sometimes changes its Seat.''

'Tis a Circumstance worthy our Attention, that Stones are  
more frequentiy lodg'd in the Left, than in the Right Kidney ;  
hence it happens, that Pains arising from the Stone in the Kid-  
neys are observ'd to happen more commonly in the Left than  
in the Right Side. This is confirm’d by *Carolus Pise, in Tract,  
de Morbis ex serose colluv. oriund.* where he affirms, " that  
" among an hundred labouring under the Stone of the Kid-  
iC neys, eighty and more have the fatal Cause of their Dis-  
“ order lodg'd in their Left Kidney." Nor is the Reason of  
this Phenomenon so much a Mystery as at first it may appear;  
for in the Veffeis os the Right Kidney, which is cover’d with  
that large Organ the Liver, and cherish'd with a more consi-  
derable Warmth than the Left, the Circulation of the Blood  
is quicker, and the Separation of the urinous Serum more  
speedily perform'd. Hence a Stagnation of the Blond and  
Urine cannot so readfly happen in this as in the Lest Kidney,

**which,** being encompassed by the Flexure of the Colon, is **more**compressed in consequence of a frequent Stagnation of Flatu-  
lendes. Hence it happens, that theintercepted Course of the  
Blood thio’ the compressed Vessels renders the Percolation of  
the. Utioe thro’ the fmall Tubesmore difficult, brings on a  
spcedy Stagnation in them, and consequently leys a Founda-  
tion for the Separation and Concretion of a tartareous or cal-  
careous Matter. . - j - . ; . . . ....

’Tis equally remarkable, arid equally confirm’d by Experi-  
ence, that a Stone which has long remain’d in the Parenchyma  
of the Kidneys, or in rhe Pelvis, may be remov’d from its  
former Seat, and thrust into the Origin of the Ureters, by va-  
nous Caufes, She principal of which are, violent. Perturba-  
tions of Mind in consequence of indulging the Sallies of Pas-  
sion ; vchement and sudden Commotions of the Body, by  
Gestation or Riding; and particularly the penetrating Cold of  
Northerly Winds admitted to the Loins ; as alfo a too liberal  
Use of Diuretics, 'sucti as Preparations of Turpentine and  
Juniper, generally, tho’ absurdly,: prescrib’d by some Physi-  
cians, as Preservatives against the Stone. I have also .often  
observ’d, thet flatulent Colics, and the Spafms with which the  
Hypochondriac, the Hysteric, and inch as are fuhjecti to the  
Haemorrhoids, are commonly afflicted, do by protruding the cal-  
culous Concretions lodg’d in the small Papillae of the Kid-  
neys, frequently lay a Foundation for intense and violent Gra-  
yel Pains. s.V.:. -

. As for the remote, or, us they are called, the natural Causes,  
.which contribute to the Generation of Stones .in the Kidneys,  
and the Production of the subsequent Pains arising from them;  
the principal and most considerable is what we call a sanguine  
Constitution ; for Bedies of a soft and spongy Texture, es-  
pecially thofe of the Female Sex, whose Veins are filled with  
Blond, who live delicately, and drink Wine, who indulge  
themfelves in Idleness, and lead a sedentary Lire, and who  
wantouly ofe Cheese, Milk, and Sweet-cakes, ate, espeaally  
after the fiftieth Year of their Age, when the Monthly Eva-  
citations cease, sub] oft to Pains arising from the Stone, with  
which for the most part they . are. not afflicted so long as- the  
Monthly Discharges are duly and regularly carried on. Among  
’ Men, they Who in their Youth, have been fubjeol to Hasmor-  
rhages of the Nofe, and srequent Head-achs, as allo they who,  
havirig'heen.accustom’d to haemorrhoidal Discharges, heve them  
either entirely stopt or diminish^, are. in a - more advanc’d  
-Age most subjeth to he afflicied with artbritio and; nephritic  
Tains. Experience convinces us, thet old Age is of all others  
rnost subject to the Stone, both in the-Kidneys, and in the  
Bladder; because then the Humours are more inspissated, the  
Aliments become acescent in the Stomach, the-Belly is less  
open, and Ease, which at that Period of Lise is generally more  
indulg’d than in Youth, contributes not a hide to the Gene-  
ration of Stones. This Circumstance *Erafmus* in all Probabi-  
lity . had in View, when he passes the following Jest upon bis  
own Misfortune. ".It may, fays he, appear wonderful that  
" Women should become barren by Age, which has render’d  
.\*" me more fruitful; for from Day to Day I bring forth more  
" frequently.” - . . ...; . -

It also happens, that scarce any Disorder whatever is so fre-  
quently observ’d to be convey’d from Parents to their Children,  
as the Stone and the Gout, another Disorder of a near Affi-  
nity to it in consequence of a peculiar Disposition of the Fluids  
and Solids; for both these Calamities not only afflict thofe Men  
who are full of Blood, and are said to he of sanguine Habits,  
hut they also both draw their Origin from a natural Weak-  
ness, and want of Tone, in the Solids; with this Difference,  
thet in the nephritic Patient the Kidneys are the Seat of the  
.Weakness; and in the artbritio, the Ligaments of the Joints.  
We also frequently observe, that rheumatic and arthritic Dis-  
orders are easily transform^, and converted into chose of the  
nepbritio Kind ; which in their torn are, by a Tranflation, as  
readily chang’d into the former ; so thet when a Person natu-  
Ially fubjeit to the Gout has been long free from that Difor-  
der, he very readily becomes afflicted with the Stone in the  
Kidneys, and *vice versa.* It also frequently happens, that  
both these Calamities in Conjunction rack the miserable Pa-  
tient at one and. the same time.. . X.

As for the Generation of Stones in the Kidneys, we may  
account for it in this manner: When, in consequence of too  
large an Impulse of .Blond, which with Difficulty returns by  
the Veins, the Blond-vessels of the Kidneys are too much  
distended and stuff’d; hence it happens, thet the minute  
Arteries, where they become small Papillae, .and slender uri-  
nary Ducts, are burst and forc’d open , thus, by a Stagnation  
of:the extravasated bloody Serum, stnall.Abscesses and Ulcers  
are at first form’d,, and afterwards gradually enlarg’d. When  
the urinous Serum, which is impregnated with many tartarous  
**and** flirny Parts, stops in these Abscesses and Ulcers, the more  
weighty and acuminated Particles are separated from the rest,  
and form themselves into Concretions, which at first, heve the  
Appearance of a thick and coarse fabulous Matter ; afterwards  
Grains of a closer and more compact Texture are generated,

which by the Assistance of a plentiful Secretion of Urine are  
easily, wash’d away ; and often nor totally discharg’d without  
Pain.- Where-ever, then, such agro st and heavy Sand subsides  
in the Utioe, it is an infallible Sign of Stones heing lodg’d in  
the Kidneys. But -when thofe calculous- Concretions form’d  
in the ulcerated/Substance of the Kidneys become gradually  
larger and hander, and are, either by the Urine, which - is im-  
pregnated with tartarous Parts, or by some other Caufe; con-  
verfd into the Pelvis, or the Beginnings , of the Ureters, more  
terrible Pains are excited, and a formidable Train of Synt?  
ptorns appear ; because the calculous Concretions must make  
their Way thro’ these narrow Ducts, of. exquisite Sensation,  
to the urinary Bladder, into-which when they have, fallen,  
the Symptoms are entirely remov’d, and Strength is restor’d,  
to the no small Joy of the Patient :: - t / , :

That Stones, may alfo the generated in .the Parenchyma of  
the Kidneys, by the Stagnation of an ichorous, bloody,- or  
purulent Humour, is, among other Circumstances, plain from  
these, thet in nepbritio Patients, as was long ago observed by  
*Celsos,* something of a bloody or purulent Appearance is dis-  
charg'd with the Utioe; that Patients assiicled with the Stone  
frequently discharge a bloody Urine; and thet their Kidneys  
heve, aster their Death, been found to be large, flaccid, anil  
exulcerated. This is also obvious from a Consideration of the  
Cure, which is most happily brought about by, abstergent,  
vulnerary, . consolidating, and gently: astringent: Remedies, '  
Nor do I deny, thet without the Substance- of the Kidneys be-  
ing previoufly inju?d, a tattarous Matter, or Concretions of  
Sand .of a .very furprifing Bulk, may he gradually form’d in  
the Pelvis, and larger Ducts of the. Kidneys, in consequence  
of a Stagnation of the Urine. But in proportion, as this  
Matter, whether ichorous,' or tartarous, differs with regard  
to Colour, Crasis, and Consistence, and according as the  
Accretion is greater or lest, so various Kinds of Stones are ge-  
nerated and form’d; for: fome consist of a Substance so shard,  
thet they appear Almost to he of the Nature of a Stone ; others  
are friable, and less firmly compared some are of a pale,  
and others of a cinentious Colour, whilst others are red, or of  
the Colour of Sandarache forne are larger, and others smal-  
ler ; some are more angular and .rough, whilst others are  
much less fo. i . ......... 00 r S ; - *r'.sot*

That all nephritic Disorders, such aS Infarctions of the Kid-  
neys. Inflammations, Exulcerations, and Pains aiding from  
the Stone,.are more difficuldy. cur’d'in: old, than in young  
-People, is a Truth not only confirmedby Experience,, but  
establish’d by the Authority'of *Hippocrates,,* in the .sixth Apho-  
rism of: bis sixth Section ; for as Wounds and Exulcerations  
of the .internal Parts are in an advanc’d Age.difficultly cur’d,  
by reason of an increased Intemperies of- the Humours, and  
an abundance of the Excrements; .so the Wounds and Exul-  
«rations of the Biadder ate in that Period .of Lise cur’d' with  
the greatest Difficulty, by reason of the excessive Acrimony  
of the Urine. : ,υ.λ;

When violent nephritic Pains do not remit for several .Days  
and Nights, but incessantly rack the Patient, and resist the  
most approv’d Remedies ; and when at the same time, a to-  
tal Suppression of Urine .comes on, accompanied with Cold-  
ness of the Extremities, and a kind of Convulsion of- the  
Tentions; thefe Symptoms pronounce the Death of the Patient  
to he near. But Pains arising from the Stone presage the most  
particular and imminent Danger to those, who, thro’ a long  
continued Courfe of Grief and Sorrow, have had their Strength  
previoufly impair’d -, since, immediately upon their being seiz’d,  
a greater Loss of Strength, and a Gangrene of the internal  
Parts, eofue. Nor is it a good Symptom, when a Stone lodges  
long in one of the Ureters ; for by this means the Appetite, is  
lost, and the Digestion destroy’d, whilst the Nausea, the strong  
Efforts to vomit, and the Uneasiness remaining for a consider-  
able time, a stow hectic Fever comes on, wastes the Strength,  
consumes the Flesh, and puts a speedy End to the Patient’s  
Life.

After the Death of some Patients, Stones of a surprising  
Bulk, considerably compacts and furnish’d with large Branches,  
heve been found in their Kidneys, which appear’d to he total.  
ly exulcerated, and cover’d with a bard Membrane, tho’ they  
were never known to complain of any Pain during their Lives;  
and thefe Patients are cut off by a Disorder which we call  
*Tabes Renalis.* Some are, soon after their heing sein’d with  
nephritic Pains, cutoff by an acute Distemper, whilst an In-  
flammation of the Stomach or Intestines St last succeeds **the**racking Pains they heve endur’d. Others, by reason ofa to-  
ol Suppression of Urine, sell into a Dropsy of the Breast, **a**Lethargy, or Convulsions. . *Fo Hoffman.*

*The CvRs, as proposed byL.RET&vs.*

To prevent the Generation of Stones in.a Constitution na-  
turally disposed to breed them, is a Thing impossible *for.* it is  
more easy to prevent the Conception of Children in the Womb,  
than breeding of Stones in the Kidneys ; .our only Way there-  
fore is to endeavour to expel them. For this Reafon I shall

give Directions in Cafes of Difficulty, where the Smne peril-  
nacioufly adheres to the afflicted Part, which is a Circumstance  
attended with a Violent Pain, and sometimes tho Patient finks  
under a Complication of Gripes, Colic, and a Suppression of  
Urine; *for* the Kidneys and Colon are contiguous. Tn a Fit  
of the Stone, therefore, attended with Gripes, and a Suppress  
fion of Urine, open the Vein of the Ancle, on the same Side  
with the affected Kinney; for an Effusion of Blood from the  
Kidneys relaxes that Constriction, which is the Effect of the  
Stone; and an Inflammation having seiz'd all the Parts, it is  
most readily TesolV'd by an Exinanition of the Vessels. Em-  
brocations also of the Loins near the Seat of the Kidneys are  
to he used with old or new Oil, in which Rue has been infused,  
or Diuretics, such aS the Tops of Dill, Rosemary, or Sampsu-  
chus ; with these let the affected Parts he embrocated, as with  
Water; for simple Unctions are of littie Service. Besides these,  
foment the Parts with Oil of Chamomile in Ox-bladders, and  
let Cataplasms he made of the same Materials, mix’d with Meal.  
Sometimes Cupping without Scarification relieves in. a Fit of  
the Stone ; but the best Way under an Inflammation is to sca-  
rify. If none of these move the Stones, let the Patient bathe  
in Oil, which is instead of all Remedies ; for. the Warmth  
thereof relaxes, and in some measure lubricates the Parts, and  
its Acrimony stimulates to Excretion. These then. are . the  
topical Medicines which promote the Expulsion of the Stones.  
Simple Medicines are Potions of the Roots of : Valerian, Spig..  
nel, and Asarabacca or of the Herbs PrioniteS, Parfley, or  
Slum; compound: Medicines are. Ointments composed of  
Spikenard, Cassia, Myrrh, Cinnamon. *Acetous* περί θεραπ.  
χρον.παθ. *Lib.* 2. Cap. 3.- . .. . - su.'.se

***From*** ALEXANDER TRALLIANUs.

' The Cure of the Stone in the Kidneys, at the time of the  
Fit, must he attempted by such Medicines as are of relaxing  
and lenitive Qualities, and are, besides, endu’d with the Virtue  
**of** difiolving and expelling the Stone. The theft Remedy sor  
these Purposes is Bathing ; because it not only mitigates, but  
**has** Virtue sufficient to cure the Distemper. It frequently in-  
deed mitigates the Pain of the Colic, without curing it; but,  
under a h it of the Stone, it not only mitigates the Pain, but  
wholly relieves the Patient. For the inore effectually answer-  
ing this End, set the Parts be anointed with Oil of Chamomile  
while in the Bath, and let the Patient sit for a good while to:.  
nether in the Solium, or Bathing-chain, in plenty .of hot  
Water; and not only use the Bath once every Day, but two  
or three times, in the Summer Season let him often use the cold  
Bath; after which, being well wrapt in Linen, let him drink  
the Decoction of Carduus, with Smallage, or a littie Anise.  
If the Pain continues, and the Expulsion of the Stone does  
**not** succeed, let him drink the Decoction of Cinquefoil, with  
his Cloaths still wrapt about him. This is a very grateful as  
well as effectual Medicine, and ought *to* he taken out of the  
Bath, either alone, er with Oxymel. If .the Root of Cin-  
quefoil he wanting, a Decoction Of Eryngo, or Erysimum,  
and Prionites, being drank, is very effectual for the feme Pur-  
pose. Outwardly may be apply'd Bags of frumentaceous  
Meals, with Decoctions of Chamomile, Marshmallows, Me-  
Iilot, and Oil of Chamomile, often changing them. If  
frumentaceous Meals he wanting, you may use Woollen  
Rags, moisten’d with sweet Oil, or Oil of Chamomile, often  
warming and changing them. Clysters also are to beadmini-  
stred, but such as are not very acrimonious, but hevea good  
Quantity of Oil in them, and are endu'd with a laxative and  
dissolvent Virtue. Such are Decoctions os Marshmallows,  
Fenugreek, dry'd Figs, Chamomile, and Oil Of Chamomile;  
and in Constitutions where Heat much abounds. Cremor os  
Ptisan, mix'd with Oil of Roses,Chamomile, and Yolks of Eggs.  
Thefe Medicines being of a lenitive Quality, by restoring the  
parts to a good Temperature, lessen the Cause os the Disease,  
and prevent those who have always the Stone in the Kidneys  
froth having a Fit. If the Disease be still obstinate, we must  
have recourse to more powerful Medicines; such is Goat's  
-Blood, which must be thus prepar'd:

When Grapes hegin to be ripe, take a new earthen Pot, and  
put Water in it, find boil it, in order to take off the  
: earthy Quality of it; then take a He-goat, in the Vigour

‘ \* of his Age, which is about the fourth Year, and fed for  
some time with Fennel-leaves, Amomum, and such-like  
. - fweet-scented Herbs ; cut his Throat, and receive the  
~ 6 middle Part of the Blood, rejecting whet comes out first

and last, in the Pot. After it is coagulated, mince it  
fmall in the Pot, and expose it to the Air, under the Co-  
vert of a fine Sieve, or a thin Linen Cloth, that the Sun  
and Moon may shine upon it, and that it. may be dry'd,  
". raking care that it receives no Moisture. When it is  
dry, reduce it to Powder, *Of* which give **a** Spoonful **at: a**. ' time in *Cretan* Wine.

. This is a most powerful and efficacious Remedy, as t know  
by long Experience. I heve given it with burnt Troglodytic  
Myrrh in the severest Pains, and by that means brought away  
a large Stone piece-meal by Urine. This Medicine, besides  
dissolving the Stone, mitigates the Pain, and prevents the Ge-  
Deration of Stones sor the future; for which Reason it is called,  
*T.be Hand of God.* -- - - \* . r

Anodynes are to be used only in the time of the Fit, **and**under extreme Pain, but avoided at other -times, for fear of  
creating a Distemperature in the Kidneys. But if there be any  
Danger of the Patient'S sinking under the continual Pain, and  
want of Sleep, we must have recourse to such Remedies, as  
have not only the Virtue of mitigating Pain, but of procuring  
Sleep. . .ss . - ...

AS to Bleeding, if the Patient be full Of Blood, or the Fin  
be attended with an Inflammation, you ought to begin with  
breathing a Vein; by means of which, the Parts being re-  
laxed, and the Passages open'd, the Remedies to be administer’d  
will have the more room to exercise their Virtue, τ. ῖ τε- -

Amidst a Plenty os Medicines for this Disease, some indeed  
diminish the Stone, but at the same time promote the Genera-  
tion of other Stones, by increasing their efficient Cause, which  
is the igneous Heat and Distemperature os the Kidneys. **To**prevent this Effect, avoid such Medicines aS are Very hot and  
acrimonious; or, if you are necessitated -to use them once or  
twice, desist from them after you have obtain’d your- Purpose,  
and do not use them, aS is too commonly done, for the take  
of Preservation. But all our Intentions must be directed **-to**the procuring of a good-Temperature, for which End ‘we  
must make use of such Medicines aS are attenuating with-  
Out .any considerable Degree of Heat. Such are Oxymel,  
Maiden-hair, a Decoction of Marsh-asparagus, and Couch-  
grass, the Roots of Smallage and Eryngo, and the Herb Cinque-  
foil, the Root and Leaves of Plantain, but especially its  
Seed, the Broth of Chiches, and Seeds of Peony and Almonds.  
But these are not to he used continually, but only when yon  
are apprehensive of a Collection of gross Matter in the Kid-  
neys. You would do well, always, before you eat, to drink  
warm Water; for nothing so well cleanses the Reins from Re-  
crements, or brings them to a just Temperature, so as to-he  
indisposed sor generating the Stone ; for in Length of Time  
their fiery Heat is extinguish’d by the Tepidness of the Waters  
They are in the Right therefore, who in the middle of their  
Meals drink Water, or Wine cool’d, or prepar’d with the  
Juice of Roses or Violets. All season'd Meats, os what Kind  
soever, Pickles, and every thing that has Pepper in it, are to  
be avoided. And not only acrimonious Food, but such as  
yield a gross Juice, are to be prohibited, fuch as salted Meats,  
prepar'd Swines Udders, fine white Bread, hard Eggs, Cakes,  
and all other things prepar'd with Milk, as well aS Milk it-  
self, and Cheese, together with very black and austere Wines.  
The Patient also must never lie upon a Feather-bed, for these -  
heat the Kidneys to a great Degree; he ought also not to stand  
much, but to keep himself siting, or in Motion. He must  
avoid eating late, and Meats of hard Digestion, such .as Sau-  
sages, all Fish of the cetaceous Kinds, as the Tunny, Mack-  
Tel, Pollard; .and all testaceous Fish, except the Scallop and  
Sea-urchin, which last he would do well frequentiy to eat; for,  
besides inducing a good Temperament, it has a Faculty of  
provoking Urine. Lobsters and Whelks may sometimes, tho'  
seldom, he eaten; but Oysters are wholly forbidden, as well  
as all far Beasts and Birds, and the continued Use of such as  
live in Marshes: But the Wings of Geese, and small Birds,  
which are not fat, as green Sparrows, and such as build . in  
Towers, and the like ; of Fruits, Cucumbers, especially  
the inner and medullary Pars, Melons, dry'd Figs, thick-rind-  
ed Apples, and Pears In moderate Quantities, but not for  
Continuance, are allow'd. *Tralliau, Lib. g. Cap. An*

*From* **HUFFMAN.**

The whole Secret in curing Nepbritic Pains seems to consist  
in bringing away the Stones easily, and with aS littie Trouble as  
possible; and in preventing and hindering the fresh Formation  
**of** that Sand or Matter which proves the immediate Cause of  
the Disorder, and .all its concomitant Symptoms ; for the Me-  
thod of Cure, under an actual Paroxysm, differs widely from  
the Measures to be taken when the Patient is in a State of per-  
fect Ease ; in which Case, Preservation or Prevention ought to  
be the intention of the Physician.

In the Paroxysm itself, where the Symptoms are Violent,  
and the whole CEconomy of the Vital Functions disorder'd by  
the exquisite and intolerable Pain, the first Step to be taken is,  
by proper Medicines, to allay the Vehemence os the Pain; and,  
by well-chosen Remedies, to sooth, and, if possible, remove  
the spasmodic Strictures, winch not only rack the adjacent Parts,  
but, in consequence of that mutual Consent which prevails he-  
tween any one Part and all the others, the whole nervous  
System. This is so much the more necessary, because, under  
such a Violent Attack os Spasms, which constrict and brace up  
the Urinary Ducts, the Progress Of the Stone thro' the Ureter

into the Bladder is, with the greatest Difficulty, promoted.  
Among the rnost celebrated Medicines for answering this in-  
tention, I must, above all others, recommend my own ano-  
dyne Mineral Liquor, on account of its Efficacy and Safeness ;  
sor, when exhibited in small, but frequent Doses, by allaying  
the Spasms of the *Prima Vior,* it wonderfully removes the un-  
easy Sensation there seis, the Nausea, and the Vomiting. ' If a  
sufficient Quantity of this Medicine cannot be had, the. most  
proper Succedaneum to it is Spirit of Nitre, carefully prepared,  
in the manner directed. by me in *Ohs.ervat. Physico-chym.* See  
NITRUM. For this Spirit, being now divested of its acid Qua-  
Tty, by its mild and sulphureous Exhalations dispels Flatulen-  
cies, and relaxes spasmodic Strictures. The Spirit is, for this  
Intention, most properly exhibited with sedative Waters; such  
as that of black Cherries, and those of the Flowers os *Egyptian*Thorn, Elder, red Poppies, Lime-tree, Primrose, Lily os the  
Valley, Meadow-sweet, and especially the Waters of Chamo-  
mile-flowers, and-the Tops of Yarrow, with the Addition of a  
little of the bynip of red-or white Poppies. It may also he  
exhibited in Flesh-broth, with a-sew Spoonfuls of pure and  
new Oil of Almonds, obtain'd without Fire. This intention  
is also answered by Emulsions of sweet Almonds, the Four cold  
heeds, and those of Poppy, Gromwel, and Carrot-seeds, pre-  
pared with she above-mention’d Waters,. and edulcorated with  
a sufficient Quantity of the *Syrupus Albus.* But when' these  
mild and gentie Medicines are not sufficient for mitigating the  
Pain, we must have recourse to those which are somewhat more  
powerful, such as Opiates, corrected, and render'd safe, by the  
Addition of other Substances; of this Kind are the Pilulae.Wil-  
degansii, the Pilulae Starkii, *Sydenhdnrs* Liquid Laudanum, the  
Theriaca Coelestis, and the Trochisci de AIkekengi; all which,  
on account of their Efficacy, and the Tendency of them Ingre-  
dients to sooth and allay Pain, deserve the highest Enco-  
iniums. - '

"Besides these Remedies already mention'd, nitrons Prepara-  
tions, and among these Nitre alone, purified and crystallized,  
or an artificial Composition of the Spirit of Nitre, and Salt of  
Tartar, or antimoniated Nitre, 'are superior, both in Efficacy  
and Safeness, to all other Remedies in allaying intense and  
acutePains, accompanied with Violent and raging Commotions  
of-the Blood and Humours; and must, of consequence, be of  
all others the most proper in Nephritic Disorders. ' These Pre-

- parations are most commodioufly mix'd with Powder of Crabs-  
byes, with Cinnabar, or the *Pulvis Mar chi oris,* and a few  
Grains of the *Trochisci Alkekengi, or* the *Pilulae Wildegansii,*and so drank off in an Emulsion, or in sweet Whey?

- Bur when the Pains and Spasms hecome so Violent aS to be  
intolerable, internal Medicines alone are not sufficient for sooth-  
ing and allaying them ; but external Applications must also be  
called in to the Relief of the Patient.; and, among these, none-  
produce more happy and salutary Effects than Clysters prepared  
of emollient Flowers, especially those of -the Garden Mallows,  
Elder, red Poppies, Yarrow, common Chamomile, and Mul-  
Ien, boiled with Whey ; adding some of the *Syrupus Dialthaa*of *Femelius,* Nitre, and *Epsom* Salt. When the inferior Part  
of the *Rectum* and *Colon* is so Violently constricted, that the  
Flatulencies cannot be transmitted, but, rising to the superior  
Parts, increase the Uneasiness they already labour under, I have,  
in this Case, often observed Very singular Relief afforded by  
Clysters of Oil, and pinguious Substances. The Belly being  
thus rendered soluble, and a Passage open'd for the Flatulen-  
cies, the ReachingS to Vomit, and the uneasy Sensation of the  
Praecordia, forthwith disappear.

In mitigating Pains of this Kind, as the Method of *Hippo-  
crates* is the most antient, so I think it the best and most effica-  
cious of any ; sor, says he, in his fifth Book *de intern. Affection.*" when a Pain has seiz'd the Kidneys, wash in a large Quan-  
" tity of hot Water ; and apply tepid Fomentations, especial-  
" ly to the Part affected.'' The same Remedy is recomil  
mended *lsyT.rallian:* And it must be owned, that no Remedies  
whatever are equal to Baths, and Semicupiums os pure Water,  
especially Rain-water moderately warm, in removing the most  
Violent Pains of this Kind ; and the Effect may be the more  
certainly depended upon, the ostener they are repeated, in  
Cases of this Nature Γheve also often seen fingular Relief af-  
forded, by applying to the Part affected. Liniments of human  
Fat, or that os a wild Cot, a Dog, or Beaver, made up with  
Unguentum Dialthaeae; or a Bladder fill’d with a Decoction of  
the aboVe-mention'd emollient Flowers, prepared with Milk.

When, in consequence of a due and careful Use of these  
Medicines, a remarkable Remission and Alleviation of the  
Spasins ensues; when the Pulse becomes more calm and gen-  
tle; when a moist and equable Heat is felt over all the Surface  
of the Body; and when the Flatulencies are successfully dis-  
charged by the Anus; then the Protrusion of the Stone is to he  
attempted, with proper Remedies, and due Caution. I have  
seen this Intention speedily answer'd by Various Remedies, and,  
among these, none affords a more remarkable and instantane-  
ous Relief than liberal Draughts of an Infusion prepared of  
Paul'S-hetony and Parfley, or of the Seeds of wild Carrot, Ce-

jery, and Fennel, Winter Cherries, Liquorice-root, and-Vas-  
row-tops; especially if’ a Glass of Liquor-somewhat spirituous,  
fuch as *Malmsey* Wine, or Geneva, is drank immediately after  
the Exhibition of the Infusion. I have also observed, that in  
Conjunction with the Motion of the Body, 'a large Draught of  
*Foressetsts* Antinephritic Infusion has proved os fingular Efficacy  
in binging Stones from the narrow Ducts in which they were  
lodged. But there is, in some Cases, a Necessity for more  
powerful Propellers, the safest and most efficacious os which  
are. Mother of Pearl, or the Shells os Eggs Calcined, and ex-  
hibited .with Lemon-juice, in some properv ehicler '

***....... The* PRESERVATIVE METHOD... si t**

As, in the Beginning of this Disease, Preservation is, com-  
paratively speaking, an easy Tash ;: so in Its Progress, when, in  
consequence of any considerable Fault or Exulceration of the  
Kidneys, a large Quantity of Stones is form'd, and the Pa-  
roxysms return frequentiy, the Disorder is attended with the -  
greatest Difficulty of Cute, and a Set of the most perplexing  
CirctinistanoeS; for since; aS I heve already observed, many  
are afflicted with Nephritic Pains, either in consequence of a  
preternaturally large Quantity of Bloed, or from its being ren-  
der'd crude and thick, by the Ufe of a Variety of incongruous.  
Viscid, and acid Aliments; hence nothing can be more proper  
for removing this terrible Calamity, than taking a sufficient  
Quantity of Binod, using due.Motion and Exercise, drinking  
diluting Liquors, especially the medicinal *Sell or cm* Waters, as  
also fresh, but acidulated. Whey. .

In Cases where Stones are continually discharged, there is 4  
Necessity for having recourse to Medicines os a Vulnerary, gen-  
tly consolidating, and -astringent Quality ; for which Reason *it*has long ago been observed by many, and confirmed by the  
Practice of the common People, that, by a long Use of De-  
coctions, or Infusions of Vuinerary Herbs, prepared with Wa-  
ter or Ale, and mix'd with sweet Butter or Honey, many have  
heen entirely freed from this Disorder. The principal Herbs  
proper sor this Purpose are Horsetail, Golden-rod, Ground-  
ivy, Strawberries, white Horehound, Paul's-betony, Pelli-  
tory of the Wall, Yarrow with its Tops, Mallows, Baric  
of *Egyptian* Thorn-root, Club-moss, torrefiedJuniper-berries,  
Strawberries dried, the Stones and Fruit of roasted Hips; of  
which Powders an electuary may be prepared, with white'  
*Prussian* Honey, which, by its consolidating and balsamic Qua-  
lity, is Very proper against Disorders of the Kidneys; and  
half a Spoonful of it, taken in the Morning, drinking Tea after  
it, has been observed to afford Very fingular Relief to those  
who, for many Years, heve laboured under these Disorders. -

There is also another Method of preserving from the Stone  
by alcaline Medicines, which subdue and destroy that acid and  
glutinous Matter, which is the principal Foundation and  
Ground-work of the calculous Concretions : Hence it is, that  
Crabs-eyes, Mother of Pearl, Shells of Eggs, Shelis of Fishes,-  
and Snaiis, either simply prepared, or calcined; aS also Thun-  
. der-bolts, JewS-stone, and the celebrated Powder of *Vilkham-  
mcr,* which is thought to consist of calcined precious Stones ;  
or simple Oil of Tartar *per Deliquium,* or. of Potash, or fixed  
Nitre, Tinctures of Tartar, and the acrid Tincture of Anti-  
mony, frequently used, prevent the Generation of Stones, and  
consequentiy free the Patient from the Violent Pains produced  
- by them.

There are still more Remedies, whose Efficacy is observed to  
be equally heneficial to Nephritic Patients; and these are such  
as, consisting of oleous, pinguious, mild, and somewhat, anoe--  
dyne Particles, prevent that Union of the saline Spicuhe, winch  
is necessary to the Formation of a solid Concretion; for it is  
known, from Chymical Experiments, how small a Quantity of  
any pinguious Substance retards Crystallization. To this Class  
we may also justly refer those Seeds and Fruits which abound  
with a mild and sweet Oil; such as the Four greater cold Seeds,  
thofe of Gromwel, Saxifrage, white Poppy, and Ladies-thistle,  
sweet and bitter Almonds, Stones of Cherries and Peaches,  
which, either when reduced to a Powder with Sugar, or made  
up in the Form of an Emulsion, and frequently used, prove of  
fingular Service to those who are frequentiy afflicted with this  
Disorder. We may also reckon, among the best Remedies for  
Distempers of the Kidneys, Liquorice-root, the Powder or In-  
fusion of which is os fingular Efficacy, in obtunding and cor-  
recting the acrid Particles of the Salts, and washing off mucous  
Substances. Among other Valuable Medicines of this Class we  
may also justly reckon Yarrow, with its Tops ; an Infusion or  
Decoction of which is, in Disorders of this Kind, of the most  
fingular and surprifing Efficacy, if used' daily for a considerable  
time. By the Use of this single Herb, I have observed some  
Patients entirely sreed srom Nephritic Pains, to which they had  
been long subject ; for it is proper in Cafes of this Nature, upon  
several Accounts, fince, besides its consolidating and mitigating  
Quality, it abounds with a truly anodyne Oil, winch, both in  
Colour and Virtues, resembles that of Chamomile, and is high\*  
ly efficacious in allaving Pains, and relieving Spasms.

**. Put, as in** all Chronical Disorders, so more especially in  
Preventing Nephritic Indispositions, we are to take particular  
Care, that the Stomach and Digestion, as also the Discharge of  
the Foeces, he kept in a due and natural State. *Artius,* in his  
sixteenth Chapter, has a memorable Passage to thiSPurpose.  
" A moderate Quantity of Food, of an easy Digestion, pre-  
" serves against the Stone; for Crudities not only exasperate  
" the Disorder, hut eVen lay a Foundation for it where it was  
" not hefore: Let such as are subject Io the Stone, therefore,  
" abstain from eating to Excess, and from Supper altogether;  
" let them Vomit frequentiy, and daily drink Liquors im-  
" pregnated with Wormwood. Let them also he purged at her-  
" tain times; and live upon Food which can neither create Sur-  
" , sorts, nor generate Crudities. Let them also use such Sub-  
" stances as provoke Urine, daily eating well-boil'd Parsnips,  
" Fennel, Penyroyal, and Calamint ; and, among Sea Sub-  
" stances, theStrombus, *(a Find ofShell-sisosalenUestoffiex,* and  
or .the Crab. Let them alio drink, for many Days, a Decoction  
" of Eryngo-roots, and also of Dittany. The Water they  
" drink should he of the purest Kind, and strained: Their  
" Wine should be small and white, so that St may provoke  
" Urine. They should use moderate Exercise, and Frictions  
" in a Bath, impregnated with calcin'd Nitre, calcin'd Dregs  
*(e of* Wine, and Pumice-stone." *Trallian* is also Very full  
and circumstantial, as to the Regimen of Nephritic Patients:  
See his Sentiments above..

The celebrated Secret of *Zecchius,.* recorded in his Consulta-  
irons, was undoubtedly borrow'd from *Trallian,* since it con-  
sists only of about a Pint of warm Water, drank hefore Dinner.  
And *Carolus Pise,* many Years before the Days os *Zecchius,*recommended warmWater, affirming, that aster the first Stone  
**was** discharged, none would eVer after be form'd, if the Use of  
warmWater was persisted im

**CAUTIONS** *and* **PRACTICAL OBSERVATIONS.**

But as in the Cure, as well as the Prevention, of this Disor-  
der, the chief Business of the Physician consists in adjusting his  
- Medicines to different Constitutions, Ages, and Temperaments,  
and accommodating them to the particular Functions injured,  
and the several concurring Causes of the Disorder, I shall sub-  
join Tome Cautions and Observations, which will be found to  
he not only useful, but necessary in Practice. First of all, then,  
we are diligentiy and carefully to consider, that the Medicines  
used in the Cure of this Disorder are not equally fit and proper  
for all Constitutions; nor do they always produce the same  
Effect, or afford the same Relief, on account of the different  
and mutable State of the Fluids, and the peculiar Texture of  
she Solids depending upon that Difference, winch is, by the  
*Greeks,* call'd *Idiofyncrasia.* For this Reason Medicines  
should sometimes be Varied; fince, in Process of Time, Nature  
becomes so habituated to one Medicine, that it often ceases to  
produce the same Effect it formerly did.

It has often happen'd, that Nature herself, without the Con-  
currence of Medicines, has unexpectedly discharged the Stoner  
Something analogous to this happens in Child-birth, when, in  
some Cases, Medicines are of no manner of Efficacy, till Na-  
ture herself come in to their Assistance : Hence it sometimes  
happens, that Quacks, with then insignificant Medicines, have  
acquired the Reputation of performing a Cure which was  
wrought by Nature herself. The Physician ought therefore to  
advert to this, that Nature alone often, puts a Period to these  
violent Spasms, Pains, and Commotions; winch is not to be  
ascribed to the Force of Imagination, fmce it may be accounted  
for from real physical Causes; for the great Art of Physic con-  
sists in making a due Estimate, with regard to the precise and  
lucky Moment in which Nature begins to act, and exert her  
Force for the Relief of the Patient. Hence it is sometimes ad-  
viseable, eipecially when Medicines have for some time been  
exhibited without Success, to desist from their Use, that Nature  
may be allow'd to take her own Measures, since she often  
fpontaneoufly, and unexpectedly, produces more happy Effects  
than the Physician can possibly do, by disturbing her Operations  
t with his. forcing and stimulating Preparations.

. . Tho’ the more acrid and Vehement Diuretics, and ProVokers  
. Of Urine, fuch aS the Preparations of Turpentine, Juniper,  
Amber, Garlick, Onions, and Parfley, are neither useful in pre-  
serving from the Stone in plethoric Patients, nor of any Service  
in a Nephritic Paroxysm, whether simple, or produced by  
Stones, but render the Disorder worse, and heighten the Sym-  
ptoms ; yet the prudent and cautious Use of them is not alto-  
gether to be condemn'd and laid aside; since in coarse, robust,  
moist, and sluggish Constitutions, especially when exhibited  
with a preservative Intention, they produce happy Effects, not  
only by strengthening the Tone of the renal VeflelS, but also  
by discharging thro' the Kidneys a largo Quantity of impure  
tartarons Serum.

As seasonable, moderate, and dry Gestation, or Motion, is  
highly assistant to Nature in protruding the Stones, and may be  
properly used aster well-chosen Propellents, especially diluting  
Liquors, fuch as hot and cold Medicinal Waters, and Whey,

which, by their Weight, act so powerfully as **to remove the**Stone from Its she'd Seat; so it has been observed, that Unsea-  
sonable Gestations or Riding, has proved prejudicial to many,  
fince, by removing the Stone from the Place in which it created  
no Uneasiness to the Patient, and altering its Position, so that  
its rough and pointed Sursace more strongly irritated the deli-  
cate nervous Coats, Spasms so Violent and terrible have been ex-  
cited as sometimes to prove mortal. r. ..

There perhaps is hot a better or a more efficacious Method  
of preserving from the Stone than seasonable Venesection,  
especially'in Cases where the Body is naturally disposed to dis-  
charge too large a Quantity of Blood; This Remedy is, in  
some Cases, also highly proper in the Paroxysm itself; when,  
for Instance, a Plethoras and quick Pulse are attended with an  
intense Heat, and a preternatural Thirst; for.such is the Nature  
of intense Pain, that, in consequence os. the violent Spasms it  
excites, the free Circulation os the Blood tino' the Veins in  
retarded, and impetuoufly carried in isrgc Quantities to impro-  
per Paris: Hence, arise Epilepsies, Convulsions, Deliriums,  
Apoplexies os the sanguine Kind, Discharges of bloody Urine,  
inflammatory Fevers, and other Disorders, of which we. have  
too frequent Instances ; all which might the prevented by a due  
and seasonable Venesection. , f. ’ss - ;'- . EE

When Pains, arising from the Stone, happen in scorbutic  
Constitutions, in such as abound with impure .and recrementi-  
tious Humours, or in those, who are subject to A chronical pur-  
ple Eruption, and when, under the Very Nephritic Paroxysm,  
a scorbntio Impurity exerts its Force, Varionceand highly dan-  
gerous Symptoms appear, which require the highest Skilf and  
Caution in the Physician ; nor, in this Case, can any thing be  
so properly prescribed aS diluting and Pain-asswaging Liquors,  
such aS Whey, either acidulated or *sweet.* The Patient must  
also abstain from every kind of Malt-liquor, and Wine of all  
Sorts ; but I have observed, that, in such Cases, Whey mode-  
rately warm, and gentie Diaphoretics, were os fingular Ser-  
vice. ' ' "si./ ' '. "scsi . 1 si ", .

However instantaneous Relief Bathsmay. afford, or however  
necessary they may appear,’ yet they are by ho means to he  
used in plethoric, full, and fat Constitutions, where there is at  
the same time a Difficulty of Breathing.. Before Baths can, in  
this Case, become proper, the Plethora is to the removed, **the**Belly render'd soluble, and the Violence, of the Pain mini-  
gated. - ... ' . .' \ "sa'sc ι

Nepbritic Pains are often accompanied with a convulsive  
Colic, arising from the Haemorrhoids : The prudent Physician  
must be at .the Pains to distinguish all these Circumstances, **and**proceed cautiously, heth in pronouncing the Fate of the Patient,  
and in the Cure of his Disease. But whet demands our parti-,  
cular Care and Attention, is the racking and intolerable Pain of  
the Intestines, which must he mitigated or removed byVene\*  
section, the Application of Leeches, or by rendering the Body  
soluble by means of proper Clysters. It often happens, that,  
when the Stone is thrust, by one continued and Violent Impe-  
tus, thro' the Ureters, an intolerable Pain, accompanied with  
Loss os Strength, is excited in the whole Region os the Back  
and Abdomen; but the Pain immediately ceases when the Stone  
falls into the Bladder.

When the Pain has continued for a long time, and the Pa-  
tient has lost his Strength ; when old People are afflicted with  
this Disorder ; or when it is brought on by Grief, and a Weak-  
ness of the Pulse is observed, that Opiates are to be shun'd  
like so much Poison, and none more carefully than the **Prsolon***de Cynoglesse,* is consumed both by Reason and Experience.,  
in these Cases it is better, and more adViseable, to recruit **and**reinforce Nature by analeptic and moderately spirituous Wa-  
ters, such aS those Os Mint, Baum, Lilies of the Valley, or  
of Cinnamon, without Wine ; adding a Grain or two of Am-  
hergrise, and of the Extract of Saffron: Wine may also **be**used, in Moderation, sor the same Purpose. Externally also  
the weaken'd Tone os the Intestines must be restored, as much  
aS is possible, by spirituous and balsamic Liniments.

Among the hot and mineral Waters, none, by reason of the ,  
calcarinus Earth with which they abound, more powerfully re-  
solve and difledge the tartarous Matter which is the Couse of  
this Disorder, titan the *Caroline* Springs; which, at the same  
time, must be used Very cautioufly and circumspectly. After  
the internal Use of these for a Month’s time, I heve seen above  
five hundred small smooth Stones, aS large as Vetches or Len-  
tils, discharged: But, aster an Accident of this Nature, conso-  
lidating and gently-balsamic Medicines are absolutely necessary,  
in order to unite and incarn the Cavities lest in the Kidneys,  
in consequence os the small Stones being diflodged. But I  
know, from numberless instances, that the safest, heth sor  
Preservation and Cure, is the *Selteran* Spring; which, hesides  
the Purity os its Waters, contains an alcaline Salt, and is fupe-  
rior to all other Medicines in the Cure of Wounds, and imper-  
sections of the Bladder. In Cases also where the Humours are  
fraught with a scorbutic Impurity, and the Parts at the same  
rime are exulcerated, the Waters of the same Fountain, mix'd  
with Milk, and used for a sufficient time, are Very proper.

**BOERHAAVE'r** *Method of Cure of a* **STONE** *in the* **KID-.  
NEvs or URETERS. .**

. In order to the Cure of a Stone in the Kidneys, the Physi-  
cian’s Views must be directed to diminish the Stone ; .to procure  
its Expulsion; or, at least, to bring it into a Part, where it  
may reside, without giving exquisite Pain, aS into the Bladder.  
. This is principally done by a moist, mild, thin, and mode-  
rately salt Diet ; by drinking Liquors of an aqueous Nature, or  
Fluids of the like Kind ; and by the Vital Powers.

The Vegetables which *Boerhaave* recommends in this Case,  
and which he advises to be taken plentifully, boil’d in Broth,  
are these, and others possess'd of the same saponaceous Virtues.

Borrage, The Roots of Turneps, s

Chervil, - —— Skerrets,

Gum Succory, Sow-thistle,

. Lettuce, Vipers-grass,

’ - Parfley, Dandelion,

The Roots of Carrots, Yellow Goats-beard.

Amongst Liquors, Whey, Milk, and Buttermilk, of Ani-  
mals fed. on fresh Grass only, are principally recommended.

- - The Use of these is excellent, provided it he persisted in till  
a Diarrhea is brought on, which must be continued .for. some  
time, though it should reduce the Patient to a considerable De-  
gree os Weakness ; for this Method has frequently been known  
to cure inveterate Disorders of this Kind.

*Boerhaave* somewhere observes, thet Oxen, Stall-fed, and  
kill'd in Winter, heve usually stony Concretions found in their  
Livers, Gall-bladder, and biliary Ducts; and that in Cattie  
kill’d immediately after a Summer's Grass, these Concretions  
are seldom or never found. And hence he .draws an Argument  
for the Efficacy of the young saponaceous Vegetables.

Λ Experience, the Touchstone of Medicinal Applications, does  
not want the Confirmation of Reason.. But it is entertaining,  
at least, to examine into the Reason of Appearances, when at-  
tended with , any Degree *of* Abstruseness. It may not, there-  
fore, be amiss to examine, why the saponaceous Spring Vege-  
tables diflolVe finny Concretions in the Body. I have in many  
‘ Places remark'd, that some *Menstruum* is necessary to dissolve  
a Portion of the Earth, in order to render it small enough to  
enter the. Pores of the Roots of Vegetables. It is not our pre-  
fent.Bufiness th consider what this Menstruum may. he, having  
already discuss'd this Subject under the Articles ACET UM, and  
BOT AN Y. . But whatever it he, we. may. reasonably suppose a  
Portion os it to reside in the Juices of .the Spring saponaceous  
Vegetables, not so. much alter'd in its Circulation through  
them, as to divest in of a Power of dissolving earthy Concre-  
tions, when , taken into the Body, and assisted. by the Vital  
Forces. And as the Milk also, oscAnimals, whose: Food is  
Grass only,’ and . Water, is, in a great measure, immediately  
produced from these Vegetable Juices, may notiMilk, Whey,  
and Buttermilk, be in seme measure endu'd, with a dissolving  
Power? . . . osi: :.-;ni n't-se .; ri 'so.-. *i .*

fen Another. Method of bringing about .the expulsion of the  
-Stone is, to relax the Parts by Baths,Clysters, and relaxing  
Liniments ; to lubricate the Passages by moist, emollient, mild,  
and oily Medicines; ’ to remove the spasmodic Stricture of the  
Fibres by Opiates and Anodynes ; to propel the Stone can-  
xioufly by Diuretics, and modetateMotion. . ss ss ;: -' . j  
: In these Views, the subsequent Forms are recommended fay  
*'Bocrhaave. -.* 'i ι:U *. -,s .:*

*Take of* the Leaves of Mallows, Marshmallows, yellow  
Mallows, .Mercury, Pellitory.'of:the Wall,.Blank-ursine,  
and Orache, each sour Handfuls: Boil in a sufficient  
Quantity of Water for a Bath, to reach aS sar as the

. ῖ Loins, o n br.2 st -ssss.' in r:ic:r:~ -u’r Ἀ ss.ss  
: ...‘ ..:ss: su.

. . Clysters of the same Decoction are to he injected, and large  
.Quantities of.the fame are to he perpetually drank ; Tor all these  
contribute, to relax, open, mollify,: and expel. ; f i

.:. c *An oily Lubricating:. Decoction.*

Take thirty sweet Almonds; twenty Pistachio Ntst-kernels;  
. Poppy-seeds bruised, three Ounces : Let the Almonds and  
Pistachio Nuts be blanch'd, and then bruised ;with the  
Poppy-seeds after which let them boil in 'a/sufficient  
Quantity .of common Water for half an Hour ; then let  
them be strongly beat together for some time ; and after-  
wards add of Venice-soap, four. Ounces , Liquorice, two  
Ounces.-/Let all boil together a little, and strain off the  
. Decoction, which must amount to three Pints. Let the  
Patient drink half a Pint of this sour times a Day, upon an  
empty Stomach ; and afterwards let him walk'gentiy a lit-  
tie time. si si ' si sc ' \_ .' ςτ ; "

*An apcrient. Anodyne. Opiate.*

Take of Syrup of the Five opening Roots, an Ounce and ar  
half ; os solid Laudanum, two Grains ; Of purify’d Nitre

twenty Grains ; of distil’d Parfley-water,. .six Ounces t  
Mix Together. - Let the Patient rake half an Ounce every  
Hour. ..

*A propellent Diuretic Decoction.*

Take of red Chiches contus’d, two Ounces ; Parfley-seeds,  
an Ounce ; Roots of Quich-grass, and of Parfley, each  
four Ounces; Leaves of Agrimony, Golden-red, Male  
Speedwell, each half an Handful; Liquorice, an Ounce r  
Boil for half an Hour, with a sufficient Quantity of Water  
for three Pints of strain’d Liquor ; to which add of Nitre,  
two Drams. . Let the Patient drink two Ounces every  
Hour.

Thirdly, Regard must be had to the Symptoms. Thus, if  
there is an Inflammation, it must be remov'd, or at least mode-  
rated, by Bleeding, relaxing Remedies, and the other Methods  
specify'd under the Article INFLAMMATIO. The Pain must  
be mitigated by anodyne Emulsions; and the Asperities of the  
Stone must be guarded by oleous, saponaceous, and glutinous  
Remedies. '. / ' - .....

*Bocrhaave* is of Opinion, that no Dependence is to be had on  
Lithontriptic Medicines.

Whilst the Stone is falling from the Pelvis of the Kidney thro’  
the Ureter to the Bladder, the above-fpecify'd Method and  
Medicines are proper ; particularly Bleeding, Clysters, and Fo-  
mentations. *Boerhaave Aph. .*

' I must farther remark, that sew Fits Of the Stone occur,  
without inducing an absolute Necessity for Bleeding immedi-  
ately, which generally gives great Relies.

Laxative and emollient Clysters, in which Turpentine is an.  
ingredient, are highly necessary ; and these are to he repeated,  
or not, according to the State and Constitution of the Patient,  
and the Effects os the first; which the Physician,' who inquires  
into these Circumstances, can only judge of rightiy.

Next to these are lenitive Purges, prepared, for Example, of  
Manna dissolv'd, and quickened with some os the Cathartic  
Salts, and whatever else the Physician shall think adapted to the  
Case. - Ἀ - su si

Opiates, also, are highly necessary1, in order to take off the  
spasmodic Contraction of the Parts where the Stone resides, and  
.to alleviate the Pain ; but I think they should seldom or never  
be administer'd, without the above-mentioned Previous Evacu-  
ations. Amongst- Opiates *Matthrtists* Pill is generally most  
esteemed in theseCases,, on account of; the Soap of Tartar/and  
other opening ingredients. The usual Dose is betwixt six and  
ten Grains; But-the Dose,- and-Tinas of Exhibition and Re-  
petition, dan only be determined by the attending Physician.

As it may be agreeable to gouty People.afflicted with the  
Stone, to know how Dr. *Sydenham,* perhaps the best practical  
Physician that any Age has produced since *Hippocrates,* treated  
himself under this Circumstances a Part of his Method is fpe-  
cisy'd -under the Article ARTHRITIS ; the rest Is contain’d in  
the following Dissertation. ' ‘γτψ-στὴ- " so -

' Though it may seem to argne Indiscretion to publish an Ob-  
servation which I have experienced in - myself alone, yet it is  
hop'd no'equitable Person will be displeas’d with me, who have  
suffer'd so long, and so much, from bloody Urine, from a  
Stone- in the Kidneys, for being moved to compassionate those  
who .labour under the same Disease, and to communicate those  
Remedies which haVegiven me Relief,, though they may,, per-  
haps, .Teem common, ' and not worthy of Notice. ‘ .

in the Year 1660. I had 'the longest and severest Fit of the  
Gout I eVer hed in iny Life, . so that L was constrained for two  
Months in the Summer‘Season to lie always in or upon a'soft  
.Bed; whence, towards the Close os' the Fit, I began to feel A  
dull heavy Pain, especially in the Left Kidney ; and sometimes,  
though very seldom, in the Right.' And after the Gout went  
off, , the Pain in the Kidneys remain'd, and attack'd me at Inter-  
Yaissiwhich, though'it was not Vesp sharp, made me fear the  
Stone ; for I had hitherto escap'd those Fits which are attended  
with-severe Pain along the Ureters, and-Violent Vomiting.- But  
though ~ these Signs' of the Stone in’ the Kid ney appear'd ’ not  
hitherto, yet.I had Reason to believe Ithada largo Stone in one  
of them, winch, being too big to pass into the Ureters,' occa-  
sioned, he above-mentioned Symptoms? ” And several Years  
afterwards I found I was not mistaken sorhaving walk'd con-  
stderably, and for a long time, in the Winter Season; in I676.  
soon after the breaking of a severe Frost, 1 made a bloody’ Urine  
directly, and constantly did fo whenever I walk'd much, or was  
carried in a Coach over the Stones, though the Horses, went  
flowly ;but this Symptom dish not seize me when rtravell'd in  
a Coach in unpav’d Roads, how long a Journey soever l  
made. ; *" "s."*

The Urine I voided on these Occasions, though it look’d  
very.bad at the time of making, so aS to resemble Blood, yet  
soon after it became clear at the Top, like natural Urine, tht  
Bleed falling to the Bottom by itself in Clots. To relieve the  
Diforder. I had a larsse Quantity os Blood taken from my Arm i

and, after taking some Purges, had recourse to several Sorts of  
cooling, incrassati ng Remedies, along with a proper Regimen,  
and carefully forbore all sharp, pungent, and attenuating Li-  
quors. But having received no Benefit from these, and many  
other Remedies, which it would take up too much Time to  
enumerate, and searing to drive the Stone forwards by Steel-  
waters, as suspecting it was too large to he expel'd thereby, I  
at length lost .ail Hopes of relieving myself by this Way, espe-  
cially having found, that some ofmy Acquaintance hastened their  
Death by fruitiefly endeavouring to cure this Complaint by fuch  
Medicines ; for which Reason i resolved to desist from all sar-  
ther Trials, unless by way of Prevention, by avoiding all Mo-  
tion of the Body aS much as I could.

But happening afterwards to recollect the great Commenda-  
tions which some Persons have hestow'd on the Seed of the Ash-  
tree, for its Stone-dissolving or Stone-breaking Virtue, I ima-  
gined, that if the Seed had so much Virtue, .the Manna  
thereof might probably have more. For the Manna which  
comes to us, according to Mr. ***Ray,*** and other earlier Writers,  
is neither an aereal Honey, nor a certain heavenly Dew, but  
rather a Liquor ousing from tite Leaves, Branches, or Trunk  
of the ***Calabrian*** Ash-tree ; of the Truth of which Mr. ***Ray***was farther satisfied, whilst he was on his Travels to ***Italy,*** by a  
Physician, who frequentiy gathered Manna from the Branches  
and Leaves of these Trees, first closely covered with Linen.  
Accordingly, to make the Trial, I dissolved two Ounces and  
an half of Manna in a Quart os Whey, and drank it; and  
took a littie Lemon-juice between whiles, as. well to make it  
operate more speedily, it being ordinarily a stout Purgative, as  
to render it more agreeable to the Stomach. It is hard to ex-  
press the Ease I perceived in the Region of the Kidneys, from  
this Medicine; sor though the Pain was not continual before,.  
yet I felt a troublesome Weight. Encourag'd by this Success,  
I took this Purgative every Week, on a set Day, for some  
Months, and found a manifest Amendment after every Purge,  
till at length I could hear more shaking in a Coach ; and indeed  
continued free from this Symptom till last Spring, at the Begin-  
ning of which it return’d, occasioned by my having had .the  
Gout severely all the preceding Winter, and my Inability to  
Motion, whence I was constrained to abate ***os my ordinary  
Exercise. And now I*** doubted whether I should have recourse  
to Purging again, as finding that the mildest Purge certainly  
occasioned a Fit os the Gout, because the whole Substance of  
my Body, in these latter Years, had, in a manner, .degenerated  
Into Nourishment for this Distemper. But at length I recol-  
lected, that I might safely resume my former Method of taking  
Manna once a Week, provided I took an Opiate in the Even-  
ing, after the Operation, to quiet the Tumult raised by the  
Purgative. Accordingly, in the Morning,st drank two Ounces  
and an half of Manna distblved in a Quart of Whey ; and at  
Night took sixteen Drops of liquid Laudanum in Small-beer ;  
and repeated the Manna and Laudanum in this manner twice, a  
Week, for three Weeks. But afterwards I took the Manna  
only once a Week, hecause it discharged such Plenty of soul  
Humours, aS to leave littie Fear of the Gout. And Reason in-  
timating, that if Manna was possessed of any Stone-dissolving  
or Stone-breaking Virtue, its efficacy, on which I depended,  
must needs be lessened, in some measure, by so powerful an  
Astringent aS Laudanum is, I thought it best to omit taking the  
Opiate, aS I only purged once a Week.

I have continued this Method for some Months, always  
purging on the same Day of the Week, and would not upon  
any Account be persuaded to break it.. Put though the Pain of  
my Back abated aS formerly, upon taking the first Purges.. yet  
soon after repeated Purging brought on some Symptoms os the  
Gout, and sometimes affected the Limbs, and sometimes the  
-Bowels; but Laudanum effectually check'd these Motions os  
the. Distemper. This Method, however, having hitherto been  
successful, I judg’d it proper to confinue.it, both to prevent  
the Return os the bloody Urine, and th carry off a Part ofthe  
Matter which forms the Stone. And, in the End, it answered  
my Expectation, having never had this Symptom since my first  
Publication of this Treatise, and therefore I left off the Manna  
entirely../. .. 'I . .

. With respect to Purging, therefore, in case Of bloody Urine,  
and provided only Manna be used according to the Method  
above delivered, I must retract an Assertion I formerly pub-  
lish'd in my Treatise on the Gout, which is, that it is absolutely  
improper to purge gouty Persons, either at the Beginning, De-  
clension; or in the Intervals of the Fits. For I did not then  
recollect, that the Fit, which I fear'd might he occasioned by  
the Purgative, might be prevented by giving an Opiate at  
Night. Nevertheless, if the Gout only he attended to, all  
manner of Evacuations are very pernicious therein, and there-  
fore not to he used; unless the above-mentioned Symptom  
requires them. \_ -

To these Observations I will add a few Particulars relating to  
the Regimen and Diet, which should seem proper in heth these  
Distempers ; sor I would not omit mentioning any thing that  
may he serviceable to Persons in my Condition. In the Morn-

ing, after I rise, I drink a Dish or two of Tea ; then I go out  
in my Coach till Noon ; and, at my Return home, dine mode-  
rately upon any kind of Meat I like, that is easy os Digestion j  
for Moderation is principally necessary. I drink a littie morie  
than a Quarter of a Pint of Canary immediately after Dinner  
every Day, to promote Digestion, and drive the Gout from  
my Bowels. In the Afternoon I go out again in mv Coach,  
and, when Business permits, take a Turn into the Country,  
two or three Miles, for good Air. A Draught of finall Beer  
serves me instead of a Supper; and I drink another Draught  
aster I am in Bed, and about to compose myself to Sleep, in-  
order to dilute and cool the het and acrid Humours lodg’d in  
the Kidneys, which breed the Stone. I always prefer small  
Beer brew'd with Hops, to that which has none ; hecause, the'  
unhopp'd small Beer is smoother and softer, and so better suited  
to bring away the Stone from the Kidneys, yet that which is  
brew'd with Hops, on account of the Stypticity it receives from  
the Hops, . is less subject to breed Gravel and calculous Matter,  
than that which has none, aS being more viscid and flimy. Ou  
my purging Day I dine upon a Chicken, and, notwithstanding,  
drink my Canary as usual. I go to Bed early, especially in the  
Winter Season ; this heing one of the best Helps for promoting  
Digestion, and preserving the proper Order of Nature; whereas,  
on the contrary, sitting up late weakens all the digestive Facul-  
ties in aged Persons afflicted with any Chronic Disease, and in-  
jures their Vital Principle to a Degree not to he easily remedy 'th  
And, to prevent bloody Urine from the Stone, whenever! am  
oblig’d to go very sar in iny Coach upon the Stones, (for the  
longest Journey in. unpav'd Roads does me not the. least Hurt)  
I always drink a large Draught of small Beer hesore I set out, \*  
and another in the Way, if I am abroad a considerable time; by  
which means! secure myself pretty well from bloody Urine.

Lastly, we are to take Notice of the great Danger winch  
some Persons, who have the Gout and Stone, run, by unad-  
visedly taking Manna diflolv'd in the purging Mineral Waters ;  
for, tho', being taken this, way, it works quicker, and sits easier  
on the Stomach, yet these inconsiderable. Advantages are no  
Equivalent, for the Mischief otherwise occasion'd by the Waters.  
For if the Stone in the Kidneys he too large to he forc'd thro'  
the Ureters into the.Bladder, these Waters generally occasion a  
Fit, which continues, not without endangering the Life of **the**Patient, till’ the Stone gets back again into the Pelvis. Steal  
Waters likewise are unsafe, unless it be certainly known hesore-  
hand, that the Stone is small enough either to flip, or force its  
Way, tbro'the Ureters; winch, to the best of my Judgment,  
can only he: learn'd with Certainty from hence; ***viz. if*** the Pa-  
tient hath already had a Fit of the Stone, (winch consists, **ina**Very sharp Pain in one of the Kinneys, extending thro'**.the\***whole Duct of the Ureters, and accompany'^ with Violent  
Vomiting) he may he allur'd, that the Pelvis,, instead os having  
a large Stone in it, rather contains aNumher of small Stones,  
one of: which will fall occasionally into the Ureters, and cause  
a Fit, which generally lasts till it is forc'd into the Bladder. . In  
this Case, I shy, there istho better Remedy, either to prevent  
the increase os small Stones; or to expel them from the Kin-  
neys, tharudrinking Steel-waters plentifully every Summer, .

But, aS Persons may often he seiz'd with a Fit of the Stone,  
when these Waters are either not procurable, or at an improper  
Season sor drinking them,, they .are .to he .treated according toXthe following short Method. : The Patient being sanguine, , and  
not aged, take ten Ounces of Blood away from the Arm of  
the pain'd Side; then let a Gallon of Posset-drink, in which  
two Ounces of the Roots of Marshmallows have been boil'd,  
he drank with.the utmost Expedition, and the following Clyster  
injected, *s ' -.'1* . ... ι .st .0 :

Take of the Roots os Marshmallows, and the.whiteDily,  
each an Ounce; the Leaves of Mallows, Pellitory os the  
Wall, Bearfs-breech, and Chamomile-flowers, .each, an  
Handful ; the Seeds of Flax and Fenugreek, each half an  
Ounce: Boil'them together in a sufficient Quantity of  
Water to a Pint and a half; in the strain'd Liquor diflolve  
brown Sugar, and: Syrup of Marshmallows, each two  
Ounces: Mix the .Whole for a Clyster. ,

When: thoPatient has thrown up the Posset'-drink, and the  
Clyster has done working, give a sufficient large Dose os liquid  
Laudanum, for Instance, twenty-five Drops, or fifteen or six-  
teen Grains os ***Matthew's*** Pill. But Bleeding isnot to be us'd  
imaged Persons, worn out by shine inveterate chronic Disease,  
and antient Women, subject to the Vapours, especially if they  
void black gravelly Urine at the Beginning os the Fit. Never-  
theless, in other respects, this Method must be closely follow'd.

But, to return to the Stone, supposing it a large one, which  
is our present Subject: If the Patient hath never had a Fit, on  
account of the Stone'S being too large to quit the Pelvis, Steel-  
waters will not only do no Service, but cannot be us'd without  
immediate Danger, for the Reasons aheve-mention'd. Nor do  
Mineral Waters succeed better in gouty Persons, if they he ad- \*  
Vanc’d in Years, as such mostly are, and withal of a weak and

phlegmatic Constitution 5 the Strength of Nature being some-  
times impast'd to that Degree in such Subjects, as to give great  
Reason to apprchend the total Loss thereof from such a Quan-  
tity *of Water.* But whether the ill Consequences, happening  
to Persons of this Constitution, proceed from this, or some  
other Cause, I am thoroughly persuaded, that abundance of  
Persons, who have heen extremely debilitated, and in a manner  
worn out by this Distemper, have been destroy’d by these  
Waters. *Sydenham.*

*The* **STONE** *in the* **BLADDER.**

*From* **ARETAEUs,**

\* No Disease affecting the Bladder is of a gentie Nature;  
for, as to acute Disorders of that Part, such as Inflammations,  
Wounds, Convulsions, and acute Fevers, they are all mortal;  
and an Ulcer, an Abscess, the Palsy, or a large Stone in the  
fame, are incurable. The Stone is not to be dissolv'd by any  
Potion, or lithontriptic Medicine, nor taken out by cutting,  
with any Safety; for the fine Membranes of the Bladder must,  
at the same time, he cut, which Operation kills the Patient on  
the same Day, or carries him off in a few Days with Convul-  
sions and a Fever. If the Stone be not cut out, an Ischury,  
Pain, Fever, and Colliquations, destroy the Patient ; or, is it  
he of no considerable Bigness, the Suppression of Urine is the  
more obstinate, because it the more easily salis into the Neck of  
the Bladder, and intercepts the Passage of the Urine; and tho'  
such a Stone may be extracted with less Danger than a larger,  
it is necessary to cut the Bladder, the Consequence of which,  
if not Death, is a continual Efflux of the Urine, which, tho'  
no dangerous Disorder, is yet insupportable to in free Person,  
who knows not how to live under a perpetual Dribbling, winch  
molests him whether he fleeps or wakes, and is Very troublesome  
in walking; but a Multitude of small Stones may be cut out  
with Safety.

If a Stone grows to the Bladder, it manifesta itself by the  
Uneasiness, and sometimes Pain, which it excites, and a Weight  
which is felt, tho' not accompany'd with a Dysury ; but if it  
does not adhere to the Bladder, there is also a Dysury. All  
Stones may he known by the sandy Sediment in the Urine; the  
Pudenda also project. The Patients Void their Urine with Pain,  
hyreason of the Obstruction from the Stone, and handle and at-  
tract the Pudendum, as if they would pull out the Stone and  
the Bladder together; the Anus suffers by Consent, being af-  
fected with an Itching. The Intestinum Rectum is protruded  
by the Violent Efforts of the Patient, who imagines himself on  
the point of Voiding the Stone; sor there is so near a Vicinity  
- hetween the Bladder and the Anus, that they mutually affect  
each other; wherefore, in an Inflammation of the Anus, the  
Bladder labours under a Suppression os Urine; and, in Diseases  
of the Bladder, the Anus will discharge nothing, tho'the Belly  
he not costive. *Aretaus, oifer dll. sei crate,* χρον. παθ. *Lib. 2.  
Cap.* 4.

*From* **ALEXANDER TRALLIANUS.**

The Stone in the Bladder afflicts the Patient by Fits at certain  
Times, aster the same manner as the Stone in the Kidneys ;  
hut the former is more frequent in Children than adult Persons,  
and does not owe its Rise to so great a Heat, but rather to a  
grosser Matter, proper for the Generation of Stones, which  
readily forms Concretions, by means of the natural Heat. Our  
main intention, therefore, must be to correct the Grosthessof  
this Matter by Attenuants, and to prevent any considerable  
Collection of it, which is promoted by nothing so much aS an  
inordinate Voracity, and stirring of the Body after eating.

' The Signs'of. the Stone in the Bladder are, a crude and  
whitish Urine, with a sandy kind of Sediment, resembling  
Scurf. Besides, the Patients are very subject to scratch the PR-  
denda, and Violentiy and frequentiy to distend them;' and that  
most of all, when they have occasion to make Water, *Alex-  
ander Th allianus, L..g. C.J. :* . s '

*From* **LOMMIUs,**

The Pain which proceeds from the Stone in the Bladder is  
most afflicting, hecause it lasts a long time, and makes frequent  
Returns at certain Intervals. While it holds the Patient, there  
is an extraordinary Sensation of a Weight, if the Stone he  
large, and especially when the Body is mov’d, or a sort of Ti-  
filiation about the Pubes and Perinaeum. There is in Difficulty  
of Urine, with a continual Define *of*makingWater, and a kind of  
Strangury, so that theUrineseems hardly possible to he restrain'd,  
and yet, as soon as it begins to stow, is on a sudden quite inter-  
Cepted; and thus is the Evacuation perform’d with continual  
Interruptions. During this time a Pain is felt throughout the  
Duct of the Penis, hut oftentimes seizes only the *Glans,* and  
is most tormenting when the Patient has just made an end os  
making Water ; at which Time he has also a Desire of going  
to Stool. . From some the Urine comes off more freely when  
they stand upright, than when they lie upon their Back, if the  
Stone be large. Others evacuate bending forward, and endsa-

Vour to ease their Pain by handling and extending the Puden-  
dum. VVomen often rub the external Parts of the Pudenda  
with their Hands, and, by applying a' Finger to the Neck of  
the Bladder, now-and-then feel the Stone. Many Patients, in  
the Midst os their Pains, cross their Feer one over another by .  
turns. The Urine which comes offis white,, think, and turbid,  
with a purulent or mucous Sediment ; sometimes Blood, or a  
bloody concreted Matter, is discharged with it. This Disease  
is more incident to Children than adult Persons, to Mon than  
Women. The Stone *os the* Bladder is whiter, larger, and  
harder, than that of the Kidneys : A lesser Stone more easily  
Aides into the Neck of the Bladder, and more pertinacioufly  
retains the Urine, than a larger ; for the latter, by a proper Po-  
sition of the Body, or by introducing an Instrument, may,  
with no great Difficulty, be remov'd from the fore-mention'd  
Part. *Lomrnius, Med. Obs.*

*From* **BOERHAAVE.**

We may know, that a Stone is got into the Bladder, by a  
Cessation of the Signs of a Stone passing from the Kidney to  
the Bladder thro’ the Ureter; and by its Effects, when in that  
Organ; which are. Inflammation, Vvith all its Symptoms;  
Pressure upon, and Fretting of the internal Membrane ; Ulcer-  
atiorts ; purulent Urine ; Strangury; entire Obstruction of the  
Urethra, insomuch that the Patient cannot discharge his Water,  
unless in a supine Posture; a hectic Fever, and Consumption ;  
a Pain is felt hefore, during, and after the Discharge os Urine,  
which does not come away in a full Stream, but, as it were,  
dribbling, and with many Interruptions ; and which is white,  
and deposits a mucous, thick, heavy Sediment, in considerable  
Quantities ; an uneasy Itching is felt in the Glans of the Penis;  
and the Discharge of Urine is attended with a *Tenesimusi* But  
the most certain Method of discovering a Stone in the Bladder  
is by searching; for the Method of doing which, see LITHO-  
**TOMIA.**

*The* **CURE.** *From.* **ARET JEUS.**

If the Suppression of Urine he caus'd by the Stopping os its  
Pastage by Stones, they must be remov’d by the Instrument  
call'd the *Catheter,* that a Passage may: be open'd for the Urine  
to ran off, unless there he an Inflammation', in which Case the  
Passage will not admit an Instrument,-and, besides-, is subject  
to he wounded by the Catheter. But if this Method be im-  
practicable, and the Pain insupportable to the Patient, wo  
must have recourse to - cutting the *Trishas,* ζτριχἀδαί some  
read πληχάδα, which, according to *Russets,* is the Place be-  
tween the Scrotum, the Neck of the Bladder, and the Thigh)  
and the Neck of the Bladder, that the Stones may fall out, and  
so the Urine be evacuated. This done, the Wound must he  
cicatriz'd; if it can be done-’if not, ir is, however, better for  
the Patient to he troubled with a running Sore all his Life, than  
to he suffer'd miserably to expire with Extremity of Pain.  
*Aretaus,* περἰθεραπ. δξ. παθ. *Lib.* 2. *Cap.* 9.

*From* **ALEXANDER** TRALLIANUS.

As sor Medicines, the Blood os a Goat, rub'd warm upon  
the Part, is of excellent Service ; but a hetter way is, to apply  
the Blood of a He-goat upon the Bladder; tho' the Method  
which is by far the most convenient and effectual, is, to rub  
the Parts with it in the warm Air of the Bath, and to bind it  
thereon ; and this must be done not only once, but often, and  
at Intervals. *Trallian. Tib.* 9. *Cap. J. '*

*From* **BOERHAAVE.**

As soon as we have reason to believe, that a\* Stone is passed  
thro'the Ureters into the Bladder, we must use our utmost En-  
deavours to procure its Expussion by the Urethra ; otherwise it  
will increase in Bulk, and become more troublesome. This is  
done by the same Methods and Medicines that are recommended  
above fora Stone in the Kidneys and urinary Ducts, except that  
the Topics are to he apply'd to the Region of the Bladder; to  
which add Baths, and Clysters of Oil; injections os Oil into  
the Urethra; -and it will he of Service to rub the external Part  
of the Urethra with the same Oiis. -- 1 -

- if a Stone is fix'd in the Urethra, and will not move for-  
wards, the Part is to he relax’d by Injections os Oils frequently  
repeated, and by the most emollient and relaxing Fomentations  
which can he contriv'd.1 The *Egyptians* have a Method of  
distending the Urethra by blowing into it, and then inviting the  
Stone forwards by Suction.. It may also be pressed gently for-  
wards;- or brought out with an Instrument shap'd like an Ear-  
probe ; or, if that will not do, the last Remedy is to cut the  
Urethra or Perinaeumt

’ If the- Stone sticks in the Neck of the Bladder, it may he  
put back by the Catheter.- *Bocrh. Aphor.*

*The Method os. extracting a* **STONE** *out of the* **URETHRA..**

**\ ... so. su -. From HEISTER.**

Sometimes, in Persons afflicted with the Stone and Gravel,  
a small Stone flips into the Urethra, or Passage of the Urine,

and there sticks, where it excites not only Violent Pains, but a  
great Difficulty of Urine, and sometimes a total Suppression of  
the same; in which Case the lamentable State of the Patient  
calls upon the Physician to use his best Endeavours to expel the  
Stone. There are Various Parts of the Urethra in which the  
Stone may be seated : Sometimes it lies in the Beginning of the  
Urethra, behind the Scrotum, about the Perinaeum, in the  
Neck or Sphincter os the Bladder ; sometimes about the Middle  
of the urinary Duct, before the Scrotum, and sometimes not  
sar from the End of the Urethra. Sometimes the Stone is  
lodg'd in a peculiar Expansion, or Bag of the Urethra; such a  
one is describ’d by *Le Dr an, Obs. Chir.* 79. *Tom.* 2. and  
*Dionis,* in his Surgery, mentions some of the like Kind ; and  
**I** myself, this present Year 1737. discover'd Stones in such a  
Bag before the Scrotum ; and, whet is seldom known, cut  
two out of one little Bag under the Urethra, which are repre-  
sented *(Toth.* 48. *Fig. 16.* and I7καὶ. in what Part the Stone  
is detain’d, may be judg'd partly from the Pain, and partiy from  
Searches made with the Fingers or Instruments. The Cure may  
he attempted various Ways: Sometimes internal Medicines,  
which provoke Urine, and, at the same time, external ones,'  
aS Fomentations, Cataplasms, Bathing, Clysters, and the like,  
are administer’d, and continu'd for some time. If all these  
prove ineffectual, the next Attempt is to moisten and lubricate  
the inside of the Urethra by injections of Oil of Olives, or  
Oil of sweet Almonds, that the Passage being render'd ilippery,  
the Stone may the more easily Aide off; or the Patient is put  
into some emollient Bath, with the same View. Some bind  
the Penis behind the Stone, and then distend the Forepart of  
the Urethra by strong Inflation, in order to enlarge the passage  
for the more easy Expulsion of the Stone. This Method of  
Cure is practised by the *Egyptians,* as we are assured, among  
other Authors, by *Profpcr Alpinus* in his *Medicina AEgyptiorum,  
Lib.* 3. *Cap.* I4.

If the Stone cannot he expel'd by these Remedies, but the  
Difficulty of Urine is rather exasperated by them, it" will be  
conVenient to try some other powerful Remedy. First, then,  
if the Stone be detain'd in the Neck os the Bladder, it may be  
cut out by making a Section in the Perinaeum, where it is per-  
ceiv’d by the Touch ; but, because many are Very much afraid  
of an Instrument which carries an Edge, the Stone may be  
push'd hack into the Bladder by introducing the Catheter.  
However, since it is to he fear'd, that the Stone will increase in  
**the** Bladder, and, by that means, expose the Patient to far  
greater Danger, I should prefer Section- So, also, if the Stone  
should happen to stick too fast in this Place to he repel'd by the  
Catheter, and so reduce the Patient to Extremities, or if we do  
not think it advifeable to repress it for the Reason aforesaid, it  
must be artfully extracted by the Section call’d the *Apparatus  
minor,* or *lesser Apparatus,* one or two Fingers heing introduc'd  
into the Anus, in order to sustain the Stone ; for oftentimes  
there is no other Way to save the Patient's Life. If the Stone  
he detain'd near the Glans, the best Method, aster using the  
Remedies above proposed, is, first to lubricate and relax the  
narrow Passage, by repeated Injections of Oil into the Urethra,  
and then, with the Fingers, to press the Stone forwards, or at-  
tempt its Extraction, especially in Boys, by Suction with the  
Mouth of some Woman, Nurse, or Assistant; for, by this  
means, all Wounds, Cicatrices, and Fistulas of the Urethra,  
are happily prevented. If the Stone sticks near the End os **the**Passage, it is to be taken with the Forceps, Hook, ter some  
sort of Ear-probe, (see *Tala frig.* 14.) and gently drawn  
forth. If this be impracticable, it will not he amiss to try the  
Instrument so much recommended by *Marini,* and describ'd by  
him (see *Tab. 5O. Pig.* 7.). Os thia Instrument, the Part (A)  
is cautioufly introduc'd into the Urethra, heyond the Stone, of  
which it takes hold ; then the Operator takes the Part (B) in  
his Hand, and gently pulling, draws along the Stone,, and ex-  
tracts it. But if either an Inflammation, or the Bulk os **the**Stone, should, contrary to Expectation, render all these Me-  
thods ineffectual, we are directed by *Tulpius andUarengeot to*make use of Section. And *Garengeot, in* such a Case, imme-  
diately cuts the Extremity of the Glans with the .Scissars, and  
then introducing a Probe, or Hook, into theWound, extracts  
with it the Stone; after this he washes the Wound with Wine,  
and dresses it with Lint and some glutinous Balsam. ; .

If none of the Methods before propos’d prove successful for  
extracting the Stone, as it often happens, when it js detain'd in  
the Middle of the Urethra, and there is Danger, lest the Diffi-v  
culty of Urine, with the mostintense Strainings to discharge it,  
and the tormenting Pains, should, in a short **time,** destroy **the**Patient, There .is but one Remedy left, and that is, to make an  
Incision in that Part of the Penis where the Stone ledges, and,  
by that means, extract it. The Manner of Operation is thus:  
The Extremity os the Skin, as *Celsius* formerly advised, is Very much  
drawn forwards; or, as others advise, retracted; and the Glans  
being by tins means cover'd, - or laid bars, the Penis is ty'd be-  
hind the Stone, in order to .prevent the Stone from being forc'd  
- back by the Hands os the Operator, when apply'd upon the  
Penis; The Operator then sets the Thumb of his Lest Pinger

against the Stone, .in such a manner as to hinder it from giving  
way forwards, and, .with his Right Hand, makes a strait Inci-  
sion in the Side os the Penis ; and then, with his Fingers, or  
some Instrument, aS the Forceps, Probe, or Hook, pulls out  
the Stone. This done, he Skin is set loose, and the Wound,  
after being anointed with some proper vulnerary Balsam, is  
cover'd with a Plaister.. By this Way of Management the sound .  
Part of the Skin comes to cover the Incision in the Penis, the  
Urine stows-the natural Way, and-the Conglutination os the  
Wound is promoted. When a Wound requires to be made a  
littie larger than ordinary,-the hest way is to introduce a Leaden  
Pipe into the Urethra heyond the Wound, and to keep it there  
for some time for the. Reception and Emission os the Urine.  
For if this should he suffer'd to flow by the Wound, it is very  
much to he fear’d, that its Acrimony would excite sharp Pains,  
and an Inflammation, by which the Conglutination os the  
Wound would be considerably retarded, and a Fistula might be  
generated in the Urethra. But a Very good way to preserve the  
Wound from the pernicious Effects of thc Ufine, is, to drink  
Very sparingly sor some Days before and after the Operation. ,  
As for making the Incision in the Side of the Penis, it is done  
for Very good Reasons ; for,' if it were made in the under Part  
os the Penis, the Wound would be much more liable to be in-  
commoded by the Urine ; and to make an Incision in the upper ,  
Part would be Very unadvised, because os cutting the cavernous  
Bodies of the Penis; whence an immoderate Haemorrhage,  
besides other pernicious Consequences, might justly be sear'd.  
*AlbUcasissiGTsuatiy* a Very celebrated Physicianamong *ffieArabians,*shews a Way.ro break a Stone which sticks in the Urethra, by  
perforating it with a sort of Terebra, which he delineates ;  
but if he happen'd to sail in this Attempt, he ty'd the Penis on  
both Sides near the Stone, to prevent its giving way on either  
Side, and then cut it out. - -

Thus we have explain'd the common Method of cutting the  
Urethra for extracting the Stone. We shall now give fome Ac-  
count of A new Way invented by *Tldbaut,* formerly a very  
celebrated Surgeon os *Paris,* and describ'd by *Garengeot,* which  
was this: He took the Penis in his Lest Hand, and made an In-  
cision on the Side ; then, with the Knife, he separated the  
cavernous Body from the Urethra, in which he afterwards made  
a strait Incision in the Place where the Stone was lodg'd, which  
is commonly under the cavernous Body, and, extracting it with  
rhe Hook or Forceps, he anointed the Wound with some glu-  
tinous Balsam, and’ then applying Lint and Compresses, care-  
fully bound up the Whole with a Fillet.' By this Method, the  
ensue Part of the cavernous Body is brought to oover the Incision  
in the Urethra; and the Tips of the Wound, as they assert,  
sooner unite, and come to a Coalescence. - ’ si:

‘ When the Stones are lodg'd in a peculiar/Bag, the best; way,  
in my Opinion, is, to make an Incision in the Place where we  
can most conveniently (and thet sideways) have Access to them ,  
for thus, thro' a pretty large Wound, I' extracted the Stones  
above-rnention’d, which you see represented *'Nab.* 48. *Fig.* I 6,  
I7.). The Cavity os the Bag I first treated with a Digestive,  
then with Corrosives, as red precipitate *s* Mercury, and  
sometimes cleansed it with Lapis Insemalis,, and at last heal'd  
it with Balsam of *Capivi,* and little glutinating Planters,’‘ But  
Conglutination, in tins Case, is sometimes Very difficult, as apo  
pears from *Le Dran, Obs. yet* where several ways of Healing  
were try'd to no Purpose. ' *Heister Chirurg. ’ . ‘ .*

The Cose reserv'd to by *Heister,* in *Lp.Dran,* is Very remark-  
able, and deserves Notice. ............ ... . ...—u.

Towards the End of theYear I722. RLad, sixteen Years;os  
Age, perceived a small'Swelling in *ffit.Perinaum,* but gave/'no  
Attention to it, as it. was not painful. \* Ἀ 'Ἀ \*'ss

Some time after, he went a Journey on Horseback, andthe  
Pressure of the Saddle against the Perinaeum forced a Stone'out  
of it, of the Bigness *of R* Pea, which, pass'd thro’ the Skin And  
TJrethra, both being worn ont by the reciprocal Pressure of the  
Saddle and the Stone Γ and the Urine, distilling thro' this Aper-  
ture, form'd a Fistulas ‘

Soon after, thePatient perceived a\*Swelling at the Bottom of  
the Scrotum, on the .Left Side; and, finding it to increase  
dally, he shew'd it to a Surgeon os his Acquaintance, who  
look'd Upon it aS Venereal, and proposed a Salivation : He con-  
sented to this Proposal, and went thro’ it without receiving the  
least Benefit. During this time the Fistula closed, and the  
Urine pass'd no longer that Way, which might perhaps'happen  
from the daily Augmentation of the Volume of the Tumor, s.

The Occasion of this Augmentation was a fresh Stone, winch,  
being stopp'd in that Pisce, and perpetuallysrfioisten'd hy the  
Urine, was considerably increased; At length, in *December* T725.  
thePatient strainingto listagreatWeighi, he selt 4 Violent Pain  
in the Perinaeum, and, putting his Hand to‘the Part, felt some-  
thing hard which had pierced the Skin : He used his Endeavour  
to extract it with his Nails, but could not succeed ; but, aS the  
Stone was soft, he crush’d a Part of ft .in Pieces (whence we  
may judge what Situation it had kept during its Stay there).  
He was much incommoded by it for eight Days, not-bring able  
to fit without a Violent Pain ; and at length, in rising from his

Sent, perceived the whole Stone to come out. He came to  
*La Charite* the next Day, and gave me an Account of his Dis-  
temper, producing the Stone, winch T preserve for the Rarity  
of the Cose: It weighs an Ounce and fifteen Grains, is almost  
of a triangular Figure, two inches and a half from one of the  
Angles to each of the other two, and two Inches from each  
Angle to the Sides subtending them, and three Quarters of an  
Inch thick. . -

It seems surprising, that an extraneous Body should ledge so  
long, without causing either Pain, or Difficulty in making  
Water. By examining the Stone you may discover the Reason:  
There is a Depression in it, on that Side next the *Os Pubis,*and probably the Urine flow'd freely by it.

Tho' the Lips of the Wound, thro' which the Stone pass’d,  
were approach'd, the Hole was still large enough to admit of  
my Finger. I felt a large Cavity where the Stone had lodged,  
winch was formed by a Dilatation of the Urethra; and I ima-  
gined, at first, that the Stone, when it was small, came from  
the Urethra thro' the Hole by which the former had pass'd, and  
then had increased between the Urethra and the Skin ; but my  
Finger undeceived me, and convinced me, thet it had grown  
in the Urethra itself; for, besides seeling the whole Circum-  
ference Very smooth, as it grew narrow, it guided my Finger  
almost behind the Scrotum, where the Dilatation ended. The  
dilated Urethra was Very thin in that Part where the Stone had  
lodged, and a Callosity was to be felt on both Sides,- without  
any Sinus. This Circumstance proves, that the Urethra was  
not open’d, but when the Stone came out; for, if it hed heen  
open'd before, the Urine would undoubtedly have form'd Si-  
nuses and Fistulas in several Parts of the Perinaeum, and here  
we had none ; from whence I infer, that the Callosities at the  
Side were occalion'd only by the Pressure os the Stone.

I had recourse to generous Remedies and Topics to dissolve  
them, such aS emollient Cataplasms, applied to the *Perineeum;*and that the Urine, by passing that Way, might not wet the  
Flesh and the Dressings, and that it might not be lodged in the  
Cavity from whence the Stone proceeded, I introduced an *Algaly*into the Bladder, and there lest it. After I had used the Cata-  
plasms two or three Days, I substituted resolvent Plaisters in  
their stead, and put small Dossiis into the Wound, cover'd  
with melted Diachylon, with the Gums, and the Mucilage-  
plainer. All the Hardness decreased in less than three Weeks;  
after winch I used only Injections, with Barley-water, and Vul-  
\* nerary Water, every Day. But my Attempts were fruitless,  
for nothing could close the Urethra, and cicatrize the Fistulas  
*Le Dran.*

An *Algaly* is a sort of hollow Prohe, or *Catheter..*

Dr. *Hale* has obliged the World with an Account of an  
Instrument of his own Invention, for extracting a Stone out os  
the Urethra.

While I was, says he, intent upon these Experiments on the  
Calculus, it occui’d to my Thoughts, that large Gravel-  
stones, which often stack for several Days in the Urethra, to  
the great Torment of the Patients, and which they cannot  
sometimes he delivered from without cutting them out, might  
' be drawn out by the following Instrument.

- I cut off the lower End of a strait Catheter, which made it  
**a** proper Canula for a Stillet or Forceps to pass thro'; the lower  
End of the Forceps was divided into two Springs, like Tweez-  
ers,. whose Ends were turn'd a little inwards: These Springs  
were made of such a Degree of Tenderness and Pliancy, as not  
to bear too hard against the Sides of the Urethra, by their Dila-  
tation.-

When this Instrument is used, the Springs are drawn up  
within the Canula ; which being pass'd into the Urethra, as  
sar as to the Stone, the Canula must then be drawn back, so  
sar aS to give room for the Forceps to dilate ; which dilated  
Forceps being then thrust down a little farther, so as to embrace  
the Stone, then the Canula must again be (lid down, to make  
the Forceps take fast Hold of the Stone, so as to draw it out.

I sent this Instrument to Mr. *Ranby* to heve his Opinion of  
**it,** who tells me, Thet, upon repeated Trials, he found it ex-  
tracts these Stones with great Ease and Readiness; and that it is  
io well approved of by other Surgeons, that many of them make  
use of it.

This strait Instrument will, therefore, ferve to extract such  
Stones as are lodged, aster they have pass’d the Turning at the  
Os Pubis; and I am informed, that they are aptest to lodge in  
those Parts of the Urethra which are within the Reach of this  
strait Instrument: But if in should lodge a little beyond the  
Turn at the Os Pubis, it might probably he practicable to ex-  
tract them thence by heading this Instrument, as the common  
Catheters are bent r If the Stillet were Silver, it would bend  
the more easily.

Mr. *Ranby* is of Opinion, that this Instrument may be sar-  
thet useful, in case of a Stricture or Contraction of any Part of  
the Urethra, *viz:* by thrusting the Forceps into that Stricture,  
where, by continuing some time, the constant Tendency of the  
Springs to dilate wist widen the Stricture. *Hale's Vegetable  
Statics, Vol.* 2.

Is the Stone of the Bladder is too large to pass thro' the Duct  
of 'the Urethra, the only Remedy is Lithotomy. *Boerhaave*has the best Opinion of the greater Apparatus, as heing most  
certain; the Event, however, is always uncertain, on account  
of many Accidents, which dan neither he foreseen, prevented,  
nor remedy'd. εἴ'

In Women the Stone is generally taken away by dilating the  
Urethra, and seldom by Cutting. See **LITHOTOMIA.**

**I** do not know why *Boerhaave* has omitted mentioning  
Honey as a Remedy for, or Preservative against, the Stone. . As  
this is extremely saponaceous and detergent, it is; by these  
Qualities, well adapted to scour off the calculous Concretions  
adhering to the Tubes of the Kidneys. And it is possible, that,  
if the Blood, and consequently the Urine, could be for a long  
time much saturated with Honey, small Stones might be dis-  
solv'd, and large ones diminish'd. But the smallest Portion of  
Honey affects some Constitutions in fuch a manner, aS to render  
**the** taking of it as a Medicine, impossible; and few Can endure  
large Quantities of it without sailing into a Violent *Diarrhoea*or *Cholera Morbus. - ...*

AS the Bladder is subject to many other Disorders besides **the**Stone, winch appear with Symptoms not unlike it, I shall give  
the following Treatise from *Hessenan,* in which the Reader will  
find his Account. - - .. τ

The Bladder, as being a nervous and muscular Part of **the**Body, is Very subject to Spasms; by which Word we under--  
stand an intense and preternatural Constriction’ of the Body os  
the Bladder, and also of the Sphincter ; or a Stricture, Coarcta-  
tion, and Crifpation of the Fibres, to which Disorder many  
other morbouS Affections owe their Original.

- Those tormenting Pains which are excited by the long Con-  
tinuance of a Stone in the Bladder, together with a perpetual  
Desire of making Water, and the very difficult and painful  
Evacuation of the Urine, are owing to nothing but Spaiyns.  
For a convulsive Stricture, which -affects not only the  
Musculo-nervous Coat of the Bladder, but also its Sphincter,  
and the Urethra itself, in a violent manner, excites a Strangury,  
and so great aStraining in the Pubes, as if it were scarce possible  
to stop the Urine, which yet, as soon as it begins to drop, is  
?uite repressed and retain'd. This Disorder is attended with a  
ain throughout the whole Region of the Penis, but oftentimes  
only with a most acute Pain in the Glans, according to the Ob-  
servations of *Hildanus* and *Baglivi.* This extraordinary Sensa-  
tion of Pain, Itching, and continual Irritation, in the Glans  
and Extremity of the Penis, is to be accounted one of the Pa-  
thognomic Signs of the Stone, both in Boysand Men. But,\*  
besides this, there is also a frequent Define of going to Stool, or  
a Tenesmus, because of the strict Connexion of the *Intastinurfl  
Rectum* with the Bladder, and the Communication of **the**Nerves. The Urine which comes off in this Dysury, is, for  
the most part, white and foul, with a mucous Sediment ; for  
the Convulsion of the muscular Fibres, by a violent Stricture  
and Compression, squeezes out, from the interior mucous Coat  
of the Bladder, a great Quantity of Viscid glutinous Lymph;  
which, mix'd with the Urine, supplies that mucous Sediment.  
Oftentimes also a thin, aqueous, and almost colourless Urine  
Comes away from the Patient, while under this racking Pain,  
and these Spasins, which, by mutual Consent and Commu-  
nication of Parts, penetrate to the very Ureters, and are **the**Cause of their transmitting nothing but a thin and aqueous Sub-  
stance, convey'd from the Blood by the emulgent Vessels.  
Moreover the Patiens, in making Water, often suffers very  
severe Pains, sets his Legs across, compresses his Hips, bends  
his Body forwards, and, with one Hand, sometimes with both;  
presses with all his Might-upon his Belly near the Region of the  
Pubes; and this gainful Evacuation of the Urine is attended  
with Trembling, and, aS it were, convulsive Motions of **the**whole Body, as is well observ'd by *Vieussens* in his *Neurologia,  
for* the fine Nerves of the Bladder, heing Vellicated and con-  
Vulfed in a Violent manner, by means of the intercostal Nerves;  
communicate the same to the spinal Nerves, and so to all the .  
other Parts. It is observ'd also, that, under a Strangury, and  
a vehement Dysury, the Belly is constipated, and the Foeces,  
together with the Flatulences, retain’d, which, when the Pain  
ceases, readily resume their usual and natural Course:

It is certain also, from Observation, that all these recited'  
Symptoms, and eVen worse, may be excited not only by a  
Stone in the Bladder, but by a Stagnation os the Blood within  
the Blood-Veffeis of that Part, the frequent Consequence of  
which is a Violent inflammation. For it is a vulgar Error to  
afcrihe all these Symptoms to a Stone in the Bladder, or art  
Acrimony of Urine, since Observations and Dissections os dead  
Bodies abundantly shew; that the Diseased have not only been  
afflicted with the same Symptoms which proceed from a Stone  
in the Bladder, but have undergone worse Torments; tho’  
there has not been the least Sign os a Stone found in them aster,  
their Death. For, as' when a Check iS given to the Course of  
the Menses or Haemorrhoids, the Blood regurgitates upon  
the Vesseis of the Stomach and Intestines ; and, stagnating within  
their nervous and sensible Coats, by stretching and compressing

them,; excites violent Gripings, Anxieties, Pains, Convulsions,  
and spasmodic Motions; so also, when thro’the Default- or  
Retention of the Haemorrhoids! Flux, or from any other Cause,  
the .Blood is repelled in great Quantities upon the Body of the  
Bladder, and there stagnates, no wonder.if, in such a sensible  
Pass, it excites Spasms, and other consequent Symptoms.

t Thus a Suppression of the Haemorrhoidal Flux is sometimes  
follow'd by bloody Urine, winch being stop’d, the Bladder is  
seized with a Pain, Convulsions, and Inflammation. Some-  
times Women of a plethoric Habit os Body, when past their  
fiftieth Year, aster a total Cesiation of the Catamenia, have  
heen taken with terrible Convulsions os this kind, which heve  
ended in a fatal Inflammation. For those who die of Diseases  
osthe.Bladder, are destroy'd by an Inflammation and Sphacelus,  
which are owing to a stubborn and fix'd Stagnation of the Blood  
in. its Vessels, whereby their small Ramifications are too much  
distended, and that in such a manner, that the Inflammation,  
for the most part, affects not only the Bladder, but the *Rectum;*the. Truth os which the Haemorrhoidal Vessels, being full of  
black Blood, with the Lividness of the Penis, and the Veins in  
the. Neck of the Bladder being Very much distended, and vari-  
cous with Blood, sufficiently prove.

i There is but one principalCause of this mortal Inflammation,  
and that is a strong Spasm of the Bladder, which the more vio-  
lent it is,To much the mure it increases the Stagnation and De-  
tention of the Blood in the Vessels, and hinders its Resolution.and  
Discussion j whence it passes at last into an Abscess and Ulcer,,  
and so becomes a chronical Disease, or degenerates into aSphace-  
lus, which soon destroys the Patient. And, indeed, this Violent  
Convulsion of the Bladder, which is increased by the present  
Inflammation, is- the Cause of a Multitude of dreadful Sym-  
ptoms with which an Inflammation is attended ; among winch,  
according to.vfr/iusand *Orihasius,* area continual Fever, great  
Heats, Pain, a burning Heat, and Tumor under the Peri-  
Itaeum, and above the Pubes,, an Emission os Urine by Drops,  
with great Difficulty, hard Strainings, and lamentable Cryings-  
out, a frequent Stimulation to evacuate by Stool, attended at  
last with Vomitings of Bile, a Pain of the Head, Thirst, Dif-  
ficulty os breathing. Redness os the Face and Eyes, a Tongue  
black with parching Heat, obstinate want of Sleep, Delirium,  
. Restlefness, Refrigeration of the extreme Parts, and at length

Death. There is a Passage in *Hippoc. Lib. Pranocionum,* con-  
cerning the fatal Event of Diseases of the Bladder, which de-  
serves to be mention'd here. tC Hardnesses and Pains of the  
" Bladder are dreadful and pernicious in the utmost Degree,  
" especially such as attend a continual Fever ; for the Pains  
" themselves (these are the Effects of Convulsions) are sufficient  
" to kill the Patient; and the Belly, at this time, makes no  
" Excretions, but of a hard sort of Substance, and that forc'd.  
" A Solution is attended with a Discharge of purulent Urine,  
" depositing a white and thin Sediment. But if, aster such an  
" Evacuation, the Pain be not mitigated, nor the Bladder  
" mollisy’d, it is to be fear'd, that the Patient will die in the  
" first Periods (περιόδοιοι) of the Distemper.""

These Symptoms which attend an Inflammation of the Blad-  
der, and discover themselves in various Parts of the Body, are,  
indeed, very much to be dreaded ; and yet all os them, if well  
consider'd, can hardly be ascrib'd to any other Couse than a  
violent Spasm, which hegins in the Bladder, as being the Part  
affected, and is thence communicated to the whole System of the  
Nerves; for when a most violent Stricture and Crispation af-  
fect the Fibres of the neighbouring Parts, which are the *Inte-  
stinum Rectum,* and the *Sphincter* qf the *Anus,* there is either a  
. continual Stimulation to Excretion, or so great a Constriction  
of the *Anus,* that neither Foeces nor Flatus can be trans-  
mitted, nor so much as a Clyster can gain Admission. And  
since a strong Spasm is well known to debilitate the Part it long  
affects, and leaves it at last in a State os Relaxation, the Con-  
sequence is a Falling-out of the Anus, especially in aged Persons  
and Infants. Whenever a severe Spasm of the Bladder extends  
itself to the superior Parts, and particularly the intestines, it ex-  
cites Rumblings and Gripes, and, when it is communicated to  
’ the Stomach, Loss of Appetite, ill Digestion, and Vomitings.

*Celsius, Lib. y. C. isp.* has a Very remarkable Paffaoe of the  
Consent between the Bladder and the Stomach. "We know  
" Very well, says he, that an Ulcer in the Bladder often as-  
" sects the Stomach, between which two Parts there is a kind of  
" Sympathy. Hence it is, that the Food is not retain'd, or, if  
" retain’d, is not concocted, nor the Body nourish'd." This  
Convulsion also of the Bladder, which attends an Inflammation,  
by affecting the Muscle of the Diaphragm, with the Nerves  
and nervous Coats of the Lungs and Bronchia, causes a diffi-  
cult and troublesome Respiration, with an Anxiety of the Prae-  
cordia ; and being communicated to the Muscles of the Heart,  
and the museulo-nervous Coats of the Arteries, makes a hard,  
contracted, and quick Pulse, with a continual Fever, and an  
unquenchable Thirst, which is, in like manner, owing to a  
convulsiVe Stricture of the soft and glandulous Parts os the  
Tongue and Fauces. But the Danger is still greater, if it ex-  
tends itself to the Membranes os the Brain, and the Origin of

the Nerves ; for **then a** Constant want of Sleep, Delirium, Con-  
vulsions, Refrigeration, and Horror os the extreme Parts, with an  
unequal and intermittent Pulse, are Signs of approaching Death.

Tho' the Symptoms which proceed from a Stagnation and  
Inflammation of the Blond, whether pure or impure,, in the  
Bladder, are Very much to be dreaded, and often mortal; yet  
those Disorders which arise from a salt, impure, and corrupted  
Serum, obstinately adhering to, and vellicating the Goats of **the**Bladder, are milder, and less dangerous. Of this Nature are  
those Pains which attend a Difficulty of Urine, and a Strangury.  
We Often meet with Cases of this kind among the ObserVa-  
tions of Physicians, particularly *Drawitz,* who deserves to be  
remember'd, and who, about an Age ago, wrote an entire  
Treatise, in the *Gorman* Tongue, concerning the Scurvy,  
which is one of the best on the Subjecti In this Book he makes  
several Observations, and describes Coses of Patients who com-  
plain’d of racking Pains in the passing off of their Urine, the .  
Cause of winch was no Defect, or Stone, in the Bladder, but.  
only an impure scorbutic Humour. Among others, he relates a.  
memorable Case of a Butcher, who had never labour'd under -  
the Stone, and was on a sudden taken with an intolerable Pain  
in his Feet ; the Disease, heing remov'd from those Parts, was.  
tranflated upon the Urethra, with an intense Heat, and Diffi-  
culty of Urine, which scarce came away by Drops. This Disc  
order yielded to Discutients, but return'd into the Feet, the  
Consequence of which was a Tumor in those Parts.

We have often observ'd, in aged Persons, Disorders of **the**Bladder, and especially a Difficulty of Urine, which have been  
contracted by a sedentary Life, or a scorbutic Dyscrasy of the .  
Humours, which, in old Age, is almost perpetual; and no-  
thing is more frequent,than,, upon a Cessation of the rheumatic  
or gouty Pains, for the Patient to be afflicted with a Dysury,  
winch, on the Return of those Pains, goes off spontaneoufly.  
It is also a usual Observation, that scorbutic Persons, affected  
with a chronical *Purpura,* or purple Eruptions, a Disorder Very  
common in our Days, when, by a Cold, or some other Couse,  
aS, for Instance, often repeated Bleeding, the Humour has been  
retracted inwards, or remains within, are seiz'd with a great.  
Difficulty foe Urine, an Anxiety about the Praecordia, a Rest-  
lesness, want of Sleep, and an inward burning Heat; all which  
Symptoms, upon the Expulsion of the *Purpura* to the Super-  
ficies of the Body, Vanish andthsappear.

. There is yet another Cause of the Spasms and Pain of the  
Bladder, which is some Disorder in the Kidneys, whence,  
sometimes, a purulent and Viscous Matter, at other times  
Stones and Gravel, are transmitted by the Ureters to the Blad-  
der. In both Cases, unless the foreign Matter be timely ex-  
pel'd, st is capable of exciting Very dangerous Disorders, and  
particularly most Violent Spasms. If the Matter be more  
tenacious and acrimonious than ordinary, it adheres to the In-  
side of the Bladder, and especially about its Neck, and excites  
a Strangury, Dysury, Tenesmus, and Inflammation ; orsecretiy  
and slowly corrodes the Membranes of the Bladder, and so ren-  
ders it exulcerated. If this Matter, by the Accession os other  
Causes, become transform'd, and pass into the Nature os a  
Stone ; or a Stone,, already made, descends from the Kidneys  
into the Bladder; it is continually irritating the same by its  
Roughness or Weight, and produces the same Disorders aS be-  
- sore-mention'd; and, in the latter Cose, the Bottom also, and  
the Sides of the Bladder, especially where the Stone is large,  
are exulcerated.

Sometimes the Neck of the Bladder is irritated, stretched,,  
and convulsed, by other Causes besides those already mention'd ;  
as, for example, when a Gonorrhea, whether of the mild or  
malignant Sort, continues, *for* a song time together, in its  
proper Seat, which is in the two Glandulae Prostatae, which are  
contiguous to the Neck of the Bladder; for the Humour, in  
this Space os Time, heing corrupted with the Venereal Impu-  
rity, hecomes every Day more deprav'd, and generates Ulcers,.  
sometimes but flight, sometimes of a more dangerous Nature,  
or excites Inflammations in the affected Part. And if the Cure  
of these Disorders happens to be ill perform’d, it is often oh-  
serv'd, that the next adjacent Parts are infected with the Con-  
tagion. The Urine then comes off of a purplish Colour, and  
a Scabies of the Bladder, and even an Exulceration of that Part,,  
especially about the Neck, frequentiy succeed. Hence it is  
that those who labour under a Virulent Gonorrhea, often dis-  
charge a turbid Urine, winch deposits a good deal of a Viscid and  
sanious Sediment.

Among the Causes of thiS dangerous Spasm of the Bladder,  
may also he reckon'd, an Inflammation or Ulcer os the *Intesti-  
num Rectum,* or of the Penis ; an Abscess in any os the inner.  
Parts of the Abdomen, which breaking, the Pus being dis-  
charg'd into the Cavity os the Abdomen, makes its Progress at  
last towards the Bladder; a Corruption of the Omentum ; an.  
Effusion of Blond, however caused, into the Abdomen; the  
Falling of the Water, in Dropsies, upon the Bladder ;. an In-  
flammation and Ulcer of the Uterus, especially its Neok; and  
other Disorders of the like kind, of al] which y0u may meet,  
With Instances enough in *Bonetus* and others.

- AS to the external Causes of this convulsive Distemper os the  
.Bladder, we may suppose them to be Contusions, and Violent  
Blows shout the *Pubes,* or *Pcrinaum*; an unskilful Section sor  
the Stone, in which, thro' want of Dexterity in directing the  
Knife, or extracting the Stone, especialsy if it he larger and  
rougher than ordinary, the Cure os the Wound becomes dish-  
cult, and is attempted by improper Means ; a too careless in-  
troducing of the Catheter, in order to search sor the Stone, or  
in a Suppression of Urine, or for any other Reason, when the  
Sphincter of the Bladder happens to he under a close Constriction,  
or the Passage stop'd by a Tumor, Caruncle, Scirthus, or any  
other Cause; the Section of a Fistula in Ano, where, for want  
of Caution, the Sphincter of the Anus, winch is pretty closely  
Connected with the Neck of the Bladder, happen'd to he incau-  
tioufly tootrmch wounded, or due Care was not taken of the  
Wound, in Women, a Cause may he hard Labour in Child-  
birth, in which the Bladder, and especially its Neck, are often  
-compressed and affected in such a manner, as to give Rise to an  
.Ulcer and Fistula in those Parts, according to *Mauriceau, Aphl*285. And here the remarkable Malignity of Cantharides,  
- with respect to the Bladder, deserves our Notice ; for whether  
taken inwardly, or outwardly apply'd, they heve heen certainly  
.known, from Observations, to excite Spasms, Inflamma-  
tions, and Ulcers in that Part, of which .there are many Ex-  
amples. It appears also, from practical Observations, that  
drinking of cold Water, after Section for the Stone, excites  
Violent Spasms, or gives .Rise to a mortal Gangrene, or a  
fistulous Ulcer.

Having assign'd the Causes of this spasmodic Affection of the  
Bladder, we think ourselves oblig'd to account for a peculiar  
Phenomenon, which is, why those Symptoms, such as a Diffi-  
culty of Urine, attended with a Pain, and other concomitant  
-Evils, should so miserably afflict the Patient only at Intervals,  
tho' the material Cause, which is the Stone, or a scorbutic Dys-  
crasy, be always present. The Reason seems to be this : All  
Vehement Pains in a nervous sensible Pan, if they continue long,  
induce and leave a Weakness and Relaxation, in which State the  
Pains are no longer felt; but then this very Weakness is the  
Cause of a. new Collection and Stagnation of impure Humours  
fupply'd from other Parts of the Body; whence there is always a  
Generation and Coacervation of fresh Matter, for rekindling  
and reviving the Paroxysm. For Debility, as *Celsius* says, is  
subject to all Diseases ; and therefore it may be establish'd as an  
universal pathological Canon, That those Parts winch are debi-  
litated by the preceding Violence of aDistemper, are Very easily  
. susceptible of the morbific Humour, which, after a gradual

Collection, either spontaneous, or excited by some flight  
Cause, makes a fresh Attack upon the Patient ; and hence  
may be deduc'd the true Original of periodical Affections.

We heve several times observ'd, that a Stone in the Bladder is  
only at certain Intervals the Cause of many Disorders, such as  
frequent and difficult Attempts to make Water, attended with **a**scalding Heat and Pain, Gripes of the Belly, Coldness of the  
extreme Parts, and a Decay of Strength, and that principally  
when the North Wind blows, or aster flatulent Food, or  
Beer not well defecated. Or from some unusual Commo-  
xion of the Mind, or too great a Refrigeration of the ex-  
treme Parts, or customary Bleeding too long omitted. The  
general Reason to be given sor the Return of those Disorders on  
such Occasions, is, that all those things besore-mention’d as  
Causes, are of such a Nature, and so qualified, as, partly by  
suppressing the salutary Excretions, partly by augmenting the  
Quantity of impure Humours, and propelling them towards **the**weaker Part, to give Occasion for the Return of the Disease,  
- with its usual Train of Symptoms, upon the Patient. It is  
. often observed also, that Distempers of the Bladder are at-  
tended with a flatulent Colic, especially when there is a hot and  
painful Discharge of the Urine; and that all Aliments which  
generate Inflations, exasperate the Disorders of the Bladder, as,  
on the contrary, all Carminatives are beneficial.

Among Diseases of the Bladder, which are attended with  
Spasms, may well be reckon'd discharging os bloody Urine,  
which, however, does not all proceed from the Kidneys or  
emulgent Veffeis, as Physicians usually imagine, but often  
flows proximately and immediately from the Blood-Veffeis  
of the Bladder, and especially the ruptur’d Branches of the ex-  
ternal haemorrhoids! Vein. This Haemorrhage, attending the

. Urine, may he known to proceed from the Veffeis of theBlad-  
der, by a Difficulty of Urine, a burning Heat, and Tenesmus  
affecting the *Anus,* convulsive Motions about the *Glans,* a pun-  
gent Pain from the *Glans* to the *Pertitaum,* a rigid Tension of  
the *Penis,* with Rumblings and Flatulencies in the Abdomen,  
Loss ofAppetite, and frequent Eructations; aS also, if the bloody  
Urine, and concomitant Symptoms, after bleeding in the Foot,

- and Apphcation of Leeches to the Anus, are remitted and  
cease. And, indeed, tho' such bloody Urine does not so Very  
frequentiy proceed immediately from the Bladder, yet it haS  
heen sometimes observed, and particularly by *Hoechstettcr,  
Dear.* **1.** *Schol, in Cas.* 2. Sometimes pure Blond comes off

with the Urine, Or, instead thereof. Urine of a brown Colour,  
like Coffee; as we observed in a Man eighty Years os Age,  
whenever he rode on Horseback - Tho Urine, when cold, depo-  
sited a dense and red Sediment.

- Dreadful Symptoms also usually happen from concreted  
Blood within the Bladder, as *Lommius* observes, fuch as fre-.  
quent Paintings, a Difficulty of Breathing, a low, small, and  
quick Pulse, a great Nausea, Anxiety of Spirit, and a cold  
Sweat, with art universal ImhecillitV, Paleness os Countenance,  
and Refrigeration of the extreme Parts ; all which Symptoms  
are to be ascribed to a violent convulsive Stricture, communi-  
cated to the whole nervous System. A Condensation of Blond  
in the Bladder is also the Cause os racking PainS, with a vehe-  
ment Heat at the Bottom of the *Pubes,* and about the *Penis,*which have been observed to cease aster the Patient had Voided  
large, oblong, grumous Concretions of Blood in his Urine. As  
to the Cure of bloody Urine, which proceeds from an affected  
Bladder, *Lommius* rightly judges, that it is more difficult than  
when it descends from the superior Parts;

**We** must not omit to observe, that a Spasm of the Bladder,  
which excites a Strangury and Dysury, especially in old, scor-  
butic, and cacochymical Constitutions, may proceed also from  
a Very salt Urine, impregnated with acrid, tartarous, salino-  
sulphureous, and muddy excremen titions Parts : For the Urine  
is sometimes found so salt as to corrode the Tongue, and, as **it**distiis from the Urethra, to excoriate the neighbouring Parts;  
and therefore, if it should happen to stagnate for a consider-  
able. Time in the Bladder, will, by vellicating the Fibres of  
the Nerves, close up the Sphincter, and streighten the Urethra,  
and, by tearing and corroding the Membrane, excite most in-  
tolerable Pains, if, after a painful Discharge of the Urine;  
there appear in it branny littie Masses, with Plenty of flender  
Filaments, which subside, the Antients call this Affection a  
*Scabies os* the Bladder ; because it indicates a Corrosion of **the**mucous and Villous Membrane thereof.

We said before, that a Stone, contain'd in the Bladder, is  
often the Occasion of strong and painful Convulsions, attended  
with a Difficulty os Urine, which molest the Patient at Inter-  
Vais; but we are also to take Notice, that Spasms of the Blad-  
der, when proceeding from other Causes, frequently lay the  
first Foundation fur the Generation and Concretion os the Stone  
in the Bladders.. This principally happens in old Men, who are  
of a plethoric Constitution, addicted to a sedentary Lise, and,  
on account of a weak Perspiration, commonly Void a high-  
colour'd Urine, saturated with tartarous muddy Scoriae: For  
the Spasm excites a Dysury; and the urinous Liquor, being re-  
tain'd a littie longer than ordinary, deposits a tenacious glu-  
tinous Matter, which, heing involved in tartarous Salts, may  
be supposed the first Principles os a calculous Concretion here-  
after to be form'd ; unless the Matter be evacuated by some  
convenient Medicine, and a free Passage made for the Urine by  
removing the Spasm.

Of all Diseases of the Bladder, a violent Stricture is most dan-  
gerous, and often mortal, especially when it is attended with  
a Vehement Pain, an acute Fever, with an Hardness of the  
Bladder appearing near the *Pubes,* Costiveness, and a Suppress  
sion of Urine, according to *Hippocrates* in his *Prognostics,* and  
his *Coacee Pranotiones,* where he says, " That a Hardness **and**" Pain in the Bladder are Very bad Symptoms upon all Ac-  
" counts, but worst when attended with a continual Fever,  
" for the.Pain alone is sufficient to kill the Patient. There  
." is but little Evacuation, by Stool, under this Distemper."

If the Pain and Hardness are but moderate, and without an  
acute Fever, the Inflammation is of a mild Nature. The  
Event, in such Cases, is Various; sometimes the Disease is cri-  
tically resolved, by the cutaneous Eruption of an Erysipelas ;  
sometimes it tends to a Suppuration, in which Case there comes  
away purulent Urine, which deposits a thin white Sediment;  
If there be a plentiful Discharge of the Urine with *Pus,*the Tumor subsides, the Bladder is molliry'd, the Fever miti-  
gated, and a free Passage made for the Excrements. The  
worst Event is, when the Distemper degenerates into a mortal  
Sphacelus. *Hossenan, Medic. Rat. System,*

*The* **CURE.**

Having consider’d the many severe and dangerous Disorders  
proceeding from painful Spasms of the Bladder, Urethra, and  
adjacent nervous Parts, with respect to the different Nature of  
their Causes, we now come briefly to propose and explain the  
most convenient Methods and Remedies for the Relief of **the**Patient. If we find the Disease approaching, or at least are  
apprehensive of its coming, and that it proceeds from a Redun-  
dande of Blood, especially in old Persons of a Vigorous Con-  
stitution, who have for a long time pass'd their Lives without  
sufficient Motion of Body ; the greatest Relief, in such a Case,  
is to he expected from speedy and plentiful Bleeding, which  
hecomes the more necessary, if the Cause is suspected to be **a**Retention of the Menses, or a Stoppage os the Haemorrhoidal

Flux, or an Omission of long accustom'd Phlebotomy, or  
Scarification. This is agreeable to the Advice os *Hippocrates,  
Aph.* 36. *Lib.* 6. where, under a Difficulty of Urine, he or-  
ders the inner Veins to he open'd.

In a Redundance of impure Senrm, impregnated with scor-  
butic, acrimonious, and saline Particles, which, by its Deflu-  
xion, and Settlement about the Bladder, and the Parts included  
within the Pelvis, furnishes Matter for this Disorder; or is it  
be owing to the scorbutic Purples, a Distemper grown common  
in our Times, we must use our best Endeavours, that the Mass  
of Blood and Humours, which is Vitiated by the Mixture of  
those heterogeneous and impure Particles, may be depurated,  
and the Redundance of Serum evacuated by the proper Emun-  
ctoriest For this Purpose temperate Diluents, in sufficient  
Quantities, and for a convenient Length of Time, are" to he  
used: Of this Nature are the temperate kinds of Mineral Wa-  
ters, which consist of the purest and lightest Liquid, impreg-  
nated with a flightiy alcaline Salt; such, above all others, are  
the *Selteran* and *Spaw* Waters; for they are Very agreeable,  
and extremely beneficial, in all the Disorders and Defects of  
the Breast, Kidneys, and Bladder, which Parts, in particular,  
they relieve by a sort of specific Virtue. In the scorbutic  
Purples they exert their Virtues much more to Advantage,  
when mix’d with Milk, especially Asses Milk.

AS a Regimen of Diet is of the greatest Importance, both  
in preventing and curing a Disease, so that they who live free-  
sp, without regarding the Laws of Medicine, or the Rules of  
’ Sobriety, can never he relieved from such afflicting Distempers ;  
. but, at most, only procure to themselves some Intervals of  
' Ease; for this Reason, in so chronical a Disorder, where the  
Nerves, and most sensible Parts, are affected, the least Error in  
Diet must, of necessity, have a bad Influence upon the nervous  
Parts. The Patients, therefore, are to be strictly forbidden  
- all salt, acrimonious, and four Meats, all Vegetables which  
breed Inflations, or are astringent; and they mint also abstain  
froth all Malt-liquors, and acid and austere Wines: But fweet  
Wines, and particularly the *Hungarian,* are not only harmless,  
but Very beneficial. Here a Passage os *Artius, Tetrab.* 3. *Serm.*3. *Cap.* 22. concerning a Scabies of the Bladder, deserves to  
the quoted: " The Patient, says he, must abstain from all  
" Things of a biting Quality, and such as render the Humours  
" salt and acrimonious; but give him sweet Wines, and  
" Milk, with Broths made of Hens, or the Flesh of Kids or  
" Lambs.'' And tho’ Motion and Exercise of the Body have  
a Very good Effect in preventing Distempers of this Kind, by  
giving a Check to the Redundance of Blond, and maintaining  
a due Circulation os the Humours through the V esseis; yet, if  
the nervous Parts at the Bottom of the Belly are affected with  
Pains and Convulsions, Rest is hetter sor the Patient than  
Motion, which, in such a Circumstance, would be Very pre-  
judicial ; especially such kinds of Motion as. drive the Blond  
more upon the inferior Parts, as a great EleVatinn of theVoice,  
long and earnest Speaking, Agitations of the upper Parts, Ges-  
tation; and Lifting os Burdens.

While the Patient is under the convulsive Fit, attended with  
.racking Pains, and a Difficulty of Urine, I have learnt by fre-  
quent Experience, that there are no better Remedies than oily  
emollient Clysters, a Bath, Or a Semicupium, which is con-  
firm'd by the Observations of Physicians, every-where to be  
met with; and we have an elegant Observation of *Dravdtzl,*in his Book of the *Scurvy,* to the same Purpose. A Va-  
pour-bath of emollient and anodyne Flowers is also hene-

ficial in the Time of the Paroxysm; such are the Flowers of  
common Chamomile, Melilot, the Elder-tree, Mallows, Mul-  
lein, and Millefoil, boiled in Milk; sor, by their lenient and  
demulcent Virtues, they are of excellent Service in composing  
and mitigating the Pains and Convulsions. Internally may he  
given our *mineral anodyne Liquor,* either alone, or mix'd with  
Carminatives; also antispasmodic Powders, as the Marquis’s  
Powder, or purified Nitre, with an Addition os a littie Saffron  
and Castor, taken in an Emulsion os the Four greater cold  
Seeds. These Remedies are preferable to all others, and may  
be used even under a Fever; and when an Inflammation as  
threaten'd, if the Proportion os Nitre he augmented.

When the Disease of the Bladder proceeds from a Tranfla..  
tion of a rheumatic Defluxion from the external Parts upon the  
Viscera, Fontaneis, cur in the Arms, have been of no small  
Service. Also a demulcent and gently diuretic Decoction of  
- the Roots os Scorzonera, Sarsaparilla, China, the Shavings of  
Hartshorn, the Roots of Liquorice, Couch-grass, Succory, and  
Fennel seeds ; or *our mineral anodyne Liquor,* mix'd with the  
Bezoardic Spirit of Bussius, are Remedies which never fail of  
having a good Effect.

If bloody Urine, having its Origin in the Bladder, be at-  
tended with a convulsive Affection of the same Part, or an Ex-  
ulceration supervene, I have frequentiy found the good Effects  
of an Application of the Vulnerary Water call'd *Ueau d\* Ar-  
quebufade,* (see AQUA) in answering the Intention of discusse  
ing and corroborating.. I also use repeated Applications of Bags

of Mint, Banin, Myrtle-leaves, Bay-leaves, Roses, wish the  
Flowers Of common and *Roman* Chamomile, all boiled in Reda  
wine, to the Region of the Bladder: And to prevent a Cohe-  
sion of any grumous Blood, that may happen to he retain'd in  
the Bladder, with a tartarous Mucus adhering to the Part,  
winch may produce a Stone, internal, abstersive, and gentle  
vuinerary Medicines may Very properly be used. Some of the  
best of these are Golden-rod, Ladtes-mantie, the Tops os St.  
John’S-wort, and Millefoil, the Roots of AVens, Marshmald  
lows, and Liquorice, Figs, and Spleenwort, in the Form of an  
Infusion or Decoction, well sweeten'd with *Prussian* Honey, or .  
*Ferneliurs* Syrup os Marshmallows. The Decoction of *Forestus,*and Sperma Ceti, are also Very good Medicines for dissolving  
grumous Blood retain'd in the Bladder.

When the Inflammation is succeeded hyan Abscess, which  
is known hy the Exacerbation of the Symptoms, and a Sense of  
Weight in the Region of the *Pocinaum* and *Pubes,* it is neces,  
sary, that it should be timely open'd, and the Pus discharged  
from the Bladder; for the longer it continues, the more acri-  
moniouS it grows, and corrodes the adjacent Parts, corrupting  
them in like manner, and introducing *Fistulas,* and other very-  
bad Symptoms. To prevent-such mischievous Effects, Injecti-  
OnS of warm Milk, heil'd wish emollient Species, are to be  
used: If thefe are of little or no efficacy, our last Recourse  
must be to the Surgeon, who is to make an incision with the  
Knife in the same Place *of* the *Perinaum,* aS, in cutting for the  
Stone, with what they call the *greater Apparatus.* Two Exam-  
ples of this Method in *Bonetus, Sepulchr. Lib.* 3. taken out of  
*Riolanus,* are worth our’Notice. InWomen the Case is other-  
wise ; for they stand in no need of this kind of Remedy, he-  
cause in them the Orifice of the Bladder is larger, and the Ac-  
cess to it more open. The Ulcer being open'd, and well  
cleansed, is to be treated with the same Remedies as were  
directed in the preceding Paragraph.

**PRACTICAL CAUTIONS.**

. I.

When a Redundance of Blood requires Evacuation,, the hest  
Method is to open a Vein in the upper Parts, by way of Re-  
vulsion ; and the next Day, or the Day aster, to cut the Veins  
in the Anus, if they are swell'd and prominent, for the sake of  
Derivation ; or, if this cannot conveniently he done, a Vein  
may be open'd in the Ancle or Ham. It the Habit of Body  
be lax, and full of Blood and Juices, and especially for the  
Female Sex, Cupping- glasses, applied to the upper and lower  
Parts, may be Very beneficial, hy attracting the Blood and Hu-  
mours towards the Superficies.

**Π.**

You are to take Notice, by way of Caution, that tho' re-  
peated Bleeding, as before advised, he Very serviceable in pre-  
venting or removing an Inflammation, or hindering its increase ;  
yet where the Blood and Spirits are deficient, and in case *os an*Exulceration, Phlebotomy is rather hurtful than beneficial, by  
exhausting the Strength and Spirits of the Patient, which are  
absolutely necessary for expelling and subduing the Disease,

III.

In all Pains, and Convulsive Disorders, os the Bladder, from  
whatever Cause they proceed, strong Cathartics are by no means  
Conveniens, neither in the Beginning nor Progress of the Dis-  
temper; for it is to be fear'd, lest the Humours, being by their  
means put in Agitation, should be impal'd, and bend their  
Course towards the affected Parts. But under a Remission of  
the Pain and Spasms, and in the Decline of the Disorder,,  
it is Very useful, and eVen necessary, now-and-then, to give a  
Purge, in order to cleanse and free the intestines from those  
stercoraceous Recrements and Sordes, of which there is gene-  
rally a Collection and Coacervation in those Parts, during the  
Time in winch the Pain and Convulsions molest the Patient a  
But this Intention is to be answered by the milder Sort of  
Purges, such as those prepared of Manna, and Rhubarb, and  
solutive Syrup of Roses, drank in Whey, or Astes Milin.

**IV.**

In order to mitigate the convulsive Paroxysm, besides exter-  
nal Remedies, as Liniments and Fomentations, Clysters Com-  
posed of Leniente and Emollients are to be injected, which, by  
their mild and comfortable Warmth and Influence in relaxing  
the rigid and convulsed Fibres os the adjacent Parts, may pro-  
bably cause a Remission of the Pain, and afford Considerable  
Relief to the Patient; bur these are to be administer’d in small  
Quantities, for fear of compressing the Sides of the Bladder.

**. V.’**

If the Bladder, and Parts connected with it, be affected with  
a Considerable Exulceration, which is indicated by a copious

Sediment of viscid -Matter, and a stow PeVer consuming the  
Strength and Flesh,' the Patient must abstain froth too free an  
internal Use of the ***Caroline*** W aters ; for 'the plentiful Drinking  
os them, as I have learn’d by'Experience, is Very prejudicial,  
hecause both the Corruption and Fever are increased by the  
Stagnation of these Waters.

δ᾽ E ' EL . ... - ’

A seasonable Use may be made of anodyne Injections, as  
well sor correcting the Acrimony of the Humours, as sor blunt-  
ing the Sense of the intolerable Pains. These may he prepared  
of four Whites of Eggs, beaten to a Water, with an Addi-  
tion os two Ounces of Woman's Milk, and a Dram of the  
freshest Butter ; or an artificial Emulsion may he made of the  
Seeds of Gourds, and of white Poppy, the Water os Elder-  
flowers. Rose-water, and black Cherry-water, for the. same  
Purpose.

' . .... ..... ... ' si

All acrid Diuretics must he caresullyAVoided in this- convul-  
sive Affection’♦' for, in an Exulderation of the urinary Passages,  
the Pain and spasmodic Symptoms must,, of Necessity, , be very  
much exasperated by the Acrimony of fuch Medicines. .  
E '' μάαίμάμάΎΕΗΔ’ E ***'setsi***

When the Patient is under extreme Pains, which may be of  
dangerous Consequence, Anodynes" of the greatest Efficacy  
may be useful, for preventing too great a Diminution of the  
Strength, with an Increase of the Fever andDysury, .or Mad-  
ness ; and I have known half a Dram os Troches os Alke-  
kengi given as a Dose, with Very- good Success: But)we must  
utterly avoid such Medicines when there is a Decay os Strength,  
either thro' Age, or some Passion .os the Mind,particularly  
Sorrow. ***Hoffman .Med. Rational. Systi*** tn'.ir

- Mr. ***Sharp*** gives as: the following Remarks relative to the  
Stone, which, for the farther Illustration of this important  
Subject, I shall insert. „ ... γ. / .: -ψχγτἐνχ;

Hitherto there has never been inven any satisfactory Account  
of the Causes of this concreting Disposition in the Fluids ; and  
tho’.. there may. he some Propriety im considering the Sand of  
Urine in the same Light as the Tartar: os Wine, from their  
Similitude in several Experiments, \_yet we cannot infer from  
thence, what doesImmediately produce it; at least, it is not,  
with any Certainty, .to he imputed to a .particular Diet or Cli-  
mate,, which, .heweves, are the Causes commonly - assigned ;\*  
since we see, that in all Countries,, and amongst all Ranks of  
People, as much amongshthe Sober as the Luxurious, the Stone  
is a frequent Distemper ; and tho’ the great Numbers cut at the  
Hospitals of ***Paris,*** where the Water of. the ***Seine*** is soTernark-  
able sor its Quantity, of Stone, seems, to favour the Opinion os  
Its heing generated by particular Fluids received into the Blood,-  
yet,J believe, upon Inquiry, this \_famous Instance will riot ap-  
pear conclusive, since most of thole Patients. come ***from*** the  
Provinces, or distantVillages, where that River does not pass;  
and aS to the Inhabitants of ***Paris*** itself,, by-.what I was- able to  
learn ofthe Surgeons there, the Numher of those afflicted with  
the Stone amongst them is pretty nearly in the same Proportion  
***as in London.*** From which Considerations, and the Circum-  
stance of ***so many*** more Children having the Stone than Men,  
one would be inclined to think the Disposition in much:oftener  
born with us, thaIvacquired hy any’external Means. .

It. is certain, the Urine generally abounds with Matter, pro-  
per to compose a Stohe***; and,*** perhaps; isit could grow cold in  
the Bladder, it would' always deposit the Matter- there,) as it  
does on the Sides, os the Cham her-pot4.tho' the Coats, of the  
Bladder, being cover'd with a Mucilage, make them more un-  
it than the Sides of the Pot to attract the-stony Particles; but  
we sees when once athard Body is insinuatedtnto the Bladder,  
it seldom sails to hecome the Nucleus of a Stone,- whether it  
be a large Piece of Gravel, a Needle, a Pullet, or any other  
firm extraneous Substance. ..... ?

From the monstrous Increase or sorhe Stones in a small time,  
.. and the Cessation of Growth for many Years' of others, we  
may be persuaded, .that-the Constitution Varies exceedingly at  
different fitness, with regaid to these stony Separations; and;  
from the. Appearances of most Stones: when,artfully Taw'd  
through, bye roayi gaith'er, that ' this Variationof Coimimtion  
does not shew itself onlsiin ine Cinarttity os Gravel added to  
the Stone, but the Quality of It also;, so that, a-fed uniform  
Stone, of an Inch Diameter, may perhaps, at half that Size,  
have been a smooth white one, at a Quarter, a-hrown Mul-  
berry one, and so on at different rimes,. altering in Its Species;  
Hence (from the Apposition of different-colour'd. Gravel)  
arises for the most part .the laminated-Appearance of a- Stone,  
tho' sometimes the. Laminae are Very nearly os the same Co-  
lour and Composition; and, in this Case,-their Formation-Teems  
to he owing to the want of Accretion in--- the Stone- sor th cer-  
tain times during which, its Surface, -by-’rubbing..against the  
Coats of the Bladder, and its Attrition., ‘from the Stream of

Urine, becomes smooth and-compact; so that when inore  
fresh loose Gravel adheres to It, its different Density in that  
Part will necessarily make the Streaks we see in a Section of  
the Stone, which are only the outside Surfaces of each La-  
Inina. παρ ' .

. That the ceasmg to grow gives them this laminated Form,  
and not any particular Disposition in Sand to shoot into such  
a Shape, is probable from, the Examination os some other  
Stones, in which a great Quantity of Gravel is first collected  
without any Nucleus, into a spongy uniform Mass, and after  
that is cover'd with several Laminae.

'Tis no Wonder that Stones are so generally form’d in the  
Kidneys, since the Disposition ***of*** the Urine will naturally shew  
itself as soon as it is separated into the Pelvis; that is, the  
stony Particles, having as strong an Endeavour to unite with  
one another in the Kidneys as the Bladder, will consequently,  
from meeting first there, . generally produce. Gravel and Stone  
in that Part.

. Small Stones and Grave) are frequentiy voided without Pain,  
but sometimes they collect, and become Very large in the Kid-  
neys; in winch Case, a Fit of the Stone in that Part is the  
Cure, from the Inflammation and .Pain occasioning convul-  
five Twitches, which at last expel them. But in this Disease  
the Patient in Very much relieved by several .kinds os Reme-  
dies, such aS the Mucilaginous, the Saponaceous, ***etc.*** some  
os which lubricate, and others both lubricate and stimulate.  
The Sand, in passing through the Ureters, is Very much for-  
warded by the Force of the Urine, which -is so considerable,  
that I have seen a Stone which.was obstructed in the Ureter in  
its first Formation, perforated quite through its whole Length,  
and form-a ’.large Chanel for- the Stream of Urine. The Ure-  
ters being Very narrow, as they run .over the Psoas Muscle,  
and also at their Entrance into the Bladder,: make the Move-  
ment of the Stone Very painful and difficulttn those Parts: but  
there is seldom so much Trouble after the first Fit ; for, when  
once they have been dilated, they generally continue so: I heve  
often seen them as big as a Man's Finger, but they heve been  
found much larger. '. ... . ...

The Symptoms .of Stones in the Bladder are. by no means  
infallible, since a Stone in the Ureter or Kidneys, or an In-  
fiammation of the Bladder from any other Cause, will some-  
times produce the same Effects; but is the Patient cannot  
urine, except in a certain Posture, stisjaimost fa sure Sign **the**Orifice is obstructed by a Stone ; if he finds Ease by pressing  
against the Perinaeum .with his Fingers, or.fitting with that  
Part upon- a hard Body, there is littie. Doubt .to be made, that  
the Ease is procur'd by taking off the Weight ***os*** the Stone;  
or lastly, if with most of these Complaints, he. thinks he can  
seel it roll in his Bladder, it is hardly possible to be mistaken:  
However, the only sure Judgment to he form’d is . from  
Searching. ... ... . .7 ..i : '

That we should not readily distinguish the Complaints of **the**Stone from many other Affections os the Bladder, is not Very  
surprising, when we reflect, that a Fit ***of*** the Stone is nothing  
hut an Inflammation of its Coats, which, tho’ it be excited by  
the Stone,- requires a Disposition in the Blood to produce it ;  
for, if the Complaints in a Fit were owing to the immediate  
Irritation of the Bladder, it should follow, that the Stone be-  
ing always the same, the Fit would he continual ; but, besides,  
that dll Patients have considerable Intervals of Ease, (often of  
many-Months) except in those Cases where the Stone is either  
Very large, or pointed, there are Instances of some few happy  
Constitutions which heve no Pain at all, even after having for a  
certain time suffer’d Very much. - . . .

To prevent the Violence and frequent Returns of the Pits  
of the Stone, Bleeding, and gentle Purging with Manns, are  
beneficial ; abstaining also from Malt Liquors, and Excess of  
Eating and Drinking, is Very serviceable;. but. a Milk-diet  
and Honey are the greatest PreVen tatives; not only of inflam-  
mation, but perhaps sometimes, too, ***of.***the farther Accretion  
of the Stone, . .-..j ....... : Ὕ. ' ι . : : .

. Froth considering the Disorders of the Stohe in this Light,  
and the .frequent Intervals of Ease which happen without the As-  
sistance of Medicine, we canriot wonder,\_ that so many Pa-  
tients have believ'd the Stone dissolv’d, when they heve been,  
finder any particular Regimen; and that mall Ages there have  
heen many People deceiv’d sor a Length of Time; by.a sup-  
poindJDiflolvcht, tho'hitherto no safe one has been discover'd;  
***Sharp. ... ;*** i ’ - .......

. Many- Authors have pleased themselves with comparing the  
Animal Calculus with-Tartar, and in finding out some. Re-  
semblance betwixt them- But I know no two Substances in  
Nature which can differ more widely than these two, both.  
with respect to their Generation and Analysis. The only.  
Circumstances wherein they agree, are their generating alike  
large Quantities of elastic Ast, and their containing some  
Earth, tho' Tartar contains hut a very little: As to their Ge-  
Deration, Tartar is the Offspring of Fermentation ; whereas  
no such thing can happen in the Animal Fluids. And, who-

fever compares the Analysis of Tartar (fee **TARTARUS)**.-with the following Analysis of a *Calculas,* will readily per-  
ceive bow different they are in then Composition. Tartar is  
an Acid; but no Portion of an Acid can by any means be  
discover’d in a Calculus.

DI. *Slare* fays. We distilled one Ounce of human Calcu-  
lus that was'recently cut out of a Body, which afforded aheut  
two Drams of a brownish Spirit, nearer to thet of Hartshorn,  
chan Urine. We put the Caput Mortuum upon the Capel,  
and reduc’d it to near *2.* Dram the rest hurraing and stnoak-  
ing away. Another time, we distilled in a naked Fire a Stone  
that weigh’d two Ounces ; .the Vapour came over upon **a**good Stress *of Fites* and settled in the Form of Salt without  
any Liquor, of which we preserv’d only a Dram it appear'd  
very brown, and tasted bitter, as the fetid Oil of Hartshorn,  
and other empyrcurnatical Oiis, do. We examin’d by boiling  
and evaporating Water from the Caput Mortuum, whether it  
held any fix’d Salt, but found none. The Caput Mortuum  
weigh’d one Ounce, and six Drains; so thet it lost only two  
Drams in the Distillation, that is, only two Drams came  
over the Helm: We proceeded farther, and placed the Caput  
Mortuum upon a Test in.an open Fire, where is burnt away  
to two Drams forty-four Grains. This we also boiled in  
Water to see what Salt it held;. but it scarce afforded a Taste  
of Salt, hardly surmounting that we usually find in the like  
Quantity of common Water, in this fiery Trial, an Ounce  
and three Drams of the two Ounces evaporated in the open  
Fire, (a materiel Circumstance, which Chymists rarely inquire  
after) of which we heve no Account. *Phil. Transc Alm. Vol. gi.  
'Ds. Hale* fays. That the greatest Part of this is raised into per-  
manently 'elastic Air., ~'

-- As.to the Production of Stones in the Body, if we refledi  
upon what is sain under the Article ART HRiTrs, -with respect  
to the Generation of the Gouty Matter, and consider; at the  
fame time, the great Affinity there is betwixt the Gout and  
Stone, and that either of there frequently is transmuted into  
the: other, we may perhaps have Reason to helieve, thet the  
Causes of both are a Defeci in the Solution of the earthy Par-  
tides of our Aliment by the Powers os Digestion ’; and if it  
happens, than the Sedentary, Luxurious, and Idle, are more  
subjecti to the Stone, than the Active, Temperate, and -Labori-  
ous, it will be a farther Confirmation of its being generated  
in this manner: Thet Children also, - who ufe but little Exer-  
cise, and whose Stomachs are lax and weak, are often afflict-  
ed with the Stone, seems to savour-this Opinion.

... Upon this Occasion I cannot omit a beautiful Observation  
of *Boerhaave,* who, speaking of Menstruums, says thus ; The’  
earthy Bodies, when corroded by Acids, may he dissolv’d in  
Water, Alcalies, when intimately united with Earth, cannot  
be afterwards dissolv’d with Water, ’ as plainly appears in Glass,  
which consists of an Alcali, and an Earth, intimately united,  
and is less soluble in Water, the closer the Union; So great is  
the Difference between the Solution os' Earth by one kind of  
Salt and another. Alcalies, we see, subtilely dissolve Earth into  
a fix’d, transparent, bard Body, which resists the dissolving.  
Power of Water, more than any other Body ; but it- appears  
stranger still, that the subtile, volatile, alcaline Salts of Ani-  
mils, intimately united with Earth, should form a Mass on-  
dissolvable in helling Water ; for the Stones generated in Ani-  
mais I take to consist of these two Principles and Oil ; and  
in whatever Part of the Body such Stones are generated, they  
commonly produce terrible Effects i as having a Power of at-  
tracting and joining to themselves a similar Matter, from such  
Animal Juices as approach nearest to Putrefaction, as the Bile  
and Urine , which containing Salts nearly alcaline, these Salts  
unite to themselves the fine Earth, -wore off from the Parts of  
the Body; and thus lay the Foundation os new Stones,- or on-  
large the old ones; and hence the daily Increase of this mon-  
strous Production, which brings on terrible Disorders.

Hence we may perhaps deduce the Reason, why the Auther  
of Nature has made nearly all the Aliments-of Animais in-  
cline to Acidity ; for the acid Salts, on this Account, predo-  
minating in the Stomach, dispose such Aliments to dissolve  
. more easily, whose firmer Parts cohere principally by means of  
Earth ; whence they would otherwise with much more Diffi-  
culry be dissolv'd into fluid Chyle. But when afterwards a  
Matter is to he form’d of this Chyle, fit to bind the Solids to-  
gether, the Tendency to Acidity, which was necessary in the  
Chyle, is changed, and analcaline Tendency of the Salts in-  
troduced; which, by binding the earthy Particles, forms a  
Struilure indissoluble inWater, and fit to resist the Action of the  
Fluid. At least we know, that Bones remain solid and firm, if  
steep’d in Alcalies; hut grow foft and flexible, if detain’d in  
Acids; as rhe ingenious Mr. *Ruyseh* has often assur’d me, he  
found in his Anatomical Experiments. And doubtless, -when  
the Power of changing Acefcents into Alcalles is wantiog in  
the Body, the Bones, Cartilages, Teeth, and Ligaments, be-  
come soft, weak, loose, and flexible, as **we** daily **see** in **the**Rickets. *BserhaavstsGhymestry. ... -- -*

It would be inexcusable, if I was to omit taking Notice of  
Mrs. *Struenda* Medicine for the Stone, as it was thought of  
Importance enough to merit the Consideration of the Legisla-  
ture. I shall therefore give it in her own Words, as pub-  
lish’d in the *Gazette.*

*Mrs.* Stephens’s *Medicine for the* StoriE:

It consists of a Powder, a Decoction, and Pilis.

*The* **PowDER** *is thus prepar'd.*

Take Hens Egg-shells well drain’d from the Whites, dry  
and clean, crush .them small with the Hand, and fill a  
Crucible of the twelfth Size (which contains nearly three  
Pints) with them lightly ; place it in the Fire, and cover  
it with a Tile; then heap Coais over it, thet it may be in  
the midst of a very strong clear Fire, till the Egg-shells  
be calcin’d to a greyish White, and acquire an acrid, salt  
Taste : this will take up eight Houts at least. After they  
are thus calcin’d, put them into a dry clean earthen Pan,  
which must not be above three Parts full, thet there may  
- ; be room for the Swelling of the Egg-shells in staking. Let  
the Pan stand uncover’d in a dry Room for two Mouths,  
and no longer. In this time the Egg-shells will become  
of a milder Taste, and that Part which is sufficiently cal-  
.cin’d will fall into a Powder of such a Fineness, as to  
puls’thro’a common Hair-sieve; which is to be done  
accordingly. - - v- - « - '

In like manner; ,

Take Garden-soails with their Shelis, clean’d from the Dirt;  
fill a Crucible of the-fame Size with them whole; cover  
it, and place in in a Fire as before, till the Snails have  
done smoking, which will be in about an Hour, taking  
care, thet they do not continue in the Fire after" that.

-' '"They are then to he taken out of the Crucible, and im-  
mediately rubb’d in a Mortar to a sine Powder, which'

: "- - ought to be of a very dark-grey Colour. ' "

*Nate,* If Pit-coal he made ufe of, it will be proper, in order  
that the Fire may the sooner burn dear on the Top, that large  
Cinders, and not fresh Coals, he plac’d on the Tiles which;  
cover the Crucibles. .........

These Powders heing thus prepar’d, take the Egg-shell  
Powder of six Crucibles, and the Snail Powder of one;' med  
them together, rub them in a Mortar, and pass them thro’ a  
Cypress-sieve. This Mixture is immediately to be put up  
into Bottles, which must be close stop’d, and kept in a dry  
PlaceTor Use. I heve generally added a small Quantity of  
Swines-cresses burnt to n Blackness, and rubbed fine, but this  
was only with a View to disguise it.

The Egg-shells may be prepar’d at any nine of the Year ;  
but it is best to do them in Summer. The Snails ought only  
to he prepar’d in *May, June, July,* and *August,* and I  
esteem those best thet arc done in the first of-these Months.

*- -1The* Decoction *is that preparde*

Take-sour Ounces and a half of the best .Alicant Soap, beat  
itin a Mortar, with a -large Spoonful of Swines Cresses  
burnt to *a* Blackness, and as much Honey as will make  
the Whole of the Consistence of Paste; let this be form’d  
into a Ball. Take thisEall, and green Chamomile, or  
Chamomile-flowers, sweet Fennel, Parfley and Burdock-  
leaves,-of each one-Ounce; when there are not Greens,  
take the fame Quantities of Roots ; cut the Herbs or  
Roofs, slice the Ball, and hell them in- two Quarts of  
soft Water half; an Hout; then strain it off, and sweeten  
.... it with Honeys,-- -τμ - ' - ττ’’ ‘‘ . 'μ

*The* **PILLs** *are thus prepar'd.*

Take equal Quantifies, by Measure, of Snails calcin’d as he-  
fore; of wild Carrot-seeds, Burdock-seeds, Ashen-keys,  
Hips and Haws, all burnt to a Blackness, or, which is **the**fame thing, till they heve done sinoking; mix them to-  
gether, rub them in a Mortar, and pass them thro’ *sc*Cypress-sieve; then take a large Spoonful of this Mixture;  
and four Ounces of the best Alicant Soap, and beat them  
in a Mortar, with as much Honey as will make the Whole,  
of a proper Consistence *for* Pills, sixty of which are tat  
be made of every Ounce of the Composition. When:  
there is a Stone in the Bladder or Kidneys, the Powder  
is to be taken three-times a Day/ *viz.* in a Morning aster.

' Breakfast, in the Afrernoon about five or fix, and at gof  
ing to Bed. The Dose is a Dram Avoirdupois, of 36-  
--Grains, which is to be mix’d in a large Tea-cup full of

White-wine, Cyder, or small Punch; and half a Pint of

the Decoction is to be drank, either cold or. Milk-warm,  
after every Pose. . . ‘ io *'A.'.* Ψ ' ' - t ἐν νύ.

These Medicines do frequenti/ cause much Pain at' first,  
in which Case it is proper to giveim Opiate, arid repeat it as  
often as there is Occasion. . .ssssss"’-' εἴ ῖ’’ῖτ τ\.’  
- Is the Person he costive during the Use os them, let him  
take as much lenitive Electuary,-or. other laxative Medicine,  
as may he sufficient to remove that .Coinplaint, but not morel;  
for. it. must be a principal Care at all times Io prevent a Loose-  
ness, which would carry off the . Medicines ; ’and if this 'does  
happen, it will, be-'’proper.to increase the Quantity of'the  
Powder, which is-astringent, ’ or Ieffensthat of .the Decoction,  
which is laxative, or take some other suitable Means by the  
Advice os Physicians. -

During the Use of these Medicines, the Person ought to  
abstain from salt Meats, Red-wines, and Milk, drink sew Li-  
quids, and use little Exercise, that so the Urine may he the  
more strongly impregnated with the Medicines; and the longer  
retain’d in the Bladder.

If the Stomach will not bear the Decoction, a sixth Part of  
the Ball made into Pilis must he taken after every Dose of  
the Powder.

Where the Person is aged, of a weak Constitution, or much  
reduc'd by Loss of Appetite, or Pain, the Powder must have  
a greater Proportion os the calcin'd Snails than according to the  
foregoing Direction; and this Proportion may be increased  
suitably to the Nature os the Case, till there be equal Parts  
of the two Ingredients. The Quantity also of both Powder  
and Decoction may be lessen’d for the same Reasons. But as  
soon aS the Person can bear it, he should take them in the above-  
mention’d Proportions and Quantities.

Instead of the Herbs and Roots aboVe-mention'd, I have  
sometimes used others, aS Mallows, Marshmallows, Yarrow  
both red and white. Dandelion,Water-cresses, and Horse-radish  
Root; but do not know of any material Difference.

This is my Manner of giving the Powder and Decoction.  
As to the Pills, their chief Use is in Fits of the Gravel, at-  
tended with Pain in the Back, and Vomiting, and in Suppres-  
sion os Urine, from a Stoppage in the Ureters. In these  
Cases, the Person is to take five Pilis every Hour, Day and  
Night, when awake, till the Complaints be remov'd. They  
will also prevent the Formation of Gravel, and Gravel-stones,  
in Constitutions subject to breed them, ίξ ted on fifteen be  
taken every Day. Thus far Mrs. *Stephens.*

In order to form a just Judgment of these Medicines, it is  
necessary to know, that Shells by Calcination are converted  
into a Lime ; and that a Lixivium of Lime is a principal in-  
gredient in Alicant Soap.

I find these Medicines are at present in much Disrepute. But  
as I am to give my Sentiments upon them undisguised, and  
without being biassed by any Authority whatever, I shall give  
my Reasons for believing them os some Efficacy, tho’ I have  
never seen any remarkably good Effects from them.

My first Reason is. That the principal Ingredients in these  
Medicines are recommended for the Stone, by Authors of the  
first Reputation. Thus *Hoffman* speaks of Egg-shells and  
Mother os Pearl ; and *Boerhaave* prescribes Soap, as we have  
seen above.

My second Reason is, Thet they have indisputably been os  
great Relief to many Persons afflicted, before taking them,  
with the most exquisite Tortures from the Stone. I say, indis-  
putably; hecause, to doubt it, would be paying a Very bad  
Compliment to the Understanding and Honour of many Gen-  
tlemen . of known Integrity, who were appointed by Parlia-  
ment to inspect into,, and who afterwards gave their Opinion  
in Favour of, these Medicines.

My third Reason is, Thet I have known in several Instances,  
great Effects produc'd by a Medicine, which seems to be near-  
ly os the same Nature with those of Mrs. *Stephens,* as it con-  
fists of Lime made of Oyster-shells. The History os it, so sar  
as I am acquainted with it, is thus. Mr. *Scbwemberg,* a *German*'Gentieman, extremely well Versed in the most abstruse Ope-  
rations of Chymistry, has a Method os melting, by the Help  
of a Flux, calcin’d Oyster-shells, so as to make them run like  
Wax, and to admit of being cast into Cakes, which dissolve  
*por Deliquium* into a Fluid; this, when filtred, is limpid as  
Rock-water, and extremely alcaline, tho' not corrosive ; and,  
which is pretty surprising, will, upon the Astisston of an  
Acid, be entirely converted into a Snow-white Powder.  
Twenty-five or thirty Drops of this Liquid, taken twice a  
Day in Water, I haVe frequently known -to afford great Re-  
lief in nepbritic Disorders.

My fourth Reason is. That a Lixivium of Lime will dissolve  
human Stones, when out of the Body.

My fifth Reason iS, That Lime seems to be, in general, a  
powerful Dissolver of earth, and earthy Concretions. Thus  
Lime produces a great Fertility, when herd upon the most bar-  
ren kinds of Land, as Gravel; that is, it helps to dissolve the

large Particles of Earth, and prepares it for furnishing Mattei  
fora subsequent Vegetation. Hence it happens, that what  
*Bocrhaave* remarks in the Passage quoted above,. in regard, to  
Alcalies uniting with Earth, and rendering jt indissoluble, does  
not hold good with respect to the Salt -of Lime, which is an  
Alcali *sui gencris,* and in’ many Instances different, as to its  
Properties, from all others. See CALx. . τε.

I shall conclude this Article with remarking,, that; as, in all  
Cases whatever, the principal Duty *os* a. Physician consists in  
diffinguishing accurately one Distemper froni another; so, parti-  
culariy with respect to the Stone, he must take .careurot to be  
deceived ; for there are three Distempers, which mimic so ex-  
actly the Stone of the Kidneys, Ureters, and sometimes even  
of the Bladder, that-It is not easy for a Person, not well versed  
in these things, to distinguish some Symptoms of these from  
the genuine Stone; I mean the Gout, latent intermitting Fe-  
vers, and Hysterics. And, indeed, it is of great Importance,  
in the Practice of Physic, to distinguish the Symptoms  
caused by. these three Distempers, when they seize upon  
any of the Viscera, from the genuine Disorders to which the  
Part is otherwise subject; for the Kidneys, Ureters, and  
Bladder, are not the only Parts subject to their irregular At-  
tacks.

As to the Gout, when it fixes upon tho Region of the Kid-  
neys and Loins, and imitates the Stone, or when it affects the  
Neck of the Bladder, it must be distinguish'd from the Stone,  
by carefully comparing the Patient's Complaints with the Sym-  
ptoms of the genuine Stone above enumerated ; in which I have  
been designedly Very full, and given them from different, and  
those the best. Authors, that they maybe View'd in every Light.  
The Constitution of the Patient is also to be taken into Con-  
sideration, which, if gouty, gives an useful Hint to the Physi-l  
cian; and the Unsuccessfulness of Remedies, which usually re-  
lieVe in the Stone, lay a strong Suspicion, that the Disorder may  
heve another Cause. *See the Quotation above from* Hoffman.

As to Hysterics imitating the Stone, *Sydenham* has observ'd,  
and since him, I believe, every Physician concern'd in much  
Practice, that sometimes this Disease seizes one of the.Kidneys,  
where, hy the Violent Pain it occasions, it entirely resembles a  
Fit of the Stone, not only with respect to the kind os Pain,  
and the Part affected, but likewise by the violent Vomiting  
wherewith it is accompanied, and the Pains extending thro  
rhe whole Duct os the Ureter: So that 'tis hard to distinguish,  
whether the Symptoms are from the Stone, or an Hysteric Diss,  
order; unless, perhaps,"someMisfortune having depressed the  
Woman's Spirits, a littie before the Disorder came on, or the  
Discharge of green Matter by Vomit, should shew that the  
Symptoms are rather to be ascrib'd to an hysteric Disorder than  
the Stone. The Bladder also is occasionally affected with this  
delusory Symptom, causing Pain, and a Suppression os Urine,  
aS in the Case of an Obstruction of the urinary Passages from  
a Stone. This last Species rarely happens, but the former  
more frequently. Both usually attack such Women as are  
greatiy debilitated by frequent hysteric Fits. *Sydenham.*

The Constitution of the Patient, and the Symptoms, are  
to be accurately consider'd in this Case, aS well aS in nephri-  
tie Symptoms proceeding from the Gout. This Disorder I  
have frequently known instantly remov'd by Bleeding, with-  
out any ill Consequences, notwithstanding the Cautions given  
by some practical Writers against bleeding in Hysterics. See  
**HYSTERICA.**

AS to intermitting Fevers imitating the Stone,' and other  
Disorders, it is remarkable, that the general Use of the *Peru.,  
vian* Bark has introduc’d many anomalous Symptoms of these  
Fevers utterly unknown to the Antients. . These Irregularities  
were,’ so far as I know, first taken Notice of by *Morton, in*his most excellent Dissertation, *de P rot siser mi Febris intcrmisu  
tentis Genio y* where there are many important Observations, so  
strictly genuine and true, that a Physician must have practis'd  
to Very littie Purpose, is he has not almost daily observ’d Cases  
which strongly confirm them. It seems as if the Bark, by sti-  
fling, and not carrying off the Disorder, leaves in the Blood  
a Portion of the morbific Matter, which causes the Fever; or  
which, to use the Language of *Sydenham,* Nature raises a Fe-  
ver, in order to expel. Now this is, in the Course os tho Cir-  
culation, convey'd to, and deposited upon, one or other of the  
Viscera, there causing the Symptoms which are raised by any  
other Obstructions, or spasmodic Constrictions, in the same Part;  
Hence Fevers, which have been treated with the Bark, fre-  
quently afflict the miserable Patient for many Years, from  
time to time, under the Mash of other Disorders. But, to -do  
Justice to a Remedy now in so great Reputation not altogether  
undeservedly, I must confess, that these irregular Symptoms  
sometimes precede its Exhibition, and even constitute the very  
first Scene of the Tragedy, before the Fever has shewn itself  
to be what it really is:

In order to distinguish these Cases, regard is to be had to  
the genuine Symptoms attending Disorders os the Part affected,  
to the Constitution, and the Inefficacy of Remedies which

**usually relieve. If a PeVcr has Preceded, which was treated  
with the Bark, the’ many Years hesore, it lays a Foundation  
for suspecting that to he the latent Cause, especially if it has fre-  
quently returned, and as osten been treated with the Barin  
But if a Sediment of a Pink-colour subsides to the Bottom of the  
Urine, or the Pain is periodical, it puts the Case out of Diss  
pure.’ It often, however, happens, that tho’a latent Fever is  
the Cause of the Complaints, yet at first there is no Separation  
in the Urine, nor do the Symptoms recur at any regular Pe".  
riods; but, after prudent Evacuations, the Periods generally  
hecome more regular, and the Disease betrays its Family by  
the Sediment above described. The Method, therefore, is to  
take away some Blood ; aster this, to give one lenient Purge,  
or more, if necessary. The Alteratives should consist princi-**

**pally of neutral Salts, either natural, as Nitre, or artificial, as  
Juice of Lemons with Salt of Wormwood, disus'd Vinegar  
with volatile Sal Ammoniac, and some simple Water as a Ve-  
hide, and an Addition of a proper Syrup to make it agreeable ;  
the *Terra Foliata Tartari,* Otherwise call’d *Tartarus Regencra-  
ius* 5 *Tartarus Tartarifatus* ; but, above all, the *Tartarus Vitrsu  
olatus,* perfectly neutraliz'd, according to Ἔςπὸσσϋε’δ Method.  
Such a Treatment will very seldom fail to make the Disorder,  
if caused by an Intermitting Fever, appear in its proper Form ;  
and then the *Peruvian* Bark, if it should be judged proper, will  
generally cure.it; or a Continuation of the same neutral Salts,  
with lenient Purges, intercalated at proper Intervals, will *gene-  
rally* perform a Cure, especially if assisted with Blisters, if ne-  
ceffary, and nothing forbids their Use. '**

***SND of*** VOL L