





THE
W R I T I N G S
HIPPOCRATES AND GALEN.
EPITOMISED FROM THE ORIGINAL LATIN TRANSLATIONS,

BY

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SCIENCES OF COPENHAGEN, ETC.

Multa renascentur.

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By JOHN REDMAN COXE, M. D.,

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TO THE READER.

THE writings that have reached us under the name of Hippocrates, the so-called “Father of Medicine,” occupy more than a thousand folio pages in the edition by Fæsius. Those attributed to Galen are still more voluminous, embracing no less than six or eight immense folios. It may, from this plain statement, be readily conjectured, how impossible must be the attempt to convey even a tolerable idea of them, in the small compass of a few hundred octavo pages.—A perfect comprehension of the full value of both these literary and scientific works can only be attained by referring to the original writings, or to a complete translation.

With the exception of a few of the Hippocratic treatises, an *English* translation has never appeared. Of the writings of Galen, not one has received that form, for the benefit of the English reader. And yet the names of both these great men are familiar to our ears, as though they were the daily companions of our medical researches. Our teachers refer to them ex cathedra; our books continually quote them; and yet, not

one in a hundred of the Profession, at least in America, have ever seen them, and if interrogated, could not inform us of what they treat.

From what is thus said, it will appear evident to every reflecting mind, that the only object of the Editor, is that of affording a slight view of the subject-matter of the extensive treatises of these venerable writers; too slight indeed to constitute even an imperfect idea of a tithe of their merits, yet enough, he hopes, to give an impulse to a further research of their interesting pages. It is not creditable to the Profession, either of Great Britain or America, that a full translation of both these authors has never yet been given to the English reader! and that, in America at least, even in the original Greek, or Latin translation, so few copies are to be found, whilst hundreds of contemptible works are annually issuing from the press, to lumber up our shelves, and to pass into oblivion. Few are the authors of the present day, who attend to the Roman poet's important precept, of "Nonum prematur in annum." Scarcely has the student escaped from his alma mater, when he deems himself qualified to become an author, and straightway gives to the world a learned work, purloined from the "*Dictionnaire des Sciences Médicales*," or some analogous production, on some disease he has never seen, but quoting authorities of ancient date, apparently familiar as his household gods!

The gratification I have experienced in looking over the writings of these pioneers of medicine, has led me to believe that even this imperfect exposition may be acceptable to many; and that more especially, since few are likely to possess them in their complete and perfect form; yet it is necessary again to repeat, that to estimate the whole by this defective abstract,

would be like one who judged of the character of a building by examining a brick which formed a fractional part of it. I have therefore to request all due allowance for this attempt to introduce to my contemporaries, a few faint traces of their medical progenitors, who lived two thousand years before them.

To enable the reader to judge of the difference of opinion that has existed, with respect to the writings that have reached us under the name of Hippocrates, amounting to nearly seventy in number ; I have given the arrangement by three editors, viz., Fœsius and Haller, in their Latin translations, and of Gardeil, in a French one ; by which it will be seen, that no entire agreement between them is to be found. One thing alone seems evident, viz., that of these seventy treatises, about twelve or fourteen only, are uniformly attributed to this illustrious man. The others are variously ascribed to his son, his son-in-law, or to writers anterior or posterior to him. The arrangement I have myself pursued, is that of Fœsius ; not from any particular predilection, but from the accidental circumstance of his edition being the first that came into my possession, long before I even knew that the others had translated these writings. My copy of Fœsius bears the date of 1624,—that of Haller, 1775,—and that of Gardeil, 1801. Since then, an edition has been given by Kühn, in 1825, in which he chiefly follows Fœsius, with few alterations. Fœsius has abundant notes on nearly every treatise, besides forty or fifty pages of “various readings,” from numerous commentators, but which would apply solely to a full translation, and therefore altogether unsuitable to the nature of this work.

As this abstract was originally formed for personal convenience, and without the remotest view of ever committing it to press, I have additional reason for requesting the indulgence of my readers for any errors they may find therein. I am now too far advanced in life to again retrace the immense folios, which, thirty years ago, afforded me so much pleasure, but which at present I can merely recur to for occasional reference; and I regard this outline but as a pioneer, to aid perhaps the labours of a younger and more accomplished translator of the entire work.

JOHN REDMAN COXE.

Philadelphia, Sept. 16, 1846.

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ARRANGEMENT OF THE WRITINGS OF HIPPOCRATES.

By Fæsius.—Under Eight Sections.

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- Hippocratis Jusjurandum.
Hippocratis Lex.
De Arte.
De Prisca Medicina.
De Medico.
De decenti Habitu, aut decoro.
Præceptiones.

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- Prænotionum Liber.
De Humoribus.
De Judicationibus.
De Diebus Judicatoriis.
Prædictorum,—Libri 2.
Coacæ Prænotiones.

SECTIO 3.

- De Natura Hominis.
De Genitura.
De Natura Pueri.
De Carnibus.
De Septimestri Partu.
De Octimestri Partu.
De Superfætatione.
De Dentitione.
De Corde.
De Glandulis.
De Ossium Natura.
De Aërc, Locis, et Aquis.
De Flatibus.
De Morbo Sacro.

SECTIO 4.

- De Salubri Victus Ratione.
De Victus Ratione,—Libri tres.
De Insomniis.

De Alimento.

- De Victus Ratione in Morbis Acutis.
De Locis in Homine.
De Liquidorum Usu.

SECTIO 5.

- De Morbis,—Libri 4.
De Affectionibus.
De Internis Affectionibus.
De his quæ ad Virgines spectant.
De Natura Muliebri.
De Mulierum Morbis,—Libri 2.
De his quæ Uterum non gerunt.
De Videndi Acie.

SECTIO 6.

- De Fracturis.
De Articulis.
Vectiarium.
De Ulceribus.
De Fistulis.
De Hæmorrhoidibus.
De Capitis Vulneribus.
De Fœtus mortui exsectione.
De Corporum resectione.

SECTIO 7.

- De Morbis Popularibus,—Libri 7.
Aphorismorum, Liber.

SECTIO 8.

- Epistolæ aliquot.
Athenensium Senatus-Consultum.
Oratio ad Aram.
Thessali Legati Oratio.
Genus et Vita Hippocratis, Sorani.

ARRANGEMENT OF THE WRITINGS OF HIPPOCRATES,

By Haller.—In 4 vols. 8vo.—Lausanne, 1775.

Tomus primus continet

1. Hippocratis librum de Acribus,
Aquis, et Locis.
2. De Natura Hominis.
3. De Locis in Homine.
4. De Humoribus.
5. De Alimento.
6. De Morbis Popularibus, lib. 1.
7. De Morbis Popularibus, lib. 3.
8. Prognosticon.
9. Prædictionum, libri duo.
10. De Victus Ratione in Morbis Acutis,—Libros 4.
11. De Fracturis.
12. De Articulis.
13. Mochlicus.
14. De Capitis Vulneribus.
15. De Officina Chirurgi.
16. Aphorismorum,—Sectiones septem.

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1. Hippocratis librum de Corporum resectione.
2. De Carnibus seu Principiis.
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4. De Corde.
5. De Glandulis.
6. De Genitura.
7. De Natura Pueri.
8. De Septimestri Partu.
9. De Octimestri Partu.
10. De Superfætatione.
11. De Dentitione.
12. De Prædictionibus.
13. Coacæ Prænotiones, sectiones tres.
14. De Judicationibus.
15. De Diebus Judicatoriis.
16. De Morbis Popularibus, lib. 2.
17. “ “ “ lib. 4.
18. “ “ “ lib. 6.
19. “ “ “ lib. 5.
20. “ “ “ lib. 7.
21. De Adfectionibus,—Sect. 3.
22. De Internis Adfectionibus,—Sect. 3.

Tomus tertius continet

1. Hippocratis librum 1, De Morbis.
2. “ ejusdem librum 2.
3. “ ejusdem librum 3.
4. “ ejusdem librum 4.
5. Muliebrium, lib. 1.
6. Muliebrium, lib. 2.
7. De Natura Muliebri.
8. De Sterilibus.
9. De Morbis Virginum.
10. De Morbo Sacro.
11. De Insania.
12. De Flatibus.
13. De Visu.

Tomus quartus continet

1. Hippocratis de Sanorum Victus Ratione, librum 1mum.
2. “ ejusdem, librum 2dum.
3. “ ejusdem, librum 3tium.
4. De Victus Ratione Salubri.
5. De Insomniis.
6. De Ulceribus.
7. De Fistulis.
8. De Hæmorrhoidibus.
9. De Veteri Medicina.
10. De Arte.
11. De Medico.
12. De Dcenti Habitu.
13. Præceptiones.
14. De Lege.
15. De Jurejurando.
16. De Hominis Structura.
17. De Natura Hominis.
18. De AEtate.
19. De AEtate, Fragmentum.
20. De Septimestri Partu.
21. De Significatione Vitæ et Mortis secundum motum Lunæ et aspectus Planetarum.
22. De Liquidorum usu.
23. De Medicamentis Purgantibus.
24. De Veratri usu.

- | | |
|---|---|
| 25. Antidotos.
26. De cæxsectione Fœtus.
27. De Re Veterinaria.
28. Epistolas.
29. Vitam ex Sorano. | 30. De Vita et Familia Scriptisque Hippocratis testimonia.
31. Fragmenta et Elogia.
32. Consentientia.
33. Contradicta et Defensa. |
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ARRANGEMENT OF THE WRITINGS OF HIPPOCRATES,

By Gardeil.—4 vols. 8vo.—Toulouse, 1801.

Gardeil divides his translation into two parts. The first comprises only those treatises that are uniformly attributed to Hippocrates; the second part contains such as are ascribed to either his son, Thessalus, or to Polybius, his son-in-law.

Partie première, *savoir*,

- | | |
|---|---|
| Des Prognostics.
Des Humeurs.
Des Prédictions.
De la Nature de l'Homme.
Des Airs, des Lieux, et des Eaux.
Des Alimens.
Du Régime dans les Maladies Aiguës.
Des Lieux dans l'Homme. | Du Laboratoire du Chirurgien.
Des Fractures.
Des Articles.
Le Mochlique.
Des Plaies de la Tête.
Des Épidémies, liv. 1er.
" " " liv. 3me.
Aphorismes. |
|---|---|

Partie seconde.

- | | |
|--|---|
| Le Serment.
La Règle.
De l'Art.
De l'Ancienne Médecine.
Du Médecin.
De la Décence.
Les Avis.
Des Crises.
Des Jours Critiques.
Prédictions.
Coaques.
De la Génération.
De la Nature de l'Enfant.
Des Chairs.
De la Grossesse de sept mois.
De la Grossesse de huit mois.
De la Superfétation.
De la Dentition.
Du Cœur.
Des Glandes.
De la Nature des Os.
Des Vents.
De l'Epilepsie, ou Maladie sacrée. | De la Diète salubre.
Du Régime.
Des Songes.
De l'Usage des Liquides.
Des Maladies.
Des Affections.
Des Affections Internes.
Des Affections des Filles.
De la Nature de la Femme.
Des Maladies des Femmes, liv. 1er.
" " " " " liv. 2de.
Des Femmes Stériles.
De la Vue.
Des Plaies.
Des Fistules.
Des Hémorroïdes.
De l'Extraction du Fœtus.
De la Dissection des Corps.
Des Épidémies, liv. 2.
" " " liv. 4.
" " " liv. 5.
" " " liv. 6.
" " " liv. 7. |
|--|---|

A N A B S T R A C T
OF THE
WRITINGS OF HIPPOCRATES.

INTRODUCTION.

COULD man, as well as animals in general, invariably subsist in their natural state; in other words, if their functions always continued perfect in consequence of the perfect state of their organs, they would enjoy perpetual health, and disease being unknown, the objects of the physician could never have come into existence. This, however, not being the case, and disease from various sources springing up in his path, man necessarily was led to investigate the causes tending to such a change, and equally impelled to attempt the discovery of the means of relief. As experience could alone enlighten him on a subject so interesting to his temporal concerns, and as such experience could be elicited solely by observations, such observations long continued must have given rise to that science which is designated by the name of *Medicine*.

We stop not to inquire whether such knowledge proceeded from heaven, as was formerly imagined. However this might have been maintained in the early ages of the world, we must now be satisfied that reason and reflection gave the first impulse to those inquiries and researches, by which Medicine sprang into existence, and through which it has reached us in the state we find it. The Babylonians are even affirmed by Herodotus to have exposed their sick in public places, for the benefit of the advice of passers-by, who might have previously witnessed similar cases of disease, and hence be enabled to apply their experience for their cure. Strabo relates the same, not of the Babylonians alone, but likewise of the Egyptians and others; hence it appears, that although in the early periods of the world there might not be physicians strictly so called, yet that medicine, practically, was pursued even by the most barbarous nations; and although we read in fable, or history (then, and perhaps even now, not much more real), that the invention of medicine is attributed to some particular individuals, we are not to suppose that such persons were actually the first who pre-

scribed remedies, but rather that this honour was given to them, from their being among the first who particularly devoted themselves to medicine, and thereby excelled the common mass, by the superiority attained through experience more amply afforded.

If Adam and his immediate descendants were subject to the common laws of nature, disease from various causes must necessarily have produced its usual effects on their frame, and it cannot be supposed that attempts would not even then be made, and that most sedulously, from parental affection, to mitigate the sufferings that were conspicuous. Unquestionably then, in a limited view of the subject, medicine may be presumed to be coeval with the human race. Ages however probably elapsed before any individual could directly claim to be acknowledged as a physician; and, accordingly, we find but few recorded even remotely as such, or whose acquirements in this science have descended to us. We read of Bacchus, Zoroaster, Hermes, and others, who are supposed to be the same with some of the early noticed personages of Holy Writ: but speculation has been as endless as it is useless, in attempting to reconcile all the absurdities of remote antiquity, in which oral tradition was the sole intermedium of the preservation of knowledge.

In proceeding down the vista of nearly thirty centuries, or half the period since creation, little else than fable meets our research on topics connected with our professional history. Each nation claims for itself the origin of our science, and with equal justice might our aborigines do the same. The knowledge of all barbarous nations must necessarily be limited, and little else than blind empiricism must direct the progress of our science, under circumstances so unpropitious to its extension and permanent utility. We therefore pass them by, without even pausing upon Esculapius, who was regarded by the Egyptians as the pupil of Hermes, (to whom they attributed the invention of medicine,) but who was not the same with the celebrated Esculapius of the Greeks.

Among the earlier pretenders to this science, we find Melampus of Argos, who, from a shepherd, became celebrated for the cure of the daughters of Prætus, by the use of hellebore, baths, and charms; and received for his recompense the hand of one of the princesses, together with one-third of King Prætus's dominions. Nor is the centaur Chiron, the tutor of Achilles, less celebrated as a founder of our science, with equal probability to back his pretensions. His

pupils are among the most illustrious heroes of the fabulous age, as Hercules, Theseus, Telamon, Teucer, Jason, Peleus, and Achilles, all of whom were more or less acquainted with the healing art.

The Grecian Esculapius was however the first, or at least the most famous of all the presumed inventors of medicine. Galen has unfolded his history in the introduction to his writings, entitled "Medicus," and in other parts. Charms, enchantments, amulets, magic incantations, and such like means, appear to have constituted the basis of the therapeia of most of those early aspirants to medical celebrity. It is nevertheless presumable, that, although the birth of Esculapius is ascribed to Apollo, yet such an individual really had existence, and probably possessed uncommon attainments for his time. Enveloped in the mystifications of those dark ages, it is impossible to ascertain his real merits. He was regarded as a god, and as such worshipped by the Greeks, and subsequently at Rome; temples in abundance were erected to his worship; and his sons Machaon and Podalirius are immortalized by Homer, as being actively engaged at the siege of Troy. The latter is said to have first employed blood-letting, and among his children to have had one named Hippolochus, the reputed ancestor of Hippocrates.

My object in these few details of what had preceded Hippocrates in the way of his profession, and to which he unquestionably must have had access, is to evince that we are unwittingly led, unduly to estimate his pretensions, as though he were the actual father and great head of our exalted science. Now what is already stated is amply sufficient to show, that facts known and enumerated for centuries before him, were merely embodied into writing by him, in place, as previously, of being sustained chiefly through the medium of oral tradition.—What actual portion of those writings that have reached us under his name, belonged exclusively to him, it is impossible to say. I should myself judge but few, and that one of his chief merits consists in having afforded them, through his writings, a "local habitation and a name."

The fanciful and imaginative powers of the ancients are probably as well illustrated by the various names afforded to their medical divinities as by any other means, as evinced by the etymology of several of them. Thus, the sun, under the name of Apollo, is the presumed author of medicine; Esculapius, the asserted son of Apollo, is taken for the air; Hygeia, or health, is called his wife or daughter, because our health depends on the air we respire above

all things; *Æglè*, or light, denotes that air, illumined and purified by the sun, is the best of all; *Panacea*, and *Iäso*, or cure and universal medicine, signified that a good air cured all diseases; and so of the rest. But imagination is a poor guide in the mysterious approaches to the temple of medical science, and it is useless to occupy time in elucidating the views detailed under the histories of Medea, Circe, Cybele, Latona, and a host of other female divinities or enchantresses, with which our ancient medical legends abound: and I proceed, therefore, to afford an outline of our science from the period of the siege of Troy, in about the twenty-eighth century, to that of the war of Peloponnesus, near eight hundred years subsequently, that is, in the thirty-sixth century of the world.

During this prolonged period, according to Pliny, medicine remained concealed in thickest darkness, until Hippocrates brought it into view. Strictly speaking, this, however, was not the fact; for, during that interval, some of the most illustrious of the ancient philosophers existed, who first began seriously to attempt an explanation of the laws of physiology and of natural science. Such were Pythagoras, Empedocles, Democritus, and, generally speaking, the descendants of Esculapius, or the Asclepiades, from whom Hippocrates traces his descent.

These descendants of Esculapius have been reputed to have preserved in their family, uninterruptedly, the knowledge of medicine, and which, but for the loss of the writings of Eratosthenes, of Pherecydes, of Apollodorus, of Arius of Tarsus, of Polyanthus of Cyrene, and of others who had carefully written their history, we might have better known. From his own account, Hippocrates was the eighteenth in descent from Esculapius, which, fabulous as it may be, we must be content to receive. By some or other branches of this family, the schools of Rhodes, of Cnidus, and of Cos, were established; and from them sprung most of the philosophers who added so greatly to the reputation of Greece.

The first scientific labours in medicine, and the first traces of medical history are probably to be alone found in the philosophic schools of Greece; for although up to the period of the siege of Troy, as we have seen, little but fable is known as to medicine, and of that little nothing of importance; and although, from that period to the thirty-sixth century, that is for a period of about seven or eight hundred years, nothing has formally reached us as a medical treatise, until Hippocrates truly brought to light what was known

up to his time, yet the evidence of physiological research, of much anatomical and other knowledge, of the *materia medica*, of dietetics, of exercise and gymnastics, &c., as applied to medicine, is sufficiently extensive to point out the vast resources to which Hippocrates could have, and must have had recourse, to permit us to dignify him *exclusively* with those honourable, though specious appellations, by which his predecessors and contemporaries are entirely rejected, and himself unduly elevated. Nor can we believe that Hippocrates for an instant dreamed of assuming such a character, to the degradation of his predecessors, inasmuch as he has given us an express treatise “*De prisca Medicina*,” in which the preceding views of medicine are unfolded, and reference is frequently made to it in other of the treatises which under his name have come down to us.—We may cursorily indicate some of the individuals who preceded him, and notice some writings that have been ascribed to them.—Democedes, a contemporary of Pythagoras, Thales, Epimenides, who has been by some regarded as the author of the Cnidian Sentences ascribed to Hippocrates, as the Coan Prænotions have been ascribed to the physicians generally of the Coan school, anterior to Hippocrates, and of which school he was a member. Anatomy has been thought to have been known to many of them, and that in no inconsiderable a degree, since they practised surgery successfully. If we may judge from the writings of Hippocrates, they must have had a competent knowledge of osteology, of angiology, of many of the viscera, as the stomach and intestines, the liver, spleen, kidneys, bladder, uterus, diaphragm, heart, lungs, brain, &c., as well as of many of the more important humours of the body, and of the various excretions from its different parts.

Thales, the Milesian, who lived about A. M. 3330, has been regarded as the first who wrote on natural philosophy, which would seem to imply some acquaintance with medicine, and to Pherecydes of Scyros, his contemporary, has been attributed one of the books on Diet, to be found among the writings of Hippocrates. Pythagoras, by far the most celebrated of the ancient philosophers, according to Celsus, was the oldest of those who joined the study of medicine to that of physics. He lived about the sixtieth Olympiad, or nearly A. M. 3420. His science was universal to its then extent, and his disciples were scarcely inferior in their attainments. All, more or less, appear to have pursued physiology, and to have

been more or less proficient in medical attainments. Empedocles, one of them, is said to have written on medicine not less than six thousand verses, and he was nearly contemporary with Hippocrates. Democritus, whose merits in comparative anatomy are attested by Hippocrates himself, was also his contemporary, and he wrote on the Nature of Man, which is the same title with one of the books ascribed to Hippocrates. He wrote also another on pestilential diseases, a third treatise on prognostics, a fourth on diet, a fifth on the causes of diseases, &c.,—and others on seeds, trees, fruits, and animals, and even one on the Stone. In short, the galaxy of science scarcely ever shone so resplendent by its cultivators than at this very point of time, when the illustrious Hippocrates began his career. Whatever then may have been the real value of the writings of Democritus, it is obvious they must have been a source of great advantage to the opening and observant genius of Hippocrates.—We may incidentally remark, that Columella quotes two books of Democritus, one on Agriculture, the other on Antipathies, in the latter of which he seems to have been the first to attach the powers of death and destruction to caterpillars and insects generally in our gardens, if a female in the menstrual period walks thrice around the borders, barefooted and dishevelled;—a ridiculous assertion, void of truth, but which is, perhaps, not even now altogether discredited.—Besides the above, Cælius Aurelianus speaks of two other books (Acut., lib. cap. 14-16, &c.) that passed under his name, but which he expresses doubts of;—one treated of convulsive diseases, the other of elephantiasis, in which bleeding is especially commended.

That Hippocrates had the highest esteem for this great man, cannot be questioned, from the facts that have reached us. Elian even remarks (Var. Hist. lib. 4, cap. 20) that on his account, Hippocrates wrote all his books in the Ionic dialect, although the Doric was his native idiom; and this fact, unquestioned I believe, has strongly led me to infer, that many of the books, even of those that have been absolutely ascribed to Hippocrates, are the writings of others given under the sanction of his name. I would not for an instant throw this aspersion on the character of this great man, were it not allowed by Galen himself, and by writers anterior to him, that very many of the books that have reached us under his name, are the absolute production of others; and that even of those ascribed to him, doubts have not been wanting as to which are really

such. Now, since certainty cannot here be attained, whilst at the same time conclusive evidence is produced that some called his are not so, I do not perceive that my veneration for Hippocrates should be questioned, because in a matter of uncertainty I hold the possibility of his having employed, or rather collected (for which we owe him thanks) into one work, the writings and opinions of those who preceded him. I shall not pretend to affirm, that, as literature then existed chiefly orally and traditionally, as we have seen, he was bound absolutely to point out his respective authorities, which might have been of extreme difficulty, if not altogether impossible; but that being of that vague description which forbid him to ascribe them positively to any particular individual, he might consider them as public property, and therefore made them his by embodying them into one general mass, for which accident alone has given him the sole credit. It is very certain that many of the remedies employed by Hippocrates had been in common use long before him, such as elaterium, colocynth, hellebore, and others; and the employment of such active articles certainly implies a considerable acquaintance with the Methodus Medendi, which only wanted the facilities of printing to have established a character for the Materia Medica of the age, but the want of which, necessarily devolved it on him to rescue it from oblivion, by embodying in his writings all the medical information that had reached him.

To condense what has been said above, it would appear, that at least during the first three thousand years of the world, all that has reached us, as to medicine, is chiefly fabulous, uncertain, and of little importance; that the discoveries made were few and superficial. Notwithstanding this, if medicine consists rather in effects than in words, and if the invention or discoveries of remedial means is more important than all our reasonings on disease, then it will be perceived, that the *first* physicians actually were intimate with what is even now considered most essential in our science, and that prior to Hippocrates they knew and employed almost all the important and fundamental means of cure which have reached our times. Thus all those ancient physicians esteemed bleeding and purgation as universal remedies, and employed them accordingly, even in those fabulous times, quite as familiarly as Hippocrates himself. They sedulously attended to diet, to bathing, and to exercise, which are not less deserving of attention at the present day, although far too much neglected. They were acquainted with the

effects of opium, if Homer is to be accredited, and apparently with specifics for many diseases.

All this, indeed, may be considered as being acknowledged by Hippocrates himself, for he expressly tells us “that medicine in all its branches had been long established ; that they had found out the principle, and the route of discovery as already had been done, of many excellent things which would serve for the further discovery of more, provided those that undertook the task were fitted for it, and, possessing a knowledge of what had already been done, should pursue a similar route. He, that rejecting all (he adds) that is already known, should pursue another plan for his researches, and boasts of having found out something new, deceives alike himself and others also.” Now this *ancient* route of which he speaks, is that of observation and experience ; and his remarks may be considered as a full acknowledgment of the important advantage his predecessors had been to him ; and had he been equally generous in specifying them individually, by naming his authorities, the remarks I have made would have been altogether inappropriate. Whatever merit then we may think fit to award Hippocrates, assuredly we ought not so far to forget the other great men by whose means he was enabled to reach the pinnacle of fame, as not even to grant them a niche in that temple, of which he was indeed the brightest ornament ; but in admitting his claims, which have thus rolled down the stream of twenty-three centuries, I think it must be conceded, that with the overshadowing I have thus presented, we cannot in the full force of the term admit, that the title of Father of Medicine is justly his due !—nor, indeed, of several other equally highsounding appellations, without encroaching on the rights of others ; especially since it is incontestably proved that many of those treatises we admire as his, have really emanated from other sources. We follow the routine of our forefathers in this respect, and yet scarcely with any of the well-grounded reasons they possessed. They actually read, and studied thoroughly his writings, whilst now, should he happily possess a nook in our libraries, it is almost the sole communication we have with this “divine old man.” We treat him as a deity by enshrining him where no mortal eye can reach him, and are satisfied to afford him at second-hand, the tribute which we suppose to be his due.

Galen has done ample justice to the merits of Hippocrates, by stating that he held the first rank among philosophers as well as

among physicians: assuring us that Plato rejected none of his opinions, and that the writings of Aristotle are chiefly commentaries on his philosophy, and that he himself had done nothing more than interpret Hippocrates and Plato. If this be true (exclusively of the vast merits of Aristotle on other points) assuredly his writings ought not to be neglected. Galen further remarks, that it is from Hippocrates and Plato that Aristotle has derived his doctrine of four primary qualities, viz.: hot, cold, dry, and humid. Hippocrates does not indeed speak in direct terms of these qualities; but he admits of four elements, air, water, fire, and earth, which he afterwards reduces to two, viz.: fire and water. Now these contradictions are presumed to be reconciled by the statement above detailed, that the various writings are mixed up with those of Hippocrates that are not his, for the book in which this appears, is one of those that very anciently was set down as supposititious. Hippocrates, however, recognised a general principle, by him called Nature,* and which is used in various senses by him; yet in all possessing great power, and superior to all others; acting through the medium of the faculties, its aids or servants: on the one side attracting what is good or expedient, on the other rejecting what may be superfluous or hurtful, and on these propositions turn nearly all the physiology of Hippocrates, which is meagre and threadbare, when compared with the extension it received from the expanded mind of Galen. To use the expression of Hippocrates himself, in his own hands, his theory is crude and unconcocted;—in those of Galen, it becomes a beautiful and imposing structure, almost the work of his own labour, based on the rude materials already existing, which, although ascribed in general to Hippocrates, are, as has been shown, when individually considered, almost without a parent, seeing that many of the books, which chiefly develope his system, are suspected not to be his (especially those entitled “De Flatibus,” “De Carnibus,” “De Natura Hominum,” “De Natura Pueri,” and “De Dieta,”)—it is consequently scarcely necessary to dwell on such apocryphal productions in order to swell the praise of Hippocrates, or to sing pæans, to what is, as it respects him, almost intangible.

We must not however omit to mention, to the credit of this illustrious man, that he was the first founder, if we may so say, of the

* See Le Clere, Hist. de la Med. p. 107. *Δυνάμεις*, faculté, pouvoir, force, vertu, propriété.

humoral pathology. Not that he troubled his head with the absurd distinctions since made as to solidism and humoralism; for he possessed too much good sense not to perceive that a mass of matters, constituting by far the largest part of the system, and in fact, the very part from which the identical lesser proportion itself had been derived, could not be independent of the causes of disease; that if excessive or defective in amount, or modified by any circumstances, or change of place, productive of an error loci, they could not fail of inducing disease proportionate to such modifications; and in the changes induced in these respects in the blood, pituita or phlegm, yellow bile and black bile, his four cardinal humours, Hippocrates founds a large proportion of morbid actions or diseases.

According to him, the body of man is composed of the above four substances, and it is by them that disease and health ensue. We continue in a state of health so long as they continue in a natural state, and in due proportion as to quantity, quality, and mixture. On the contrary, disease ensues when either of them is deficient or excessive in amount, when either separates from the other in any part of the body, or when all of them are wanting in their requisite qualities, or are not united together as they ought to be. If these positions assumed by Hippocrates do not constitute him a humoral pathologist, we are altogether ignorant of, or mistaken in, the real nature of the term; yet, with these forcible illustrations of his doctrines before our eyes, he is absolutely set down by many, as a supporter of the dogmas of solidism! If necessary, this might be entered upon in extenso, and more largely demonstrated, but it would be only a work of supererogation, which, perhaps, after all, would not satisfy the tenacious maintainers of sympathetic solidism and ventricular centralization! I will merely add, that passages in his writings would appear to indicate that he considered the bile and pituita to be the chief causes of disease by mixing with the blood, or from defect of quantity or quality, or relatively to the part in which they ought or ought not to mix or meet. The solid parts or the *containing*, are the subjects of disease and health, inasmuch as they are so, only according to the good or bad disposition caused in them by the humours and spirits, or the advantageous or unfortunate impressions made on them by foreign or external bodies. It is on these principles that Hippocrates lays such stress on the coction or crudity of the humours,—a matter of

no importance in the doctrines of solidism, or at least in only a secondary degree.

This coction of the humours requiring, according to his views, a certain definite period for perfection, led to the doctrine of crises or critical days, in which more particularly, certain changes were anticipated in disease ; and these anticipated changes give rise to and continue to afford the chief means of forming our prognostics as to the event. Now these prognostics of course can only be formed on the presence of symptoms ; and the attention of Hippocrates to symptomatology, is that which has chiefly gained him his title to immortality on the records of medicine. It is true much is absolutely false as to the prognostics he has left us ; or rather it should be said that we know not precisely his own, from the admixture of his successors and predecessors. Long as was his life, however, it is impossible but that much must have been derived from the previous experience of his Asclepiadean ancestors, rejecting what he found to be erroneous, and combining together only what conformed to his own practical knowledge.

His symptoms were derived from every source ; from the countenance, the eyes, the mode of decubitus, the motion of the hands, the loquacity or taciturnity of the individual, his respiration, watchfulness or somnolency, his excretions of all kinds, such as faeces, urine, sweat, crepitus, saliva, sputa, tears, &c., all considered in relation to quantity, quality, and the like. It has even been asserted by some writers that he employed the sense of taste to discriminate many ; this has, however, been denied by others, who affirm that if done at all, it was effectuated by the organs of the patient and not by his own.

One thing bespeaks greatly the independence of mind of this great man, viz.: that, although living in an age in which superstition constituted a large portion of the practice of the physicians, he did not yield to its influence ; his reasoning, his observations, and his remedies in no respect seem tinctured with this failing. He bled freely, and used purgatives of the most active nature ; diuretics and sudorifics were also employed by him ; but after all, his principal reliance was on dietetics, in which none have ever excelled him. Fomentations and other external measures were not omitted, both topical and general, and for the period in which he flourished, he may be considered as a bold practitioner. In surgery he appears to have been very proficient, and to have practised

many important operations. Even now, his sentiments and maxims relative to medicine and physicians in general, are not unworthy of deep regard.

Let us now proceed to a brief consideration of the illustrious Galen, whose works may be said with truth to have bound the medical world for many successive ages in a chain of adamantine strength, superior even to Hippocrates himself. Nor will any one be surprised at this who will even cursorily glance them over. Here, we see our way, and mark with astonishment the eagle-flight of this extraordinary man. His writings are confessedly his own; few adventitious books of others swell his pages, further, than as a commentator on his predecessors this was requisite, but for which he was fully qualified, from his persevering attachment to the study and pursuit of his profession.

He was born at Pergamos, in Asia Minor, a city celebrated for a temple dedicated to Esculapius, about A. D. 130—in the fifteenth year of the reign of Adrian. He lived to the age of one hundred, under Antoninus, Marcus Aurelius, Lucius Verus, Commodus, and Severus. His father Nicon was a rich and learned man, skilled in the belles-lettres, the philosophy, astronomy, geometry, and architecture of the times; and who spared no pains nor expense in his education, attending to it himself in the first instance, and then supplying him with the best preceptors. He studied first in the school of the Stoicks, next in that of the Academicians, then of the Peripatetics and Epicureans, so that he was fully qualified to judge of their respective merits. With this preliminary knowledge he commenced the study of medicine at the age of seventeen, and had in its pursuit several masters. In his youth he travelled much, as well to profit by the conversation of the best physicians, as to instruct himself respecting various medicines derived from different countries. He dwelt some years in Alexandria amidst the cultivators of science; then proceeded to Cilicia, Palestine, Crete, Cyprus, and elsewhere, passing to the Isle of Lemnos to investigate the properties of the Lemnian earth, at that period in high esteem: from thence he went to Syria to examine the opobalsamum, and at twenty-eight years returned to Pergamos, having acquired great skill in the treatment of wounded nerves, which he successfully pursued with the wounded gladiators of that place.

At the expiration of four years he went to Rome with the intent of there fixing himself, but the jealousy of the physicians drove

him thence in a few years: however, during his residence at Rome, he became intimate with different persons of consideration in rank or knowledge, which was apparently the principal source of the ill will of rivals for public favour. Leaving Rome at about the age of thirty-seven, he returned to Pergamos; but was soon recalled by Marcus Aurelius, and thenceforth continued to reside at or near the metropolis.—It is unnecessary to pursue further the particulars of his life. His facility in writing is well established by the numerous works that have come down to us, independently of many that are lost. More than five hundred books are stated by Suidas to have been written by him on medicine and philosophy, and nearly half that number on other branches of science. Two books were written by him merely enumerating his works, and to record, as to some of them, the place and time in which he composed them, the occasion leading to it, and the order in which they were to be read; and we learn from him, that a part of his literary labours was lost by a fire that destroyed the Temple of Peace at Rome, in which they had been deposited.

His works were greatly esteemed, even by his contemporaries; and we need scarcely remark, that they were the dominant source of all medical acquirement for more than twelve centuries! Eusebius, who lived five hundred years after him, says that the veneration in which he was held was such, that he was by many regarded as a god, and that religious worship was paid him. Trallian entitles him most divine; and Oribasius, by his extracts, as well as by his praises, evinces the high estimation in which he held him. Aëtius and Paul of *Ægina*, as well as Avicenna and other Arabian physicians, equally copied from him. He had, however, opponents, especially of those sects whose opinions he combated; but still, the far greater part of the medical world adhered to him closely as their principal authority on every question of importance.

To enter on his various opinions in this brief outline of his life would be useless and imperfect. It is principally from the vast collection of facts embodied in his writings by which his worth is to be estimated and his actual acquirements judged of. It is this that leads me to press him on the profession as deserving of regard, and thereby appreciate fully the high extent of medical information of a period so remote, but which pride and self-sufficiency forbids us to acknowledge. Perhaps I should rather attribute it to an absolute ignorance of the subjects he treats, for to me, it seems

impossible to imagine that any medical man can actually peruse his writings, without finding in them a complete encyclopedia of ancient medicine, both practical and theoretical, amply sufficient to repay him for what may at first be considered as a task, but which in its progress will be found to be in the highest degree engaging and instructive. If indeed any one can read him without admiration at his wonderful attainments, I can only say I think him greatly to be pitied.—It must not from this be supposed that I am insensible to his defects! They are unquestionably considerable; yet they ought to be rather esteemed the defects of the age than of his own immediately. It must be borne in mind, that he wrote under disadvantages that are not now experienced. The lights of science then, compared with ours, were dim and obscure; and imperfect as they were, we have the greater cause for admiration that he wrote so well. Had he lived in our time, with all our aids for his co-operation, he would have been a bright and shining light that would have dimmed the minor luminaries of our numerous aspirants for medical celebrity! Consider that we are elevated on a pinnacle of sixteen centuries, of which he constitutes the base; yet, elevated thus above him, where is the man who will now venture to dispute his superior title to the palm of medical glory, or who will venture to take a more extended view of our science *in all* its bearings by *his own* contracted vision, than Galen has accomplished so many ages in advance? We want his energy, his perseverance in preliminary attainments. The very facilities we possess, are among the chief causes of our imperfection. Like the hare in the fable, we lie down to repose, in full persuasion that the hours of indolence may be easily regained; or, trusting to the exertions of more active members, whose improvements are at once diffused over the habitable globe by means of printing, we make them ours, with no exertions, and no acknowledgments on our part.

It has been said that Galen has evinced great vanity throughout his writings! He has so; and if any man, legitimately, was entitled to show it, that man was Galen! But shall a weakness, common to every one in riding his respective hobby, be pardonable in the majority, yet reprehensible in him? I apprehend, indeed, that no one, who cannot claim to be his equal, is entitled to say what should be considered as vanity in Galen. He is undoubtedly reprehensible when he allows his contempt for his contemporaries to permit him

to call them the “Asses of Thessalus.” Yet some extenuation may be made for him when we recollect that friendless and a stranger at first settling at Rome, the persecutions he met with drove him thence. The associations of early lacerated feelings must no doubt have had an important influence on his mind, more especially as time had placed him in the foremost rank in medicine: he might indeed have employed the pens of others, and probably would have done so, had parasites been in such abundance as at present! Writers were, however, few, and the requisite apparatus for writing rare and costly. I do not think this fault of Galen is exclusive; few writers of ancient times neglected the opportunity of noticing, without a blush, their own pretensions, and certainly Galen’s were at least of equal weight.

It is scarcely necessary to attempt to excuse or apologize for his superstition as to dreams, incantations, and other characteristic fooleries of the age; when, at *this* enlightened period, we accredit snakestones, panaceas, Perkinism, Mesmerism, clairvoyance, &c., surely *we* have no right to reproach him.

We have already stated that a succession of great and learned men had for ages collected together, and preserved in one family a vast assemblage of facts relating to the healing art. The observing character of Hippocrates, and his peculiar disposition to order and arrangement, led him to place them on a basis more secure; and what had previously depended on oral tradition chiefly, through twenty generations of the family of the Asclepiades, became by his care embodied into one. No contending doctrines marred their progress, nor did he deem it essential to his practical views to deface this fair autograph of medical knowledge with the fantastic garb of hypothetic observations, which soon began to shed a baneful influence. Whatever might, indeed, be his private reasons for avoiding speculation, certainly we may gather from the extravagance of his followers, down to the present era, how little the bounds of truth are thereby enlarged. Successively changing, we find presented to us even in the time of Galen, no less than six prominent sects in medicine, each one combating the others, and all equally liable to objection. These sects were, the Dogmatic, the Empiric, the Methodic, the Episythetic, the Pneumatic, and the Eclectic. From these, Galen was to make his choice; and although he protests he will not be called a follower of either of them, yet, so far as he can be said to choose among so many, it may be esteemed

the last, or the Eclectic, for he seems to have selected from all, as his judgment indicated. It is true, the doctrines of Galen are based in great measure on those of Hippocrates; and if it could be shown clearly that Hippocrates was the sole framer of the opinions maintained in his writings, and that all the writings under his name are really his, and from which, by piecemeal as it were, the doctrines must be picked out; and further, that they were not the general sentiments of all the Asclepiadean family throughout a series of several centuries; then, indeed, we might award its merit, if any, to him,—but it is clear that the doctrines of four elements, &c., had been long previously maintained.

Galen, adopting this system, has embodied it in a more compact and beautiful manner than had previously been known, and may therefore be considered as its true founder;—but since the doctrine is fundamentally false in itself, inasmuch as the four bodies, fire, air, earth, and water, are no longer regarded as elements, it may be properly asked why the subject is dwelt upon? Now, although it is true that the above four bodies are rejected as elementary in the present day, yet it is equally true that a very large number of elementary bodies have, through the agency of chemistry, been brought to our knowledge, of which many enter into the composition of the animal machine, and by their union constitute the organization of the animal kingdom in all its diversified forms; and by the changes ensuing in the forms, sizes, and proportion of these principles, so will there be a proportionate departure from a state of health. Hence, whatever would in former times afford evidence of truth as to the doctrines founded on the former affirmed four elements, by Hippocrates or Galen, it is obvious that the same will hold with respect to the present elements assumed by us, and strengthened through the aid of chemical analysis, an engine of research unknown to the ancients; and hence, their forcible explanations and illustrations are the more surprising. In order to demonstrate this, a concise outline of the system Galen adopted will not be misplaced, as exhibiting a display of talent and power of combination in its construction, never excelled, if indeed ever equalled! Certainly, other theories, ancient or modern, compared with his, have been ephemeral; all have sunk into the common tomb of wire-drawn hypotheses; few have survived even the architect of their existence, and some have died before their authors, without a sympathetic feeling for their wounded pride by contempo-

rary practitioners! Now, it is true, that the same fate has attended Galen; but it must be remembered to his superior merit, that his doctrines maintained a proud and universal ascendancy for more than twelve centuries;—will those of present notoriety reach even to the end of the present? we are constrained to doubt it. In truth, it may be affirmed, that nearly all, if not the whole, of past and present theories, *are really to be found*, at least in embryo, in the writings of the two great men whose views in medicine are thus succinctly noticed.

In order to comprehend the state of medicine in the time of Galen, it is necessary to recall to mind the diversity of sects then prevalent in Rome. How many offsets of inferior interest might have merged in the six above mentioned, we cannot now determine; of these, the Methodists were chiefly in vogue, and next to them the Dogmatists, who split under the respective leaders, Hippocrates, Erasistratus, Asclepiades, and others. The Empirics were less esteemed, nor were the Eclectics much more regarded. The others were rather scintillations from the Methodists.

Though Galen protests that he will not avow himself a follower of any preceding physicians, and considers all those as slaves who in his time called themselves Hippocratists, Praxagoreans, or by other names; and therefore apparently ranks among the Eclectic division, choosing the best, from all former writers indifferently; yet, with all this, he was an undoubted Dogmatist, or Hippocratist, for he followed him alone, although differing from him in many particulars. He was his favourite author; and although not sparing him in his commentaries on his writings, he nevertheless evinces the highest esteem for him, and avows that he had laid the foundation of true medicine. Thus prepossessed, he wrote various books against the other sects, to overturn their doctrines, and re-establish the Hippocratic principles. He even affirms that all previous commentators to himself, had failed, and that he alone had penetrated the true meaning of his favourite predecessor. Had he, indeed, done nothing more than illustrate the medicine of Hippocrates, his labours would have been of high importance; for, if Hippocrates had taught the only true medicine, certainly his successors had strangely deviated from the route he pointed out. It is not this, however, from which he assumes most honour; it is that he first pointed out a just and rational method of treating medicine, and which is omitted by Hippocrates; and to fully inquire into

which, would be to establish a complete essay on the institutes and practice of physic in conformity to his principles; but of which a short and general idea can here alone be given, yet sufficient to establish the relation and difference in the medicine of these two celebrated men. Attention to it will, I think, demonstrate that even thus contrasted, its merits are pre-eminent; and that a man who could write so well as often to persuade, if not always to convince, is not lightly to be rejected or forgotten, merely from being clothed in a garment not at present fashionable.

Galen sets off with the judicious remark, that in order to become acquainted with any art, we must know the end which that art proposes to attain; and that the same mode that should be followed to distinguish other arts, will equally apply to make known the art of medicine. Some arts are merely contemplative, as arithmetic, astronomy, &c., others, wherein a certain effect is obvious, but so soon as that effect ceases, the operation of the art is no longer conspicuous, as in dancing. In others, the effect is permanently conspicuous, as in architecture. There are others again, whose whole design consists in acquisition, as in venation and fishing, &c., but which may be considered as producing nothing. Medicine is of the number of those arts which produce something, and whose work is evident, although its action ceases. Hence it appears, that in arts whose effects continue, a distinction may be drawn, the one producing something that did not exist previously, the other re-establishes that which had a previous existence, as in the case of medicine, which maintains or preserves the health of the human frame, or restores it when it is lost.

This being admitted, Galen proceeds to say, that as an architect ought necessarily to know all the parts of a house, whether undertaking to build a new one, or to repair one that is old, so he who would desire to establish an art, the subject of which is the human body (*viz.* medicine), ought to be acquainted with all the parts composing that body, their substance, magnitude, figure, situation, number and inter-connexion; all which is attainable only by anatomical examination. But the physician is distinguished from the architect in this, that he should not only know the parts of the human body, but also the action of each part, since there is no one part that has not its own particular action or function.

The duty of the physician thus instructed, is in the first place to preserve the parts in their natural healthy state, so as to subserve

their destined use, and freely perform their functions. 2d. To re-establish them in their former state, when those functions are obstructed, or even to endeavour to reproduce when possible, parts that are defective. Now, without stating further what is advanced on these points, I think it must be admitted that this foundation of the Galenic system is good, and perfectly true. It is from this point that speculation begins, but it will not yield in ingenuity to any of the systems of the present day, either in lucidness or in a firm adaptation of all its parts. Archimedes exclaimed, "Give me a place to stand on, and I will move the earth;" with equal justice might Galen say, "Admit my premises, and my superstructure is perfect."

The first elements of all the parts above adverted to, as of all other bodies, according to Galen, are fire, air, earth, and water. The qualities of these elements are heat, cold, moisture, and dryness. So long as none of the elements or qualities are predominant, or while there is an exact proportion between them, conformable to the natural disposition of similar parts, such parts have a just temperament, and perform their ordinary functions correctly; but if any one of them is defective or excessive, an intemperies follows, which, reaching a certain point, either destroys the function, or changes it from what it should be. This temperament and intemperies has relation also to organic parts, inasmuch as they are compounds of similar parts; and it is to be remarked also with regard to organic parts, that they are, or are not in a natural state, accordingly as they do, or do not, possess their ordinary figure or magnitude, or as they are, or are not, in their accustomed place or number. Add to this, moreover, their union or defect of union, and a knowledge will be thus acquired of the good or bad disposition of the body, in which health and disease may be affirmed to consist.

In relation to the possibility or impossibility of curing disease, this has a bearing both on nature and on the physician. There are certain things which nature can accomplish, and others which she cannot. She can reproduce flesh removed by a wound or consumed by an abscess, because flesh is a part that owes its origin to the blood; but she cannot regenerate a nerve or an entire bone. Now that which nature cannot effect, neither can the physician who is only her assistant; but he aids nature by seconding her efforts, or by following her intentions in all that can at times be

accomplished by herself. If nature can fill up a deep ulcer with flesh, the physician labours on his part to make the flesh grow, by removing every obstacle that can oppose it, so far as it is in his power.

Medicine, says Galen, is an art that teaches how to preserve and to restore health, or cure disease : and elsewhere, that it is a science that teaches the knowledge of what is healthy, unhealthy, or intermediate between both ; which, although ascribed to Herophilus, has yet been explained or commented on very differently by Galen, and in a manner replete with ingenuity and good sense. Thus says he, there are three kinds of things that are objects of medicine, and which the physician regards as healthy, unhealthy, and neutral. These three things are, the human body, the symptoms of disease, and the causes of disease, on all which he largely reasons and explains. It is necessary here merely to notice, that the body may exist under three dispositions, viz., of health, of disease, and neutral or intermediate between both, and these comprehend all the extent or distance from extreme health to extreme disease, each disposition having its peculiar range, depending on the due or undue apportionment of the principles of heat, cold, moisture, and dryness, and the due or undue disposition, size, figure, connexion, &c., of the various parts ; and these are subdivided by the greater or less predominance of the one over the other ; superadded to which is a certain inexplicable peculiarity or property of the bodies of some individuals, having no connexion with the qualities stated, but depending on occult or hidden causes. This peculiarity of temperament is called idiosyncrasy ; by which one person has an aversion to some peculiar food, another, to another kind ; some are affected by a peculiar odour, &c. The different temperaments may deviate indefinitely from their relative existence in health, yet this does not produce actual disease, so long as the intemperies that causes them to diverge from perfection, does not hinder the action of the parts ; but as soon as this ensues, the body is in a morbid state. Hence it is, properly speaking, the impediment to the proper action of parts that constitutes disease. All that space between the two is neutral, that is, a state neither of disease nor health ; the individual is not yet sick, because the action of parts is not yet sensibly impeded ; he is not well, because the disposition exists in those actions, not to follow their accustomed train. He then describes at large the signs of a good and bad constitution of the body, as well as of the neutral

state: they are derived from his first named qualities, hot, cold, &c., when similar parts are in question, and when compound or organic parts are the subject, from the due or undue proportion of their size, figure, situation, &c., and he derives the causes of these three different constitutions from the same source.

It may be remarked, that Galen, like Hippocrates, establishes three principles of animated bodies, viz., the solid parts, the humours, and the spirits. The solids he divides into similar and organic. He also recognises the four humours of Hippocrates, viz., blood, pituita, bile, and melancholy; and his opinions relative to hot, cold, dry, and moist, are nearly the same as those of his illustrious predecessor. As to the spirits, he divided them into natural, vital, and animal, which he supposed answered to, and were instrumental to three sorts of faculties residing in those parts in which each kind of spirit was produced. Without entering further into his views, I shall merely mention that phrenological ideas were assuredly familiar to him, for in one part of his writings, according to Heurnius' quotation, he is made to say, that when the brain is affected "apud anticos ventres suos lœdi imaginationem; sin illi medios secum ventriculos trahant, perverti et cogitationem." Now although Galen's opinions on this point are really of no moment in deciding its truth, it is nevertheless worthy of consideration, whether the reasonableness of its investigation is not supported, by perceiving it to be the natural emanation of a strong and vigorous mind, even sixteen centuries before it was recognised as a science.

The preceding, together with some minor distinctions and terms, may be considered as the foundation of all Galen's reasonings or theories on the causes and nature of health and disease. He presumed that health was maintained so long as the faculties are fit to produce their ordinary actions, or while those actions are entire and perfect; whilst the reverse of this induces disease. Now, as the actions cannot be free or entire unless the solids as well as the fluids are well disposed, it may be said that health depends in the first place on the symmetry of the organic parts, and in the union or connexion of them all. So long as the humours and solids continue thus, the spirits which follow the nature of the humours cannot be otherwise than well-conditioned, and consequently the actions (the result of the organs of the spirits, which are themselves directed by the faculties mentioned), cannot but be perfect. On the contrary, let the humours and solids become altered, deranged,

or disunited, the spirits must become disordered, and their actions interrupted. And here I must be permitted to remark, that, at least in my opinion, this theory of Galen, embracing as it does both the solids and the fluids, is infinitely superior to the dogmas of our times, by which the doctrines of Solidism or of Humoralism are *separately* maintained ; for it is utterly impossible that those parts, so essentially united by the Deity, can be separate and independent media of disease, individually considered. If we might be permitted to apply to these respective and equally essential parts of the animal economy, the anathema of the marriage ceremony, we might emphatically repeat on this point : “ What God hath joined, let no man put asunder !”

On the principles above unfolded, Galen defined disease, to be an unnatural disposition or affection of the parts of the body, which primarily, and *per se*, prevents their action ; and he established thereon three principal genera of disease. The first regards similar parts ; the second, organic or compound parts ; and the third, was common to both. It is unnecessary to enter into particulars as to each of these ; I will merely say, that, admitting the premises to be correct, the superstructure is not unworthy of his expanded mind ; neither can I enter into a detail as to wherein he agrees or differs from the fundamental views of Hippocrates. He has, as occasion required, added to, or retrenched from them ; and has thereby constituted a whole, far superior to that of Hippocrates, more consolidated and perfect. Whoever desires more fully to investigate the respective views of these great and illustrious men, will do well closely to read their works ; or if they are not attainable, at least to study them, as given in the excellent histories of medicine by Le Clerc, Friend, and Sprengel, especially the former, —who, after giving pretty fully in detail the system of Galen, says, that its faults, if examined in connexion with the Cartesian philosophy, or that of Democritus, of Epicurus, or of Asclepiades, will not permit us to disavow that it is very ingenious, and perfectly well carried out ; that if we find some scholastic questions that if useless may be passed over, many things are to be discovered in it which greatly assist in forming the physician, and pointing out to him the road to practice ; and that this would be especially discovered, if in place of giving a mere idea of his medicine, an abstract had been given of all his writings ; which, we may add, whether referring to his particular knowledge of the individual

branches of the science, or to his more extended and general views of the whole, bespeak such a profound degree of knowledge, as to call forth our warmest veneration and respect. Engaged as he was most fully in the practice of his profession, the mind is overwhelmed by the consideration of his extensive literary and scientific productions; six immense folios on medicine have reached us, besides a vast number of his writings, nearly equal in amount, that have perished by the chance of time, bespeak his indefatigable exertions, proving that not a moment passed him unattended to! Can such a man be cast into oblivion, or suffered to remain unknown to us, except by name, in these days of inquiry and research? If nothing more, curiosity alone should urge to a more full inquiry as to what a writer, of nearly the period of our Saviour, has left behind him: and should that powerful engine provoke to the research, it will soften down to the calmer desire of really becoming acquainted with him; for we shall soon discover that his pages are replete with facts and observations not less important to our science now, than at the distant period at which he flourished; and I most sincerely hope and trust that the day is not far distant when we shall be enabled to view him *fully* in an English translation, and thereby prove, that hundreds of the profession have derived their celebrity, from our general ignorance of the learning and attainments of Galen, by stripping the laurels from his honoured brow, with which they have unduly weaved a wreath to place around their own, altogether undeserving of it.

THE WORKS OF HIPPOCRATES.

THE OATH OF HIPPOCRATES.

SECTION I.—TREATISE I.

JUSJURANDUM HIPPOCRATIS,	.	.	.	FŒSIUS, p. 1.
DE JUREJURANDO,	.	.	.	HALLER, iv. p. 197.
LE SERMENT,	.	.	.	GARDEIL, ii. p. 179.

THIS treatise, constituting the celebrated Oath of Hippocrates, we are told by Haller, contains the rules or statutes of medicine, which the student was required to receive, and confirm by taking it. It points out the gratitude due to the preceptor; advert to the treatment of the sick, and abjures the use of all dangerous remedies or measures. It leaves certain operations to the professed artists in that line;—and he adds, that it might be supposed to be written after the subdivision of medicine into distinct branches. Some of the ancients acknowledged this treatise, but Mercurialis considers it as spurious. It has been largely and learnedly commented on, by various writers, more particularly by Meibomius, who has pressed into his service the aid of not less than four hundred authors, in law, physic, and divinity.^a

It is scarcely to be credited that Hippocrates was the author of this oath—many, besides Mercurialis, have ascribed it to other

^a Z. Zwingerus, J. Gorreas, B. Hollerius, Rauchinus, &c., are among the most celebrated.

persons. A strong presumption of its not being his, may be derived from the oath itself, in which every means of inducing abortion is sedulously prohibited; and yet, in the treatise "De natura pueri," we find a female made to abort under the author's exclusive direction and prescription. Now, if Hippocrates was the author of this last named treatise, and was the pious character which his writings pretty generally indicate, it is inconceivable that he should thus have perjured himself. If not his, it has never been shown satisfactorily, whether it is anterior, or posterior to his time, though probably posterior.—ED.

The first part of the oath is taken up by an adjuration to Apollo, Eseulapius, Hygeia, Panacea, and all the deities, faithfully to fulfil all its requirements, to the best of his knowledge and power. Next follows the avowal of gratitude, and its scrupulous performance in the highest degree, towards his preceptor and all his family: regarding him as a parent, and his children as relations; engaging to teach the science to them without a fee, in its full extent, as he would do to his own, and that without a previous assumption of this oath, he would teach the science to no one. In the next clause of the oath, he promises to act faithfully towards the sick, prohibiting all that could harm them, and never prescribing (medicamentum lethale, Fœs.; φαρμαχον, Hip.) poisons, or remedies for procuring abortion.* Neither will he operate for the stone, but leave it to those who are devoted to it. He professes to live a chaste and pious life—to observe profound secrecy in his profession as to family transactions; will avoid all corrupt influence with either sex in the employment of aphrodisiacs, whether bond or free, and in case he should act in opposition to the above, he prays that he may neither live long, be successful in his pursuits, or become celebrated in his profession; but that if he scrupulously observes these rules, the reverse may be his destiny.

That part of the oath which has a reference to venery (αφροδισιων), might, without much difficulty, perhaps, be made to refer to a de-

* Pessum subdititium ad fœtum corrumpendum, Fœsius; Pessum abortivum, Hal-ler; Πεσσον φθοριον, Hippocrates.—A dangerous pessary.

termination to give no attention to syphilis and its various complications ; [“ ab omni scelere voluntario et corruptila, *tum alia, tum operum venereorum in corporibus mulierum ac virorum, liberorum, ac servorum procul remotus,*” Haller.] Fœsius differs but little. Such were the libidinous and sodomitic propensities at that period in Greece, that it surely cannot be supposed that all venereal diseases were then unknown!—or, that, being known, their cure might not have been left to particular individuals. It is probable, however, that it is not the intrinsic intent of the text.—Ed.

NOTE.—“ Ορχυς, item Jusjurandum. Medicis peculiare conscripsit Hippocrates non adeo ineptum. Præstatio Juramenti non solum lingua, sed et corde, vel animo puro fieri debet.”—Castelli Lexicon Medicum.

THE LAW OF HIPPOCRATES.

SECTION I.—TREATISE II.

OF THE REQUISITES TO CONSTITUTE THE ACCOMPLISHED PHYSICIAN.

HIPPOCRATIS LEX,	FÆSIUS, p. 1.
DE LEGE,	HALLER, vol. ii. p. 195.
LA RÉGLE,	GARDEIL, vol. ii. p. 181.

HALLER tells us, that this treatise was every where accredited by the ancients, but was rejected by Mercurialis; and that it refers to the education, &c., of the physician. That medicine, although of the highest rank, had yet been extremely degraded, and points out the causes. The rules for its attainment are stated particularly, under six requisites, in order to become fully masters of the science.

As this treatise is short, I have judged it to be sufficiently interesting to give it nearly in detail. It has been, I believe, translated by M. Dacier—but I have never met with it. It has been illustrated by Zwingerus, Heurnius, Fonseca, and others.—ED.

Of all the arts, medicine is the most illustrious; but the ignorance of its professors, and that of those who judge of their qualifications, is the cause of its having been considered as among the most contemptible. This, in my opinion, arises chiefly, from the circumstance, that medicine is the only profession, for which, in our cities, there is no penalty attached to such as ignorantly pursue it, beyond that of contempt. But ignominy scarcely wounds the ignorant. It is with them, as with the dumb performers of the theatre: they have the form, the dress, and mask of the real actors, but in nothing else do they resemble them. So we find many who are physicians in name and appearance,—but few who are such in reality. Six things are required to constitute a physician:—Natural talents—a good education—a competent instructor—early study—industry, and adequate time. The chief of these,

is natural talent. In want of this, all is useless. But if this is possessed, the art may be acquired, by due attainments previously;—and by beginning to study it at an early age, and in a proper place. We must, moreover, be industrious, and continue long in study, by which means the science becomes, as it were, natural,—rapidly increases,—extends its researches, and brings forth mature fruit.

The study of medicine may be compared to the culture of plants. Our nature or disposition is the ground; the precepts of the teacher are the seed; commencing our studies early, resembles the sowing of the seed in a proper season; an appropriate location for the pursuits of study, resembles the surrounding atmosphere which affords nourishment and growth to the plant; diligence in study, is like the various means pursued to render the ground fertile; finally, the long continuance of our studies, resembles the period essential to full and perfect fructification.

Those who fully attend to the above precepts, will attain to a true knowledge of medicine, and should every where be considered as masters of their profession, and not merely nominal physicians. They may come forward with confidence; whilst ignorance proves but a poor foundation, and an empty treasury at all times; the enemy of all confidence and trust; a source of audacity as well as of timidity—since timidity is the offspring of weakness, as audacity is of ignorance. Science and opinion govern the world: the one points out our knowledge—the latter our deficiency. Things of a sacred character should be unveiled to the pure alone; for it is sacrilegious to communicate them to the profane, before they have been initiated into the mysteries of science.

NOTE.—“*Lex, νόμος, licet proprie non sit terminus medicus, Hippocrates tamen transsumsit e foro politico in medicum, &c.*” De necessitate legum adversus pseudo-medicos, vide C. Regies, Camp. Elys. Q. 21. n. 16.—Castelli Lexicon Medicum.

ON THE ART OF MEDICINE.

SECTION I.—TREATISE III.

DE ARTE,	FÖSIUS, p. 2.
DE ARTE,	HALLER, vol. iv. p. 155.
DE L'ART,	GARDIEL, vol. ii. p. 183.

In his prefatory remarks, Haller says that Mercurialis regarded it as spurious, and unnoticed by any of the ancients except the author of the Definitions. He says it is altogether a tissue of reasoning; it enters into a defence of physicians, and regards them as free from blame when death takes place, which he considers as rather dependent on the fault of the patient, or the impotence of medicine from the insufficiency of its means, when no suspicion of the intelligence or attention of the physician can be apparent. Neither is it considered as correct, that any one is restored to health without the employment of medicine, although unattended by a physician, since every thing that is beneficial or injurious, pertains to medicine. Nor is the physician blamable who refuses attention to desperate diseases. It proceeds then to the consideration of several particulars of an obscure nature in the human body, which are to be comprehended through a process of reasoning, depending on the manifest qualities of the excretions, &c. Some notice is taken of several of the cavities, the cellular tissue, &c.

The order of the treatise is a dissertation against the calumniators of medicine, whether sophists or the common people. It refers primarily to the arts in general, and then to medicine in particular, the certainty of which, as an art, it professes to demonstrate; this is followed by a variety of topics, appertaining to the physician, to the patient, and to the disease. We give a free translation of the whole.—ED.

NOTE.—“Ars, τέχνη, verum est genus medicinæ, quicquid nonnulli Arabum seuti placita regerant. Denominatio a fine petenda est ultimo. Quæcunque igitur terminantur operatione, sunt artes: quorum terminus est sola cognitio, scientiarum nomine venire debent. Imo χατ εἰσοχή vocab. hoc Medicinam significat., 1. aph. 1,” &c.—Castelli Lexicon Medicum.

Many undertake to decry the arts, not from any expectation of destroying them, but merely to evince their genius.^a The real intention of an enlightened mind, however, is that of attempting to discover something new that may be useful, or to perfect that which is already known. To pretend to tarnish the labours of others by idle remarks without improving them, for the sole purpose of lessening their merit in the eyes of ignorance, is a proof rather of malevolence than of a good disposition. As ignorant and wicked people are naturally envious, it is of course to be expected that they will attempt to overturn what is good, or to ridicule its deficiencies: but they cannot attain their end. It is incumbent on all to uphold their profession to the best of their abilities, against insolence and temerity; and here it is my intention to defend medicine against injustice and calumny. If, in this intention, there is any presumption, considering whom I am to attack, the art I profess to defend, will render my attempt easy,—the principles on which it is based will afford ample means.

It will be admitted at once, that there can be no art, in respect to things that have no existence; it would be absurd to treat of a non-entity in any way; for how can any conceive the mode of existence of what has no existence? and if it is impossible to see what does not exist, as we see that which does, by what means shall we know it, or whether it be good or bad! Were this possible, I cannot perceive how we could discriminate between non-entities and those things that are cognizable to our senses. Existing things may always be perceived—and by this alone that existence is appreciated. Those arts which exist, are known by our seeing them, for not one exists that is not manifest in some way. Now it is the particular species of art, that has given to each its especial title. It would be absurd to suppose the particular species is owing to its name,—that is impossible. Names are merely conventional terms, whereas species are the real products. If the reader does not comprehend this sufficiently, he must have recourse to other works.

As to medicine, our present subject, I undertake to demonstrate its existence, and what it actually is,—I commence therefore with its definition, according to my apprehension.

Medicine is an art that cures the sick, or lessens their pains, and which has nothing to do with incurable diseases: for that which is

^a Ostentationem scientiae.

irremediable, medieine knows not how to attempt its cure. And I now proceed to prove, that it performs what it promises, and that it is always capable of doing so; and I will at the same time refute the reasons of those who attaek it in those parts, wherein to them it seems most weak.

My first proposition no one can deny. It will be admitted that some of those who apply for medical assistance have been cured, but not all: and it is this which has given rise to the opposition against medicine. Its enemies assert, that the larger part of those attacked by the same disease, and who are restored to health, owe it to good luck, and not to the rules of art. Now, I have no desire to rob Fortune of her just rights, and therefore I must acknowledge that all who are well attended to, are very fortunate, whilst those who are neglected or illy treated, are extremely unlueky. But how happens it that those who are cured, should prefer ascribing it to any thing rather than to art, when their cure has been actually accomplished solely by their having employed and attended to its rules? They did not commit themselves to fortune, but called in the assistance of art. Hence, they are in this respect altogether absolved from all acknowledgment to the former, but not so with respect to art. They recognise art, insomuch as they pursued its rules, and cannot deny its existence, when evinced in the effects it has produced.

But it will be said, that many sick persons have been cured without the aid of a physician. Who doubts this? It is very possible, that without having called in a physician, they, nevertheless, have fallen into the arms of medicine. Not that they knew what medicine approved of, or disapproved; but they happily employed the very means which a good physician would have himself made use of, had he been called to their assistanee; and, it is a strong evidence of art and its powers, when those, who have no belief in it, yet owe their safety to its rules: for it is certain, that those who have recovered, without the aid of a physician, must have been cured, either by doing eertain things, or by doing nothing. In fact, they have been saved, by food or by abstinenee; by drinking or abstaining from drinks; by bathing or not bathing; by labour or rest; by watching or sleeping; or by an alternation of all these. Now, since benefit was obtained, they must of necessity admit, that there was something done, by whieh that benefit was obtained. On the contrary, if injury was sustained, it must equally

have arisen from something. It is indeed true, that few are qualified to distinguish between what was beneficial or hurtful to them. He, however, who is capable of such a discrimination, and of justly appreciating the measures he may have adopted, will equally discover, that what has saved him, is, in fact, a part of medicine. Even the faults he may have committed, are not less striking evidences of the existence of medicine: for, that which benefited, did so, only on account of its timely employment; as, on the contrary, what was injurious, was so, only on an opposite reason. Now, wherever the good, or the bad, has its own peculiar termination, how can it appear that art has no existence? For myself, I think, that art can alone be absent, when what was done, produced neither a good nor a bad effect; and that, when either appears, the existence of art, is fully substantiated.

I admit, that if medicine and physicians effected cures by purgatives or astringents alone, our arguments would be weak;—but we see the ablest physicians cure diseases by regimen, as well as by every other kind of remedies. Now, we must admit, unless we are ignorant, or deficient in understanding, that the employment of regimen, is a dependent on art. Nothing is useless in medicine in the hands of good physicians—we see various remedies, and cures in many instances, under the operation of nature, as well as through that of human industry; and such as have been restored without the aid of a physician, can in no respect attribute their recovery to chance, with any just foundation.

Chance, when we come to examine the phrase, means absolutely nothing. Every event has a certain cause, which is, itself, the effect of some preceding one. Chance, therefore, cannot be said to have existence. It is a term employed by ignorance for what it does not comprehend. But medicine is, and always will be, seen and demonstrated in its effects, induced by causes, which necessarily are incapable of producing any others,—and this is our answer to those who attribute their recovery to chance, rather than to the art of medicine.

As to those who allege the number of deaths under the employment of medicine, I wonder what reason so evident can be given, that complaint should be made of the ignorance of the physician, rather than of the irregularity of the patient; as if it was possible for the former, alone, to practice incorrectly, and impossible for the latter, to counteract his directions! It is much more credible,

that the latter is the case. In fact, when an able physician undertakes a patient, and is sound in mind and body—is he not qualified to reason on the present state of the patient, and to compare his disease with such as he had previously seen, either the same, or approaching thereto, and which he has cured by the admission of the patient himself? Whilst the patient knows neither his disease, nor its causes, he knows not its termination, or what has taken place under similar circumstances. He receives his directions under present pain, and future dread. He thinks only of his disorder, and is weakened by want of food. He desires what is agreeable, rather than what may cure him;—not that he is desirous of dying, but that he detests physic. In such a case, which is most probable? That the patient duly obeys his physician, in all his directions, or, that the latter, with the qualities above stated, should practice erroneously? Is it not more likely that the physician performs his duty correctly, and that the patient (incapable sometimes of paying obedience) does disobey, and falls a victim to his own folly? Those who incorrectly judge of events, accuse the innocent, and exculpate the guilty.

Others there are who condemn medicine, under the pretext that physicians never undertake the care of those, who are already overpowered by disease. They say, that he cheerfully attends on such as would recover without him—but not a step will he take in behalf of those who are most in need of his assistance. If there was an art of medicine, they moreover say, it ought to cure these as well as the former. Those who speak thus, would have more reason to complain of a physician who would not treat them as fools, than they have, to accuse medicine in such manner. He who requires of an artist, what belongs not to his art, or what is beyond its power, is more knave than fool. We can effect every thing that is capable of being accomplished through the means of Nature, or of the instruments of our profession; but we possess no more. When the disease is more powerful than any of these means, it cannot be expected that medicine can overcome it. Thus, we have many caustics in medicine, of various powers, of which fire is the most so. We may reasonably doubt, in such cases as require the use of caustics, whether the *highest degree* of evil in such case, would not resist the fire, whilst we have no doubt of its utility in an inferior grade. Now, in such cases which fire cannot reach, nothing can be expected of an art that has no

power stronger than fire. It is the same with all the instruments of medicine, and I apprehend, therefore, that when employed in extreme cases without advantage, the fault is in the violence of the disease and not in the art.

Some there are who reproach us for avoiding such as are already worn down by disease: this is like requiring of any art, to do that which does not belong to it. Nominal physicians will, it is true, undertake this from a desire of admiration; but they are looked on as ridiculous by real ones. Those who are masters of their profession, care neither for the praise nor reproof of such people—they esteem those only who know how to discriminate, and discern when and wherein the operations of art are perfect or imperfect, and whether the imperfection arises from the workman or his subject.—We may, perhaps, in a future treatise, take notice of what belongs to other arts. As to medicine, we have already shown what it is, and now proceed to point out how it is to be judged of.

All who are acquainted with it, will admit that there are two classes of diseases: one, affecting the external parts, and few in number; the other is in vast amount and attacks the parts that are internal and concealed, wherein they manifestly differ from the former. They are apparent both to sight and to the touch, by tumours, redness, &c.; and evince themselves by hardness, coldness, moisture, heat, &c.,—and thus enable us to recognise the presence or absence of such or such qualities as may or may not belong to them. There ought to be no mistake as to these,—not that they are easy to be comprehended, but because they are readily discovered, at least by those who are qualified to seek for them, by industry and natural attainments. Our art abounds in resources for visible diseases,—nor are they less abundant for those of a hidden character, or which attack the cavities or bones. The human body has many cavities: thus, two exist for the reception and discharge of food, with many others, known to those who have studied the subject. All those fleshy, rounded parts, called muscles, are cavernous; all parts, in fact, in which there is defect of continuity, are cavities, whether covered by flesh or skin,—and they are filled with air (*spiritus*) in health, but in disease with unhealthy humours. Such fleshy parts are seen in the arms, the thighs, and legs. Even those parts that are not fleshy, have a similar structure. For instance, the liver concealed in the abdo-

men, the brain in the skull, the lungs in the thorax, &c., all have cavities with subordinate divisions, or vessels, filled with humours of a healthy or injurious tendency. There are, moreover, nerves and vessels innumerable, passing to the bones ;—and ligaments and cartilages belonging to the joints, wherein the bones move, and which are moistened by a glairy fluid (synovial) emitted from small cavities, which sometimes discharge much sanguous matter when they are opened, accompanied with extreme pain. Now, none of all these parts are apparent to our sight,—and hence the above division of diseases into concealed and apparent. It must not, however, be supposed, that those thus latent are beyond the reach of medicine. The possibility of this depends very much, nevertheless, on the accuracy of the report by the patient of his complaint, and the tact of the physician in his interrogatories. Sometimes this seems to be attained as by intuition, although more time and labour are required than in the case of external diseases. The evil experienced by the sick from the delay of making known their disease, ought not to be attributed to medicine, but to the patient, or to the actual violence of the complaint. The physician who cannot by sight detect it, nor by the imperfect statement of the patient, is obliged to recur to reasoning ; for it is certain, that when describing their internal complaints, they speak more from opinion than from any certain knowledge. Were they possessed of this, they would not require the aid of the physician, since the same science which enabled them to know their disease, would equally teach them the appropriate means of cure. Hence, since the physician cannot derive from the patient's report a certain and absolute knowledge of his complaint, he is obliged to attain it in some other mode—which necessary delay, is not the fault of art, but arises from the nature of the case itself. Medicine requires only to know the disease, in order to proceed to its cure ; yet, with prudence devoid of temerity, and depending more on patient attention than on violent efforts. It is requisite also, that the disease be curable, and that time be allowed for the purpose. If then the disease is known, and is found to be too powerful, either from its nature or from delay of calling in medical aid, the patient will die ; for it rarely happens that it is too powerful, if soon attended to. Disease is rarely victorious, except from being permitted to gain too great advance, which arises from its concealed character, or from delayed assistance. It is, therefore, in my opinion,

more correct to praise the art of medicine for the cure of such concealed diseases, than for undertaking, what it is impossible it can perform. Is there no parallel to be found in the other hitherto known arts? Those who employ fire in their operations, must remain inactive when their fire is extinguished, and must postpone their labour until it is again relighted. Most of the arts are exercised on subjects, where the work can be corrected; such as wood, leather, brass, iron, and similar materials. Here, nevertheless, far from precipitancy in working them, all necessary time is afforded in order to perfection. Should any requisite instrument be wanting, the work is suspended, and remains imperfect. In all these cases, in which slowness is more inconvenient than useful, such delay is nevertheless approbated. Medicine is the only art, in which, although error is almost invariably irreparable, haste is required to satisfy the impatience of the sick, without due attention to its rules, although, as we have stated, it is incapable of attaining a knowledge of many diseases, by the sense of feeling or of sight. It neither perceives the diseases of the liver or of the kidneys, nor the abscess that may exist in the chest or other cavity. Here, and in like cases, it has adopted other means of conduct. Thus, it considers the voice, as to its clearness or hoarseness. It examines the discharges from certain regular channels; and drawing consequences from their odour, colour, consistence or fluidity,—he judges of the character of the disorders, and the existing state of the patient; and by the same means, medicine is even enabled, not only to ascertain the past, but likewise his future state. After having thus become acquainted with diseases, by their symptoms, if nature is unable to effect a cure, art then teaches how to excite those salutary movements, by which, without danger, the system may discharge itself of what is injurious to it.

It is in the efforts of nature that an attentive and skilful physician perceives the measures he ought to adopt. If pituita predominates, by diet and acrid drinks, he excites the natural heat, and thus discharges it. By exercise, he causes respiration to testify still further to his senses. Sometimes, he has recourse to sweating, through the agency of warm baths. In some cases, he prefers to examine the urinary evacuation; and by appropriate food and drinks, the humours are aided in their discharge, which would not otherwise be accomplished. But as the vitiations differ, so also are there different symptoms, and different remedial means, through which the

physician becomes enabled to estimate the treatment he ought to pursue.

It is then by no means surprising, that the physician should be slow in forming his judgment of diseases, before he undertakes their cure; since he has, as it were, to negotiate with them, by the agency of an interpreter. It appears, then, from all I have said, that medicine has an appropriate means of discovering the mode of cure, or at least of assuaging the sufferings of disease; and that it is not deficient in substantial reasons, for declining those that are incurable, or at any rate, of overthrowing the unjust reproaches made against physicians when unsuccessful in such cases. Much more might be said in these particulars, as derived from the manifest and daily proofs afforded by skill and attention. Facts are far superior to reasoning; and instead of calling for admiration of their eloquence, such practitioners will refer you to the visible effects of their care and attention.

THE ART OF MEDICINE IN FORMER TIMES.

SECTION I.—TREATISE IV.

DE PRISCA MEDICINA,	FŒSIUS, p. 8.
DE VETERI MEDICINA,	HALLER, iv. p. 129.
DE L'ANCIENNE MÉDECINE,	GARDEIL, ii. p. 197.

THIS treatise, says Haller, is correctly considered as spurious, by Mercurialis. It is manifestly posterior to the time of Aristotle, whose principles it altogether repudiates. It is entirely devoted to reasoning, but learnedly and acutely written. The origin ascribed to medicine is very probable, in a due attention to what proved hurtful or useful in diet, and in conforming its employment to the state of disease. It was undoubtedly imperfect at first, but is not undeserving of praise. It confutes the hypothesis of four primary qualities, viz., hot, moist, cold, and dry. Asserts diseases to arise independently of these, and attributes them to an acid, saline, acerb or bitter humour, secreted, and acting alone, or conjointly, by which changes occur in them; or to a change of form in various ways, productive of fluxions, wind, &c.

The treatise is stated as pointing out the antiquity, invention, certainty, and importance of medicine. Of food, generally and particularly, as of broths, drinks, bread, wine—by the first of which, seems to be chiefly meant barley water of varied strength, and constituting a chief part of dietetic practice; it then proceeds to consider primary and secondary qualities, and is followed by that of fluxions, humours, and flatus.—ED.

Those who have undertaken to treat of medicine, have manifestly been deceived in most particulars, by attempting to found this doctrine on the hypothetical notions of cold and hot, of dry and moist, thus reducing to one or two principles the causes of death and of disease. Of this our art may reasonably complain, since its reality is acknowledged by its daily employment, and its cultivation in the hands of the most able practitioners. Doubtless there are

among physicians both good and bad; and this is another proof of its existence, since, if it did not exist, this could not be the case, for all would be alike ignorant, and chance alone would decide as to the mode of treatment. We see, however, in medicine, as in other arts, workmen of infinite difference, as it respects the practice, both manual and mental.

Recourse to hypothesis should therefore be avoided in medicine, and left to subjects obscure and doubtful, which afford nothing better to their advocates. Thus in astronomy, &c., however persuaded we may be of the truth of our opinions, yet we cannot establish them fully, so as to destroy completely the doubts of others, since there is no established rule of truth, to which we can at all times refer. Such a rule, however, exists in medicine; it is an art of long existence, of sure principles, and certain regulations, through which, for a long period, numerous discoveries have been made, and which are confirmed by experience, unmixed with hypothesis. Much is, however, still required to render it perfect, by the researches of the learned; and by the aid of what is already known, endeavour to obtain the knowledge of that we know not. All those who depart from well-established rules, to riot in the path of novelty, and boast of having discovered something in our art, deceive themselves as well as others. I shall endeavour to prove this, by pointing out what medicine really is; from which it will appear, that all deviation from its present route is to be avoided.

And first it seems to me, that in treating of this art, we ought chiefly to notice such things as all mankind will agree in, for the researches of the physician should be confined to diseases to which every one is liable. It is true, that as the majority are uninformed, they cannot of themselves know how their disorders commence, nor how they will end; what increases, nor what moderates their force. This is, however, readily acquired through the information derived from those acquainted with the subject, and this more easily, since nothing is remembered with more facility than that which is the result of self-experience. A physician who is unable to make himself understood by the most ignorant, or convince them as to the nature of their complaints, would be ignorant himself, and would not mend the matter by mere speculation. Medicine would never have been discovered, had not speculation come to its assistance. No one, indeed, would have troubled himself respecting it. What need could the sick have had of medicine, who lived exactly as

those in health, had they never drawn a comparison between their own state, and of those who pursued a different regimen, and observed the superiority of the one to the other ? It was by noticing an apparent injury or benefit, which led them to a discovery of our art. This arose from the sick discovering that they were injured by the use of food that was beneficial in health, just as we now find to be the case. We may even go further, and say, that the diet and food in health that is now employed, would not have been found out, if men had been content with that of animals, such as grass, hay, and the fruits and productions of the earth. All animals well fed, are healthy, without any other kind of nourishment. At first, mankind lived like the beasts ; and food, as at present prepared, has only been introduced, because that which was first employed was too simple and indigestible, and was, as at present, the source of indisposition, violent pains, severe disease, and even of death. It is true, habit, then, rendered it less dangerous and more supportable, yet still it proved injurious. They whose stomach was enfeebled, soon perished, whilst such as were of a stronger constitution, resisted for a longer time. Just so we find it at present ; some readily digest the strongest food, which to others is difficult in the extreme. Hence arose the necessity for seeking a diet adapted to their nature, and by degrees they were led to that we now employ. After having thrashed out and washed the grain, ground and sifted it, it was kneaded and made into bread and cakes, or boiled and roasted with other things. A mixture was formed by food of different strength, in order to accommodate it to the constitution, from the belief, that eating any thing too strong and indigestible would induce pain, disease, and even death, whilst that which was appropriate and readily digested, became the source of health and strength.

Now, what more fitting name could be given to this discovery than that of medicine, which means the method of remedying evil, since this invention was intended to produce a healthy nourishment, and to preserve health, by securing them from an irregular diet, productive of pain and disease ? It may indeed be said, that this primary invention is not an art, since, in what is now well known, and uniformly employed, it would perhaps be unusual, to qualify the practice by the name of an art. It at least is the fact, that such practice and invention is highly important, and is the fruit of great art and much consideration. We see in the present day, indivi-

duals appointed in our gymnasia to superintend the Athletæ, continually making discoveries in the same way, as to the most appropriate diet for those persons.

Let us examine now, how medicine, properly so called, and invented for the benefit of the sick, deserves the name; how it gave rise to artists, and why there is so much difference between them. I believe firmly, as I said before, that no one would have been led to seek for it, had the same food and regimen been equally proper both in health and sickness. We still observe among nations where medicine is unknown, that both in health and sickness, the same diet is employed. Every thing gives way to the wish of the moment, nor do they abstain from any thing that gratifies them. But, where the art is known and its dictates pursued, it is reasonable to presume that similar impressions led to the same results, as in the case above mentioned. They began by lessening the amount of food in case of sickness. This proving beneficial in some instances, but insufficient in others of greater intensity, a still weaker diet was deemed requisite. Thus they were led to employ diluted food or broths, by mixing small quantities of stronger food with water, and thereby weakening them, as well as by their mode of preparation. If even this nourishment proved too powerful in some diseases, it was discontinued, and liquids of a simple nature, regulated both as to quantity and quality, came into use. Even such slops (*Sorbitiones*) are occasionally injurious, increasing the complaint without strengthening the patient—all which proves, that food over-proportioned to the state of the patient, is equally injurious as in health. What difference then is there between the discovery of an appropriate regimen in disease, by a physician, and that originally contrived, in the change of the primary savage diet, to that which is now universally adopted? I think it is the result, in both instances, of one and the same invention. There is only this difference, that the last is more varied and extensive, requiring greater reflection and experience, although it is plainly deducible from the former.

If we compare the regimen of health and that required in disease, it will be perceived that ordinary food would be much more injurious in sickness than the first rude and savage nourishment would be in health. Thus, a person attacked with a disease, not of extraordinary violence, and yet somewhat dangerous, unacquainted with the risk he runs, eats bread, flesh, or other food appropriate to

health, whilst another, in health, employs that which is used for animals, such as peas, barley, &c. It is certain that the latter will not be equally incommoded as the former, and this is an additional proof of the art of medicine having been discovered in the manner I have stated.

If it was the fact, as some imagine, that too strong food alone is hurtful, and that a weaker kind was equally useful in health and in disease, nothing would be easier than to fix upon a good regimen; for all that would be required, would be the mere reduction of all to a proper medium. Unhappily this is not the case. The fault is not lessened, yet the evil is as great, from the excess or defect of nourishment.—Hunger has an amazing power over man, either to cure, to weaken, or even to destroy life. Repletion causes many different disorders; inanition is productive of others not less hazardous. Hence this last, as a remedial means, is more extensive than the former, and demands more care and attention. A happy medium is a desideratum; but for this we have neither weight nor measure to assist us. The personal feeling of the individual seems the best resource; but how we are to avoid all error in the case, is the difficulty; and I will cheerfully praise the physician, who, in such circumstances, is guilty of but trifling mistakes; to avoid them entirely is almost impossible.

Most physicians resemble unskilful pilots, whose faults are unperceived in calm weather, but should a storm arise their ignorance is manifest, and destruction follows. So with the ignorant physician, in his treatment of trifling diseases, wherein he may make the grossest mistakes with impunity and escape detection; but if by misfortune they meet with a violent and dangerous disease, they are at fault; their ignorance and presumption are apparent to all, and their punishment promptly follows.

That improper fasting is as dangerous as over-eating may be proved by the example of those in health. Some have made it a rule to eat but once a day. Others, to preserve their health, make two meals daily. I do not refer to those who occasionally, or from revelry, do the same, for there are constitutions which are enabled to bear such changes with impunity, and make one or two repasts, although not accustomed thereto. There are many, however, who cannot deviate from their customary habits, without immediately feeling its influence. If, used to one meal only, they take another, they feel tired and stupid; they yawn, are drowsy, and very thirsty.

Flatulence and colics assail them, and not unfrequently some severe disease attacks them; and all this arises from deviation from their single meal. On the other hand, when the first accustomed repast is neglected, the usual period for it has scarcely past, when they feel weak and tremulous; their eyes are languid, their urine becomes hot and turbid, and a bitter taste is felt in the mouth. Belly-ache succeeds, with vertigo, irritability, moroseness, and dulness. At the arrival of the period for their second meal, they are incapable of digesting it. It is attended with flatulence and colic, and costiveness ensues. Their sleep is disturbed, uneasy, and troubled by dreams. And in like manner, these symptoms are the precursors of severe sickness.

From whence do these symptoms originate? In my opinion, he who is accustomed to one meal alone, is incommoded only from not allowing his digestive organ full time for disposing of his previous meal of the preceding day—but he fills it afresh, before the former food is properly concocted. Such stomachs digest much more slowly than others; they require more relaxation and repose. He, on the other hand, who has been accustomed to two meals, and omits the first, suffers from not affording his system the nourishment it required at a fixed period; that which had been previously taken having been completely exhausted. It is hunger that undermines and consumes him, and his situation I ascribe altogether to it; and any one who should pass two or three days without food would experience similar symptoms. Those constitutions that feel violently and speedily the slightest errors, may be considered as being weaker than others. Disease is the near neighbour of such debility of constitution. The difference is, that the debility in this case being greater, the slightest error in diet must be felt in a greater degree. Medicine requires, therefore, in such cases, very great strictness. It is undoubtedly difficult to attain a certainty; but art has discovered various modes of approximation, which ought to be well known, and will be duly treated of. There is no justice in opposing the ancient medicine as being founded on bad principles, from the pretext that it is not yet perfect. On the contrary, it is deserving of admiration from its advancing so far towards it, and from its having, in a period so unenlightened, discovered the route pointed out by reason, as the sure way to reach perfection.

As to those who have endeavoured to attain the art by a plan

altogether new, and strive to establish its foundation on hypothesis, I would ask them which it is that is prejudicial, hot or cold, dry or moist; and if a skilful physician ought to correct each of these qualities by their opposites? Give me an individual of a weak constitution, and let him feed on wheat just thrashed, or raw flesh, and drink only water; they must admit that such fare will produce much evil, such as violent pains, deranged stomach, debility; he would not long survive. What assistance does he require? Cold, hot, dry, or moist? Which shall we select? If it is one of these four that has caused the disorder, we must choose its opposite, according to them. But the most direct and certain remedy is a change of food, giving bread instead of grain, cooked meat in place of raw, and add wine to his water. Such a change would speedily restore him to health, unless the injurious regimen had been too long persisted in. Will they persist in saying that his disease had been caused by cold, and that they had dissipated it by heat, or reversely? It would be difficult to prove the truth of such responses.

In making bread, the above four qualities are removed from the wheat. Besides this, water, fire, and many other things, each possessing its own peculiar powers and qualities, are employed. It loses part of what it had, and what remains is a compound mixture. I am convinced, that the action of bread on man is very different, according as it is made from well-washed grain or from that which has not been washed; or from white or brown bread; between that which has been kneaded with much or little water, and between ill and well-baked bread. Many other circumstances produce great difference. The same may be said of barley cakes, where we find numerous and different qualities. How can one, who has never examined this, nor thought about it, become acquainted with diseases, when each of the particulars above mentioned is productive of different sensible effects, on which depend the lives of healthy persons, of convalescents, and of the sick? Nothing is more important than a full acquaintance with all these different qualities. They who have rightly pursued the art of medicine, have therein found the variation in the nature of man: a subject so extraordinary, as to have ascribed it to a Deity. They have not considered whether it was the cold, hot, dry, or moist, that benefited or injured man; but believed that injury was the result of an excess of power, which human nature could not overcome, and which they therefore strove to weaken, by opposing mild things to stronger of the same

nature, weak bitters to the more powerful, &c., and thus of every thing carried to its highest grade. They observed that all these qualities were found in man, and all at times became prejudicial. In fact, there is in him, both bitter, saline, mild, acid, acrid, insipid, and many other qualities, possessed of different powers, in proportion to their quantity and degree of strength. All of these, when well united, and tempered by each other, are insensible to us, and do no injury; but if one should separate, and exist alone, it then becomes sensible, and ravages the system. It is the same with aliment. That which is improper for us, is either bitter, saline, acid, or too strong. Hence it is productive of the same inconvenience as the humours I have mentioned, whilst that which is appropriate possesses none of those injurious qualities, nor is it too powerful. Such is the case with bread, barley cakes, and other similar articles, employed in profusion by mankind. I do not speak of dishes and preparations, intended solely to gratify the taste or irritate the appetite. Such are highly pernicious. I refer to common nourishment, which causes no uneasiness, or any separation of the particles of the humours of the body, and serving only to strengthen, nourish, and promote its growth. All these benefits arise from its well-tempered state, in which nothing predominates, nothing is irritating, nothing too strong. Every thing is reduced to a point, so as to be esteemed simple, homogeneous, and at the same time, of adequate strength.

I cannot imagine how the partisans of this doctrine, which is so distant from the true route of medical science, and so beset with conjectures, could contrive to practise on their system, for I do not think they have ever discovered any thing, that is, *per se*, hot, cold, dry, or moist, and unparticipating in any other quality; nor that they have other varieties of food and drinks than those familiar to us; but it has pleased them to call such a thing hot, that one cold, this dry, and another moist! Now they must be embarrassed should they order something hot, and the patient should ask them which; they must therefore either trifle with him, or change their notions; for if the hot is always conjoined with the bitter in one thing, with the insipid in another, and with the nauseous in a third, and if many other qualities are also united with the hot, even such as are of a contrary nature, which of all these hot things will he direct? the hot and bitter, or hot and insipid, or perhaps, something that is cold and bitter, for such there are as well as cold and tasteless. But we well know that each of these four varieties produces

contrary effects, not on man alone; but likewise on leather, wood, and many other bodies, far less sensible than that of man.

It is not the hot that exercises such power, but the bitter, the tasteless, and the other qualities I have mentioned, that produce a powerful effect both externally and internally on man, whether in eating or drinking, or in employment of external applications. In a word, heat and cold, of all qualities, I conceive to be those that have the least power over our bodies, and for the following reasons. Whilst the hot and cold are well united together, they do no harm, since they mutually neutralize each other; but if disunited, or either predominates, then they prove injurious. Even here, however, if it is cold that affects us, the injury is not of long duration; for our internal heat immediately opposes it with all its power, without the need of other assistance, and this both in health and disease; hence we see that if in health we are made extremely cold, by winter or cold bathing, or other cause, the greater the degree of cold, not amounting to an actual freezing of the body, in the same proportion will he be warmed by clothing himself, or getting under cover. So likewise, if much heated by the warm bath, or a large fire, he continues with the same clothing, in a place but little cooler, it will appear much colder to him; and should he expose himself to a draft of air, or fan himself, the sense of cold will be greatly augmented. This is still more evident from walking upon ice or snow. The feet, the hands and face, suffer much from the cold, and when covered up in bed, they suffer from heat and irritation, and sometimes small vesicles appear on the skin, as if it had been burnt by fire. So long as the cold continued, this was not felt, so true it is, that these two opposing powers succeed each other quickly. Many other instances might be adduced, but we will now examine what ensues in case of sickness. In the instance of fevers, in proportion to the violence of the chill, will be that of the subsequent hot stage. If the chill was not of long continuance, the fever is commonly of short duration, and rarely dangerous. In terminating, the heat retires last from the feet, as being the part of the body in which the cold had been most severe, or of longer continuance. At length, when the sweating stage has carried off the fever, the patient's sensations are much more cool and refreshed, than if he had not had the preceding febrile state. Since, then, these two opposites so quickly succeed each other, and thereby temper their respective

excess, what great harm can result, or what need of much foreign assistance ?

It is asserted that those who have ardent fevers, or inflammation of the lungs or other parts, are not so speedily liberated from the heat, nor do they feel this beneficial influence of the cold. I reply to this, that I consider it a certain proof, that fever does not arise from heat alone, but requires the co-operation of other causes. We have a hot bitter, a hot acid, a hot salt, and many more of different character ; and the same may be said of cold. Now these are the causes of the disease. Heat is present undoubtedly, but it exerts no injurious effects, unless conjoined with some other quality, which irritates, and augments its influence, without which it possesses alone its own appropriate power of warming.

We have one fact, among many others, of the most conclusive character, that is, when attacked with a cold in the head, and a discharge from the nose takes place, the humour is more acrid at the beginning than that which is natural to the parts. The nose is swelled and inflamed, and the increased heat is manifest to the touch. If long continued, the humour produces excoriation ; at length the symptoms become moderated, but not until the humours become thicker, less acrimonious, more concocted and commingled, than at first. It is true we have such fluxions, manifestly induced by cold alone ; such are cured by warmth, just as affections resulting from heat alone are removed by cold, and in both cases, promptly and without coction. All other fluxions arising from acrimony and an ill state of the humours, are only cured by the concoction and bland state that is brought about in them. So also we see fluxions on the eyes, owing to various acrimonies that ulcerate the lids, excoriate the cheeks, and even destroy the cornea. These violent effects are only terminated by the concoction of the humours, becoming thereby more consistent, and of a purulent nature. Now this concoction is accomplished through the mixture and modified temperature of the humours. We observe in like manner fluxions on the fauces, throat, &c., inducing hoarseness, quinsy, erysipelas, peripneumony ;—all such humours are at first salt and irritating, and thus produce and maintain these complaints; but when they become thicker, and by concoction lose their acrimony, then the fever declines, and the evil passes away. Now if hot or cold, without the addition of any other quality, should induce disease, and such is sometimes the case, then it ought to terminate

so soon as they are respectively changed for each other; in all other cases, the evil ensuing arises from the agency of other powers. Thus, when a humour, called yellow bile, is diffused through the system, what anxiety, heat, and debility immediately ensue! A spontaneous discharge from the bowels, or produced by medicine duly and appropriately, almost as rapidly put them to flight. But if this humour is allowed to remain, crude and unconcocted, the fever and pains will continue unabated. But if the humour be that called green bile (*æruginosi humores*), how raging are the symptoms, and the pains in the intestines and chest! Nor do they cease, until this bile, mixed and weakened by other humours, is discharged. There are several ways of concocting, weakening, and inducing the natural consistence of such humours; and to these we are wonderfully assisted, by a knowledge of crises, and of critical days. It is neither on the hot nor the cold that we are to operate, for they can neither concoct, nor render consistent. What then is accomplished? We reply, that they are capable of admixture, and that by this they destroy each other's influence. Mixed with any thing else, they still are hot and cold, and cease not to act, unless commingled together. The other qualities in man, the more they are mixed together, so much the milder and better they become; and man is never in better health, than when these humours are thoroughly concocted and at rest, without any one predominating; and this, I trust, is sufficient, so far as respects the hypothesis of these four qualities!

I will now say a few words relative to sundry philosophers and physicians, who affirm, that it is impossible to become acquainted with medicine without previously knowing the nature of man, and how he was first formed and created. I think myself, that all that they have written or said about nature, is infinitely less useful to the physician than to the book-maker; and that, whatever can be best attained respecting the nature of man, is through the means of medicine itself; nor can it be attained, without a full acquaintance with this art in all its vast extent. I have known many persons thoroughly acquainted with all that has been said by those writers respecting the nature of man, &c. But all that is requisite for the physician, on this head, in order to practise successfully, is that which is connected with his food and drink, and the changes which different articles are capable of producing in him. It is not sufficient to say that cheese is injurious, because it induces pain from

eating it in excess. We must know also, what kind of pain, and which, and why, such or such parts of the body suffer from it. Amidst our food and drinks, there are many that are bad, which do not affect the system in the same way. Pure wine, taken in excess, weakens—as those acquainted with its powers well know, as well as the parts of the body on which it acts. Now I wish the same information, as to other things. Cheese, since we have mentioned this, is not injurious to every one. Many employ it largely, without any bad effect. Nay, it is beneficial to thin persons; although, it is true, that some are much incommoded by its employment. This depends on a difference of constitution, and this is owing to something in the system that is inimical to cheese, and by its presence it becomes excited; and the more abundant the humour and powerful, the greater will be the opposition it occasions. If, however, cheese was contrary to the nature of man, all should equally suffer from it, and those who are fully sensible of all this, will not be led into mistake. In convalescence, as well as in chronic diseases, many troublesome symptoms ensue, some arising spontaneously, others from the rash or imprudent use of different things. I have known many physicians, as well as common people, attribute such symptoms to something out of the way done by the patient, as bathing, walking, or eating what they were not accustomed to; and limiting their views to this alone, although, in many instances, it might be the most appropriate step they could have taken. Ignorant of the cause, they blame at hazard, and prohibit that which is most proper. This is an evil of no trifling import. In order to avoid it, the physician should be acquainted with the different effects of bathing at a fit or improper time, and so of other things, for all act diversely according to circumstances. Now, a physician unacquainted with the comparison of action of different things, on man, under different circumstances, can neither know their effects nor employ them properly.

He ought, moreover, to know how to distinguish between those affections that arise from the functions, and those of his organization. I mean by the functions or faculties, the highest grade and power of the humours; by organization, the conformation of the parts that compose the body. Some of these are hollow and contractile, some expanded, others solid and round, or broad and pendent; some are broad, long, dense, thin, florid, spongy, and soft. Of all these, which are best adapted to attract moisture from the

rest? The hollow and equally expanded, or the solid and round, or the hollow, gradually diminishing? Doubtless, the last, as exemplified externally. A man, for instance, cannot drink with his mouth open; but he closes his lips, so as to leave only a small opening, or by employing a tube, when the liquid is readily attracted. Cups, have been made on this principle, with a large belly and small orifice, to attract the humours from the flesh. There are in nature many things analogous. In the human body, the head and bladder, and uterus, for they all manifestly attract, and hence are always full of moisture. Those that are hollow, but expanded, although retaining fluids that are poured into them, yet they cannot attract them. Such parts as are solid and round, neither attract nor contain, for the liquids finding no place, will run over them. The spongy and soft parts, as the spleen, the lungs, the breasts, suck up the moisture presented to them, by which they swell and become hard. It is so likewise, with the cavities containing humours, as the stomach, or any into which a daily flow is made, with no power to distribute from its structure. These imbibe the humour, and by its incorporation, although small and empty, they become dense, firm, and hard, if concoction does not ensue, and the humour is not discharged. All this promotes flatus and pain, causing the sound that is heard in the large and hollow cavities of the chest and belly; for as this wind is not confined to one spot, its motion is accordingly accompanied by noise and uneasiness. Should it press upon the soft and fleshy parts, these will feel a sense of fulness and of numbness. Or should it be opposed by some large part, which is not strong enough to resist it without suffering, nor yet so weak as to yield, and give way to it; if, like the liver, the part is tender, florid, sanguineous, &c., its size and firmness prevents it giving way; the wind, from this resistance becomes more powerful, and greatly augments the evil. Hence so frequently arise such severe pain in the liver, terminating often in tumours and abscess. So also with the diaphragm, though in a less degree. It is a firm and resisting part, but being more tendinous and stronger, it is less sensible to pain; yet this occurs at times, and even abscesses are formed.

Many other varieties of form exist, both in and externally, very different from each other, and modifying the occurrences both of health and of disease. A large or small head,—a large, long, or short neck, a round or flaccid abdomen, narrow or broad chest and ribs, and many more, whose variations all require to be known, in

order to be enabled to discover correctly, the true cause of the symptoms we perceive.

As to the powers of the humours, or what they effect on the system, we should be acquainted with their respective affinities. For instance, we should know, if a mild humour is changed into another kind, not by any mixture, but by degenerating from its pristine state, what is the first alteration it undergoes ; whether it becomes bitter, saline, austere, or acid. The last of these is certainly the most injurious of all these changes which it could pass through ; and whoever can, by his research on external circumstances, extend it to those of internal character, will be the best qualified to estimate their proper treatment, which consists in the removal, as far as possible, of every thing hurtful to the body.

OF THE PHYSICIAN.

SECTION I.—TREATISE V.

DE MEDICO,	FŒSIUS, p. 19.
DE MEDICO,	HALLER, v. iv., p. 169.
DU MÉDECIN,	GARDEIL, ii., 225.

HALLER, in his preface to this treatise, says, a more appropriate title for it would have been, "Of the Shop or Office of the Physician or Surgeon," which is minutely described;—nothing is stated as to plants or medicines. It might be supposed to be written after the subdivision of the art, and during a period of peace, since the author recommends attendance on foreign campaigns, in order to attain a knowledge of the treatment of wounds. The treatise is intended to point out what a physician ought to be, both in respect to body and mind. It then describes the plan of his office or shop, in regard to situation, light, the various instruments and appurtenances required, and speaks of several operations, as cupping, scarification, bleeding, &c., of the extraction of darts, &c., of ulcers, and of tubercles.—ED.

This treatise is intended to point out some short precepts and advice, as to what is essential to the physician; and first, as to his exterior; he ought to have a healthy appearance, and be of proportionate size to his particular constitution: for should he be otherwise, the public will believe him unqualified to attend to the health of others.—His dress should be neat, and his person clean and unperfumed, lest it might be supposed he employed perfumes to conceal some disagreeable emanation, that might be unpleasant to the sick.

As to internal qualifications, he should possess much prudence; not that merely which prevents indiscreet or untimely conversation, but in all his concerns. His mode of life should be perfectly correct; for good manners and modesty contribute greatly to his reputation. He ought to possess circumspection and humanity: haste and assurance will be followed by contempt, although they

may occasionally benefit him, for it is not always possible to avoid his services. They are at times useful, but rarely to be employed by the physician who desires to secure esteem.

In regard to manners, he should be grave, without austerity, lest he should be considered proud or misanthropical; and he should avoid perpetual laughter and hilarity, for they are not at all times acceptable.—In his moral character, justice should predominate. It is at all times of infinite importance, and especially in that intercourse that exists between the physician and his patients. These place themselves entirely in his hands; at all times, wives, daughters, and goods are placed at his discretion. Well then does it behoove the physician to be continually on his guard.—And thus much in regard to his mind and body.

We will now take notice of what is requisite in the study and practice of his profession. In order to excel, it is essential to be careful in the choice of a teacher. Those who give instruction, usually have every thing requisite about them. They ought to be careful in the location of their dwelling, that it should not be incommoded by the wind or sun, to the injury of the sick. Too strong a light, though not felt by the physician, is painful to the sick, and detrimental to the sight; the meridian sun ought to be carefully guarded against, and the light should rather be admitted from the opposite side.* The seats of the patients should be of proper dimensions. No ornaments of brass about them; such are only adapted for the instruments; in any other respect they should be considered inappropriate. Good and pure water for drink should be provided for the sick, and the towels should be clean and soft. For the eyes, soft linen is employed, and sponges for wounds; the property they possess of swelling up, renders them very useful. All the instruments ought to be well made for use, as respects size, weight, and finish. In regard to external applications, such as compresses, bandages, plasters, and cataplasms, the greatest attention should be paid to their accurate adjustment, especially when they are to be of long continuance. The removal of dressings, and their renewal after washing and cleansing wounds, is soon done; the thing to be chiefly attended to, is as to the frequency of this, for much depends on acting correctly herein. As to bandaging,

* It would appear as if a dispensary or hospital is here described. It seems scarcely allied to the private domicile of the practitioner.

two things are essential, that the pressure should be on the appropriate part, and not be unduly tight. Attend also to the temperature, for the impression of the air is at times to be guarded against. He must also be acquainted with those weak parts, that will not bear too strong a pressure. Pay no regard to those intricate bandages that are more ostentatious than useful; they are superfluous, and often injurious. It is not ornament, but utility that is required. With respect to operations, either by the knife or by cautery, they demand both promptitude and caution, for both at times are proper. When a single incision is required, do it quickly; for, as cutting is attended with great pain, we must make it as short as possible; but when accurate dissection is necessary, it must be slowly accomplished, since, if too hastily effected, the pain is continual and severe, whilst some intermission of it is experienced by the former proceeding. Of instruments, it may be stated, that large or small knives are not to be indiscriminately employed. In the body are parts from whence the blood flows largely, and is not readily arrested, as from varices, &c. Small incisions here are proper, and give us the means of more ready restraint, whenever it may be necessary to allow its discharge, but in parts not dangerous, nor attended with haemorrhage, large knives may be made use of, and the blood will be evacuated, which would not otherwise be the case. It is disgraceful in the surgeon not to effect properly the intention he had in view.

Cups are employed in two ways. If the fluxion is deep-seated, the neck and belly should be narrow, and the handle long, but light. Cups of this description draw in a direct line, and attract towards the surface the deep-seated humours. But if the affection is more external and diffused, the cups, in other respects similar to the above, should have a wide orifice, which adapts it to draw from a more extensive surface what is to be evacuated. If they are at the same time heavy, by their greater pressure, they act more deeply, and less superficially, thus perhaps leaving behind a part of the external humours. So likewise, if the fluxion is profound, should the orifice of the cups be large; they then act upon the surface, which thereby, from the moisture thus attracted, prevents that of the deeper-seated humours, thus leaving behind what was injurious, and drawing off that which did no harm. The size of the cups must depend on the parts to which they are applied. If scarification is necessary, make the incisions perpendicular to the

surface, which affords a greater discharge from the tumid part, in which the blood has accumulated. The bistouries for this purpose should be rounded, and of a moderate size, for sometimes the serous and bloody fluid evacuated, is thick and tenacious, and would be left, should the incisions be too small.

The vessels in bleeding must be sustained by ligatures, for in some cases, they readily move under the skin, from not being sufficiently adherent to the parts beneath, and hence the skin is pierced without touching the vessel. If only slightly penetrated, the parts swell, the discharge of blood is impeded, and suppuration may ensue. Two evils hence follow, pain for the patient, and disgrace for the operator. And this remark holds good in all similar cases.

Besides the instruments mentioned as essential, others are also required, such as forceps for drawing the teeth, and for taking hold of the uvula ; these are in common use and extremely simple.

Tumours and ulcers are diseases of more importance, and deserve attention. The principal point as to the former, is to disperse them, and prevent their enlargement. Should this take place, we must endeavour to reduce them as much as possible, and equably ; otherwise they may chance to become excoriated, and form ulcers of difficult cure. They are not to be rashly removed, nor should they be opened, until their contents are fully concocted. The means for promoting this are elsewhere described. As to wounds and ulcers, four kinds are observed. 1. Characterized from depth : these are fistulous, cicatrizing above, but hollow and filled with sanies. 2d. Characterized by elevated carnosities. 3d. By their breadth or extent of surface, and denominated creeping. 4th, and most natural, is attended with suppuration ;—all these are seated in fleshy parts, and have a common relationship. We have elsewhere detailed their respective symptoms and method of treatment ; viz., to resolve congestions, to fill up cavities, destroy excrescences, and restrain their enlargement. We must particularly attend to the due adaptation of poultices, dressings, and bandages. The first, correctly placed, are of immense utility, and help to sustain the dressings. Their composition assists in the cure, by their action on the surrounding parts. Time and circumstances must determine their composition ; this cannot be noticed at present, but it requires both knowledge and experience.

We have only further to take notice of battle wounds from javelins, &c., of which few examples occur in towns, though frequent in hostile encounters. Whoever wishes to excel in such cases, must follow the camp, and quit his home, as the only means of pursuing this the most laborious and yet useful branch of his profession. A knowledge of the symptoms of a concealed weapon in the body, by which its presence is denoted, is a high degree of surgery; its continuance detects the ignorant, for science only is capable of undertaking those cases. Of this we have elsewhere treated.

ON DECENCY IN MANNERS AND IN DRESS.

SECTION I.—TREATISE VI.

DE DECORO, AUT DECENTI HABITU,	FÆSIUS, p. 22.
DE DECENTI HABITU,	HALLER, iv. 178.
DE LA DÉCENCE,	GARDEIL, ii. p. 232.

HALLER says this treatise has been always considered spurious, and is unnoticed by the ancients. The writer, whoever he may have been, is nevertheless a philosophic physician, and the work is replete with sound morality. It instructs the practitioner as to what is essential in his attendance on the sick, so that he may be esteemed a learned, prudent, careful, and attentive man.

It is with justice that philosophers commend wisdom in the common concerns of life. There are, however, many kinds of wisdom or philosophy which tend in my opinion to no useful purpose. I mean such as consist of mere verbiage on points of no importance. Yet of these something may be learned, provided it is unmixed with depravity—I say depravity, for ignorance and inutility are nearly allied to mischief, and often lead to it. Every thing that awakens attention and accustoms the mind to think, leads to good habits; even discussions on subjects not in themselves of much utility. Such things as are connected with the improvement of science, and subservient to the welfare and honour of mankind, are with reason to be preferred; whatever is not base in itself, or merely connected with worldly advantage, is deserving of attention, but it must at the same time be perfectly innocent. Youth often fall into the hands of persons who are continually arguing; but when arrived at maturity, they regard them with contempt, and at a later period, from indignation perhaps, obtain the passage of some law, to banish them. Such persons are well adapted to hold forth in public assemblies, where they industriously propagate their deceptions, and thus extend them through a community. They may be known by their dress and their manners. The more extra-

gant their attire, the more carefully should they be shunned. How different are those who are neat and simple in their dress ; you see at a glance that they are deserving of esteem, and their prudence and moderation are readily appreciated ; always uniform, there is neither pride nor ostentation in their demeanour. Serious in conversation and mild in reply, they are nevertheless acute in argument, and not readily discomposed in pursuing it. They are amiable amongst friends and moderate towards all ; silent to the clamours of others, and deliberating before they speak, they await patiently for the proper occasion. Temperate in their mode of living, a little contents them, and when necessary, can submit to abstinence. Lucid in their discourses, they conceal nothing that they are acquainted with ; and from their graceful delivery, are respected by all who hear them, for they assert nothing which they cannot demonstrate. To nature they are principally indebted for all these qualifications, which, when attained, enable them rapidly to advance in science, for in the acquirement of knowledge, some preparatory attainments are absolutely requisite. Nature and art then happily combine in their improvement. We see many who, from the deficiency both from nature and from teaching, attract no notice ; hence if required by any one to demonstrate what they have asserted, neither nature nor art can aid them. Yet they have pursued the method of the Sophists we have animadverted on, but being deficient in essentials, they are exposed, and finally become contemptible.

Instruction, to be beneficial, *should be founded on facts*. Arts are deduced from reflection ; but any reflections or reasoning, not accompanied by facts, evince that fault somewhere exists. To think merely, and produce nothing, is a proof of error, or of ignorance especially in medicine. Here, opinion alone is criminal, and becomes injurious to the sick. Confidence in self-opinion is delusive, since fact too often proves its falsehood, as impure gold is tried in the furnace. The common remark, that “*finis coronat opus*,” is lost on such persons as I have pointed out, although the true method of attaining the science is daily manifested to all who desire its acquirement.

It may be concluded then, admitting the truth of the preceding remarks, that knowledge and medicine must go hand in hand. The physician who is truly a philosopher is a demigod. Medicine and philosophy are closely allied. That which is taught by the

latter, is practised by the former,—contempt of riches, moderation, decency, modesty, honour, justice, affability, cleanliness, gravity, a just appreciation of all the wants of life, courage in adversity—opposition to fraud and superstition, and due consideration of the Divine power. The physician is perpetually exposed to the hazards of incontinence, turpitude, avarice, intemperance, detraction, and insolence. How far these may influence his character, may be estimated by his conduct towards his patients, his friends, and families. In all these particulars, the appropriate connexion of wisdom and of medicine is conspicuous; but particularly so in respect to the Deity, towards whom the thoughts of the physician must be perpetually directed; for the various accidents of life which come under his notice must compel him to acknowledge His omnipotence. He dare not ascribe to his art unqualified power, when he reflects on its frequent failure; even when success attends, it is to Heaven alone he owes it. We perceive now, how medicine leads to wisdom. They, even, who disbelieve in Providence, are compelled to recognise it in their examination of what takes place in the system, in the change of forms produced, and of the cures, both surgical and medical, from operations, or from internal remedies, and good regimen. These are considerations of extreme importance.

Besides what is said above, something more is wanting to the physician. This is urbanity. Austerity, repulsive to those in health, is much more so to the sick. He must carefully avoid exposing his body too much, or discoursing with the bystanders beyond what is absolutely necessary. A good physician avoids all measures that are not conducive to the welfare of the patient; he adopts nothing that is singular or inefficient.

A physician should always be prepared for whatever may occur, by having every thing essential to his practice duly at hand, or it may chance that some article may be wanting when he is most in need of it. He ought to accustom himself at all times to prepare his remedies, &c., such as lotions, liniments, pledgets, compresses, and bandages of different kinds,—collyria, &c.; and he should have in readiness all sorts of instruments, machines, and apparatus. Deficiency in these, implies a want of foresight that may prove injurious. A smaller collection should be kept ready in case of a distant call. All should be properly arranged, so that what is necessary may be immediately found,

for it is impossible to carry every thing with him. His mind should fully retain the recollection of his medicines and their virtues,—that also of diseases, their various forms and accompanying symptoms. This may be esteemed the A, B, C, of medicine. He is also to acquaint himself with the compounding of his drugs for the various intentions he has in contemplation; such as different drinks, purgative potions, &c., having due regard to the articles he employs, not only as respects their source and species, but likewise the bulk, and age, &c., all in reference to what is required in visiting his patients, so as to be certain of having them at the time they are essential.

Previous to seeing the sick, he should consider what he may find it necessary to do,—for it is assistance that is needed, and not speculation. Experience will enable him to foresee what may take place; this gives him credit, and is not always very difficult. On entering a sick chamber, he should pay attention to his mode of seating himself, and arranging his dress (mantle); he should talk but little, and neither be disturbed himself, nor trouble others. Address the patient cautiously, and let his own remarks be calm, even if agitation and apprehension exist around him. By this he will show that he knows what is to be done on the existing occasion. He then may give his directions, and mention his opinion as to what further may ensue.

Frequent visits are required to regulate the changes that may take place from error or inattention. The disease will thus be better understood, and mistakes less liable. The humours are perpetually varying, either from their peculiar nature or from accident. If the proper moment is neglected for timely assistance, the disease soon increases, and the patient may be carried off from the concurrence of numerous unsurmountable symptoms, that would have readily subsided had they been foreseen and promptly attended to, by the experience acquired from similar cases. Notice should be taken of the faults committed by the sick, who often deceive with respect to their remedies. Many fall victims to this duplicity, arising from their aversion to them. So far from avowing this neglect, they blame the physician.—Care is requisite respecting the sleeping apartments, which should be accommodated to the season, and to the nature of the disease. Some require beds in an elevated situation; others, low, and in dark rooms. All noise and odours should be guarded against, especially that of wine,

which is very hurtful. If changes of situation are requisite, let all be done with perfect silence, and as quickly as convenient, so as not to disturb the patient, for tranquillity is highly essential to his welfare.—The physician should possess the tact of directing his patient's longings, by a proper intermixture of mildness and determination,—and afford them every consolation, without letting them know the nature of their disease, or its probable event.—Inattention in these particulars has tended to augment the present danger, and hasten on the future.

It is requisite to have the co-operation of a pupil or assistant, to receive and execute the orders of the physician. He should be selected from amongst the more advanced in their studies, capable of acting, in any sudden emergency, without injury and of detailing with accuracy all that has taken place during his absence. By no means should the patient be committed to the ignorant and unskilful; their ill conduct will be ascribed to the physician. Nothing should be equivocal; by which all blame will be avoided, and his merit acknowledged.—Let the physician therefore announce to the attendants all that may be anticipated.

Since what we have said respecting decorum and wisdom is equally applicable to philosophy and to medicine, and to all other arts, the physician will attend to them in their particular connexion with himself, without neglecting what is common to him with society at large; for what is favourable to a good name should be generally pursued by all mankind. Such is the method by which celebrity may be attained, both present and future.—If intelligence is, however, unhappily wanting, at any rate, let prudence, as far as possible, supply its place.

PRECEPTS OF HIPPOCRATES.

SECTION I.—TREATISE VII.

HIPPOCRATIS PRÆCEPTIONES,* . . .	FŒSIUS, p. 25.
HIPPOCRATIS PRÆCEPTIONES, . . .	HALLER, iv. p. 186.
AVIS,	GARDEIL, ii. p. 240.

WITH respect to this treatise, Haller says, that although spurious, it is by no means unimportant. Its commencement and conclusion appear to be derived from Hippocrates, to whose brevity and gravity it approximates. It gives advice to the physician concerning his fees, his remedies, and food. Treats of consultations, and denounces the impudence of quackery. In short, like the preceding treatise, it contains many general precepts that are well calculated to excite reflection in a philosophic physician, and to prove useful to him.

Opportunity is the work of a moment; itself, of short duration. Aid from medicine is sometimes the work of time, but not unfrequently, it is immediately called for. This is to be well considered in our intercourse with the sick, who require to be treated, not from mere probabilities, but by observation in connexion with reason. Reflection is a well-regulated remembrance of events perceptible to the senses. Events are evident facts, which are transmitted to the mind through the medium of the senses. Impressions thus frequently produced, the regular train of such events, antecedently and subsequent, is preserved by memory. Reasoning becomes allowable, provided it is based on the complete train of events which are retraced by memory in their proper order and succession. It would seem that nature is impelled to its various changes and movements by many different causes, which serve to illustrate it; because the

* "Præceptiones—πραγμάτια—significat præceptum, sive comprehensionem aphoristicam et brevem, quæ facit vel instruendum Medicum, vel etiam ægrum, aut adstantes. Ita Hippocrates libellum præceptionum ad medicum pertinentium conscripsit, &c."—Castelli, Lexicon Med.

event that ensues is fixed and certain, and the mind can only become acquainted with it in the way I have pointed out, the only way in which it can arrive at certainty. If, on the contrary, our reasoning is not founded on an evident chain of certain facts, but merely of probable events, the most fatal consequences may result from the opinions that may be formed; resembling the case of a traveller in an unknown and trackless country. Such persons, therefore, who practise medicine on such doubtful principles, deserve to suffer for their bad success. Is it not sufficient that the unhappy patient is prostrated by sickness, without having it augmented through the unskilfulness of his physician? I repeat therefore, that success cannot be anticipated from reasoning alone, but through the agency of the means above referred to. The mere babbler is certain of nothing, and is replete with error and deceit. An accurate attention to events, without neglecting attending circumstances, can alone promote that sure and certain practice which is called medicine. It is this only that can render the physician useful to those around him.

No difficulty should be made at receiving information from the most illiterate, provided it appears that they have some knowledge of the subject under consideration. It was thus, I think, that our art had its origin; collecting together, from all quarters, a body of facts. We ought not to neglect what chance may present, especially if it be reiterated; listening with attention in order to profit, and not repulsing our informant, by boasting of our cures, and deeming his experience void of utility. Doubts as to remedies spoken of as if alone appropriate, are highly proper. This does not imply obstinacy; all diseases, from a variety of circumstances, require at times a difference of treatment.

A point deserving of attention in medicine, is respecting the fee of the physician. If he commences by speaking of payment, the patient will presume that he will not be neglected. By not attending to this, he will be led to imagine that your attendance will be irregular. I apprehend therefore that a stipulation as to this particular is perfectly correct, except in cases of an acute nature. Here, the rapidity of the disease admits of no delay; and humanity will lead the physician to think more of the esteem he may acquire, than of mere profit. It is far preferable in such cases to bear the ingratitude of those you preserve, than to stipulate for payment whilst the patient is in danger. It is true, some persons who under the pre-

tence of the hospitality afforded, or the facility of cure, object to payment. Such are worthy of contempt alone. The sick should be considered in the light of the shipwrecked mariner. And where is the real physician who will not rather faithfully afford his services, than act with inhumanity and rigour? Wherefore, when you have made yourself acquainted with the disease, pursue a regular mode of treatment, and neglect nothing that may prove conducive to a cure. Your views as to payment should be moderate, yet sufficient to recompense your labour, without however despising wealth. And with respect to the poor, to visit them gratuitously; preferring thus the pleasure of a grateful mind, to the increase of pomp and parade. Strangers and the poor demand peculiar attention from the physician, for no one can have a proper regard for medicine, who forgets his duty to his fellow-creatures. Some, on their recovery from sickness, appreciating the danger they have gone through, extol the benevolence of their physician, repaying thus a debt of gratitude. It is highly praiseworthy to give advice, preservative of health, and even of bodily appearance. The ignorant physician cannot comprehend such wholesome preventive admonitions; but being carried away by self-sufficiency, he evinces by his conduct that his standing is misplaced, and his sole desire is that of gain; hence he demands payment both from the rich and poor. Proud in prosperity, he spares no expense in his luxurious habits, and cares not for the faults he commits, under a conviction of impunity; but if adversity overtakes him, he is submissive and base in the extreme. The true physician earnestly strives to avoid mistakes, and by this, deservedly merits the name of master of his art. In the pursuit of his duty, he neglects nothing, not even to those in the most abject poverty, for good faith and justice accompany him in all his actions. The reverse of this, is evident in those of an opposite character. Dangerous diseases they sedulously avoid, and undertake those only that can give them éclat. Consultation with other physicians they carefully shun, by declaring their want of confidence in their opinion and judgment. Their patients consequently experience all the unhappy effects, resulting from their imprudent choice. A better selection might at least have proved beneficial, a circumstance of no trifling importance at times, even if inadequate to a perfect cure. The same reasons that led them to have recourse to quacks, the hope of a

speedy and perfect restoration to health, frequently induce great impatience and neglect in the due continuance of remedies, or in perpetually changing them.

If, now, you would institute a comparison as to the ingratitude of patients, it will be seen that for the most part all are deficient in a due recognition of the services of the physician. The poor, at first, are mild and obedient, but ingratitude and ill behaviour too often succeed. The affluent, in sickness, are exuberant in their professions and promises; but in health, when reminded of payment, they excuse their neglect by their rents not being received, and then think no more on the subject. Enough, however, on this head. The physician must act according to circumstances.

A physician, if embarrassed by the state of the patient, or by the novelty of the disease, ought to feel no repugnance in calling for aid in consultation, for it often happens that in a dangerous and unyielding disease, anxiety leads to the omission of much that might be useful, by destroying that presence of mind which is so highly necessary to the medical man. Many regard it as a right, that in consultation, their opinion should be acquiesced in; or perhaps they sustain it by calling in question that of others. Now I am persuaded, that a physician who is prompt to blame others, must render himself contemptible: it is the common practice of quacks. Consultations, however, are not constituted on such illiberal principles, for it is fully admitted, that with even the highest attainment of medicine, still, much is wanting to be known.

These particulars being thus disposed of, one still remains to be noticed, as marking the accomplished practitioner, viz., the due encouragement of the sick, and checking that anxiety with regard to the progress of disease, which so usually is present. Such anxiety is extremely prejudicial, and he who knows how to prevent or allay it, is of infinite service. How many fall victims to this despair that invades them! When, therefore, any one is charged with the care of the sick, their confidence will be gained by stating that our art consists in following nature, and not striving to oppose her. Any other plan will prove unsuccessful. In truth, health is that natural state, in which foreign agencies are not employed, but a certain harmony of action existing between the air and heat and the concoction of the humours. Nature exerts herself in the promotion of health, by means of our food, and the appropriate functions of the body, unless,

indeed, some malformation exists from birth, in which case attempts to remedy it should be made; for all derangement is unnatural, even although it may progress but slowly.

The physician should carefully avoid all affectation, such as the use of perfumes and similar superfluities. His dress should be neat and decent, without an admixture of finery or ostentation. An excess of attention, even to this, is sometimes morbid; of little importance, if duly confined, but when carried to an extreme, it is injurious to him. I would on no account deprecate gentility. It is essential to him in his pursuits; but it is important that he should know its boundaries, and its true intent. In a public discourse, he should not be too flowery or poetical in his remarks; they rather proceed from idleness or ignorance, than from real knowledge. All information, if even the offspring of deep research, is to be carefully avoided, if it has no bearing on the subject before us. This is particularly the case in medicine, which is sufficiently attractive in itself, and requires not the foreign aid of ornament.

They who begin the study of medicine late in life are much to blame. Self-experience is insufficient; that of others is often of great importance;—but their memory of what has been handed down, is so confused as to confound and render useless all they say.—They talk of their superior knowledge, as if desirous to instruct the friends around their patients, who have attended to receive their orders. For my part, when called in consultation with such boasters, I do not stop to argue with them about the disease, but come at once to the point, by asking what plan they propose for adoption. As they may chance to know something of what should be done, although otherwise deficient, I desire only their practical information, and pay no attention to their assumed knowledge in the principles of the art.—Experience, constant, and of long continuance, can alone lead to a full and thorough acquaintance with them. Those who profess to understand them, may be allowed the privilege of talking; but their practice must be deemed the test of their knowledge.

A severe regimen, if not too long continued, increases the desire for food, but if not cautiously administered, it will augment disease. Should all the wishes of a blind man be indulged, how much injury would it not be productive of, even in those which he might most particularly desire.

Some few remarks of an aphoristic character here follow.—ED.

Sudden changes of the air are to be carefully avoided.

In youth every thing seems pleasing;—such is not the case in age. Difficulty in speaking may arise from some disease, or from imperfection in the organs of hearing;—from too rapid pronunciation, or extreme rapidity in the evolution of ideas.—Such is by no means uncommon in those who pursue the different paths of science.

Youth is sometimes the best remedy in slight affections.

The continuance of disease, with no alteration, indicates that it will prove of long duration.

Diseases are terminated by crises.

Little is required to cure, unless the part affected is of great importance.

As we suffer by sympathy from the affections of others, so also will pain in one part of the system sympathetically call into action other parts.

We should bear with patience the complaints of those in pain.

Extreme labour is deserving of some indulgence.

A healthy locality is very desirable.

SECTION II.^a

THE BOOK OF PROGNOSTICS.

HIPPOCRATIS PRÆNOTIONUM LIBER,	FŒSIUS, Treat. i. p. 36.
HIPPOCRATIS PROGNOSTICON,	HALLER, i. p. 166.
TRAITÉ DES PRONOSTICS,	GARDEIL, i. p. 29.

THIS book is uniformly considered as one of the genuine writings of Hippocrates. In the preface to it, Haller speaks of it as “containing all the symptoms, good or bad, of diseases, as derived from every source, and arranged in a natural order, which is unusual for him. The first symptoms are drawn from the countenance, the mouth, the lips, and eyes: next, from the decubitus; then from the appearance of wounds or ulcers; from tossing about of the hands, or picking the bedclothes; from respiration, sweat, the state of the hypochondria, swelling of them, or of the belly. It next treats of suppuration; of dropsical symptoms in acute diseases; of the power of the patient in sustaining his disease; his limbs, &c., as to colour, temperature, and sense of feeling. Of sleep, alvine discharges, urine, vomiting, sputation, and of empyema from an acute disease; of auricular abscess—paraphrenitis—inflammation of the bladder; general termination of fever, acute pain of the head, and ears; ulcers of the throat, and angina; tumour of the uvula; termination of fever in abscess; prognostics of vomiting, and of nasal hemorrhage, and convulsions. Towards the conclusion, Hippocrates demonstrates the absolute necessity of the various symptoms enumerated, as the basis of a faithful prognosis. Adding

^a This section, under the head of *Semeiotica*, vel “Ea de quæ Signis agunt,” contains six treatises.—Σημειωτική, pars medicinæ quæ signa morborum dijudicat.—Lexicon Hederici.—“*Semeiosis*, significatio, notatio, aut designatio dicitur. Comprehendit sub se Dignotionem et Prænotionem: et pars medicinæ doctrinam signorum diagnosticorum et prognosticorum comprehendens, vocatur *Semeiotica*, rectius *Semilogia*, estque pars medicinæ, signorum omnium differentias et vires expendens.”—Castelli Lex. Med.

that those symptoms, which in Greece are good or bad, are equally the same in every other country : that even in Scythia, whoever is acquainted with them, is capable of prognosticating. The same prognosis holds good in relation to diseases not mentioned, but which terminate on the same days. The careful observation of epidemics and of the atmospheric constitution, is enforced. The pulse alone seems to be here overlooked."

In addition to the above from Haller, I shall introduce a few preliminary remarks from Gardeil, who, among other particulars, states that it has been well translated by M. le Febre-Villebrune—a work I have not seen. After saying that the first section of Fœsius contains *none* of the writings ascribed to Hippocrates, he thus proceeds: "It is unquestionably one of the most precious of the writings of the father of medicine. In it, the physician will find the foundation of the whole doctrine of crises, of urines, expectoration, hemorrhages, abscesses, &c., and every where a master's hand is apparent, so that it appears perfect and complete. Such is not the case with the aphorisms,—and I think every physician would find it useful to commit it to memory. Its brevity is its principal defect. It is nevertheless highly probable, that many of our present race of doctors will ridicule many things that are to be found therein, more especially the statement relating to urines ; for it is now beneath their dignity to examine the urine of the sick, or even their expectoration for the most part ! My own constant observation of the urine, preserved in glasses for inspection, has confirmed me in my opinion of the correctness of the Hippocratic doctrines. In respect to the pulse, which Hippocrates attended to but in a very slight degree, I think we err in depending so much upon it to the exclusion of those particulars almost entirely, in which he had the greatest confidence."—ED.

A physician should endeavour to become acquainted with the phenomena of diseases. He who can inform the sick, not only of their present state, but of what preceded and of what may be expected, and point out what they have omitted to mention, will readily be esteemed as being perfectly acquainted with their disease, and they will therefore with confidence commit themselves to his care. A foresight of what is to be expected, enables him the better to fix upon his plan of treatment: a certain cure at all

times is impossible, although of more importance than a foreknowledge of events. Some are carried off by the violence of disease before a physician is called on; others, immediately after; some survive for a day, others longer; time is not always afforded to employ fully the resources of our art. It is of consequence however in all cases, to know if the nature of the disorder transcends the power of the constitution; or if there is not in it something supernatural; (*Σειριον τι. Hipp.; divinum, Hall., Fœs.*) In all cases we ought to be acquainted with what may take place, as a means of acquiring a just celebrity, and of meriting the character of an experienced practitioner; for if a disease is capable of cure, he is the best qualified to effect it who can best guard against the evils anticipated: moreover, by being capable of prognosticating the event either of death or recovery, all blame is avoided.

In acute diseases, the first thing to be noticed is the *countenance*. Does it look like that of health? especially is it perfectly natural? The more it differs therefrom the worse. A sharp nose, hollow eyes, temples collapsed, the brows knit, ears cold and contracted, and their lobes inverted, the forehead hard, dry, and tense, the whole countenance pallid, greenish, black, livid or of a leaden hue. If at the *commencement* of disease such is the aspect, without other accompanying symptoms, in order to form a right judgment, it will be proper to inquire whether it may not depend on excessive want of rest, on violent purgation, or even on want of food. In either case, the state of the countenance is of less consequence, and the disordered system may be restored in twenty-four hours; but if it arises from other causes, and does not change in that space of time, we may safely affirm that death is not far distant. If the disease is of more than three or four days' standing, and the countenance has assumed the above-described appearance, we must examine into the causes that could especially lead to it; at the same time attending to the signs that may exist in other parts of the body.

In examining the *eyes*, we should ascertain if the light affects them, or involuntary tears flow; if squinting attends, or one eye seems smaller than the other; if the white is of a reddish hue, or the lids of a livid tint, with the small vessels turgid with dark blood, the cornea coated with sordes, the globe of the eye turned upwards or pressed forward, or deeply ensconced in the orbit, with diminished transparency, and the whole countenance changed in colour; such symptoms should be considered of the worst character, and

even mortal. The eyes sometimes are seen in sleep, from the lids not closing; if this is customary to the individual, it is less important, or when it arises from a diarrhoea, or from a purgative; otherwise it is a bad symptom, and usually portends death.

If the eyelids, the nares, or lips are convulsed, or cold, pale, or livid, accompanied by any other bad symptom, death is not far distant. So also may it be said when the lips remain flaccid, cold, and pallid.

With respect to the *decubitus* of the patient, that situation is best, that approaches nearest to that of health—as lying on the side, with the arms, neck, and legs slightly bended, with a gentle moisture over the surface? To lie on the back, with rigid neck and limbs, is bad; but if the patient slides from the pillow towards the foot of the bed, it is infinitely worse. The feet uncovered and cold, the legs, and arms, and neck the same, and in continual jactitation, are symptoms indicating great anxiety. Sleeping on the back, with the mouth constantly open, and the legs strongly interlocked, is fatal. Lying on the belly, if unusual in health, is symptomatic of delirium or severe pain. Sitting upright at the acme of the disease, is bad in all acute cases, but in pulmonic affections, indicates the greatest danger. Gritting of the teeth in fever, unless it be a long-existing habit, is a sign of approaching delirium and death: if occurring in the state of delirium, it is fatal.

Sores, both old and recent, should be noticed. If the disease is mortal, they become livid, dry, or pallid, and quite dry shortly before death.

My remarks as to the *motions of the hands* are the following. In acute fevers, pulmonary inflammation, phrenitis or headache, if the patient moves them before his face, to and fro, as if catching at flies or motes, or picks the bedclothes or the walls, his state is desperate.

Frequent respiration denotes pain or inflammation above the diaphragm; deep and very slow respiration announces delirium; cold exspiration from the nose and mouth is mostly a fatal sign. An easy breathing in acute diseases, with fever which terminates within forty days, is very salutary.

Sweats are beneficial in all acute diseases, if they occur on critical days, and remove the fever. Likewise when they are universal, and do not weaken the patient; otherwise they are injurious. Cold sweats, or, if limited to the head, the face, or neck, are bad,

and if associated with violent fever, indicate death. If the fever is moderate, they indicate a long disease. If they form in drops, like millet seed, about the neck only, it is bad ; but if universal over the body, it is a favourable symptom. Sweats arising from debility, or from violent inflammation, are never salutary.

The state of the *hypochondria* is best when no pain is felt there, and when they are equably soft. If inflammation and pain attend, with tension and inequality, danger is to be suspected. If pulsation is felt in them, it indicates great disturbance, or delirium. The eyes should be inspected, for if much agitated, madness is to be feared. Hard and painful tumours in the hypochondria, if extensive, are very bad ; but if on one side only, the danger is less, particularly if in the left side. Death may be soon expected, if this state continues ; or, if the fever and swelling extend beyond twenty days, suppuration ensues. A bleeding from the nose, of a salutary tendency, sometimes takes place within a week, which may be expected if the patient complains of headache and disturbed vision, and is under thirty-five years of age. Tumours, soft, and unaccompanied by pain, and yielding to the touch, are longer in duration, but less dangerous. If fever attends, and they do not recede within sixty days, an abscess may be expected. Such is the case in whatever part of the belly the tumour exists ;—and all such as are large, hard, and very painful, announce the danger of speedy death. If soft and less painful, death is more remote. Abdominal tumours are less liable to form abscesses, if seated in the epigastrium, than if in the hypochondria. If below the umbilicus, suppuration seldom occurs. Hæmorrhage is more common from tumours above the umbilicus. Suppuration, however, is to be apprehended under all these circumstances,—and in considering this chance, we may conclude that tumours pointing outwards are least dangerous, even if extensive, whilst smaller ones, deeply seated, if free of pain, and the surface retains its natural appearance, are not often hazardous. When suppuration ensues, that pus is best that is white, smooth, and soft to the touch, without any offensive odour. It is bad in proportion as it varies from this standard.

Dropsies, supervening acute diseases, are all dangerous. They do not dispel the fever, but are accompanied with much pain, and are usually fatal. Some have their origin in the iliac regions, some in the lumbar, and others proceed from the liver. In the former, the feet swell, and obstinate diarrhœa attends, without diminution

of the pain, or of the aqueous depositions. In the latter case, continual disposition to cough exists, which is harsh and dry; the legs swell, and costiveness ensues, with much pain and little evacuation. Swellings of the belly are occasionally seen, sometimes on one, sometimes on the other side; sometimes they are persistent, and at times disappear.

Coldness of the head, feet, and hands, conjoined with heat in the breast and belly, is a bad symptom. The best state consists in an equable and mild temperature over the whole body. An easy change of position is favourable; but a feeling of heaviness and weight in so doing is dangerous. If to this is added a lividity of the nails and fingers, death is close at hand; a dark or black appearance of those parts is less to be dreaded. All conjoined symptoms are to be noticed; for if the patient appears to bear his illness pretty well, and others equally favourable ensue, the formation of an abscess may be hoped for, that will prove beneficial, and the mortified parts may happily separate. A retraction of the testes and scrotum and penis are significative of severe pain and danger of death.

With respect to *sleep*, it ought to approximate to that of health, resting at night, and awake during the day. The reverse of this is bad. It is true that sleep from six to ten in the morning is less injurious than after that period; but it is far worse not to be able to sleep at all; whether arising from pain, or fatigue, it may portend delirium.

Those *alvine discharges* are the best, which have a due consistence, without being hard, and which take place at the accustomed time of health, and in quantity proportioned to the food taken in. Such are indicative of a healthy state of the bowels. If the stools are liquid, it is better that they should not be frequent and large, or accompanied with flatus. They disturb the patient—prevent sleep—and often, if too copious and frequent, induce fainting. According to the nature of the food, and its amount, two or three discharges by day, and one during the night may be considered as right, the largest in the morning, as usual in health. This, however, depends on habit. As a crisis approaches, the discharges ought to become more consistent, and of a yellowish tinge, without any very bad odour;—round worms discharged at the same time are deemed to be favourable.

In all diseases, a soft and un-enlarged belly, is a good sign. If the

discharges are very liquid, white, green, or very red and frothy, all such are bad; so are also such as are small, tenacious, whitish, or greenish. The worst discharges are black, oily, livid, eruginous, and extremely fetid. Those of a mixed character may continue for a longer time, but are equally dangerous; also such as resemble the washings of flesh, bilious, porraceous, black; sometimes separately, at times commingled. Wind discharged with little or no noise is favourable; but it is better to be so discharged than to be retained. When passed with crepitus, it often indicates pain or delirium, unless indeed this is done at the caprice of the sick.

Swelling and pain in the praecordia, if recent, and not attended with inflammation, pass off by rumbling in those parts, especially if superadded to this, there is a faecal discharge, with wind and urine; the gradual descent of the rumbling to the lower bowels is of itself a source of relief.

Urine, which, up to the crisis, deposits a white, light, and equable sediment, is the best, and denotes a short and not dangerous disease. If it be irregular, sometimes without, sometimes with a sediment, the disease will be longer in duration, and more uncertain. When it is red, and the sediment likewise, it will be longer, but safer. The sediment resembling coarse meal is bad; yet worse if it has the appearance of small scales. White and very tender sediment is pernicious; the worst of all is the branlike sediment. White clouds in the urine are good; black clouds are bad. As long as the urine continues red and limpid, no coction ensues in the disease; if this symptom is prolonged there is much danger lest the disease should be fatal before concoction can take place. The worst urine is that whose odour is fetid, and clear as water, or black and thick; of these the black is the most dangerous, both in man and woman, but the aqueous in children. If the urine continues thin and crude, whilst the other symptoms are more favourable, an abscess below the diaphragm may be apprehended. A greasy, web-like appearance on the surface of the urine, denotes a colligation, and the danger of consumption. The clouds in the urine should be examined, whether they are high in it, or fall to the bottom; the latter, if of the good colours stated above, is favourable: but the reverse, if the colour is of the bad ones enumerated. In order to avoid deception in prognosis from urine, careful examination should be made whether any particular disease of the bladder exists; in such

a case, the symptoms are declaratory only of the bladder, and not of the system.

Of vomiting.—The vomiting of bile and phlegm, if not too excessive, is very beneficial. Either of them, singly discharged, is less favourable. If the discharge is green, livid, or black, it is a bad sign; but dangerous in the extreme, should all of them combine. A livid-coloured discharge, of an extreme fetor, denotes death. Fetor of any kind in the discharges from vomiting is always bad.

Of sputation.—The expectoration in all diseases of the lungs and breast ought to be prompt and easy, and of a yellow uniform tinge. If after some continuance of pain, it is yellow or red, with much coughing, and not well mixed, it is a bad sign. A yellow unmixed sputation is bad. If white, viscid, and globular, this is also unfavourable, as is also that which is grayish and frothy. If not well mixed, and if black, it is highly dangerous. If nothing is discharged by coughing, but the rattling in the throat evinces the surcharge of the lungs, it is very bad. In all diseases of the lungs, coryza and sneezing, whether preceding or succeeding the attack, are dangerous; but in other, and even dangerous diseases, sneezing is a good symptom. Yellow expectoration, with a slight intermixture of blood, in the onset of peripneumonia, is salutary; but if this extends to the seventh day and more, less so. All sputation, unaccompanied by relief, is bad, especially if black. All are beneficial when they afford relief. Whenever, in these cases, relief is unobtained by expectoration, purging, bleeding, or by other remedies, or by diet, suppuration may be expected. If suppuration ensues whilst the expectoration continues bilious, whether alone or mingled with pus, it is very pernicious, especially if the pus is thus apparent with the bilious expectoration on the seventh day of the disease; for the danger of death on the fourteenth day is great, unless some favourable symptom should occur in the interval. Thus, if the patient sustains his disease with ease, breathes and expectorates with facility and with less pain, has his body of an equable temperature and softness, and is not very thirsty; if, also, the urine, stools, sleep, sweat, and other signs are favourable, as previously mentioned, every hope may be entertained of a happy termination; but if several of these good symptoms are wanting, he will not survive the fourteenth day. If, on the contrary, the disease is badly supported, the breathing quick and frequent, pain unmitigated, ex-

pectoration difficult, thirst extreme, unequal heat of the body, the belly and breast very hot, forehead, hands, and feet, cold,—sweat, sleep, urine, stools, of a bad character; all these are dangerous symptoms; for if any of them are conjoined with bilious and purulent expectoration, the patient will die on the ninth or eleventh day. In these conjunctures, such sputation must be deemed fatal, and as announcing death before the fourteenth day. By a comparative estimate of these good and bad signs, we deduce the prognosis, and thereby look into futurity.

Some of these abscesses break on the twentieth day, some on the thirtieth and fortieth, whilst a few extend to sixty days. We may presume that suppuration has commenced from the day that fever has shown itself, or previous chills, particularly if the patient complains of a great weight, instead of pain of the affected part, for such is the usual mode of an incipient suppuration. The time of the abscess breaking will be as above stated, reckoning from the beginning of the disease. In order to know on which side, or if only on one, the abscess exists, the patient should be turned on each alternately, and thereby ascertain if he suffers pain in one alone, and feels a greater heat in either; if lying on the sound side he feels as it were a weight pressing above it, the abscess exists in the side in which the weight is felt. The general diagnosis of an empyema^a is as follows. The fever is permanent, slightly remitting during the day, but augmenting at night, with copious sweat, cough, and tracheal irritation, with but trifling expectoration. The eyes become hollow, the cheeks red, the nails curved, the fingers become hot at their extremities; the feet swell, and the appetite is lost; pustules arise over all the body. In all chronic abscesses of the thorax, these symptoms appear, and may be depended upon unhesitatingly. But in recent empyema, the symptoms previously mentioned as occurring at the beginning of a suppuration, are present, to which may be added great difficulty of respiration. As to the prognosis in empyema, the following symptoms will guide us, as to the period of their rupture. If at the commencement there is severe pain and oppression, with cough unaccompanied by expectoration, it may be expected on the twentieth day or sooner; if the pain is moderate, the other symptoms existing as above, it will rupture later,—but previous to this event, the pain,

^a Vomica, *ευπνημα*.

oppression, and cough, will greatly augment. After the rupture of the abscess, those escape, in whom the fever terminates the same day, with a return of appetite and cessation of thirst. The faeces are small in amount and solid; expectoration is easy and without severe coughing, of well-concocted pus, of a uniform colour, and unmixed with phlegm: a cure soon follows. In proportion as the existing symptoms differ, in the same degree will health be postponed. If the fever does not cease, or if afterwards it returns with violence, attended with nausea, thirst, diarrhoea; if the matter expectorated is greenish, livid, and frothy, and pituitous, death will assuredly follow; but if only a part of these symptoms take place, some will die, whilst others recover after a long time. All these and every other symptom are to be attended to, in forming a prognosis. In pulmonic diseases, if abscesses about the ears ensue, or about the lower limbs, these depositions are favourable, and cure will follow. It is to be noticed in these cases, that when fever continues, with unmitigated pain, and expectoration is unduly small in amount; the stools neither bilious nor well mingled; the urine trifling, with little sediment, whilst other symptoms are favourable, such metastases may be looked for. Abscesses form in the lower extremities, when pain and inflammation about the hypochondria have existed; but in the upper extremities, when they have been free from those attendants, and the difficult breathing has subsided without any evident cause. Abscesses in the legs in dangerous peripneumonies, are always favourable; the most so, are those that take place at the time of a change in the expectoration. If swelling and pain take place, when the expectoration becomes purulent, and easily discharged, the patient will certainly recover, and the abscess will soon heal without pain. But if the sputation is bad, and the urine affords a bad sediment, there is danger of the abscess causing lameness, or great trouble. And should such abscesses disappear, and expectoration not follow, but the fever continuing, delirium and death are to be looked for. Internal abscesses from peripneumonies are usually fatal to old people. Young people are more in danger from abscesses elsewhere.

Fever, accompanied with pain in the loins or lower limbs, becomes dangerous by metastasis to the diaphragm. Other attendant signs are to be attended to, for if they are bad, the state of the patient is hopeless. If, on the contrary, they are favourable, an internal abscess may be anticipated. In all abscesses, opened

either by cautery or incision, if the pus is white, and not offensive, health will follow; but if it be sanguous and muddy, death is to be looked for.

Of Symptoms derived from the Bladder.—A hard and painful bladder is altogether dangerous and fatal, especially if accompanied with continued fever. The pains of the bladder are of themselves adequate to produce death. They induce such obstinate constipation, that the hardened mass can only be removed by force. If the urine becomes purulent, with a white and light sediment, the danger is removed; but if, notwithstanding, the pain continues, the tension of the bladder also, and the fever, there is every reason to expect a speedy death. This state is most usual in youth, between seven and fifteen years.

Of Fevers and their Crises.—The day on which fevers terminate, is ascertained, from observation, long continued, of the day of the recovery or death of the sick.

The mildest fevers, accompanied by the most favourable symptoms, usually terminate on the fourth day or sooner. Those of a worse character, and most unfavourable symptoms, end in death on or before the fourth day. Such is the shortest course they run. The second series terminate on the seventh day; the third on the eleventh; the fourth extends to fourteen days; the fifth to seventeen days; the sixth to twenty. Thus all acute diseases terminate in from four to twenty days, with intervals of about four days. An absolute accuracy cannot be attained; for neither are the years or months determined by a precision in days.^a Another series then occurs, in which the first circuit extends to thirty-four days, the second to forty, the third to sixty days. To ascertain at first the crisis of diseases of long duration, is very difficult; it is equally so as to their absolute commencement. Strict observation is necessary from the first, and thenceforward by quaternary periods, in order to discover how the disease will end. The same order is observed in our judgment as to quartan fevers. It is easy to predict the event in diseases of a short course, for their character is different from the beginning. Such as tend to recovery, are accompanied with easy respiration, without pain; the patient sleeps well, and other good symptoms attend. Those tending to death are in all respects the reverse, and have delirium, with all

^a Owing to the frequent intercalation of the Greek calendar.

the train of dangerous symptoms. Such being the case, we form our prognosis, near the period of their crisis, from their duration, and from every existing circumstance. In predicting the events which follow delivery in females, we are to reckon from that period.

In fever with violent and continual headache, with other dangerous symptoms, death generally ensues; but should it extend to twenty days, without other bad symptoms, a bleeding from the nose, or an abscess in the lower parts, may be expected. These may also be looked for at the commencement, if the pain is felt in the temples and forehead. Hemorrhage is more common under thirty-five years, and abscess after that age.

Acute ear-ache, with continued fever of extreme violence, is a most dangerous symptom; it indicates delirium and death, and therefore demands particular attention to every other symptom from the very beginning. Death takes place, in youth, within seven days, but in adults at a much later period: the fever and delirium in these are much less intense, and the suppuration of the ears is enabled to take place. Relapses are more likely to carry them off. The former perish before suppuration is established, unless a flow of whitish pus ensues, when there is some hope, more especially if some favourable symptom should show itself.

Ulcers of the fauces, with fever, are very dangerous, particularly if any of the bad symptoms enumerated appear. Quinsies are most dangerous, and speedily prove fatal, whenever they are unattended by any sensible appearance in the neck or fauces, but are accompanied by violent pain and orthopnoea. Death in such cases often happens in twenty-four hours, although it may be deferred to the second, third, or even the fourth day. If a tumour and redness attends, the danger is imminent, and in proportion to the inflammation; but the termination is more distant. When the inflammation occupies both the throat and fauces, the period may be of yet further extension. Some under these circumstances escape; especially if the redness of the neck extends to the breast, and should not strike in. But if this erysipelas does not recede on the critical days, and no external tumefaction appears, if no pus is congealed up, the patient free from pain, and seeming well, death is indicated, or a retrocession of the erysipelas. It is less dangerous when the swelling and redness soon appear externally; but should the disease

extend to the lungs, delirium follows, and it not unfrequently terminates in empyema.

When the uvula is red and tumid, there is danger in burning, scarifying, or cutting it, for it is followed by inflammation and hemorrhage. Other measures must therefore be duly employed to relieve it. But if it becomes paler, and the relaxation gives the round appearance at its extremity of a grape, whilst its upper part appears thin, it may then be safely removed. It is proper to purge gently before the operation, if the hazard of immediate suffocation will admit of the delay.

When fevers disappear without the accompanying favourable signs at the critical periods, a relapse may be apprehended. If they continue for a long period without any inflammation or other manifest cause of pain, an abscess with tumour and pain in some of the joints, especially of the lower extremities, may be looked for;—such occur more speedily, and more frequently in persons under thirty years of age, and rarely until the fever has continued more than twenty days. Old people seldom suffer in this way, even in fevers of the longest duration. Such abscesses occur in continued fever; but if it is erratic in its type, and comes and goes, it will, as autumn advances, be likely to assume the quartan form. And, as above stated, abscesses are more common before the age of thirty, so after that period and in old age, quartan fevers are predominant. Abscesses are more common in the winter; they are longer in healing, but are less liable to recur.

Of vomiting.—Whoever labouring under a fever that is not dangerous, complains of violent headache, with cardialgia, and nubiculae floating before his eyes, will vomit up bile. If rigor accompanies those symptoms, and the inferior parts of the praecordia are cold, the vomiting is at hand and will be hastened by eating or drinking. Those who suffer from headache at the time of attack will have it augmented on the fourth and fifth days, and on the seventh it will terminate. It is more usual for the headache to begin on the third day; the fifth is then the worst, and the ninth or eleventh it ceases. Should it begin on the fifth day, and be in other respects as above mentioned, the disease ends on the fourteenth. Such is the case with adults, both males and females, in tertians especially. In young people also, but more so in continued fever, and those of a true tertian type. When in these sorts of fever headache occurs, and weakness of vision, or sparks appear,

with tension of one or the other hypochondria, without pain or inflammation, epistaxis and not vomiting may be expected. This, especially in young people; it is not so common beyond thirty, and in advanced life: in these, vomiting may be expected.

Of convulsions.—When children have an acute fever, with costiveness, insomnia, and are readily terrified and cry, with frequent change of colour from florid to pale or yellowish, convulsions may be anticipated. These readily take place from the slightest causes in infancy to seven years; beyond that period, convulsions in fever are more uncommon, without the attendance of such dangerous symptoms as are seen in phrenitis. Our prognosis in the diseases of children, both of health and death is, as in other cases, to be deduced from all those symptoms that have been mentioned: we mean in acute diseases, and those which result from them. Now, whoever wishes to foretell whether health or death will take place, or whether the disease will be long or short, ought to make himself fully acquainted with all the symptoms and their respective strength, especially as to those derived from urine, and from expectoration in which there is a mixture of pus and bile. He must also be able to determine promptly, the nature of existing epidemics, and the constitution of the atmosphere—never forgetting, that in every year and season bad symptoms are the evidences of ensuing evil, and good ones of a fortunate issue. Such as I have described, are equally true as to Lybia, Delos, or Scythia. The verification of our prognosis in those regions will not surprise, if given with deliberate judgment, and an accurate estimate of all the symptoms. Those diseases that have not here been spoken of by name, are all to be judged of by the same indications when their crises occur in the same periods.

HIPPOCRATES ON THE HUMOURS.^a

DE HUMORIBUS,	FÆSIUS, Treat. ii. p. 47.
DE HUMORIBUS,	HALLER, i. p. 89.
DES HUMEURS,	GARDEIL, i. p. 57.

In his preface to this treatise, Haller tells us that Galen appears to have thought it genuine, since he wrote a commentary upon it, or else upon another that has been lost. Mereurialis considered it doubtful, since ancient critics mostly repudiated it. To me, says Haller, it seems genuine, and the production of the writer of the treatise, "De Locis," for we find in it the same alternating superiority of bile and pituita, that is there depicted. It also contains some things that are to be found in the first Epidemics, a book that is undoubtedly genuine; as well as some aphorisms, the same to a word, as in the book under that title. It possesses, moreover, the brevity of Hippocrates; for we find the names of things alone, without the slightest comment. It commences with a theory of the humours, and of their various tendencies. It briefly rehearses the signs of diseases, and the common rules of practice; notices the critical days, and the power of different ages, years, and winds, and affords examples of metastases from the Epidemics.

In its general character it consists, according to Haller, of medical precepts, relating both to the sick, and to the diseases themselves, their different sources in atmospheric changes and constitution; how to foretell those different constitutions from the existing diseases, and of the preventive powers of hemorrhoidal affections.

According to Gardeil, if this treatise is compared with a commentary on it, by Galen, it will be found to be mutilated in several places. Haller has conveniently divided this treatise under

^a *χυμος, succus, humor*,—in a general way, may be considered as embracing all the various fluids of the body, chyle, blood, bile, &c.

eight short chapters, in which I follow him, with the heading to each one.—ED.

CHAPTER I.

The collection of humours is to be conveyed away by appropriate channels at proper times, or must be resolved by derivation, revulsion, and other means.

The colour of the humours, unless deep-seated, is perceived, like an efflorescence on the skin. When they tend at any time to break forth, they should be directed through their appropriate excretaries, with the exception of such as require time for maturation,^a observing carefully, whether their tendency is outwards or internally, and taking every due precaution, by attention to the rise of symptoms, and to any difficulty they may present. The state of the hair, of the viscera, the fulness of the lower parts, and the good state of the superior; what has a tendency of its own accord, either upwards or downwards, and what appears injurious or beneficial; what is in conformity with custom, region, age; the state of the season, and nature of the disease; what is deficient, or in excess, or altogether wanting. The discharges, remedies, variation or decline of disease, or its tendency to the head or sides, or downward by revulsion from the upper parts,—or upwards, from the inferior. All these particulars require attention; so also as to what parts require desiccation, or moistening, or other means of relief. Effused fluids are to be prevented returning, and their passages are to be dried up. Disturbance in the bowels, how to cleanse them; if abscess threatens in the fundament, and if to be remedied by medicine or by suppuration; if there is a congestion, or appearance of pustules,^b a discharge of flatus, or food, or worms, or great heat, or any other disease.

^a "Ducere oportet quam in partem momento feruntur, per loca accommodata, nisi quorum maturationes progressu temporis contingunt, quæ vel foras, vel intro, vel alio quo expedit tendunt."—Fœs., p. 47. It might be supposed without difficulty, that what is marked above in italics has reference to some of the exanthematous eruptions, as measles or small pox.

^b βλαστημα; pullulatio, Fœs.; pustulosa eruptio, Hal.

CHAPTER II.

What is to be regarded by the physician—Activity essential in the art of medicine—
Considerations respecting irregularity of humours—Of infra-umbilical pains.

Notice is to be taken of what terminates spontaneously ; if the pustular eruptions arise from heat, and if they are injurious or beneficial. So too, we are to observe the form, mobility, elevation, and depression of tumours, sleep, insomnia, anxiety, jactitation ; and thus foresee what we are to do, and what to avoid. Attention is required as to vomiting, purging, expectoration, nasal mucus, cough, flatulence both up and down, singultus, sneezing, urine, tears, itching, excoriation, palpitation, thirst, hunger, repletion, dreams, facility or inaptitude to work. We are to attend to the state of the mind, as developed by its ideas, by memory, speech, and taciturnity.

In female affections, regard is to be paid to the uterine discharges ; if upwards, inducing tormina ; if sebaceous, uniform, unmixed, frothy, hot, acrimonious, eruginous, of different colours, feculent, bloody, not flatulent, crude, concocted, dry, and also the discharges of the parts adjoining. How all these are sustained, and when and how they are to be checked ; which tend to maturation, and to be evacuated downwards ; the fluctuation of such as are seated above, or are discharged from the uterus ; the sordes from the ears ; the maturation, rupture, discharge, heat or coldness, both internally and externally. Intestinal tormina below the umbilicus are less intense and frequent than when above.

CHAPTER III.

Alvine evaeuations considered.

We are to notice the character and appearance of the alvine discharges, if, or not frothy,—whether crude or concocted, cold, fetid, dry, moist, or very offensive. Does thirst arise without great heat, or other apparent cause ? Examine the urine, and nasal moisture ;

is there great jactitation and heat of the body, and difficulty in respiration? How are the praecordia and extremities, the eyes, the countenance, the pulse? Is there palpitation, rough cuticle? How is the state of the tendons and joints, of the voice, mind, person, hair, and nails? and how does the patient bear his sickness? All these are so many symptoms for our attention.

Other symptoms are derived from the odour of the body, or of the mouth, the stools, the ears, flatus, urine, ulcers, sweat, sputum, tears, &c. Are any of these humours saline? All these signs may be under particular circumstances good, or bad. Insomnia also affords us information, as likewise what occurs in sleep. We must ascertain if the patient hears well, and is obedient to directions, and if the majority of symptoms, and the strongest, are favourable. If the patient is perfect in his senses, and readily accommodates himself to every thing around, as odours, conversation, clothes, figures, and if he seems benefited by any of them. All these, if natural, are advantageous, especially towards a crisis. Eruptiones, and the urine deserve attention also, the last especially, if it is at proper times and in due amount; if the signs are adverse, we must direct our care to restrain the evil.

Those parts that are nearest to the organ affected, or which are alike in function, are the first to become influenced by it, and in a higher degree. Its nature is judged of by the primary symptoms; the crisis is estimated by the urine and all other concurrent signs, such as the change of colour of the skin, difficulty of breathing, and others associated. We must examine whether or no the excretions are natural, whether of the urine, from the uterus, the sputa, by the nostrils. Examine the eyes, and if any exudation occurs from tubercles, wounds, or pustules, compare what may be natural, and what the effect of art; what connexion exists between all these about the crisis, whether for good or evil, that you may as much as possible avert the bad, and aid those that are of a favourable nature.

We must also attend to the skin, the extremities, and joints, the praecordia, the eyes, mouth, tongue, manner of decubitus, and sleep; from all which indications are derived as to the crisis, and the measures to pursue; they aid in estimating the formation of abscesses;—we must not omit to judge of the effects produced from the different foods and drinks, and odours; from seeing, hear-

ing, ideas, thinking ; from heat and cold, moisture and aridity ; and with respect to remedies, we must attend to their effects, whether they be unctions, liniments, cataplasms, plasters, or aspersions, singly or conjointly.

We must consider if the patient be accustomed to work, or inactivity ; notice his sleep and watchfulness ; if easily excited or depressed, and if such influence is partial or universal, or the result of the measures adopted. Also, if at or near the increase of the disease, or at its decline, and if the feet are cold. In periodic complaints, during the access, we must not give food or force it upon him. At the crisis, and even a short time before, nothing should be done, but leave all to nature. After concoction has taken place, then we may act ; never whilst the humours are crude, or at the beginning, unless by their force they tend to discharge themselves, which is rarely the case. When necessary to evacuate, effect this through those channels to which a tendency is evident. The utility of evacuations is not to be estimated by their quantity, but by their fitness, and by the relief they afford. When it is necessary to induce debility and faintness, this may be effected by derivation, or by drying up, or moistening, as the case may be, that is, if the patient can bear it. This is known by parts naturally dry, becoming hot, and those that are moist, becoming cold. Alvine discharges are here generally to be restrained. If the disease is periodic, and well marked by exacerbation on uneven days, emetics are given,—and purgatives on even days ; for we find spontaneous evacuations useful, unless the exacerbation occurs on even days,—in which case the treatment is to be reversed. Such, however, seldom occur, and with difficulty is a crisis produced. If such a type continues for any time, as for instance if the increase is well marked on the thirteenth or fourteenth day, then we should purge on the thirteenth, and vomit on the fourteenth, by which a crisis is assisted. In such as extend to twenty days, besides the regular stools, copious purgation should be employed before the crisis.

In acute diseases, much purgation is unnecessary in those who are worn down by them. In fevers, abscesses of the joints or parotid tumours take place near where pain has been felt, which is commonly in the superior parts. If the disease be slow, and tends downwards, the abscess will be in the inferior parts. Hot feet generally indicate its location below ; and cold feet, in the upper parts. In convalescence, if the patient experiences sudden pains in

his hands and feet, there the abscess will form; or if, previous to falling sick, he had pains in any part, there will the deposit take place. Such was the case in those with coughs and anginas at Perinthus, for they as well as the fevers ended in abscess. Such, too, occurs in those surcharged with humours, or by a wasting away of the body or mind. Hence it is necessary to know at what season the humours are most turgid, and to what diseases they give rise, with their appropriate symptoms. We should be acquainted likewise with the disease to which a patient may be most liable in any part,—as to an indurated spleen. And as regards other parts, what is it that produces an unhealthy colour of the skin, or shrivels up the body?—and so of the rest.

CHAPTER IV.

Of the uneasiness of the mind and body—The sudden sight of a serpent induces a pallid countenance—The earth assimilated to the stomach.

We are also to consider what are the effects of intemperance in food or drink; of too much or too little sleep; or of the passions, as of gaming; of great fatigue, whether of body or mind, and if or not of an accustomed character. The changes which take place are to be investigated, together with their causes and effects. Thus, as to what are the effects of mental labour, in deep research, thought, seeing, converse; or from sorrow, anger, avarice, and all that can exert an influence on the mind and body, through vision or hearing. The noise of a grindstone sets the teeth on edge; the sight of a precipice near to which we pass, makes the legs tremble; as do our hands, when any thing is suddenly snatched from them that we wish to retain; the unexpected sight of a snake induces paleness. Fear, modesty, pain, pleasure, anger, &c., all produce some change in some part of the body, as sweat, palpitation, and similar effects.

External agents are beneficial or hurtful, according to circumstances; as anointing, shower baths, liniments, plasters, cataplasms, bandages, and such like. They produce effects internally, just as internal remedies produce external effects; sleeping on unclean woollen fleeces, smelling the cumin called royal. We observe the effects of catarrh on the voice and speech,—the influence of

age on the mammae, the uterus, the testicles, and their secretion, inducing hysteria, cough, and difficulty of breathing. As the earth is to vegetables, so is the stomach to animals, in the production of nutrition, warmth, and cold ; warmth when it is full, and cold when empty. As the ground well manured is warm in winter, so is the stomach. Trees have a dry and thin bark, but if their interior is dry and pulpy, they are healthy, lively, and not apt to decay. It is the same with animals, such as tortoises and the like, under similar ages, seasons, and years. The actions of life are all benefited by moderation. As a new cask leaks, and an old one retains its contents, so the stomach transmits its nourishment, but retains the recrements.

CHAPTER V.

Of the modes of diseases—Diseases dependent on the seasons—Seasons judged of by diseases.

The forms of disease are various. Some are congenital, and are detected by inquiry. Some are endemic, peculiar to certain regions, and attacking numbers. Others originate from a peculiar constitution, regimen, locality, or season. Unhealthy situations produce diseases corresponding to the constitution of the atmosphere that is dependent on their locality. Sudden changes of temperature bring on complaints analogous to those of autumn, and so of other changes. Some diseases arise from marsh and other exhalations ; or from the nature of the water, producing calculus or affections of the spleen. The winds are also of a beneficial or hurtful character. As are the constitutions of the year, so are the diseases. If mild and not tempestuous, the diseases are not difficult to manage. Diseases peculiar to certain seasons, indicate by their appearance the approach of those seasons. According to the variation of the seasons in their constitution, diseases of a regular or irregular type appear. If the season is natural, they are of a common kind ; in autumn, repeated variation in heat and cold induces jaundice. If heat predominates, the diseases are bilious, and should it be extreme, the spleen becomes affected. If similar variations take place in spring, jaundice is likewise seen. If summer has the character of spring, the fevers are accompanied by sweats ; they are mild, and not very acute, and the tongue is moist ; but if

spring resembles winter, and the cold is long continued, the diseases resemble those of winter, and coughs, pleurisies, and sore throat are common. Again, in autumn, if the cold is tardy in appearance, the usual seasonable complaints are wanting; and when they appear, they are of anomalous character; for seasons, like diseases, have their irregularities, whether of too early, late, or sudden approach. Generally, however, the seasons and their diseases are sufficiently uniform, and it is proper to pay some attention to the state of the system at these different seasons of the year.

CHAPTER VI.

Irregularity of the seasons are productive of difficulty in crises; and also induce relapses.

A south wind affects the sight and hearing, induces headache and lassitude; if of long continuance, the discharge from wounds and ulcers is augmented, particularly those of the mouth, pudenda, &c. If the north wind prevails—coughs and sore throats ensue, with costiveness and paucity of urine, and pains in the side and breast. These are all more likely to appear as the wind predominates—and should it still continue, accompanied by drought, fevers will follow, equally as after rains, or other extremes of the atmospheric constitution, according to the state of the body during such successive constitutions, and the humour that predominates in it. The aridity of the north and south winds differs in many respects, as to the degree of dryness at different seasons of the year, and in different countries. In summer, bile is produced, and blood in spring—and thus of the other humours. All vicissitudes induce disease, and those, proportioned to such changes which occur in different seasons. The change is sometimes insensible, and the seasons are then less sickly. So with food, cold, and heat; they ought to be slowly diversified as the ages of life pass into each other. The constitution differs in relation to the season; some are improved by winter, others by the summer. They vary likewise in respect to climate, age, food, and even to disease—some constitutions are less influenced by these than others. Some readily adapt themselves to seasons, climate, diet, and disease. There are food and drinks, and regimen peculiarly adapted to the

different seasons. Winter is a season of relaxation, and requires light nourishment and of easy digestion ; this is of importance. The autumn is that of labour and exposure, and demands much drink, different sorts of aliment, wine, and fruit.

CHAPTER VII.

The character of diseases may be conjectured from that of the seasons ; and from the character of diseases we may predict the nature of the subsequent season—Fore-telling of dropsical complaints—Variation of complexion according to the seasons.

As we are capable of conjecturing the various complaints of the different seasons, so also, by the diseases that ensue, are we enabled to foretell the occurrence of drought, of rain, and the direction of the winds. Attention will confirm this remark. We observe, for example, some cutaneous affections and pains in the joints, that are affected with much itching on the approach of rain—and so in other cases. Rain occurs at times periodically, viz.: daily, every third day, or continued, or at other intervals. Certain winds likewise blow for successive days, others in opposition to them ; some continue for a brief period—others, at fixed and settled times, having an apparent connexion with the constitution of the seasons, but of less duration. If a peculiar constitution of the air continues throughout a great portion of the year, the diseases to which it gives rise will also continue ; and the more violent they are, so will they be more extended, and of longer duration. Humidity after extreme drought is promotive of dropsies on the coming on of rain, or when slight changes of the wind are apparent. We may hence form an idea of what diseases may be expected from the state of the winds and moisture ; and endeavour to ascertain what kind of spring or summer will succeed to such or such a winter.

The complexion is not uniform, either in the seasons, or in the constitutions of the air, induced by the north or south winds ; nor at the different periods of life, whether by comparison of individuals with themselves, or with others. This must be referred to causes which we know to be productive of such irregularity ; age itself acting in a measure like the seasons, both as to complexion and existence.

CHAPTER VIII.

To what diseases those affected with hemorrhoids are not subjected.

Those who have hemorrhoids are not subject to pleurisy, inflammation of the lungs, to phagedenic ulcers, furunculi or tubercles; perhaps not to lepra, nor to vitiligo: but if the hemorrhoids are unseasonably healed up, they are not unfrequently attacked by some of those complaints, and sink under them. Besides hemorrhoids, other abscesses are occasionally preventive of diseases, and sometimes cure them when supervening during their actual existence; but where they are concomitants of the disease, they cannot be regarded in this salutary point of view. Parts, of which we have apprehension of danger, are at times preserved by the accession of pain and uneasiness in the parts already diseased, or elsewhere, or by some sympathetic connexion: blood, if not then any longer discharged, may be expected as near at hand from the lungs. And here, in some cases, bleeding is found proper; in others, its omission is most correct: the season, pain of side, bile, &c., will help to determine its propriety. If swellings about the ears do not suppurate at the crisis, the disease will return on the subsidence of those tumours; and if at the crisis of this relapse they are again elevated, and continue so to imitate the periodic type of the fever, it may be expected that the disease will be transferred to the joints. The urine sometimes becomes thick and white (as in the case of Archigenes), in fevers attended with great lassitude, on the fourth day, with advantage, especially if aided by copious bleeding from the nose,—by which means suppuration is prevented. A person who was afflicted with the gout, was attacked with pain of the bowels, which assuaged that of the joints; but when the pain of the bowels ceased, that of the gout returned with redoubled force.

HIPPOCRATES ON CRISES.

DE JUDICATIONIBUS,	FÆSIUS, Treat. iii. p. 52.
DE JUDICATIONIBUS,	HALLER, ii. 205.
DES CRISES, C'EST-A-DIRE, DES JUGEMENS DES MALADIES, .	GARDEIL, ii. 250.

THIS treatise is in an aphoristical form, and of great brevity, as if written, says Haller, by some pupil of Hippocrates, who had collected together the maxims of his master. Many of the presages appear in various other of the books, as in the Aphorisms, Præ-notions, and De Locis. This contains a statement of the crises of diseases, both good and bad, as derived from the alvine discharges, the urine, sweat, abscesses, symptoms, and other circumstances; and of which are good or bad in fevers and other diseases.

In order the better to comprehend this treatise, it may not be improper to precede it by a short exposition of the subject of crises, as laid down by the ancients. By them a crisis was considered to be a sudden and unlooked-for change in a disease, pointing to recovery or death, occasioned by the contest between nature and the disease; wherein, if she was superior, the patient was preserved, otherwise death was the result. In a more limited sense, the term sometimes was applied to the secretion of some humour; but usually it was intended to convey the idea of a judgment formed on the existing disease. In this view, crises were considered as either *perfect*, or *imperfect*. The first implying a perfect and absolute liberation of the sick person from his disease, either by a restoration to health, or a termination in death. Hence it was termed salutary, or fatal. A salutary crisis required the following circumstances. 1. That it should be attended by a train of the most favourable signs or symptoms. 2. That it should be manifest and clear. 3. That it should occur on a critical day. 4. That it should be trustworthy. 5. Absolutely certain and secure; and 6.

Of a character befitting both the disease and the patient. The imperfect crisis consisted in its not producing a perfect termination of the complaint, but in part only, leaving this for a future recurrence, which might be for the better or worse. If for the better, although not entirely removing the disease, yet the patient was evidently benefited by it; whilst, in the opposite case, every thing became exasperated and more dangerous. Many considered a crisis as depending upon the motions and influence of the moon and stars. Others supposed it owing to the greater or less degree of maturation of the humours, &c.; whilst others ascribed it to a difference in the constitution of patients, and to the plan of treatment that was pursued. The term crisis is derived from *χρινω, judico.*

I follow Haller's division into chapters, as in the preceding treatise.—ED.

CHAPTER I.

What sweats, alvine discharges, urines, and other important symptoms, portend a favourable change and crisis.

The symptoms which portend a speedy recovery are the same as those which, for the most part, are indicative of health.

The best sweats are such as most speedily diminish fever, which take place on critical days, and finally subdue the fever. Those are also beneficial which are universal, and relieve the patient. When they do not produce this effect, they are of no advantage.

When disease is tending to a crisis, the alvine discharges should be more consistent, slightly yellow, and not very offensive. The discharge of worms at this period is beneficial.

The best urine is that which deposits a white, light, and uniform sediment, during the progress of the disease. It indicates safety, and a short attack. If the disease ceases at the coming on of sweat, and a white sediment appears in a reddish urine, it will recur on the same day, but terminate happily on the fifth day. In those whose recovery is at hand, we find them free from pain, tranquil, with sound sleep at night, and other favourable appearances.

CHAPTER II.

Of the causes and solution of headache in fevers not of a dangerous character—Of critical days, and by what channel a crisis occurs—What a jaundice indicates in such cases.

In slight fever, accompanied with headache, with other attendant symptoms, bile predominates. When those attacked suffer much in the commencement, and the pain augments on the fourth and fifth days, the fever will subside on the seventh day.

Fevers terminate in a crisis in the same number of days in which the sick die or escape. When of the mildest character, accompanied with favourable symptoms, they finish on the fourth or sooner; but if dangerous in their nature and in their accompanying symptoms, death ensues on the fourth or before. This is the first period; the second extends to the seventh day, the third to the eleventh, the fourth to the fourteenth, the fifth to the seventeenth, the sixth to the twentieth. This order of diseases then, (acute,) extends to twenty days, by intervals of four, which however are not to be strictly and rigorously enumerated. The months and years do not exactly coincide in their subdivisions.

In ardent fevers, the best symptoms are such as approximate to those of health; those are less so that indicate a remission on the third day, &c. If after the seventh day a jaundice occurs, sweating may be expected. Usually they do not tend, *per se*, to sweat, or to suppuration. The heat subsiding, sweating follows, and a crisis consequently ensues, accompanied by a copious urinary or alvine discharge, or a bleeding from the nose, or copious sweat or vomiting. In females the menses sometimes appear. All these united will constitute a crisis, or a near approach to it; sometimes it is less marked and different from the above. When jaundice occurs in ardent fever, on or after the seventh day, with difficult yet abundant expectoration (and this happens in other fevers also), and the fever does not decline, it denotes that instead of terminating as above, an abscess will form in some great tumour, with severe pains, or a colliquation from the febrile heat of the humours.

CHAPTER III.

Judgment as to health, death, or long continuance, of ardent fever—Its change into a lyperia or epialis; jaundice succeeding—Good, bad, and doubtful signs—Judgment of tertian and acute fevers.

Exacerbations and remissions in ardent fever indicate its prolongation, and if of great violence, the probability of death. Other ardent fevers without remissions are less dangerous, and terminate on the seventh or fourteenth day. They sometimes change into a lyperia, continuing for forty days, and ending in an epialis. Lyperia exhibits symptoms which appear and disappear the same day, with considerable headache. When lyperia does not terminate in forty days, but headache and delirium attend it, purge freely. But in whatever manner ardent fever ends, if jaundice succeeds, sweats and abscesses rarely follow, but recovery ensues. Tertian fever usually terminates on the seventh accession. If, in violent fevers, jaundice appears on the seventh, ninth, or fourteenth day, it is favourable, provided a hardness does not occur in the right hypochondrium; if so, it is of a doubtful character. Acute diseases commonly terminate in fourteen days. Fevers are terminated by sweats, if they occur on the third, fifth, seventh, ninth, eleventh, fourteenth, twenty-first, or thirtieth day; if they do not on one of those days, much trouble may be expected. The coction of the urine by gradual maturation, if occurring on a critical day, puts an end to the disease. What respects the urine, may be compared with what we see in ulcers. If they are covered with a white pus, a speedy cure may be looked for; but if the discharge is sanious, they assume a bad character. A similar presage may be derived from the urine. If after pain it becomes clear, we should investigate the cause; and if the disease increases and it still continues clear, we must not expect the disease soon to terminate.

If in headache fever should succeed, and the pain should still continue when it ceases, it is not critical. Many symptoms, even if favourable, may yet be associated with a tardy crisis.

Small and soft tumours in the praecordia, without pain, and readily yielding to pressure, indicate a continuance of disease, but of less danger than when the tumours are opposite in character. The same may be said of other ventral swellings.

CHAPTER IV.

Judgment derived from the urine as to gouty diseases—From sweats and alvine discharges, as tending to health, to death, or to a continuance.

If the urine when evacuated is turbid, it indicates, though the sediment be white and uniform, that the crisis is distant, and not as certain as when the urine is of a more healthful character. If it is red, and the sediment also red and light, the crisis will be still more remote, but at the same time salutary. All gouty affections, unaccompanied by inflammation, terminate in forty days, the symptoms mostly improving in this slow tendency to a crisis. When death threatens, the crisis occurs in twenty-four hours; the symptoms are those of great debility, as after taking a powerful medicine that operates both up and down, with anxiety and symptoms of a similar kind. If they do not cease in twenty-four hours, the case may be esteemed fatal. Of all sweats the worst are those that are cold and arise about the neck; they announce a prolonged disease, and death. Alvine discharges of different colours continue indeed for a longer period than black ones, but are not of a less pernicious character, and they are ultimately fatal. Some of these stools have the appearance of the washings of raw flesh, some are bilious, bloody, porraceous, black, sometimes all combined, sometimes separate and distinct. Urine that is sometimes clear, and at times deposits a white and smooth sediment, indicates a longer persistence than when it is of a healthy appearance. If it continues for a long time red and clear, there is a great chance that the patient cannot bear up to the period of its maturation; but if some other favourable symptoms combine, an abscess in some part below the diaphragm may be looked for. In fevers, changes in the urine indicate a prolonged disease, and the patient will vary for better and worse. If it is irregular, from thin, becoming thick, then clear and persistent, a crisis is difficult and uncertain.

CHAPTER V.

Judgments derived from cold and copious sweats—From the heat and coldness of the body, from evacuations, from the pulsation of vessels, from the face, hypochondria, tremors of the hands, dyspnea, watchfulness—From tetanus, jaundice, singultus, and critical days.

Cold sweats in acute fever are a fatal symptom, but if the fever is of a milder kind, they indicate a continuance of the disease. That part may be considered as the seat of disease, wherein cold and heat alternate, and when such changes are frequent. If those mutations are universal in the system, with frequent change of colour, they indicate a long disease. It is a bad sign when fever does not diminish on the coming on of sweat,—the disease will be of long continuance, accompanied with a superabundance of humours. Cold sweats occurring in fevers announce their long continuance. In health, a copious and incessant sweat denotes an approaching indisposition; milder, if in summer, more severe, if in winter. If the discharges have a deposit resembling scrapings, but in small amount, the disease is trifling; if large, then it will be more considerable, and the bowels require to be cleansed. If black bile is voided in small amount, the disease is moderate, but of more violence, if it is abundant. If the vessels pulsate, the forehead tense, the hypochondria hard and prominent, a prolonged disease is to be looked for, terminating in convulsions, epistaxis, or violent pains. Subsultus tendinum indicate a long continued fever, or an approaching crisis, followed by increased disease, and the probability of death. Such as are soon to die, have extremely violent symptoms from the very onset, such as difficult respiration, sleeplessness, and others of equal danger. If continued fever exacerbates on the fourth and seventh days, and does not finish on the eleventh, it is mostly fatal. Tetanus is commonly fatal in four days, but if that is surmounted, health is restored. If jaundice and singultus occur on the fifth day, it is fatal. Relapses happen in fevers, when obstinate insomnia or disturbed rest occur, with great debility of the body, or pain of the limbs, and when the fever has ceased on a non-critical day without any signs of crisis. Even if sweat succeeds the fever, and the urine deposits a white sediment, itself being

red, a return of fever may be expected the same day. Such relapses are, however, not dangerous, and terminate on the fifth day; but if, after the crisis, a red urine deposits a red sediment, and a return of fever occurs the same day, very few of such escape. Mostly, a relapse of ardent fever is accompanied with sweat, especially if it continues as long as at first. The fever even returns a third time, unless the relapse terminates on an uneven day. If the urine is unconcocted, and no reasonable symptoms have preceded, the relapse happens on a critical day, and sometimes even when it is not the case.

CHAPTER VI.

Judgment as to relapses, abscesses—Of tetanus, melancholy, phrenitis, mania, suppuration—Of pains in the inferior parts—Of ardent fevers.

When, at the period of a crisis, tumours about the ears do not suppurate, the disease, as the tumours disappear, returns as it were, in the nature of a relapse, with a chance of an abscess forming in some other place. If the urine is thick, resembling the white appearance in the urine of those labouring under a quartan, the abscess is prevented. In some of these cases a bleeding from the nose takes place, which does not put an end to the disease; this is accomplished by an abscess forming. Hemorrhoids occurring in melancholic and phrenitic cases are beneficial. Those who at the spontaneous termination of disease become insane, are cured of this, if a pain of the feet or breast supervenes, or if a severe cough attacks them; if this should not be the case, blindness follows the cessation of the insanity. Stuttering and repetition of words, without a proper control of the lips, in disease, are followed by an imposthume, when those impediments cease. A severe pain in the lower extremities, or copious bleeding from the nose, are removed by deafness. Insanity sometimes removes violent constitutional diseases. Ardent fever is cured by ischiatic pains, or by distortion of the eyes and blindness, or swelling of the testicles or breasts, and at times by epistaxis. In such fevers, the occurrence of chilliness indicates sweating. Shiverings in such fevers end in delirium. If such fevers are not removed by deafness coming on, mania necessarily occurs, which is cured by epistaxis, by bilious stools,

by dysentery, or by pains in the knees or ischium. Fever succeeded by cold, is removed thereby.

CHAPTER VII.

Judgments of unexpected pains—Of dropsy—Of leucophlegmatia—Diarrhœa—Volvulus—Cephalalgia—Ophthalmia—Convulsions—Tetanus.

In sudden pains, with swelling of the hypochondria, if the pains extend to the false ribs, bleeding and purging remove them; for fever will not attack with violence a weakened part. In dropsy, if the water finds a passage by the vessels to the intestines or bladder, a cure will result. A copious diarrhœa cures a leucophlegmasia. Such as are affected with a chronic diarrhœa, accompanied with cough, are not cured, except a severe pain in the feet attacks them. If any change in the nature of a disease is likely to happen, no diarrhœa attending, and merely flatus discharged, showing the absence of humours, you may safely administer what is proper for the patient. In iliac passion, give plenty of pure, cold wine, by small doses, until sleep, or pain of the legs ensue: fever or dysentery stops its progress. A discharge of pus from the ears or nostrils, checks headache in diseases. Whoever in health is suddenly attacked with headache, loss of speech, and snoring, will die within seven days, if fever does not come on. In severe and general headaches, apply cups to the upper parts. Should pains of the ischium or knees, or asthma take place, the headache ceases. In ophthalmia, a diarrhœa is useful. In spasm or tetanus, a fever coming on removes it. In fever, if spasm occurs, the fever is arrested within three days. In spasm of the hands and feet, if mania occurs, if the vessels of the hands beat, the face full, the hypochondria hard and swelled, the disease will be tedious, but without convulsions.

OF CRITICAL DAYS, OR OF WHAT HAS A RELATION TO CRISES.

HIPPOCRATIS DE DIEBUS JUDICATORIIS LIBER,	.	FŒSIUS, Treat. iv. p. 56.
HIPPOCRATIS DE DIEBUS JUDICATORIIS LIBER, DES JOURS CRITIQUES,	.	HALLER, ii. p. 215.
	.	GARDEIL, ii. 261.

ACCORDING to Haller, this treatise was not by the ancients attributed to Hippocrates, although Mercurialis considers it as containing his opinions. Haller regards it as an abbreviated transcript from the book "De Internis Adfectionibus,"—in which are contained the Gnidian sentences;—referring sundry diseases here mentioned to similar ones in that treatise. All, however, are not from that source. Diseases are by the author derived, some from bile, or from bile and pituita, or blood. The book in general treats of the judgments to be formed by the art of medicine; and of the requisites by which the physician can form a just estimate of diseases; and of the various symptoms and circumstances by which his judgments may be formed.—(ED.)

CHAPTER I.

What is essential to be known by the physician is here pointed out, to prevent his being deceived.

I esteem it an important part of our art, to be well acquainted with the best writings that have reached us on the subject; for he who is thus informed and properly employs his knowledge, cannot, in my opinion, make many mistakes. Now, he should know the constitution of the different seasons of the year and of diseases accurately; and of diseases individually—the good or bad of each, either as depending on their own peculiar character, or on the existing state of things; the signs that announce their duration and danger; of chronic diseases, which are salutary; and if acute—

which are dangerous, which safe. He should know from these how to judge of the order of critical days, and to predict from them the event; and deduce his rules as to the proper regulation of diet, as to time, amount, and quality. It is of the highest import to the welfare of a patient in ardent fever, that the disease and every thing connected with it, should be consistent with its nature; for what depends on natural laws, is salutary. A second and not less important circumstance is, the concurrence of the season with the disease; for the nature of man is not superior to the power of the universe. After this, we are to notice the general appearance of the patient; if the face is extenuated; if the vessels of the hands and in the angles of the eyes, and the eyebrows are quiescent, after having been previously active; if the voice is weaker and softer; the respiration less frequent and laborious than before;—in such a case, a remission will occur the following day; and hence the importance of attending to every circumstance connected with crises. Examine the tongue, whether its body or tip is furred or moist, and in what degree. If all these signs are but slight, a change for the better will occur probably on the third day; but if more strongly marked, the succeeding day, or even the same day, when they are of the highest grade. The white of the eye, moreover, is necessarily rendered dull when the disease is violent; when brilliant, it is a sign of health, and indicates its approach in proportion as its brilliancy is restored.

CHAPTER II.

Description, causes, signs, and symptoms of acute affections of the liver—Fanciful influences in such affections.

Acute diseases originating in an afflux of bile to the liver, and tending to the head, proceed as follows: the liver tumefies, and is pressed towards the diaphragm; immediately headache ensues, especially at the temples; hearing and sight are diminished; and chills and fever come on. These symptoms are the first observed, and vary in intensity in different cases. As the disease progresses the pains increase; the eyes wander and become obscured; if the finger is presented to them it is not perceived, as may be concluded from their not winking at its approach; yet the patient appears to

see something, for he picks the bedclothes as if catching bugs; and in proportion as the liver presses against the diaphragm, he becomes delirious, thinking he sees snakes and wild beasts around him, or soldiers fighting with him,—talking at the same time in terms, as if this was truly the case. He strives to escape, and threatens those who oppose him. If raised up, his legs fail him, and he falls down; his feet are constantly cold; and when sleeping he starts, and has horrid dreams, as may be presumed from his waking suddenly in a fright; and when recovering his recollection he details his dreams, which correspond with his actions and talking during sleep. Such are his sufferings; at times he is speechless for twenty-four hours; his respiration rapid, and elevated; his reason returns at the ceasing of his flightiness, and he replies consistently to any question, and understands every thing that is said, but almost immediately relapsing into his preceding condition. Such affections are more common in long journeys across deserts, but are not confined to these.

CHAPTER III.

Three varieties of tetanus described, and the judgment respecting them.

There are two or three kinds of tetanus: when it arises from a wound, the jaws are rigid like a piece of wood, and the mouth cannot be opened. Tears flow abundantly at times, and the eyes sink. The back is stiff, and neither the legs, arms, nor spine, can be bended. Food and liquors taken previously, are frequently discharged through the nostrils. In opisthotonus, the symptoms are similar. It arises from the tendons of the back of the neck being affected from angina, or from an affection of the uvula, or other parts of the throat or tonsils. Sometimes it occurs from fevers attacking the head. That arising from wounds, affects the posterior parts; the pain renders the spine rigid, and the breast suffers; the spasms are so severe, that the patient can scarcely be prevented from being thrown from the bed. There is another variety, less fatal than the former, arising from the same causes, and affecting in like manner the whole body.

Ardent fever does not originate as tetanus. It at once shows its nature to resemble that of a great fire. It commences with a vio-

lent thirst and high fever; the tongue cracks, becomes rough and dry, and from its natural colour, turns black. If this change of colour is early in the disease, the crisis will be hastened; if later, so will be the crisis.

CHAPTER IV.

Of the distinction and judgment of sciatica and jaundice.

Sciatica commonly arises from long exposure to the sun, by which the hip joint becomes heated, and its humours are dried up; that this is the case, is apparent from the patient's inability to turn or move his limbs, owing to the pain of the joints, and to a constriction of the spine. The pain is most severe in the loins and vertebræ adjoining the ischium, and in the knees; but it is often felt in the groin. If the patient is raised up he cannot move himself, the severity of the pain causes him to groan aloud, and not unfrequently convulsions attack him, followed by rigor and fever. Bile is the origin of sciatica, and sometimes blood, and pituita. The pains in all these diseases are pretty similar, and chills and slight fever sometimes attend. There is a species of acute jaundice that speedily terminates in death; the skin is every where of the colour of the rind of a pomegranate, verging on a green, similar to that of some lizards; the sediment of the urine is nearly of the same hue, red like orobes;^a the fever and chill are inconsiderable. At times the patient cannot bear any covering; he feels in the morning internal twitchings, as if from a grater, and although the intestines are empty, there is great rumbling. If spoken to, or raised up, he complains. Death takes place usually within fourteen days; if that period is surmounted, he recovers.

CHAPTER V.

Diagnosis and critical days of peripneumony and of fevers.

Peripneumony occurs as follows: violent fever, respiration hot and impeded; anxiety, debility, and restlessness; pains about the

^a A leguminous plant.

scapula, clavicle, and breast; a sense of weight in the chest, with delirium. Sometimes there is an absence of pain, although cough has commenced; such cases are of longer duration and more dangerous. At first the cough yields only a white and frothy sputum; the tongue is yellow, but ultimately assumes a dark colour. If dark-coloured at the beginning, the changes are more rapid than when this colour ensues at a later period: the tongue finally cracks, and if the finger is applied, it adheres to it. The change in this disease and in pleurisy is announced by the state of the tongue. It continues at least fourteen and may reach to twenty-one days, during which period the cough is vehement, and the expectoration tinged with blood; at first, indeed, it is copious and frothy. On the seventh or eighth day, when the fever is at its height, the inflammation softens down, and the sputum thickens, though not invariably; on the ninth and tenth days, it changes to a palish green, intermixed with a little blood; from the twelfth to the fourteenth, it is profuse and purulent. In those of a moist temperament, the disease is very violent, but much less so in those of an opposite character.

As to critical days, I have elsewhere mentioned them. Fevers, however, have their crises on the fourth, seventh, eleventh, fourteenth, seventeenth, and twenty-first days. Some of an acute nature even, terminate on the thirtieth, fortieth, and sixtieth day, beyond which the diurnal characters are entirely lost.

PREDICTIONS OR PROGNOSTICS.

BOOK I.

HIPPOCRATIS PRÆDICTORUM, LIBER PRIMUS,	.	.	.	FŒSIUS, Treat. v. p. 67.
HIPPOCRATIS LIBER PRIMUS DE PRÆDICTONIBUS,	.	.	.	HALLER, ii. p. 125.
TRAITÉ DES PRÉDICTIONS, LIVRE PREMIER,	.	.	.	GARDEIL, ii. p. 268.

Fœsius has a preface to this treatise and its immediate successor, (the second book of Predictions,) explanatory of the two, but too long to be here inserted, and indeed not forming a part of my plan, viz., that of giving a brief view of the different treatises, without troubling either myself or reader with any extensive research as to the real author of each. It is perhaps sufficient, as in the preceding treatises, to give the short exposition of Haller, serving as a preface or head-piece, and which is to the following effect, viz.: that Galen considered this treatise as the production of one of Hippocrates' children, but that although initiated in the art of prediction, yet it was in a degree vastly inferior to Hippocrates himself. He knew not how to deduce general axioms from particular events, and not unfrequently has given particular observations for axioms. He has not sufficiently discriminated the symptoms depending on the cause of disease, and too often exhibits as symptoms different and incoherent events. He oftentimes mentions the names of the sick, from whose diseases he derives his axioms; among them some of Cos, from which island Hippocrates is supposed to have removed at an early period. He likewise makes use of obsolete words, or else employs them in an unaccustomed sense. Nearly half the treatise is taken up with delirium and the symptoms of soporose diseases. A third part is taken up with convulsions, and the remainder with hemorrhages and abscesses, especially of those occurring behind the ears. On this treatise Galen has written a commentary. As the general argument of the treatise, Haller adds, that it consists of the enunciation of what is salutary or injurious in diseases, and of what portends

good or evil; as also, what the peculiar occurrences are, which in almost all diseases happen to the sick.

It is divided into eleven chapters by Haller, and under one hundred and seventy short sentences by Fœsius. This treatise, together with Fœsius's comments, has been very ably translated by Dr. Moffat, under the title of *Prorrhætis*, (*προφητικόν*, Hipp.; implying vaticinium, prædictio,) Lond. 1788, together with the Prognostics, and will compensate the reader for its full perusal. As this can be readily obtained, I have deemed it less necessary to give more than a very brief outline of the contents, although I have translated the whole.—ED.

Presages respecting those who are attacked with coma, phrenitis, madness, melancholia, their various signs, and symptoms;—of what throbbing pains about the navel, leg, and thigh, portend; presages from pains of the loins; from the voice, thirst, mode of reply, the eyes, teeth, respiration, countenance, alvine and urinary discharges, in acute and bilious diseases; vomiting, forgetfulness, imperception, rigors and heat in the side, redness of the face, distortion of the eyes,—all of which are bad. In what circumstances purging is improper; pains in the cardia, neck, and with tumid præcordia, &c.; soporose fevers, and their concomitants; vomiting, variety of; non-discharge of puerperal lochia; apoplexy; lumbar pains, and translation of, to the stomach; pains of the fauces without swellings, but with difficult breathing, extreme danger of; various soporose and spasmodic affections, their danger; singultus; pains of the neck with sopor, sweat, tension of the abdomen; ulcerated mouth, &c.; lumbar pains, their fatal metastasis to the præcordia and head; rigors; pervigilium, involuntary discharge of urine in sleep; headache, with sopor, &c., in pregnancy; fatal signs of some anginose and other affections of the fauces; signs of convulsions; variety of alvine discharges; good, bad, indicative of convulsions, &c.; what convulsions indicate in fever and mental affections; of various convulsive states and mental emotions, especially in females; their causes and symptoms; of hemorrhages, &c., how to estimate them; presages from epistaxis; nasal stillicidium; of tumours and abscesses about the ears, &c.; suppression of urine; alvine discharges; various pains, &c., deafness, &c., all connected with parotid swellings; danger from, in various diseases; convulsions from hemorrhages from different parts, and their association and connexion with abscesses of and about the ears.

PREDICTIONS OR PROGNOSTICS.

BOOK II.

HIPPOCRATIS PRÆDICTORUM, LIBER SECUNDUS,	FŒSIUS, p. 83.
HIPPOCRATIS LIBER SECUNDUS DE PRÆDICTONIBUS,	HALLER, i. p. 193.
TRAITÉ DES PRÉDICTIONS,	GARDEIL, i. p. 75.

THIS book, (says Haller,) the *genuine* production of a great man as we may readily perceive, from the weight, modesty, method, and continued succession of observations it evinces, is far superior to the first book.—It commences with a notice of the ostentatious predictions of some of the physicians of his time. It then speaks of the predictions in a healthy state, derived from the discharges, and from the respiration. This is followed by a notice of several diseases; dropsy, phthisis, empyema, gout, epilepsy, ulcers, wounds in general, and particularly of those of the head, the cubit, and spinal marrow; of sanguineous angina, diseases of the eyes, dysentery, diarrhœa, lientery; of easy or difficult conception, of headache, of chlorosis, nyctalopia, epistaxis, enlarged spleen, a disease closely allied to scurvy; of sciatica, leprosy, lichen, and morphew. It points out the principal events and symptoms of each, and I cannot think the first book of Predictions can possibly be referred to the same class of genuine writings. The book may be considered as adverting to the ancient modes of prediction; to the predictions of most importance in the art, together with the good and bad symptoms, from which such predictions are derived.

Hippocrates in this treatise, (says Gardeil,) seems to have principally had in view the exposure of the vanity of the diagnostics and prognostics of the gymnastic physicians, and to establish firmly the foundation of a true science of prognostics, by a copious detail in many instances.—ED.^a

^a Clifton has given a translation of this treatise under the head of "Hippocrates on Prognostics." Haller has divided it under nineteen chapters, but I have followed Clifton in making no distinct parts.—ED.

We hear much of numerous surprising and wonderful predictions made by physicians, such as I must confess I have never made myself, nor seen made by others. Some of them I will here relate.

A man in the last extremity, was so considered by all around him; another physician being called in, exclaims, "This man will not die, but he will lose his sight." In another case of equal danger he predicted that the patient would survive, but that he would lose the use of his hand. In a third, not expected to live, he declared that he would recover, but that his toe-nails would become black, and fall off from putrefaction. Many others are related of a similar nature.

Another method, in predicting to such as are engaged in business, is to announce death to some, or mania, or other disease; which they pretend to know from past events, and declare they have never been deceived. In the gymnasium, among the athlète and others who go there for exercise and to strengthen their system, they profess to determine accurately whether any deviation has been made in their accustomary and prescribed regimen or drinks, or in their stated exercise, or if venery has been indulged in. Nothing of all this can be hidden from us, say they, however slight the fault, so perfect is our art. And all this foolery is dignified by the name of prediction.

For my part, I pretend not to such predictions; I describe merely the symptoms by which we may judge if health or death will follow; of the continuance of the disease, and whether future health or death may be expected. Elsewhere I have treated of abscesses that occur, and how to judge of each by their respective appearance. I think that those persons who have predicted lameness and such events, have made the assertion *after* the disease was confirmed, and when it was evident that the abscess could not be restrained; for I cannot persuade myself that their prediction could have preceded its formation; and I think the same as to their other asserted predictions. Their proceedings are by no means difficult to such as choose to follow them. Thus, who is so ignorant as not to know a dropsy, or phthisis? and as for insanity, it is easily known if a predisposition to it exists, or if they have previously suffered from it. Such persons, by excess in drinking or in eating, or privation of rest, or by imprudent exposure to the vicissitudes of temperature, are assuredly very likely to be thus attacked. So in those affected with hemorrhoids; if in winter we notice them with

a high colour, and drinking freely, is it not easy to predict what so often is observed to follow, viz., that in the spring a copious hemorrhage will take place, followed by pallid countenance and dropsical effusions in the summer? He, however, who desires to excel in this kind of quackery, will do well to attend to these particulars, and also consider if he will gather laurels from it. From works already in our hands, we are enabled oftentimes to foretell both death, delirium, and recovery. Much more might be added, but I have determined to write only what is most easily to be attained; at the same time advising every one to be very prudent and reserved, not only as to their predictions, but also in every part of their profession; being well assured that, by just predictions, they will be esteemed and regarded by every intelligent person, whilst deception or failure in prediction, will cause their discredit, and very soon lead others to consider them fools. I recommend, therefore, the utmost prudence in advancing predictions or other assertions, for I daily see and hear persons of but little judgment, who erroneously relate every thing that is done, said, or written, in relation to medicine.

With respect to the predictions affirmed to have been made to those who frequent the gymnasium as a means of improvement of health, I have no faith in the statements as they have been related; yet if any one thinks fit to believe them, he has my full consent. Opinion will scarcely be set aside by probability, good or bad, or be deemed sufficient by an individual who has pinned his faith on the subject asserted; for such faith has not been the result of a strict examination. I leave every one therefore to believe as he chooses. If nevertheless there is any truth in the assertions made, or in those things which the physicians of the gymnasium profess to affirm, relative to the omissions in the regimen they may have directed; still, he who has made such divination, must have founded it on some symptom, and have spoken of it doubtfully at first, though by subsequent extension it assumes a marvellous character. It is not easily ascertained in diseases, when errors are committed in regimen; although here, the patient is confined to his bed, and his treatment is simple, so that inquiries are necessarily very limited. Many are restricted to mere liquids, others in addition employ broths, or solid food of a stronger nature. Now, in such cases, if the simple drinks are too largely taken, respiration will be impeded, and the discharge of urine increased. If broths are taken beyond

due amount, or a stronger nourishment, thirst and fever are super-added, and the belly becomes distended and hard. The physician can readily by examination convince himself of these changes and of any others, by means of daily observation. By the use of his reason and of sight, when visiting a person who ought to have remained quietly at home, under a particular regimen, it is easily ascertained if any deviation has taken place; as for instance if he had been moving about, or had eaten different articles; and by the aid of his own hands, he can discover the state of the belly or of the pulse. The sense of smell, in fevers, affords him much assistance, for the odour varies greatly in them, which is not the case in health if accompanied with an appropriate diet. Even our ears enable us to judge of the voice and of respiration in diseases, differing as they do from what is perceived in health. Suppose a physician to be acquainted with the nature of diseases and the habits of the sick, yet he is not thereby qualified to form a prediction; for if the disease is as yet unsettled, the above symptoms do not authorize it, and we must await its further progress before we can safely judge of what is to follow. If the symptoms above mentioned are the mere results of some error in regimen, they will probably disappear in twenty-four hours, and if such an event is announced, it will no doubt prove true. So far I cheerfully acknowledge that we may determine wherein a patient thus confined at home, may have proved disobedient; but as to those persons who frequent the gymnasia, and commit errors in diet, &c., I listen to the reports respecting them, and laugh at the narration. When only trifling errors are committed, I know no means of assuring myself about them; but if they are considerable, I will state how we may be led to their detection.

We must, in the first place, carefully observe the individual for at least a day, in the same place and at the same hour, especially at sunrise; at that time, fasting, and empty from his evacuations, he has had nothing to tire him, save perhaps a short walk, of no injurious tendency. He who follows a good regimen, will necessarily, at this time, be of his natural standard, both as to his complexion and his whole system; whilst the observer is also then more acute in mind and in vision. He ought to consider the character, habits, and powers of the person; for some more readily than others conform to directions. If one on a restricted diet should go considerably beyond it, it will be evident from an increase of

fulness of the body and of its colour, except indeed the excretions are increased in due proportion. Labour is moreover better supported; we may inquire also if wind is discharged up or down, as is usually the case from such excess in eating and drinking. If the regimen requires frequent meals, and hard work, and the proper quantity is not taken, or drunkenness is indulged in; or if, after a hearty supper, exercise is pretermitted, this state of disobedience may be thus discovered. If, after omission of his supper, his usual exercise renders him more active, agile, and fit for work. If the exercise after supper is omitted, eructations, and flatulence ab anno take place, with little or no relief of a sense of fulness. Sweating, from work is more easily induced, respiration is difficult and oppressed, and the alvine discharges are more copious and less consistent. If both supper and exercise are omitted, languor and flatulent extension are increased. Should he have been inebriated, sweating is more profuse, with a difficulty of respiration, a sense of weight, abundant urine, and, unless headache exists, an augmented gayety. If venereal desire attends, and be moderately indulged in, it is useful; but if in excess, lassitude follows, the skin becomes rigid, and of an unhealthy colour.

As to the predictions from the *alvine discharges*, it may be remarked, that people who work hard, with little sustenance, have such evacuations, small and hard, daily, or every three or four days, or even at longer intervals, when there is danger of an attack of fever or diarrhoea; but liquid dejections, not moulded in passing, are of a worse character. Those who work hard and eat copiously should have easy discharges, the amount of food being proportioned to their labour; hence, with equal quantity of food, in health, if the work is great, the discharge will be small; whilst if the work is inconsiderable the discharges will be greater, and this is a rule of general standing. Liquid dejections or diarrhoea without fever, and ending on the seventh day or sooner, are advantageous, provided the discharge is made at once and not repeated; but if fever attends, or the diarrhoea is frequently renewed and obstinate, they are altogether bad, whether bilious, watery, or crude. Each of these varieties requires its own particular regimen and remedies.

The urine ought to be proportioned to the fluids taken in, pass off in an equable stream and with ease emptying the bladder, having a rather greater density than the drink taken. If less so in this particular, and at the same time more abundant than the pre-

scribed drink, it indicates that more was taken, or that the nutriment was carried off by this channel. If discharged with a slight hissing sound, purgation is indicated, or may denote the existence of some affection of the bladder. A slight discharge of blood, without pain or fever, is of little importance, and may arise from fatigue; but if it is of frequent occurrence, and is accompanied by pain and fever, it is unfavourable, and we may predict a subsequent discharge of pus with relief to the pain. A thick urine, depositing a lightish sediment, denotes tumour or pain in some of the joints. All the other sediments in the urine of those who labour, arise from vesical affections, as manifested by pains not readily removed. All this, and similar, I have noticed, and have judged it proper to detail. I have associated with those who have talked of the exact predictions elsewhere made, I have conversed with their children, and with their disciples, and have read their writings, and having thus made myself fully master of their opinions, but finding no solid grounds for them, I was thence determined to commit my own to writing.

With respect to dropsy, phthisis, gout, and epilepsy, I shall remark that this is common to them all, viz., their extreme difficulty of cure when congenital. And now of each in particular.

For the cure of dropsy, sound viscera and adequate strength, with good digestion, are very essential; good breathing, freedom from pain, equable temperature of the whole body, no emaciation of the limbs, but rather a fulness, although the absence of both is best, with natural softness and size, and the belly soft to the touch. There should be neither cough, thirst, nor dry tongue, whether after sleep, or at other times, as often is the case. The appetite should be good, and after eating no uneasiness. Purgatives should operate promptly, and at other times the stools should be soft and figured. The urine should correspond with the regimen, and with the changes of wines. Labour should be readily supported without feeling fatigued. Such is the best state for an hydropic person, to give the expectation of recovery. In proportion as it deviates therefrom are our hopes to be less sanguine; but they must entirely cease when the reverse of what is above stated is the actual condition; or only be maintained according to the existing state of things.

It is much to be feared that dropsy will succeed large discharges of blood from the stomach and bowels; when connected with fever

it will be of a brief character, and few recover. A prediction to this effect may be safely made to the friends of the patient. Large œdematosus swellings, disappearing, and recurring again, are more readily cured than in the preceding case. They are, however, very deceptive, inducing the patient to dismiss his physician, and thus dying without assistance.

Of phthisis, advanced to the state of cough and suppuration, I shall refer to what I have already said of empyema. If likely to recover, the expectoration is easy, and should appear white, uniform in colour and in consistence, and free from pituita. Humours from the head should flow freely by the nose; fever should be absent, so that nourishment need not be interdicted, and no thirst should attend. A daily evacuation of healthy fæces, in amount proportioned to the food taken, should take place; emaciation ought not to occur; the chest should be square and hairy; and the sternum, small and well covered with flesh, should not project. With such accompaniments, there is little danger; without them, death is not remote. In youth, when suppuration forms from congestion, or from previous ulceration, or any similar cause, or from a repetition of an abscess, a recovery is not to be looked for, unless there is a combination of nearly all the above favourable signs. Such persons commonly die in the autumn, as is usually the case in all other chronic affections. Women and girls, in whom phthisis occurs from suppressed menstruation, rarely escape. If it occasionally happens, besides the presence of the above symptoms, a perfect and regular return of the catamenia must follow, or there is no hope to be entertained. No less fatal in man, woman, and girls, is the suppuration succeeding to a profuse hæmoptysis. It is by duly attending to all the symptoms mentioned, that a prediction can be given of health or death in phthisis accompanied with suppuration. Those who after hæmoptysis experience less pain in their back and breast, are most likely to recover; for their cough is less frequent, and though fever attends, it is accompanied with but trifling thirst. Nevertheless, the hemorrhage is often renewed, or an abscess is induced with a discharge of blood. When, with pains of the breast, emaciation slowly advances, with cough, and difficult breathing, but unaccompanied by fever or discharge of pus, we must inquire if something of a compact nature and of an offensive odour is not discharged by coughing.

As to gout, my sentiments are as follow:—Old people who have

tophaceous concretions of the joints, with continual suffering, and habitual costiveness, are incurable, at least by any measures known to me. They are relieved by pain in the intestines (dysentery, Hal.), and by the humours tending to the inferior parts. When the patient is young, and not affected with articular nodosities, if he leads an active life, and is very regular in his evacuations, and in a duly adapted regimen, he may hope for a cure.

Epilepsy is very difficult to cure, when arising in childhood; and it strengthens by age. Next to this, when it arises in manhood from twenty-five to forty-five years. Then those, who have a sudden attack without any previous symptoms in any part. Such as have it springing from the head, or sides, or hands, or feet, are more readily cured. Even here there is much diversity; for if arising from the head, it is most difficult, and next from the sides: it is much more easy to cure, when its origin is in the feet, or hands. The cure is to be attempted by the same means which are useful in young, vigorous, and laborious people, unless the mind is affected, or an apoplectic tendency exists; for all vehement emotions of the mind are very bad: other emotions tending downwards are useful on whatever organ they may fix, especially if a sanguineous discharge is promoted. As to epilepsy occurring in old age, it is mostly fatal; if not soon destructive, they recover spontaneously, and without any medical assistance. When children suddenly squint, or are still more changed as to their vision; if tubercles of the neck occur, or stammering in speech, or long-continued dry cough;—or, if rather older, tortina take place without discharge, and contortions in the sides, with varicose vessels on the belly, or a hernia of the omentum, swelled testicles, wasting of the hands or feet, or their complete impotency, without any apparent cause—be assured that in all such cases, there has been an attack of epilepsy. This will often be admitted by those who have the care of them. Some however have not observed it, and therefore deny that such an event has taken place.

In order to predict the termination of ulcers, it is essential previously to study carefully the constitution of the individual; for in some they readily heal up, in others they do not. Age likewise is to be had in view, for each advance of life has its peculiar ulcers, of more or less easy removal. The parts of the body are equally different in this respect. Especially is it necessary to be well informed as to the good or bad in all these cases;—and he who has

made himself fully master of them, is alone qualified to predict their events; for how is it possible, if this is not the case? Now a good state of the body consists in its agility, good proportion, a healthy state of the viscera, and being neither too fat nor too meagre. The skin should be fair, brown, or of a light fleshy tint. All of these separately are good; but if intermixed with a greenish hue, or if pale or livid, this is unhealthy: in fine, every deviation from the three colours above mentioned, may be reckoned to be bad. As to the connexion of age with ulcers, children are liable to tumours, which suppurate, and to struma, which for the most part readily heal. If older, such also occur, and are less easily cured. Men are not so liable to them, but they are to tumours of an encysted, or cancerous nature, often concealed, and of a high degree of danger; sometimes to pustular eruptions and creeping ulcers, up to sixty years of age. A still more advanced period brings with it a disposition to cancers of the internal organs, or of the extremities, scarcely ceasing but by death. The most difficult of these to cure, are seated in the axilla, in the loins, and thighs, to which parts the humours are most abundantly directed, and a return of them is very usual. In affections of the joints, the thumb and great toe are the parts most liable to be attacked, especially the latter. The tongue is not unfrequently ulcerated by some adjoining decayed tooth.

Wounds are mostly fatal that are made in the large vessels; likewise in those of the neck and groins, or in the brain and liver, intestines and bladder; the danger is proportioned in a measure to the extent of the wound, as well as to its direction: the constitution is also to be considered;—in some persons, little or no fever or inflammation take place after wounds, whilst others are promptly affected thereby. If the patient becomes delirious, whilst the wound appears otherwise trifling, every attention must be paid to it that art can bestow, seeing that death occurs from all description of wounds. There are an immense number of vessels, both great and small, from which a spontaneous hemorrhage might prove fatal, but which on other occasions might be opened with advantage. Many wounds occur in parts of little importance, and which apparently have nothing formidable in them, which are, however, attended with such severe pain as to impede respiration. At times, instead of this, the pain induces delirium and fever, with death. If subject to these symptoms, it is less alarming when they occur.

Nor is this surprising, considering the difference between men, both as to mind and body, and of what resistance they are capable. Should wounds happen under these circumstances of mind and body, whilst there seems from the irritation and violence of the injury, but little hope of restoration to his senses and to health, every thing must be abstained from, save only what is absolutely required to restrain the frequent faintings. As to all other wounds, especially if recent, their cure should be undertaken and persevered in, until all fever subsides, or danger of hemorrhage, or of a degeneration into eating ulcers. Always be watchful to guard against accidents, for it is of much importance. Eating ulcers, with great depth, blackness, and dryness, are fatal. The state of such as afford a blackish sanies is very dangerous. When the discharge is white and mucous, they are less fatal, but more frequent, and of longer continuance. Tetters, of all the eating ulcers, are the least fatal, but they are, like occult cancers, difficult of cure. In all these cases a fever for twenty-four hours affords relief, especially if the suppuration is white and thick. The exfoliation of a tendon or of a bone, or of both, is useful in deep and black suppurations, for it then happens that the pus improves and the putrefaction ceases.

As to wounds of the head, such are the most to be dreaded that reach the brain. All are dangerous, if accompanied by denudation of the bone, by compression, or by fracture. If the wound is small, but with extensive fissure of the bone, the danger is greater; and yet more so, if it be near the sutures and the upper part of the head. In all cases of wounds of the head deserving attention, if recent and fresh, we should inquire if the person fell from the blow at once, and became drowsy. If so, greater care is requisite, as there is reason to presume the brain is interested. Should the injury be of longer standing, other symptoms must be regarded and carefully considered. Now, it is very favourable if there be an absence of fever, hemorrhage, and inflammation, and no pain has succeeded. If any of these attend, it is better that it should have taken place immediately, and been of short duration. If pain attends, an inflammation of the edges of the wound is favourable, and after the hemorrhage, that pus should make its appearance; if fever, that the favourable signs elsewhere described in treating of acute fevers should attend; the reverse of which is unpropitious. But when the fever begins on the fourth, seventh, or eleventh day, it is a fatal symptom. It commonly has a crisis on the eleventh

day, if its commencement was on the fourth ; on the fourteenth or seventeenth, if it began the seventh ; and on the twentieth, if it began on the eleventh, conformably to what is written on fevers arising without any manifest cause. If, at the commencement of the fever, delirium takes place, or paralysis of any part, the person will die, unless some very favourable symptom is present, or his constitution is very strong. This must be particularly attended to, for in some cases there is a hope of recovery, yet with the continued loss of the limb that had been affected, if he should survive.

In wounds of the limbs, if large, and the tendons are divided that are connected with the joints, it is evident that the use of them will be destroyed. If any doubt as to this exists, that is, of the wound of the tendons, when pierced by a dart, a direct wound is more favourable than if oblique. If the weapon inflicting the injury be heavy and blunt, the danger is equally great, and is to be estimated by the depth of the wound and other symptoms. Among these are, whether suppuration extends to the joint, which is very dangerous; whether obstinate tumours continue, producing induration of the parts, of long duration, even after the wound is healed ; in which case the motion of the joint will be long in restoration, especially if the limb has been suffered to remain in a state of extension during the cure. When the probability is that the tendon will exfoliate, it is correct to predict lameness of the part, especially if in the lower extremities. The destruction of the tendon may be known by the long-continued discharge of a white, thick, purulent matter, with pain and inflammation of the joint from the onset. The same is the case when the bone separates. In fractures of the elbow, with inflammation, and ending in suppuration, incisions and cautery are required. In affections of the spinal marrow from falls or other cause, or if spontaneous, the use of the legs is lost ; if the hand is placed on the belly or bladder, no sensation is felt. At the commencement, neither faeces nor urine are discharged except by medicine ; but if of longer standing, they pass off involuntarily, and death soon follows.

When the fauces are filled with blood, by day and by night, unaccompanied by headache or cough, or vomiting, fever, or pain in the breast or back ; the fauces and nostrils should be examined, to ascertain whether it may not arise from ulceration or from a leech.

Watery eyes are easily cured, when the swelling, tears, and sordes all commence at once ; if the tears and sordes are inter-

mixed, without much heat, if the sordes be white and soft, and the swelling light and extended, and the lids agglutinated, but without pain, little danger is to be dreaded, and the disease will be of short duration. But if the tears are abundant, hot, with a small discharge, and swelling in one eye only, it is of longer continuance, although not dangerous, and without pain. Here, it is highly necessary to attend to the crisis, which may be expected on the twentieth day; if it extends beyond this period, it occurs on the fortieth, or even proceeds to the sixtieth. During all which time the discharge should be examined, whether it is mixed with the tears, if white and soft, and this especially at the time of the crisis, as such will be the case if the disease is about to terminate. If both eyes are affected equally, there is more hazard of ulceration, and the crisis will be less prolonged. Ophthalmia, if dry, is very painful; it is not of long continuance unless ulceration ensues. If the swelling is large, dry, and without pain, it is not dangerous; but if it is painful and dry, an ulceration of the eye may be feared, and accretion of the lids. There is danger when the pain is accompanied with tears, for from such hot and salt humours ulceration of the pupil or lids may be apprehended. If the swelling continues, with discharge of tears and sordes for a long time, an eversion of the lids is to be expected in men; and the same, together with ulceration, in women and children. Should the sordes be of a greenish or livid tinge, the tears abundant and scalding, with heat of the head, and pain extending from the temples and fixed in the eye, preventing sleep, ulceration will ensue in the eye, with danger of its bursting. A fever supervening is favourable, as is also a pain about the loins. To predict in such a case, the time of the complaint must be kept in view, as well as the nature of the discharge from the eye, the pains, and the insomnia. When enabled to examine the eye, if any part is found ruptured, and through the opening any part should project, this is very unfavourable, for it is difficult to replace it. Should it be in a state of putrefaction, there is no hope of its recovery; the sight is entirely lost. The results of other ulcerations may be predicted from a consideration of their locality, and the extent and depth of the ulcer, for the cicatrix that ensues will be in proportion thereto. When the eye is ruptured and the pupil is thereby displaced, there is no further hope of the recovery of sight, either from time or from remedial means. Slight displacements may indeed be relieved in young subjects, provided nothing

bad supervenes. We may anticipate in youth, if no further evil ensues, that the cicatrices, if recent, may be removed by time or by art. As to the part wounded, the most dangerous is that in which the pupil is interested,—next, when it is above the supercilia, and then according to the proximity to them. When the pupil assumes a grayish, argentine, or bluish tint, it is a bad sign. If it contracts, it is more favourable; or if it enlarges and contracts, or even assumes an angular appearance, whether spontaneously, or from some obvious cause. Obscurity of vision, clouds, and white spots, diminish and disappear, unless an ulcer should attack the part, or a previous cicatrix or pterygion had existed. If a cicatrix of the black of the eye should occur, giving to the part a whitish appearance, and in time becoming thick and rough, it will leave behind it evidence of its existence not easily eradicated.

The crises as described in fevers, are similar in these cases. In order to predict them, we must be master of the symptoms, know well the diseases of the eyes, and their differences. The greater the number of the unfavourable signs, the disease will be in the same ratio prolonged, as is explained in writings on the subject. If the symptoms are good, in the like ratio will be the period of the disease, and a crisis may be looked for on the seventh day, or shortly after, and all danger considered as past. Relapses are to be guarded against, when such changes for the better occur on non-critical days, and without the accompaniment of good symptoms. In all affections of the eyes, the urine should be inspected, and the fleeting nature of opportunity should be kept in constant remembrance.

Pains in the bowels, attended with fever, and a variety of alvine dejections, with inflammation of the liver, of the præcordia or belly, with nausea and thirst, are always bad; and the more of these there are, in the same degree are they dangerous. If few in number, the hope is the greater. The greatest danger is at about five years of age, and thus up to that of ten, after which it is much lessened. Such pains as are beneficial are unattended by the above symptoms. When accompanied with bloody stools, and such as resemble the washings of flesh, they terminate on the seventh or fourteenth, the twentieth or fortieth day, or at some intermediate period. Such discharges often give relief to other diseases. If of a chronic nature, that relief is more slow, but quicker if they are recent. Women, during pregnancy, are subject to them up to, and even

after delivery. The discharges of blood and matters resembling the scraping of the bowels, and that for months, are not always the source of abortion, unless conjoined with pain and other of the enumerated symptoms of dysentery. If so, they prove fatal to the fœtus, and of great danger to the mother, until parturition and the discharge of the secundines; and afterwards, if then the dysentery does not at once cease, or soon after.

Frequent and long-continued lientery, coming on at all hours, both by day and night, with or without strepitus, with a discharge of crude and undigested or dark-coloured matters, and unformed, of offensive smell, are uniformly bad. They excite thirst, but the fluid is not conveyed away by urine. The mouth becomes ulcerated, blotches and spots of different colours appear in the face, similar to what are called freckles, and the skin of the belly becomes rough, like dough in fermentation. The appetite entirely fails, and all exercise or work is out of the question. This disease is most severe in old age; in middle life, less so; but much less so in early life. In all cases, except the two first mentioned, when the above formidable symptoms are not in great amount, it is less to be dreaded. It requires to be carefully attended to, until the urine is discharged in due amount to the drink taken in, and the system appears to derive nourishment from the food, and the skin to be liberated from its mottled appearance. The other profluvia, unaccompanied with fever, are of short duration, and generally of a mild character; they commonly cease spontaneously, or yield to lotions. We may announce the evacuations about to cease, when on applying the hand to the belly, no motion is felt, and when flatus is discharged at the close of an evacuation. Diarrhoea, in men afflicted with the hemorrhoids, occasions a prolapsus ani; and dysentery induces the same in children with calculus, and in old people who with difficulty evacuate their mucous accretions.

We may estimate the facility or difficulty of conception in the manner following. First, as to the exterior. Small women are more apt to conceive than large ones; thin women than fat; brown than pallid; white than florid; such as have prominent veins, than those in whom they are deep-seated. Excessive fleshiness is unfavourable to conception at an advanced age. Large and turgid breasts are favourable; all of which signs are apparent to view. With respect to the interior, it is necessary to know the state of the uterus, as to its health, its dryness, and softness; neither retracted

nor too low down; its orifice should not be awry, nor compressed, nor too extended; for in all such cases pregnancy is impossible. So likewise we must ascertain the state of menstruation; if it duly takes place every month, in adequate quantity, and of a proper colour; at regular and equal times in a month. If so, the circumstances are favourable. When therefore conception does not occur, if the woman is pallid, free from fever, and no apparent fault of the bowels; if she complains of headache, of painful and ill-conditioned catamenia, in small amount, and at distant and irregular periods, the uterus requires to be evacuated. If the woman has a good complexion, with much flesh and fat, so that the vessels are unseen; if free from pain, and menstruation is entirely absent, or trifling and ill-conditioned, it is very difficult to promote conception. On the contrary, if the body is vigorous, the menses superabundant, and pregnancy does not occur, there is some fault of the womb; it is retracted, or too open. Other affections of that organ are connected with pain, and a bad complexion, together with emaciation. Should there be an ulcer in the womb, the result of parturition, or of some tumour or other cause, fever is the consequence, with swellings and pains in the groins: and if to this an interruption of the lochia be added, the evil is rendered worse and more obstinate; and there are, moreover, superadded, headache and pains of the praecordia. When the ulcer heals, the part is left in an indurated state, and the aptitude to conceive is diminished. When the ulcer is in the left side only, and whilst continuing, conception takes place; or if it has healed, and the state of health is otherwise good, it is most probable that the child is a male; but if it is the right side that has been affected, the probability is greater of its being a female. If pregnancy cannot take place, and fever and a cough oppress her, it is necessary to ascertain whether an ulcer of the womb exists, or any of the affections I have mentioned; and if there is not, a vomiting of blood may be anticipated, presuming that the menses have necessarily disappeared: but if they return, and the fever leaves her after the hemorrhage, pregnancy may ensue. If the bowels are greatly disordered previous to the hemorrhage, there is danger of dying before the vomiting up of the blood. Some persons imagine themselves pregnant when it is not the case, and persevere in the mistake for many months. The menses disappear, the belly enlarges, motions are felt, headache and pains of the neck and hypochondria attend; but little or no milk in the

breasts, or if any, of an aqueous nature. When the belly subsides and becomes soft, if nothing else prevents, conception may occur; for such a state is calculated to promote a change in the uterus favourable thereto. All the above-mentioned pains are not felt in true pregnancy, unless from being previously accustomed to them. Headache exists and milk is secreted. In long-continued uterine fluxes, we should inquire if headache, and pains of the loins and pelvis are present; and also if there are toothache, dimness of sight, and humming of the ears. Whenever, fasting, bilious matters are vomited for many successive days, without being in a pregnant state, or having fever, ascertain whether lumbrici are not also voided at the same time. If the answer is in the negative, we may announce their probable occurrence; for it is by no means uncommon with women and virgins, but less the case with men.

They who suffer pains without fever are not in danger of death, but of a long continuance, together with metastases and relapses. Of these pains are headache, sometimes trifling, at others severe. We must notice if there is dizziness, with redness of the eyes and itching of the forehead, in which case bleeding, or a spontaneous discharge of blood, will afford relief; it is a simple case. But when headache and pain in the forehead arise from exposure to winds and cold, whilst much heated, a catarrh sometimes dissipates it. Sternutatories are useful, producing a copious discharge of mucous pituita from the nose. Catarrhs very naturally are followed by cough, and if the accompanying sneezing does not give relief, swellings and changes of complexion succeed. Where obstinate and universal headache occur, with apparent cause, if the patient is thin and exhausted, a more severe disease is to be feared. If the pains fly from the head to the neck or back, and then return, it is worse; and still more so, if at the same time all the three parts mentioned are suffering from it. An abscess occurring any where affords relief, so does a purulent expectoration, a hemorrhoidal discharge, or a crop of pustular eruptions over the body. A scald-head sometimes cures it.

In case of drowsiness, with intolerable itching of the whole head, or some particular part, with a sense of coldness over the head at times, we should inquire if the itching extends to the end of the tongue. If so, some disease of difficult cure is forming; otherwise the cure is easy. Its mode of termination may be deduced from what has heretofore been said respecting abscesses, which however are less frequent in these cases. Should vertigo be conjoined with

the pains, the disease will prove obstinate and threatens mania. Old people are more subject to this. Other affections of the head, which often attack both men and women, are less dangerous, though violent and of long duration. Boys and girls often suffer from them, particularly the latter, at the approach of menstruation. The headache of women in most particulars is similar to that of men, but with less itching and bilious affections, unless after the cessation of the menses.

All those who in early life have a bad complexion for a long continuance, not however icteritious, whether men or women, are subject to headache; they devour earth and gravel, and are affected with hemorrhoids. A bilious complexion, of an obstinate character, but not of a strongly marked icteritious nature, is accompanied with similar complaints; but in place of the unnatural appetite mentioned, they have much more pain in the praecordia. Long-continued paleness with tumid face, is accompanied with headache or pain in the bowels, or they have some disease of the rectum. In other respects the disorders mentioned are seldom single, but often remain latent and subsequently appear.

Nyctalopia is an affection indicated by seeing in the dark. It occurs in youth, both in childhood and adults; it disappears spontaneously, sometimes in forty days, at times in seven months, or even continues a year. The period of its cessation may be judged of from the degree of the affection and the age of the patient. A cure follows a formation of abscesses on the lower extremities, which is not however common in early life. Women are exempt from it, and girls also when menstruation appears. If the disease follows a long-continued flow of the tears, inquiry should be made if previously headache was common.

If without fever or an unhealthy complexion, headache and pains in the temples are customary, when no tendency to eruption in the face exists, nor hoarseness of the voice, nor toothache, we may anticipate a hemorrhage from the nose. In such cases, although apparently enjoying good health, we shall find the spleen enlarged, and headache, or sparks flying before the eyes. In most cases, affections of the spleen are accompanied with headache.

Ulceration of the gums and fetid breath are frequent attendants on enlarged spleen. When with enlarged spleen there is neither hemorrhage nor offensive breath, it will be found that there exist ill-conditioned ulcerations of the legs and livid scars. If, moreover, eruptions of the face attend, hoarse voice, and toothache,

epistaxis may be looked for. The spleen is enlarged also in such as have the lower lids tumefied. If the feet swell, and appear to be anasarcaous, the belly and the loins should be carefully examined.

Twitchings of the face, without the rest of the body suffering, soon disappear, either alone or by some slight remedy; otherwise there is a chance of apoplexy. And if to the loss of motion, atrophy of the limb is united, its restoration to health is not to be expected; but if it still continues to receive its nutrition, motion will be restored. In order to estimate the period of its restoration, regard must be had to the extent of the complaint, its period of commencement, the age of the patient, and the season of the year; always bearing in mind that the older the disease the more obstinate and dangerous it is, as well as more frequent in recurrence, and more particularly in old age. Autumn and winter are less favourable for its removal than spring or summer. Pains in the shoulders descending to the hands, and there inducing numbness, are not followed by abscesses, but are relieved by vomiting up black bilious matters. When the pains remain fixed in the shoulders, or extend to the back, a discharge of pus or of black bile restores health. The issue of each of the above may be conjectured by the respiration being free or difficult; if free, and the patient is thin, the presumption is in favour of the bilious vomiting; if difficult, and the countenance is florid beyond what is usual, and differing from its common hue, the probability is that pus will be discharged. We should ascertain if the feet are swelled, as this is a confirmatory symptom. This disease is more usual and violent from forty to sixty years of age, which is likewise the period at which sciatica is most prevalent.

With respect to sciatica, the following observations demand attention. In age, if subject to cramps, with coldness of the loins and legs, the penis torpid, the intestines moved only by medicine, and then principally of mucosities, the disease will be very obstinate. It may be predicted to continue for a year at least, unless relieved by spring and summer. In young people, the disease is to the full as painful, but it is of less duration; forty days will usually bring it to a termination. The cramps are less severe with them, as is likewise the coldness of the loins and legs. When the pains of the loins and thighs are not sufficiently great to keep them lying down, we must examine if in the sciatic region there is any swelling, and if the pain extends to the groin; for if either of these be

the case, the disease will be of long continuance. Inquire also if there be numbness of the thigh and of the ham. If the answer is affirmative, ask if it extends to the leg and tarsus. When this is the case, it may be foretold that the thigh will have alternate accessions of heat and cold. Should the disease quit the loins for the inferior parts, we may give encouragement to the patient; but if it continues in the loins and sciatic region, and extends upwards, it may be considered as very serious.

In all intermitting pains and swellings of the joints, not having a gouty character, the viscera will be found enlarged, and a white deposit takes place in the urine. If in such cases there is tumefaction of the temples, there will likewise be much pain and night sweats. But if a white deposit does not take place in the urine, and there are no sweats, there is danger of lameness of some joint, or a formation of the kind of tumour denominated meliceris. Such occur in those persons who in childhood and youth were subject to bleeding from the nose, which had been arrested. Inquire, therefore, if such had been the case, and whether sharp itching and heat of the back and breast are present, and if also there is a sharp and constant pain of the bowels, or hemorrhoidal tumours; for these are commonly the source of the complaint. If the complexion alters, inquire if headache exists, and such will be found to be the case.

When the pain of the belly is confined to the right side, it is more severe than if on the left, particularly in those in whom the pain extends from the hypochondrium to the liver. Such pains are sometimes relieved by the discharge of wind, which is followed soon after with that of much pale urine. This disease is not fatal, but of long duration; and if very inveterate, is apt to affect the sight. We should make inquiry respecting any hemorrhages in youth, or defect of vision, respecting the colour of the urine, and of the discharge of flatus, and whether benefited thereby.

Impetigines, and vitiligo, and morphew, occurring in infancy or in youth, apparently trifling at first, ultimately augment; the abscesses and eruptions attending are not the consequence of, but constitute a part of the disease itself. In fact, when a tumour forms here suddenly, and is large, it becomes a real abscess. A species of white leprosy, called elephantiasis, is one of the most fatal diseases. All these affections arise from atrabilis. The more recent they are, the more readily are they cured in early life, and when confined to the most soft and fleshy parts.

THE COAN PROGNOSTICS.

HIPPOCRATIS COI COACARUM PRÆNOTIONES,	FŒSIUS, Treat. ii. p. 115.
HIPPOCRATIS COACÆ PRÆNOTIONES,	HALLER, ii. 142.
PRÉNOTIONS COAQUES,	GARDEIL, ii. p. 289.

DURETUS (says Haller in his preface to this treatise), like most of its commentators, divides it into several parts. Haller himself, constituting it as a single book, divides it into three sections, consisting of twenty-seven chapters. Gardeil divides it into three books, as Duretus has done; the *first* of which is simply subdivided into one hundred and sixty-six sentences. The second book contains twenty-six chapters, subdivided into three hundred and fifty-nine sentences; as is the case also with the third book, containing four chapters, and two hundred and forty-six sentences. The whole number of sentences is seven hundred and seventy-one. Fœsius makes six hundred and forty-nine sentences, accompanied by copious notes, and preceded by a long prefatory dissertation, of considerable interest, but scarcely embraced by my present intentions. Haller tells us that Galen considered this treatise as spurious, and that Fœsius did not much esteem it. It is admitted by all to be very obscure. Questions are propounded, to which no one can reply, and many fallacious aphorisms are given with too great precision. Many, are the same with those that are given in the preceding book (*De Predictionibus*, Lib. i.) The first part of the treatise is devoted to such particulars as belong to fever. The second treats of those that are connected with the various parts of the human body, as the head, neck, chest, abdomen, &c.; and the prognostics are stated in connexion with the parts from which the symptoms are derived. The third division derives the first part of its presages almost entirely from the Prognostics; a second portion is assigned to wounds of the head and other parts; and the third portion is devoted to female diseases. An addition is made of the presages derived from the various excretions, &c.

The book may be generally considered as delivering the existing and supervening symptoms of fevers, and other diseases, both febrile and non-febrile, affecting the whole system or its parts, and explained by theorems, with the predictions to be derived from them, both benefical or injurious.

In a note at the commencement of this treatise, Gardeil states, "that it is usually designated by name of the Coacæ simply, and that it is constantly referred to in medical writings. It is not considered by the learned as the work of Hippocrates, in which opinion (says he) I acquiesce." Nevertheless it is much esteemed, for, notwithstanding its imperfections, its authority in medicine is of the highest grade. It is supposed to be the composition of some physician of the celebrated school of Cos, of which Hippocrates was the most illustrious member; but it is uncertain whether this collection of sentences was anterior or posterior to him. I have pursued, says Gardeil, the order adopted by Duretus, as being very commodious, although not always adapted to the discovery of what we are seeking, in consequence of its division in the distributed matter. It would indeed be impossible to effect this, without continued repetition of those sentences that have reference to more than one particular.

M. De Mercy, in 1815, printed at Paris a French translation of this treatise, entitled "Prognostics de Cos, D'Hippocrate, traduits sur le texte grec, d'après la collation des manuscrits de la Bibliothèque Impériale, avec une dissertation sur ces manuscrits, des variantes, des notes explicatives, et une table analytique."

This analytical table is so excellent, that I have deemed it better to give it here, than to attempt a more full and complete translation of the whole,—omitting at the same time his references, which could only be applicable to the entire translation. As it is, this analysis extends to nearly fifty pages.

It may be further remarked, that the latter part, commencing with chap. xxviii., entitled "Prognostics common to all parts of the body," and constituting the third book of Duretus, contains generally what is to be found with more minuteness in the Predictions, Prognostics, Aphorisms, &c. Sometimes the precision is remarkable.

It may be concisely stated, that M. De Mercy, in his prefatory observations on this treatise, divides it under five principal heads. The *first*, up to the one hundred and sixtieth sentence, relates to acute and epidemic fevers, and their varied and complicated symptoms, such as rigor, chills, hemorrhages, menstrual discharges, hemorrhoids, biliary vomitings, and purgings,—urine, sweat, parotids, abscesses,—crises, good and bad, as announced by various symptoms, such as insomnia, subsultus tendinum, sputation, alteration and loss of the voice, delirium, convulsions, and all that characterizes the highest grade of fever. The *second* part consists of inflammation of the organs and different viscera, with continual fever, such as acute headache, phrenitis, convulsions, suppuration, and sphacelus of the brain, &c., otitis and deafness, &c., as noticed in the headings of the succeeding chapters. The *third* part has reference to external lesions and wounds, &c. The *fourth* to the diseases of females; and the *fifth* to the different excretions, as vomiting, sweat, urine, and the dejections.

Most of the sentences here enumerated are to be found in some one or other of the Hippocratic writings, and are pointed out by M. De Mercy; such are the parts relating to the *face*, which he tells us are the same as in the Prognostics, and in the Prenotions also, but less correct;—the same of the eyes. Some Aphorisms are here found, and a few passages from the book, “*De Morbis.*” Some are alike with parts of the Predictions, &c., and his observations terminate as follows: “The intentions of the different sentences cannot be misapprehended. Many passages are extracted from other works, especially ‘*De Morbis,*’ which certainly is not one of Hippocrates’. We can discover no other object than that of forming a general collection of the prognosis of disease. It is easy to assure ourselves of this, even from the conclusion of the book, which is a recapitulation of all the varieties of the different excretions, of which mention is made throughout the treatise. No doubt the Coan Prognostics are a very estimable and essential part in the practice of medicine; a kind of *vade mecum*, but difficult from their number, to be recollectcd. The analysis of the chapters is intended to render the connexion of the different sentences more clear and distinct, and will in a degree subserve the purpose of an index.”

It would too much prolong this, if continued; I give, therefore only the heads of the chapters.—ED.

COAN PROGNOSTICS.

BOOK I.

- CHAP. I. *a.* Of Fevers.
b. Of Paroxysms.
c. Of Ardent Fevers.

- CHAP. I. *d.* Of Phrenitis.
e. Of Compound Fevers.
f. Of different kinds of Crises.

BOOK II.

- CHAP. I. Of Headache.
 II. Of Carus, and Coma.
 III. Of Diseases of the Ear.
 IV. Of Parotids.
 V. Of Diseases of the Face.
 VI. Of Diseases of the Eyes.
 VII. Of the Tongue and Fauces.
 VIII. Of the Voice.
 IX. Of Respiration.
 X. Of the Neck and Throat.
 XI. Of the Hypochondria.
 XII. Of the Back and Loins.
 XIII. Of Hemorrhages.
 XIV. Of Palpitations, Shakings, Convulsions.
 XV. Of Angina.
 XVI. Of Pleurisy^a and Peripneumony.

- CHAP. XVII. Of Phthisis.
 XVIII. Of Hepatic Affections.
 XIX. Of Dropsy.
 XX. Of Dysentery.
 XXI. Of Lientery.
 XXII. Of Diseases of the Bladder.
 XXIII. Of Apoplexy, Palsy, and Paraplegia.
 XXIV. Of Melancholy and Madness.
 XXV. Of Coldness of the Loins.
 XXVI. Of Tumours, and on Bleeding.
 XXVII. A chapter of Cautions.
 XXVIII. Prognostics common to all parts of the Body.
 XXIX. Of Dangerous Wounds.
 XXX. Of Wounds, and Fistulæ.

APPENDIX.

OF THE DISEASES INCIDENT TO DIFFERENT AGES.

- CHAP. XXXI. Of the Diseases incident to Females.
 XXXII. Of the various Excretions.
a. Vomiting. *b.* Sweats. *c.* Urine. *d.* Stools.

^a In this and some other parts of the Hippocratic books, various expressions would seem to indicate, that percussion of the Thorax of some character was occasionally employed.—ED.

SECTION III.^a

ON THE NATURE OF MAN.

DE NATURA HOMINIS,	FÆSIUS, Treat. i. p. 224.
DE NATURA HOMINIS,	HALLER, i. p. 33.
DE LA NATURE DE L'HOMME,	GARDEIL, i. p. 113.

THE first portion of this book is, by Mercurialis, regarded as a genuine work of Hippocrates, and is frequently quoted by Galen and the ancients. Yet Galen, who comments upon it, has some doubts as to the latter part of it, which treats of the origin of the four great vessels,—and in this Haller seems to agree. It is, says Haller, a congeries of things the most diversified. It first notices the four humours, and their alternate predominance; and which by a species of affinity, are evacuated by medicines. It then adverts to the origin of epidemic diseases, which is attributed to the air, rather than to the mode of living. Correct as this may be in some respects, it is not wholly so, since by a similar diet of salted provisions, scurvy is found to arise in climates altogether different.

Among the various topics noticed is to be found the statement of four pair of vessels, which Haller says, smacks strongly of the Chinese writings. The account, moreover, erroneous as it is, differs greatly from the doctrine of Hippocrates, as it is laid down in his treatise “De locis in homine.” It is at this part that Galen stops; observing, however, that in what follows, excepting what relates to the four great vessels, the greater part is not unworthy of Hippocrates. In speaking of fevers and of various diseases, they are mostly ascribed to a diversity of the bile, either in quantity or quality;—thus a quartan is attributed to atra bilis, &c.

Fæsius, at p. 312, note 69, on the origin of the vessels from the

^a This section consists of fourteen treatises in the order of arrangement by Fæsius, under the general head of *τὰ φυσικὰ καὶ αἰτιολογικά*—i. e. physies and aetiology—or what has reference to natural causes.

head, refers to Galen, lib. 6, *De Placitis*; also to Hippocrates, $\pi\epsilon\rho\eta\sigma\tau\epsilon\omega\nu\varphi\epsilon\sigma\iota\sigma\varsigma$, and to Aristotle, *Hist. Animal.* lib. 3, cap. 3.—The views of the blood-vessels are attributed to Polybius, although this is not the opinion of Galen. And Gardeil, in referring to the other treatises, in which the vessels are spoken of in nearly the same way as in the present one, remarks, that in the one entitled “*De Natura Ossium*,” although the title would indicate a principal attention to the bones, yet it is devoted almost entirely to the blood-vessels; and he adds, that although the whole is embarrassing, it appears to him infinitely more surprising to find so many angiographical details, discovered without the aid of injections, than to meet with so many mistakes.—ED.

Whoever is accustomed to hear the nature of man spoken of by persons who pretend to be acquainted with it, by any means distinct from medicine, will find nothing satisfactory to them in this treatise. I shall not tell them that man is altogether constituted of air, or of fire, or of water, or earth, nor of any other individual thing, since I am persuaded man is not formed of one single element; nevertheless, I leave such opinions willingly to those who maintain them, although they appear to me not clearly to understand what they profess to teach. They all agree in one proposition, but differ entirely in the deductions they derive from it. They first advance the assertion that every thing existing is a unit, and that this unity is the universal whole; but then they disagree as to what this universal unit is. One affirms it to be air, another that it is fire, a third that it is water, and a fourth that it is earth; and each one grounds his assertion on reasoning and testimony of no value. Now, that they should agree at setting off, in one opinion, and then differ in what they say, is an evidence of their ignorance of the whole subject. This is soon discovered in their discourse. If they address the same audience, that audience will readily perceive that none of these philosophers is victorious three in succession. Now, it is one, then another, subsequently a third one; and he, the one that has the greatest volubility, and is best exercised in public speaking. If we profess to be fully masters of our subject, we ought undoubtedly to be always victorious in debate; and if we know it in fact, we can conclusively prove it. These philosophers appear to me to disagree, merely from a misapprehension of terms.

They become, like Melissus,^a inconsistent; and this is all I shall say upon the subject of these philosophical reveries as to the nature of man. In respect to the opinions of physicians on this particular, some maintain that man consists altogether of blood; some that he is only bile; and others constitute him of pituita. All reason in the same manner: they say that the individual is a unit by whatsoever name it may be termed, and that this unit changes its form and power, according as it is compelled thereto, by cold or heat; that it is capable of becoming sweet or bitter, white or black, or of assuming any other quality;—now none of this do I accredit. The greater number advocate other principles of a similar description. As to my own views, I affirm, that if man was constituted of only one species of matter, he could never feel pain; for how could pain be excited in him, if simple and uncompounded! Admit even that he did feel pain, the remedy applied is equally supposed to be one; but we know that remedies are various and distinct; and this because many things are combined in the body, from which, when becoming, *inter se*, preternaturally heated or cooled, or dry or humid, different diseases ensue, and under different forms, requiring for their cure an equal difference in treatment. I therefore think, that whoever says man is constituted of blood and nothing else, should be able to prove that he is at all times the same, and incapable of changing! —or at least he should be able to assign some period of the year, or of his life, in which blood *only* was to be found in him; since, in order to be assured of the real foundation of his opinion, there ought to be at least one period, in which should be alone seen, that of which alone he is constituted. This reasoning applies equally to those who maintain that man consists only of bile, or of pituita. I shall however demonstrate, that the things which constitute the composition of man remain always the same, from their very nature, and the laws by which they are governed; and that this is the case in youth and age, and under every variety of temperature and season. I will likewise point out the signs by which these compounds are recognised, and the causes by which they are individually augmented or decreased in quantity.

The incipient formation or generation of man, cannot possibly arise from one thing only—for how can a single simple substance

^a Melissus, according to Galen, affirmed that only one element existed, which, nevertheless, he divided into four others.

engender another without admixture with something else ? Now, if what is mingled be not the product of different beings, of the same nature and of similar faculties, no generation can ensue of a being of a like character to them.^a Moreover, if heat and cold, dry and humid, do not appropriately temper each other, or if either predominates unduly, generation cannot take place. How then can one thing alone engender, when a greater number cannot, unless their natural commixture is properly attempered ? Since then such is the nature of generation, there must be, both in respect to man and of all other beings, more than a single thing, each of which is alike essential to the process, and gives to the body the power of accomplishing it. So also, when death takes place, each thing separates and passes off in conformity to its nature : the moist, joins itself to moisture ; the dry returns to the dry ; hot passes to heat, and the cold to cold. Such is the nature of animals, and of all other beings. All proceed from their like ; all return to their like again, since they are compounded of the same things ; and each, after serving in the composition, returns to those from which they were derived. Now the body of man contains blood, pituita, and two kinds of bile—yellow and black ; and his nature is such that it is through them that he enjoys health, or suffers from disease. He enjoys the former when each is in due proportion of quantity and force, but especially when properly commingled. Disease takes place if either is in excess or deficient, or if not duly united. For when separate, not only the part in which there is a deficiency must be affected, but the part to which it goes being surcharged, will experience pain and uneasiness. When more than a mere superfluity is discharged from the system, the void occasioned thereby is productive of pain ; but if this void is caused by the separation of the humours in one part, and being carried by metastasis to another, the pain is twofold, viz.: that induced by the vacuity of the part it leaves, and the repletion of that to which it is conveyed. I have stated that I would show, that those things of which man is composed remain always the same, both from their nature, and their true intent. Now I say that blood, pituita, and yellow and black bile are invariably the same and at all times so considered, since none of those

^a The early credence of the necessity of an admixture of the seed of both sexes is here evinced—as also in the treatise on Generation,—without recurrence to the absurd doctrine of sympathy, &c.

terms are at all equivocal, or liable to any obscurity ; and moreover, the things themselves are in their nature entirely distinct—for pituita in no respect resembles blood, nor does blood resemble bile, nor bile pituita. How then can they possibly be confounded, whilst to the eye their colour is different, and also to the touch there is no similarity ? In warmth and coldness, in tenuity and consistence, they alike differ. Distinct therefore they must needs be, for they are not one and the same thing ; they are not constituted alone of either fire, or water ; and we at once distinguish that they are not, individually, one and the same, unless we can pronounce that fire and water are one and the same ; but each one has its own peculiar nature and powers. If a medicine is administered that acts on the pituita, that alone is evacuated ; if it acts upon the bile, bile is discharged ; or black bile, if the remedy acts on the atrabilis. If the body is wounded in any part, blood flows from the wound. All this is the same, by day or night, in winter or summer, so long as man continues to respire ; and this he can accomplish so long as he is not deprived of one of these, his constituent parts—for such they unequivocally must be ; for they are found within him during the whole of his existence. Besides, the individual was generated by a being who possessed the same principles ; and he was nourished by one who also had them. They in fact evince their presence, without the necessity of any reasoning on the subject.

They who affirm that man is constituted of only one principle, seem to found their opinion on reasons to this effect. Persons who have taken purgatives, have been known to die of super-purgation ; some of whom have vomited bile, others pituita. Hence they supposed that man consisted of that humour which they saw him discharge in death. They who say he consists of blood only, reason in like manner, from having seen persons whose throats were cut, discharging blood alone, and they employ proof of a like character. Yet no one ever died from super-purgation, by voiding bile alone. If a medicine is taken that acts upon the bile, that humour is first evacuated, and then pituita, which is followed by atrabilis ; and if death ensues, blood is also discharged. Such is the case also, when remedies which act on the pituita are too largely taken. Pituita is first vomited, then yellow bile, next black bile, and lastly, before death, he vomits blood. The medicine taken, acts primarily on the humour to which it is most allied in its nature,

and then attacks and evacuates the others. It is precisely as with plants, or seeds, which thrown upon the earth, attract or draw from thence, that which is most accordant to their nature. Now, there they find an acid, bitter, sweet, or saline. Each attracts at first that which is most congenial, and then takes a portion of the rest. So remedies act on the body ; such as drive out bile, first purge off pure bile, and then a mixed congeries. If a man's throat is cut, the blood first flows out very warm and red, then mixed with pituita, and lastly with much bile.

Pituita abounds in man more largely in the winter, since it is the humour that has naturally the greatest analogy with that season; for of all the humours it is the coldest, of which we can easily satisfy ourselves. If you successively touch pituita, bile, and blood, the first will be found the coldest; it is more viscid, and combines with difficulty with atrabilis. It may be said, that every thing that is viscid and yields with difficulty, is, by the force employed for such a purpose, rendered hotter, although this is no argument against the actual frigidity of pituita. That it does augment in winter is very clear, for we cough up and discharge it largely at that season; besides which, it is during this season that cedemas and other pituitous swellings chiefly make their appearance. In spring, although pituita is still abundant, yet the blood increases, the cold recedes, and showers occur. The blood therefore ought to increase, both from the augmented humidity and from the increasing temperature, which are the natural concomitants of this season; and a proof of my position is, that men are more liable to dysenteries and epistaxis, and are hotter and higher coloured at those seasons. In the summer, the blood still abounds, but bile augments and extends into the autumn, the blood diminishing, since summer is contrary to its nature. The bile evinces its existence in the summer and in autumn, both by its spontaneous vomition, and by its copious discharge through the means of purgatives. It is equally shown, by the character of autumnal fevers, and by the colour of the skin. Pituita in summer is greatly weakened, for that season being hot and dry, it is naturally opposed to its presence. The blood is smallest in production in the autumn, for this is the driest season, and already is the system becoming colder. And now the atrabilis predominates, both in power and in quantity. As winter approaches, the atrabilis is refrigerated, and is less abundant; whilst pituita resumes its station and extent, in consequence of abundant

rains, and the greater length of night. The human body has, therefore, constantly, all the above humours ; but they increase or diminish, each according to the season, as it may be conformable or otherwise to their nature respectively. As, throughout the year, there is always present both heat and cold, dryness and moisture, and as nothing in nature could for an instant subsist without their presence ; if one alone was wanting, universal destruction would be the result ; for the same law that subserved the creation of all things, is equally required for their preservation. It is the same with man ; if one of those things that are essential to his constitution, were destroyed, he could not possibly exist. During the year, winter, spring, summer, and autumn, alternately predominate. In man, it is the pituita, or blood, or bile, or atrabilis, that successively hold the sway, as is evident from the operation of the same remedy on the same individual in the four different seasons of the year. In winter the evacuations are most abundant in pituita ; in spring they are more diluted ; bile predominates in them in summer, and atrabilis in the autumn. Now, this being the case, the diseases which increase in winter, ought to end in summer, as those that arise in summer should be arrested by winter, unless checked by a certain determinate periodicity. This regularity in their termination is elsewhere discussed. In regard to vernal diseases, we must await their final termination in the autumn ; as those of autumn may be expected to disappear in spring. Should they extend beyond the season of their usual termination, they will be continued through the year. The physician, therefore, in attending the sick, ought to observe what is predominant in the system, as it regards the body, and also the season of the year.

Here, Galen thinks the genuine character of the treatise ceases, and that what follows is incorrectly added to it ; and he here closes his commentary on it.—ED.

The physician should likewise know what diseases are caused by repletion, and which are cured by evacuations ; as also such as arise from evacuations, and are removed by re-integration. So those that spring from fatigue, yield to rest, and if originating in rest, they give way to exercise. In general, he should be acquainted

with the means of fortifying the body against the diseases that threaten it, whether depending on temperament, season, or age. He should be able to strengthen what is relaxed, and to relax what is in a state of tension;^a—this is the true means of removing the evil, and to this principle, in my opinion, the whole of medicine is reducible.

Some diseases arise from the diet or regimen employed; some from the air we breathe.^b Whenever, in the same place, many persons are attacked with the same disease, at the same time, we must attribute this to some common cause. Now this is the air. It is evident it cannot be the diet, because the disease attacks all, indiscriminately, men and women, great drinkers and such as drink water only, those who eat cakes alike with such as live on bread, labourers and the idle. Diet is therefore by no means the cause of the evil, since persons living in a way so opposite to each other are equally attacked by the same disease. But when, at the same time, diseases are altogether different, it is obvious that the diet of each must be the source of the disease of each individual. The cure must then be effected by opposing to each, the reverse of that which tended to excite his disease, as I have elsewhere explained. The mode of living must be changed. It is clear that the one pursued is bad, either wholly or in a great degree, in some particular. In order to know what change to make, we must have regard to the temperament and age of the patient, as well as to the constitution and season of the year and the nature of the disease; then fix upon the plan of treatment, either by addition or subtraction, as I have elsewhere stated; always paying attention to age, season, constitution, and the nature of the disease, before prescribing either medicine or diet.

When an epidemic disease prevails, the cause of it assuredly is not in the food we take, but in the air respired, in which something noxious is to be found. In such a state of things it is useless to change the mode of living (diet), since it is not from thence the evil originates. Endeavour by all means to reduce the vigour and *embonpoint* of the body; retrench slowly in the usual amount of food and drink, for if suddenly changed it is hazardous. Your diet ought in general to be such as is altogether innoxious. Exposure

^a This seems to be the origin of the doctrine of the “strictum et laxum,” about two centuries ago.

^b Πνεύμα, spiritus, Hal.—Souffle, Gard.—Something contained in it, in order to sustain life.

to the air should be avoided as much as possible; or, if it can be done, remove from the place, or at least time live as separate as possible; for by such measures the least injury will be sustained from the noxious quality of the air respired. Diseases arising in the strongest parts of the body are much the most dangerous. If they continue in their original situation, the whole system must sympathize, inasmuch as it is the most vigorous part that is affected. If they leave that stronger part for one that is weaker, it will with difficulty be made to quit this latter situation; but if they quit a weak for a stronger part, the cure is much easier, the strength of the part enabling it to repel the fluxion.

I am now to advert to the vessels of the largest size.^a Of these there are four pair in the body. The *first* pair, proceeding from the head, pass down behind the neck, along the spine on both sides exteriorly, and reach the ischium and thighs, proceeding to the legs and external malleoli, and thence to the feet. In diseases of the back and the ischia, venesection should be made at the ham and external ankle. The *second* pair of vessels arise also from the head, near the ears; they pass down the neck, and are called jugulars. They proceed internally, along each side of the spine, to the loins, the testes, and thighs, along the inner side of the ham, thence along the tibiæ to the internal malleoli and feet. In diseases of the loins and testes, we should bleed from the vessels of the inner ham and ankles. The *third* pair come from the temples, pass along the neck below the scapulæ, and thence to the lungs; that of the right side going to the left side of the lungs, that of the left to the right side. The right one passes out from the lungs under the breast, and proceeds to the spleen and kidneys; the left, leaving the right lobe, passes to the breast, to the liver, and the kidneys. The two vessels of this pair terminate in the rectum. The *fourth* pair parts from the forepart of the head and eyes, down the neck and under the clavicles, thence to the upper part of the arm, and down to its junction with the forearm, from whence it passes along the cubit to the junction of the carpus, and to the fingers; returning from the fingers along the upper part of the hand to the forearm, the elbow and axilla and the superior ribs, a branch proceeds to the spleen, and another to the liver; and both then, spreading over the belly,

^a Venæ crassissimæ, *Fas.*, *Hal.*;—φλεψ πρωτη, *Hipp.*;—φλεψ, vena animalis, item aquarum et similium, *Dict.*

terminate in the pudenda. Such is the route of the largest vessels. Besides these, a great many different vessels arise from the stomach, by which nourishment is conveyed to the body; and others arise from the large vessels, both external and internal, and pass to every part of the body, *having mutual intercommunication with each other in every part.* And this should be recollected in our choice of a part in which to bleed. We should remember also to bleed in a part the most distant from that in which pain occurs, or an accumulation of blood. By this means there will be less immediate and sudden change; and by thus diverting the blood from its accustomed course, we shall guard against its accumulation in the part to which its tendency is too great.

They who expectorate much pus without any fever, or whose urine deposits a large quantity of purulent sediment unaccompanied with pain; such as have bloody stools, as in dysentery, or long-continued diarrhoea, as young people of about thirty-five years of age; all such are in a diseased condition, dependent on the same cause. They must have laboured hard and worked much in early life; and then, suddenly ceasing from their active exertions, eating largely and of a quality different from what they have been used to, corpulence ensued, and a great change of their system must have resulted, so that no correspondence exists between their present and their former state. When any disease attacks them, as now constituted, they at first resist it, but they are slowly undermined. The evil penetrates the vessels, and a sanguis and unhealthy fluid is discharged wherever opportunity presents. Should it occur in the intestines, a diarrhoea is induced, of a character, as to the discharges, nearly similar to the humour existing in the body. Finding a ready passage, it is not long confined to the intestines. Should the collection tend to the thorax, suppuration ensues, and if the purgation is impeded, the matter in the chest putrefies, and is discharged as pus. When thrown upon the bladder, the heat of the part warms and blanches it, a separation of its parts takes place, the lighter parts float above, and the thicker purulent parts fall to the bottom. It is on this account that in children we find the stone or calculus forming in the bladder, to the heat of which is superadded that of the whole body. In man its formation is less common, in consequence of their greater coldness. It is necessary that the heat of the body should be greatest in the growing state, and we find it coldest as an advance of life takes place,

when the body shrinks, and it is about to fall into ruin. The heat, during our life, is in exact correspondence with this progression; the faster the growth, in early life, so in proportion is this heat increased; the more we diminish, as life declines, the colder does the body become.

Those affected as above* generally recover spontaneously in forty-five days of the same season in which they began to decline; as to those who survive that period, they are usually restored spontaneously in the course of the year, unless some new disease assails them. If the disease is not of long standing, and its cause is well known, a ready cure may be predicted. It must be commenced by prescribing what is the direct opposite to its exciting cause, by which means we destroy it, together with its cause. In cases where sand or gravel is deposited in the urine, there must have been originally some tumour of the great vein,^b which has ended in suppuration. Subsequently, since an abscess is not so immediately broken, portions of the pus coalesce, and are discharged through the vein, and pass off with the urine from the bladder. Whenever the urine is bloody, there is some affection of the vein [Query : ureter.—ED]. When we see in a turbid urine small fleshy filaments resembling hair, we must presume that they are produced in the kidneys, and such occur in gouty cases. If in urine that is perfectly clear, we perceive from time to time something on its surface resembling bran, we may conclude that the inner coat of the bladder is affected with scabies. ($\downarrow\omega\rho\pi\alpha$ erosion.)

Fevers most commonly proceed from bile. There are four species, independently of such as have their origin in pain, and differ from them. These four species are denominated, synoeca or continued, quotidian, tertian, and quartan. The first arises from a superabundance of unmixed bile, and its crisis is rapid; inasmuch as the body is not refreshed by intervals of calm, but on the contrary, is heated by an excessive warmth, it must necessarily soon come to an end. The quotidian also proceeds like the continued, from too much bile, though of less amount than in it: it ends in a shorter time than the two last, but continues longer than the first, because there is less bile, and also because during the intermission the body enjoys rest, which in the synoeca it does not. The tertian

* Query: if something is not here lost; can this apply to persons affected as detailed above?—ED.

^b Query: the ureter, which is elsewhere so denominated, as likewise by Celsus.—ED

is longer than the quotidian, being produced from a smaller amount of bile; and inasmuch as the intermission is longer than in the quotidian, so is the disease itself of longer duration. It is the same with the quartan, which is longer than the tertian, owing to its having less bile, which causes the heat; consequently the period of repose is longer, during which the body is cooled. The quartan, however, is peculiar, in having an excess of atrabilis, which renders its cure difficult; for atrabilis is the most tenacious of all the humours of the body, and that which is with the greatest difficulty evacuated. Now the proof that quartan fever proceeds from or partakes of atrabilis, is, that it is chiefly produced in autumn, and attacks principally those between twenty-five and forty-five years, the period of life in which atrabilis most abounds, and autumn is the season of the year best adapted for its production. If a quartan attacks at any other season and time of life, you may rest assured that it will be of short duration, unless some accidental circumstance should be conjoined with it.

ON GENERATION.

DE GENITURA,	FŒSIUS, Treat. ii. p. 231.
DE GENITURA,	HALLER, ii. p. 50.
TRAITÉ DE LA GÉNÉRATION,	GARDEIL, ii. p. 386.

HALLER, in his preface to this treatise, states it as maintaining the intermixture of the seed of both parents; that this seed is derived from every part of them, principally from the head through the spinal marrow to the kidneys by the intermedium of the testes, and thence to the pudenda, by channels distinct from those that convey the urine. The semen is from both, both male and female, and whichever predominates, gives rise to a corresponding sex of the fœtus. The parts of the child are like father or mother, proportionately to the amount of semen derived from such parts in either. Defective children are explained from pressure experienced in the uterus. Although the hypothesis is very coherent in all its parts, yet he esteems it too subtile for Hippocrates.^a

As a general argument to the treatise, he tells us it consists of such particulars as have reference to venery and conception;—such as venereal pleasure, the appearance of the seed, nocturnal pollu-

^a It has been, from time immemorial, a subject of dispute among medical men and others, whether the female possessed or emitted a seminal fluid, as essential to the propagation of the fœtus, or whether she acted only as a nidus, or location for the offspring of the male seed. To say nothing of the *similarity* of features in the child to the mother, which could scarcely ensue, unless in part derived from her, independently of mere *nutrition* subsequently to its procreation; Galen maintains that the female could have no venereal propensity, did she not possess the faculty of emitting seed; and we are expressly told in the Scriptures, that the seed (or issue) of the woman (*Gencsis*) should bruise the head of the serpent. Now, as *man* had no part in the procreation of Jesus Christ, the expression seems incorrect, if she, (the female, Mary,) had no further concern than as a nidus for the purpose, and which production of hers could in no wise be appropriately called man, had *man or woman* no part in the mysterious propagation! It is in any other view, *altogether* of Divine origin; and the “Man Christ” (*Tim. ii. 5*) seems anomalous!—ED.

tion, &c.; of the non-emission of semen, and the similitude or dissimilarity of children to their parents. These subjects are embraced in six chapters.^a—ED.

CHAP. I. Of the semen; from what and whence derived. From whence arises the pleasure in venery. The cause of the spumescence or frothy appearance of the seed, and why secreted most abundantly in coition. Blood is occasionally discharged. Two passages for the seed and urine. Of the causes of nocturnal pollution.

CHAP. II. Why eunuchs, boys, and young girls, do not feel the venereal pruritus. It would seem that eunuchs were constituted, either by total excision in castration, or by compressing and twisting the parts. Those persons are affirmed to become inapt to generation, who have the veins behind the ears incised.

CHAP. III. The female affords seed in the process of generation, but experiences less pleasure than the male. Celibacy is injurious to health, and in females is a source of many evils.

CHAP. IV. By what means a woman may know whether she has conceived. The power of the seed in both sexes varies greatly. Each seed contains both male and female germs; and the stronger necessarily predominates in the formation of a boy; and of a girl if the weaker excels. A proof of both male and female germs existing in the seed of both sexes, is deduced from the circumstance that many women who had borne only girls, to one man, have, in union with another, given birth to boys; and so in the case of a man, who having only girls with one wife, has, with another, given origin to boys, or reversely.

CHAP. V. The reasons assigned why children resemble, or differ in likeness from their parents; why some are small and weak, and others large and strong at birth. Among those reasons given, one is that the child may have had some disease whilst in the womb; another is dependent on the size of the womb, which, if too contracted, may unduly press on its tender burden, and prevent its growth. Curious analogical illustration.

^a Vide treatise de aquis, aeribus et locis.

CHAP. VI. Why and whence are constituted monsters, or mutilated offspring, even with healthy and sound parents; whilst sound and healthy children are often the offspring of mutilated parents.

Gardeil, in reference to this treatise, says, that although very concise, it yet affords many of the physiological ideas on the subject of generation, that are generally prevalent in our time, renewed, and modified by different writers.—ED.

ON THE FŒTAL NATURE.

DE NATURA PUERI,	FÆSIUS, Treat. iii. p. 235.
DE NATURA PUERI,	HALLER, ii. p. 60.
TRAITÉ DE LA NATURE DE L'ENFANT, . . .	GARDEIL, ii. p. 396.

THIS treatise is by Gardeil regarded as merely a continuation of the preceding—and, in fact, whoever the author of that may be, at its conclusion he states his intention of recurring to the subject.

Haller says, that although this was by the ancients ascribed to Hippocrates, yet it is assuredly spurious, even in the opinion of Mercurialis. The system it sustains is very consistent, displays an acute acquaintance with nature, and was written posterior to Theophrastus and Herophilus. This is deducible from the great anatomical knowledge it demands, as well as from the anatomical experiments on generation, and the incubation of the egg. We find herein the account of a female musician, who, by the author's direction, in violation of the oath, was made to abort by violent jumping, of what greatly resembled a human ovum! A mechanical explanation is afforded of sundry phenomena, through the means of breathing, and of attraction.

The male and female seed commingled, become heated, says the author, and breathing is excited, by which the cooler air is attracted, and that which was heated escapes, and thereby promotes the formation of an umbilicus. At length a pellicle is formed, and the articulations ensue in about six weeks, and aliment is received by means of the umbilicus. From the oozing of the blood a placenta is produced. At length, from want of adequate nourishment, the fœtus bestirs himself, breaks his membranes, and headforemost issues into daylight. All this is illustrated by the author from the generation of trees and fowls, who (remarks Haller) may be the same that wrote the preceding book,—for we find, in both, the two varieties of seed spoken of, from which, by different proportions and location in the uterus, a difference of sex

ensues, or twins are produced. Indeed, Mercurialis considers it as a part of the former book. We find in it the book "De Morbis Muliebribus" quoted.

As the general argument or heading of the book, Haller states it to consist of an account of the procreation and principles of the foetus, and of every thing having reference to the foetal state of both sexes. Of the period of its formation; its various movements; of the generation of the menses and milk: all of which are illustrated by references to plants and to eggs. It treats, moreover, of twins, and of the difference of sex.

The heading of each chapter, from Haller, will sufficiently point out the order of the above particulars.

CHAP. I. The seed in the uterus attracts the air, and is nourished by this alternation of heat and cold. Becoming heated, it repels this air, and attracts that which is cold.

CHAP. II. Of the seminal respiration, and formation and increase of the foetal covering. Menstruation is absent in healthy pregnancy.

CHAP. III. Why the menses, retained in the state of pregnancy, are not so injurious as in the unimpregnated, from the importance of it in the breathing and nutrition of the foetus. When conception ensues; and what symptoms succeed the suppression of menstruation.

CHAP. IV. Of the wonderful and primary formation of the foetus and the secundines, and how accomplished.

CHAP. V. Of the time required in the formation of a boy, and of a girl; of necessary lochial purgation in females, and danger from their suppression.

CHAP. VI. Of the wonderful formation of the foetal parts; how and when effected. Of the formation of bones, vessels, nerves, nails, hair, and cuticle.

CHAP. VII. Of the motion of the foetus, commencing in the male at three, and in the female at four months; of the formation of milk, and its conveyance to the uterus and to the breasts.

CHAP. VIII. The foetus in its origin, nutrition, and growth, is compared to the germination of plants, in their roots, branches, leaves, fruit, seed, as effectuated by external causes, such as water, air, season, temperature, and vicissitudes of weather, &c.

CHAP. IX. The health of the foetus is greatly dependent on that of the mother. Of the situation of the foetus in utero, and of its respiration by the umbilicus, with its similitude to the incubated egg. Of a ten-month birth and upwards, and of those below that term;—conception facilitated by menstrual purgation.

CHAP. X. Of the generation of birds in the egg; air transmitted through it;^a the chick excluded at twenty days. Analogy of birth in birds, to that of man. Of easy, difficult, and laborious births; the umbilicus and secundines discharged last.

CHAP. XI. Of the generation of twins, male and female, or of a greater number.

A transient *exposé* of Gardeil's division of this treatise, under twenty-two paragraphs or sections, will further illustrate its character.

SEC. I. Of the primary formation of the foetus after coition; the importance of the breath (*souffle, spiritus, πνεύμα*) is strongly insisted on, and explained.

SEC. II. A ventilation or fixation or breathing of air is established in the heated seed, and is followed by the formation of a membrane around it, having passages left in it for the issue and entry of the air. Here the author recounts his examination of an abortion of six days, from a female musician, induced by powerful jumping or leaping, by his direction, in absolute contradiction to that part of the oath, by which every means of inducing abortion is prohibited. A particular detail is given of this examination.

SEC. III. The embryo is nourished by the maternal blood that goes to the uterus.

SEC. IV. Of the formation of other membranes, attached to each other, and all tending to the navel; then of the flesh. A digression

^a In my inaugural Thesis on Inflammation, 1794, I had occasion to refer to some experiments I had made on the subject of the air which is always found in the larger end of the egg, and which I found to consist principally of oxygen in the early stage of incubation, and, gradually deteriorating, containing more or less of carbonic acid gas, as the incubation proceeded;—from which I was led to infer the analogy of this process to respiration in the living subject. If I do not mistake, views of a like nature had presented themselves to the writer of this treatise; but the importance of vital air to the chick in ovo, cut off from all maternal connexion, must be admitted, in order to perfect sanguification and circulation, whilst enclosed in its calcareous envelope, even if we cannot fully comprehend the process pursued by nature, to accomplish the wonderful end she proposed to effect.—ED.

on the purport and utility of the menses in females; the danger from their obstruction, and the symptoms following; all which the author will enlarge upon, in a treatise on the diseases of women.

Sec. V. Of the formation of the fœtal organs by the conjunction of similar parts, arising primarily from the parental organs; details of each.

Sec. VI. Of the period of the formation respectively of boys or girls.

Sec. VII. Of the discharges after parturition; their continuance; variable in time and amount. Their character and appearance; correspondence in various points with the male or female respectively.

Sec. VIII. This subject is still continued; and the continued increase of the fœtus.

Sec. IX. Of the formation of the bones, epiphyses, fingers, nails, vessels, &c.

Sec. X. The hair of the head, and of the body; beard; that of the pubes, &c.; why it occurs only at puberty; and in females is altogether wanting on the chin, as likewise in the male, if castrated in infancy.

Sec. XI. Of the period of commencing motion of the fœtus, and the formation of milk.

Sec. XII. The nourishment and growth of the fœtus compared with the seed of plants, which develope themselves in order to give origin to a new one.

Sec. XIII. A digression relative to the nutrition of vegetables. On the interior state of the earth in winter and summer; and on the fructification of trees.

Sec. XIV. Subject continued. The developements of plants by grafting explained.

Sec. XV. Fœtal nutrition resumed. Conclusion of all is, that the nature of vegetation, and that of the life of man, are perfectly analogous, from first to last.

Sec. XVI. Of the situation of the fœtus in utero, and its membranes arising from its navel.

Sec. XVII. Analogy between the fœtal formation and the production of a bird from an egg. Experiments on eggs. An umbilicus in the egg.

SEC. XVIII. On parturition; causes leading thereto; time of fixed at ten months.

SEC. XIX. Of the sources of deception which have led to the belief of pregnancy beyond ten months.

SEC. XX. Some parts recapitulated. A comparison drawn of the foetus and the chick. Of the fixed limits of gestation in all animals.

SEC. XXI. Of labour and delivery; progress of, and results.

SEC. XXII. Of twin formations; causes of explained.

ON THE ORIGIN OF MAN.

HIPPOCRATIS DE CARNIBUS, LIBER,	FŒSIUS, Treat. iv. p. 248.
HIPPOCRATIS DE CARNIBUS, SEU PRINCIPII,	HALLER, ii. p. 3.
TRAITÉ DES CHAIRS, OU DU COMMENCEMENT DE L'HOMME, . . .	GARDEIL, ii. p. 427.

HALLER, in his preface to this treatise (which, by some, is considered as a treatise “De Principiis”), speaks of the author as a man of genius (*acuti ingenii*; perhaps the term of a perverted imagination would better suit); and that, so far as he could judge, the system advocated is a combination of that of Heraclitus, with that of the Peripatetics. It sets off with an *exposé* of first principles, of which innate heat is regarded as the chief, immortal, and omniscient. A portion of it escaping into the universal space, constituted the ether of the ancients; whilst the residue combined with the three other elements. That portion attached to the earth, by the process of putrefaction, formed small coverings, which served to invest the various organs as they were respectively produced, viz.: bones, nerves, brain, heart, vessels, &c., the formation of which are all particularly noticed. Anatomical observations, of some importance, lead Haller to suppose the treatise was composed in the period of Herophilus, when the knowledge of anatomy had greatly enlarged. The name of artery is here perhaps first given to the aorta; and reference is made to the loss of voice in those whose throats are cut.

As to the general argument of the treatise, it consists, says Haller, of an account of the principles, generation, and formation of each individual part. Of the organs of sight, smell, and hearing. Of the influence of the number seven in birth, in acute diseases, in ulcers and inflammations, and in the completion of dentition.

Gardeil merely remarks of this treatise, that in some manuscripts it is distinguished by the title of the Beginning or Principles, which is most appropriate, since it embraces the doctrine of the origin of man; a physical formation, he remarks in a note, which will un-

questionably be considered as very extraordinary,—the same nearly as that which appears in the first book of the treatise on diet or regimen. It is unnecessary to give more than the mere outline of its contents. Gardeil, in a note, says, “*Devois-je me dispenser d'en donner la traduction ?*”

Preliminary remarks as to the connexion of every thing in nature with man and animals, in relation to life, health, disease, and death. Of the creation of the universe. Of heat or fire; its immortality and universality;—the ether of the ancients. Other principles, cold or earth, moisture or water, and dry or air, are merely secondary. How, by a circular movement, creation from these promoted. Formation of bone, ligaments, cartilage, nerve, membrane, vessels, fluids, the various hollow organs, as intestines, bladder, &c., and the different humours; external covering. Bone more fully elucidated. Brain, fat, spinal marrow, heart, lungs, liver, and other viscera. In what manner the air acts on the living system. Of the foetal nutrition by suction; proofs of. Of the muscles. Some general propositions as to heat and cold, and on the nature of the blood, &c. Of the joints, the nails, the teeth, and of their nourishment, and that of all parts of the body. Of the dentes sapientiae in the fourth septenary. Of the hair of the head, and other parts; late appearance of, on the chin, pubes, &c., explained. Of the organs of hearing, smell, sight; of voice and speech. Doctrine as to the number of months of pregnancy required to give vitality to the foetus; how this knowledge was attained, from an examination of abortions induced by public women, and from information derived from them (some of which is confirmed to Gardeil, “*par plusieurs mères d'un bon jugement;*” and here Gardeil in a note remarks, that the mode of counting time by the author may greatly aid in lightening the difficulties that many have experienced, respecting the *weeks* of the celebrated prophecy of Daniel.) Some observations on seven, eight, nine, and ten month births. Of the numbers of critical days and periods of diseases. Remarks continued on the number seven.

ON THE SEVEN-MONTH BIRTH.

DE SEPTIMESTRI PARTU,	FŒSIUS, Treat. v. p. 255.
DE SEPTIMESTRI PARTU,	HALLER, ii., p. 90.
DE LA GROSSESSÉ DE SEPT MOIS,	GARDEIL, ii., 443.

HALLER appears to think that in the time of Galen, the two books, "De Septimestri et Octimestri Partu," were regarded as one; in which he is supported by the authority of Fœsius. This production he contends, has given rise to the long prevalent opinion, that the foetus is stronger and more capable of living when born at the seventh than at the eighth month. If not then brought forth, it languishes for forty days, and is born after the ninth month. If, however, it is born during that interval, it is weak and cannot survive. Even nine-month children are scarcely superior; those of ten and eleven months are better. The author divides gestation into periods of forty days, in the first of which abortion is most frequent. A head presentation is the best, and the foetus before birth turns to that position. Some have regarded this as a spurious production.

The argument of the whole book consists in the consideration of the number of days in which a seven-month birth is accomplished, and why vital. Of the power and pre-eminence of the septenary number in months and days. Some observations relating to an eight, nine, and ten-month birth, and of the period for perfecting a male or female foetus. The outline is as follows.

Of the duration of pregnancy, especially that of seven months; consideration of, in months and days, and reasons why many perish at that period. Some of the facts noticed that are advanced by females respecting their pregnancy; and of the vitality of births at different periods. Observations to be made respecting certain days and months in pregnancy. Of the difficult gestation of an

eight-month foetus; of the time of conception, and of the sex; what credence to be given to female statements on the subject. Of certain divisions or periods of forty days to be noticed in pregnancy. Of the first of these, in which abortion is most prevalent. Of that coinciding with the eighth month, and intermediate periods; their powers respectively. Blind or mutilated at eight months, and if more difficult than those in health. Why children at nine and ten months live, and from whence the growth of body. Of critical days and months in conception, abortion, and delivery; and of forty days after parturition, &c.

In a note connected with the calculation of time, in the first paragraph, Gardcil remarks, that “it appears therefrom, that the author counted the year as being about three hundred and sixty-four days, the month of twenty-nine days nearly; and that he reckoned as months, during pregnancy, about one-half of the first and one-half of the last month. It is readily seen by this, (adds he,) that we should often be obliged to add a thirteenth to the twelve months of the year. Hence, in the time of Hippocrates, the Greeks were necessitated, every two years, to intercalate a month, making thereby a year of thirteen months. Their calendar, in consequence of lunar months, possessed many other imperfections.”

OF AN EIGHT-MONTH BIRTH.

DE OCTIMESTRI PARTU,	FÆSIUS, Treat. vi. p. 258.
DE OCTIMESTRI PARTU,	HALLER, ii. p. 99.
TRAITÉ DE LA GROSSESSÉ DE HUIT MOIS, . . .	GARDEIL, ii. p. 452.

HALLER has no specific preface to this treatise, that of the preceding being apparently intended to answer for both. The argument of its contents is as follows.

Why an eight-month birth is less likely to survive than one of ten months. In what manner the foetus is more safely nourished. Some observations respecting the umbilicus and the menstrual discharge; also concerning an eleven-month birth.

It is evident, says Gardeil, that the author of this treatise is the same with that of the preceding. The titles of this, and of the following treatise (on Superfœtation) scarcely correspond with their contents. They refer chiefly to parturition, and to the state of females in relation to pregnancy and conception; subjects more extensively treated of, and nearly in the same way, in the treatise on female diseases.

The general contents are the following.

Why all eight-month children die, whilst those of ten months mostly live. The most likely to survive are those born after the full complement of nine months. Of the numerous dangers of the foetal state, at birth and subsequently. The superiority of a head presentation. Children often contract a disposition to disease in the uterus, from the navel-string being twisted around the neck, and from other causes. Dangers arising from changes in food, situation, clothing, &c., so different after birth. The navel the only medium of communication between the mother and child. Of the measures to be pursued to strengthen and invigorate children. Of births at ten and eleven months. Pregnancy may participate in eleven lunations, without exceeding two hundred and eighty days. Three days the shortest period of menstruation; but for the most part it continues longer. It is from the termination of this, that most females conceive; hence great variation in their statements, &c.

ON SUPERFŒTATION.

DE SUPERFŒTATIONE,	FœSIUS, Treat. vii. p. 260.
DE SUPERFŒTATIONE,	HALLER, ii. p. 103.
TRAITÉ DE LA SUPERFŒTATION,	GARDEIL, ii. p. 456.

THIS treatise is considered by Haller as altogether spurious. It details several cases of difficult parturition, and speaks of the importance of the nail of the middle finger in aiding delivery. Of the death of the fœtus in utero, its signs, and ultimate putrefaction. Some remarks relative to the signs of pregnancy, and of the situation of the child, as pointed out by an enlarged breast. Two cornua admitted to be in the uterus, by which superfœtation is explained. Many medical precepts are here repeated from the book “De Muliebribus.”

The general tenor of the book is that of superfœtation, the motion of the fœtus, the signs, the location and extraction of; and of the remedies aiding in conception, gestation, delivery, menstruation, the secundines, lochia, &c.

So far as mere conception is concerned, superfœtation may take place, but the chance of vitality is very trifling. The symptoms and causes of superfœtation. Of easy and difficult parturition, and of some circumstances that influence them. Of the signs of feeble life, or death of the infant. Of the difficult birth from the presentation of different parts of a vigorous child, and the measures to be adopted. Mode of delivery of the dead fœtus, and the importance of the nail in such cases. Of the tardy expulsion of the afterbirth, and of aiding it by means of gravitation, by the fœtal weight. Rupture of the cord, or its premature division. Signs of a dead fœtus; its putrid state, &c. Danger of hemorrhage before delivery and dilatation of the os uteri. Remarks on the state of pregnancy and difficult parturition. If conception occurs the same day, they are both enveloped in one membrane. Venery during pregnancy tends to promote difficulty of parturition. At what time to divide the cord in difficult labour. Of the signs of pregnancy, and of those

of the dead or disordered fœtus, and of longing, and marking the infant; of vitiated appetite; enlarged breasts, &c., leading to a knowledge of the situation of the child. Signs of conception; causes preventing it in great obesity, and state of the os uteri. Of the care to be taken at the cessation of child-bearing; bleeding for. Cure of the pains of pregnancy and of after-pains. Of the means to procure conception, and of the evidences of its occurrence. Causes and prevention of abortion, at two and more months. Tumefaction and ulceration of the uterus; cure of. Sterility, both in those who have and have not borne children, arising from the state or situation of the os uteri, &c.; how to treat. Spring best adapted for conception. Preparation to insure conception in the parties interested, and to attain either sex. Remedies applicable to different conditions of the os uteri. Pessaries, various; emollients, drastic purgatives; specifics, for fluor albus, &c., &c. Means of inducing menstruation, in the retention of, in virgins. Diet; ptisans; fumigations. Remedies at and after delivery, &c.

ON DENTITION.

DE DENTITIONE,	FŒSIUS, Treat. viii. p. 267.
DE DENTITIONE,	HALLER, ii. p. 123.
TRAITÉ DE LA DENTITION,	GARDEIL, ii. p. 476. *

THOUGH this is of a spurious origin, it is considered as a good practical treatise, and much in character of the Hippocratic writings. It speaks of numerous aphthous ulcerations, the accompaniments of infancy. It may be stated concisely, to give a detail of the state of children before, and at the period of dentition, and of the crises and prognosis derived from such state, as shown by the character of nutrition, the excretions of stool and urine, vomiting up of the milk, &c., dentition, and its symptoms, and the various aphthæ and ulceration of the mouth and fauces. It occupies but a single chapter.—ED.

OF THE HEART.

DE CORDE,	FœSIUS, Treat. ix. p. 268.
DE CORDE,	HALLER, ii. p. 35.
TRAITÉ DU CŒUR,	GARDEIL, ii. p. 479.

THIS book, says Haller, is altogether spurious, and this is admitted by Mercurialis. It appears not to have been acknowledged in the time of Galen. Haller says, Fœsius conjoins it with the book "De Carnibus;"—this is not the case. He thinks it ought to be so, and assigns his reasons; but although placed in the same section, no less than four treatises intervene. Haller considers this book, of all the Hippocratic collection, as presenting the greatest anatomical knowledge. It describes the heart, its figure, pericardium, ventricles, their situation and difference of size, its *valves*, and their appropriate use. A portion of the fluids taken as drink, is asserted as passing by the trachea to the lungs. The maxims of Erasistratus appear to be sustained, for it teaches the non-existence of blood in the arteries. In the account of the ventilation of the blood, by means of the bellows-blown power of the auricles, absurd as it may possibly be now regarded, we meet with no contradictions; but with a well-constructed edifice, not inferior for the period, than any that has more recently been erected, on a basis considered more firmly established, but which yet may well be doubted. The attentive reader will unquestionably wonder, at finding here so many anatomical details, especially as to the *valves* of the heart, with a precision not inferior to Harvey, who at least is not entitled to the discovery of this part of the vascular apparatus, nor to the pulmonary circuit of the blood!—ED.

ON THE GLANDS.

DE GLANDULIS LIBER,	.	.	FŒSIUS, Treat. x. p. 270.
DE GLANDULIS LIBER,	.	.	HALLER, ii. p. 40.
TRAITÉ DES GLANDES,	.	.	GARDEIL, ii. p. 485.

ACCORDING to Galen, says Haller, this treatise is wanting in Hippocratic simplicity, yet it is by no means inelegant, nor is it adverse to his doctrines on catarrh, as given in the treatise "De locis in homine." Gardeil, in his translation of the book "De Articulis," refers to this in a note, as presenting an interesting view on the subject of humoral diseases, and he concludes, from a passage therein, that this treatise on glands is in fact the work of Hippocrates, notwithstanding Galen's dissent therefrom.

Not much is said about the glands, but what there is, is pretty correct. Mention is made of the mesenteric, renal, and those of joints, probably meaning the axillary and inguinal. The notice taken of the hoarseness and pectoral affections, following excision of the mammae, is deserving of attention. The following outline will give sufficiently the character of the treatise.

Of the nature, uses, diversity, and diseases of the glands, their structure, &c. Tubercles; scrofula; inflammation, situation, &c., chiefly located in moist parts, and where hair is generated for the most part, if the moisture is not superabundant. Of particular glands, as of the neck, ear, axilla, groin, and intestines, and of their affections. Glands of the brain, which is considered as itself a gland, from whence those fluxions and affections proceed, of greater or less intensity, as apoplexy, mania, &c. Of the various passages for its abundant humours, producing *externally*, ophthalmia, itching, and discharges from the nostrils, purulent discharge from the ears, &c., catarrh, &c.; *internally*, phthisis, both pulmonary and dorsal, diarrhoea, &c. Of the mammae or pectoral glands, affording milk in females; reasons why confined to them; diseases caused by this secreted fluid in the breasts; and of such as follow their excision, and which are frequently fatal.—ED.

ON THE NATURE OF THE BONES.

DE OSSUM NATURA,	FESIUS, Treat. xi. p. 274.
DE OSSUM NATURA,	HALLER, ii. p. 19.
TRAITÉ DE LA NATURE DES OS,	GARDEIL, ii. p. 494.

IN his preface to this treatise, Haller says that it is regarded by Galen as the work of Hippocrates, and that it was known to the ancients by the title of "Mochlicus."^a The first part agrees with its title; it is concise and not unworthy of its author, who, it may be perceived, examined the recent bones. He was acquainted, moreover, with the cubital nerve, which, when struck, produces stupor of the parts. The latter portion, which speaks of several of the vessels, appears to be an incomprehensible jumble (*farrago ænigmatica*). In some places a lucid description is given of four vessels, that does not tally with that in some other of his works. The epigastric and mammary vessels are noticed; likewise the vena cava, the vena sine pari, and the vessels of the extremities. Correct accounts of the par vagum and intercostal nerves, intermixed with errors. The *distinction between arteries and veins* is pointed out, and the name of vein, as applied to the vessel carrying blood, seems to indicate the more minute anatomy of an age posterior to that of Herophilus, the discoverer of the nerves. The version is abundantly vague. The cellular fabric of the spleen is described, and the pulsation of the vessels. Mereurialis, adds Haller, considered the account of the four pair of vessels as spurious, and as appertaining to the period of Aristotle; which caution is all that is necessary to the reader.

Gardeil, speaking of this book, says, that "its title might induce the belief, that it principally regarded the bones, but that, in fact, it more particularly is devoted to the blood-vessels." We have here

^a We have a treatise by this name in the sixth section, hereafter noticed. The term is derived from *μοχλις*, i. e. ossis, aut ossium a loco qui præter-naturam sit, ad naturalem reductio;—which word is itself derived from *μοχλος*, vectis, i. e. the *apparatus* by which the reduction of a luxation was accomplished.—ED.

the detail of the doctrine on this subject, which is summarily given in the treatise "De locis in homine," a work generally held to be legitimate; and also in that "De natura hominis," the conclusion of which is thought to be spurious. He thinks, moreover, that the account given of the vessels, is of three pair only; and that the description of the fourth pair has either been lost, or was never completed; though, he ingenuously adds, that possibly he may have lost the connexion, in this embarrassing angiological detail. He is, however, more surprised to find so many facts, obtained without any aid from injections, than to meet with mistakes. I give the heads of his divisions.—ED.

Brief enumeration of the bones. . Vesiculæ seminales. The channels for drink; the liver; pericardium; intestines; vena cava, or aorta, its divisions. Nerves, their origin and division; division of the vessels to the right and left; secretion of urine; intercostal vessels; aorta; vena cava; decussation of vessels; their distribution; four great pair. Hepatic vein. Intercostal and splenic nerves, and their distribution. Of the general use of the different parts of the body, and the origin of the four great vessels; first pair; second; with some physiological details concerning respiration, and on the formation of the seminal fluid, and cause of venereal gratification, &c.; third pair, distribution of; and of the changes of the colour of the skin and complexion, &c.

It will be seen from this outline, how truly Haller has applied to the treatise, the term mentioned above. Its strongly confused state is enough, assuredly, to demonstrate that Hippocrates had no hand in its production. It seems to be a bundle of shreds and patches, from different sources, and put together at random, by some person devoid of the organ of arrangement and order.—ED.

ON AIRS, WATERS, AND LOCALITIES.

DE AĒRE, LOCIS ET AQUIS,	FŒSIUS, Treat. xii. p. 280.
DE AĒRIBUS, AQUIS ET LOCIS,	HALLER, i. p. 1.
TRAITÉ DES AIRS, DES EAUX ET DES LIEUX,	GARDEIL, i. p. 133.

This book, says Haller, has always been esteemed as one of the genuine writings of Hippocrates. It has been commented on, and illustrated by Galen, and various writers since his time. Its language becomes the Father of Medicine, and its reasoning is sound. The book chiefly treats of as to what the body suffers from winds, waters, seasons, climates, and localities. It begins with a consideration of the exposure of the Grecian cities to various winds, and of their influence and effects. Next it treats of waters derived from different sources; incidentally adverting to calculus, as arising from their impurities, and as being less frequent in females, owing to the shortness of their urethra. It then proceeds to notice the diseases depending on different seasons of the year; and finally it treats of climates, as connected with the temperaments, customs, and diseases of their inhabitants.

Should however this book be critically examined, it will be found, continues Haller, to contain *some* things [many!—ED.] that do not tally with present experience, such as the affirmed connexion between the diseases of a people and their habits and winds. Waters from earthy sources are preferred to those of rocky origin; and some subjects are singularly admitted, that are altogether undeserving of credit, yet which are apparently fully believed by the writer; particularly respecting the effeminacy and impotency of the Scythian nobles, together with the absurd treatment of the complaint, by section of the veins behind the ears! It treats cursorily also of the Amazons, and of the custom of burning off their right breast, in infancy, together with some other curious facts and speculations.

This book has been often translated, and it is incessantly quoted by medical men, when the qualities of the atmosphere are the sub-

ject of investigation. Dacier has translated it into French, but I have never seen it. Clifton has given a version of it in English, about a century ago.—ED.

Whoever desires to understand medicine thoroughly, can by no means neglect the subjects I am about to consider. The different seasons of the year, and what each is capable of effecting, will prove a source of reflection to him. They differ altogether from each other. Diversity exists in their respective constitutions, and even in their individual variations. We study the winds both as to heat and cold; those that are common to all countries, and such as are peculiar to certain regions. We ought also to examine the properties of the waters; since all are not alike in taste or gravity, so neither are they in virtues. Whoever, therefore, arrives at a town, of which he is not an inhabitant, should begin by regarding its position in relation to the winds and to the rising of the sun; he will not consider it as a matter of indifference whether its exposure is to the north, the south, the east, or the west; on the contrary, he must have a strict regard to its position, and to the nature of its waters; he must examine whether they are muddy, hard, or soft; if they pass through high and stony places; if of a saline nature, and if they set light on the stomach, and are well adapted for cooking vegetables. He should inspect the soil, and notice whether it be naked and arid, or covered and moist; if sunken and sultry, or high and airy. He should investigate the mode of living of the inhabitants, whether they are sots and gluttons, if idle or laborious, fond of exercise, moderate in eating and drinking; all these particulars are deserving of attention, and whoever makes himself with all of them fully acquainted, or at least of the greater part, will learn, when arriving at a town he has not frequented, the nature, both of the endemic diseases and of the general affections that should there be prevalent. He will not be unprepared for their treatment, nor will he commit those errors to which all are liable, who undertake to practise without these preliminaries. He can foretell what diseases ought to afflict the majority of the inhabitants in different seasons, in winter or in summer, and the danger to which they are exposed by a change of diet; for, if well acquainted with what such changes induce by the succession of the seasons, and the rising and setting of the stars, he will be enabled to foresee the constitution of the entire year. Acquiring thus a component

knowledge of these different subjects, he will distinguish what is essential for the maintenance or re-establishment of health, and will prove highly successful in the practice of his profession. Should it be objected, that the information I thus require, appertains to meteorology, I reply, that a knowledge of the situation of the heavenly bodies is not one of the parts least essential to form the physician; on the contrary, it is highly useful. The succession of the seasons is accompanied with remarkable changes in all the cavities of the human body. I shall, therefore, state as clearly as I can, what regard we should have to all these circumstances, and what we may deduce therefrom.

A town exposed to the hot winds that blow between the rising and setting sun of winter, viz.. from the south, and which are common to it, whilst it is protected from those of the north; such town has abundance of water, slightly saline, and arising necessarily in elevated places; hence they are warm in summer, and cold in winter.^a If the summer is dry, diseases are of short duration; but if wet, they are of longer continuance. From the most trifling causes, wounds degenerate into eating ulcers. If the winter is cold, the head abounds with moisture and pituita, which fall upon the bowels, and often induce gastric affections. The constitution of the inhabitants is in general relaxed. They are neither great eaters nor hearty drinkers, for they who have weak heads can never make stout topers, since wine readily overpowers them. Now the following diseases are there the most common. Women are subject to catarrhs, and many are barren, rather from disease than from nature; abortions are frequent. Children are subject to convulsions and suffocations, that are often confounded with epilepsy. The men have dysenteries, diarrhœa, and *epial* fevers,^b eruptions like flea-bites, chronic fevers of winter, and hemorrhoids. Few pleurisies are there seen, or peripneumonies, ardent fevers, and other acute diseases; such cannot be frequent where the bowels are relaxed. There are moist ophthalmias, that are neither dangerous nor of long duration, unless a change of season renders them epidemic. After fifty years of age, they are exposed to a kind of humour coming from the brain, which, if arrested, brings

^a On the contrary, a town that has a good exposure to the sun and winds, has excellent water that is less influenced by the seasons. Where marshy and muddy waters are employed, and the exposure to the sun and winds is bad, then the change of seasons is severely felt.—*GARDEIL*.

^b A species of continual fever.

on palsy, or affections from the rays of the sun, or colds in the head. Such are the usual diseases in the places I have described, independent of epidemics caused by a change of season.

Places situated in an exposure directly opposite, where the winds are cold, and usually blow from between the east and west, that is, from the north; and which are free from both south and all hot winds, have this in common. The men there are strong and not very fat; with large breasts and small bellies; they abound with bile rather than with pituita; their head is sound and dry, and they are subject to hemorrhages. The following diseases are there common. Pleurisies, and all diseases called acute, as must necessarily be the case, the belly being hard and constipated: internal suppuration is not uncommon, depending on the distension of the body and dryness of the belly; this dryness co-operating with the coldness of the waters, occasions ruptures of the vessels. With such constitutions, they ought to be great eaters and moderate drinkers, for it is scarcely possible to combine both in one person. We also find there, dry and violent ophthalmias, which soon run to suppuration; hemorrhages from the nose in young people, especially in summer; a few epilepsies, but of a violent character. The term of life is in general longer than elsewhere; wounds do not inflame nor take on a bad state: the manners are rather rude. Such is the state of things, independently of diseases induced by change of seasons. Women are there subject to hard tumours, owing to the cold and crude waters. Their catamenia are irregular, small in quantity, and painful. Parturition is laborious, but abortions rare. After delivery, the mothers can rarely nourish their children; their milk fails, owing to the crudeness and hardness of the waters; and many, after delivery fall into phthisis, caused by convulsions, and rupture of vessels, the result of violence. Children whilst young, are subject to hydrocele, which disappears as they advance to maturity; puberty is, however, tardy.

Thus far I have stated what has reference to towns exposed to hot winds, between the beginning and ending of winter, and those of an opposite direction, blowing between the rise and termination of summer. We are now to speak of cities located towards the east. Such ought necessarily to be more healthy than those having a north or south exposure, although lying between both; for the heat and cold are there less felt, and the waters, whose springs are exposed to the east, are quite clear, soft, inodorous, and plea-

sant to drink : the morning sun, by its rays, purifies them as it does the air ; hence the men have a good colour, and much vigour, unless affected by sickness ; their voice is clear, and they are more lively and intelligent than the inhabitants of a northern exposure. The productions of the earth moreover are superior. In a town thus situated, in which the heat and cold preserve the temperature of spring, diseases should be mild and few in number. They are chiefly of the same character with those in cities looking towards the warm winds. The women are very fruitful, and have easy labours. Such are the circumstances in such exposures.

As to places looking to the west, and which feel no winds from the east, but are exposed to those from the north and south, their position beyond all others is most favourable to disease. The waters are not clear, because the morning air, usually surcharged with moisture, prevents their limpidity, the sun dissipating it only after it has advanced in its course. During summer, the early breezes cause an abundant dew, whilst during the remainder of the day, the heat scorches and oppresses the inhabitants. Hence their complexion is bad, and they have little vigour ; they are liable to every disease I have mentioned, without an exception ; their voice is hoarse, owing to the air, infected with the miasmata of disease, and from which it is not purified by northern winds. Those which blow, are charged with moisture, for the western winds place the atmosphere in a state resembling that of autumn ; and a town thus situated, therefore, partakes of all the inconveniences which the evenings and mornings bring with them. Such are the remarks I have to make as to good or bad exposures, so far as relates to the winds.

We pass to the consideration of the *waters* ; and to the examination of such as are good or bad, as on this chiefly depends the state of our health. All waters that are stagnant, muddy, marshy, are necessarily heating. They are always thick, and smell badly in summer. As they have no current, and are maintained by the rain alone, they must naturally be of a bad colour, heavy, and bilious. Cold and frozen in winter, and disturbed, sometimes by snow or ice, they become a source of pituita and catarrh to those who employ them ; they enlarge and indurate the spleen ; they heat and constipate the belly ; they cause a shrinking of the shoulders, the neck, and the face ; the flesh seems to disappear in order to augment the spleen ; hence men become thin although great eaters and

drinkers; their belly is with difficulty discharged either upwards or downwards, so that they require powerful cathartics both in winter and summer. They are subject to dropsies, which are mostly fatal; and dysenteries, diarrhœas, and obstinate quartans are common in summer. These diseases naturally lead to dropsies terminating in death;—such then are the summer affections. In winter, young people are subject to peripneumonies and to diseases accompanied with delirium; and old people to ardent fevers arising from costiveness; women, to œdema and leucophlegmasia; they are not readily rendered pregnant, their labours are difficult, and their offspring gross and œdematosus; they nourish them with difficulty, for suckling induces phthisis; their lochial discharges are imperfect; their children, especially the males, have hernia and varices of the legs. It is easily seen, that with such waters, long life is not to be expected, but a premature old age. I add, moreover, that females often think themselves pregnant when not so; their bellies after parturition become flabby. I esteem these waters, then, as altogether bad.

Let us now advert to waters proceeding from rocky mountains: such are necessarily hard, especially if arising in places where there are warm springs, with metallic impregnations of iron, copper, silver, gold,—or of sulphur, alum, bitumen, or nitre; for all such are the products of a violent heat. In such situations the earth cannot yield pure water, but such only as are hard and sharp, passing off by urine with difficulty, and producing costiveness. They are better if they flow from high and earthy elevations; such are soft and clear, and bear to be mixed with wine. They are warm in winter, and cool in summer, as is the like case with deep springs. Those are preferable that flow towards the east: they are always clear, light, and of a pleasant odour.

Saline, hard, and refractory waters, are absolutely bad for common drinking; yet there are temperaments and diseases in which they are useful, as I shall presently notice. We ought to regard as the best of these waters, those whose springs have an eastern exposure; and next to these, such as being between the east and west, are nearer to the east; and in the third set, such as rise in the south: they are bad in proportion as they look to the south, between the setting and rising sun of winter; those to the south are bad, but less so than those to the north.

The mode of using them is as follows: every strong and healthy

man may dispense with a choice of waters, and be satisfied with such as he can procure; but when, from disease, the most appropriate drink is requisite, the following plan is to be pursued. If the patient is easily heated, and is costive, he must employ the mildest, the lightest, and most limpid water. If the bowels are relaxed, moist, and mucose, then saline, hard, and refractory ones are useful. It is natural that waters that readily boil, should evacuate, and, as it were, melt down the belly; whilst such as boil with difficulty, and are hard and refractory, ought to bind and dry it up. Many deceive themselves as to the influence of salt waters, considering them as being laxative, whilst they possess a directly opposite power; their refractory nature and difficult coction render them much better fitted to dry than to moisten the belly. All here mentioned is correct as to spring water. Let us now consider that of rain and melted snow.

Rain water is light, sweet, thin, and limpid; the sun carries off and raises the essence or lightest part of such waters, as we see demonstrated in making of salt; the dense and heavier parts remain and form salt, the lighter parts are raised by the sun, which deprives also, not only stagnant water, but also sea water of its lighter parts, as well as every thing that is usually moist. Now all bodies possess moisture; even from man himself, the sun carries off a slight dew, as we clearly perceive when he is walking or exposed to the sun; those parts of his body that are covered are moist with sweat, whilst the uncovered parts are dry, because the rays of the sun carry off the sweat as it forms, but suffer it to collect on the former, if protected by covering or in any other way: the heat of the sun forcibly abstracts the sweat, but the covering precludes evaporation. If he goes into the shade his whole body is covered with sweat, because the rays of the sun are prevented acting on it. Rain water readily corrupts and acquires a bad smell, owing to its being constituted of emanations from all sorts of bodies, whence a great disposition to putrefaction results; moreover, these vapours raised from bodies are carried to the highest parts of the atmosphere in all directions, and mix with the air; those that are thick and darkest, separate as dense clouds, the lighter parts remain suspended, and become attenuated and heated by the sun, and thereby ameliorated, diffused, and carried into the atmosphere. When thus collected together, they break when approximated by opposite winds; for it is highly probable that this happens whenever clouds,

agitated and driven on by the wind, suddenly meet with others impelled in an opposite direction. They intermingle and become thicker by those succeeding; as they thicken they grow still darker, and at length break, precipitate by their weight, and fall down as rain. This rain water is very good, but requires boiling to divest it of its tendency to putrefaction and to a bad odour, and makes the voice of those who drink it thick and hoarse.

Snow and ice water are always bad. When water has been frozen, it never assumes its first nature. Its limpidity, mildness, and softness are separated and dispelled, its coarser and more fixed parts remain. To be convinced of this, place, if you choose, in winter, a certain measure of water to freeze; melt it again the next day in a sheltered situation, and measure it; it will be found to be greatly diminished, and hence it results that the lightest and most attenuated parts are dissipated, for it is impossible it should be the coarser and more ponderous. We may therefore conclude such waters to be injurious, and here we leave them.

Men are liable to the stone, to nephritis, colic, and strangury, to sciatic pains and hernia, when they employ as drink waters of different nature, as of large streams into which rivers empty, or of lakes which receive different rivulets; and generally from drinking water coming from a distance, for it is impossible that all waters can be alike. Some are soft, others saline, some aluminous, and some arise in places abounding in warm springs. When waters so various are mingled together, they necessarily act on each other; the strongest prevails, but it is not always the same one that is the strongest, sometimes the one, sometimes another. Besides, the winds then produce great changes; those from the north give a greater power to the one; from the south to another, and thus of the rest; they ought, consequently, from their intermixture, to deposit sand in the vessels of the bladder, and produce in those who drink of them the disease I have mentioned. Let us see why all are not thus affected. Those whose bowels are relaxed and moist, whose bladder is but little irritable, and have a large orifice, such persons pass their urine readily; but those whose belly is very hot, have the bladder necessarily in a like disposition, and when thus heated, its neck is equally so; hence the urine cannot so readily escape; it is, as it were, parboiled; the lighter and purer parts escape, the gross and thicker parts remain, consolidate, and harden. At first this is merely a small nucleus, and slowly increases. By

motion in the bladder it attaches that which from time to time is deposited; thus it augments and forms a calculus. When the person makes water, the urine propels the stone to the orifice of the bladder, which arrests its flow, and causes severe pain. It is on this account that children with calculus pull forward the penis, striving thereby to displace the obstacle that prevents the urinary discharge. A proof that the stone is thus produced, is, that persons thus attacked, pass limpid urine like whey, nowise earthy nor gravelly; the thick and bilious parts remain in the bladder, and uniting, form at last a stone. It occurs also in infants, from their milk, when that is unwholesome, bilious, and heated; it induces heat of the bladder and intestines, and the urine becomes scalding. I affirm that it is better to give them wine well diluted, than such milk, for it dries the vessels less, and induces less heat. It is different in women; in them the urethra is shorter and larger, hence they make water more readily; nor do they thus violently rub the parts, as boys do, to enable it to pass, and consequently do not irritate the urethra opening in the vagina. Women having such a ready passage, generally void more urine than men; and these are probably very nearly the circumstances connected with the formation of calculus.

As to the *constitution* of the year, we may by attention discover which will be healthy or the reverse. Whenever the signs or phenomena correspond with the setting or rising of the stars, when the autumn is rainy and winter moderate, neither too dry nor too cold, when occasional showers fall in spring and summer, such a year ought naturally to be very healthy.

If the winter is dry and constantly chilled by the north wind, the spring rainy, and heated by the south winds, the summer will necessarily bring with it numerous fevers and ophthalmias. The earth, moistened by the rains of spring, and heated by the south winds; the summer heat and the moisture from the heated soil, induce humidity of the belly and brain. It is impossible that with such a spring, the body should not be overloaded with bad humours. Hence arise acute epidemic fevers, more common to those who abound in pituita. They will likewise have dysenteries, as well as those of a moist temperature. If at the *rising*² of the Dogstar rain should abound, and if the Etesian winds from the northeast fail not

² *Exortum*, Hal., Fæsius; *sitting*, Clifton.

to come, it may be hoped that the diseases will terminate, and autumn prove healthy; if otherwise, there will be great mortality amongst women and children, but not amongst old people; fevers will degenerate into quartans, and terminate in dropsy.

When the winter is moderate, accompanied with showers and south winds; when spring is dry and cold, with north winds, pregnant women, who expected parturition in spring, miscarry, or else the offspring are weak and unhealthy, and soon die; or should they survive, they will be small, languishing, and unhealthy. Dysenteries and dry ophthalmias will occur, and catarrhs in the head, falling upon the lungs. Men of humid temperaments and females, will have catarrhs, resulting from the pituita flowing from the brain. Bilious persons will have dry ophthalmias, owing to the heat and dryness of their flesh. Old people will have catarrhs, dependent on tumid and enlarged vessels, so that some will be carried off rapidly in a state of frenzy; others fall into palsies of the right side; for the winter being warm and rainy, neither the body nor the vessels are strengthened. The spring succeeding, with north winds, drought and cold, the brain, which at this season ought to be cleared of those gross humours producing stoppages in the head and hoarseness, becomes stuffed up and swells, so that when the summer heats arise, great and sudden changes ensue, with diseases ending in dysentery and dropsy, because the belly cannot readily become dry.

When the summer is rainy, accompanied with south winds, and autumn is the same, the winter of necessity must prove sickly; especially in pituitous persons, and those above forty years of age. Ardent fevers will prevail, and the bilious will suffer from pleurisies and peripneumonies. If summer is dry, with north winds, and autumn rainy, with south winds, we shall have in winter affections of the head, paralysis, hoarsenesses, oppressive coughs, and some consumptions. When summer is dry, with north winds, without rain at the rising of the Dogstar and Arcturus, at the close of summer and beginning of autumn, it is favourable for people of moist temperament and for women, but the reverse for such as are bilious. It dries them too much, and gives rise to ophthalmias and acute fevers, to chronic fevers and to atrabilious complaints; for the more watery parts of the bile are dissipated, leaving only the thicker and more acrid parts. It is the same with the blood, and hence the source of these diseases. Such a season is however favourable to pituitous persons;

they lose their excess of humidity, and are thus in a good condition at the arrival of winter.

Whoever will consider all the above circumstances, and pay attention to them, may predict the greater part of the evils induced by the change of seasons. He must be guarded at the epoch of such great changes, not to give purgatives too freely, nor apply fire near any cavity, nor make incisions, until at least ten days after such changes. The two solstices are dangerous, especially that of summer;—the two equinoxes are likewise to be feared, particularly that of winter. The rising of the constellations should also be noted, particularly the Dogstar, then Bootes; and Pleiades at their setting; for on those days many diseases terminate, fatally in some, in others in health. Every thing assumes another aspect, and undergoes a change. Thus much on this subject.

PARALLEL BETWEEN THE ASIATICS AND EUROPEANS.

I wish at present to notice wherein Asia and Europe vary, and explain why their respective inhabitants so widely differ. I should be too prolix were I to speak of every particular diversity, and shall therefore mention only those principal points which appear most deserving of attention. I commence by observing, that Asia greatly exceeds Europe in respect both to its vegetation and its inhabitants. All is larger in Asia, and the country is milder,—the people are less active and more effeminate. The cause of this is to be found in the constitution of the seasons. Asia is located between the two extremes of winter and of summer, and therefore removed from the extremes of heat and cold. Every thing there increases greatly, and has a character of mildness, and of a just medium. It is not so, however, in every part of Asia; I speak only of that portion located intermediately between the two extremes above-mentioned. It is, moreover, abundant in fine fruit and beautiful trees; its sky is serene; there is abundance of water, both of rain and from springs, so that the country is neither scorched, dried up, nor affected by severe cold. It is sufficiently warm, and moistened by rain and snow; the seeds of fruit are there developed, and by means of culture and of grafting, man has ameliorated, and fitted them for both his gratification and his wants. The cattle are numerous, fruitful, and well fed;—the men are large and of good proportions, and scarcely differ in height or in appearance. Such a country

cought to have, naturally, a good soil, and an equable temperature in each season; but courage, patience, steady application, and firmness of mind, find no existence there, nor can the love of their own species predominate. Pleasure alone exerts an absolute control, and gives origin to the many monsters observable among brutes. What I thus affirm of a part of Asia, applies equally to Egypt and to Lybia.

With respect to those who dwell on the right of the rising of the summer sun, to the Palus Maeotis, which separates Europe from Asia, they differ more from each other than those I have spoken of, both in regard to soil and climate. As elsewhere, whenever the seasons are more variable in degree or frequeney, there the country is more wild and irregular. There we find mountains, forests, heaths, and meadows; and somewhat similar is seen in man, if closely observed. The nature of some resembles the mountains, forests, and rocks; others are like plains in fertility, and partake of the humid nature of meadows and marshes; in others again, we recognise the character of a dry and arid country. The various seasons of the year affording diversity of form, have, in their succession, many differences; and these variations are productive of as many peculiar and distinct constitutions. I say nothing of those countries that differ little from each other; I speak of such only in which nature and customs have established well-marked differences.

We commence with the Macro-cephali. No other people have such elongated heads. It is an ancient custom that gave rise to this, and nature concurred in the practise. A very long head is esteemed a mark of distinction: this opinion led them to compress their children's heads with their hands, as soon as they were born, and whilst the bones were flexible; aiding this elongation by means of bandages and other measures adapted to destroy a spheroidal form. Such practise was at first the only measures pursued to produce this form, and time has insensibly rendered it natural; so that it is no longer requisite to use violence. In the act of generation, portions of the seed come from every member of the body; the humid members transmit moisture, those that are diseased send particles that are equally so; hence, bald fathers usually propagate bald children; those with blue eyes, get children with eyes of a similar colour; the lame beget lame children. Why then should not those who have long heads beget macro-ecephali? Although at present, not perhaps for a like reason, because all customs become

neglected and lose their power. This is my view as respects the Macro-cephali.

As to those who inhabit Phasis,—this country is marshy, hot, humid, and woody; the rains are frequent and heavy at all seasons; the men live in marshes, in dwellings formed of reeds on the water: they are rarely seen in towns and public places, but wander about in boats formed of a single log (canoe), traversing the canals that every where abound. Their drink is the warm stagnant water of the falling rains that the sun has corrupted. The river Phasis itself is one of the slowest, its flow being scarcely perceptible; the fruits are unhealthy, soft, and imperfect, owing to the moisture, nor do they ever come to maturity. Thick clouds perpetually arise and fill the atmosphere; and these are the causes of the difference of the Phasians from other people. They are tall and very fat; no joint or vein is well distinguished; their complexion is sallow, allied to jaundice; their voice is hoarse from living in an impure, humid, and thick atmosphere; and they are unable to bear fatigue. The seasons differ but little as to heat or cold; the winds mostly blow from the south, with one exception, appropriate to the country, called *Cenchron*, which is sometimes very violent, powerful, and hot: the north wind is rare, and when it blows, it is moderate and scarcely perceptible.

After what I have said as to the difference in the nature of the inhabitants of Asia and Europe, it follows that the former, possessing neither vigour nor courage, must be less fitted for war than the Europeans; whilst their manners are at the same time more amiable. We must attribute this to the seasons, as being less variable and less liable to great changes from cold to heat, and the reverse; the senses are less powerfully affected, and the constitution of their bodies is more enervated; hence anger and other passions are less vehement than where the temperature of the seasons is very variable, for all changes are the causes which most excite the mind and prevent the tranquillity of man. I think, therefore, the defect of courage in the Asiatics arises from these causes; though another powerful one is to be found in their form of government. They are almost entirely under regal authority. When we are not our own masters, but receive laws from a despot instead of framing them ourselves, we cannot feel much disposed for war, but prefer peace, for the dangers are unequal. On the one hand, we must take the field, undergo fatigue, and die far from home, from

wife, children, and friends, to satisfy the will of a master. On the other hand, any extraordinary action we perform is altogether for the advantage and aggrandizement of the sovereign. He alone receives the reward of danger and of death. If then amongst such people one should grow up courageous and brave, his courage would become enervated by the laws under which he would have to live; a proof of which is, that all the Greeks in Asia, as well as those barbarians who are not subjected to a master, who make their own laws, and labour for their own advantage solely, are warlike, inured to hardship, and are very brave. It is for their own profit that danger is encountered, for they know that they will enjoy the fruit of their courage, and that they will suffer from the effects of cowardice. In Asia we find the people of a character altogether different, though some are braver than others; and these differences depend chiefly on the seasons, as I have endeavoured to demonstrate.

Among the nations of Europe we find the Scythians, living near the Lacus Maeotis, and differing entirely from all the others. Amongst them are the Sarmatians, whose females ride on horseback, draw the bow and shoot their arrows from that situation; and fighting their enemies whilst yet virgins; nor do they lose their virginity until they have killed three of them, nor cohabit with a husband before performing certain prescribed ceremonies. After this, they dwell with their husbands, and are dispensed from riding, except when necessity requires the whole nation to join in battle. They are deficient in the right breast, which is burned by their mothers in infancy, by means of an appropriate heated copper instrument, by which the nourishment and strength of the shoulder and arm are greatly increased. Although the various Scythian tribes resemble one another, they differ greatly from all other nations. It is the same with the Egyptians, who are, however, oppressed by heat, but the Sarmatians by cold.

What is called the Scythian desert is a vast plain, abounding in meadows, very bare, and considerably humid. It has large rivers, into which its waters are received. In this, those Scythians called Nomades, dwell, not in houses, but in chariots, covered with skins, the smaller of which have four, the larger six wheels. Some have but one apartment, others three, resembling in construction a house; and they are well secured against the rain, cold, and wind; and are drawn by two or three pair of oxen, without horns, which are

hindered from growing by the cold. The women live in these carts; the men mount their horses and camels, and are followed by their flocks, oxen, and horses. So long as sufficient herbage is found for their cattle, they remain in the same place, and when this is exhausted they remove to another. They feed on baked flesh, and drink mare's milk, of which they likewise make a sort of cheese called Hippace. Such is the mode of life of this wandering race, and it is greatly allied with the nature of their seasons.

The Scythians have customs and a character peculiar to themselves, by which they are distinguished from all other people, in the same way as the Egyptians. Their women are not fruitful; their wild animals are small and few in number; their location is under the Riphean Mountains, from whence proceed the northern blasts; the region being but slightly under the solar influence, and that chiefly during the summer solstice. Southern gales are rare and faint, but those from the north are violent, with snow, ice, and rain. They rarely quit their mountains, which are habitable only to a south exposure. Dense clouds arise during the day, with great humidity, so that winter seems almost perpetual; the summer heat is moderate, and of short continuance. The plains are elevated and barren, and not protected by the mountains, having all a northern inclination. The wild animals are all small, and easily protect themselves from the cold in holes in the earth; the frosts and sterility of the country checking their increase; being open and flat, they cannot readily conceal themselves. The change of seasons is not considerable, being nearly alike,—and hence there is but little variety among the people; they employ the same food and clothing both in winter and summer; the air they breathe is damp and heavy; their drink is chiefly the water from ice or snow, and they exercise but little constancy in labour. It is hence impossible that either mind or body should be vigorous, and consequently the inhabitants of those countries are thick and heavy, their limbs flabby and relaxed, their belly loose; how indeed could it be otherwise in such a country and with such seasons? With such uniformity of surface, &c., the men and women also must be greatly alike. There being so little change of seasons, there can be but a slight alteration or change in the semen of the parents, except induced by some accident or disease. I will state a manifest proof that moisture predominates, at least among the Nomadic Scythians. The greater number of them exhibit marks of burning on the

shoulders, arms, wrists, breasts, thighs, and flanks ; they burn those parts only to correct the humidity and softness of the flesh. They cannot, in their natural state, either draw the bow, or throw a dart, on account of the weakness and atony of their limbs ; the application of fire dries up the excess of moisture, and strengthens the muscles ; the body consequently is better, and the joints become stronger. In Scythia the men are fat and large, because, as in Egypt, they are not in infancy swaddled and bandaged ; moreover, they are always on horseback or in ears, and until fit to ride, the boys live a nearly sedentary life, walking but little even in their journeys.

The women are astonishingly fat and large, generally ruddy from the cold, which gives that hue to their fair skin. Such a nation cannot be prolific. Men of a cold climate, delicate, and with relaxed bowels, can have but few desires for coition, independently of the enervation caused by constant equitation, which unsuits them for the act of generation. So much for the male sex. As for the women, their fat and corpulency obstruct conception, their menses flow but rarely and in small amount, the mouth of the uterus, closed by fat, can neither attract nor retain the seed ; want of exercise renders their bodies flabby and weak ; the abdominal viscera are cold and deficient in tone ;—all which causes insure a defect of fecundity, as is manifest from the opposite result in their servants, who, from their active life and want of corpulency, are readily impregnated. I shall here remark that many of the Scythians become impotent, and that then they perform the duties of women ; they acquire their tone of voice, and are called effeminate. The inhabitants ascribe this misfortune to the gods, and honour those thus affected, and fearing that the same may happen to them. For my own part, I believe that this affection, like every other, comes from God ; none are properly the work of man, but all spring from Him. Every disease has its own particular mode of production, in which the above-mentioned participates, from natural causes : thus we find them always on horseback ; their legs hanging down, fluxions to those parts necessarily ensue, which cause lameness, and a dragging of the limb as the disease advances. To cure this in the commencement, they open a vein behind each ear, suffering the blood to flow until much weakened, and sleep ensues. On awaking some are cured, others not. Now I apprehend, they lose their virility by this treatment, for we have veins near the ears whose

section causes impotency, and I suspect they cut these. When, therefore, they desire to approach their wives, they find themselves incapable. At first this gives them little concern, but after three or four attempts, finding the evil to continue, they conclude that they have offended God, and to this they attribute it. Assuming now the female dress, they thereby proclaim distinctly their impotency; they live like the women, and perform their duties. This occurs among the rich and most considerable of the Scythians, such as are always on horseback, and possessed of large flocks, and not among the poorer classes, with whom it is uncommon, for they rarely ride. Now if this evil proceeded particularly from God, it ought to be common to both classes, and especially to the poor, who are unable to sacrifice to the gods, if indeed they delight in sacrifices, and count the number of victims. The rich have the means to offer numerously; not so the poor, who even blame the gods for the misery they endure, so that on this score the evil should rather fall upon them. But it is with this as with all other diseases, which I have already remarked as beyond doubt coming from God, each one according to its peculiar nature. The cause productive of that of the Scythians, appears to me to be that I have stated; it operates equally on others. It may be observed that they who are perpetually on horseback, are subject to fluxions in the thighs, pains in the feet, and that generally they are little fitted for the battles of Venus. Such are the Scythians, and of all men, they are the least ardent and apt for the rites of marriage, for the reasons thus assigned. It may be added, that passing their lives thus on horseback, and wearing drawers, they have less leisure and opportunity for lascivious feelings; besides which, the cold and fatigue prevent those desires for women, so that at length this loss of virility becomes almost a matter of indifference. So much for the Scythians.

In other European nations men differ greatly both in size and form, owing to the great and frequent changes of the seasons, extremes of heat and cold, great rains and extreme droughts, with winds from every quarter. It is natural that men should feel this influence, and that the semen should differ in summer and winter, and in wet and dry weather. Hence we do not notice among Europeans the same similarity that is observed among the Asiatics. A difference of size is frequently noticed even in adjoining towns; the seed is modified in a variety of ways beyond what would be the case if the seasons were uniform, or approaching thereto. It

is the same as to manners. A rough unpolished state, with violent passions, ought to prevail where changes of seasons are great. Strong impressions induce somewhat of a savage character, and dispel mildness and tranquillity. It is on this account, I apprehend, that Europeans are more courageous than Asiatics. Uniformity of seasons induces indolence, the reverse strengthens both mind and body. Cowardice follows in the train of indolence, courage in that of exercise and labour. The Europeans ought therefore to be better calculated for war; their laws likewise co-operate, which do not, as in Asia, emanate from a king, for where kings have sway their courage is restricted. I have before said that minds enslaved will not naturally expose themselves to danger. Those on the contrary who are their own lawgivers, and encounter danger for their own advantage and not of others, do this with pleasure, and support labour readily, because they partake of the benefit. It is thus the nature of the government tends to promote courage, and we see in this respect a vast difference between Europe and Asia. I remark, in addition, that generally the European nations differ from each other in size and form for the same reasons, and equally so do they differ in respect to bravery. We notice, for example, that those who inhabit mountainous, barren, rough, and arid countries, with very variable seasons, are naturally tall, laborious, and brave; their character is wild and savage. In valleys and meadow countries, in close situations with warm exposure, man is neither so tall nor well proportioned. They grow plump, and have a darker complexion, are less pituitous than bilious, and are less; but they are not deficient in strength or courage. Their nature is unequal, being modified by circumstances of laws and customs. Being deficient in large streams to convey away the rain and water of their lakes, and using stagnant water for drink, their complexions are inferior to those under opposite circumstances, and their spleen is affected. Those who live in open upland situations, exposed to the winds and moisture, are large and resemble each other; they are well proportioned and gentle in disposition. Such as reside in dry and open countries, with great changes in the seasons, have firm and robust bodies, with complexions fairer, manners free, unbridled passions, and strongly self-opinionated; for wherever seasons are very changeable, there we find great variety of figure, temperament, manners, and customs. The difference in the seasons may be set down as the principal cause of difference in the nature of men;

next follows the situation and nature of the soil, and the quality of the waters. Wherever the earth is rich, loose, and moist, the waters high, in summer warm, and cold in winter, with equable temperature of the seasons, you may be assured that the inhabitants are lazy, weak, and commonly mischievous, unskilled in arts, and not bright of understanding. Where, on the contrary, the country is open, rough, and difficult of access, oppressed by cold in winter, and by the heats of summer, there the men are vigorous, lusty, hairy, laborious, hardy, watchful, violent, obstinate, harsh, and well adapted for war. In general every thing that grows upon the earth partakes of its quality ;—and here I terminate what I desire to say on the subject of the principal differences in the forms and characters of men. It might be greatly extended, without falling into error, keeping in view the same principles.

OF FLATUS.

DE FLATIBUS,	FÆSIUS, Treat. xiii. p. 295.
DE FLATIBUS,	HALLER, iii. p. 433.
TRAITÉ DES VENTS,	GARDEIL, ii. p. 512.

HALLER considers this treatise to be spurious, and as vastly below the standard of Hippocratic genius. He admits it, nevertheless, to be admirably written and well arranged, ("bonique ordinis liber.")—From one single principle, viz., flatus, the author with much skill has deduced doctrines of great consistency, and explains the origin of all diseases, from an error loci of this flatus. Some of the opinions of Hippocrates are advocated, but others are opposed, especially as to catarrh, as laid down in the book, "De locis." The origin of the Pneumatic Sect is considered as here being first embodied.

The argument of the book is, that air penetrates and permeates all bodies, and that through its agency the causes of most disorders is explicable. Various modes of the generation of diseases are herein pointed out.

Whatever may have been the opinion of Haller as to the merits of this treatise, it has, however, been attributed to Hippocrates by Eretian, Galen, and other writers; some of whom have esteemed it as one of the most interesting in the history of medical systems, and one that will be read with much pleasure. If permitted to express an opinion respecting it, I would say, that, by whomsoever written, it is one of the most ingenious and well-arranged of all the treatises that have reached us, under the name of Hippocrates. It cannot be his, I think, since it ascribes to a single principle, *air*, (flatus, wind,) almost every disease; whilst pituita, bile, &c., constitute a more complex set of causes in the real Hippocratic writings. Many remarks in this treatise, in connexion with those to be elsewhere found, concur in satisfying me, that, if the circulation of the blood was not, at that distant period, understood, precisely as it is

now sustained and taught, yet, that such a function was nevertheless admitted as a well-known and general proposition in medicine; as an anatomical and physiological fact, which was fully appreciated, both pathologically and therapeutically, by the medical men of those days; and that the pulse was sedulously attended to, and perhaps more correctly than at later periods. Gardeil terminates his translation of the treatise with a remark, that "after reading it, a person might be led to think he had been perusing some new thesis, composed and maintained by some systematic physician of the present day." This remark seems to me to be perfectly correct; for it is obvious that if terms have any meaning, we here find, in a few words, the doctrine of *the unity of disease*, as more fully laid down and elaborated by the late Professor Rush, and even conveying, in the concise manner employed, the whole force of Dr. Rush's more profound illustration of a doctrine he regarded as altogether his own, and as such, taught it in the University of Pennsylvania.

As in the preceding treatise, I propose to give merely an outline of the contents that may be looked for at large in the treatise itself.
—ED.

Preliminary remarks relating to the difficulties and disagreements in medicine. The art of medicine is one of the most laborious to the practitioner, although beneficial to the community. The influence of opinion on it. Attempt to reduce it to one general principle. Whatever is injurious is disease, and is to be *removed or cured by contraries*. Wherein medicine consists, and what constitutes the best physician. *The essence of all diseases is one and the same.*^a Diseases differ merely in location, which alone causes the diversity of forms they assume.—Of the triple nutriment of animal life, viz., food, drink, and air. Distinctive appellation of this last, according to its relative situation, viz., spirit, air, flatus, wind; and of its absolute necessity, both as the cause of life and of disease. It is one of the principal agents of the animal economy, and of nature at large. It is essential to combustion, and to animal life, even to that of fish; in short, there is nothing that does not feel its influence.

^a That is, all disease is a unit. "Morborum autem omnium cum idem modus sit, locus tamen diversus est. Morbi igitur ob locorum varietatem et dissimilitudinem, nihil inter se habere simile videntur."—Fæsius, p. 296; Haller, iii. p. 435. The unity of disease is here unquestionably sustained, or I am altogether mistaken as to the tenor of the entire passage, which is correctly rendered from the Greek text.—ED.

It is equally the cause of disease, as of life; food and drink may be deficient for days without injury, but death is the almost immediate result of the absence of air. It is the vehicle of miasmata; and here the author applies his principle thus laid down, to the production of fever, which is an accompaniment of most diseases, especially of such as are conjoined with inflammation. Fever, it is remarked, is twofold, common and particular. The first is general, attacking all indiscriminately, and is therefore denominated epidemic; the latter attacks such as are inattentive to their diet and mode of life. Remarks on each of these succeed, and an inquiry entered into, why *all* animals are not equally attacked. Particular fevers, originating from faults in diet, are then attended to; and we are informed that from air, or flatus, originate eructations, chilliness, and rigors; and an explanation of many symptoms is given, conformably to this doctrine of pneumatism, such as of the uneasiness and pains, chilliness, headache, and throbbing of the temples, &c., that precede or accompany fever. The same principles are applied to other diseases, as volvulus, colic, tormina,—all which arise from flatus; as well as catarrh in all its various forms of fluxion, viz., ophthalmia, cough, hoarseness, hemorrhage from the breast, dropsies, ruptures, apoplexy, epilepsy, and many more. The symptoms, causes, and cessation of epilepsy; and much stress is laid on the attention necessary in blood-letting; of its injurious influence when the blood is unduly perturbed, as seen in drunkenness, insomnia, &c.; its influence in the operations of reason is pointed out, and its state of purity or otherwise is noticed; whilst the inequality of its circulation is at times productive of every irregularity. All this is attributed to flatus, and is duly explained and illustrated. Ultimately it is added, that flatus appears, under numerous aspects or modes, to be the cause of diseases; other causes also may co-operate, or may act an intermediate part.

If I should extend these remarks to every case of disease mentioned, it would greatly enlarge, but would not more fully demonstrate the truths advanced.—ED.

OF EPILEPSY.

DE MORBO SACRO, FÆSIUS, Treat. xiv. p. 301.
DE MORBO SACRO, HALLER, iii. p. 411.
TRAITÉ DE L'EPILEPSIE OU MALADIE SACRÉE, GARDEIL, iii. p. 5.

HALLER considers this treatise as differing greatly from the genius of Hippocrates, being chiefly speculative. The reader is fatigued by the attempt to demonstrate that epilepsy does not originate from the anger of the gods, but from humidity of the brain. It might, he thinks, be regarded of a later period, because in the comparison drawn between the human brain and that of animals, a less degree of anatomical information is conspicuous; whilst the nature of the disease is apparently deduced from experiments of incising the brains of sheep and goats. A tolerable description of the veins is given. That system seems to be adopted, which derives diseases from pituita and bile. The position is assumed, that air finds a passage to the brain. The diction is diffuse, and Asiatic. The treatise is incidentally noticed by Cœlius and other ancient authors.

This is an admirable treatise, the remarks of Haller, to the contrary, notwithstanding. If, in every theory advanced, it be absolutely requisite that the premises be admitted on which some towering superstructure is erected, we may affirm, that admitting those of the present book, its superstructure is as admirably constructed as that of any theory of the present day, on this or any other subject. The irony of the author is highly amusing, and his respect for religion is not less exemplary.

Pursuing the plan of the preceding books, we give a concise outline of the various parts, premising that the treatise contains the description of the epilepsy, or *morbus sacer*—its name, nature, subjects, seat, causes, attack, symptoms, signs, treatment; and proposes sundry problems respecting it.—ED.

Epilepsy is a natural disease, and has in it nothing more sacred or divine than any other. Its name originated as much from ignorance and astonishment, as from the fictitious piety of philosophers, priests, quacks, and jugglers. Here follow some sharp and sarcastic remarks, on the accredited superstition of the times in relation to the disease. Somnambulism, the nightmare, and other affections, are not less astonishing than epilepsy. Ignorance clothed itself in the mantle of religion, which was chosen as a mark of separation from the general community, and the people were deluded by a host of knaves, who endeavoured to persuade them that they held communion with heaven, and were better informed than mankind at large. Unable to prescribe usefully for this complaint, they asserted its sacred origin, and made its cure to depend on purifications and expiations, together with the interdiction of sundry kinds of food, both animal and vegetable. The patient was clothed in black, the colour of mourning; and strict regulations were given even for the manner and position in sleeping. If the sick recovered, they claimed the credit, and lost none if he died. If the cure depends on such observances, the disease, says Hippocrates, cannot be divine, nor does he imagine it was really so regarded by these quacks themselves, who seek only to deceive, by giving out for truth, what they had no knowledge of; and their pretended piety was the mere mask of religion, by which the power of divinity was made subordinate to the will of man! The deities to whom the disease was attributed, are stated as Cybele, Neptune, Proserpine, Apollo, Mars, and Hecate; and which of these was the source, is pointed out by certain accompanying signs,—all which, and the treatment for, are duly reprehended. Quackery seems indeed to have been equally successful in Greece, at the distant era of Hippocrates, as at any since he flourished!

The origin or rise of epilepsy is next considered, its natural explanation and its causes assigned, without referring it to heaven. Its causes are similar to those of other diseases. Hereditary at times, it is connected with pituita rather than bile, and is dependent on a peculiar constitution of the brain. A general outline of that organ is presented, its vascular distribution, and its torpor at times by the air or circulating flatus being impeded in its passage, and producing undue pressure on a part. The doctrine of the preceding treatise is consequently here advocated, and its influence in epilepsy is fully explained. Epilepsy, we are informed, attacks the foetus

(in utero, both healthy and unhealthy), if its brain be not properly emulg'd, and which thus becomes choked up by pituita, by which the regular play of air is precluded, followed by retardation of the blood, &c.,—of all which the symptoms are enumerated and explained, and also at a posterior period of infancy; in all which the air or flatus is seen to bear a principal and energetic part. Its effects in infancy; and why more common and fatal at that period. If they survive, the effects it leaves. Its effects in adolescence, manhood, old age, &c., severally explained. It is said not to attack after twenty years of age, unless in such as had it in infancy. Some animals, as goats, subject to the disease. Inveterate epilepsy absolutely incurable. An attack of epilepsy often foreseen by the patient. Influence of certain winds in producing it. The brain is the seat of all mental affections. The functions of that organ at times sound, at others depraved. Some remarks on mania. External effects produced by the operation of the mind in dreams. Of the vast empire of the brain in man; how it is operated on by the air. The diaphragm is not the seat of sentiment or intelligence—the name is therefore inappropriate;—nor is the heart the seat. The vessels of all the body go to the heart, and have a connexion with it so remarkable, that if any part suffers, that organ feels it. Some general remarks follow in conclusion, on the nature of epilepsy, and as showing that it has no more a divine origin, than any other disease, but is produced by similar causes; and that in its treatment, attention is to be paid to circumstances, without any reference to lustrations, purifications, or witchcraft. The following expression, towards the conclusion, may perhaps be deemed the prototype of Homœopathic views, “*Et plærius ab iisdem, à quibus oriuntur, sanantur,*” and is respectfully recommended to the consideration of that sect, and of Hahnemann in particular.

SECTION IV.

ON A HEALTHY DIET.

DE SALUBRI VICTUS RATIONE,	FÆSIUS, Treat. i. p. 377.
DE SALUBRI VICTUS RATIONE,	HALLER, iv. p. 81.
TRAITÉ DE LA DIÈTE SALUBRE,	GARDEIL, iii. p. 27.

THE ancients, says Haller, united this with the treatise "De Natura Hominis." To me, it appears more connected with the third book of the treatise on diet, from which much is transcribed here and there, and other matter more extensively treated of; as, for example, the reasons for dietetic vomition.

The argument of the book is the pointing out the proper use of food, as instituted from the various circumstances of time, habit of body, age, affections, sex, and custom. It is divided into three chapters by Haller.

CHAP. I. Of the rules of diet in respect to different seasons of the year and age of life. Of exercise, and bathing, &c.

CHAP. II. Of the measures to induce corpulence or leanness. How and when to administer vomits.

CHAP. III. Of various exercises; which, when, and for what reasons, best.

Gardeil considers the next treatise on regimen as a continuation of the present, although it is probable they are the production of two different authors. He divides this under fourteen paragraphs.

Sec. I. to IV. Of the diet or regimen for winter, spring, summer, and autumn.

Sec. V. Of diet in respect to age and temperament.

Sec. VI. General principles respecting diet.

Sec. VII. On the use of emetics, glysters, &c.; when to be employed.

Sec. VIII., IX. General principles of regimen for children; for women.

Sec. X. Of gymnastic exercises, and of a fit regimen therefor.

Sec. XI., XII., XIII. Regimen required in some particular cases.

Sec. XIV. General maxim concerning dietetics.

ON REGIMENT.

IN THREE BOOKS.

BOOK I.

DE VICTUS RATIONE,	FESIUS, Treat. ii. p. 310.
DE SANORUM VICTUS RATIONE,	HALLER, iv. p. 1.
TRAITÉ DU RÉGIME,	GARDEIL, iii. p. 34.

HALLER says, that Galen and Mercurialis considered this treatise as unworthy of Hippocrates. It is, adds he, certainly of great antiquity, for it contains the precepts of Heraclitus. It is wonderfully concise, obscure,^a and so far Hippocratic. All things are made to consist of fire and water, and these are deemed adequate for every purpose. The first giving motion, the latter nourishment; the life or soul (*anima*) is even produced by them. Eight temperaments are produced by the varied proportions and powers of each; and the difference of disposition is ascribed to the different *temperies* of these elements,—to each of which appropriate remedial plans are adopted. Thus in the choleric, cold and humid nourishment and baths are prescribed. No mention is made of bleeding. A theory of temperaments is presented, very different from that given in the treatise “De Carnibus.” A twofold semen is here advocated, as in the tract “De Genitura,” and the dispositions are attributed to the predominance of the one or the other. The uterus is stated as being double. Exercise and emetics are important aids in practice. Between this and the third book there is not much difference.

In the subsequent portions much obscurity exists, which the great sagacity of Gesner has elucidated in the germs of animals and plants; which, if unputrefied, alternately become apparent, vegetate, and grow, and then return to an inconspicuous state. Much is interspersed, the sense and scope of which are not very readily perceived.

^a “Idem mire brevis, obscurus, et hactenus Hippocraticus.”

The argument of this first book is, that it points out the pre-requisites for instituting a healthy regimen; treats of the constituents of the animal body; of the connexion of art and nature; the union of the sexes in establishing the strength, increase, and nutrition of the body; of the temperaments as influenced by sex and age; and of various affections of the mind.—ED.

CHAP. I. The proëmium of the whole, as founded on attention, docility, and kindness. What previous information is necessary to the dietetic physician. Of the power or property of food and drink.

CHAP. II. Propositions as to diet, both general and particular. As to the knowledge of the powers of food, drink, labour, the heavens, and climates, &c. in its employment.

CHAP. III. Continued; discusses the principles of nature; asserts them to be two, viz., fire and water, which are endowed with four qualities, viz., hot, and dry, and cold, and moist, &c.

CHAP. IV. Of the resulting compounds of the principles; nothing perishes; but, by their modification, alteration, increase and decrease ensue.

CHAP. V. Further progress in the view of natural objects; and its basis laid down; treats generally of life and death, and of a divine necessity in the various changes.

CHAP. VI. Of the origin, growth, and food of man; and of the wonderful harmony in the intermixture produced, &c.

CHAP. VII. Of the origin and increase of the foetus; demonstrated and explained.

CHAP. VIII. A comparison of some of the actions and affections of human beings, whether derived from nature or art; confirming and illustrating the doctrine of birth and of growth.

CHAP. IX. The preceding theory of the general origin and growth of man, illustrated and confirmed by induction.

CHAP. X. The difference of origin and of growth in the male and female, pointed out.

CHAP. XI. The difference shown further, in the diversity of numbers of foetuses, twins, sex, &c.

CHAP. XII. Further shown in the different constitutions of the human body, and the different diet necessary for different periods of life.

CHAP. XIII. The same further demonstrated in the powers of the mind ; its difference in strength, intellectual and sensitive.

CHAP. XIV. The subject continued ; the passions, &c.—HALLER.

This treatise, says Gardeil, “consists of three books, in which we find prescribed, that mode of living which is best calculated to avoid disease. Although not unanimously regarded as the work of Hippocrates, and although Haller has removed it from that class, it appears to me in many respects worthy of the Father of Medicine, and I believe it is really his work. This opinion will perhaps be thought to be well-founded, by attending to what is said at No. iii. of this book, and No. viii. of the third book. We are occasionally dissatisfied by finding the author strangely deviating from his subject in the first book, and in a large part of the second. At the same time we are gratified extremely, after perusing the third. And we find, if I am not mistaken, that the subject of regimen is admirably treated in all the books united.”

SEC. I. Preamble, in regard to preceding writers on regimen; praise and blame awarded ; the writer's own views on the subject.

SEC. II. Of the preliminary information essential to the writer on regimen ; the subject of gymnastics and astronomy touched upon.

SEC. III. Further necessary considerations on the subject.

SEC. IV. Of the nature of man, as constituted of two opposite principles, viz., water and fire ; neither of which predominate absolutely, but differ only as to the greater or less amount.

SEC. V. The preceding principle applicable to all things, animal or others ; none of which are ever entirely destroyed ; nothing new is created, nor is any thing lost ; life and death are merely mixtures and separations.

SEC. VI. Death, diminution, and separation are synonymous ; all are under the operation of laws provided by nature ; and the control of a divine necessity, involving the doctrine of a metempsychosis, or change of matter as to form, &c. The animal soul is under the same influence ; that of man is a mixture of fire and water, constituting a part of himself ; sundry speculations and analogies on this subject.

SEC. VII. Of what takes place in the early period of foetation; the motions induced are owing to fire; in what manner bones, ligaments, vessels, &c., are produced; of the mixture of the male and female seed; three great hollow vessels, the vena cava, vena porta, and aorta, with their ramifications, &c.

SEC. VIII. Medicine is but an imitation of nature, as are likewise all other arts.—(Here follows a long and curious digression, respecting the greater part of the arts cultivated by man, in order to demonstrate that all are reducible to the principle of plus and minus, and continued in sections ix., x., xi., &c., to xxii., embracing divination, workers in iron, medical gymnastics, fulling, shoemaking, carpentry, architecture, cookery, tanning, sculpture, music, goldsmiths, potters, writing, public schools, merchants, and actors.)

SEC. XXIII. The author returns to the formation of man, (in whose nature all the arts participate,) in being a mixture of fire and water. The soul is expanded throughout whilst life exists, and augments with the growth of the body. Organization of the foetus; perfect in some at forty-three days, in others in three months; the former are born at seven, the latter at nine months, bringing with them the temperament which continues through life.

SEC. XXIV. Of the formation of males and females. Twins. Superfoetation. The subject continued to sec. xxviii.

SEC. XXVIII. Of temperaments. What constitutes them. General views on regimen. The first species of temperament. The 2d, 3d, 4th, 5th, and 6th species, extending to sec. xxxiii.

SEC. XXXIV. Of the phenomena proper to the temperaments; derived from—first, the age, second, sex.

SEC. XXXV. Of different constitutions in regard to the soul; with views as to the regimen best adapted as the medicina mentis. Continued to the end, and embracing the diseases to which the mind is subjected.

ON REGIMENT.

BOOK II.

DE VICTUS RATIONE,	FÆSIUS, Treat. ii. p. 353.
DE SANORUM RATIONE,	HALLER, iv. p. 31.
TRAITÉ DU RÉGIME,	GARDEIL, iii. p. 68.

THIS book, says Haller, is not unworthy of the Hippocratic name by its good construction; in which those things, called *non-naturals* by the schools, are considered, together with their powers in relation to the human body. The author derives those powers from simple qualities, viz., sweet, acrid, watery, fat; from which arise those called attenuants, calefacients, refrigerants, purgatives, siccatives, astringents, emollients. At the commencement he treats of airs, waters, and situations, pretty much as Hippocrates does, in his treatise under that title. He discourses largely of the food employed in Greece, the various kinds of bread and grain; then of animal food, amongst which we find that of dogs and horses. Next he mentions birds, and numerous fish which is there largely employed. To these succeed the drinks, pot-herbs, legumes, vegetables, apples, &c., which are nearly all in use at present. Of culinary preparations, and their respective value; and he terminates with gymnastics, funerals, races, baths. He advertises to the proper employment of food in removing the lassitude of unaccustomed or over-fatigue. Extols the use of vomits, and, as in the former book, he teaches that all things are constituted of fire and water.

The consideration of diet follows the relation of the principles and differences of the human body, whereby it is preserved in the same condition, or changed and modified by their quality and quantity. Hence it treats of the nature and situation of the winds and climates; of the faculties and difference of food, derived from animals and vegetables; of baths and external operations; and of different kinds of exercise.

CHAP. I. Of the location and temperature of places.

CHAP. II. Of the air, and of the nature and properties of the winds, as to heat, cold, moisture, &c.

CHAP. III. Of food—in general, in special—cerealia—bread, variety of, and properties.

CHAP. IV. Of leguminous vegetables; of flesh and its juices.

CHAP. V. Of animal food; quadrupeds, birds, fish.

CHAP. VI. Of drinks—water, wine, vinegar, new wine, thin wine.

CHAPS. VII., VIII. Of plants—potherbs. Fruits, various—mulberry, pear, apple, &c.

CHAP. IX. Of certain kinds of flesh—preservation of, effects of, age of, and preparation, &c.

CHAP. X. Of baths—anointing, sweat, venery, vomition, sleep, labour, rest, eating,—and, in fine, of all such things that in any way are admitted to the body.

CHAP. XI. Of exercise, both general and particular.

CHAP. XII. Of some inconveniences from exercise, and from over-fatigue, &c.

Gardeil has no prefatory remarks; his paragraphs are to this effect:

SEC. I. to XI. General remarks relating to the soil and habitations, the winds, of food and drinks, viz., the cerealia and their preparations, wheat, rye, barley, &c. Some observations on fresh meal, hot bread, &c.

SEC. XII. Legumes, and other vegetables, their juices, &c., to sec. xxvi.

SEC. XXVI. to XXXV. Animal food—beef, pork, &c.; dog, horse, fox, &c.

SEC. XXXV., XXXVI. Of birds—they are drier in quality than quadrupeds, owing to their having no bladder, nor urine, nor saliva, and why.*

SEC. XXXVII. to XLVI. Fish—sea, river, lake, &c.; shell-fish, dried, salted, &c.

SEC. XLVI. to XLIX. General remarks on the difference of

* Apparently these deficiencies should render them moister; however, Hippocrates finds no difficulty in explaining this.—ED.

animals as to nourishment, owing to their modes of life, their peculiar qualities, the parts used for food, &c.

SEC. XLIX. to LVII. Drinks—wines, new, old, sweet, white, &c.; vinegar, &c.; honey, &c.

SEC. LVII. to XCI. Of vegetables—pot-herbs, garden plants, wild, and cultivated, &c.

SEC. XCI. to CIX. Of fruits—summer and autumnal, pulpy fruits, &c.

SEC. CIX. to CXVII. Influence of food variously prepared; general remarks on the effects of sweet, acid, acrid, and other articles, and of condiments.

SEC. CXVII. to CXXI. Of baths—fresh, saline, hot, cold, &c. Exercise—venery. Emetics, &c.; and of their utility in constipation, and also in the opposite state.

SEC. CXXI., CXXII. Of sleep and waking. Inactivity and repose.

SEC. CXXIII., CXXIV. Influence of a single meal daily. Drinks, cold or warm, &c.

SEC. CXXV to CXLV. Exercise; gymnastics. Exercise, natural and ill-timed. Of the exercise of sight, hearing, thought, and voice, in talking, reading, &c. Walking at different periods; before or after eating, &c. Running, riding, racing, leaping, wrestling, frictions, &c. Playing at ball, holding the breath, &c.

SEC. CXLV. On the use of frictions, with sand, oil, &c., before and after gymnastics.

SEC. CXLVI. Fatigue, from want of exercise; from unaccustomed or excessive exercise. Its effects explained as arising therefrom—including remarks indicating ideas of a circulation, &c., to end.

ON REGIME.

BOOK III.

DE VICTUS RATIONE,	FŒSIUS, Treat. ii. p. 366.
DE SANORUM VICTUS RATIONE,	HALLER, iv. p. 60.
TRAITÉ DU RÉGIME,	GARDEIL, iii. p. 104.

THIS book, says Haller, has nothing in common with the two preceding, nor is it from Hippocrates. Clerke supposes it the work of Herodicus the Gymnast. It treats of the commencement of diseases, from too much or too little exercise in early life, and of their appropriate remedies. This chiefly depends on regimen, abstinence, vomition, and a due regulation of exercise. A weak stomach is benefited by vomiting, excited by the flesh of whelps.^a In every respect the ratio medendi differs from ours. The appropriate change of diet for the different seasons is pointed out. The constant exercise of the Greeks, both in summer and winter, is remarkable. No mention is made of their use of fire. Cold bathing recommended.

Argument. The author considers himself as first properly instituting the method of dietetics. The difficulty of this attempt adverted to. Of the appropriate regimen both of rich and poor at different seasons of the year. Of the symptoms and cure of repletion and of lassitude. Of diarrhœa, crudities, bad complexion, eructations, stercoraceous vomiting, and other affections.

CHAP. I. The consideration of human diet proposed. Diversity of food.

CHAP. II. A healthy regimen pointed out generally for every season of the year.

CHAP. III. How to discover the errors of diet in health from

^a Catulorum carnibus.

various kinds of repletion. Of the symptoms and cure of the first species of repletion.

CHAP. IV. Signs of the second, third, and fourth species of repletion.

CHAP. V. Signs of the fifth, sixth, and seventh species.

CHAP. VI. Signs of the eighth, ninth, and tenth species.

CHAP. VII. Signs of the eleventh, twelfth, and thirteenth species.

CHAP. VIII. Of the signs and cure of two species of inanition.

Gardeil has no preliminary remarks. He divides it into twenty-three paragraphs, which are headed to the following effect.

SEC. I. Some previous and general observations on the impossibility of prescribing generally the exercise and diet fitted for all men.

SEC. II. General rules of regimen for labouring people in the four different seasons of the year. Emetics thrice a month; when.

SEC. VIII. Of the regimen for people in easy circumstances. He exults in having first discovered the rules for this, and having thus laid down a body of doctrine.

SEC. IX. Observations pointing out whereon the peculiar regimen for each individual ought to be established; 1st. On account of repletion, in a state of health; symptoms indicating such a state. 2d. Excess of exercise; the means of obviating, &c.

SEC. XI. to XIV. 3d. Of repletion, threatening peripneumony, and how to obviate. 4th. Of repletion, the symptoms of which affect the head chiefly. 5th. Of that which principally determines to the primæ viæ. 6th. Of that arising from a coldness of the stomach, causing crudities.

SEC. XV. Of that induced by excess of exercise, manifesting itself by its influence on digestion, as indicated by acid vomitings, &c., heat of stomach, &c.

SEC. XVII. Of that repletion which manifests itself in lientery. Another with crude and hardened stools; and again with putrid stools, following great fatigue; and another accompanied with dry and burnt-up stools, with vomiting. These are all described as to their respective symptoms, and the means of cure pointed out.

SEC. XXII. Of excess in walking; its symptoms and effects; and in gymnastic exercises; the symptoms, cure, &c.

ON DREAMS.

DE INSOMNIIS,	FÆSIUS, Treat. iii. p. 375.
DE INSOMNIIS,	HALLER, iv. p. 89.
TRAITÉ DES SONGES,	GARDEIL, iii. p. 129.

HALLER, in his preface to this treatise, says, one would suppose this to be written by the author of the third book on diet. Such, he adds, is the opinion of Fæsius. Similar precepts are here delivered as to the increase or diminution of food, of exercise, and of medicine. It is in other respects an elegant and connected work, wherein dreams are referred to their physical causes, heat, cold, secretions, repletions. Indications are derived from dreams of those measures by which those diseases may be relieved which give origin to the dreams. Although occasionally recommending propitiations to the deity, it is obvious he regarded it as of little importance. In this book we find a manifest expression of the increased and diminished circulation.

Subject-matter.—Dreams are here explained, from which, in eight chapters, may be obtained some certain signs of good or ill health; and some things which the mind imagines in the state of sleep.

CHAP. I. Prefatory remarks of the importance and utility of indications from dreams. Of the soul in wakefulness and sleep. Sleep is either natural or preternatural.

CHAP. II. Of dreams depending on daily occurrences, of a healthy or morbid character; curative measures.

CHAP. III. Of dreams connected with the heavenly bodies, significative of health or disease; and of the cure of disturbed repose.

CHAP. IV. Variations of the heavens and its luminaries in dreams, indicative of different affections; and variety in the methodus medendi.

CHAP. V. Of dreams connected with corporeal and civil func-

tions; and of those relating to the earth; trees, rivers, fountains, and seas.

CHAP. VI. Of dreams relating to earthquakes, inundations, darkness, fires, swimming, &c.

CHAP. VII. Of dreams of various forms of bodies, or their parts, and of the dead, clothing, &c.

CHAP. VIII. Of dreams from eating, drinking, seeing, fighting, crossing rivers; enemies and monsters.

It is plain, says Gardeil, from the termination of this treatise, that it is a continuation of the third book on regimen. Yet it is so full of superstition, that we are not disposed to regard it as a production of the same writer to whom we are indebted for the excellent treatises that precede it; without, at least, rejecting a number of things that appear as unfortunate attendants on the weakness inseparable from the nature of the human mind, and of the age in which Hippocrates lived.

SEC. I. Preliminary remarks on dreams.

SEC. II. Inductions to be derived from natural dreams, from which to attain a knowledge of the good or bad state of the body.

SEC. III. to XII. Of dreams of the heavenly bodies. 1. When serene, or troubled. 2. When changes of the moon are observed. 3. Or in the sun. 4. When they represent the firmament in a state of drought. 5. Or fires in the heavens. 6. Or falling stars. 7. Or dews and vapours. 8. Or when good gifts appear to be sent from heaven. 9. Or when the dreams are of rains and storms.

SEC. XII. Of prayers to the deity under these circumstances to avert misfortunes.

SEC. XIII. Considerations from dreams relating to different states of the earth and of travelling, trees, rivers, &c., indicating the state of the blood, &c., and of the regimen and prayers required under such circumstances.

SEC. XIV. Indications from dreams relative to the particular constitution of the body; and such as represent strange objects, the dead, monsters, &c.

SEC. XV. Of dreams of eating, drinking, &c.

SEC. XVI. Of dreams of massacres, battles, sieges, &c. The author terminates by assuring good health to all who will attend to his advice; and says, he thinks, by the aid of the gods, he has discovered dietetic rules, as good as it is possible for any one to give.

O F A L I M E N T.

DE ALIMENTO,	FŒSIUS, Treat. iv. p. 380.
DE ALIMENTO,	HALLER, i. p. 102.
TRAITÉ DE L'ALIMENT,	GARDEIL, i. p. 169.

THIS book, says Haller, contains much of the brevity and antithesis of the treatise “De Humoribus.” It imitates the Hippocratic brevity. Mercurialis considers it as a genuine production of the divine old man, although he places it in his second class. Galen deems it genuine, and wrote four commentaries to illustrate it, and frequently quotes passages from it as such. Others have equally deemed it genuine. In this is to be found a passage, which, by too free an interpretation, has been applied to the circulation of the blood. The clearest parts are those that refer to the perspiration, and its importance to health. Here also we find the liver regarded as the root or source of the veins, and the heart of the arteries, by which the blood and spirit flow to every part,—from which we might imagine the work not to be more ancient than Erasistratus, since it contains his views. It treats of the time in which the fœtus is formed,—and gives a short and incorrect osteology. Adverts again to the pulsation of the vessels,—and of the spirit which is its aliment. It contains nothing of a dietetic character.

Subject.—Of food, its varieties and powers; to what parts conveyed; which most easily, or with greater difficulty, changed; what are the principles of which it is formed; which are, and are not, nutritive.—ED.

CHAP. I. Of the varieties and forms of food. Effect and influence of. Of the variety of juices, hurtful, or innoxious. Of the difference of diseases, and their signs;—remarks, &c., cognizant of a circulation here, and in the next chapter.

CHAP. II. Of perspiration and its importance;—aliment,—various,—not equally fitted in all cases,—differing in different periods of life. Fœtal formation, &c.

CHAP. III. Of the nutrition of bones—length of time in healing when fractured, &c. Of the change of food and its conversion into different parts.

“This treatise,” says Gardeil, “would be more correctly entitled ‘On Nutrition’—both from its Greek derivation, and from the subjects it treats of. It ought rather to rank in Fœsius’ third section, since it is more of a physiological than of a dietetic character. It is pretty abstract, and somewhat tiresome, not only in my own translation, but in the original, and other translations, arising either from the generality of ideas, or from the extreme brevity in which a number of objects are presented at the same time, in order to subject them to one single principle, which in the present period is denominated the vital principle. Several of its parts appear to be susceptible of different construction or explanation by different readers. Galen wrote four commentaries on this treatise, a considerable portion of which has reached us; but I have not derived much benefit from them.”

SEC. I. Aliment; what is to be understood by it; general principles on.

SEC. II. Physiological principles as to nutrition.

SEC. III. Of the natural excretions, and of unnatural growth, &c., of parts.

SEC. IV. Continuation of the principles respecting aliment.

SEC. V. Numerous sources of derangement which induce symptoms that accompany different diseases.

SEC. VI. Every thing is but relative in the animal economy—nothing absolute.

SEC. VII. Of the various channéls for aliment—immense variety observed, as well relatively to good and evil, as to many other circumstances—amongst others, the variation as to the period of pregnancy.

SEC. VIII. Of the variation as to the period of the callus produced after the fracture of different bones;—other differences and their causes.

SEC. VIII. (bis.) Of the benefit of liquids in alimentation—and also of motion.

SEC. IX. Of pus, and of the marrow.

THE RATIONALE OF FOOD IN ACUTE DISEASES.

DE RATIONE VICTUS IN MORBIS ACUTIS,	FÆSIUS, Treat. v. p. 383
DE VICTUS RATIONE IN MORBIS ACUTIS,	HALLER, i. p. 228.
TRAITÉ DU RÉGIME DANS LES MALADIES AIGUES,	GARDEIL, i. p. 178.

ALTHOUGH Fæsius constitutes but a single book alone of this treatise, Haller (why, is not adequately explained) has divided it into four,—the heads of which are here successively given, together with the preface and argument of each.

BOOK I.

Preface. The first three parts of this work seem to be genuine; the fourth, although very ancient, even anterior to Erasistratus, appears to Galen to be spurious. In the first book, Hippocrates writes upon his Ptisan, in opposition to the Gnidians, who had entirely neglected the rules of diet. He next attacks the physicians of his own period, who, in the commencement of an acute disease, exhausted the patient by starvation, but allowed food at a period more advanced. In opposition to which, he contends, that in the beginning of acute diseases, the diet should be of the lightest kind, such as mulsa,^a or barley water; and that the physician might gradually advance to more substantial food, as ptisan, &c.^b

CHAP. I. The ancients wrote nothing worthy of record on the subject of diet, so far as we can judge from the Gnidian sentences. The physician is best appreciated in acute diseases. Great discrepancy of opinion among them in these.

^a Hydromel—sive potus ex aqua et melle fermentando paratus.—Blanchard Med. Lex.

^b A decoction of pearl barley, with mashed raisins, liquorice, &c.

CHAP. II. The ptisan is preferable in acute diseases. It should be prepared from the best barley, and thoroughly boiled. It should be very slippery (*lubricissima*)—and is an excellent corrector of thirst. It is sometimes useful, at times injurious. What the ancients meant by *siderati*. Of the proper or improper time of giving slops, or broths (*sorbitiones*).

BOOK II.

Preface. In this book is contained Hippocrates' treatment of pleurisy, by venesection, fomentations, mulsa, oxymel;—in low-seated pain of the side, he prescribes venesection.

Subject.—In case of pleurisy, the treatment is stated, as consisting of fomentations, venesection, glysters, purging, and other evacuations. It then treats of barley water, ptisan, maza, and bread; of water, wine, aqua mulsa—vinegar and mulsa; finally, an ample detail is afforded of the varied and frequent changes of appropriate measures in five chapters.

CHAP. I. Of attempts to be made for removing the pain of pleurisy, by means of warm fomentations, or venesection, or loosening the bowels by black hellebore, peplum,^a or such like articles, and of the proper occasion of using them.

CHAP. II. Accustomed food and drinks to be preferred; a sudden change of diet is injurious in health, but not in disease.

CHAP. III. Hints as to the safe prescribing of diet to the sick. In the commencement of disease, the patient should be fed with slops and barley water; and during its violence the lightest possible diet must be employed.

CHAP. IV. Symptoms of depraved diet, and indicating a fatal issue, &c. Of rest and exercise under like circumstances, &c. Of what concerns the bowels.

CHAP. V. A change from spare to copious diet, or from continual rest to excessive labour, is very injurious: it is useful to be aware of this. Of the use of barley water; and of the symptoms of watchfulness and of somnolency.

^a A species of spurge.

BOOK III.

Preface. Here Hippocrates states the efficacy of drinks in acute diseases. Of water alone he speaks unfavourably; of mulsa; of oxymel; of wine, in the use of which he is liberal. Of baths, in what cases most useful.

CHAP. I. Of wines, and their effects.

CHAP. II. Of aqua mulsa (hydromel), when useful or the reverse.

CHAP. III. Of oxymel (acetum mulsum), when useful or otherwise.

CHAP. IV. Water alone of little benefit in acute diseases, and why so?

CHAP. V. Bathing, not proper for all persons, nor at all times.

BOOK IV.

Preface. To me, says Haller, this book appears undoubtedly spurious, both from its numerous prescriptions, and various remedies not mentioned in the legitimate writings of Hippocrates. Comments are interspersed on subjects totally different from his. Pretty good histories are given of various diseases, as pleurisy, angina, cholera, dropsy, for which last are recommended cantharides and other acrids. Then follow dietetic precepts respecting flesh and vegetables, aphorisms on condiments, and conclusions of too general a character, deduced from individual events: vomits are ordered dietetically three or four times a month, as in the books on diet. Some surgical observations also are given.

Subjects treated of.—Treats of many acute and other diseases. Of causos, angina, aphonia, inflamed præcordia, catarrh, ulcerated trachea, [arteriæ ulceratione,] heat of the lungs, different fevers, pleurisy, peripneumony, dysentery, jaundice, tetanus, dropsy, hemorrhoids; abscesses; their symptoms; pains of the side, eyes, loins, and other parts; of all which the diagnostics, prognostics, and therapeutics are given.

Gardeil has but few remarks on this treatise; he includes the four books, as given by Haller, in one, as Fœsius does. He merely

remarks that this is the fifth treatise in the fourth section of Fæsius, and that we find in it the same attention in observation, and the same excellence of judgment, which have rendered Hippocrates so admirable in all that has reached us of his writings in more than 2000 years.

The headings to 64 paragraphs are to the following effect :

SEC. I. The insufficiency of the doctrines contained in the Gnidian Sentences.

SEC. II. Justice rendered to physicians as to certain remedies in sundry diseases ; observations as to their bad classification.

SEC. III. Of the objects of medicine, and difference in their use from the judgment of practitioners.

SEC. IV. Regimen, its previous and complete neglect. The appropriate use of the ptisan as nourishment is of the greatest importance.

SEC. V., VI. Chief regulations for the administration of ptisan.

SEC. VII. The ptisan, how to be made, and its effects according as it is employed. The inconvenience of insufficient nourishment, or of one too strong, after great abstinence.

SEC. VIII. General rule respecting the administration of the ptisan, and as regards regimen.

SEC. IX. Rule as to the proper time of giving food.

SEC. X. Utility of different fomentations ; of blood-letting and purging in a stitch of the side, as it may differ in situation ; and of the subsequent administration of the purée.*

SEC. XI. The question examined, if it is best to keep the patient at the beginning on a strict abstinence, or to use the ptisan.

SEC. XII. Bad effects of eating more than usual ; how to remedy this. The reverse of this considered, and its remedy. Great changes hurtful.

SEC. XIII. XIV. Some general remarks on regimen, on different kinds of bread, &c., and on the different species of wine. Exceptions.

SEC. XV. General rule—It is better to err at the commencement, by defect rather than by excess. Faults from excess are more readily repaired than those from defect. Cases stated, in which an almost absolute abstinence may be pursued.

SEC. XV. (bis.) Diversity of cases from which death may ensue.

* Porridge, Fr. Diet.

SEC. XVI. All sudden changes are injurious.

SEC. XVII. Application of what has preceded, to nutrition.

SEC. XVIII. Brief conclusion concerning the changes of nourishment in acute diseases.

SEC. XIX. to XXIII. Examination as to drinks. Different kinds of wine.

SEC. XXIII. Of hydromel. It is more nourishing and more strengthening than the small white wines, and should be given before, and not after the purée.

SEC. XXIV. Of oxymel—its variety, crude and prepared. It is an excellent drink in acute diseases, as well as hydromel, but is more purgative.

SEC. XXVI. Of water. The author no friend to it in acute diseases.

SEC. XXVII. Of medicinal ptisans.

SEC. XXVIII. Of baths; remarks on their employment; hurtful or beneficial according as they are employed. In whom useful, &c. In whom hurtful.

SEC. XXIX. Of different species of diseases. Ardent fever and its cure, &c. Rules for bleeding in acute diseases.

SEC. XXX. Of orthopnœa, (probably what we call dry asthma.) The inconveniences of purgatives given at its commencement, and generally in the beginning of every inflammatory state. Important rule in their administration.

SEC. XXXI. This paragraph seems to relate to apoplexy, and its treatment.

SEC. XXXII. Of quinsy—its course, symptoms, and cure. [Qu. croup?]

SEC. XXXIII. Fevers from intestinal plenitude, called improperly in our days, putrid.

SEC. XXXIV. Ardent fever with inanition; not to purge before the fourth day; its treatment. Coldness of the extremities in the increase explained.

SEC. XXXV. Of diarrhoea and some other dangerous symptoms in ardent fevers.

SEC. XXXVI. Of fevers in general, &c.

SEC. XXXVII. Of the fever called asodes.

SEC. XXXIX. Of fever with hiccup. Probably a symptom only, not a particular species.

SEC. XL. Of pleurisy and peripneumony, and their modes of cure.

SEC. XLI. Of dysentery.

SEC. XLII. Of bilious fever and bilious colic. General rule as to the termination of diseases.

SEC. XLIII. Rules for administering hellebore.

SEC. XLIV. Distinction between symptoms arising from fatigue and other causes.

SEC. XLV. Inconvenience of aqueous drinks; and those too strong.

SEC. XLVI. Conduct necessary when one repast only is made, if accustomed to two.

SEC. XLVII., &c. Effects of garlic, of cheese, of legumes, of beef, goats' flesh, pork.

SEC. LII. How to treat cases of fulness of the bowels, but not of the stomach.

SEC. LIII. Two kinds of dropsy, aqueous and flatulent.

SEC. LIV. Of discharges from the bowels, with great heat and irritation.

SEC. LV. General remarks for all diseases.

SEC. LVI. to end. Some recipes and treatment of sundry diseases.

About fifteen or twenty lines in Fœsius and Haller are here omitted, as consisting of a number of recipes, and which Gardeil could not make out.

ON THE DIFFERENT PARTS OF MAN.

DE LOCIS IN HOMINE,	FÆSIUS, Treat. vi. p. 407.
DE LOCIS IN HOMINE,	HALLER, i. p. 51.
TRAITÉ DES LIEUX DANS L'HOMME, . . .	GARDEIL, i. p. 241.

THIS is one of those books admitted generally to be genuine, but not perfected by Hippocrates: so that Haller concludes the analysis of it, in his *preface*, by saying,—It may be the work of Hippocrates, for the methodus medendi differs not from that of his genuine writings. Many choice things are, however, mixed up with foreign matters difficult of explanation.

There is, adds he, in this book a mixture of argument, somewhat of anatomy, as of the membranes of the eye and brain, of the nares, a part of the angiology of the head, of the temporal arteries; which he denies to carry blood, yet in the same place admits of two opposing streams of blood. Here we find an account, (altogether different from that given in the treatise, *De ossium natura*), of those vessels from the tendons of the neck which go to the testes, also of others, and of the vena cava; of those going to the malleoli, which, if divided, cause impotency; of the vein of the arm, which is incised for affections of the spleen; and notice is taken of the anastomosis of the vessels. Something is said of the nerves, with which he appears to confound the tendons. Something, also, as to a history of the bones, the sutures, and a complete skeleton. The author seems acquainted with the articular synovia. He admits of fibres from the stomach to the bladder; of metastasis of humours from one part to another, and the channels of such conveyance; of diseases arising from fluxion, and their remedies; of diseases of the eyes, wherein no remedy is to be employed immediately to them, but an incision to the bone is recommended on the head, and the pulsating veins [qu.? temporal arteries] between the ear and the temples, are to be cauterized. He then passes to the consideration of different species of bile, to which he imputes diseases of the breast, which he cauterizes, when suppu-

rated. His cure for pleurisy, of mulsum and vinegar (hydromel). In dropsy he cauterizes the neck in three places, and in sciatica employs cups. He uses fire also in enlarged spleen. The book next considers the cause of fever, as originating in a stagnating humour falling on a weakened part, and of the cure by mulsum and posca (oxycrat). Also of refrigerants, as cucumbers, in fever; of jaundice, and the use of elaterium in it as a purgative; after which he gave wine. In true angina, he bled and purged. He then proceeds to fractures of the head. Diarrhœa removed by vomiting. His prudent counsel to abstain from violent remedies in unknown diseases. He gave mandragore in melancholy and convulsions. Of cauterizing the veins in disease, and which. Of the difficulties and opposite indications in medicine, which cannot be reduced strictly to a certain art. Something is said on the classes of medicine. He recommends the physician never to be cast down by fortune.—ED.

Subject of the treatise in general.—Something is here stated as to parts of the human body, generally. Of the external senses. Of the veins, nerves, sutures, joints, and other parts. Of fluxions, fevers, ulcers, and other diseases; together with the appropriate use of several remedies.

SEC. I.—CHAP. I. The human body is a circle, of which each part may be esteemed as both the beginning and the end. Bodies are obnoxious to disease, in proportion to their aridity. A primary affection of any part, induces sympathetic and secondary diseases. A stoppage of humours is a cause of fluxion and of disease. The principle of cure is deducible from the primary disease. Of the knowledge of parts, their sympathy and communication. By the affection of one part, the whole body may become affected.

CHAP. II. Of hearing, smell, and sight; their organs and vessels. Of the three membranes of the eye, and the two of the brain. Of the distribution of veins from the brain, and their inter-communication. Of the distribution of the vena cava. Of the causes of impotence, loss, and disturbance of vision; and of bloody urine.

CHAP. III. Of the nature of the nerves, their nutrition, substance, situation, colour, strength, and diseases. Of several sutures of the head. Of the bones of the whole, and of parts, of the body. Of their articulations; and of the diseases, pains, mucus, and lameness of the joints.

CHAP. IV. The stomach a receptacle for food and drinks; the bladder for serous fluids. Fluxions are caused by cold applied to, and contracting the body; by heat, rarefying the flesh, and attenuating the fluids; by repletion which obstructs, and evacuation which enlarges the passages. The inferior parts are drier than the upper, owing to their less vascularity.

CHAP. V. Seven different fluxions from the head. Three of them conspicuous from the ears, nose, and eyes. Four are latent; in the *breast*, producing bile, lassitude, empyema, tabes; in the spinal marrow, productive of dorsal phthisis; in the vertebræ and muscles, inducing dropsy; in the joints, causing gout, sciatica, and œdema.

CHAP. VI. Of the cure of those fluxions, as manifested in coryza. Otalgia and fistula of the ears. Ophthalmia, prurigo palpebrarum, epiphora, and albugo, &c., cure by chirurgical means, as incision and cautery; or pharmaceutic, by topics and cathartics.

CHAP. VII. Of a bilious fluxion from the head upon the thorax, inducing peripneumony, pleurisy, suppuration, tabes, and cough; also inducing, when flowing on the spine, icterus, and tabes dorsalis. Of the rise, causes, signs, both diagnostic and prognostic, of the same.

SEC. II.—CHAP. VIII. Of the cure of pleurisy, peripneumonia, empyema, consumption; and of an eighth fluxion of the fauces, falling on the belly.

CHAP. IX. Of the cure of dropsy, sciatica, and tabes from fluxion from the head to the hinder parts; and of the enlarged spleen and dropsy of boys.

CHAP. X. Of a dry pleurisy, unaccompanied by catarrh, and of its cure. Of the origin and cure of fever.

CHAP. XI. Of the cure of icterus, malignant ulcers, and angina.

CHAP. XII. Of fractures and fissures of the skull, and their cure by the saw or terebra. Of fatal purgations, wounds and ulcers. Of the cure of a person labouring under purgation. Eruption of bile is with difficulty allayed; vomiting assuages the evacuation.

CHAP. XIII. Of the cure of unknown disease, of strong and weak persons, of ulcers, fluxions, melancholies, and convulsions.

CHAP. XIV. Of cauterizing the veins, and mode of, and use. Whatever stops the blood arrests a fluxion and cures headache.

CHAP. XV. Medicine is an art of long and difficult attainment,

on account of the variety of subjects, the different complaints, and frequently contradictory effects of remedies.

CHAP. XVI. What a remedy is. Of mild and powerful remedies in purging and binding, and of their employment.

CHAP. XVII. The art of medicine is certain and constant to him who is acquainted with it, and depends not on chance. With or without chance he will act correctly, and may expect success.

Gardeil, without affording a reason for the omission, has left out what constitutes nearly a column in Fœsius, and the first chapter in Haller. A reference to the foregoing will be sufficient however to establish the connexion, and to show the views of sympathy held by Hippocrates. In proceeding from that point, Gardeil gives a brief enumeration of the parts of the body, thus—ED.

1. Of the organ of hearing.
2. Of that of smell.
3. Of that of vision.
4. Of the brain, and of the origin and distribution of the blood-vessels; continued in 5 and 6; in which last, the communication or inoculation of the vessels is particularly stated.
- In 7 the diseases of the fleshy parts, the nerves, membranes, and tendons are treated of, and are regarded as being more difficult to cure than of the fluids.
8. Of the sutures of the cranium.
9. Of the bones of the trunk.
10. The superior extremities.
11. The hand.
12. The pelvis and lower extremities.
14. Of the synovia and articulations.
15. The stomach receives the food and drink taken; and certain vessels convey liquids to the bladder.
16. Hippocrates here commences to treat of diseases, and first, of fluxions, or catarrhs.
17. Explanation of the causes of fluxions, of which there are seven, proceeding from the head; one to the nose, one to the ears, and one to the eyes, all which are conspicuous to every one; a fourth goes to the breast, and causes suppurations and phthisis.
20. When the fluxion is to the spinal medulla, dorsal phthisis is the result.
21. If it goes to the vertebræ and to the flesh, a peculiar kind of dropsy follows.
22. If the fluxion proceeds slowly, sciatica and rheumatism ensue.
23. The treatment of these seven species is given in this and the succeeding numbers.
- In 32 is a detailed description of the fourth species, viz., that on the breast and trachea, producing suppuration and phthisis, and accompanied with the views of Hippocrates, as to peripneumony and pleurisy.
33. Of dorsal phthisis, from fluxion on the spine.
34. Treatment of pleu-

risy. 35. Of the cure of empyema. 36. Of fluxion on the belly through the œsophagus. 37. Treatment of fluxions on the soft parts near the vertebræ, inducing dropsy. 38. And of fluxions inducing sciatica. 39. Treatment of enlarged spleen, with wasting away of the omentum. 40. Of that of dropsy in children. 41. Of a dry pleurisy without catarrh. 42. Of fever from repletion, and its opposite. 43. Of jaundice. 44. Of malignant ulcers. 45. Of quinsy. 46. Of ulceration of the tongue. 47. General rules for treating diseases. 48. Wounds of the head. 49 to 57. Sundry aphorisms relating to treatment. 58. Of treatment of unknown diseases. 59. Of tumours and ulcers. 60. Of the use of mandragore in some diseases. 63, 64. Aphorisms. 65. On cauterizing the vessels, and precautions in, as to hemorrhage. 67. Of the difficulties attending the learning of medicine. 68. Apparent contradictions in medicine, and reasons assigned in 69 and 70. 71. Importance of seizing on opportunity, or acting apropos. Whatever induces a change in the actual state of the system, is to be viewed as remedial. The subject continued in 72 and 73. Repudiation of chance in medicine, for medicine is founded on solid grounds, unmixed with chance; and chance is, in all things, to be denied. If a proper treatment is pursued, the result is beneficial; the reverse is the result of ignorance. (This seems to be omitted by Haller, but is found in Fœsius.) 74. Of female diseases; all which are ascribed to the uterus, and its asserted movements. The menses in young persons are affirmed to be good blood; but in old, mixed with mucosities.

I have given the outline of this treatise, as afforded both by Haller and Gardeil; but inasmuch as it is considered as an important Hippocratic work, I have added the following full translation. Towards the close many aphoristic sentences seem intermingled with the text.—ED.

It appears to me that no particular part of the body can be regarded as its beginning; each individual part may, in fact, be so considered, and equally so as to its termination. In describing a circle, no beginning is found, and so it would seem to be in respect to the members of the body.^a The drier it is, so is it the more calculated to originate and labour under disease; less so if moist, for disease in the dry body is fixed, and does not yield; but if in the

^a Νοσομάτων, Hipp.;—Membrorum, Fœs.;—Morborum, Hal.

moist, it circulates and occupies different parts, and by this change induces rest, and is more readily tranquillized, from not being attached to any particular spot. Changing thus from one part to another, disease shows itself accordingly; as in a metastasis from the belly to the head, from the head to the muscles and abdomen, and so of the rest for a similar reason; for when the belly does not moderately discharge itself, and food is taken in, the body is moistened by the humours of the food; but that humour interrupted by the belly, the passage to the head is excited, but not being there readily received by its vessels, it flows where chance may direct, and is carried into the circuit of the head and brain; but should it again be conveyed towards the belly, it there induces disease, or in any other part on which it may fall. Hence it is best to undertake the cure of diseased parts through those which cause the disease, and therefore it is more readily cured by taking it at its onset. But the body itself is similarly constituted, although all its parts, large and small, are not exactly alike, neither are the superior and inferior parts; yet, if the smallest part be intercepted, it becomes affected, and that affection, whatever be its nature, is soon felt by the whole body, because its smallest part is constituted alike with the largest, and that smallest part, whatever may affect it, affects its congeners, each conformably to its nature, whether that be good or bad; and since the body, from the intimate connexion of its smallest part, feels pain or the reverse, from whatever reaches that smallest part, such is then carried to, and felt by all that resemble it, and thence it is, that every part is threatened thereby.

The nature of the body claims the first rank in teaching the art of medicine. I begin then by observing that the body has several openings, and first of that which serves for hearing. The external parts of the ear serve merely to increase and strengthen the sound; that which reaches the brain through the membrane of the tympanum, is clearly what causes hearing; there is a passage by means of a foramen that conveys it to the brain, which is surrounded by meninges.

As for the nostrils, properly speaking, there is no foramen; but there is an apparatus pierced somewhat like a sponge; hence sounds are heard at a greater distance than we perceive odours; the odorant particles separate and divide in passing through the organ of smell. In respect to the eyes, there go to the brain, in order to induce vision, two small vessels, which traverse the me-

ninges that envelope it ; they produce vision by means of a very pure humour furnished by the brain, on which we see in the eyes a representation of objects. If these vessels^a dry up, vision is lost. The eyes are enveloped in three membranes for their security ; the external one is very thick, the middle much less so, and the third, containing the vitreous humour, is extremely delicate. When the external one is wounded, it produces disease ; laceration of the middle one is replete with danger, and when torn, we see a kind of bladder protrude ; the third presents still greater danger, because it is that which contains the humour on which vision depends.

The brain has two membranes ; an external one, very strong ; the other, immediately investing the brain, is very delicate, and does not reunite if it is wounded. There are vessels that adhere to the bones after traversing the muscles. Two descend from the vertex and go towards the eyebrows and terminate in the angles of the eyes. One other is carried to the nostrils ; whilst two others pass along the temples behind the ears, and go to supply the eyes, and have a constant pulsation. These are the only vessels that divert away the blood, instead of moistening the parts ; that part that is thus turned back does not harmonize with the progressing portion. The former in its route meets the descending portion, and rebounding against each other, a shock is produced that gives rise to the pulsation of the vessels. I have stated that vision is maintained by a very pure humour coming from the brain ; now if any thing from these vessels mixes with it, the humour becomes turbid, and is no longer fitted to represent objects. We sometimes, then, see as it were flies, nubiculæ, or dark moving spots, at others, nothing clearly marked. There are two other vessels located between those above-mentioned and the ears ; they go towards the ears, and there dip down ; two others, arising near the junction of the temporal bone, go to the ears ; two pass near the tendons of the neck, towards the vertebræ, and terminate in the kidneys and testicles ; when these are affected, bloody urine is discharged. Two more go from the head to the shoulders, and are properly called humoral. Two more from the vertex, passing near the ears on the fore-part of the neck, go to the vena cava. The vena cava, elongated like the œsophagus, is located between it and the trachea, and going towards the diaphragm, enters the heart ; passing through the

^a Doubtless the optic nerves are here intended.—ED.

diaphragm downwards, it divides and goes to the groins and thighs, branching off, and proceeding to the legs and ankles inside of the tibia. If this last is divided, impotency is induced. It then proceeds, and is lost in the toes. A ramification of the vena cava goes to the left hand; another passes under the spleen to the left flank, at the place where the spleen lies under the epiploon, and which terminates at the lower part of the thorax: it arises near the diaphragm, and communicates as it mounts up, with the humoral, and goes under the elbow-joint, after having divided into two branches, one of which is divided in affections of the spleen. There is another in the belly, which takes a similar course. In other respects we find all the veins communicate and empty into one another; some unite amongst themselves; others, by the means of small vessels that emanate from them, give nourishment to the muscles at the place where their extremities communicate together. Now it is more easy to cure diseases of the vessels than those of the nerves.^a In the first case, the disease is in perpetual motion; it is carried by the fluid contained in the vessels, which is never at rest. The nature of the veins is to contain the humours in the flesh; the nerves, on the contrary, are dry, solid, and attached to bones; from whence they derive their ordinary support. They are also nourished by the flesh; they are moister and softer than the bones, but firmer than the flesh. When disease attacks them, it becomes fixed there, and stronger, and it is difficult to remove it. Tetanus then ensues, with spasms of the limbs and body. The nerves (tendons) serve to strengthen the articulations; they are spread throughout the body, and give strength to the parts, and we observe that they are always very strong in those parts of the body where the flesh is in smallest amount. The body is filled with nerves (tendons); there are none in the face or head, but we there find vessels similar to nerves, between the flesh and bone, very strong and small; they are, as it were, nerves with a cavity.

We see in the head, sometimes three, sometimes four sutures. When there are four, one is seen on each side, going towards the ear, another before, and another behind. Such is the case with four sutures. When there are three, one is in front, and the two others on each side going to the ear, as in the case of four, but the hinder one is wanting. Those who have more, enjoy better health.

^a Apparently, the term nerves here implies tendons, aponeuroses, &c.—ED.

At the eyebrows there is a bone that connects them; two others are connected at the chin: those of the upper jaw are united with those of the head.

The vertebræ are more numerous in some subjects than in others: their smallest number is twenty-two; the upper are near the head, the lower lead toward the anus. The ribs are seven in number; they are articulated behind with the vertebræ; in front of the chest they unite together. The clavicles unite together in front of the breast near the trachea, where they join the sternum; they are covered behind by the shoulder-blade, which bends forward, and is always fixed at the upper part of the back. The shoulder-blade is attached to the bone of the arm by a projection that joins to the humerus. This bone has, at its upper part, two eminences, one internal, the coronoid, the other external, the acromion, besides the lower one that articulates with the humerus, that is, the head of the shoulder-blade, in which is the glenoid cavity. The prominences at the elbow on the lower part of the humerus, serve for the articulation of the radius; and a little lower on the inner side with the cubit. It is this, which with the radius forms the elbow-joint. Four small prominences are there noticed, two superior and two inferior. The cubit presents two superior, that assist in the articulation, and form a projection at the part where the humerus terminates; the two lower, which are also a little internal and very near each other, inside the elbow, belong to the articulation of the radius with the other bone of the forearm. At the lower part of these two bones, the carpus is articulated with the radius: the tuberosities of the bone at this part being movable in every direction, do not form separate and distinct articulations, except at the upper and lower parts.

The hands have numerous joints, for all the bones articulate with those adjoining: the fingers likewise present many joints, each one having three, one of which is below the nail, between it and the tuberosity; the second between the first and second tuberosity, where one of the flexions of the finger takes place; the third articulation of the fingers is at the part where they are connected with the hand.

We observe two cavities in the os ischium called cotoyloid, with which the thigh-bones articulate. At the upper part of the thigh-bone two eminences are noticed, one tending outwards, the other inwards, neither of which forms the joint, but constitute a part of

the bone itself.' The femur at one of its upper portions enters the cotyloid cavity ; for its upper extremity has two terminations, one of which, internal, is round and smooth, and forms the joint ; the other is exterior and smaller, and projecting. Towards the bottom of the buttocks we see a projection that belongs to the ischium. At its lower end, the thigh-bone has two condyles that have a hinge-like articulation or ginglymus with the tibia, above which the rotula adapts itself, and prevents the fluids from the soft parts entering the joint when the leg is bent. We see at the upper part of the leg two eminences, one internal ; the external one does not form a part of the knee-joint. Another eminence at the inferior part assists in its articulation with the foot. In the foot are numerous articulations as in the hands ; for as many bones, so many articulations. We reckon as many bones in the foot as in the hand.

We find likewise in the body many small articulations, not all of equal size, but resembling those I have described : there are also many small vessels besides those already mentioned, but they are of not much importance.

The synovia ($\mu\acute{\nu}\zeta\alpha$, mucus) is natural to all the articulations ; when it is pure, the bones are moistened by it, and by this lubrication their motion is easy. On the contrary, it is difficult and painful, when the soft parts pour out a vitiated humour. The joint stiffens whenever the humour supplied by the soft parts is not unctuous. As the synovia is exhausted by motion, if the soft parts are not continually moistened, the joints become dry ; if it is in too great quantity, the joints being unable to contain the humour, it spreads around, and infarctions are the consequence. The nerves, which serve to connect the bones, swell and relax. We often see lameness produced by one or other of these causes. When they are powerful, the lameness is more considerable, but less so when weak.

What we eat and drink goes to the stomach, from whence vessels convey a part of the liquids to the bladder.

Fluxions ensue from refrigeration and tumefaction of the flesh. Sometimes, when the cold acts upon the distended flesh and vessels of the head, they are contracted, and the humours contained in them are expressed : the soft parts are compelled to pour them out from their diminished bulk ; the contraction of the skin by pressing on the roots of the hair causes its erection ; the fluids thus pressed upon spread wherever a passage can be found. Fluxions are

caused by heat, because the soft parts are rarefied when heated; the pores are thus enlarged, and the humours they contain are attenuated, and yield readily to every pressure. The greater the rarefaction the greater is the flow, particularly when the soft parts are replete with humour; that portion which they cannot any longer retain, is poured out from every part, and a passage once made, they issue through it, until the body drying, the passage contracts. As every part communicates, the moisture taken up is attracted to the dry parts. The body of man being permeable, it is easy for those parts that have not augmented in volume or imbibed any thing, to attract humours, especially if it is the lower parts that are dry, and the upper that are moist, as in fact is the case; for in the superior parts there are more vessels, and the thinner soft parts of the head require less moisture; the passage is thus very easy from the over-moistened to the dry parts, especially as every dry part absorbs moisture; nor can it be denied that the humours tend naturally downwards, however light they may be, and by whatsoever power they are moved.

There are seven fluxions from the head, viz., one to the nose, one to the ears, and one to the eyes; all which are visible to every one. When the fluxion is to the breast, in consequence of cold, bile exists. Catarrh caused by cold readily falls upon the breast, because the passage by the trachea is very easy, and because the trachea is exposed to the air, and is in constant motion. When then the soft parts are charged with moisture and with bile, as they never are at rest, but always agitated, they find themselves in pain and fatigued, resembling that felt in the limbs by the agitations of a journey; from hence result suppuration and phthisis, when the fluxion is to the breast. If the fluxion is to the spinal marrow, a dorsal, or blind phthisis ensues. Should the catarrh go to the vertebræ and soft parts, a peculiar species of dropsy is the result; the forepart of the head, the nose and eyes are not œdematosus, but the sight is affected, the eyes are dry, and assume a greenish hue like the rest of the body; the humours do not flow out, although falling down largely from the head, through the soft parts, posteriorly, leaving the fore-parts dry, whilst those behind are inundated; the humours tend internally, and find little or no passage externally by the nose. The body becomes firmer externally than within, the pores of the former contract, mutually approximate, and oppose a resistance to any fluxion: internally, on the contrary, all expands; the solid parts

become attenuated, and the fluxion from above finds little opposition from them, and fills the soft parts with fluids. That which is derived from food is corrupted by mixture with the impure humours from the head, so that the body is imperfectly nourished; the soft parts therefore surcharged with humours, and receiving only aqueous matters, become engorged and tumid.

If the fluxion is slowly effected, it produces sciatica and rheumatism, after which it stops flowing; the humour coming insensibly, is repelled by the stronger parts, by which it is compelled to fall upon the joints. Sciatica and rheumatism are also produced at the conclusion of some diseases, whenever that which has given rise to them, having lost its noxious quality, still remains to be expelled. The humour, unable to escape externally, or to be internally retained, causes swellings beneath the skin; or else, if it leaves the part, it is transported towards the joints, which yield to it, and it there excites either sciatica or rheumatism. If the fluxion is on the nose, it fills it with thick and pituitous humours, and requires to be attenuated by fomentations or other means, so as not to be driven to some other part; for should this be the case, it will induce disease of a more dangerous nature. Should the fluxion be upon the ears, it there first induces acute pain and suffering, which continues until a discharge ensues, from which time the pain decreases. Whilst the pain is severe we must employ warm applications, and drop into the ear some balsam, apply cups behind the right ear if the left is affected, or reversely;—it is unnecessary to scarify, it being sufficient that the cup should merely draw. If after this the pain continues, we give cooling drinks and a purgative, but by no means an emetic, for it will do no good; the refrigerants must be continued, and those remedies changed that are productive of no good. Should any produce a bad effect, their direct opposites must be employed; and if any benefit is perceived, the measures must be pursued without alteration. So soon as the humour finds an issue, and a bloody fetid pus is discharged, we must pursue the following plan: fill a sponge with some desiccative remedy, and thrust it as low as possible into the ear; let the patient snuff up some errhine, in order to draw off by the nares the humour falling on the ears, and thereby prevent its return to the head.

When the fluxion attacks the eyes, they inflame and swell. We must first apply drying remedies, and employ errhines, which evacuate the head through the nose, thereby determining the humours

from the affected part. If a sensation is felt like that of fine sand rolling over the eye, we use applications that largely provoke a flow of tears; at the same time moistening and relaxing the body in order to relieve the eyes, by dissolving and carrying off those small concretions. Should the fluxion only slowly attack the eyes, exciting itching, mild liniments should be employed, calculated to dry up and diminish the discharge of tears, and errhines to promote the discharge from the nose of about two ounces in twenty-four hours, and repeated every third day. We should attract the humours by mild remedies from the eyes, and thus dry them. Errhines that purge the head powerfully, attract the humours from all parts, but if mild and weak, from the eyes only and adjoining parts. If the fluxion attacks the soft parts and cellular tissue between the bones and the muscles of the eye, we know it by the flow of humours which ooze out on pressure. Ulcers ensue there, with headache; the eyes weep much without the eyelids ulcerating; no itching is felt, and the sight, far from being obscured, is rendered more acute. The humour not coming from the brain, is not saline but mucose. The proper treatment is as follows. The head is purged by mild errhines; the amount of humours lessened by means of food and remedies of a laxative nature in order to dry the whole body slowly, and thus turn aside the moisture, in conjunction with the errhines. If the headache is not dissipated, we must make transverse incisions on the head, even to the bone, that the catarrh may flow promptly by the various openings thus made in the soft parts. Such is the treatment by which we may hope for success; should it prove abortive, and the humours not be thereby evacuated, and the sight improved, the eyes become more sparkling, and at length vision is destroyed. When bloody humours appear in the eye, by which the purity of its natural fluids is soiled, the pupil appears bloodshot, and has an irregular appearance; the part in which the bloody humour is seen, is not transparent, which is also another reason for the irregularity of the pupil; for this humour like a moving opaque body flits before it, and hence no object is seen correctly. In this case cauteries should be applied to the vessels which constantly pulsate between the ears and the temples. After which, moistening and relaxing remedies are applied to the eyes; the tears should be abundantly excited, in order to divert the humour carried to them, in which the disease consists. When any rupture of the eye takes place, emollient and astringent

applications are to be employed, in order to contract the wound, and form a cicatrix as small as possible. If albugo appears in the eyes, the tears must be excited.

When the catarrh falls on the breast, and is accompanied with bile, it is known by the pains felt, extending from the flanks to the clavicle of that side; there is fever, the tongue is of a palish green, and viscid sputa are discharged. The danger of this disease is on the seventh or ninth day. If both sides are affected, it is of the same character. Sometimes it is an inflammation of the lungs, sometimes a pleurisy. These diseases are induced, because the catarrh flowing from the head by the throat and trachea, the lungs, whose substance is soft and dry, attracts all the moisture it can, and to whatever part it goes, the bulk is augmented: if both sides are filled, it produces peripneumony; if one side only, a lateral affection, or pleurisy, ensues. The former is by far the most dangerous, the pains are greater in the flanks and sides, the tongue is much paler, the throat suffers from the fluxion; the labour and oppression in respiration are extreme on the seventh or eighth day. If the fever does not diminish on the seventh day, death ensues from suffocation or weakness, or from both. If the fever, after diminishing for two days, returns on the ninth, death usually ensues, or else an internal suppuration takes place. If the fever returns on the twelfth day, suppuration has ensued; but if the fever is delayed to the fourteenth day, the patient is safe. All those in whom suppuration takes place in the termination of peripneumony or pleurisy do not perish; some escape. Suppuration happens when the fluxion goes to the same place to which the flow of bile has been conveyed; which last being movable, it finds a passage, and checks the flow; but if excretion is diminished, and the fluxion has accumulated, suppuration follows, because more humours flow to the lungs than those organs discharge, and this excess then is converted into pus; this remaining in the lungs and in the chest, ulceration and putrefaction follow, and when the ulcer is fully established, the lungs melt down, and are conghed up with the sputa; the cough, by its succussion, invites still more humours from the head; the ulcers in the lungs open in every part in consequence of this motion, so that, if even the head could not furnish any more humours, the ulcers of the lungs would alone suffice to continue the disease. The ulcers sometimes induce empyema, which is more easily cured, especially if exterior to the lungs, when it points outwardly, and occasionally

forms an opening where the flesh has been softened by it, and frequently, on shaking the body, we can perceive a fluctuation, and hear a sound.^a Such cases are cured by fire. If the fluxion, instead of this general character, is carried to a single spot, and enters into the structure of the lungs, phthisis ensues; for when the humour reaches there slowly, bringing consequently but little moisture into them, it thickens, concretes, and dries in the bronchi; it excites cough by adhering to and filling the narrow cavities, rendering thereby an entrance to the air more difficult; from a defect of respiration, oppression of the breast ensues; a pricking sensation is felt in the lungs, which is not experienced when the flow from the head to that part is more copious. If the fluxion becomes great, the whole body is surcharged, and the phthisis is changed to an empyema; and reversely, when the body becomes dry, the empyema passes from that state to phthisis. We know an empyema by these indications. The patient at first feels a pain in the side, pus collects, and the pain continues, with cough and expectoration of pus, and difficult respiration. If, however, the pus has not yet found an exit, concussion of the body renders it perceptible in its fluctuation, by a sound similar to that of a fluid shaken in a bottle. When these signs are absent, and yet empyema exists, it may be suspected from the great oppression and the hoarse voice; the feet and knees swell, principally on the affected side, the thorax curves, lassitude is extreme, universal sweats, alternately cold and hot, the nails becomes crooked, a sense of heat in the abdomen, all of which are so many indications of an empyema.

Should catarrh fall upon the spine, a phthisis ensues, of which the following are the signs. Pain in the loins, a sense of vacuity in the forehead; the bile that shows itself is of the worst character if it gives a yellow tinge to the eyes. The nails turn livid; if any ulcers exist, their edges also assume a livid hue. The sweats are partial, and confined to some local spot; fever follows, with livid sputa, or if not discharged, what continues in the lungs is equally so. What thus remains, causes the respiration to be sonorous, with a croaking noise; breathing is difficult, hiccup and fever diminish, whilst the sputa are retained; and as the debility increases diarrhoea comes on. When such symptoms occur in peripneumony or pleurisy, the greatest degree of danger exists.

^a Pectoriloquism!—ED.

The cure of pleurisy is as follows. Do not endeavour to check the fever before the seventh day ; prescribe either oxymel or oxycret for drink, and give it copiously, in order to facilitate expectoration by dilution ; heating remedies are to be used to calm the pains, and to favour a discharge from the lungs. On the fourth day the patient must be placed in the bath ; on the fifth and sixth he is to be anointed with oil, and on the seventh the bath is to be renewed, unless the fever is diminished, and thereby excite perspiration. From the fifth to the eighth day the most active expectorants are to be employed, if the disease progresses favourably. Should the fever not decline on the seventh, it ought to do so on the ninth, unless some dangerous symptoms supervene. When the fever terminates, we employ the weakest broths ; if diarrhoea ensues, the system being still vigorous, we omit the drink, and give barley water if the fever has ceased. Peripneumony is to be treated in the same manner. In case of empyema, mild errhines, to excite a discharge from the nose, and thereby relieving the head, are to be employed, and such food as will loosen the bowels ; if the disease is thereby arrested, and the humours diminish, we are then to promote expectoration, both by medicine and by appropriate food, by means of which coughing is excited. In order to effect this, the food should be of a fatty and saline quality, with wine of a rough character. Phthisical patients are treated in the same way, with the exception of giving less food at a time, and wine more diluted, so that the debilitated system may not be too greatly heated, and an afflux of humours thereby induced.

When the fluxion falls down upon the bowels by the œsophagus, an accumulation takes place below, and sometimes in the superior parts. From the commencement, if pain of the belly exists, we must purge by means of laxatives, either of food, or mixed with the drink, and employ stronger purgatives as the pain declines, together with more substantial food. This treatment is pursued for some days after the disease has terminated. If the patient is weak and cannot support it, he is to use the ptisans, and after being thereby evacuated, astringents are to be given. If the fluxion tends to the soft parts near the vertebrae, inducing anasarcaous swelling, the following plan must be adopted. Fire is applied to the flesh near the neck in three places, and when the eschars fall off, approximate the edges, so as to make the cicatrices as small as possible. After opposing this barrier to the fluxion, we use errhines to cause

a determination to the nose, at the same time keeping the forehead warm and the occiput cool. The front being thus heated, warm food is given that does not relax the belly, in order that the fluxion should direct itself to the front openings for its exit. If, when thus restrained, any portion of the fluxion shall have found a passage internally before taking the above direction, we proceed as follows. If it is intercutaneous, fumigations are employed; if abdominal, and not anasarca, we purge; if both anasarca and ascites exist, purging and fomentations are appropriate, being careful always to evacuate by the channel nearest the collection, whether up or down. When catarrh produces sciatica, cups should be applied to draw outwards, but without scarification; and internally, heating remedies and purgatives, so as to clear the passages, externally by the former, internally by the latter. It happens that when a fluxion has been confined, not knowing by what channel to escape, it fixes upon the joints which yield to it, and thus produces sciatica or a dorsal phthisis. In this case we must purge the head by mild errhines until the humours are diverted, and employ the same regimen as in the former case. Elaterium is used to purge, and the belly is kept open by means of whey; and fomentations must not be neglected.

When the spleen becomes enlarged, and the body wastes away, the fat of the omentum melting down leaves the vessels empty, towards which a flux of humours takes place; they swell up the spleen which is near the omentum, and when any disease attacks the body, these parts become one of the places of attack, in which if not remedied it fixes obstinately. Even if well attended to, this state is highly dangerous. We administer hydragogue purgatives, and very nourishing food. If this proves inefficient, we burn lightly and superficially around the navel, to allow an issue to the humours. We likewise burn the navel itself, and abstract the humour daily. This is one of the most dangerous states, and it is therefore expedient to risk something: if successful, the patient is cured; should you not succeed after the burning, the danger of death, which must have ensued without them, is not thereby augmented.

Anasarca in children is cured thus. We open with a lancet the tumid part by several punctures. This plan is adapted to every part; and to the part thus scarified fomentations are applied, and the punctures anointed with some warm balsam.

There is a dry pleurisy without catarrh, occurring when the

lungs, naturally dry, become preternaturally so from excessive thirst; the lung becomes thin and weak, and inclines to the side, so as to come in contact with the pleura; the pleura being moist, attaches it, and a pleurisy ensues, with pain in the side extending to the clavicle; fever follows, and whitish sputa are expectorated. This disease is cured by copious drinking and using the bath; expectorants are employed, and remedies to relieve the pain. It is cured in seven days, and is not dangerous, nor is diet necessary.

Fever takes place when the body, being replete with humours, the soft parts swell; the bile and pituita continue stagnated, and from want of movement are unrefreshed; nothing passes out, nothing enters to renew them. As soon as this repletion, fever, and consequent lassitude appear, we should at once dilute largely, employ embrocations, and excite warmth, in order to open the passages, and remove the fever by sweating; this is continued for three or four days, when, if the disease is not abated, we purge with cholagogues, and endeavour to arrest the fever before it changes to a quartan. Whilst the swelling is considerable, purging is to be avoided, for the disease will not terminate whilst the system is replete with humours; in order to cure the fever, we omit purgatives until the body begins to discharge those humours; we enjoin abstinence, even from slops that are laxative, but give abundantly of water, hydromel, and oxycrat. Warm drinks thus taken in, soon carry off a part of the disease, either by urine or sweat; and every evacuation thus produced is beneficial to the patient by exciting an internal movement. When fever attacks an emaciated body, it assuredly cannot be from repletion; and if not quickly checked, we must give nourishment to the system, which, if not speedily beneficial, will aggravate the fever, and render purgation necessary, thus attacking it in its stronghold, by emetics or cathartics, according to its upper or inferior location. Without reference to debility, strong remedies are required, though not of equal force to all alike, but proportioned to their vigour or weakness. Scalding in passing the urine is moderated by dilution and broths, as in fever by refrigerants and the like. If these cooling remedies produce nausea, calefacients are employed, and we recur to the former if the ardor urinæ continues.

Jaundice is treated in the following manner. Commence with nourishing and fat substances, and drinks, and baths, for three or four days. After adequate moistening, purging is pursued, and the

body is then dried by promptly suppressing all substantial food, and striving at the same time to discharge the humours by every emunctory. To evacuate the head, errhines of a medium force should be used. Diuretics are likewise proper, administered with the view of evacuating humours thus set in motion, and checking in some degree the nourishment afforded by food. When the body is moderately reduced, baths are employed, in which slices of the roots of the wild cucumber are infused. Chologogues are abstained from, lest the body should be too much irritated; and after it is adequately dried, and the disease is lessened, good food and red wine are directed, together with every other measure adapted to restore a healthy aspect. If, in spite of all these measures, a yellow colour still continues, we again reduce the system without drying it, lest that colour should become permanent.

Malignant ulcers take place on the body when the surrounding soft parts inflame, and the lips become thickened; a sanious discharge of abundant serosities, and ichorous matters that dry up, and appear to close the ulcer; this putrid matter cannot then escape; the flesh surcharged thereby inflames and swells. Wherever this ichor reaches, swelling and putrefaction are excited. These ulcers should be treated by humectants and balsamics, to permit the escape of the humour, and prevent its spreading among the soft parts; refrigerants are likewise employed to obviate the passage of the humours to the ulcer. We must endeavour to strengthen the flesh, and enable it to resist the afflux when not already injured. Generally speaking, humectants and refrigerants are employed in the treatment of all ulcers.

Angina arises from blood arrested in the vessels of the neck. We must bleed in the arm and purge, to divert downward the humours that cause the disease; and the same treatment is pursued in extensive ulcerations of the tongue.

We should attend to all diseases at their commencement; and wherever there is a tendency to a flow of humours, it should be at once arrested, and any other cause that may give rise to disease, must be obviated at its onset by appropriate treatment. Thus when the fluxion is abundant, it should be diverted; if moderate, by a fitting regimen.

In fractures of the skull, if the bone is comminuted, there is less danger than when it is a fissure, and that internal; in the first case, humectants only are required; but in the last, we must use the

trepan to prevent the extravasated blood from corrupting the meninges; the blood thus extravasated, and having no exit, induces great disorder and delirium. By means of the trepan, such a passage is procured to the sanious matters, and appropriate remedies are topically applied to abstract them, and deterge the wound.

APHORISTICAL SENTENCES.

Errhines should not be administered in fever for fear of inducing delirium; for such remedies heat the head, and that, in addition to the febrile heat. Wounds are mortal in those, who already, in consequence, vomit atrabilis; so also, if the discharge is great, and great debility follows, if the wound contracts and dries up rapidly. In fever, if the patient is greatly debilitated, it is a mortal symptom if small livid ulcerations occur. If a disease augments after administering a remedy, and the patient is evacuated both upwards and downwards, diluted wine should first be given, then stronger; this allays the discharge; give neither purgatives nor emetics. Bile discharged up or down of its own accord, is restrained with difficulty, for it arises from its internal acrimony; but when it results from a remedy given, such acrimony may not exist. The vomiting of a drunken man should not be checked. Excessive purgation is checked by emetics, which last, may then be easily stopped; and if, after vomiting, much debility is exhibited, anodynes should be recommended. If blood is the source of disease, pains are an accompaniment, but a sense of weight, if it be pituita; at least such commonly is the case. When unacquainted with the disease, we should give weak remedies, if any. If the patient is relieved, we pursue the treatment, for the road is clear; reversely, if he feels worse. When great abstinence is the cause, employ food of more nutritive character, frequently changing it from one to another. If the patient is strong, and the disease of feeble description, should we be obliged to change our plan in order to discover the proper treatment, we may with safety resort to more powerful remedies than the disease, because, operating on healthy as well as diseased parts, no great danger can be apprehended; but when the disease is strong, and the patient weak, milder remedies should be chosen, such as are fitted to cure, without further debilitating the patient. Gymnastics differ greatly from medicine; the former do not induce

changes in the system; which, though required in disease, is by no means necessary in the healthy state.

Diseases productive of ulcers, or tumours externally, should be treated by abstinence and appropriate remedies. When humours flow from the head, vomits must be used. Chronic diseases are more difficult to cure than recent ones. Callous ulcers require a renewal of their surface by means of suppurating remedies, and then to be cicatrized. If the applications produce tumefaction, the body should be extenuated by purgatives. To create cicatrisation too early, is to afford nutriment to the morbid matter, and increase the ulcer. When the proper time has arrived for this, and to fill it from the bottom, the tumefaction is beneficial, even in ulcers of the head; the proud-flesh pushes up from the bottom the decayed parts, notwithstanding their resistance. When it is elevated to the surface, the food is to be diminished. In case grief induces disease and a disposition to suicide, we give mandragore root in the morning, but in amount not calculated to produce madness. To cure convulsions, we use the same remedy in small doses; a small chaffing-dish of coals on each side of the bed serves to heat those applications that should be applied to the tendons on the nape of the neck. If fever occurs after convulsions, it ceases either at once, or in two or three days. When fever caused by a rupture takes place, it ensues in three or four days. Care must be taken, however, for if it arises from some other cause, the treatment is different. A person suffering from a violent strain of the hands or feet, will be apt to fall into convulsions. To cauterize the vessels, the disease and the state of the patient should be considered: in case of hemorrhage, two precautions are required for safety before applying the cautery; 1st. Whether it may not be proper to prevent reunion, and whether the discharge is not itself useful; for, after cauterization, the discharge will cease, the two extremities of the vessel contract, and they dry up. If any vessels are left uncauterized, the bleeding will continue. 2d. To arrest the hemorrhage, the vessel should be burned across. When the burn is inadequate, we make incisions on either side above and below, by way of derivation; the applications will then be more effective, from the force of the blood being diminished.

In pains of the head, bleeding must be resorted to; should this not succeed, then we must cauterize the vessels, and the pain will cease; errhines tend to increase the complaint.

It is impossible to acquire a knowledge of medicine quickly, for invariable principles cannot be established. A person acquiring a knowledge of painting, by learning all that is taught him, soon attains all that others know, because the practice is the same with all, both now and to-morrow; it does not vary; nor is it necessary for him to seize on an especial occasion that will never again recur; but medicine requires that some one thing be done at one moment, and its opposite at another, for it has to reconcile contradictory points frequently. Thus it is with purgatives; they do not fulfil that indication always, but sometimes are even promotive of a contrary effect. In great constipation, the body becomes charged with pituita, which, falling on the bowels, produces a purgative effect; for the collected pituita acquires thereby a purgative influence. In like manner purgatives, by drying up the belly, induce costiveness. If you do not give purgatives, that which produces the disease will moisten, and thus purifying, health will be restored when the body has thus been washed out. Remedies binding the body, prepare the way for the evacuants, as these prepare the way for the former. It is precisely the same in regard to the complexion: watery humours dispel a good complexion, and render it pale; tonics on the contrary restore it. Every remedy has its opposite. If any one becomes tumid and pallid, he wastes away if remedies are not employed, which, by dispelling that tumid state, restore a healthy complexion. In this case, attenuants are useful and dissipate the pallor; but if it proceeds from inanition, analeptics are to be resorted to. Pains are also the result of cold or heat, either in excess or reversely; those whose surface is rendered cold, experience pain when exposed to heat, and those greatly heated suffer by exposure to cold. Such as have naturally a dry surface suffer from moisture, whilst those naturally moist suffer from dryness. All unnatural changes are followed by pain, and pains are dispersed by what is opposite to their productive causes, independently of what may be a peculiarity in the disease. Persons of a warm constitution, who are made ill by cold, are relieved by warmth, and thus it is in other cases.

There is another mode in the production of disease, viz.: from their congeners [Homœopathy! two thousand years before Hahnemann!]; for the same things that cause, also cure the complaint; ("alio modo per similia morbus oritur et per similia oblata ex morbis sanantur!") Thus we find strangury cured by the very means

that otherwise induces it; and a cough, like dysury, is caused and cured by the same things, although also by contraries.

There also exists another mode, as in the fever of inflammation; here the fever excited by inflammation is sometimes cured by the inflammation itself, and also by its opposites. Sometimes water, warm, and copiously drank and used as a bath, will restore health, by dissipating a fever by such means as are capable of promoting inflammation.

The effect of a purgative or emetic may be arrested by irritants, and augmented by calmants. In making a person who is vomiting, drink water copiously, he often with the water discharges in vomiting that which occasioned it; thus vomiting is cured by vomiting. On other occasions we cure by calming it, and causing what produced it to pass downwards by stool; thus it is, that health is recovered in similar cases by opposite means: were this the case in every instance, we should at least have this rule, that we must cure either by *contraries or by the same*, whatever be the disease or its cause,* in such and such cases. But the debility of the body is a reason of the infinite diversity that is seen. The body is every where equally nourished by food that is appropriate to all its parts; but when more or less than is required is taken, or when changes are made, the body is incommoded, and the digestion becomes imperfect. If it is overpowered by nourishment, it induces repletion, and from thence an opposite tendency ensues. Warm bathing invigorates the system whilst in a vigorous state, but otherwise it tends to weaken it: the same results from good living. So long as the body is strong, health is afforded by food; but the same food in a debilitated system is productive of diarrhoea and other evils. When the recipient is altered, that which is introduced into it must of necessity be likewise modified; the body then, altered and overpowered by the food, wastes away, having many enemies to struggle with. It is the same with evacuants or tonics; all may bring destruction to the body; and the same is equally true with every thing, even the most opposite.

Opportunity, in the practice of medicine is very brief, and he that comprehends this will duly expect it. He distinguishes essential from merely accidental symptoms, such as are not necessarily con-

* "Ac siquidem in omnibus hoc modo se habeat, constitutum quidem sic fuerit, haec quidem contrariis curari quæcunque sint et quacunque ex causa fiant, illa vero similibus, quæcunque tandem sint et a quacunque causa fiant."

nected with the existing state; he knows that purgation is not a necessary result of purgatives, and that what are contrary to one another are not so invariably. In giving nourishment, the fitting time is when the system can master it; if seasonably given, such food as is laxative will loosen the bowels, and that which is substantial will tend to invigorate it. Whenever the state of the system is superior to the food, its state being natural, the food produces no unexpected effects; and such is the opportune occasion with which the physician should be acquainted, for if he does not take advantage of it, the patient, so far from an easy digestion, will feel it as a load on the stomach, with heat and oppression. The body is nourished by that only which it is enabled to overpower. If aliment is taken inopportunely, its effects differ from what had been anticipated; the person falls away. It is the same with every thing that might tend to improve it; its action being relative to the powers of the system, to its intrinsic nature and existing circumstances. If those circumstances are unattended to, contrary effects will ensue. Every thing that effects an alteration in the actual state of the system may be regarded as remedial; the strongest overthrow it, and hence we can destroy the body by remedies; we can induce changes in it by means of aliment, and change is favourable in disease. Should no change take place, the disease must augment. In diseases of an intermediate strength, powerful remedies are improper, their action is to be feared; powerful remedies should be reserved for such diseases as are powerful; weak ones for those of inferior force. Neither ought we to denaturalize remedies by admixture, but as much as possible administer them in their natural state, employing the most powerful in robust constitutions, and the weaker in cases of an opposite tendency. Evacuations should be made by those emunctories that are nearest to the part affected, for it is there an exit will be found for them. Such articles as loosen the belly are lubricating, and are attended by heat; the belly being hot, saline matters are not readily discharged, but give rise to flatulence. What causes flatulence is for the most part fixed, and gives it off in drying, as all humours do. Astringents are of this nature, and every thing that by heat is rendered consistent, dries and becomes friable. Every thing that, internally applied, induces a flow of humours, causes dryness on the surface; such are tonics and stimulants. Purgatives weaken and heat the body; acids also provoke humours. Refrigerants induce evacuation, and equally so if

they are of a humid nature; but if they should not purge, they induce heat. Such remedies as are heating, become refrigerant if they induce evacuation; otherwise they heat the system. Those are most heating that induce a large flow of humours; and such as in large doses do not excite so great an afflux, are simply laxative.

It appears to me that medicine, at the present day, has made as great a progress as could reasonably be anticipated. It teaches us to compare those circumstances that spring up from time and opportunity; and whoever attains to this knowledge, will ascribe nothing to chance. Let chance favour him or not, he will pursue the most appropriate measures in his treatment of disease; for medicine is established on a firm foundation, that does not require the co-operation of chance. Science effects the benefit, if we know appropriately how to employ it. What need have we of chance? If remedies in their very nature have a faculty fitted to cure disease, as to me seems the fact, chance can have nothing to do in the business. If chance is essential, it should follow, that that which is not a remedy, would be fully as efficacious as the best remedies, curing thus diseases by mere good luck. If we were altogether to exclude chance, not only in medicine, but in every case whatever, we should, in my opinion, act correctly. Let us avow then, that fortune, good luck, or chance, is for those only who always act correctly. It appears to me, that we succeed or fail exactly in the proportion of our acting properly or the reverse. To act properly is to succeed, and this is the lot of the skilful practitioner; to act badly is to fail, and such is the lot of ignorance or presumption. How can we possibly assert that ignorance is successful? We cannot make account of such success; nothing is certain from one who does not conduct himself with certainty, but is determined to act, without knowing whether what he does will or will not effect his intentions.

[The following is omitted by Haller.—ED.]

Those affections denominated female diseases, all arise from the uterus; whenever it agitates itself, it occasions disease, whether it advances or retreats by change of situation. When its mouth does not approach the labia pudendi so as to be readily felt, the evil is not very considerable; but when it advances considerably, it is painful when it is touched, and the womb finding itself restrained and closed, does not readily allow of the menstrual discharge, and consequently becomes tumid and painful. If in descending still

lower it turns upwards towards the groin, it produces a tumour that is extremely painful. When it mounts upwards beyond its limits, its body becomes rarefied, causing afflicting complaints, with headache and ischiatic pains; the womb continuing to swell, the menses are arrested, and its bulk thereby is augmented; the pains extend to the thighs; the female often feels the motion of the uterus to and fro, like a globe, sometimes to the right, sometimes to the left, and sometimes over the whole abdomen. This is accompanied by headache, and such being the state of things, the following treatment is to be pursued.

If it is merely a descent of the womb, we should if possible anoint it with some fetid substance of any kind, such as oil of cedar, or the pulp of garlic or onions, or even something more unpleasant. We also employ fumigations, taking care not to burn the parts. During this time we avoid drinks and diuretics, as also washing with warm water. When the womb ascends and there is no longer any obstruction, we use aromatic fumigations of an agreeable odour, such as myrrh, balsam, or any other heating article of the same nature; we bathe with hot wine and employ diuretics. We know when the womb ascends that there is no obstruction, from the flow of the menses; if it is obstructed they are suppressed. We must then begin with fumigations as follows. After boiling figs in wine, we put the decoction into the half of a gourd, divided in two parts, one-half of which serves as a cover, in which is a hole to direct the steam towards the womb, by means of this small aperture. Hot water is added, as necessary; after which, the hot remedies mentioned are to be employed, together with the dung and gall of an ox, alum, galbanum, and such like. We purge frequently with elaterium, which also vomits in delicate temperaments, by which superpurgation is prevented. If strong pessaries are required, take honey boiled one-half away, and incorporate it with the heating remedies above mentioned: after the mixture is made, pessaries are formed from it, long and slender like suppositories. Place the woman on her back, her feet elevated and separated, in order to introduce the pessary, and maintain it in its place by cloths or other material, warmed, so as to promote relaxation, and gradual melting of the pessary. If less active ones are required, they may be enveloped in fine linen. When the womb is over-moistened by humours, which swell its mouth, and prevent the menstrual flow, we must apply to it perfumes, &c., similar to those mentioned in a

previous case, when speaking of the descent of the womb as obstructing the expected catamenial discharge. When this discharge is too abundant, we must avoid heating by means of warmth or other calefacients, nor must we use diuretic drinks or laxative diet; the patient should sleep in a bed elevated at the feet, to obviate the flow of blood towards the womb, and astringents should at the same time be prescribed. Menstruation, when regular, shows its appropriate sanguine character; but when it is irregular, it becomes somewhat purulent. Young persons discharge good blood, but in aged persons, it is mixed with much mucosity.

OF THE EMPLOYMENT OF LIQUIDS.

DE LIQUIDORUM USU,	FÆSIUS, Treat. vii. p. 424.
DE LIQUIDORUM USU,	HALLER, iv. p. 230.
TRAITÉ DE L'USAGE DES LIQUIDES,	GARDEIL, iii. p. 143.

HALLER, in his preface to this treatise, tells us it contains ten aphorisms from the tenth book (No. xvi. to xxvi). Something is said of wines and vinegar. It was read by the ancients, who occasionally extracted from it, though without quoting the title. It is amongst the shortest of the tracts, and nearer than many to the original tracts of Hippocrates.

Subjects considered.—Of the effects and powers, &c., of warm and cold waters, wine, vinegar, &c. Of the effects produced by warm rather than cold water, and on what parts.

CHAP. I. Of the powers and uses of warm and cold water employed as drinks.

CHAP. II. Of the use of hot and cold water; what parts are benefited or injured by either of them; what affections they induce or cure.

CHAP. III. Of sea-water, wine, vinegar; their powers; what parts they benefit, or what diseases they cure or induce, &c.

CHAP. IV. Of the different powers of cold and hot waters; what parts are benefited or hurt by them; and what diseases cured or induced by them.

Gardeil says, that from the title of this treatise, it might be supposed that *liquids* in general were here considered. It, however, chiefly has respect to *water*, the liquid “par eminence.”

SEC. I. Of the advantages of water, and its different effects. A diffusion of cold and hot water on the skin. Vapour-baths, general and local; highly extolled on many occasions; injurious, from inattention. Frozen feet, separated by immersion in hot water.

SEC. II. Bad effects of cold and hot water; what parts of the

body each is best adapted to, and continued in Nos. iii., iv., v., vi. Skin, its connexion with every part of the body, by means of the nerves and blood-vessels that compose the fleshy pannicle; the effects of heat and cold on the vessels, and some remarks tending to strengthen a credence of the circulation.

SEC. VII. Sea-water as a bath; fumigations useful in phagedenic ulcers; salt, nitre, pickle, &c., their uses as stimulant applications.

SEC. VIII. Vinegar, lotions of, fumigations, &c., of great utility.

SEC. IX. Sea-salt, use of, in solution.

SEC. X. Wines, various, sweet, rough, white, &c.

SEC. XI. Cases wherein cold water is good; others in which hot water is preferable; both are good in diseases of the joints, gout, convulsions; greater care required in the use of cold than of warm water; constipation cured by;—warm in affections of the eye;—when cold water is preferable. Of cold water in tetanus; numerous other cases.

It would appear from this treatise, that water, cold and hot, sea and other waters, were among the most frequent medicamental resources of Hippocrates, by bathing, drinking, aspersion, sponging, &c.

SECTION V.

ON DISEASES.

DE MORBIS,	FÆSIUS, Treat. i. p. 446.
DE MORBIS,	HALLER, iii. p. 1.
TRAITÉ DES MALADIES,	GARDEIL, iii. p. 153.

In his preface to this treatise, Haller says, “its author is uncertain; nor is it perfectly agreed, that these four books are those which, under the same title, the ancients largely quote from, for much of them is wanting here. Galen refers them to Thessalus, to the younger Hippocrates, or to Polybius.” But why (Haller adds) may they not be the production of some physician of the Gnidian school, as is conjectured by Fœsius? for the ancients found fault with the physicians of that school, that from the slightest difference, they established new species of diseases, so that they made seven or eight species of pleurisy; and this fault is to be found here. The remedies are repeated from the treatise “De victus ratione,” or they consist of the most powerful purgatives, very frequently prescribed in another place. The first book contains the theory that refers diseases to pituita and bile as their causes. We find also the pathology of diseases of the breast, of fevers, phrenitis, &c. There is much suspicion as to this book being known to the ancients. Saving the theory, it would appear to be not unworthy of Hippocrates.

Subjects treated of.—What is necessary to be inquired into by the physician, is here considered, and replied to. Of the internal and external causes of diseases. Of the appropriate and improper times for prescribing. Of proper and improper doings and sayings. Of good and evil, arising either spontaneously, by chance, or from error. What divided parts do not coalesce. Of the times for prescribing. Of manual dexterity. Of suppuration of the lungs, thorax, and stomach. Of erysipelas of the lungs, and tubercles of

the lungs and side. Of fever, horror, rigor, sweat. Of pleurisy, peripneumony, ardent fever, phrenitis, melancholia. Of partially bloody and livid sputa.

BOOK I.

This book is divided by Haller into two sections, containing thirteen chapters, the contents of which are as follow.

SEC. I.—CHAP. I. What is to be observed by the physician when about to prescribe, that he may correctly interrogate the patient and the attendants, and reply to them, or oppose their questions.

CHAP. II. Of the causes of diseases, external and internal. Of fatal diseases, of doubtful, variable, chronic, or acute; of convertible diseases, and of such as necessarily supervene.

CHAP. III. The opportunities of prescribing are numerous, varied, fleeting, and sometimes inappropriate; of what may be properly or improperly done or said, both in medicine and surgery.

CHAP. IV. Of things beneficial or hurtful in disease, as well spontaneous as from the fortunate or unlucky lot of the physician; and of evils arising from the physician, and not necessarily imputable to the disease.

CHAP. V. What parts, if divided, do not coalesce; no general principle of practice, either in theory or treatment, will apply to every case. In what manual dexterity consists.

CHAP. VI. Of pulmonary suppuration from peripneumony; of a defluxion of pituita from the head; of rupture of the small vessels; of the contraction of varicose vessels; of the cure, and of death from suppuration of the lungs.

CHAP. VII. Of empyema of the thorax arising from a defluxion of pituita from the head, from pleurisy, from pituita impacted in the side, from labour, and from rupture of the vessels; of suppuration in the lower belly, and its causes; of a collection of pituita and bile between the skin and muscles, and of convulsions.

SEC. II. Some preliminary remarks are here made, as to the influence of abdominal suppuration, and its effects on the system; and of defluxion from the head; the influence from age and other causes thereon, in hastening or checking the issue, &c.

CHAP. VIII. Of the origin, causes, signs, and cure, of erysipelas of the lungs; of tubercle of the lungs and sides; of rupture and evulsion of the flesh and vessels.

CHAP. IX. Of the cure, restoration, and death from suppuration, arising from wounded flesh or vessels; and in the cure, what is to be attended to, as respects sex, age, season, period, affection, and other circumstances.

CHAP. X. Of the origin and causes of fever, rigor, horror, and cold and hot sweats.

CHAP. XI. Of the origin, causes, parts affected, and cure, of pleurisy and peripneumony, with and without expectoration; which of the affected perish, which recover, or escape, if suppuration has taken place.

CHAP. XII. Of those most obnoxious to ardent fever; its origin, attack, causes, symptoms; its passage into peripneumony, and its danger. Of phrenitis and melancholia; of the influence of the blood and bile in these cases.

CHAP. XIII. Whence arise the half bloody and livid sputa in pleurisy and peripneumony; and who perish, and wherefore, from these diseases, as well as from ardent fever and phrenitis.

Gardeil, who makes thirty-one divisions of this book, says: Physicians who are desirous of knowing the mode of acting and of thinking, in the time of Hippocrates, of those who attended to *external* diseases, will have reason to be content, I think, with what they have already thus far seen. The present treatise, divided into four books, will satisfy them in many respects, as to what concerns *internal* affections. It will not always be easy to arrange what is said in them, as to the order, nomenclature, and classification of many internal diseases treated of by modern authors, either generally, or particularly. For the rest, I am persuaded in reading what has been thus far accomplished, much will have been found to be very abstruse; especially in the Prognostics, Humours, Predictions, on the Nature of Man, Aliments, the Parts of Man, &c. Yet I am persuaded, also, that they will give rise, some day, to excellent comments, by able men, who will develope them by explaining them in their schools. Many of the remainder, I am far from thinking deserving of such attention, but that, on the contrary, they would be improved by being compressed.

I. Preliminaries. As to the necessary previous knowledge of the origin of diseases, and why *some* are chronic, others rapid or acute in character, and mortal or otherwise; destructive to certain parts, or not so; their good or injurious tendency, their issue and other particulars; and as to the knowledge requisite properly to prescribe for them.

II. Of the causes of diseases, external and internal; their principal differences in respect to danger, duration, &c.

III. Of opportunity, or the proper occasion for action, the most important part of medicine.

IV. Of incorrect judgment as to the time of action.

V. Of errors in judgment as to the nature of the disease, or of the appropriate treatment. Continued in VI. and VII.

VIII., IX., X. Of spontaneous circumstances, either good or bad, dependent on nature, or on the physician.

XI. No general principle of treatment fitted for all cases; hopes to be excited at times, promptitude of action at others; cautions to be attended to in our manipulations.

XII. Of internal suppuration of different parts.

XIII. Three cases of pulmonary suppuration; from peripneumony, from pituita falling on the lungs, and from rupture of vessels, or their varicose state.

XIV. Of suppuration in the cavity of the pleura, from which the patient usually recovers, if a discharge by incision or cautery is not too long delayed. The causes of empyema are various. Of the influence of age, season, temperament, &c., on these cases.

XV. Abdominal suppurations, from bile, pituita, spasm, &c. Encysted tumours are difficult to know, when deep-seated.

XVI. Erysipelas of the lungs; its great danger, and metastasis of.

XVII. Of tubercles of the lungs; their suppuration; occasional cure; great danger of, and accompanying diarrhoea.

XVIII. Tubercles of the pleura. [Qu. ? if not here connected with aneurism of vessels.—Ed.]

XIX. Pleurisy from inflammation of the intercostal muscles. Continued in XX. [This seems somewhat connected with hepatic inflammation.—Ed.]

XXI. Internal suppuration from external causes, as wounds, &c.

XXII. Conclusions on the preceding statements; on sex, age, strength, seasons, &c.

XXIII. Of fever: its formation, causes; coldness, chilliness, why they precede fever.

XXIV. Sweats, explanation of; hot and cold sweats, difference of, &c.

XXV., XXVI. In what manner pleurisy and peripneumony are formed, &c.

XXVII. Of pleurisy and peripneumony, unaccompanied by expectoration; treatment of.

XXVIII. Of ardent fever; who attacked by it; internal heat, and cold externally; danger frequently induces pleurisy and peripneumony.

XXIX. Of phrenitis, how produced. The blood by some persons supposed to be the principle of the understanding.^a

XXX. Causes of the difference of expectoration, in pleurisy and peripneumony.

XXXI. Why death takes place in pleurisy, peripneumony, ardent fever, and phrenitis.

^a "Sanguis, qui inest homini, plurimum ad *prudentiam* confert; quidam vero dicunt, totum."—Haller.

ON DISEASES.

BOOK II.

DE MORBIS,	FESIUS, Treat. i. p. 461.
DE MORBIS,	HALLER, iii. p. 35.
TRAITÉ DES MALADIES,	GARDEIL, iii. p. 189.

HALLER, in his preface to this second book, says that “What was said of the first book, is applicable to the second and third, for they are full of the names of diseases, derived from some peculiar symptom; the remedies are almost every where the same: rest, vomits, purging, ptisans, and preparations with honey and vinegar, &c. In the second book, however, dietetic co-operation is more insisted on; whilst in the third book, medicines are predominant, and those of the most powerful description. The history of diseases is better, such as of pleurisy, peripneumony, empyema, whose description was given in the preceding book. It may be referred to the Gnidian physicians, from the praises of powerful remedies, as well as of the use of verdigris, arum, hellebore, thapsia, and peplium, to promote expectoration. Galen designates these books as the large and small.”

Contents.—Many species of diseases are here enumerated, both general and local; as of the head, brain, nose, ears, eyes, mouth, fauces, heart, lungs, trachea, breast, back, belly, liver, spleen, and limbs; with their causes, signs, and cure.

SEC. I.—CHAP. I. Of an overheated temperature of the head, with pituita and bile; as such or such parts are inflamed by the fluxion to them, various symptoms follow; such as copious urine, strangury, loss of sight or hearing, &c. Several other affections of the head are enumerated, and their accompanying symptoms.

CHAP. II. Of diseases of the head ; sideratio ; caries of the bones ; sphacelus, &c. ; their causes, symptoms, and prognosis.

CHAP. III. Of angina ; uva ; inflammation, &c., of the tonsils, and surrounding parts.

CHAP. IV. Of diseases arising from fulness of the head, attended with torpor; incontinence of urine, strangury ; and of their dietetic, pharmaceutic, and surgical treatment.

CHAP. V. Of ulcers of the head and legs, and swelled legs ; of headache, with bilious vomiting and dysury, and of their cure.

CHAP. VI. Of hydrocephalus;^a of coldness, pain and fever in the head ; excitement of vascular action in and about the brain ; their causes, signs, and cure.

CHAP. VII. Of the rise, causes, symptoms, signs, prognosis, and treatment of those affected with bile, &c., or from drunkenness.

SEC. II.—CHAP. VIII. Of sideratio cerebri (qu. ? σφακελος, ενχεφαλος) ; caries of the bones, &c. ; causes, symptoms, signs ; dietetic, pharmaceutical, and surgical treatment.

CHAP. IX. Of the causes and cure of three kinds of angina. *Inhalation for*, well described.

CHAP. X. Of uva ; in which *the excision of the lower part of the uvula is ordered* ;^b of tonsillitis ; of tubercle of the tongue ; of inflammation of the palate ; and of the treatment.

CHAP. XI. Of five kinds of polypus ; the pendulous, oblong, soft, fleshy, and callous, which occupy the nostrils ; and their treatment by excision, cautery, &c.

CHAP. XII. Of jaundice, with, and without fever ; and their treatment.

CHAP. XIII. Of the treatment of three kinds of fever arising from bile.

CHAP. XIV. Of the treatment of quartan fever.

CHAP. XV. Of the signs and treatment of three kinds of pleurisy.

CHAP. XVI. Of peripneumony ; its origin, symptoms, and cure ; of suppuration from peripneumony, and of incision therefor, and evacuation of the pus. *Auscultation*^c is here clearly adverted to, and incision ordered for the removal of the pus.

^a In which, as an ultimate resort, the skull is perforated. “ Demum inciso juxta sinciput capite ; ad cerebrum usque perforato, et velut sectionem per terebram curato.”—Haller, iii. p. 48.

^b “ Extrema parte præcidito.”—Haller, iii. 57.

^c “ Tu vero agitato humero, quoniam in latere (affectione) strepitum edat, auscultato, &c.—Haller, iii. p. 69.

CHAP. XVII. Of consumption from pulmonary affections; signs of, and dangerous symptoms; falling off of the hair, with fetid expectoration, &c.; its treatment.

SEC. III.—CHAP. XVIII. Of consumption of the lungs; of ulceration of the trachea; their diagnosis, prognosis, and treatment.

CHAP. XIX. Of dorsal phthisis; its rise, causes, signs, and cure; of a disease of the lungs, somewhat differing from common phthisis.

CHAP. XX. Of wounded trachea, and pulmonary lesion; convulsive twitching of the fibres of the lungs; their signs, prognosis, and remedies.

CHAP. XXI. Of erysipelas of the lungs, its causes, signs, and treatment.

CHAP. XXII. Of the signs and treatment of a dorsal affection, and tubercle of the lungs.

CHAP. XXIII. Of engorgement of the lungs, and their lateral gravitation; their signs and cure.

CHAP. XXIV. Of tubercle in the side; dropsy of the lungs; rupture of the breast or back; their signs and treatment. Incision between the ribs in dropsy of the lungs is here recommended.

CHAP. XXV. Of ardent fever; of fever with singultus; their signs and cure.

CHAP. XXVI. Of lethargy; marasmus; of a variety of fever, (called φονωδης, mortifera;) their signs and cure.

CHAP. XXVII. Of the livid disease; and of one accompanied with eructation.

CHAP. XXVIII. Of a pituitous disease affecting chiefly women; of leuco-phlegmasia; their signs and cure.

CHAP. XXIX. Of melancholy; and of three varieties of (*Mελαίνα νύσσος*) black disease; their signs and treatment.

Gardeil, in seventy-two paragraphs, gives the following outline of this second book.

I. From excessive heat of the head, the pituita is melted, and conveyed to all parts. This paragraph, and up to x. inclusive, is taken up with concise notices of some diseases of the head, the treatment of which follows, from xi. to xxxiv.^a

XI. to XIII. Of diseases which arise from the head. Here, says

^a In No. vii., we have the caries of the bones of the cranium, which has some analogy with that arising from syphilis.—ED.

Gardeil, (up to No. xix.,) the author appears to return to the diseases already mentioned, for the purpose of giving their treatment. At the same time, he adds, the order of the matters, in all the four books, is very difficult to attain, if, in fact, any order has been pursued. It may be remarked, that the use of the cautery is very frequent.

XIV. Refers to hydrocephalus, or water on the brain; the strabismus is noticed; and in the last resource an *opening of the cranium* is recommended, as in trepanning, in order to discharge the fluid.^a

XV. Seems to refer to No. v. The pulsation of the vessels is here noticed. Some part omitted by Gardeil.

XVI. A singular treatment here recommended, for some vertiginous affection, by incision of the forehead near the hair, and sprinkling salt in it, and closing the wound, &c.

XVII. to XX. All referring to some of the previous numbers.

XXI., XXII. Refer to sphacelus and caries of the bones of the head, &c., in which scraping the bone to the diploe is recommended.^b

XXIV. Quinsy, and its treatment, is here noticed, and continued in No. xxv. and xxvi. Inhalation is here recommended and described.

XXVII. Tumid uvula, (*στραφυλη*, uva.) Its *excision* recommended. Long prior to some assumed modern discoverers, passing down through the whole train of medical writers from Hippocrates to the present period; although apparently unknown to a late professor, or to some contemporaries, who ascribe the discovery of this operation to him.

XXVIII. Swelled tonsils; ranula; inflamed, swelled, and supurated palate.

XXIX to XXXIII. Polypi of the nares, five species, and their treatment.

XXXIV. The chain is here broken. Icterus is treated of in this and the next paragraph.

XXXVI. Bilious fever.

XXXVII., XXXVIII. A variety of fever, approximating to yellow fever.

^a "On ouvre le crâne à l'endroit de la fontenelle jusqu'au cerveau, et l'ou soigne comme dans l'opération du trepan," iii. 202.

^b It is not clear to me, that this affection is not allied to some syphilitic taint.—ED.

XXXIX. Quartan fever, treatment; sorbets, large doses of hellebore.

XL., XLI., XLII. Pleurisy, varieties of, and treatment.

XLIII. to XLVI. Peripneumony; empyema; something like auscultation noticed; fumigating; opening the cavity of the thorax to discharge the pus; the process described.

XLVII., XLVIII. Phthisis; affection of the trachea, leading to phthisis.

L. Tabes dorsalis, common to young married people, and libertines. This is rather a seminal weakness.

LI., LII. An affection of the lungs, in which fumigation is commended. Ulcerated trachea.

LIII. Twitchings or convulsion of the fibres of the lungs, commonly fatal.

LIV. Erysipelas of the lungs, chiefly excited by excess in eating and drinking. It seems to be of a chronic character, and requires a chronic treatment.

LV. A dorsal affection, with bloody urine, on the third or fourth day; mostly fatal.

LVI. Tumours or tubercles of the lungs, to be treated as empyema.

LVII. Engorged lungs [Qu. ? peripneumonia notha.—Ed.] very fatal.

LVIII. The lungs falling on the pleura, [Qu. ?] It arises sometimes from a wound, or from the operation for empyema; singular treatment for, by introducing air into the cavity.

LIX. Tumour of the pleura; incision recommended, or cautery, and introduce after the tenth day a mixture of warm wine and oil, retaining, and renewing it, &c.

LX. Of dropsy of the chest, hydrothorax, slower than empyema in progress.* Rupture of the breast or back.

LXI., LXII. Of burning fever ($\chiαυσως$), often ending in peripneumony; fever, with hiccup.

LXIII. Of lethargy. [Not that now so denominated. It seems to be rather coma, in the latter stage of some disease.—Ed.]

LXIV. A disease called $\alpha\pi\alpha\tauη$, Gr., *resiccatorius*, Fœs., of a

* "Quod si infusum, aut fomentum, aut suffitum adhibeas, pus non sequitur, indeque cognoscas, non pus, sed aquam intus esse."—Fœs. Qu. ? If this implies a prior incision, and injection, as in empyema? Paracentesis is, at all events, recommended.

chronic character. [I should think it connected with dyspepsia or marasmus.—ED.]

LXV. Fever, ($\phi\sigma\omega\delta\eta\varsigma$, mortifera,) deadly.

LXVI. Morbus lividus. Qu. ?

LXVII. Disease with much flatulence *upwards*.

LXVIII. Pituitous disease. Qu. ? Asthma.

LXIX. Leuco-phlegmasia, or anasarca.

LXX. Melancholy.

LXXI., LXXII. The morbus niger. Qu. ? Of two kinds ($M\varepsilon\lambda\alpha\imath\imath\alpha$
 $\nu\pi\sigma\sigma\varsigma$). The gangrenous disease.

ON DISEASES.

BOOK III.

DE MORBIS,	FœSIUS, Treat. i. p. 487.
DE MORBIS,	HALLER, iii. p. 94.
TRAITÉ DES MALADIES,	GARDEIL, iii. p. 257.

THE following diseases, says Haller, are noticed in this book, viz.: tumour of the brain, and its painful repletion, apoplexy (Qu. $\beta\lambda\eta\tau\iota$, Hipp.; sydere icti, Fœs.^a), lethargy, ardent fever, tumour of the lungs, headache, phrenitis, angina, jaundice, tetanus, opisthotonus, convolvulus, peripneumonia, pleurisy. Also of the drinks, &c., to be used in ardent fever.

CHAP. I. Of tumour of the brain from inflammation; diagnosis, prognosis, and cure.

CHAP. II. Of intense headache, from fulness of the brain; its symptoms and cure.

CHAP. III. Of (Qu. apoplexy?) *attoniti*, Hal., vel sidere icti; its signs and cure. In the next chapter, the sideratio cerebri ($\varsigma\varphi\alpha\chi\epsilon\lambda\iota\sigma\mu\omega\varsigma$, Hipp.) is considered.

CHAP. V. Of the signs and cure of lethargy, and of suppuration from. It seems different from ours.

CHAP. VI. Of ardent fever; diagnosis, prognosis, and cure.

CHAP. VII. Of the lungs enlarging from heat; diagnosis, prognosis, and cure.

CHAP. VIII. Acute headache, with aphonia; diagnosis, &c.

CHAP. IX. Diagnosis and cure of phrenitis.

CHAP. X. Angina, twofold, cynanche, and paracynanche; the signs and cure of each.

CHAP. XI. Of icterus; its signs and treatment.

CHAP. XII. Tetanus, opisthotonus; diagnosis, prognosis, and cure of each. In the latter, cold affusions recommended.

^a Ictus, attonitus, apoplecticus, Gr. Lex.

CHAP. XIII. Volvulus; diagnosis and cure. Blowing up the intestines with a bellows is here recommended.^a

CHAP. XIV. Peripneumony; diagnosis, &c.

CHAP. XV. Pleurisy; humid, biliary, bloody, dry, dorsal; their diagnostics, prognostics, pharmaceutic, dietetic, and chirurgical treatment, largely laid down. Something like auscultation alluded to; and paracentesis of the thorax to discharge the pus when formed.

CHAP. XVI. Of a variety of cooling drinks in ardent fever.

Gardeil divides this book into forty-six paragraphs; from No. 26 of which, to the end, is a large variety of different kinds of drinks for sick people, especially in fevers, and which he calls "appropriate ptisans."

1. Hippocrates tells us, that having heretofore treated of fevers, he now proceeds to other diseases.

2. Turgescence of the brain, with headache; here, in the treatment, after shaving the head, cooling applications, confined in a bladder, are recommended.

3. Headache from plenitude of the brain, accompanied with delirium.

4. Les Frappés, Gard.; sydere icti, Fœs.; $\beta\lambda\eta\tau\alpha$, Hipp.; [Qu. what is this? Gardeil refers us to sentence xxxi., chap. xvi., book ii., Coacæ, where it has connexion with peripneumony.]

5. Sphacelus of the brain—*cerebri sideratio*, Fœsius, p. 488.

6. Lethargy. [Certainly not that now so called, since it is closely connected with peripneumony. It seems to me merely a comatose symptom in peripneumonia notha.—ED.]

7. Of ardent fever. This is said oftentimes to degenerate into peripneumony. Hot ablutions frequently employed, except to the head, are recommended.

8. Tumour of the lungs, from heat. This appears to be also peripneumonic.

9. Headache. Refers chiefly to that arising from drunkenness.

10. Phrenitis. Gardeil thinks this refers to inflammation of the diaphragm or paraphrenitis; and the symptoms warrant this opinion.—ED.

11, 12. Of quinsy or angina, true and false. In the treatment

^a "Folle fabrili indito, in ventrem flatus immittendus, ut tum ventrem, tum intestinum contractum distendas."—Hal. iii. p. 105.

of the latter it is recommended to introduce a tube, to assist respiration.

13. Of icterus (*morbus regius, Fœs.*) It is said to be an acute disease, which kills in a short time. Doubtful if our common jaundice.

14. Of tetanus.

15. Of opisthotonus. Cold water dashed on the patient is among the recommendations for this.

16. Of volvulus, or the iliac passion. Here, among other recommendations, is that of forcing up wind into the intestines by means of a bellows.

17. Of peripneumony. About the eighteenth day, if the expectoration is sweetish, the lungs are said to be in a state of suppuration, and may continue for a long time.

18, 19, 20. Of pleurisy. Of dry pleurisy. Of dorsal pleurisy.

21, 22. Of the examination of the tongue in pleurisy. Pain of pleurisy worse at night.

23. Treatment of pleurisy. [Bleeding seems but little attended to, and probably hence, apparently, the frequency of empyema; purging is more commended.—ED.]

24. Suppuration being established, and having passed into the thorax, at a proper period, incision or cautery is recommended; and auscultation is obviously spoken of, to determine the presence and situation of the pus, which is slowly evacuated for several successive days.

25. The same treatment is recommended in suppuration from wounds.^a

26 to the end, taken up with an enumeration of formulæ for ptisans and drinks.

^a The reader, remarks Gardeil, cannot fail of observing, when reading the works of Hippocrates, how frequently the operation for empyema was performed, doubtless with more facility and success than now, in the treatment of suppuration in the thorax from internal causes.—It appears to me (Ed.) that the principal cause of this arose from the dread of bleeding in the early stage of disease, lest concretion of the humours should be thereby prevented.

ON DISEASES.

BOOK IV.

DE MORBIS,	.	:	FŒSIUS, Treat. i. p. 498.
DE MORBIS,	.	:	.	:	.	:	.	:	.	.	.	HALLER, iii. p. 118.
TRAITÉ DES MALADIES,	GARDEIL, iii. p. 285.

THIS book, says Haller, is very different from the preceding ones, and is replete with acute and ingenious reasoning. The origin of disease is deduced from four humours, bile, blood, pituita, and water, arising from the aliment taken in. If received beyond a just amount, on the third day, the body is disturbed, and if the excess is not removed, disease ensues. Of the judgment as to diseases. This should be made on the uneven days, in which the humour should pass out. Other matters are minutely treated of. Towards the close, something is said respecting worms, which are discovered *even in the fœtus*; of calculus, from hardened pituitous milk; of dropsy of the belly, uterus, and the whole body; its origin. Here too we find refuted, the descent of drink into the lungs, which in other books, Hippocrates maintains. The author cites the book he had written on female diseases. (*De morbis muliebribus.*)

The argument of this book, (divided into two sections and nineteen chapters, by Haller,) is, that there are four species of humours, bile, pituita, blood, and water; their origin, generation, causes, receptacles, sources, and effects; of food and drinks; of excretions, and their ducts. Fever is considered; the principles of diseases, and their causes; of pains, worms, calculi, and dropsy.

SEC. I. CHAP. I. Of the origin of man. The seminal fluid of both parents is essential to generation, and is derived from every part.

There are four humours in the body, bile, blood, pituita, and water, or atrabilis, which are formed from the food and drinks taken in. Their sources are fivesfold, viz., the stomach, the head, the heart, spleen, and gall-bladder. Analogy of plants and births (partium). Every part attracts its congenerous humour to itself.

CHAP. II. Excess or deficiency of assimilating humour, induces disease both in plants and in man. Plants spring up and grow, only where they can obtain an appropriate nourishment. All plants will not indiscriminately grow and flourish in all places. Cultivation has caused these difficulties to cease.

CHAP. III. Pituita ($\phi\lambda\sigma\gamma\mu\alpha$), originating from pituitous food and drinks, is attracted to the head, and if in excess, it induces headache; and if conveyed away by the stomach and bladder, benefit ensues.

CHAP. IV. Bile is more copiously produced from bilious food and drinks. It is drawn to the liver from the gall-bladder, and there retarded, proves the cause of pain. Food and drinks of different kinds often prove remedial.

CHAP. V. Of the more copious flow of water, its causes, seats, affections; from whence pains of the spleen and of the lower parts of the body arise.

CHAP. VI. Of blood, its origin, causes, affections. The heart is not affected with pain from its increased presence; although from it many diseases of the body arise.

CHAP. VII. Four streams are continually supplying the body, as its parts are emptied by a mutual co-operation: numerous vessels exist in the body;—from whence arise the savour or disagreeableness of food and drinks; appetite and its cessation explained.

CHAP. VIII. Bile is secreted from food and drinks, in the gall-bladder; and there induces cardiogmus (cordis morsum), but does not produce disease of the heart. The head and spleen are more liable to disease. When, and how, humours noxious to man, become reduced. Four places from whence the system is purged, viz., the mouth, nose, rectum, and urethra.

CHAP. IX. How man preserves his health, by proper attention to diet; this appropriately digested, distributed, and excreted; otherwise sickness ensues, followed by emaciation and weakness, together with repletion, heat, pain, and fever.

CHAP. X. When discharges exceed what is received, men grow thin. Of the operation of indolence, and activity, on appetite and

health; the importance of good habits; of fever from repletion, and of the termination of diseases on certain days.

CHAP. XI. Why fever terminates; and why fevers and diseases remit, terminate, or diminish on uneven days; vitiated humours are disturbed and evacuated, horror ensues, and crises follow.

CHAP. XII. Why death ensues on uneven days; the humours are disturbed, pains ensue; medicine improperly given, often injurious; ulcers become more inflamed; why swelling of the glands arises from ulcers; heat and pain of ulcers, and their influence in the subsequent uneven days, &c.

SEC. II. CHAP. XIII. Why men sicken; necessity of purgation; fever from repletion; watery humour is most opposed to fever, but a bilious humour is its pabulum. Why water exhales more readily than oil; what, and how many, are the principles of disease,—and of their grade of violence.

CHAP. XIV. Of the effects of violence, wounds, ulcers, contusion, tumour, pain, fever, disturbed humours. Comparison between milk and blood, and their parts. What effects arise from a disturbance, excess, and evacuation of humours; of the aliment of man, and the causes of putrefaction and death.

CHAP. XV. How diseases arise from the air; by the solution, concretion, secretion, mixture, agitation, and situation of a single humour, various diseases may arise, such as disturbed bowels, griping, rigor, chill, inflammation, and fever.

CHAP. XVI. Of worms; lumbricus latus, and teres; the latter procreate, the former do not, but break into pieces resembling gourd-seeds; of their origin, species, diagnosis, and prognosis. The existence of worms in children, *even in utero*, is here asserted.

CHAP. XVII. Of calculus; its origin from milk; its causes; five signs of; its symptoms; its mode of increase and location.

CHAP. XVIII. Drink is conveyed into the stomach, and not into the lungs; and from the stomach it is conveyed to every part, as shown by eight arguments.

CHAP. XIX. Of three species of disease from dropsy or watery effusion; their origin, locality, causes, signs, symptoms, and prognostics.

Gardeil divides this book into twenty-five paragraphs, to the following effect.

1. Of the principles of the composition of the body, and the

sources of diseases, from four humours,—pituita, blood, bile, and water.

2. Physiological explanation of the origin of the four humours, with a digression, in a parallel between the nutrition of vegetables and animals; and that from an improper soil, plants cannot always be naturalized; reference is even made to the difference of contiguous soils, in the culture of the vine.

3, 4, 5, 6. The above four humours considered; their sources, &c.; defect of, and superabundance.

7. The general theory of diseases, founded on the four humours, being in excess or defect. The intercommunication of vessels throughout the body. Four fountains in the body, supplied through the agency of the stomach. Importance and utility of the doctrine to dietetics.

8. Some principles as to the secretions and excretions. Four passages by which the above-mentioned humours are principally evacuated,—the mouth, nose, anus, and urethra.

9, 10. Wherein health consists; regularity, progress of the aliment, &c.; excess or defect in diet, &c.; humours evacuated the third day; faecal matters on the second.

11. Theory of the diseased state arising from the excess or defect mentioned.

12. The cessation of fever explained; on the third, fifth, seventh, or ninth day.

13. Why fever finishes on uneven days, and of the disturbance of the humours on such days, by improper treatment. *Ancient physicians are here adverted to.*

14. Recapitulation.

15. Theory of diseases, from superabundance of humours, or from defect of excretions; seven signs of.

16. Two other sources of disease; external, and violence done to the body.

17. The effects of external things, acting violently; tumours, contusions, fatigues.

18. The effects of atmospheric agency; how the humours are affected; death from disorganization. Health, in what it consists. Engorgement of vessels, &c., illustrated.

19, 20. Coldness in disease, explained; brief recapitulation.

21. Of worms. *Tænia*; formed even in the foetal state; their great length; curious account of their generation, &c.; symptoms; the cucurbitinæ illustrated.

22. Of calculus of the bladder ; of its origin from impure milk sucked in early life (see treatise on Nature of Man), explained ; five signs of calculus.

23. An article respecting the passage of drinks to the lungs, which is here denied, though elsewhere insisted on, and seven arguments against it. Of the voice and its formation, &c. ; the epiglottis, its use.

24. Of the origin of dropsy. Varieties of ascites.

25. Of dropsies in general ; of the womb, belly, legs, &c. ; danger of, when acute disease attacks, &c.

ON AFFECTIONS.*

DE AFFECTIONIBUS,	FŒSIUS, Treat. ii. p. 516.
DE AFFECTIONIBUS,	HALLER, ii. p. 366.
TRAITÉ DES AFFECTIONS,	GARDEIL, iii. p. 328.

IN his preface to this treatise, Haller speaks favourably of it, as having in it little reasoning, but much good observation. It is, he adds, commonly ascribed to Polybius, but this is mere conjecture. The arguments are of a mixed character, a fault, by the by, common to the Hippocratic authors. It begins with some histories of diseases, which differ from those in the books "De Morbis." Scarcely does the author notice any remedies, but he refers to a book now lost, $\pi\epsilon\rho\varphi\alpha\mu\alpha\kappa\omega\nu$. The conclusion relates to things appertaining to diet; and what is here given differs from that which appears in the books "De Dieta," and seems to me very useful, especially in what relates to the qualities and powers of aliment. Some short and by no means absurd things are stated as to the reason of causes. Man is stated to consist of four humours,—blood, pituita, bile, and melancholy or black bile.

The argument of this book, divided into two sections and sixteen chapters, is, that it consists of many diseases of different parts; fevers, ulcers; their causes, signs, and treatment; of food, both for the sick and convalescent; and an explanation of the powers and differences of several kinds of aliment.

SEC. I. CHAP. I. Of what is requisite to be known in consulting

* This treatise seems a kind of brief of the preceding, and of the nature of a treatise on *Domestic Medicine* for general use.—ED.

for the treatment of diseases. The beginning and source of all diseases are bile and pituita ; elucidation of.

CHAP. II. Of diseases arising from pituita of the head ; pains of head and ears ; inflammation of the fauces and uvula ; toothache, polypus, and the cure of these.

CHAP. III. Of acute diseases of the belly ; most violent in winter. Of pleurisy, peripneumony, ardent fever, phrenitis, with others of a lighter description, but becoming acute in winter ; their changes, causes, signs, and cure.

CHAP. IV. Of summer complaints ; pains, fevers, ardent fevers, tertian, quartan ; their symptoms, causes, signs, crises, and cure.

CHAP. V. Of white pituita, with large, hard, and suppurated spleen ; their causes, conversion to dropsy, symptoms, and cure.

CHAP. VI. Of volvulus, dropsy ; their causes, prognosis, and cure ; surgical treatment of dropsy ; inflating the intestines in volvulus.^a

CHAP. VII. Of dysentery, licterey, diarrhoea, tenesmus, cholera ; their causes, signs, and treatment.

SEC. II. CHAP. VIII. Of strangury, sciatica, arthritis, podagra ; causes, signs, and cure ; flax.^b

CHAP. IX. Of icterus and tubercles (*φυματα*) ; their causes and cure ; of some unsightly affections ; lepra, prurigo, itch, impetigo, vitiligo, alopecia, favo, panis, furunculus, and carbuncle.

CHAP. X. Of what the physician must inquire, when visiting his patient ; and of the proper remedies in wounds, both dietetic and pharmaceutic.

CHAP. XI. The food proper in health, is to be changed in sickness ; drinks are chiefly to be employed, (sorbitiones, ptisana, &c.) What food and drinks loosen or bind the belly, and renew the strength ; what kinds are proper when purgatives are given ; in fever, which foods moisten, or dry the body.

CHAP. XII. Treatment of convalescents. In disease, attention requisite as to what dries or moistens. Articles desired by the sick to be allowed if not injurious ; food is to be slowly added or abstracted ; more solid food to be given as convalescence advances, and liquids to be diminished. Aliments and medicines, that are

^a "Quod si clysterem non admittat, fistula propendulo utriculi petiolo alligata et inflata, multus fatus immittendus ; quumque intestinum et venter a flatu elevata fuerint, exempta fistula, statim clyster injiciendus."—Haller, ii. p. 379.

^b Used as moxa. "Ustio autem per linum crudum fiat."—Haller, ii. 385.

employed in practice, should be well understood; and which are appropriate in debility.

CHAP. XIII. How to appreciate the powers of different food; which are light, which heavy. What food and drinks most conducive to health, and strength of body; which cause acid eructations, tormina, and flatulence; which promote evacuation by stool or urine.

CHAP. XIV. Of the proper and improper use of food and drinks; of such as are drying, moistening, strengthening, &c.; of weak and strong, light and heavy food; and of the diversity of bread, flesh, and fish.

CHAP. XV. Of baths; of some pot-herbs, as to their hot, cold, moist, and dry powers; and exciting the urine, stools, and menses; of astringent, stomachic, drying, and attenuating herbs.

CHAP. XVI. Of the various grains and wines; of strong and weak food; the bread most proper in disease; vomition from food or drink; apples and nuts after food; what wine is useful in obviating the ill effects of food and drinks; why the belly is disordered, bound, or loosened; what food is weakening; when food is to be given to febrile patients; when wine and honey are most appropriate; food adapted to health is more powerful in sickness.

This treatise, says Gardeil, is merely an abridged domestic medicine, the conclusion of which is particularly devoted to regimen, both in health and sickness. As it treats only of diseases generally known, practitioners will there find the means of recognising those that are elsewhere spoken of under numerous different denominations. He divides it into sixty-four paragraphs.

I. Of the importance of domestic medicine, and the means of attaining a knowledge of it.

II. to XIII. Of diseases of the head, ear, throat, gums, palate, teeth; of nasal polypi; of diseases of the trunk of the body; pleurisy, peripneumony, phrenitis, ardent fever; (in x. is defined the meaning of judicatus, as applied to diseases, and in xi. a treatise on pharmacy is referred to, which seems to be lost;) change of the two last to peripneumony.

XIV. These four diseases are called acute; great care required in acute diseases; the slightest fault is hazardous; febrile diseases of winter, their treatment.

XV. Of fevers in the summer.

XVI. General remarks on fever and their treatment.

XVII., XVIII. Evidence of presence of bile. Of pains in the belly, and erratic throughout.

XIX. General remarks on summer diseases.

XX., XXI. Of tertians and quartans.

XXI. *bis.* Leucophlegmasia.

XXII. Enlarged spleen.

XXIII. Iliac passion.

XXIV. Cœdematous affections.

XXV. Dysentery.

XXVI. Lientery.

XXVII. Chronic diarrhœa.

XXVIII. Tenesmus.

XXIX. Cholera morbus.

XXX. Strangury.

XXXI. Sciatica. Flax used as moxa.

XXXII. Gout.

XXXIII. Icterus.

XXXIV. Of regimen in the preceding diseases. Cautions as to remedies.

XXXV. Of tumours.

XXXVI. Cutaneous affections, &c.

XXXVII. Purgatives, not indifferent remedies; opiates.

XXXVIII. Precepts for conduct, previous to prescribing for the sick.

XXXIX. How to act in case of wounds.

XL. Of the nourishment of the sick.

XLI. Substitution of oil and wine as frictions, for baths.

XLII. Regimen in certain cases.

XLII. *bis.* Of the means of attaining a knowledge of the most expedient remedies.

XLIII. Of the preparation and quality of food. Of good and bad digestion.

XLIV. Of drinks, &c.

XLV. Of a drying regimen.

XLVI. Effects of bread and cakes.

- XLVII. to LV. Of wines and various foods, &c.
LVI. Influence of soils on, &c.
LVII. General observations on regimen continued, and use of vomits in its improper employment.
LXII. Rules for diet in intermittents.
LXIII. Of wine and honey.
LXIV. Of the necessary modification of regimen on account of the state of disease.

OF INTERNAL AFFECTIONS.

DE INTERNIS AFFECTIONIBUS.	FÖSIUS, Treat. iii. p. 531.
DE INTERNIS AFFECTIONIBUS,	HALLER, ii. p. 401.
TRAITÉ DES AFFECTIONS INTERNES,	GARDEIL, iii. p. 365.

THIS treatise, says Haller, is among the most confused, manifestly consisting of the Gnidian sentences; for diseases are here subdivided ad infinitum, and species constituted from a solitary case. Thus a nomenclature of diseases sprung up, distinguished by no connexion of characteristic symptoms; such as the great varieties of *morbus crassus*, of typhus, nephritis, hepatitis, and splenitis. In scarcely any of these, are the diseases to be distinguished by the accompanying symptoms; what credit can be given to one of the varieties of the *morbus crassus* (4th *pachysmus*, Hal.), in which the patients were injured by the smell arising from rain falling on the earth? The extreme violence of the Gnidian remedies is offensive, such as the *grana gnidia*, *succus hypophæs*, and *lapis magnesiae*. The hellebore here mentioned, purges up and down. Many symptoms of diseases differ from those mentioned in other Hippocratic books, with the exception of tetanus, whose description and treatment agree with the third book, "De Morbis." Drinks, moreover, are here stated to pass into the lungs.

The argument of this book is stated by Haller as pointing out the internal diseases of different parts, as of the windpipe, the vessels, heart, lungs, back, breast, side, spinal marrow, kidneys, of the vessels of the right and left side, of the abdomen, intestines, joints, skin, and of the whole body, together with their causes, signs, and cure.

SEC. I. CHAP. I. Of ulcerated or wounded windpipe, or of any of the vessels of the lungs, their causes, signs, prediction, cure, and precautions in convalescence.

CHAP. II. Of rupture of the pulmonary arteries or veins; symptoms, signs, and cure.

CHAP. III. Of suppuration of the chest, and ruptured lungs.

CHAP. IV. Of the causes, signs, and treatment, of pneumonic affection.

CHAP. V. Of varix of the lungs, its causes, signs, and treatment.

CHAP. VI. Of sanguineous or bilious repletion of the lungs.

CHAP. VII. Of the causes, signs, and treatment, of inflammation of the lungs.

CHAP. VIII. Of erysipelas of the lungs, its signs, and treatment.

CHAP. IX. Of rupture of the breast and back, its causes, signs, and treatment.

CHAP. X. Of tubercle of the side, its signs, and cure.

CHAP. XI., XII., XIII., XIV. Of four species of consumption; from a defluxion of pituita from the head, upon the lungs; from spitting of blood; from a ruptured vessel from labour; and from a defluxion on the spinal marrow; their signs and cure. The fourth, from dryness of the spinal marrow, owing to an obstruction of the vessels going to the spine, or of the passage from the brain to the spine, or from venery; its signs, and treatment.

CHAP. XV., XVI., XVII., XVIII. Of four affections of the kidneys, viz.:—1. Calculus of those glands. 2. Of diseases arising from violent labour, inducing rupture of the vessels and suppuration, in which an incision at the lumbar region is recommended; which, if unsuccessful, the complaint terminates in tabes renalis. 3. Of ulcer of the kidneys. 4. Arises from obstruction, and from venery, ending in suppuration; some singular advice as to exercise in this complaint; origin, signs, cure, &c.

CHAP. XIX. Of a violent disease of the *venæ cavæ*, succeeding nephritis; its causes, signs, and cure.

CHAP. XX. Of another of a like nature.

SEC. II. CHAP. XXI., XXII. Of several species of pituita, viz.: common or recent, of the white, chronic, or leucophlegmatic pituita.

CHAP. XXIII. Of dropsy from cacochymia, or a thin pituita.

CHAP. XXIV. Of dropsy of the lungs or thorax from drinking copiously of water, or from a rupture of tubercles; operation for; auscultation apparently adverted to.

CHAP. XXV. Of dropsy, subsequent to an œdematos phlegmon of the liver; signs, &c.; surgical treatment.

CHAP. XXVI. Of dropsy, arising from watery effusion from the liver into the belly; its treatment.

CHAP. XXVII. Of inflammation of the spleen, and subsequent dropsy; its causes, signs, and treatment.

CHAP. XXVIII. Of universal dropsy, arising from drinking stagnant water in long journeys, &c.

CHAP. XXIX. Of hepatitis, and scirrhous inflammation of the liver; its causes, signs, and treatment.

CHAP. XXX. Of hepatic erysipelas, or erysipelatous phlegmon; causes, &c.

CHAP. XXXI. Of hepatic affection, with metastasis to the brain; causes, &c.

CHAP. XXXII. to XXXVI., inclusive. Of various affections of the spleen,—phlegmonous, erysipelatous, scirrhous, plethoric, and pituitous; their symptoms, signs, and treatment.

CHAP. XXXVII. to XL., inclusive. Of jaundice, from bile in summer; and in winter, from drink and cold, as well as bile; of epidemic jaundice, from obstruction induced by over-eating and drinking; and of jaundice from pituita; their origin, signs, and treatment.

SEC. III. CHAP. XLI. to XLV., inclusive.—Of five different sorts of typhus; from bile; superfluous moisture; putrid bile mixed with the blood, and falling on the joints; from superfluous moisture from the use of fruit and cakes, and from a putrid moisture of the body generated from black bile; their causes, signs, and cure.

CHAP. XLVI., XLVII., XLVIII. Of three varieties of ileus; their causes, various signs, distinction, and cure.

CHAP. XLIX to LII., inclusive. (De pachysmo, Hal.; Morbi crassi, Fes.; Grossissement, Gardeil.; $\pi\alpha\chi\upsilon$, Hipp.) Of enlargements of the belly, legs, &c., from a defluxion or collection of pituita and bile. [Qu.? If these are not connected with rickets, &c., as mention is made of incurvation of the spine. It is in Chap. lii., that the influence of the odour of the earth from rain is mentioned. Some of the symptoms resemble those of chlorosis; it would be difficult to say what they are.—Ed.]

CHAP. LIII. Of sciatica, four kinds of; ankylosis from, &c.

CHAP. LIV., LV., LVI. Tetanus, opisthotonus, from wounds, cold, or other causes; wine copiously recommended in the first.

The preceding treatise (4th *Dc Morbis*), says Gardeil, is a choice piece of hygiene. The present one, which is similar in many things to the three last books of the treatise on diseases, gives us a pathology and therapeusis of various diseases, in which more precision is desirable. Many details of curative proceedings are to be found, which might be usefully employed at the present time.

Gardeil divides this treatise under the following paragraphs.—ED.

- I. Of affections of the breast caused by violence.
- II. Of rupture or lesions in the chest ; milk diet.
- III. Of consumption (pulmonic), tubercles, suppuration.
- IV. Varices of lungs.
- V. Of black bile in the lungs.
- VI. Of inflammation of the lungs, from excess in drink, &c. ; vomiting in ; its chronic state, &c.

- VII. Of erysipelas of the lungs from congestion.
- VIII. Of (*déchirures*, Gardeil ; *pectus et dorsum dirupta*, Fœsius,) irritation of the back or breast from great fatigue; cure of, and danger of relapse.

IX. to XIII. Of tumours and suppuration of the pleura ; of four^a species of phthisis ; the first, from pituita, its treatment and rare recovery from ; the second, caused by great fatigue, is less hazardous, but very fatal. The third, from the spinal marrow becoming filled with blood ; exercise in, at a certain period, from one to six leagues a-day ; receipt for a drink of various roots and flowers ; fumigations. The fourth, or dorsal phthisis, from a drying of the spinal marrow, chiefly caused by excess of venery. Immense quantity of asses' milk employed in, mixed with honey, nine pounds ; or fourteen pounds of cow or goat milk, (*tres semicongios*,) continued daily for forty-five days.

XIV. to XVII. Of four affections of the kidneys. In the first, sand sometimes is seen, leading the physician to imagine a stone in the bladder, when it is in the kidneys. A laxative of two gallons of weak broth ; nephrotomy recommended in certain cases. In the second variety, from excessive fatigue, followed by rupture of the small veins going to the kidneys, causing blood to be passed with the urine, and subsequently pus, in which case nephrotomy is also recommended. Hippocrates remarks that many considered

^a Hippocrates says three species.

this last stage as nephritic phthisis. The third species, produced from black bile passing to the kidneys, and remaining, it lacerates the small vessels and substance of the gland; it is rarely cured, but becomes chronic. The fourth is the product of pituita and bile, and also arises from venery. Here again, if suppuration ensues, the pus is to be discharged by incision on the most prominent part; its treatment by regimen and exercise.

XVIII., XIX. Of a great disease of the *venæ cavae*? Whatever may be intended by this, Gardeil is inclined to consider it a disease no longer known. In its treatment the actual cautery is freely advised, viz., three near the joint of the femur and pelvis; two below the trochanter; two at the middle of the thigh; one below the knee, and one above the ankle, besides four on the right shoulder. The same treatment is recommended, when the left vein is affected.

XX. Some speculations as to pituita and bile, with the treatment of the symptoms arising from those humours, and the mode of inducing vomiting in cases of an excess of recent pituita.

XXI. Of leucophlegmasia; cupping on the lumbar region; opening the scrotal veins.

XXII. Of anasarca following the above.

XXIII. Of hydrothorax, from drinking water profusely in summer; from tubercles. Tubercles very common in oxen, dogs, and sheep, as evinced by dissection; still more so in man; treatment by paracentesis above the third false rib, by incision, and trocar, draining off the water for twelve days.

XXIV., XXV. Of dropsy of the liver, and of the spleen; this last is ascribed to eating too freely of fresh figs or apples, &c.

XXVI. Dropsy (anasarca) from the use of bad water in long journeys; among other remedies, the same water is prescribed in the treatment. A very free use of nitre (Qu.?) as a glyster, is ordered, viz., 3x., with other articles.

XXVII., XXVIII., XXIX. Of hepatitis, three varieties noticed; in one, glysters of asses' milk to four and a half pounds, or of mare's milk; all these varieties said to be very dangerous, most of the patients dying on the fourth day.

XXX. to XXXIV. Of five species of affections of the spleen, all very similar, both in causes, symptoms, and treatment. Sawing wood for thirty days is one of the remedial means. One of these (second) varieties, Gardeil thinks very analogous to scurvy.

XXXV. to XXXVIII. Of four species of jaundice. Little variety

is here found; cantharides used internally, infused in wine. One variety of jaundice is called *epidemic* ($\varepsilon\pi\iota\delta\eta\mu\iota\sigma$, *quod omni tempore prehendat*, Fœsius).

XXXIX. to XLIII. Of typhus; five kinds noticed, which Gardeil thinks we would rather call inflammatory fever. It is surprising what quantity of drink is ordered. In one of these, the prescription is ten pounds of goat's milk whey with salt in one vessel, and ten with honey, in another, which is to be all drank by glassfuls, alternately, apparently in one day. A number of remarkable symptoms mentioned in a species of typhus; among them is that of a particular inclination to the odour of extinguished lamps, &c.

XLIV. to XLVI. Of three varieties of iliac passion.

XLVII. to L. Of enlargements; (Qu. ? Grossissement, &c.) What these are is problematical; four kinds are mentioned; in one, the smell of the earth when it rains, is said to induce syncope.

LI. to LV. Of sciatica; four varieties; frequent moving to prevent ankylosis.

LVII. to the end. Of three species of tetanus, in which epilepsy and hysteria seem implicated.

OF DISEASES OF VIRGINS.

DE HIS QUADE AD VIRGINES SPECTANT,	FÆSIUS, Treat. iv. p. 462.
DE VIRGINUM MORBIS,	HALLER, iii. p. 409.
DES AFFECTIONS DES FILLES,	GARDEIL, iv. p. 5.

THIS treatise, says Haller, is a short one. It ascribes menstruation to plethora, which is to be treated by venesection, or by coition. This book is quoted by the author of the books on female diseases, and he would seem to be the author of this also.

After contending for the difficulty of knowing the nature of diseases, without certain preliminary attainments, and mentioning several, as epilepsy, apoplexy, &c., and their not unfrequent ascription to demons, the author proceeds to state the sufferings of females approximating to maturity, and who had not previously been affected, as arising from the arrestation of the menstrual flow. The symptoms attending this state of things are detailed, and the hysterick feelings thence arising, together with the inadequate and deceptive recommendations of the priests. It is added, that venesection is to be employed, if not contra-indicated, and that marriage as early as possible is to be adopted, for if pregnancy ensues, health follows. Barren women are most afflicted with these complaints.

Gardeil thinks it probable, that what we possess of this short treatise, is merely a fragment, for the author of the treatise on female complaints quotes this, as having therein already mentioned things, which we do not here find. The doctrine of this treatise, and of those of the nature of woman, and of the diseases of women,

he adds, is found abridged in the Predictions, and in the treatise, "Des Lieux dans l'Homme."

I. General remarks on the difficulty of knowing diseases, especially of some that are more peculiar to women than men.

II. An explanation of the derangements of health which females experience at the age of puberty; hysteria, melancholia, mania, &c.; the cure consists principally in sexual intercourse.

OF THE NATURE OF WOMAN.

DE NATURA MULIEBRI,	FÆSIUS, Treat. v. p. 563.
DE NATURA MULIEBRI,	HALLER, iii. p. 331.
DE LA NATURE DE LA FEMME,	GARDEIL, iv. p. 9.

HALLER says this treatise is nearly the same with the books entitled "De Morbis Muliebribus." Numerous diseases are stated in the Gnidian manner. A detail of an infinite number of cases of change of situation of the os uteri, its obliquity and induration, &c.; as in the second of the books referred to. The farrago of remedies, from the three kingdoms of nature, is not at all diminished.

It is divided into three sections by Haller, but not into chapters.

In reading this treatise, it will be seen, says Gardeil, that it might be remodelled with great advantage, and reduced at least one-third. Had its author revised it, undoubtedly he would have erased the many repetitions of the same cases, that are spread throughout. He would likewise have located it *after* the treatise of the diseases of females, of which it is a mere abridgment, augmented with some formulæ of remedies, of little importance. Gardeil makes no less than one hundred and seventy-five paragraphs.

I. Some general remarks as to what constitutes that disposition in females which renders them liable to certain complaints that are peculiarly their own.

Here the author commences, by stating, that, as to what appertains to the nature of women and their diseases, he thinks, in the first place, that all human affairs are in the hands of the Deity; and, secondly, that such and such circumstances contribute to their particular ills; and, therefore, that in discussing this subject, it is essential, primarily, to look up to heaven, and then to study the

subordinate causes, such as the temperaments and the ages of women, the seasons, and the places in which they reside.

II. Treats of the moisture of females, and of its influence on menstruation, in diminishing or suppressing the discharge. The symptoms ensuing are noticed, and the treatment pointed out; among the remedies is a pessary of cantharides, or into which it enters.

III. Here, and in several following paragraphs, are noticed the cases in which the uterus is presumed to move its situation.

1. Where it rises towards the liver; a state said to be more common in virgins in advanced life, or in young widows. The treatment is given, and a recommendation of marriage for virgins. 2. When the uterus descends, and appears externally, which is not uncommon after delivery, if the sexual intercourse is too much permitted. In the cure, this, therefore, as well as bathing, is strictly prohibited. 3. In case of complete external descent or prolapsus, which is said to occur from coition after lying-in, and during the discharge of the lochia; various measures are mentioned for its reduction and retention. If unsuccessful in replacing it, it is recommended to employ "la saçade de l'échelle la tête en bas," p. 14.² A large (dry) cupping-glass (*σικυνη*) to the upper part of the thigh is also commended.

VI. In case of adhesions between the uterus and other parts, indurations, suppuration of the womb, and ulcers, sometimes arise, or discharges which prove fatal if not attended to; fomentations of urine are among the measures recommended. The usual effect of this state is said to be sterility.

VII. In case of the mouth of the uterus doubling or being inverted on itself, the menses are impeded; here, we find fomentations of the urine of a man commended. This is also stated as a cause of sterility.

VIII. When the uterus falls upon the ischium, menstruation is impeded; here we have a drink recommended, formed with dif-

² "Et si quidem sic intro redierint, satis est, sin minus, summis uteris derasis et calefactis, ablutis et illitis, alligataque ad scalam muliere, scalam ad caput concutito, et manu uteros intro truditio, postea ejus cruribus alternatim simul colligatis, sic per diem et noctem sinito, et paucum ptisanæ succum frigidum, nihilque aliud exhibeto." See, also, treatises "De Articulis," "De Morbis Mulierum," and "De l'Extrait du Fœtus Mort."

ferent articles, among them are four cantharides, from which the feet, the wings, and the head are removed.

IX. If the lochia do not flow after delivery, after other measures, tar-water is ordered as a drink, (forestalling Bishop Berkeley,) and copious unction of the mouth of the uterus.

X. When fluor albus occurs (*menses albi pituitosi*), the treatment varies, as there is, or is not, accompanying sharpness and excoriation; in the latter case the fluxion is from the head, in the former from the stomach.

XI. Inflammation of the womb; its symptoms, sometimes simulating pregnancy, and followed by dropsy.

XII. Erysipelas of the uterus, its symptoms, &c.; these resemble in a great degree those accompanying the milk-leg. When occurring in pregnancy, it is said to be fatal, and at all times difficult of cure.

XIII. Too great dilatation of the os uteri, its symptoms, &c.; it is said to be fatal.

XIV. The womb retiring towards the middle of the loins; here, syncope is mentioned among the symptoms, in which state it is directed to introduce into the uterus a tube, through which to inflate it. Sterility and lameness are said to result.

XV. Fluor albus; resembling the urine of an ass; among other means, the use of asses' milk for forty days is ordered, with some singular directions in its employment.

XVI., XVII. Of cases in which the female is subject to abortion; means of obviating.

XVIII. Of difficult menstruation, symptoms and treatment; among which the pessary containing cantharides is employed, and also the drink with cantharides.

XIX. Of abortion at the end of the first or second month; one case of which is said to depend on the pressure of an enlarged omentum on the womb.

XX. Induration of the orifice of the uterus, and its displacement.

XXI. Incapacity to conception; singular process previous to purging, in order to ascertain whether the patient is bilious or pituitous.

XXII. Total suppression; a too humid state of the os uteri, and treatment of.

XXIII. Falling of the uterus on the ischium (see viii.); a different treatment.

XXIV. Pressure or suffocation ($\pi\gamma\gamma\omega\sigma\pi$) of the womb; probably hysteria, as fetids are profusely ordered.

XXV. to XXX. inclusive. Of apprehended inflammation of the womb at delivery; of debility of the uterus; of apprehended cancer, &c. In one of the cases (resembling viii. and xxiii.), we are directed to employ a large suppository of sulphur, bitumen, and honey; a pessary of the same is also ordered.

Here follow, from XXXI. to LXXIII., a vast assortment of pessaries and other remedies, appropriate to female complaints. A drink, having in its composition five cantharides; a pessary of cantharides and elder juice; an infusion of the root of the croton; pessaries to excite a discharge of blood, formed of five cantharides and other articles; others with large amount of elaterium; sections of the squill, &c. In short, pessaries of every presumed character, emollient, astringent, &c.

LXXIV. to LXXXV. are taken up with the statement of lotions, fumigations, and fomentations of various kinds, including some ointments for various intentions.

LXXXVI. to CI. Here the author returns to the consideration of cases already noticed, and gives others of analogous character. Drosy of the uterus, its causes and treatment, in which the introduction of a *tin sound* (specillum stanneum, speculum uteri?) is mentioned. Induration of the womb, its neck and orifice; displacement of the uterus;—a milk diet largely used for forty days. Entire closure of the os uteri, in which again the sound is recommended; obliquity of the os uteri; inflated uterus; grumous and clotted blood in the womb, for which, among other means, something to scrape out the clots is recommended; frequent change of its situation;—a pomegranate filled with pitch softened with wine, is here employed as a pessary; a too great enlargement of the os uteri; a softened state of the womb; its tending towards the belly, or the head, or when it acts upon the legs and feet, or from pain, induces loss of appetite, &c.: in all these cases irregular menstruation exists, and inability to conception.

CII., CIII. The author here adverts to several evils subsequent to delivery,—as diarrhoea, vomiting of blood; in this last, asses' milk for five days, and to be succeeded by that of a *black cow*, fasting, for forty days.

CIV. Retardation of the menses;—of purgation of the uterus.

CVI. Constipation from the uterus tending towards the anus;

inflammation or ulceration of its mouth; retention of the after-birth; inflamed uterus, &c.; the catamenia not appearing at their regular period; excoriation of the pudenda; difficulty of making water; choking or difficulty of breathing; chills subsequent to delivery or abortion; flatulence; fetor, and carnosities of the pudenda, ulcers and pruritus;—all these, and more, are noticed, and remedies pointed out for them.

CXIX. Inaptitude to conception, from not menstruating naturally; *either from the obstruction of a membrane*, [supposed to be a modern discovery!] or other cause, discoverable by the finger.

CXX. to CXLV. Abridgment in a great measure of the preceding numbers, at least as to the measures prescribed.

CXLVI. Various recommendations when the woman loses her milk.

CXLVII. Directions as to the measures to promote conception.

CXLIX. A medicine employed as a pessary, to ascertain if conception will ensue. Various other means are scattered through this book, as to this and other particulars relating to conception, and perhaps equal to those now in vogue among nurses and other old women of both sexes. Fomentations, cataplasms, fumigations, &c., all connected with the female and her uterine affections, follow in rapid succession,—some of a character of great violence, and requiring much courage or hardihood in their prescription; thus, thirty grains of the cucumis agrestis, with other active ingredients, made up and applied to the os uteri five times daily, as a pessary; that formed with cantharides, is repeatedly mentioned as an emmenagogue pessary;—some are singular enough, such as fumigations with two pounds of bull's urine, with other articles. It would seem that almost every substance employed as a medicine, internally, is also here to be found in some or other form of pessary.

OF FEMALE DISEASES.

BOOK I.

DE MULIERUM MORBIS,	FÆSIUS, Treat. vi. p. 588.
DE MULIERUM MORBIS,	HALLER, iii. p. 161.
DES MALADIES DES FEMMES,	GARDEIL, iv. p. 79.

THIS book, says Haller, is the production of an unknown author, not of Hippocrates, although he transiently quotes from the treatise "De Natura Pueri," in which this book is in like manner referred to. It contains an infinitely too great a farrago of remedies, and they of too compound a character. The very face of the book seems to stamp it as of a date less ancient. It is plentifully stocked with female diseases, even more so than any of later date. They are on the subject of suppressed, diminished, or vitiated catamenia; of moles, abortion, difficult parturition, suppressed lochia, inflammation of the womb, and barrenness. The most acrid remedies are usually prescribed, such as drastic purges, suppositories and pessaries; and numerous vegetable and fossil remedies mentioned in the other writings of Hippocrates, to which virtues are ascribed, often differing from those that are commonly attributed to them. He mentions the *παρθενία*, or matricaria. Some things are added, which appear to be of the same author, referring chiefly to the diseases of infants, and of the eyes, and enemata. This is one of the most extensive of the Hippocratic books. Haller divides it into four sections.

"The author of this book, (says Gardeil,) is certainly the same with that of the treatise we possess, under the title of 'The Nature of the Child,' to which it refers more than once. Besides other faults to be found herein, and which are similar in doctrine to those in the treatise 'Of the Nature of Woman,' we find here many tiresome repetitions and endless distinctions of the different diseased states of the uterus and its neck. This multiplication of diseases fundamentally the same, has led to the opinion that this work, as

well as that On the Nature of Woman, were productions of the Guidian school. I think, nevertheless, that we here find many very interesting passages; and that both this and the preceding treatise may be advantageously read, by noticing that the ancient physicians, in the cure of most of those diseases here referred to, depended on the use of external remedies, which are now no longer distinguished. I can, however, affirm, that I have seen effects from them that appeared almost miraculous." He divides it under two hundred and three numbers, the outline of which is here given.

I. The author set soft' with his opinion, that with respect to female diseases, if they have never been pregnant, the deranged state of menstruation is more common and more dangerous than when they have borne children. His reasons for this, if not satisfactory, are at least as much so as any of present notoriety. Here, he adds, that *he* had explained all this, in the treatise 'De Natura Pueri,' ($\pi\tau\epsilon\pi\ \varphi\omega\sigma\pi\ \pi\alpha\delta\mu\sigma\nu$). It consists chiefly in the general enlargement of the vessels of all the body, but especially of those of the uterus, during gestation, &c., which renders the menstrual discharge a more ready exit, after delivery, and which is not the case with those who have never borne children. The catamenia consequently are more readily intercepted. This is illustrated by some curious analogies,—and an explanation is given, why the same plenitude of the vessels is not found in the male sex, although a monthly purgation does not occur.

II. The author next proceeds to mention the inconveniences and diseases most common to females, who not being pregnant are deprived of menstruation, from the closure of the os uteri, or its being in any way displaced from its natural position, or from any displacement of the parts of generation; which state of things he attempts to elucidate. If after three months the menses appear, and thus relieve the plethora, the symptoms are mitigated; but if not, very soon ensue fever, shivering, lumbar pains, &c., all which augment, if they do not still appear, and especially at the period at which they might be expected; although, after that period, they (the symptoms) sometimes diminish. Other symptoms follow after the fourth month of non-appearance. If properly treated, health follows. If the menses still are absent, the evil augments, and after the sixth month the cure is very difficult. All the symptoms increase, and others supervene.

III. From these more general symptoms, the author passes to

the different affections of the uterus, arising from defective menstruation. The elevation of the womb towards the stomach, and its agitation in the abdomen, is accompanied by numerous distressing symptoms, and death sometimes ensues. A suppression of even two months causes sometimes a determination to the lungs, and induces a fatal phthisis. Suppurations are sometimes the result of two or three months' retention of the menses, which, if care be not taken, may terminate in ulceration of a bad character and of difficult removal, and discharging by the groin a fetid pus; death generally follows; at all events perpetual barrenness. Sometimes the catamenia flow by such an inguinal suppuration, but the danger is not diminished.

VI. Sometimes the menses are vicariously discharged by vomiting or stool; more commonly is this the case with virgins than with married women, as he had stated in the treatise “*De Morbis Virginum.*”

VII. Of the suppression of the menses in general and of its treatment, by vomiting and purging, and by remedies at intervals to evacuate the uterus. Should these not succeed, there may be reason to suspect pregnancy, from the symptoms if present, which are enumerated. The menses sometimes suddenly appear abundantly at the end of three months, in clots of black blood, resembling flesh; sometimes ulcers of the uterus ensue, requiring much attention. Other circumstances are mentioned also; should the menses be suspended for six months, the symptoms are in due degree; and if neglected to the eighth month, death is often the result. Sometimes the menses are for a long time pituitous, and small in amount; but if well attended to, the patient may recover perfect health. The diminution of the discharge is next considered, arising from a deflexion of the os uteri from its proper position, or from its bending on itself, preventing the full discharge; the symptoms are narrated, and its dangers stated; being less in those who have borne children.

X. Of menstruation, when too abundant or too frequent, and why? relaxation of uterus; too frequent coitus; high living;—the influence of these on the female. If disease attacks under these circumstances, it readily falls on the weakened part; the symptoms succeeding thereto, and ultimate danger.

XI. The menstrual blood is thicker, redder, and flows more copiously about the middle period of the discharge than either at its commencement or termination. Its amount in health, about

twenty ounces in two or three days (*duarum atticarum heininarum mensuram, Fœs.*), the usual period ; although great diversity exists in this respect, depending on the constitution of the individual. The blood which is discharged, is red like that of victims (*ερεις*), and it coagulates promptly, if the woman is in health, &c.

XII. When sudden suffocations affect the female, which more especially occur from non-cohabitation, and at a more advanced age, (*Qu. hysterick paroxysms?*) from the uterine vessels being deficient in their contents ; and after uncommon fatigue, the uterus being too dry, tends towards the liver, the consequences of which are detailed by the author.

XIII. When in a diseased state, the menses are of a bilious character ; they have a black and shining appearance, in small amount, and coagulate freely ; and are accompanied with an erratic fever, with chills, nausea, and heartburn.^a These symptoms are readily removed by proper attention ; otherwise they are much augmented, and others supervene, which are benefited by bilious vomiting or stool, or by the discharge of bilious catamenia, provided none of these are too abundant, which would be dangerous.

XV. If the menses are pituitous, they are of a whitish appearance, and exhibit a membranous or web-like character. This state of things is enlarged upon by the author, and their pernicious effects, if not attended to. The discharge is said to become at length of so acrid a nature as to act on the earth like vinegar.

XVI. The author here treats of the different causes of a defect of conception, and of the mode of distinguishing the species of vitiation of the menstrual discharge, some of which are very singular. He then mentions the mode of cure of pituitous menstruation, by which sterility is removed ; viz., by means of general fumigations, frequent vomits, and other measures, such as pessaries, as preparatory to coition. A hollow leaden tube introduced into the *os uteri*, is a means recommended to convey the fumigation to the uterus, just anterior to receiving the embraces of her husband ; and much detail is given of the subsequent attention of the female to insure success. The measures for a like intent, when sterility arises from a dryness of the womb, is next adverted to, such as emollient injections, both *per anum et vaginam*. In both the cases, *coitus, pendente menstruatione* is advised.

^a These uterine discharges appear to have been closely examined by the physician, equally as those by the other emunctories ! and why should this not be the case ?—ED.

XIX. The author next considers sterility, as arising from debility of the female, either from deficient nutriment, or from an abuse of the numerous remedies and fumigations employed, or from a bad situation of the orifice or neck of the uterus, &c., all which are particularly treated of. In the case of the os uteri being strongly closed, *bougies* and *leaden sounds* are recommended to open it; and when the direction of the uterus is wrong, after redressing it by the finger, and using aromatic fumigations, it is to be maintained in its place by the bougies and sound above-mentioned. Pessaries of various kinds are recommended in those cases of inaptitude to conceive, which arise from the orifice of the uterus being very fat and thick. And the case of sterility arising from the semen remaining and putrefying in the uterus, with the means of obviating it, are then considered, together with the causes productive of this state. In this place, the author states conception to be more certain, when the semen of both the man and woman reach the womb at the same time, the non-occurrence of which he considers as a frequent cause of failure.

XXI. He here treats of non-conception, although still at a proper age and having previously borne children. The menses being suppressed, a pessary is ordered every three or four days, of alum in powder, mixed with ointment, which is incorporated with wool, and is to be retained for three days, when it is replaced by one of ox-gall and oil, on wool as above, and also retained for three days, previous to coition. Sometimes, when conception does not occur, although menstruation is regular, the author states it as arising from a *membrane*, whose extension from the uterus may be discovered by the finger; when a pessary of *flores cupri* ($\alpha\pi\delta\sigma\varsigma \chi\alpha\lambda\kappa\varsigma$) incorporated with honey, is ordered to be introduced as far as possible, or, if possible, to remove the whole by incision. He indicates certain cases of abortion, either from the inner coat of the uterus being too smooth, either naturally or from ulceration, causing the placenta to adhere less strongly. In this case an examination is recommended, which, he adds, should be done by a woman, as being more decent than by the physician. Other cases of abortion are also adverted to, from too much eating or drinking, &c.

XXV. The author now adverts to the diseases accompanying pregnancy and delivery: the sudden occurrence of menstruation at the period of two or three months, and recurring every month; its danger to the mother and child; and he adds, that in certain cases,

much care and preeaution are required to conduct pregnancy to a happy termination.

XXVI. The author, then, in reference to the *fœtus*, considers it as unquestionable, that it participates in the ill or good state of health of the mother, and that its constitution is in conformity thereto. The state also of the lochial discharges depends thereon, and are less abundant and unhealthy. When they are suppressed, he says death commonly ensues on the thirty-first day. When the breasts and belly of the pregnant female, about the seventh or eighth month, suddenly subside; the former shrinking and the milk not appearing, the embryo is either dead, or in a state of great debility. The appearance of the menses during pregnancy, is a source of apprehension of abortion; should they be abundant, and of an ill odour, the child is certainly sick. This is followed by observations on pituitous and aqueous lochia; the characteristic symptoms are detailed, and their results, together with the treatment; and further remarks are made respecting the hysterick paroxysms at times occurring during pregnancy.

XXXVI. At the time of parturition, and labour pains come on, continuing long, without delivery; this arises, we are told, from an unnatural position, in which the *feet* presentation is included, and its explanation is a most singular one. It is, says our author, as if an olive had fallen into a narrow-necked bottle, &c. The case is dangerous, and both mother and child have frequently lost their lives. In speaking of the various inconveniences of pregnancy, an explanation is attempted of the extraordinary diseased appetites that often occur in it, and of the frequent respiration, especially at the latter period of gestation; notice is taken of the ailments after delivery, as flatus (which is stated as filling the womb), lumbar pain, and oppression, &c. Some of the dangerous results of delivery are also mentioned, such as excessive flooding, injury done to the uterus, bladder, or rectum, so that the urine and faeces cannot be retained; and some trivial recommendations follow for the same, and also for aiding delivery. A reference is next made to tumours, during or after delivery, of the uterus or the pudenda, in which, says the author, we must not employ astringents, like many medical men, but rather use internal remedies, a host of which are mentioned. In excoriation of the pudenda, a very good ointment of well-triturated almonds and marrow is recommended.

XLVI. He goes on now to consider the discharges and results

from delivery ; the causes, symptoms, and treatment, under their total arrestation ; or if too small, or too abundant in amount ; and of their character and the danger respectively. Some of the symptoms enumerated seem to be in a degree allied to the milk-leg, and puerperal fever, arising from an insufficient lochial discharge. The treatment consists at first of light nutriment and of purgative drinks, under some circumstances of irritation ; of chologogues if bile predominates, or phlegmagogues should pituita prevail. This is all well enough ; but we are then told to fumigate the uterus with aromatics, and employ fomentations, and if the uterus continues hard, then to use, in addition, lotions, and introduce a sound (fistula plumbea) of lead, and afterwards a pessary of salt and myrrh with pitch, on wool, of the size of a gall-nut ! to be left for twenty-four hours ; after three days, other varieties of pessary are employed, of a powerful nature, such as grains of Gnidos and pepper, of cucumis sylvestris, &c. A digression then follows as to cases of difficult menstruation, in which pessaries are abundantly used, and *tar-water* is to be largely drank. Ulceration and inflammation of the womb succeed, and their danger is pointed out ; and if by the measures adopted, the lochia do not flow, death soon follows, unless bleeding is promptly recurred to. The treatment of suppressed lochia from a union of the parts by injury sustained in delivery, is next considered ; and in a case which the author himself saw ; by an appropriate attention, health was restored, and the woman subsequently bore children. Unless great care is bestowed, there is danger of the ulceration becoming cancerous.

LVII. A metastasis of the lochia to the head, the breast, and lungs is noticed, and its danger, should a diversion not take place, by a discharge from the mouth or nose ;—a long duration of the disease sometimes produces delirium, passing even to mania. Some other cases are adverted to,—as vomiting of blood, &c., ascribed to a rupture of an hepatic vessel, and regarded as dangerous. Asses' milk is ordered for five or seven days, succeeded by that of a *black* cow, and the interdiction of solid food for forty days.

LX. In case of losing the milk, in order to restore it, various measures are directed ;—and the author proceeds to state the measures to be adopted for discharging the afterbirth, if retained ; which, if successful, the woman is saved. It frequently putrefies and is discharged on the seventh or eighth day, or later ; a variety of articles is enumerated to promote it,—and an attempt is made to

explain the cause of its retention;—a slight notice is also given of the foetus dying in utero, at an early period of gestation.

LXV. The repeated recurrence to circumstances already noticed, renders the whole of this treatise extremely tiresome, although something of interest is to be found in the mass of rubbish. Again, he refers to injury sustained in delivery, by the womb or its orifice; of its inflammation subsequently, and of afterpains; of pituita oppressing the uterus, and giving rise to fluor albus, and derangement of menstruation, sometimes recurring three times in a month. Under circumstances of excoriation of the parts, among other prescriptions, we find an ointment made with *flores argenti* [Qu. ? *αργυρεω ανθος*].

LXXII. When the cotyledons (*κοτυληδονες*, Hipp.; *acetabula uteri*, Fœs., Hal.; les cornes de la matrice, Gard.), are surcharged with pituita, the menses are diminished, and if pregnancy should ensue, the foetus will not live, even if vigorous at first. The signs and treatment of this are then stated; as are likewise those of dropsy of the uterus. This disease is sometimes of long continuance, and if pregnancy take place, abortion will ensue, with a discharge of water. Various baths, fomentations, and pessaries, are here directed; cantharides among them, and the metallic sound, &c. Dropsy, from a moist and enlarged spleen, is next considered and an explanation attempted; the fluids are carried to that viscus, and from thence by the vessels to the omentum and other viscera, &c. The menses are at times copious, at others in small amount, and irregular, resembling the washings of flesh, sometimes thicker, and not coagulating. A suspicion of pregnancy, and even a presumed motion of the foetus, is at times credited. It is troublesome, dangerous, and of long duration, and more common with those who have not borne children, and at an advanced life, when menstruation is about to terminate. The misapprehension of the female is highly injurious, since the physician is not informed in time of the state of things. Modesty sometimes, or a want of confidence, prevents his being informed, even when known to the female. The physician is sometimes deceived also, from not being fully informed of the state of affairs, in consequence of the female being herself ignorant of the cause, but ascribing it to other sources; and he, not fully investigating the disease, frequently loses the patient, as the author says he had often seen. It is absolutely necessary, therefore,

promptly and fully to question the patient, in order to attain the necessary information.

LXXV. The author renews the subject of suppuration of the womb; states the symptoms and treatment; its occurrence from abortion, and from acrid and bilious menstruation; fumigations, purging, milk diet, followed by a tonic regimen of animal food, &c., with particular restrictions. Some physicians, it is stated, order milk when the headache is severe, with a view to its removal; but he thinks water is better in this case, and milk in that of acrimony. Lotions to the womb are now directed, of different kinds, and ointments; among which is again mentioned that formed of flowers of silver (*argenti flores*), and a variety of other ingredients. A vast number of remedies follow; but it is a fatal and slow disease, from which few escape. Wounds of the uterus, and ulcers from any cause, are then adverted to, and with much particularity and repetition of what had been previously given. Wounds arising from abortion, or from acrid pessaries, or from a bad presentation, are specified; and the management to be pursued, when delivery is prevented by the enlarged state of the foetus, or from a cross presentation, the treatment is very minutely laid down. Sternutatories are ordered; and in order to render their effects more powerful, the nostrils and mouth are closed,—the woman is to be well shaken, and the very *extraordinary process* is detailed, resembling greatly that described in the treatise on the joints and elsewhere:—The woman is to be fixed on a solid firm bed, on her back, by a bandage across the breast, under the arms, and attached to the bed; the arms are also secured; and the legs, separated, are tied at the ankles. The bed is then to be raised vertically, and apparently to be shaken against the floor, or rather, against two large pieces of wood that are placed below the legs of the bedstead, and thus support it in its upright position. The bedstead, with the woman attached, is then raised from these pieces by two men, one on each side, and allowed to fall upon them equably when the pains come on;—this is done at intervals, until the child is born. Such is the mode, says the author, of inducing the birth of the child, in a natural presentation, the parts being previously well anointed, and bathed with decoction of mallows or fœnugrec, and frequently renewing them during labour. Nothing more is to be done, except that it seems the accoucheur was busy in gently enlarging the passages with emollients, and attending to the navel-string. When the

presentation is crosswise, whether alive or dead, the infant is to be pushed back, to endeavour to turn it, and give it a natural head presentation. In order to accomplish this, the woman is placed so as to raise her thighs above the head, by which the intention is facilitated, when the woman is replaced as before, and delivery is pursued in the usual way. It would appear that a foot presentation was regarded as very unfavourable, and placed on a footing with that of the arm. When, says the author, the feet or arms present, they should be immediately returned, and the presentation of the head should be facilitated by turning the *fœtus*;—so likewise in other cases of unnatural presentation, previously placing the woman over a bath of hot water, in order to relax the parts. If the *fœtus* be already dead, and a foot or arm presents, a similar turning should be adopted. If this is not to be effected, and the female parts become tumefied, the head is to be opened by a bistoury, and crushed, the bones brought away, and the delivery completed by the forceps or hook; the application of all which is described. When the delivery has advanced to the shoulders and there arrested, the arms are to be detached at the shoulder joints. If the trunk is impeded, the thorax is opened and the ribs crushed, carefully avoiding the belly, to prevent the intestines and their contents from escaping; which yet, if however too enlarged, may be slightly opened, allowing any flatus to escape, and no further difficulty will ensue.—The author now proceeds to consider the cause of the formation of moles, and their signs. In this state the woman will continue sometimes for two or three years,—and it occasionally induces death from its magnitude, or from an excessive hemorrhage. The magnitude of the belly and want of motion are means of recognition, for a male *fœtus* moves at three months, and a female at four; after which period, should the woman feel no motion, and the milk not appear, the case is plain, and it requires great care and attention; this consists in fumigations, glysters, lotions to the uteris, pessaries of the most powerful character, various vinous drinks, cups applied to the loins, and letting them bleed copiously. In fine, says our author, we must act carefully according to circumstances.

LXXXV. A brief recapitulation respecting the state of pregnancy, and its accompanying diseases, not devoid of interest, ensues, and may be said to terminate the treatise; for the residue consists almost entirely of a long enumeration of the remedies employed in the treatment of female diseases, and the formula of

the prescriptions, &c.; thus they are such as are intended to induce or restrain menstruation, as pessaries, purgatives, &c., and are chiefly repetitions of those before given. Among the articles are cantharides and the rubigo or rust of wheat.^a Others for promoting conception. Among these are fumigation, with at least ten pints of stale urine, into which, when heated, scoria of iron heated red hot are thrown, and after the fumigation, the head is to be bathed with it, and then washed; this is repeated for seven days;—fumigations likewise of the hair of a white ass, and the dung of a wolf. Uterine injections of the milk of a female the nurse of a boy, mixed with the juice of pomegranate, and the calcined powder of the perineum of the sea-tortoise. A pessary formed of the chorion, and of the heads of worms that breed in flesh, with Egyptian alum, all bruised together with goose-grease. Others, as drinks, to accelerate delivery; to prevent conception; and pessaries to enlarge the os uteri. Among the means to promote the lochia, we find the recent liver of the sea-tortoise, triturated with the milk of a woman, and oil of iris and wine, to be injected into the uterus. Remedies to expel the afterbirth, containing cantharides. To ascertain if pregnancy has taken place, a boiled clove of garlic is placed in the vagina for an hour, and the breath is then examined to ascertain if the odour is perceived in the mouth. Ærugo or verdigris is also recommended, with honey and liquor of Smyrna^b [qu.?] as a drink to discharge the fœtus and the uterine immundities. For a similar purpose a pessary of fine flax is employed, sprinkled with copper-dust (*æris limatum scobem*). Among the injections ordered, it is mentioned that they should be eighteen ounces at most, and that is the extent of quantity in all injections. Many other singular prescriptions and directions are given, which it would be loss of time to repeat. The above samples may suffice; but it must be mentioned, that at the close of this first book, are given an additional variety of prescriptions (called by Fœsius *notha quædam*), of about an equal description, and of which I shall notice only two or three. They are supposed by some to be of great antiquity, and evince the use of emetics in the coughs of children. The inner part of an onion triturated with honey is recommended as a good

^a Qu. If this can have any reference to our *secale cornutum*?

^b Syrmœa, Hal. et Fœs.

suppository to open the bowels of children. Others are noticed for a like intention, in one of which *cinnabar* forms a part. Various escharotics are given, containing scoriæ of copper or brass calcined, of different strength; remedies for burns and for ophthalmia; various plasters; depilatories, &c. When it is wished merely to promote the discharge of fæces, it is useless to take internal purgatives; other means should be pursued; different forms of glysters are given for dysentery.

OF FEMALE DISEASES.

BOOK II.

DE MULIERUM MORBIS,	.	.	.	FÆSIUS, Treat. vi. p. 637.
DE MULIERUM MORBIS,	.	.	.	HALLER, iii. p. 252.
DES MALADIES DES FEMMES,	.	.	.	GARDEIL, iv. p. 201.

THIS treatise, according to Haller, may be ascribed to the writer of the preceding, for it is of the same character throughout, with much repetition, and in many places with scarcely any alteration. In conformity with the Gnidian doctrines, we find a great variety of fluor albus, of white and ropy discharges, uterine flatus, ulcers, callosities, cancer, hysterick affections, prolapsus uteri, and a closure of its orifice, inducing sterility. It treats of the diseases of the breasts and of the vagina, of freckles, toothache, and of several not peculiar to females. Many extraordinary cures are here mentioned, very different from our present views. The uterus is regarded as connected with almost every viscus; and a bridle or columella is described as growing in the uterus, which is ordered to be cut off.

Persons of advanced life are more subject than the young, to the fluor albus; in both, the discharge is usually yellowish, but redder with the last. The causes and symptoms are enumerated, some of which are singular, and some cases are said to terminate in death. In the treatment, among a variety of means, both pharmaceutic and dietetic, it is directed to bandage the hands and forearm to above the elbows, and the legs to above the knees; *cups*^a are then applied to the elevated breasts alternately, but not to draw

^a Σικυος, Hipp.; cucurbitula, Fæs., Hal.—It is remarkable that Gardeil, *here*, p. 203, translates this word, by *sangsues*, *leeches*, which were not employed in the days of Hippocrates; yet every where else, where the word is used, he properly has translated it *Ventouses* or cups. Aliquando dormitat.

blood. Emetics in some cases are directed; and in all, it is directed to attend carefully to the temperament of the female, her complexion and age, to the season of the year, the situation in which she lives, and the direction of the wind, on which much depends in the cure.

In floodings, grumous clots usually accompany. The symptoms of pain in the back and hips, fever, and tenderness of hypogastric region, &c., are noticed, and the vessels are said to beat strongly. Pessaries are almost invariably ordered, differing according to circumstances; and cold applications to the belly, guarding against chills. In the copious flooding after delivery, from something retained, which irritates and putrefies, the continual application of cloths with cold water is directed, the elevation of the feet above the head, and such medicines as are appropriate to female diseases, are given, in form of drink; other means are pursued, as milk diet, &c. The danger of death is great, however, and few recover.

A species of flooding is ascribed to the efforts in delivery, or to any severe work, by which injury is sustained in the uterine attachments; and is distinguished from a menstrual discharge or rather menorrhage, as so considered by some physicians, and the difference pointed out. To notice the variety of the discharges mentioned, so far exceeding what are now looked for, would be superfluous, particularly since the whole book appears to consist chiefly of the same materials as are to be found in the preceding, and differing therefrom only as we might expect from two individuals epitomising one common treatise. All these variously described discharges are, however, noticed as different diseases, and as requiring different treatment. We have a yellow discharge, of fetid odour, abundant, and resembling rotten eggs; another, which resembles the urine of a female ass, or sheep, &c., wherein cows' milk is given warm from the animal for forty days, to aid convalescence, in amount of nearly two quarts per day. In one of the discharges, reference is made to feeling the pulse at the wrist. The causticity of some of them is assimilated to brine, explaining thereby the erosion of the soft parts adjoining. The varied attacks of hysterical paroxysms are described as different affections, and attributed to the displacement of the uterus. Fumigations, baths, and pessaries, seem the chief means of cure; and the best pessary in some cases, is said to be that made with cantharides. A sound or bougie of lead is employed to enlarge the os uteri, sometimes as

preparing the female for more ready conception; for pregnancy is considered in many cases as advantageous, and hence virgins are to be recommended to marry. The *peripatetic* character of the uterus is constantly insisted on. It seems, like the owners of that organ, to have been always gadding! No wonder it was continually out of sorts! Its diseases are, however, ascribed at times to affections of the general system, and remedies to purify the blood are recommended; among these the long-continued use of cows' milk is greatly urged. This displacement of the uterus or its orifice, is stated as an obstacle to menstruation, followed by sterility; the appropriate treatment in each case respectively, is laid down with precision, especially that of the manipulations, by pessaries, sounds, and fumigations. Tar-water,^a fasting, and again on coming out of the bath, with many particulars directed as to eating and drinking. The chief remedy for all these diseases, seems to be, however, considered that of pregnancy. Cantharides infused in wine, as a drink, or used in pessaries, &c., are frequent prescriptions. Dry cupping, long continued, to different parts, the thighs, below the breasts, in the groin, &c. Falling down of the womb, and its full procidentia, are noticed, and their treatment detailed. Its inflammation, scirrhosity, induration, and vitiated orifice are also mentioned, and how to meet the different symptoms. Erysipelas, dropsy, and some other complaints of the organ, are finally noticed, and a profusion of prescriptions for pessaries, &c., close the treatise.

* Tar-water, or some infusion of the pine, seems to have been no uncommon drink, thus forestalling the Bishop of Cloyne.

ON BARRENNESS.

DE STERILIBUS,	FŒSIUS, Treat. vii. p. 675
DE STERILIBUS,	HALLER, iii. p. 383.
TRAITÉ DES FEMMES STÉRILES,	GARDEIL, iv. p. 295.

MUCH of this treatise on sterility seems to be transcribed verbatim from the books "De Morbis Muliebribus." Some few novelties and singularities are introduced, and some unimportant experiments relating to the certainty of conception.

The treatise consists of an attempt to explain why sterility is sometimes absolute; and occasionally is removed by the power of medicine. Five different causes are assigned. The os uteri wrongly situated, and firmly closed; the lubricity of the uterus preventing the retention of the seed; ulceration of the body of the uterus, consequent to some of the diseases that have been mentioned; retention of the menses partially, productive of effects opposed to conception; and too great laxity of the orifice of the uterus, precluding the retention of the seed. All these causes are considered and explained; and the writer then proceeds to state, that when menstruation is altogether defective, or not sufficiently abundant, conception cannot ensue. That superabundant menstruation is equally unpropitious; as is a prolapsus of the uterus; and a metastasis of the menses to the hemorrhoidal vessels. Until the causes producing these effects are remedied, conception is impossible, and as they are so numerous, the sterile state of so many females is by no means surprising.

To these succeed an account of the means by which may be ascertained, whether a female will become pregnant. Means of ascertaining the state of actual pregnancy, and of what sex is the embryo. Approved means for procuring conception, and of the remedies to be used in the cases of sterility noticed in the beginning. Circumstances favourable to conception and the preservation of the germ. Among the means prescribed for remedying sterility, one consists of fumigating (after some previous measures) the

uterus for two days, with putrid female urine mixed with nitre, and substituting that of the cow on the third day; after some further measures, the os uteri is to be opened by means of five leaden sounds, of eight fingers' breadth long, and each successively larger than the preceding, to be introduced after bathing, beginning with the smallest, each being retained one day. After the mouth of the uterus is hereby enlarged, a pessary is passed up to cleanse it, made of five cantharides, powdered, and mixed with other ingredients, and incorporated by means of honey, with wool! In one case the cause is affirmed to be a *membrane* that occasionally forms at the mouth of the uterus. Its treatment by a pessary containing rust of copper is mentioned. In a form of the disease stated, we are told that if we think proper, we can use in fumigation, the rust of wheat, and the tar-water daily; and towards the conclusion, when speaking of the complete protrusion of the uterus, when other mentioned means have failed, the bottom of the uterus is to be incised, to disgorge its vessels; and after bathing it with decoction of the pine, the woman is to be suspended, head downwards, and to be shaken, whilst the uterus is pushed back!

ON VISION.

DE VISU.	FÆSIUS, Treat. ii. p. 688.
DE VISU,	HALLER, iii. p. 447.
TRAITÉ DE LA VUE.	GARDEIL, iv. p. 327.

HALLER tells us that this treatise has been altogether rejected by Mercurialis, and thrown into his fourth class or division. It is, however, considered as by no means an ill-written one. Gardeil even affirms that it ought to be attentively read by every oculist who feels an attachment to his profession. It is very concise, and recommends many acrid and severe applications in diseases of the eyes. Of these, cauterization constitutes the chief means.

Cataract is first noticed ;—neither extraction, nor depression of the lens, seem to have been then practised. Early attention to evacuate the head, and cauterize the vessels, is said to arrest and check the progress of the disease. Near-sighted people are mentioned ;—this state would appear to have been considered as morbid, and cauterization, &c., are recommended ; bleeding is said to be injurious in it, and in some other affections. The treatment seems to have been deferred until full growth was attained, when cauterizing in different places was freely pursued, and scarification of the lids. The principal object, in most cases, seems to have been to evacuate or purge the head ; and, in some instances, some of the flesh of the lids appears to have been cut away, and then slightly cauterizing,—carefully guarding the cartilage and the roots of the eyelashes. Itching of the lids, nyctalopia, gutta serena, and ophthalmia, are all mentioned, and some singular treatment recommended, that may possibly have been found beneficial. Thus in gutta serena, we are told to trepan near the fontanelle, to remove water that is below it, &c. Some useful remarks in ophthalmic cases are given.

SECTION VII.^a

ON THE SHOP OR OFFICE OF THE PHYSICIAN.

DE OFFICINA MEDICI, SEU DE OFFICIO MEDICI,	FÆSIUS, Treat. i. p. 740.
DE OFFICINA CHIRURGI,	HALLER, i. p. 449.
TRAITÉ DU LABORATOIRE DU CHIRURGIEN,	GARDEIL, i. p. 284.

Fæsius has a sufficiently interesting preface to the section now to be considered; but it is not adapted to my plan, independently of its extent. Of the ten treatises here noticed in the arrangement of Fæsius, five are esteemed to be genuine by Haller. Other commentators and translators have thought differently, and have separated them in conformity to their views, and arranged them elsewhere. The subject is briefly adverted to, in a preliminary address to the reader, by a friend of Haller, in the first volume of his translation. Be they or not the offspring of Hippocrates, there is not one from which we cannot gain information, and at the same time enjoy both the “utile and the dulce.”—ED.

Although, says Haller, Galen doubted if this were of the genuine writings of Hippocrates; yet that it is so, is easily detected by its raciness (*ex ipso sapore*). Brief, profound, and even in the less important parts, not less informed attention is bestowed on the minutest concerns, and precepts given as to the best situation for the surgeon or physician, and mode of standing or sitting in his operations, &c. The subject of bandages is by no means uninteresting, and is pretty copiously treated of. Gardeil, speaking of the *title* of this treatise, says it has undergone alterations among the ancients, and been the object of dispute to the learned. I have,

^a This section, entitled by Fæsius *χειρουργομέτρα*, or that part of medicine called Chirurgia or Surgery, consists of ten treatises.

adds he, given in French, the name that seemed to me to be best adapted to the matters treated of, as well as to the Latin translations, by which it is quoted, *de Officina Chirurgi*. His title is “*Du Laboratoire du Chirurgien*.” Le Clerc thinks that the term is inappropriate, inasmuch as surgery did not then constitute a *distinct* branch of medicine, and that the term *Ιντεριον* implies “*La Boutique du Médecin*,” and not “*du Chirurgien*;” the title of surgery appearing no where in the writings of Hippocrates, although the art constituted a large part of his medical practice.

The treatise sets off by stating that the means of instruction in every case, are dependent on the senses, by which we are enabled to form comparisons, and from them deduce our judgments. In relation to the objects of the physician in his shop, they are enunciated under the heads of the patient, the operator, assistants, situation for the operation, instruments, light, as best adapted to perform it, and other necessary appurtenances; all which are briefly considered, as well as some particulars respecting the hands, nails, and the regular placing of the instruments as they may be called for, the silence and attention requisite, and other circumstances. This is followed by the subject of bandages, the making, form, and application; compresses, &c., and their various intentions explained; the natural situation of injured parts by extension, flexion, &c.; the attention constantly required to keep up the full advantages that proper bandaging affords, and obviate the injury that negligence brings with it; with many hints and suggestions of a useful nature, not irrelevant even at the present time.

ON FRACTURES.

HIPPOCRATIS DE FRACTIS LIBER,	.	.	.	FŒSIUS, Treat. ii. p. 750.
HIPPOCRATIS LIBER DE FRACTURIS,	.	.	.	HALLER, i. p. 282.
TRAITÉ DES FRACTURES,	.	.	.	GARDEIL, i. p. 298.

AN admirable production of a wise and experienced man, (says Haller,) and worthy of Hippocrates. He correctly explains the fractures of the humerus, femur, tibia, and forearm, and the luxations of the tibia, and forearm. He teaches lucidly their chirurgical administration, together with the statement of the due precautions, apparatus, and precepts. He properly directs the extension of fractured and luxated bones, to be performed on the first or second day, and not to be delayed to the third. Throughout he appeals to his own experience.

This book, although entitled "De Fracturis," is at least equally taken up with the subject of luxations, as the succeeding one on luxations embraces much on the subject of fractures. So much is this the case, that Haller considers it as merely a continuation of the present. The author begins this with some general precepts on the subject of both these accidents, and then follows more in detail, on the fracture of the bones of the hand, in which he severely animadverts on the ignorance of some reputed able practitioners;—on that of the forearm, wherein much stress is laid on the proper application of bandages, &c., and which is highly deserving of attention. Fracture of the humerus succeeds, then luxation of the bones of the feet; of the leg at the ankle joint; fractures of the bones of the leg, and the difference of treatment in these, from the fractures of the upper extremities; of fractured femur. Fracture with wounds, considered, as well as luxations; spiculae of fractured bones;—all these minutely described, and the treatment,

both by others and himself. Extension, if not previously made, is to be sedulously avoided the third and fourth day; and reasons assigned. Luxation of the knee and elbow; reduction of; fracture of radius, of cubitus, &c.

This treatise could scarcely be read without benefit, even by surgeons of the present day. It would at least convince them, that their science was, *practically*, not less perfectly comprehended than it now is!—ED.

ON THE JOINTS.

DE ARTICULIS LIBER,	FŒSIUS, Treat. iii. p. 780.
DE ARTICULIS LIBER,	HALLER, i. p. 326.
TRAITÉ DES ARTICLES,	GARDEIL, i. p. 353.

THIS treatise, considered by most commentators and translators, as being a manifest continuation of the preceding one, “*De Fracturis*,” embraces those fractures and luxations that are not therein mentioned, such as fracture of the ribs, scapula, clavicle, nose, ear, &c., and luxation of the vertebræ, maxilla, femur, &c. It is of equal value as the preceding, and equally deserves attention. Four various luxations of the femur are accurately detailed by Hippocrates, together with the appropriate manipulation and treatment of each in the reduction; and which can scarcely fail, in the perusal, to throw light upon the subject, even at this more advanced period.

Luxation of the head of the humerus begins the treatise, of which the author says, he had seen but one mode, and that downwards, in the axilla; and he gives his reasons for believing that some of the varieties mentioned by physicians, were not as stated, but that error existed on their part. He points out and explains no less than six modes of reducing this luxation, and affords some reflections on the causes of the facility or difficulty in the operation; mentions the diagnostics of the injury, and states the mode of applying the actual cautery in some cases, and to what parts, together with the results of such luxations. Luxation of the humeral extremity of the clavicle, fracture of the clavicle, and treatment of each. Luxation of the elbow, complete and imperfect, and their respective treatment. Of the fingers, hand, the lower jaw, and fracture of the latter. Fracture of the nose, crash, or fracture of the external ear; treatment of all these, with some general maxims of importance in many diseases, tending to illustrate the propriety of not doing too much. Luxation of the spine or its processes; deformity from; observation on, relative to situation, causes, and treatment. Of the structure of the spine and luxation of the vertebræ; curvature of

the spine and treatment; danger from; incurable if it is inward. Fracture of the ribs, and treatment; luxation of the head of the femur in four ways, each particularly considered in their symptoms and treatment, accompanied with many judicious remarks as to the atrophy and deformity of parts caused thereby. Luxation of the femur at the knee joint, with accompanying observations on the symptoms, &c. General remarks on luxations, and on bandy legs; treatment of, in children, and of club-foot. Luxations with laceration, and projection of the bone; danger from, and treatment of various cases of; gangrene from. Of the reduction of the different kinds of luxation of the femur, and the machinery described for extension, &c., and for that of other luxations.