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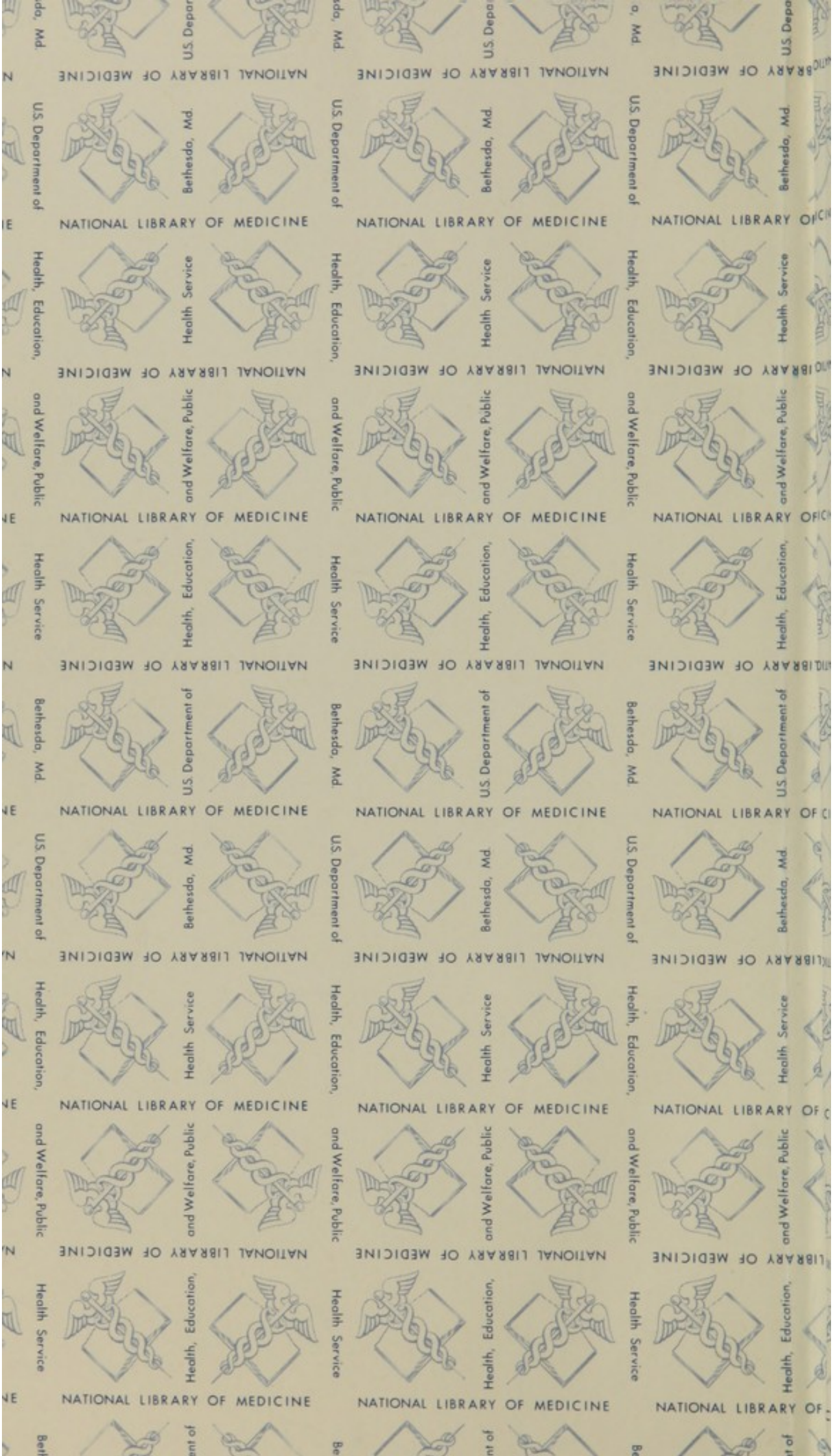
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THE

WRITINGS

OF

HIPPOCRATES AND GALEN.

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EPITOMISED FROM THE ORIGINAL LATIN TRANSLATIONS,

BY

JOHN REDMAN COXE, M.D.,

MEMBER OF THE BATAVIAN SOCIETY OF SCIENCES AT HAARLEM; OF THE ROYAL MEDICAL SOCIETY, AND OF THE ROYAL SOCIETY OF SCIENCES OF COPENHAGEN, ETC.

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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 Fœsius. 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.

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De Medico.
De decenti Habitu, aut decoro.
Præceptiones.

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

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De Natura Hominis.
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De Dentitione.
De Corde.
De Glandulis.
De Ossium Natura.
De Aëre, Locis, et Aquis.
De Flatibus.
De Morbo Sacro.

Sectio 4.

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De Locis in Homine.
De Liquidorum Usu.

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De his quæ ad Virgines spectant.
De Natura Muliebri.
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De his quæ Uterum non gerunt.
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De Articulis.
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De Ulceribus.
De Fistulis.
De Hæmorrhoidibus.
De Capitis Vulneribus.
De Fœtus mortui exsectione.
De Corporum resectione.

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De Morbis Popularibus,—Libri 7.
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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 Aeribus, Aquis, et Locis.
2. De Natura Hominis.
3. De Locis in Homine.
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5. De Alimento.
6. De Morbis Popularibus, lib. 1.
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8. Prognosticon.
9. Prædictionum, libri duo.
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11. De Fracturis.
12. De Articulis.
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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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5. De Glandulis.
6. De Genitura.
7. De Natura Pueri.
8. De Septimestri Partu.
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12. De Prædictionibus.
13. Coacæ Prænotiones, sectiones tres.
14. De Judicationibus.
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17. " " " lib. 4.
18. " " " lib. 6.
19. " " " lib. 5.
20. " " " lib. 7.
21. De Adfectionibus,—Sect. 3.
22. De Internis Adfectionibus,—Sect. 3.

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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.
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12. De Flatibus.
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Tomus quartus continet

1. Hippocratis de Sanorum Victus Ratione, librum 1mum.
2. " ejusdem, librum 2dum.
3. " ejusdem, librum 3tium.
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5. De Insomniis.
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9. De Veteri Medicina.
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19. De Ætate, Fragmentum.
20. De Septimestri Partu.
21. De Significatione Vitæ et Mortis secundum motum Lunæ et adspectus Planetarum.
22. De Liquidorum usu.
23. De Medicamentis Purgantibus.
24. De Veratri usu.

25. Antidotos.
26. De exsectione 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.

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 Regime 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 Épidemies, liv. 2.
" " liv. 4.
" " liv. 5.
" " liv. 6.
" " liv. 7.

AN ABSTRACT

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 Coac 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 Clerc, Hist. de la Med. p. 107. Δυναμις, faculté, pouvoir, force, vertu, proprieté.

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 fæces, 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 Stoics, 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 Episyinthetic, 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 ascendency 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 lædi 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; adverts 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. Gorræus, 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, Esculapius, 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.[a] 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-

[a] Pessum subditicium ad fœtum corrumpendum, Fœsius; Pessum abortivum, Haller; 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, ...	Fœsius, 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 instructer—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, νομος, 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, ...	Fœsius, 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 secuti placita regerant. Denominatio a fine petenda est ultimo. Quæcunque igitur terminantur operatione, sunt artes: quorum terminus est sola cognitio, scientiarum nomine venire debent. Imo κατ ἐξοχὴν 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 scientiæ.

irremediable, medicine 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 attack 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 unlucky. 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 assistance; 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 certain things, or by doing nothing. In fact, they have been saved, by food or by abstinence; 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 which 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 sanious 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-attempered 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 hæmorrhage, 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, . .	Fœsius, 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 extrava-

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—παραγγελια—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 depreciate 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.—Σημειωτικη,—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 *Semiologia*, 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; (θειον 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 diarrhœa, 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 præcordia, if recent, and not attended with inflammation, pass off by rumbling in those parts, especially if superadded to this, there is a fæcal 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 colliquation, 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, ἐμπυημα.

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 fæces 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, diarrhœa; 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 sanious 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 orthopnœa. 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 coughed 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 nubiculæ floating before his eyes, will vomit up bile. If rigor accompanies those symptoms, and the inferior parts of the præcordia 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, ...	Fœsius, 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. Mercurialis 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 excretories, 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 evacuations 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 præcordia 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. Eructations, 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 præcordia, 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 mammæ, 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—Foretelling 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, ...	Fœsius, 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, Prænotions, 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 præcordia, 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, dyspnœa, 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, .	Haller, ii. p. 215.
Des Jours Critiques, ...	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 opisthotonos, 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 Prædictionibus, . .	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 Prorrhetics, (προρρητικον, 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 Prædictionibus,	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 gymnasia, among the athletæ 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 superadded, 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 ano 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 diarrhœa; 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 diarrhœa 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 diarrhœa 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 œdematous 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, tormina 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 fæces 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. Diarrhœa, 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 præcordia. 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 præcordia. 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 anasarcous, 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, bilious 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 recollected. 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, ...	Fœsius, 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.

Fœsius, 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 Fœsius, under the general head of τα φισικα και αιτιολογικα—*i. e.* physics and ætiology—or what has reference to natural causes.

head, refers to Galen, lib. 6, De Placitis; also to Hippocrates, περι οστεων φυσιος, 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 angiological 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 thrice 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 œdemas 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 dryest 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] Πνευμα, 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, *Fœs.*, *Hal.*; —φλεψ παχυς, *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 diarrhœa, 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 sanious and unhealthy fluid is discharged wherever opportunity presents. Should it occur in the intestines, a diarrhœa 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[a] 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. (ψωρια 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, synocha 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 synocha it does not. The tertian

[a] 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 (Genesis) 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, ...	Fœsius, 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 fœtus, and of every thing having reference to the fœtal 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 fœtal 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 fœtus. When conception ensues; and what symptoms succeed the suppression of menstruation.

Chap. IV. Of the wonderful and primary formation of the fœtus 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 fœtal parts; how and when effected. Of the formation of bones, vessels, nerves, nails, hair, and cuticle.

Chap. VII. Of the motion of the fœtus, 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 fœtus 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 fœtus is greatly dependent on that of the mother. Of the situation of the fœtus 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 fœtus after coition; the importance of the breath (*souffle, spiritus*, πνευμα) 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 fœtus 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 Principiis, ...	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 fœtal 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 sapientiæ 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 fœtus; 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 Grossesse 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 fœtus 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 fœtus 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 fœtus. 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 fœtus; 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, Gardeil 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, ...	Fœsius, Treat. vi. p. 258.
De Octimestri Partu, ...	Haller, ii. p. 99.
Traité de la Grossesse 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 fœtus 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 fœtal 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 Superfétation, . . .	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-blowing 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 mammæ, 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, diarrhœa, &c. Of the mammæ 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 Ossium Natura, ...	Fœsius, Treat. xi. p. 274.
De Ossium 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. Mercurialis, 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 μοχλια, 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 Aëre, Locis et Aquis, ...	Fœsius, Treat. xii. p. 280.
De Aëribus, 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 œdematous; 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*[a] of the Dogstar rain should abound, and if the Etesian winds from the northeast fail not

[a] *Exortum*, Hal., Fœsius; *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

ought 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 Mæotis, 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 frequency, 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 practice. 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 practice 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-cephali? 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 Mœotis, 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 cars; 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 cars, 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 unfits 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 awakening 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, ...	Fœsius, 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 Erotian, 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."—Fœsius, 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, ...	Fœsius, 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 fœtus

(in utero, both healthy and unhealthy), if its brain be not properly emulged, 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 plærique 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, . . .	Fœsius, 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 corpulency 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 REGIMEN.

IN THREE BOOKS.

BOOK I.

De Victus ratione, ...	Fœsius, Treat. ii. p. 340.
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 fœtus; 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 fœtuses, 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 fœtation; 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 fœtus; 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. Superfœtation. 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 REGIMEN.

BOOK II.

De Victus ratione, ...	Fœsius, 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, calefaciants, refrigerants, purgatives, siccatives, astringents, emollients. At the commencement he treats of airs, waters, and situations, pretty much as Hipprocrates 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 adverts 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 REGIMEN.

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, ...	Fœsius, 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 Fœsius. 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.

OF ALIMENT.

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 channels 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, ...	Fœsius, 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 Fœsius 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, peplium,[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 chirurgical 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 Fœsius, 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. Dict.

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 diarrhœa 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, ...	Fœsius, 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 inosculation 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] Νοσημάτων, 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 forepart 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 perpetnal 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 cotyloid, 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 (μύξα, 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 œdematous, 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 foreparts 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 apear 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 flancs 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 flancs 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 coughed 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 diarrhœa 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 oxycrat 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 diarrhœa 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 vertebræ, inducing anasarcous 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 anasarcous, 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 cholologogues, 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 cicatrization too early, is to afford nutriment to the morbific 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 calments. 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,[a] 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 diarrhœa 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-

[a] "Ac siquidem in omnibus hoc modo sehabeat, constitutum quidem sic fuerit, hæc 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, ...	Fœsius, 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. Affusion 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, ...	Fœsius, 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 diarrhœa.

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, ...	Fœsius, 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, ενκεφαλε); 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, quonam in latere (affectio) 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 (Μελαινα νσος) 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, (σταφυλη, 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 suppurated 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'operation 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.[a] Rupture of the breast or back.

LXI., LXII. Of burning fever (καυσως), 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 αυαντη, Gr., *resiccatorius*, Fœs., of a

[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, (φονωδης, 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 (Μελαινα νσος). 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. βλητοι, Hipp.; sydere icti, Fœs.[a]), lethargy, ardent fever, tumour of the lungs, headache, phrenitis, angina, jaundice, tetanus, opisthotonos, 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 (σφακελισμος ενκεφελω, 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, opisthotonos; 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, bilious, 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.; βλητοι, 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 opisthotonos. 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 concoction 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 fivefold, 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 (φλεγμα), 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; fæcal 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 fœtal 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.[a]

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, περι φαρμακων. 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

[a] 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, lientery, diarrhœa, 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 flatus 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. Œdematous 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, . . .	Fœsius, Treat. iii. p. 531.
De Internis Adfectionibus, . . .	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 magnesiæ. 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 œdematous 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, Fœs.; Grossissement, Gardeil.; παχυς, 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, opisthotonos, from wounds, cold, or other causes; wine copiously recommended in the first.

The preceding treatise (4th De 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 cavæ? 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* (επιδημιος, *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 LVI. 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 quæ ad Virgines spectant, . .	Fœsius, 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 hysteric 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, ...	Fœsius, 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 lochiæ; 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 téte en bas," p. 14.[a] A large (dry) cupping-glass (σικυην) 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-

[a] "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 trudito, 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 similating 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 (πνιγωσιν) 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. Dropsy 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 diarrhœa, 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, ...	Fœsius, 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 παρθενια, 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 Gnidian 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 soff 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," (περι φυσις παιδιου). 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 heminarum 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 (ιερεια), 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. hysteric 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* (ανθος χαλκε) 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 precaution 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 hysteric 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 fæces 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 fœtus 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 fœtus 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 fœtus, 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 fœtus, 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 uterus, 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, ...	Fœsius, 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, hysteric 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, Fœs., 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 hysteric 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.

[a] 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, ...	Fœsius, 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 VI.[a]

ON THE SHOP OR OFFICE OF THE PHYSICIAN.

De Officina Medici, seu de Officio Medici, . .	Fœsius, Treat. i. p. 740.
De Officina Chirurgi, ...	Haller, i. p. 449.
Traité du Laboratoire du Chirurgien, . . .	Gardeil, i. p. 284.

Fœsius 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 Fœsius, 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 Fœsius χειρουργουμενα, 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 Ιητρειον 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; spiculæ 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.

ON THE REDUCTION OF FRACTURES AND LUXATIONS.

Mochlicus, seu Vectiarius, . .	Fœsius, Treat. iv. p. 841.
Mochlicus, ...	Haller, i. p. 408.
Le Mochlique, ...	Gardeil, ii. p. 5.

Haller calls this a brief, yet not inelegant compound of the two preceding books; or, as Gardeil states it, a recapitulation of those treatises, of a summary character, for such as would not charge their memory with all that they contain. Such being the case, a few outlines will suffice.

Μοχλια, is defined to be "ossis aut ossium a loco qui præter-naturam sit, ad naturalem reductio." It is derived from μοχλος, vectis; or the apparatus, &c., by which the reduction was effected.

It begins with a brief description of most of the bones. This is followed by the statement of the fractures and luxations of the different bones, nearly in the order as we find them in the preceding books; terminating with some general remarks on reduction, on some of the machinery employed, and on some incidental particulars, in a greater or less degree connected with the subject.

ON ULCERS.

Liber De Ulceribus, . . .	Fœsius, Treat. iv. p. 869.
De Ulceribus Liber, . . .	Haller, iv. p. 101.
Traité des Plaies, . . .	Gardeil, iv. p. 332.

From the number and variety of remedies herein mentioned, this would appear not to be one of the genuine productions of Hippocrates. It does not add the doses, as in the books De Muliebribus. Sundry admonitions are given against the abuse of oleaginous and relaxing applications about the ulcerated parts. The remedies themselves are sufficiently adapted to the nature of things. Arsenic, black hellebore, and cantharides are amongst them. Some plants are briefly described.—This book, according to Gardeil, is often quoted in surgical books.

Some general remarks commence this book, which are of much importance as to certain applications, rest, &c. A principal intention is to prevent inflammation, and promote suppuration; to permit fresh wounds to bleed freely, and avoid greasy applications, except in certain particular cases. Purging; bandaging, when proper; seasons, which are best for ulcers; of measures for promoting cicatrization; treatment of round and deep ulcers, and of ulcers accompanied by erysipelas. Signs of suppuration, and of difficult cicatrization. Some recommendations to accelerate it.

A variety of formulæ, simple and compound, follows, for remedial applications, as cataplasms, &c. In one of these, we find the juice of the stramonium, or solanum, where erysipelas is apprehended. Ærugo, mixed with various ingredients, as sweet wine, honey, resin, myrrh, and nitre (νίτρον), made into a kind of ointment, for dressing ulcers when they do not discharge adequately,—and spoken of as especially useful in those of the prepuce, head, and ears;—if correctly made, I think it must be an excellent ointment,

and well adapted for cleansing or deterging wounds and ulcers: it is stated as equally good in recent and in inveterate ulcers. Many other active ointments are mentioned, in some of which are to be found lead, tutty, alum, copper, arsenic, cantharides, &c.; some used in form of a lotion. Some observations are made on swellings of the feet, on varicose veins, &c.; their treatment, and a few remarks on the use of cups.

ON FISTULÆ.

De Fistulis, ...	Fœsius, Treat. vi. p. 883.
De Fistulis, ...	Haller, iv. p. 115.
Traité des Fistules, ...	Gardeil, iv. p. 350.

Fœsius regards this as a genuine work of Hippocrates,—to which Haller does not subscribe.—Description of fistula in ano, and its cure;—one mode consists of a twisted ligature, composed of fine flax entwined around *horse hair*[a] (*certainly an animal ligature*), and employed as at present. Another mode is that of incision. Astringents are praised in cases of prolapsus ani. It is remarked, that in going to stool, the *prolapsus is infinitely less, if the legs are extended.*[b] Its cause is referred to pituita and bile, as stated also in the book "De Mulierum Morbis." An abundant display of remedies follows. The book on Hemorrhoids seems closely connected with this.—Haller.

How fistula in ano is produced; of its treatment by various pharmaceutic preparations according to the nature of the case; ligature of flax, twisted around horse hair! incising the fistula; injections; attentions requisite; prolapsus, how to be treated; precautions in going to stool; various remedies noticed.—Gardeil.

[a] Pilum equinum.

[b] "Dum autem ventrem exonerat, crura extendat: sic enim minime sedes exciderit.—Hal. iv. 120.

ON THE HEMORRHOIDS OR PILES.

De Hemorrhoidibus,[a]	Fœsius, Treat. vii. p. 891.
De Hemorrhoidibus, ...	Haller, iv. p. 122.
Traité des Hémorroïdes, . . .	Gardeil, iv. p. 358.

Although, says Haller, this is a spurious book, it is by no means a bad one. It cannot be a writing from the author of the Aphorisms, since there, one of the tumours is directed to be kept open; whilst here, the whole are cured. Pituita and bile are the foundation of the author's theory. Various means of cure recommended; acrid applications, and even the cautery.

Of the formation of hemorrhoids,[b] and of their treatment by incision, ligature, cautery; how to distinguish hemorrhoidal tumours. A styptic composed of urine, mixed with calcined copper-filings in a copper vessel, and exposed to the sun, frequently stirring it, until dry, then powder it finely, and sprinkle slightly on each incision. Mulberry tubercles, external and internal; treatment; speculum ani (κατοπτηρος);—here, reference is made (in order to explain why so little discharge of blood follows the falling off of the tumours) to amputation of the legs or arms at the joints, when compared with the operation either above or below; the particular analogy would be difficult to apprehend, even with the accompanying explanation! Cauterization seems to have been employed *internally*, through the medium of a canula of some kind introduced. The tumours, when burning or cutting were deemed improper, were sometimes made to extrude, and were then sprinkled with a mixture of myrrh, galls, and alum, calcined. Some other analogous preparations are given.

[a] "Hoc est, de Venis in ano sanguinem fundere solitis."—Fœsius.

[b] See different meanings among the ancients, of this term; it was used often to imply hemorrhagies of different kinds.

ON WOUNDS OF THE HEAD.

De Capitis Vulneribus, ...	Fœsius, Treat. viii. p. 895.
De Capitis Vulneribus, ...	Haller, i. p. 430.
Traité des Plaies de la Tête, . .	Gardeil, ii. p. 38.

This, says Haller, is one of the genuine writings of Hippocrates, and, with his other surgical works, amongst his best. His treatises on practice and on semeiotics, have many parts that require explanation and restriction. Here, all are clear and true; you perceive at once that the author is conscious of this being the case. Some anatomical observations precede, and also somewhat paradoxical in relation to the sutures. In one part we find him noticing his having been deceived by them, and taking them for fissures; thus having a manifest connexion with the case of Autonomus in the fifth Epidemics.—Affections of the head induce bad symptoms on the opposite side. The trepan noticed, and directions for.

This treatise commences with general remarks on the sutures and on the bones of the cranium. The danger of wounds of the head depends very greatly on the bones concerned therein. Of the various ways in which the bones of the head are affected by wounds. Contusion with fissure. Simple contusion. Depression, &c. Contre-coup. Cases in which perforation is required. Regard to be had in the treatment to the mode in which the blow has been given, as also to the nature of the body inflicting it. Difficulties arising from the sutures, in the diagnostics of the real state of the wound, and of its treatment. Lotions and bandages prohibited in wounds of the head. Advantages of incising the scalp, especially when the bone is denuded. Certain reservations as to this, and remarks. Of the time for perforating the bone, and cautions thereon. Indications to be derived from the state of the surrounding flesh. Requisites for a good exfoliation in certain cases. Cautions as to the diagnosis and prognosis. Prognosis in desperate cases. Necessity of hastening the operation in certain cases. Mode of trepanning; hazard of wounding the meninges; precautions in and during the operation.

ON THE EXTRACTION OF THE DEAD FŒTUS.

De Fœtus in utero mortui exsectione, .	Fœsius, Treat. ix. p. 914.
Liber de exsectione Fœtus, . . .	Haller, iv. p. 245.
Traité de l'extraction du Fœtus mort,	Gardeil, iv. p. 363.

This short treatise, says Haller, instructs us how to bring away the fœtus by piecemeal, and how to crush the head. It details moreover, a most extraordinary concussion of the parturient female, in order that the fœtus may obtain more room for its exit. Some directions are given in relation to the replacing of the prolapsed uterus.

Gardeil properly warns us against attributing to Hippocrates all of the doctrine in this short tract; which will, says he, shock the accoucheurs of our time in more parts than one,—and which we cannot accredit to him, after having perused the treatises already given.

I am about to notice the case, (says the author, whoever he may be,) in which the woman cannot be delivered naturally, and which requires the fœtus to be extracted by piecemeal;—beginning by veiling from her the sight of such a frightful operation, &c. The operation is then pretty amply detailed; and other cases of difficult delivery are mentioned. Then succeeds the plan adverted to, of shaking the female, at least ten times,—and if not successful, she is to be turned *head downwards*, her feet in the air, and to be well shaken by the shoulders, so as to afford the chance of the fœtus obtaining a more favourable position for his exit![a]—Of side pre-

[a] As this is a singular obstetrical operation of the olden times, we give it in detail from Gardeil, vol. iv. p. 365. It will be a *bonne bouche* for the accoucheurs of the present age.

"Voici comment on donne les secousses. On met un drap de lit sous la femme, qui s'y étend dessus. On on met un autre sur les cuisses, pour couvrir ses parties. On roule ces draps autour des cuisses et des bras. Puis deux femmes vigoureuses prendront celle qui est en travail, une de chaque côté par les bras, et deux autres par les cuisses. Elles la saccadent ainsi, (to jerk or shake,) dix fois au moins, en la tenant fortement.

sentation; of the cord around the neck; the head locked, and hand projecting, are adverted to; and the subject of prolapsed uterus is then noticed. If the subject is old, it is best to do nothing; if young, the skin of the orifice and neck of the uterus is to be slightly incised, and that in both directions, rubbing it with a soft towel to excite inflammation and empty the vessels. Some unctions are next applied, or astringent lotions; after its reduction, tents of sponge with wine are introduced into the vagina, and a recumbent position, with the legs crossed, is maintained.

Ensuite, *si cela n'a pas suffi*, elles la mettent *la tête en bas et les jambes en haut*, la tenant par les cuisses, et la secouant vers les épaules, cherchant à faire passer ainsi le fœtus dans une place vide, pour qu'il prenne une situation plus favorable à sa sortie. Quand on ne voudra point avoir recours à ce moyen, on donnera du castor cuit dans du vin de Chio."

ON DISSECTIONS.

Liber de Corporum Resectione, . .	Fœsius, Treat. x. p. 915.
Liber de Corporum Resectione, . .	Haller, ii. p. 1.
Traité de la Dissection des Corps, . .	Gardeil, iv. p. 366.

A concise treatise, says Haller, giving some account of the lungs, heart, liver, and other abdominal viscera; correct, and derived from human dissection; [which I much doubt.—Ed.] It can be looked upon, says Gardeil, merely as a slight sketch of the anatomical knowledge of the period; and it speaks only of the most essential organs of the trunk of the body. Somewhat is said as to the names and etymology of the œsophagus, &c. This terminates the sixth section.

SECTION VII.[a]

THE EPIDEMICS OF HIPPOCRATES.

De Morbis Vulgaribus, ...	Fœsius, p. 938.
De Morbis Popularibus, ...	Haller, i. p. 110.
Des Épidémies, ...	Gardeil, ii. p. 57.

The prefatory remarks of Fœsius to the seven books of Epidemics are deserving of attention, as explanatory of the genuine and other books under this general title.

"There are," says he, "seven books of Epidemics, in the collection we possess under the name of the Works of Hippocrates; but they are not generally believed to be all derived from the same source. The *first* and *third* books are alone regarded as incontestably his. The remainder are greatly inferior to them, even the fifth and the seventh, though all are valuable. The order that characterizes the first and third, (which last is manifestly a continuation of the first,) is not apparent in any of the other five, yet each contains much excellent matter. In the fifth and seventh are numerous surgical observations."

I had prepared an outline of the whole of these books, but as they are considered among the principal of the writings of Hippocrates, I judged that the medical public would be better pleased to see them *in extenso;* and as Clifton has given a translation of the whole, I have concluded to make use of it. That gentleman published the first edition of the work in 1734. A second edition appeared in 1752, which is the one here chosen; whether improved, or modified from the former, I know not. I cannot say his translation conforms in every part to the ideas I formed, from perusing the Latin translations of Fœsius and Haller, although it affords generally a sufficient-

[a] This Section consists of the seven books of Epidemics, and the Book of Aphorisms, and is entitled by Fœsius τα επιμικτα—hoc est, permixtam omnium medicinæ partium tractationem.

ly accurate view of the work. He has not divided his translation into regular books, but gives it as one continuous text, under the general head of "Hippocrates on Epidemical Diseases." In order to enable the reader to refer to each respective book, either in Fœsius or Haller, I have therefore kept up that division, though otherwise of no importance; and have also to each book given the short *prefatory* remarks of Haller, and sometimes of Gardeil, as they generally afford a concise view of the purport of the treatise. I may add that I have omitted a number of notes that are added by Clifton, which would too much swell these pages, although many are instructive, and aid in understanding the text itself.—Ed.

THE FIRST BOOK OF EPIDEMICS.

This book, says Haller, is one of the principal works of Hippocrates, and is by all, attributed to him. It is a production worthy of him, although consisting chiefly of a history of diseases, unmixed with medicine. Its value consists in his description of them, and his notice of crises. It contains, under three sections, the statement of the seasons for three years, as occurring at Thasus, followed by the rise of an epidemic state of disease of two years' continuance; in one of these recurrent fevers predominated, and ardent fevers in the other. To these last belong a large proportion of fourteen patients here recorded, and with mostly a fatal termination. One case is particularly interesting, of a parturient female who recovered after a very prolonged disease.—Haller.

SECTION I. YEAR I.

In Thasus in the autumn, about the equinox, and under the Pleiades, the rains were great, continual, and soft, as when the wind is southerly. The winter mild, with southerly winds, and very little northerly. With these were greater droughts than ordinary, so that the whole winter was, in effect, like the spring. The spring was also affected with southerly winds, but yet was cold, and a little wet. The summer was for the most part cloudy and dry. The Etesiæ blew but little, faintly, and irregularly.

The whole year being thus affected with southerly winds, and greater droughts than ordinary, early in the spring (from the former year's being different, and affected with northerly winds) some few were attacked with burning fevers of a kind good sort, and a few others with hemorrhages, neither of which proved mortal. Swellings appeared behind the ears, in many on one side, in most on both, without a fever or any confinement, but in some with a little fever. In all they disappeared without either inconvenience or suppuration, contrary to the custom of such tumours from other causes. At this particular time they were naturally soft, large, diffused, without inflammation or pain, and went off universally without any visible signs. Children, young persons, adults, especially those who frequented the public places of exercise, were most subject to them. A few women were also affected. The greatest part had dry coughs, which were soon succeeded by hoarsenesses. Some again after a while had painful phlegmons upon the testicles, sometimes upon one, sometimes upon both. Some had fevers, others none; most of them trouble and fatigue enough: but with respect to the chirurgical part they did very well.

Early in the summer, and from that time till the winter, many of those who had been for a long while somewhat consumptive, were laid up with consumptions; and others, who were doubtful, were then fatally convinced. Others again, where nature tended that way, dated the beginning of it from that time. A great number of such patients dropped off; and I do not remember that any of those who were laid up held out even a moderate time, but died much sooner than is usual in such cases, after having suffered other complaints, and those for a long time, in their fevers, without either fatigue or dying. Of these we shall now treat: for the only, and the greatest of the diseases then reigning, and that proved fatal to many, was the consumption.

The manner in which most of them were affected is as follows. They were seized with continual, acute fevers, attended with a chilliness, but no intermission; of the semitertian kind; the fit being one day moderate, the next vehement, and so increasing to great vehemence. They sweated continually, but not all over. The extremities were very cold, and grew warm again with difficulty. The belly was disturbed with bilious, small, simple, thin, griping stools, and that frequently. The urine thin, without colour, crude, and little in quantity; or else thick, with a small sediment, that did

not subside well, but appeared crude and unseasonable. They coughed a little and often, and the matter expectorated was indeed digested, but brought away by little and little, and with difficulty. Where the case was very violent, no digestion happened, but what they spit was continually crude. The throats of most of them were from the beginning and all along painful, red, and inflamed. The rheum that came from them little, thin, and sharp. A consumption and general disorder soon followed. An aversion to all kind of food was continually upon them, but without thirst; and many, before they died, became delirious. Thus the case stood among the consumptive.

In the summer and the autumn many fevers came on, of the continual kind, though not violent; and that to such as had been long ill, but in other respects not worn out. Disorders of the belly likewise happened to many, but such as were very tolerable, and without any remarkable injury. The urine was generally well coloured and clear, but thin, and after a while, about the crisis, digested. Coughs were moderate, and expectoration easy; nor were they so averse to food, but very willing to take what was given them. In a word, these consumptive patients were affected in a manner different from such a state, sweating a little in their chilly fevers; while others were seized with paroxysms in a vague and uncertain manner, never leaving them entirely, but returning as a semitertian. The crisis happened upon the twentieth day at the shortest, in most upon the fortieth, and in many upon the eightieth. In some again it never happened, but the fever went off in an erratic or wandering manner. Here indeed it returned again for the most part, after a short intermission; and after the return came to its crisis in the same periods as before. Many of them held out so long, as to be ill in the winter; but of all here described none but the consumptive died. The rest bore their fevers and other complaints very well and escaped.

SECTION II. YEAR II.

In Thasus, early in the autumn, the weather was unseasonable, and on a sudden grew wet with much northerly and southerly wind, that lasted the whole time of the Pleiades, and even to their setting. The winter was affected with northerly winds; the rains

were great and heavy, attended with snow, and for the most part a mixture of fair weather. Thus the whole affair stood; and, with respect to the cold, what happened was not very unseasonable. But after the winter solstice, and when the west wind begins to blow, there was very severe winter weather, with much northerly wind and snow, and abundance of rain without ceasing. Over head it looked stormy and cloudy. This state lasted without remission to the equinox. The spring was cold, northerly, watery, and cloudy; the summer not very scorching. The Etesiæ blew continually; and, about the rising of Arcturus, a great deal of rain fell again on a sudden, with northerly winds. The whole year being thus damp and cold, affected with northerly winds, they passed the winter well for the most part, but in the beginning of the spring many persons (not to say a great many) were taken ill.

First of all appeared humid ophthalmies (or inflammations of the eyes), with weepings, pain, and indigestion. Little concreted matter broke out with difficulty on the eyes of many persons, returned again in most, and went away at last about autumn. In the summer and the autumn, dysenteries, tenesmuses, and lienteries, were complained of; so were bilious purgings, of a thin, crude, griping nature, and much in quantity. Others again were watery; and many complained of painful fluxes that were also bilious, watery, ragged, purulent, and strangurious; not from any fault in the kidneys, but from one humour or complaint coming upon another. They likewise vomited bile, and phlegm, and indigested food. They sweated too in general, the humidity being great every where. To many these things happened without a fever or confinement, to others with a fever, as we shall see hereafter. Where all that is here mentioned happened, they became consumptive, not without pain.

In the autumn and the winter, continual fevers turned out, besides a few that were ardent, diurnal, nocturnal, semitertians, perfect tertians, quartans, and erratics; every one of which happened to many, but ardent fevers to very few, and were the least troublesome: for they were neither taken with bleedings, unless in a very small quantity, and that but seldom, nor with deliriums. In all other respects they bore it well. The crisis happened to most in a very regular manner (intermissions included) in seventeen days generally, without any body's dying or becoming phrenitic. Ter-

tians were more frequent than ardents, and more troublesome. In all the progress was very regular from the first paroxysm to the fourth, and the seventh proved a perfect crisis, without any relapse. Quartans attacked many at first as a quartan should, and many were seized with it as the crisis of other fevers and diseases. These were of long standing, and indeed longer than usual. Quotidians, nocturnals, and erratics were likewise frequent, and lasted long, both among those who were confined at home, and those who walked about. The major part could not get rid of their fevers during the Pleiades, nor even till winter. Convulsions were also frequent, especially among children, from the beginning, but not without a fever. They came upon fevers likewise, and lasted a long time in general, but without any harm, except where other circumstances had made the case desperate. The other fevers were altogether of the continual kind, without any intermission, and the paroxysms in all like the semitertians, one day better, another day worse; and, of all the fevers that then reigned, these were the most vehement, the most tedious, and the most painful; beginning very mildly, but increasing always, and growing worse and worse upon the critical days. After a little abatement they soon grew bad again, had stronger fits upon the critical days, and were for the most part worse. Shiverings were universally irregular and uncertain, seldom and very little in these, but in other fevers more. Sweats were common, but here least of all, and so far from easing the patient, that on the contrary they did him harm. The extremities were very cold, and could scarce grow warm again. Nor were they altogether watchful, especially in this case, but fell again into comas. The belly in all was disturbed, and in a bad manner, but worst of all by much in these. The urine was for the most part thin, crude, without colour, and after a while appeared a little digested as though critical; or had some consistence in it, but yet was turbid without any sediment or concoction; at least the sediment was but little, and that bad and crude. In fine all these things were bad. The fevers were likewise attended with coughs, but I cannot say that I perceived either good or harm from them. Most of these complaints were tedious and difficult, very irregular and inconstant, and that without coming to a crisis, either in those whose case was desperate, or in those whose case was not so. For, if it intermitted a little at any time, it soon returned again; and in the few that had the benefit of a crisis, it happened

not at the soonest before the eightieth day, and to some of these it returned, so that many of them were ill in the winter. In the greatest part it went off without a crisis; and these things happened alike to those who did well, and to those who did not.

As there was a great want of the critical variety that is usual in diseases, the greatest and worst symptom attended many of them to the last, viz.: a general dislike to food, especially where other fatal circumstances appeared. They were not indeed very thirsty out of season, but after a long time, a great deal of pain, and a bad decay, abscesses formed themselves, sometimes too great for the patient's strength to bear, at other times too little to be of any service; so that a relapse presently followed, and the patient grew worse and worse. Dysenteries, tenesmuses, lienteries, and fluxes were likewise added; and some fell into dropsies. Nauseas and great uneasiness happened with and without these. Whatever was very vehement, either despatched the patient soon, or was of no benefit to him at all. Little eruptions appeared, not equal to the vehemence of the disease, and soon after disappeared again; or swellings behind the ears, that were by no means critical, and so signified nothing. Others were affected in their joints, especially the hip, where it proved critical to a few, but it soon after got the better and returned to its former state.

It proved fatal to persons of every age, but chiefly to children just weaned, and to those of eight or ten years old, and those under the age of puberty. These were thus affected, not without the first circumstances here mentioned, but the first happened to many without these. The only beneficial thing, and the greatest of the signs then existing, and what saved many in the greatest extremity, was the *strangury*. For this way the disease spent itself; and it was a frequent complaint, especially among those tender patients, as well as among those who were not obliged to lie by their illness, and those who were. This proved a speedy and great change throughout. For, if the belly was affected with ill-conditioned fluxes, they stopped; food in general became agreeable to them; and the fever grew mild after this crisis. But the strangury complaints were lasting and painful; and the urine copious, thick, various, red, and partly purulent, not without pain. All these recovered to a man, as far as I know.

Where no danger is suspected, we are to consider the digestions of what passes off, whether they are all every where considerable

or seasonable, good and critical. Digestions imply a quick crisis, and a sure recovery; but crudities, indigestions, and bad abscesses, imply no crisis at all, or else pains, or duration, or death, or returns of the same complaints. But which of these is most likely to happen, must be considered from other things; the duty of a physician being to relate what is past, to understand what is present, and to foretell what is to come. He is also to take special care of two things, viz., to do good in his office, or at least no harm.

The art consists in three particulars, viz., the disease, the patient, and the physician, who is the servant or assistant of the art, and the patient is to concur with the physician in opposing the power of the disease.

Pains and heavinesses about the head and neck, with or without a fever, in phrenitic cases denote convulsions; and æruginous vomitings succeed. Some of these die presently. But in burning fevers and others, a pain of the neck, a heaviness of the temples, a dimness of the sight, or a painful distension of the hypochondre, denote a hemorrhage from the nose. Where the whole head is heavy, attended with heartburns and nauseas, bilious and phlegmatic vomitings succeed. Children are generally attacked thus, and mostly affected with convulsions in these cases. Women are also attacked, and with pains in their private parts. But old persons, and those whose heat is got the better of, are attacked with palsies, madnesses, or blindness.

SECTION III. YEAR III.

In Thasus, a little before the rising of Arcturus, and during its continuance, there fell many great showers with northerly winds; but about the equinox, and to the rising of the Pleiades, little southerly showers. The winter was northerly, and drier than ordinary. The winds cold, and the snows deep. About the equinox the cold was sharpest. The spring was northerly and drier than ordinary; but yet the weather was a little wet and cold. About the summer solstice a little rain with a great deal of cold, to the rising of the Dog-star; from which time to the rising of Arcturus the summer was hot, and the heats were great and scorching, not gradually or at intervals, but continually. The droughts were also great, and the Etesiæ blew. About the rising of Arcturus southerly gentle showers fell to the equinox.

During this state of the weather, in the winter, paraplegias began and attacked many, some of whom died in a short time: for the disease was very epidemical. In other respects they were well. But in the very beginning of the spring burning fevers came on, and continued to the equinox, and even to the summer. Most of those escaped who were seized presently after the beginning of the spring and summer, and some few died: but when the autumn and wet weather set in, they proved mortal to many. These fevers were of such a nature, that where any one bled freely and plentifully at the nose, he was saved by it more than by any thing else; and not one of those who were taken thus died this season, so far as I know. For Philiscus, and Epaminon, and Silenus, bled but a few drops at the nose the fourth and fifth day, and died. Most of them were seized with shiverings about the crisis, especially where there had been no hemorrhage, and with the shivering came on a sweat about the head and shoulders. Others again were attacked with a jaundice the sixth day, and these were relieved either by a discharge by urine or stool, or a plentiful hemorrhage, as Heraclides was, who lived with Aristocydes. Not but he bled at the nose, and had the benefit of the other evacuations too; and so was freed the twentieth. It fared otherwise with the servant of Phanagoras; for, as none of these things happened to him, he died. Hemorrhages were very frequent, especially among young persons and adults; and, where nothing of this kind happened, it very often proved fatal. Those who were more advanced in years had the jaundice, or a disorder in their belly, or a dysentery, as Bion, who lived with Silenus. In the summer, dysenteries were epidemical; and, even where hemorrhages had happened, some were at last seized with dysenteries, as Eraton's boy, for instance, and Myllus; for they, after a great hemorrhage, fell into a dysentery, and recovered. This humour was particularly redundant in many. For, where there was no hemorrhage at the crisis, the tumours behind the ears disappeared, and upon this a weight was felt in the left side of the belly, and at the extremity of the hip. Pain coming on after the crisis, and thin urine passing off, they began to bleed a little. Thus Antiphon, the son of Critobulus, had the twenty-fourth day a separation of humours by bleeding; his disorder ceased, and about the fortieth he got quite rid of it. Many women were taken ill, but less than the men, and died less. Many of them had hard labours, and after the birth were taken ill again, and for the most part died, as

Telebolus's daughter, who died the sixth day after her delivery. A great many had their menses come down in their fevers; others bled at the nose, and many young girls had the first appearance of their menses then. Others again bled at the nose, and had their menses too, as Dætharsis's daughter, for instance, a maid, who had them then for the first time, and also bled plentifully at the nose. Nor do I remember any died, where any one of these happened well. All of my acquaintance miscarried that chanced to be with child. The urine was in general well coloured but thin, and with a small sediment. The stools were thin and bilious. And in many, where there was a crisis in other respects, it terminated in a dysentery, as in Xenophanes and Critias. The urine was watery, much, clear, and thin; and even after the crisis, where there was a good sediment, and in other respects a laudable crisis, a dysentery came upon some, as particularly upon Bion who lived with Silenus, Critias with Xenophanes, Areton's boy, and Mnesistratus's wife, who were all afterwards seized with a dysentery. Query? Whether it was owing to the watery urine?

About the rising of Arcturus a crisis happened to many the eleventh day, nor did the fever return again in the natural and usual way of returns; but they were comatose at this time, especially children, of whom fewer died than any. But about the equinox, to the rising of the Pleiades, and even in the winter, burning fevers continued. About the same time too a great many became phrenitic, and went off; and a few in the summer. These burning fevers pointed out the prognostics from the beginning, where the case was desperate. For immediately an acute fever came on from the first, with gentle shiverings, watchings, ramblings, thirst, nauseas, and anxiety. They sweated a little about the forehead and collar-bone, but nobody all over. Great deliriums attended, with fears and dejectedness; the extremities were coldish, the toes and fingers especially. The paroxysms were upon equal days, and in many the greatest pains upon the fourth. The sweats were generally somewhat cold. The extremities did not recover their warmth, but were livid and cold; nor did they then complain of thirst. The urine was black, little, and thin; the body bound. No hemorrhage from the nose, where this was the case, but only a few drops; nor did any of these relapse, but died the sixth day in a sweat. As to the phrenitics, all the circumstances here mentioned did not happen to them, but the crisis came on generally the eleventh

day, and in some the twentieth. Where the frenzy did not immediately appear from the beginning about the third or fourth day, but things went on moderately at first, there the fever raged most upon the seventh.

The number of diseases was now very great, and those who died of them were chiefly children, young persons, adults, and such as had smooth bodies, white skins, straight hair, black hair, and black eyes. The lazy and indolent died likewise, and so did those whose voice was either high, small, or rough, and where there was any impediment in the speech, or a choleric temper. Many women of this kind died too. But, during this situation, some were preserved by the four following particulars, viz., by bleeding plentifully at the nose; by making a great deal of water with a large and good sediment; by considerable bilious stools; or by falling into a dysentery. These proved critical to a great many, not singly indeed, but jointly, though not without much trouble. However all such escaped whose case was thus. Women, too, and maids were subject to every one of these symptoms; and where any of them happened well, or where the menses came down plentifully, it proved a salutary crisis, and none of them died. For, as to Philon's daughter, who bled freely at the nose, she died the seventh day, after having eat a very improper and unseasonable supper.

In acute fevers, and especially burning fevers, involuntary tears are a sign of a hemorrhage from the nose, if other circumstances denote not death. In this case, they are a sign of death and not a hemorrhage.

In a fever painful swellings behind the ears sometimes neither fall nor suppurate, though the fever goes off entirely. In this case a bilious looseness, or a dysentery, or thick urine with a sediment, is salutary, as in the case of Hermippus of Clazomenæ.

Critical circumstances, by which we distinguish, are either alike or unlike, as in the case of the two brothers, who lived by Epigenes's Theatre, and were taken ill the same hour. The eldest had his crisis the sixth day; the youngest, the seventh; both of them relapsed the same hour. It intermitted five days, and after the return both were entirely freed the seventeenth. Many had a crisis the fifth, an intermission seven days, and another crisis the fifth. Others again had their crisis upon the seventh, an intermission seven days, and the last crisis the third day after the return. Some

had a crisis the seventh, an intermission three days, and another crisis the seventh. Others again had a crisis the sixth, and an intermission six days: after this an attack for three days; then, an intermission one day, and the next a return and crisis the same day; as Euagon the son of Daitharsus. To some it came to a crisis the sixth, intermitted seven, and was determined the fourth day after the return, as in Aglaidas's daughter. The greatest number of those who were taken ill this season were thus affected; and I know of none that escaped without a relapse, according to the natural course of relapses. Neither do I know of any that miscarried, where the relapses happened in this manner; nor of any, thus affected, who had returns again. But many died the sixth day, among whom were Epaminondas, Silenus, and Philiscus, the son of Antagoras.

Where any tumours happened behind the ears, the crisis came on the twentieth; the tumours subsided universally where no suppuration followed, and were turned upon the bladder. But in Cratistonax's case, who lived by Hercules' Temple, and in that of Scymnus, the fuller's maid-servant, where a suppuration happened, they died. In some the crisis happened the seventh, the intermission nine days, and another crisis the fourth day after the return. In others the crisis happened the seventh, the intermission six days, and the other crisis seven days after the return; as it did to Phanocritus, who lived by Gnathon, the painter. But in the winter, about the winter solstice, and even to the equinox, the burning fevers and phrensies remained, and were very mortal. The crisis happened to many the fifth day from the beginning, and after an intermission of four days the fever returned again, and five days after this the other crisis came on, in all fourteen days. Thus it happened to most children, and to those of a more advanced age. Sometimes the crisis came on the eleventh, the return the fourteenth, and the perfect crisis the twentieth. But, if any were seized with shiverings upon the twentieth, it was then protracted to the fortieth. The greatest part shivered upon the first crisis; and those who shivered at the beginning shivered again at the crisis, and the relapses after the crisis. But shiverings happen least in the spring, more in the summer, more still in the autumn, and most of all in the winter. The hemorrhages also ceased.

The knowledge of diseases is to be learnt from the common nature of all things, and from the nature of every individual; from

the disease, the patient, the things that are administered, and the person that administers them; for the case becomes easier or more difficult accordingly. We are to consider likewise the whole season in general, and the particular state of the weather, and of every country; the customs, the diet, the employments, the ages of every one, the conversations, the manners, the taciturnity, the imaginations, the sleeps, the watchings, and the dreams; and how far vellications, itchings, and tears are concerned; and what the paroxysms are; and what the evacuations by stool, or urine, or spitting, or vomiting may be; and what changes may happen from one disease to another, and the separations that end in death or life. Sweat, cold, shiverings, coughs, sneezings, sighings, breathings, belchings, flatuses (secret and audible), hemorrhages, and hemorrhoids, are also to be considered, together with their respective consequences.

Of fevers, some are continual, others affect us in the day, and intermit at night; or continue in the night, and leave us in the day. There are likewise semitertians, tertians, quartans, quintans, septans, and nonans; but the acutest, the strongest, the most dangerous, and the most fatal, are the continual. The safest, the easiest, and the longest of any is the quartan; for it is thus not only in its own nature, but also frees us from other great diseases. The semitertian is attended with acute disorders, and is more fatal than any of the rest. Add to this, that consumptive persons, and those who have been long ill of other distempers, are most subject to it. The nocturnal is not very dangerous, but tedious. The diurnal longer, and sometimes tends to a consumption. The septan is long, but not dangerous; the nonan longer, but not dangerous. A true tertian comes to its crisis soon without danger; but a quintan is the worst of all; for coming before or upon a consumption, it is death. In every one of these fevers, as well continual as intermitting, there are forms, conditions, and paroxysms to be considered. For instance, a *continual*, sometimes flowers as it were, at the beginning, becomes very vehement, and grows worse and worse; but about the crisis, and at the time of the crisis, becomes weaker. Sometimes again it begins mildly and secretly, increases and grows worse every day, but about the crisis, and during that time, breaks out vehemently. At another time it begins mildly, increases more and more, and, coming to its full strength by a certain time, remits again at the crisis, and during

all that time. These things happen in every fever and every disease.

The diet should likewise be regulated by these considerations. And there are many other considerable signs of the like nature with these, some of which we have treated of already, and the rest shall be considered hereafter. But whoever undertakes this province in good earnest should try and inquire which of them is acute and mortal, and which recoverable; where food is proper, and where it is not; without omitting the time, the quantity, and the quality.

Where the paroxysms are upon equal days, there the crisis is upon equal days; and where they are upon unequal, there the crisis is so too.

The first critical day of the periods that terminate upon equal days is the fourth, then the sixth, the eighth, the tenth, the fourteenth, the twenty-eighth, the thirtieth, the forty-eighth, the sixtieth, the eightieth, and the hundredth. The first of those that terminate upon unequal days is the third, then the fifth, the seventh, the ninth, the eleventh, the seventeenth, the twenty-first, the twenty-seventh, and the thirty-first. And if a crisis happens otherwise, or out of these mentioned days, a relapse is to be feared, and even death. It is also to be considered, that the crises that shall happen at these times will be salutary or fatal, or there will be a turn for the better or the worse. As to erratic fevers, quartans, quintans, septans, and nonans, their critical periods are also to be considered.

Philiscus, who dwelt by the wall, took to his bed the first day. An acute fever, a sweat, and an uneasy night followed. The next day he was worse in all respects; but in the evening had a good discharge from a glyster, and afterwards a quiet night. The third day betimes, and till noon, his fever seemed to have left him, but in the evening it returned with vehemence, attended with a sweat, a thirst, a dry tongue, black urine, an uneasy night, no sleep, and much delirium. The fourth day, worse in all respects. Black urine; but an easier night, and the urine well-coloured. The fifth, about noon, a few drops of pure blood from the nose. The urine very various, with round seed-like particles floating up and down, without any sediment. A suppository brought away a little wind. A restless night. Little sleeps, with rambling discourse. The extremites cold all over, without any return of warmth. Black urine. A little sleep. In the day loss of speech, a cold sweat, and the extremities livid. Died about the middle of the sixth day.

His breath was all along drawn back, as it were, deep, and seldom. Upon the spleen was a round swelling. Cold sweats continually. The paroxysms upon equal days.

Silenus, who lived upon the sea-shore, near to Eualcides's, was seized with a violent fever after labour, and drinking, and unseasonable exercise. It began with pain in the loins, a heaviness in the head, and a stiffness in the neck. His stools the first day were bilious, simple, frothy, deep-coloured, and many. His urine black, with a black sediment. A thirst came on, with a dry tongue, and no sleep in the night. The second day, an acute fever. More stools, thinner, and frothy. Black urine. An uneasy night. Rambled a little. The third, worse in all respects. A distension of both the flanks, reaching to the navel, but softish withal. His stools thin and blackish. The urine turbid and blackish. No sleep in the night. He talked much, laughed, sung, and could not contain himself. The fourth, no alteration. The fifth, his stools were simple, bilious, smooth, and greasy. His urine thin and transparent. His understanding recovered itself a little. The sixth, a little sweat about the head, the extreme parts cold and livid. Much tumbling and tossing. No evacuation by stool or urine. The fever acute. The seventh, loss of speech. No warmth in the extremities. No urine. The eighth, a cold sweat all over, with little, red, round eruptions, like pimples in the face, that remained without coming to suppuration. From a gentle stimulus of the belly a great discharge of thin, and as it were undigested fæces, with pain; and what came away by urine was acrid and painful. The extremities a little warmer. Light sleeps, with a comatose disorder. Loss of speech. Thin transparent urine. The ninth, no alteration. The tenth, drank nothing. A coma, with light sleeps. From the belly, the same discharge as before. A great deal of thick urine, that came away gushing, and afterwards let fall a white sediment, like ground barley; the extremities cold again. The eleventh, he died.

His breath was all along, from the beginning, deep and seldom; his flanks continually palpitating; and his age about twenty.

Herophon was seized with an acute fever, and had a small discharge downwards, with a tenesmus at the beginning, but afterwards his stools were thin, bilious, and frequent. No sleep. Black, thin urine. The fifth, betimes in the morning, he grew deaf, and was worse in all respects. His spleen swelled, and his flanks were

distended. His stools were small and black; and his head rambled. The sixth, he was delirious, sweated at night, was cold, and delirious still. The seventh, was cold outwardly, thirsty, and delirious; at night came to himself, and slept. The eighth, was feverish, but not so swelled in his spleen; and came perfectly to himself. A swelling appeared in the groin for the first time, on the same side with the spleen; after which a pain seized him in both his legs. He rested pretty well; his urine was well-coloured, and had a small sediment. The ninth, he sweated, and was cured. The fifth, it returned again, and immediately his spleen swelled. The fever was acute, and his deafness returned. Three days after this, the spleen and deafness grew better; his legs were uneasy, and a sweat came on in the night. The crisis happened the seventeenth, without his being delirious after the return.

In Thasus, Philinus's wife was seized with a fever and shivering, the fourteenth day after her delivery of a daughter, her affairs going on very well, without any reason for complaint in other respects. The upper part of the stomach, the right hypochondre, and her private parts grew painful from the first. Her cleansings stopped. However, by help of a pessary she grew easier; but the pain in her head, neck, and loins remained. She could get no sleep; was cold in her extremes; and a thirst succeeded. Her belly was in a manner burnt up, and discharged very little. Her urine was thin, and without colour at first. The sixth, she was very delirious at night, and then came to herself again. The seventh, was thirsty; and her stools were bilious and deep-coloured. The eighth, a shivering came on, with an acute fever, and many convulsions followed, with pain. She also talked much out of the way; got up to receive a suppository; had a great discharge downwards of bilious matter; but no sleep. The ninth, was convulsed. The tenth, came a little to herself. The eleventh, slept, remembered every thing, but in a little time grew lightheaded. After the convulsions made a great deal of water in a little while (the servants, or those about her, seldom reminding her), of a thick and white kind, like what appears upon shaking water that has subsided after standing a long time, but had no sediment; in colour and consistence like that which is made by a beast of burden, so far as I saw. About the fourteenth she trembled all over, talked much, and came a little to herself; but soon became lightheaded again. About the seventeenth, lost her speech; and the twentieth, died.

Epicrates's wife, who lived by Archigetes's, just before her labour, was taken with a violent shivering, and could not grow warm again, as I was informed. The next day, she was much the same. The third, she was delivered of a daughter, and every thing went on well. The second day after the birth an acute fever seized her, with pains in the pit of her stomach and private parts, which were mitigated by a pessary; but a pain in the head, neck, and loins continued, without any sleep. Her stools were small, bilious, thin, and simple. Her urine thin and blackish. The sixth day after she had been taken, at night she grew delirious. The seventh, was worse in all respects; watchful, delirious, thirsty; and had bilious, deep-coloured stools. The eighth, shivered, and slept much. The ninth, no alteration. The tenth, a pain in her legs and the pit of her stomach again, with a heaviness in her head, but without a delirium. She slept more, but had no stool. The eleventh, the urine was better coloured, and the sediment large. She felt herself lighter. The fourteenth shivered again, and was very feverish. The fifteenth, vomited bilious yellow matter, pretty often; sweated, and missed her fever; but at night it returned violently. Her water was thick, and with a white sediment. The sixteenth, worse again, rested badly, got no sleep, and was lightheaded. The eighteenth, was thirsty, and the tongue burnt up. No sleep; much lightheadedness; pain in the legs. About the twentieth, betimes in the morning, shivered a little, and was comatose or stupified; slept quietly; vomited a little bilious black matter; and grew deaf in the night. About the twenty-first, a pleuritic pain came on quite through the left side, with a gentle cough. The urine was thick, turbid, reddish, and did not subside after standing. In other respects she was easier, but not without her fever. Her throat was inflamed and painful immediately from the first; the uvula was contracted; and the rheum remained sharp, biting, and salt continually. About the twenty-seventh, the fever left her; the urine broke, but the side was painful. About the thirty-first, the fever came on again; her stools were bilious and stimulating. The fortieth, she vomited a little bile, and was entirely freed from her fever the eightieth.

Cleonactis, who lived above the Temple of Hercules, was taken ill with a violent fever of the erratic kind. He had a pain of the head and the left side from the beginning, and in the other parts of his body pains like those that proceed from weariness. The paroxysms of the fever were very irregular, sometimes with, some-

times without, a sweat; but for the most part they appeared upon the critical days more than upon others. About the twenty-fourth, he was cold at his fingers' ends; vomited bilious yellow stuff pretty often, and soon after æruginous; and was better in every respect. About the thirtieth, he bled from both nostrils, irregularly, a little at a time, to the crisis. He had neither an aversion to food, nor a thirst all the time, nor want of sleep; and his urine was thin, though not without colour. About the fortieth, it appeared reddish, and had a large sediment, very red, that relieved him. After this it changed several ways, and sometimes had a sediment, at other times none. The sixtieth, there was a great, white, smooth sediment; all the complaints abated; his fever intermitted; and his urine was thin again, but well-coloured. The seventieth, he had no fever, and it intermitted ten days. The eightieth, a shivering came on, and an acute fever. A great sweat followed; the sediment in his urine was red and smooth; and he obtained a perfect crisis.

Meton was taken ill of a very acute fever, with a heaviness and pain in his loins. The second day, he had a good discharge downwards, from drinking a pretty large quantity of water. The third, a heaviness in his head, with thin, bilious, reddish stools. The fourth, worse in all respects. A little blood from the left nostril twice. A restless night. Stools, as before. Blackish urine, with a blackish cloud floating up and down, without any sediment. The fifth, a great deal of pure blood from the left nostril; a sweat, and a crisis; but after the crisis, want of sleep, lightheadedness, and thin blackish urine. After bathing the head he slept, and came to himself; had no relapse afterwards, but frequent hemorrhages, even after the crisis.

Erasinus, who lived by the Torrent of Bootes, grew very feverish after supper, and had a very bad night. The first day he was easy, but in pain in the night. The second, worse in all respects, and at night lightheaded. The third, uneasy, and very delirious. The fourth, exceeding ill, and had no sleep at night, but dreamed and talked, and was afterwards remarkably worse, frightened, and impatient. The fifth, betimes in the morning, was composed and came perfectly to himself, but before noon was so raving mad, that he could not contain himself. His extreme parts were cold, and somewhat livid; his urine stopped; and about sunset he died.

This patient's fever was continually upon him, with sweats; his flanks were tumefied, distended, and painful; his urine black, with

round clouds that subsided not; his belly not bound; his thirst perpetual, but not great; and before he died, he was convulsed much and sweated.

Criton, in Thasus, was seized, as he was walking, with a violent pain of his foot from the great toe, and obliged to go to bed the same day. A chilliness ensued, with nauseas, a gentle heat, and at night a delirium. The second day, the whole foot was swelled, and a redness appeared about the ankle with the skin stretched. Little black spots (or pimples) appeared likewise. An acute fever came on, with violent ravings. His stools were unmixed, bilious, and very frequent. The second day of his illness he died.

The Clazomenian, who lived by Phrynichides's well, was seized with a violent fever, attended from the beginning with a pain of the head, neck, and loins; and immediately after with a deafness. No sleep; the fever acute; the flanks tumefied, but without any great distension; and the tongue dry. The fourth day, he was delirious at night. The fifth, was uneasy, and worse in every respect. About the eleventh, a little remission. His stools from the beginning to the fourteenth, were thin, large, and watery, without fatiguing him. After this they stopped. The urine all along was thin indeed, but of a good colour, and had many clouds here and there, without subsiding. But about the sixteenth day, his urine was a little thicker, with a small sediment. He was somewhat relieved, and came more to himself. The seventeenth it was thin again. Swellings arise behind both the ears, attended with pain. He got no sleep, but was delirious, and had a pain in his legs. The twentieth, the fever left him. The crisis came on without a sweat, and he recovered himself perfectly. About the twenty-seventh, a violent, but short, pain of his right hip seized him. The swellings behind the ears neither subsided nor suppurated, but were painful. The thirty-first, many watery stools, with pain and difficulty, as in a dysentery. The urine thick; the swellings went away. But, about the fortieth, a pain of the right eye came on with a dulness of sight, that went off again.

Dromeadas's wife, the second day after she had been brought to bed of a daughter, and had no reason to complain of her other affairs, was seized with a shivering and an acute fever. The hypochondres began to be painful the first day. A nausea came on, with horrors and tossings, nor could she afterwards sleep. She fetched her breath deep and seldom, and immediately drew it back

again. The second day after the shivering she had a very good stool; her urine was thick, white, and turbid, as when it is shook after standing a long time, but had no sediment. No sleep in the night. The third day about noon she shivered again, and was very feverish. The urine, as before; the flanks painful, with nauseas; an uneasy night, and no sleep. She was also in a coldish sweat all over, but presently grew warm again. The fourth, the hypochondres were a little easier, but the head heavy and painful, with somewhat of a stupidness. A few drops from the nose; a dry tongue, and thirsty; the urine thin and oily; and with these a little sleep. The fifth, she was thirsty and qualmish. The urine as before, and the body bound. About noon was very lightheaded, and presently after came to herself again. Upon getting up was somewhat stupid, and a little cold; slept in the night, and was lightheaded. The sixth day betimes in the morning she shivered again, and presently grew warm; sweated all over, but the extremities were cold; grew lightheaded, and breathed deep and seldom. Soon after convulsions came on from the head, and she went off presently.

A man who was a little feverish got his supper and drank plentifully, but in the night brought up all again. An acute fever followed, with a pain of the right hypochondre, and a gentle softish inflammation tending outwards. He rested badly; his urine at first was thick, red, and had no sediment after standing; his tongue dry, but not very thirsty. The fourth, an acute fever, with pain all over. The fifth, smooth, oily urine in great quantity. A raging fever. The sixth, in the evening, he was very lightheaded, and had no sleep in the night. The seventh, was worse in all respects. The urine, as before. He talked much, and could not contain himself. The belly, being stimulated, discharged watery turbid stuff with worms. An uneasy night. Betimes in the morning a shivering, and acute fever; a hot sweat followed, and the fever seemed to go off. He slept but little, and upon waking was cold, spit much, and in the evening was very delirious. Soon after he vomited black stuff, a little bilious. The ninth, was cold again, very delirious, and got no sleep. The tenth, had a pain in his legs, and was in all respects worse and delirious. The eleventh, died.

A woman that lived upon the shore, three months gone with child, was taken with a violent fever, and immediately complained of pain in her loins. The third day she had a pain in her neck,

head, collar-bone, and right hand; and in a short time lost her speech. Her right hand was convulsed, and became paralytic. She grew very delirious, had an uneasy night, and got no sleep, but discharged a little bilious unmixed matter downwards. The fourth, she recovered her speech, but the convulsions remained as before, with pains all over. About the hypochondre a painful swelling appeared. She could get no sleep; grew lightheaded; discharged downwards; and her urine was thin, but not well-coloured. The fifth, a violent fever; a pain in the hypochondre; great lightheadedness; bilious stools; a sweat at night, and no fever. The sixth, she came to herself, and was better every way; but about the left collar-bone the pain remained. A thirst came on; the urine was thin, and she got no sleep. The seventh, tremblings followed, with something of stupidness. She was also a little delirious, and the pain about the collar-bone and left arm remained. In other respects she was better, and came to herself perfectly. The intermission lasted three days without any fever. The eleventh, it returned, with shivering and great vehemence. About the fourteenth, she vomited bilious yellow matter pretty often; fell into a sweat, and was cured.

Melidia, who lived by the Temple of Juno, complained of a violent pain in her head, neck, and breast; and presently after an acute fever came on. Her menses came down a little, with a continual pain in all those parts. The sixth she was comatose, qualmish, chilly, and red about the cheek, with something of a delirium. The seventh, sweated; the fever intermitted; the pains remained; the fever returned again; and she slept a little. Her urine was constantly thin, but well-coloured; her stools thin, bilious, acrid, very small, black and fetid; the sediment in the urine white and smooth. She fell into a sweat, and had a perfect crisis the eleventh.

THE THIRD BOOK OF EPIDEMICS.

Fœsius, p. 1059. Haller, i. p. 138. Gardeil, ii. p. 92.

This book, says Haller, is alike in value and in manner with the preceding, of which it appears to be a continuation;[a] the first twelve cases manifestly belong to it. The latter portion has reference to a pestilential constitution: not that a true plague accompanied with carbuncles and buboes is here described; but because all diseases then occurring were of the highest malignity. Not one of the sixteen cases mentioned in this part had symptoms of the true plague, although gangrene was not unfrequent in conjunction with the fever, so that entire limbs fell off.

Gardeil, in a short note, says, "that the lovers of ancient lore will find at the end of each case (the first twelve), certain hieroglyphics constituted of five or six letters each, that may be regarded as algebraic signs, to designate briefly the practical result of each observation, and relating more particularly to prognostic."

These characters, Fœsius informs us, are found in several manuscripts, but are wanting in others; and that we are ignorant whether they are from Hippocrates, or from his school; or if they are not of a later origin. They are anterior to Galen, for he mentions them. Fœsius introduces them. As a mere matter of curiosity, I thought of giving them a place here; but their want of utility led me to forego my first intention.—Ed.

[a] This leads Clifton in his preface, to complain of the miserable arrangement of the writings of Hippocrates, by which many books that should precede others, are made to follow them, whilst a knowledge of these last is essential to the comprehension of the others. Such he asserts is the case in the editions of Mercurialis and of Fœsius. Again, he affirms, "other parts have been divided to the ruin of the main design," &c., and mentions the first and third books of Epidemics to have been thus "very injudiciously split into two," &c., in all which remarks I think him correct; but having to select an arrangement from among the various editions, I fixed upon that of Fœsius, and that principally from his coming first into my possession.—Ed.

Pythion, who lived by the Temple of the Earth, was taken with a trembling in his hands, which was succeeded the same day by an acute fever and delirium. The second, worse in all respects. The third, no alteration. The fourth, a little, simple, bilious discharge downwards. The fifth, worse in all respects. Little sleeps; no stool. The sixth, a variety of spitting, with something upon the red. The seventh, his mouth was drawn aside. The eighth, worse in all respects. The tremblings remained. The urine from the beginning to the eighth day thin and without colour, with a little suspended cloud in it. The tenth, he sweated, spit matter a little digested, and had a crisis. The urine was whitish about this time, and, forty days after, an abscess appeared by the anus, which was succeeded by the strangury.

Hermocrates, who lived by the new wall, was seized with a very acute fever, and began to have a pain in his head and loins, with a moderate distension of the hypochondre. The tongue was burnt up from the beginning. Presently after, he grew deaf; and could get no sleep. His thirst was moderate, and his urine thick and red, without a sediment after standing. His stools were large and burnt. The fifth, thin urine, with a cloud that did not fall. At night he was lightheaded. The sixth, a jaundice; worse in all respects, and lightheaded still. The seventh, great restlessness. The urine thin, and like the former. The succeeding days, very little alteration. About the eleventh every thing seemed to abate. A coma began. The urine was thick, reddish, thin towards the bottom, and subsided not. He came to himself by little and little. The fourteenth, he was neither feverish, nor sweated, but slept, and came perfectly to himself. The urine much the same. About the seventeenth, he relapsed, grew hot, and the days following had an acute fever, with thin urine. About the twentieth another crisis. The fever went off, but without sweating. An aversion to food lasted all the time. He came to himself, but could not speak. His tongue was dry, but without thirst. He laid comatose. About the twenty-fourth grew hot again, and discharged much thin matter downwards. The days following an acute fever, with a burnt tongue. The twenty-seventh, he died.

This patient was deaf all along; his urine thick and red without a sediment, or thin and colourless, with a little cloud; and he could taste nothing.

He that lived in Dealces's Garden, felt a heaviness in his head,

and a pain of the right temple a long time; and, upon an occasion given, was seized with a violent fever, and carried to bed. The second day a little pure blood from the left nostril, and a good stool. The urine thin and various, with a cloud suspended, almost like ground barley and seed. The third, an acute fever. Black, thin, frothy stools, with a livid sediment in them. He was also a little soporose, and bore rising up with difficulty. The sediment of the urine turned livid, and somewhat glutinous. The fourth, bilious yellow vomitings in a small quantity, and after a little resting æruginous or violet. A little pure blood from the left nostril. The stools and urine as before. A sweat about the head and collar-bone. The spleen tumefied. A pain of the same thigh. A softish distension of the right hypochondre. No sleep in the night. A little rambling. The fifth, more stools, black and frothy, with a black sediment. No sleep in the night; ramblings. The sixth, black, fat, glutinous, fetid stools. Slept, and came more to himself. The seventh, a dry tongue, and thirsty. No sleep, but ramblings. The urine thin, and not well-coloured. The eighth, black, small, compacted stools; slept, and came to himself; and was not very thirsty. The ninth, shivered, burned, sweated, was cold, delirious, and convulsed (or distorted) in his right eye; with a dry tongue, thirst, and watching. The tenth, very little alteration. The eleventh, came to himself perfectly, lost his fever, and slept. The urine was thin about the crisis. The fever intermitted two days, and returned again the fourteenth. No sleep that night, but strong deliriums. The fifteenth, turbid urine, as when it is shook after standing. A raging fever, with strong deliriums, and no sleep. A pain in the knees and legs. Black stools, by means of a suppository. The sixteenth, thin urine, with a suspended cloud. Was lightheaded. The seventeenth, early in the morning, was cold in the extreme parts, and covered up. The fever raged; a sweat came on all over, that relieved him; he came more to himself upon it, but was not free from his fever or his thirst. He also vomited bilious yellow stuff in a small quantity, and had a stool; soon after which, black thin stuff came away in a small quantity. The urine was thin and not well-coloured. The eighteenth, he did not come to himself, but was comatose. The nineteenth, no alteration. The urine thin. The twentieth, slept, came to himself perfectly, sweated, lost his fever and thirst; but the urine was thin. The twenty-first, rambled a little, and was a little dry. A pain attacked him in the

flanks, and a continual palpitation about the navel. The twenty-fourth, a sediment in the urine; and he came perfectly to himself. The twenty-seventh, a pain in the right hip. Thin urine, with a sediment; and in other respects very easy. About the twenty-ninth, a pain in the right eye. The urine thin. The fortieth, stools of a phlegmy white nature, and pretty often. A great sweat all over, and a perfect crisis.

Philistes, in Thasus, had a pain of his head a long time, and at last, being somewhat stupid, was forced to lie down; but continual fevers coming on from drinking-bouts, the pain grew worse, and in the night his last fever first seized him. The next day he vomited bilious yellow matter, at first in a small quantity, and afterwards æruginous in a larger. His body was open, but he could get no rest in the night. The second, he grew deaf, his fever raged; his right flank was distended and turned inwards. The urine thin and transparent, with a seed-like cloud suspended. About noon he was a little mad. The third very uneasy. The fourth convulsed, and in all respects worse. The fifth betimes in the morning he died.

Chærion, who lived near Demænetus, was seized with a violent fever from a drinking-bout, and immediately complained of a heaviness and pain in his head. No sleep. Thin stools, somewhat bilious. The third day, a violent fever. The head trembled, especially the lower lip, and soon after he shivered, was convulsed, and very lightheaded. An uneasy night. The fourth, was easy, and slept a little, but rambled. The fifth, was in pain, worse in all respects, and delirious. A bad night again, and no sleep. The sixth, no alteration. The seventh, shivered, burned, sweated all over, and had a crisis.

This patient had all along bilious, small, unmixed stools; and thin well-coloured urine, with a cloud suspended. About the eighth, the colour was better, and it had a white but little sediment. He came to himself. The fever intermitted, and returned the ninth. About the fourteenth, he was very feverish again, and sweated. The sixteenth, vomited a pretty deal of bilious yellow matter. The seventeenth, shivered again, was very hot, sweated, lost his fever, and had another crisis. The urine was better-coloured after the relapse and the crisis, and had a sediment; nor was he delirious in his relapse. The eighteenth, he was a little hot, and a little dry. His urine thin, with a suspended cloud; and he rambled a little. The nineteenth, was free from the fever, but

had a pain in his neck. A sediment in the urine, and a perfect crisis the twentieth.

Euryanax's daughter, a maid, was seized with a violent fever. She had no thirst all along, nor eat any thing; but had a little discharge downwards. The urine was thin, small, and not well-coloured. At the beginning of the fever a pain came about the anus. The sixth day, neither fever, nor sweat, and yet a crisis; the complaint about the anus suppurating a little, and breaking at this time. The seventh, after the crisis she shivered, was a little hot, and sweated. The eighth day after the crisis she shivered again, but not much; and afterwards her extremities were always cold. About the tenth, after the sweat that then was upon her, she grew lightheaded, but recovered herself again presently; occasioned, as they said, by her tasting a bunch of grapes. It intermitted the twelfth day, and again she was very delirious. Her stools were bilious, small, unmixed, thin, and acrid. She got up often. The seventh day after the last delirium she died.

This patient complained at the beginning of a pain in her throat, which was inflamed all along, with the uvula drawn up; and of a great rheum, that was withal a little sharp. She coughed too, but brought nothing away digested. She had an aversion to every thing, and not the least desire to any thing, all along; had no thirst, and drank nothing worth speaking of; was silent, and said nothing. Her mind was much dejected, and in a despairing way, and her constitution seemed inclinable to a consumption.

The woman with the quinsy, that was by Aristion's, who first complained of her tongue, lost her speech, and her tongue was both red and dry. The first day a chilliness came on, with heat afterwards. The third, a shivering, a burning, and a reddish hard swelling upon the neck and breast on both sides. Her extremities cold and livid. Her breathing difficult, with great elevation of the breast. The drink came through her nose, and she could not swallow. Her evacuations by stool and urine were stopped. The fourth, was worse in every respect. The fifth, she died of her quinsy.

The young man, who lived upon the Lyars Market, was taken with a violent fever, after weariness, labour, and running more than usual. The first day he had many thin, bilious stools. His urine was thin and blackish. No sleep, and considerable thirst. The second, worse in all respects. More stools, unseasonably. No sleep. Rambled a little, and sweated a little. The third, was un-

easy, dry, qualmish, with great anxiety, tossings, and ramblings. The extremities livid and cold. The soft part of his belly gently distended on both sides. The fourth, no sleep; was worse. The seventh, he died, in about the twentieth year of his age.

The woman by Tisamenus, who was seized with the iliac passion, was extremely uneasy, vomited much, could not contain what she drank, was in pain about the flanks, and the lower parts of her belly, and in continual torment. She had no thirst, but yet grew hot. Her extremities were continually cold. A loathing, and watchfulness came on; her urine was thin and little; and her stools crude, thin, and small. Nothing being able to relieve her, she died.

A woman, who miscarried of a child, among those that were about Pantimis, was seized the same day with a violent fever. Her tongue was dry and thirsty, nor could she get any sleep. Her stools were thin, many, and crude. The second, she shivered, was very feverish, had many stools, and no sleep. The third, her pains increased. The fourth, she was lightheaded. The seventh, she died.

Her belly was all along lax; her stools many, thin, and crude; and her urine but little and thin.

Another, that miscarried about the fifth month, had a violent fever too, which at the beginning was attended with a coma, and again a watchfulness; together with a pain of the loins, and a heaviness of the head. The second day, a few, thin, and at first unmixed, stools. The third, more and worse. No sleep in the night. The fourth, was lightheaded, frightened, dejected, had the right eye drawn on one side, and a little cold sweat about the head. The extremities were also cold; the fever exasperated, and a violent delirium succeeded, but went off again presently. She had no thirst, but was watchful, and had many unseasonable stools all along. Her urine was little, thin, and blackish; her extremities cold, and somewhat livid. The sixth, no alteration. The seventh, she died in a frenzy.

The woman that lived upon the Lyars Market, after she had been delivered, with a great deal of pain, of her first child (a son), was seized with a violent fever, and immediately from the beginning was thirsty, qualmish, and in great pain about the pit of her stomach. Her tongue was dry; her stools thin and few; and no

sleep. The second day she shivered a little, burned, and had a little cold sweat about the head. The third, was uneasy. Her stools crude, thin, and many. The fourth, shivered again; was worse in all respects; and could get no sleep. The fifth, uneasy. The sixth, no alteration, but many liquid stools. The seventh, shivered again, burned, was very thirsty, and extremely restless. About the evening sweated all over, but it was cold. The extremities were cold too, and could not get warm again. Shivered once more at night. The extremities remained cold. No sleep. A little delirious, but came to herself again presently. The eighth about noon, grew hot, dry, comatose, qualmish, and vomited bilious matter with a little yellow in it. A restless night, and no sleep. A great deal of urine in a gushing manner, and without her knowledge. The ninth, every thing remitted, but the coma did not go off. In the evening she shivered a little again, and vomited a little bilious matter. The tenth, another shivering, an acute fever, and no sleep. In the morning early made a deal of water, that subsided. The extremities were warm again. The eleventh, vomited æruginous bilious matter, and not long after shivered again. The extremities grew cold again. In the evening sweated, shivered, vomited much, and had an uneasy night. The twelfth, vomited much black, fetid matter; hiccuped often; was dry, and uneasy. The thirteenth, vomited much black, fetid matter again; shivered, and about noon lost her speech. The fourteenth, bled at the nose, and died.

This patient was all along loose in her body, and chilly. Her age, about seventeen.

At this part, Fœsius begins with the account of the "Status Pestilens," the καταϛασις λοιμωδης, of Hippocrates. Haller calls it "Constitutio Temporis Pestilens," and Clifton, "The Malignant State." As this pestilential constitution has by many been considered as a description of the plague at Athens, as given by Thucydides, Clifton has shown, I think conclusively, that Hippocrates has no reference to it, in this detail. It may be interesting to many to read Thucydides' account, with the objections of Clifton, in connexion with this part of the Third Epidemics.—Ed.

The year was southerly, showery, and perpetually calm: but, greater droughts than ordinary happening some time before, much rain fell about the rising of Arcturus with the southerly winds. The autumn was gloomy, cloudy, and very wet. The winter southerly, wet, and mild; but a considerable while after the solstice, near the equinox, the weather was very severe; and, even about the equinox, northerly winds set in, and snow that lasted not long. The spring was again southerly and calm. A great deal of rain fell continually to the rising of the Dog-star. The summer was serene and hot, attended with great suffocating heats. The Etesiæ blew faintly and by intervals. About the rising of Arcturus much rain fell again, with the wind northerly. The year being thus southerly, damp, and mild, the winter proved healthy to all but consumptive people, as we shall see by and by.

Early in the spring, with the cold weather that then set in, came a great many erysipelases, some from evident causes, others unaccountably; of a bad sort, and fatal to many. Many complained of pain in their throats, and impediments in their speech; of burning fevers, with frenzies, aphthas in the mouth, tubercles upon the private parts, inflammations of the eyes, carbuncles, disorders of the belly, aversions to food, with thirst in some, in others not; turbid urine, in abundance, and of a bad sort; comas for the most part, and again watchings; crises not at all in many, or with difficulty; dropsies, and consumptions not a few. These were the epidemical diseases, of which there were some ill of every kind, and many never recovered it. The manner of their illness was as follows.

Many had erysipelases (that came from evident causes), upon very slight and trifling wounds, all over the body, especially about the head in those who were near sixty, if they were but a little neglected. Many again, while under cure, had great phlegmons formed, round which the erysipelas spread considerably, and in a short time. In most of them the matter that was separated turned to suppuration, and great fallings off of flesh, tendons, and bones ensued. The humour that was collected there was not like pus, but a certain kind of putrefaction, with a copious running of great variety. Now, wherever any of these happened about the head, the hair of the whole head and chin came off, and the bones were laid bare, and fell off, attended with great discharges. These things happened sometimes with, sometimes without, a fever, and were more terrible than dangerous. For, wherever any of these disorders were digested and turned to suppuration, there most of

them did well; but where the phlegmon and erysipelas went off without any such abscess, there many of them died. The like circumstances happened, whatever part of the body it fell upon in its way. In many a flux happened upon the arm and whole elbow. Where it fell upon the ribs, it affected them either before or behind. Some had the whole thigh, or the leg, or the foot, laid bare: but the most dangerous of these was, when they fell upon the pubes or private parts. This was the nature of their attack, when either ulcers, or any other cause, occasioned the erysipelas. Many of them had it in fevers, before fevers, and upon fevers. To these, where any of them went off by suppuration, or by a considerable purging, or a discharge of laudable urine, it proved critical; but where none of these happened, and they disappeared without any signs, it proved fatal. Thus the case stood among many with respect to the erysipelas in the spring, which continued also through the summer, and during the autumn. The tubercles in the throat were very troublesome too to some persons, and so were the inflammations of the tongue, and the abscesses of the teeth. The voice, when it was vitiated and obstructed, was likewise another sign to many, especially to those who began to be consumptive, and to those who had burning fevers and phrensies.

These fevers and phrensies began early in the spring after the cold weather that then happened, and a great number were laid up with them at that time. They also proved very acute and mortal. The state of the fevers was thus. At the beginning they were troubled with comas, nauseas, horrors, acute fevers, but little thirst, and no delirium. They also bled a little at the nose, and the paroxysms for the most part were upon equal days. About the time of the paroxysms came on loss of memory, great languidness, and loss of speech. The fingers and toes were always cold, but much more so about the paroxysms, and the warmth returned again slowly and imperfectly. They came to themselves again, and spoke; but either a continual coma, without sleep, was upon them, or painful watchings. A great many were troubled with crude thin stools in abundance. The urine was plentiful and thin, without any thing critical or beneficial in it; nor did any thing else of a critical kind happen to those who were thus affected; for they had neither a good hemorrhage, nor any critical separation of what is usual to pass off; but every one died, (as fate would have it,) in a vague and uncertain manner, about the time of the crisis for the most

part; some held out a longer time, but died at last, without speaking, and many sweating. Thus the case was among those who were mortally ill; and there was but little difference in the phrensies. For they were entirely without thirst or madness, as in other phrensies, but were taken with a kind of stupid delirium, and died with the heaviness upon them. There were also other fevers, of which we shall take notice. Aphthas, and ulcers in the mouth, were frequent; and great fluxes upon the private parts, with ulcerations, tubercles, outwardly and inwardly; swellings in the groin; inflammations of the eyes that were humid, of long duration, and painful; besides little tumours upon the eyelids, outwardly and inwardly, called Συκα, that destroyed the sight in many persons. The like happened upon other ulcers, and upon the private parts. There were also many carbuncles in the summer, and other large pustules of the putrid kind, called Σηψ; many large herpes's or tetters, and many complaints in the belly too, that did a great deal of harm. In the first place many were seized with painful tenesmus's, especially children, and those who were under the age of puberty, most of whom died. Many also had lienteries, and dysenteries, but these without much pain. The discharges were of the bilious, fat, thin, and watery kind; and in many the distemper took this turn, sometimes with, sometimes without, a fever. There were likewise cruel gripings and twistings of the guts, with intolerable pain. Many things that were in the body and suppressed were let out, but these discharges did not carry off the pains. What was administered met with great difficulty; for purges were very injurious to most. Of these that were thus affected many died in a short time, and many again held out longer. In a word, all that were ill, whether of acute or chronical complaints, died chiefly of disorders of the belly; for the belly was the general receiver of all. There was, as far as I could observe, an aversion to food in every body, in all the forementioned diseases. In many, especially of this sort, and the like; and among others of those who were mortally ill, some were thirsty, others not. Of those who had fevers and other disorders no one drank intemperately, but with respect to this regulated themselves as the physician would have them. The urine was much, and that not in proportion to the drink taken in, but vastly more; and that which came away was very bad in its quality; having neither thickness, nor digestion, nor was the body well cleansed by it. Whereas in many cases cleansings by the urine

that are good are very beneficial. To the greatest part they now implied corruption or colliquation, disorder, pains, and the want of a crisis. Comas likewise happened, particularly in the phrensies and the burning fevers; not but they happened too in all the other capital diseases, where a fever attended; but in many, a heavy coma followed, or little and gentle sleeps, all the time.

Many other kind of fevers were also epidemical, such as tertians, quartans, nocturnals, continuals, chronicals, erratics, inconstants, and such as were attended with nauseas and inquietude. All these brought with them great uneasiness: for the belly was in most cases much disturbed, horrors came on, and sweats that were not critical. As to the urine, that was as we have already described it. A great many of them were likewise tedious; the abscesses, that happened here, not proving critical as at other times. Add to this, the crises were universally very difficult, and sometimes not at all; or proved very tedious, especially to these. A few of them were determined in about eighty days; but to the greatest part they went off at random. A few of these died of a dropsy, without being confined to their beds. Many were afflicted with tumours that came upon other diseases, and above all those who were consumptive. For the greatest, most difficult, and most fatal was the consumption. Many of these, beginning in the winter, obliged a great number to keep their beds, while some of them bore it standing. Early in the spring most of those who were laid up died, and none of the rest got rid of their coughs. They abated indeed in the summer, but in the autumn they were all laid up, many died, and most of them were ill a long time. The greatest number of these began to be extremely ill presently after these complaints, and had frequent horrors, continual acute fevers very often, and unseasonable sweats. Many were cold continually: the cold was great too, and they could hardly get warm again. The belly was bound many ways, and presently again became humid; all that oppressed the lungs passing downwards. A great deal of urine was made, but not good; bad colliquations appeared; coughs were frequent all along, and much came away digested and moist, and with tolerable ease. But if they were a little in pain, the discharge from the lungs was then very gentle in all. The throat was not much affected with acrid, nor did salt humours do any harm. What came from the head was viscid, white, moist, and frothy. But the greatest evil of all, in these and other cases, was, what we

have taken notice of before, a dislike to food: for they had no pleasure in eating and drinking, but passed the time very free from thirst. There was also a heaviness in the body, and a coma. A great many swelled, and fell into dropsies, were troubled with horrors, and before they died grew delirious.

Those who fell into consumptions were the smooth, the whitish, the lentil-coloured, the reddish, the gray-eyed, the leucophlegmatic, and those whose shoulders stuck up behind. Nor did women of these kinds escape. The melancholic, and the sanguine suffered too. These were affected with burning fevers, phrensies, and dysenteries; the young men, with tenesmuses; the phlegmatic, with long diarrhœas; and the bilious, with sharp and fat purgings. To all the above-mentioned the most troublesome time was the spring, which proved fatal to great numbers; the summer was the easiest, and fewest died; but in the autumn, and during the Pleiades, a great many died of quartans.

The summer happening as it ought, is, in my opinion, of great service: for summer diseases cease upon the coming in of winter, and winter diseases upon the coming in of summer. Though the summer that then was, was not well-conditioned, but on a sudden hot and southerly and calm; yet changing to another constitution or season was of service. And indeed I look upon it to be a great part of the art to be able to consider properly what has been already wrote. For he who knows, and makes use of, these things, does not seem to me capable of any great mistakes in his profession. But then he ought to be well acquainted with the condition of every season, and also with the disease; the good that is common to the season or the disease, and which disease will be long and fatal, long and safe, acute and fatal, acute and safe; and likewise the order of the critical days. These things he ought to consider and predict from; because they are able to supply him. And he who is acquainted with these things will know whom, when, and how to diet, or manage the rest.

THUCYDIDES UPON THE PLAGUE AT ATHENS.

In the very beginning of summer, the Peloponnesians, with two-thirds of their allies, invaded Attica, as they had done the first year

of the war, under the conduct of Archidamus the son of Zeuxidamus king of Sparta; and, after encamping, wasted the country about them. They had not been many days in Attica, before the plague first broke out among the Athenians, after having before that visited, as the report went, Lemnos and many other places: but so great a plague and mortality was never yet known, in the memory of man. The physicians were so far from being able to cure it at first, for want of knowing the nature of it, that they themselves died faster than others, as being most familiar with the sick; nor could any other art of man make head against it. All supplications to the gods, and inquiries of oracles, and the like, signified nothing; so that, at last, overcome with the distemper, they left them all off. It began, by report, first in that part of Ethiopia that lies above Egypt, and so came down into Egypt and Lybia, and a great part of the King of Persia's dominions. Athens was seized with it on a sudden, but first in Piræus; which occasioned a report that the Peloponnesians had thrown poison into the wells; for at that time they had no springs or fountains there. Afterwards it came up into the high city, and proved much more mortal than before. Now let every man, physician or private person, say, according to his knowledge, what the origin of this distemper might be, or what causes might be sufficient to produce so great an alteration. For my own part, having been ill of it myself, and seen others that were so too, I shall now declare what the manner of it was, that, if ever it should happen again, nobody who reflects upon it, may be at a loss through ignorance.

The year was universally allowed to be the healthiest and freest from other diseases of any; and, if any one was sick before, all his illness was converted to this. Others, who were in perfect health, were taken suddenly, without any apparent cause, with violent heats in their heads, and with redness and inflammations in their eyes. Their tongues and throats within became immediately bloody; their breath in great disorder and offensive. A sneezing and a hoarseness ensued; and, in a short time, the pain descended into the breast, attended with a violent cough. When it was once settled about the mouth of the stomach, a retching, and vomiting of bilious stuff, in as great a variety as ever was known among physicians, succeeded, but not without the greatest anxiety imaginable. Many were seized with a hiccup, that brought up nothing, but occasioned a violent convulsion, which in some went off presently,

but in others continued much longer. The body outwardly was neither very hot to the touch, nor pale, but reddish, livid, and flowered (as it were) all over with little pimply eruptions, and ulcers; but inwardly the heat was so exceedingly great, that they could not endure the slightest covering, or the finest linen, or any thing short of absolute nakedness. It was also an infinite pleasure to them to plunge into cold water; and many of those who were not well attended did so, running to the wells, to quench their insatiable thirst: not that it signified whether they drank much or little; a great uneasiness and restlessness attending them, together with a continual watching. While the distemper was advancing to the height, the body did not fall away, but resisted the vehemence of it beyond expectation; so that many of them died the ninth and the seventh day of the inward burning, some strength yet remaining; or, if they held out longer, many of them afterwards died of weakness; the distemper descending into the belly, and there producing violent ulcerations, and fluxes of the simple or unmixed kind. For the disease went through the whole body, beginning first in the head; and, if any escaped, where the case was very desperate, this was denoted by the extremities being affected: for it broke out upon the private parts, the fingers and toes; and many came off with the loss of those parts. Some, again, lost their eyes; others were seized, immediately upon their getting up, with an absolute forgetfulness of every thing, not knowing themselves, or those that were most familiar; the appearance, or the nature, of the distemper being greater than words can possibly express, and harder to be borne than human nature is accustomed to. Nor indeed was it any of those diseases that are bred among us, as appeared very plain from this circumstance. For the birds and beasts that feed on human flesh, though many carcasses laid abroad unburied, either came not to them, or tasting died. The manifest defect or scarcity of such fowl was a proof of this; for they were neither seen any where else, nor about any of the carcasses: but the dogs, being brought up among us, made the case yet more evident. The disease therefore (to pass over many strange particulars that happened differently in different persons) was in general such as I have described it; and as to other usual distempers, none of them were then troublesome; or, if any appeared, they all centered in this. Some of them died for want of attendance, and some again with all the care imaginable. Nor was there any (to say) certain

remedy, which, upon application, must have helped them: for, if it did good to one, it did harm to another. Nor was there any difference in bodies, as to strength or weakness, to enable them to resist it; but it swept all away, what care or method soever was taken. The terriblest circumstance of all was the dejection of mind in those that found themselves beginning to be ill (for, growing immediately desperate, they gave themselves over much more, without making any resistance); and their dying like sheep, infected by their care and concern for others, increased their despair; the greatest mortality proceeding this way. For, if they were unwilling to visit others through fear, they died by themselves without assistance (by which means many families became desolate, for want of somebody to take care of them); or, if they visited, they likewise died, especially those who had virtue or humanity enough to do any friendly offices: for such out of shame would not spare themselves, but went in to their friends, especially after it came to that pass that even the domestics, wearied with the lamentations of those that died, fell ill themselves, overcome with the greatness of the calamity. But those that were recovered had much compassion on those that were dying, and on those that lay sick, as having known the misery themselves, and now were *in a secure and safe situation: for it never seized the same person twice, so as to be mortal.* Others, therefore, esteemed them happy, and they themselves, through excess of present joy, conceived a kind of small hope never to die of any future sickness.

The bringing provisions from the country to the city was an additional grievance, and equally affected those who came with them into the city. For, having no houses, but dwelling, at that time of the year, in stifling booths or huts, the mortality was now without any form or order; dead men, and those that were just expiring, lying upon one another in the streets, while men half dead lay about every well, desiring a little water. The temples, also, where they dwelt in tents, were also full of the dead that died there: for, oppressed to the last degree by the violence of the distemper, and not knowing what course to take, men grew equally careless both of holy and profane things. All the laws relating to funerals, that had been observed before, were now violated and confounded; every one burying where he could find room. Many, for want of necessaries, after so many deaths before, were become even impudent in the article of funerals. For, when one had made a funeral-

pile, another, getting before him, would throw on his dead, and set fire to it: and, while one was burning, another would come, and throwing him upon it that he had brought along with him, would go away again.

The great licentiousness, which was also used here in other respects, began at first from this disease. For what a man would before dissemble, and not acknowledge to be done for the sake of pleasure, he now durst freely own, seeing before his eyes such quick revolutions of things, rich men dying suddenly, and succeeded by others not worth a groat; so that they thought it better to have a speedy enjoyment of their estates and pleasures, as men that held their lives and fortunes alike by the day. As to laborious works, no man was forward to undertake any thing noble or laudable; not knowing whether he should live to finish it; but what any man knew to be delightful, and every way conducing to pleasure, that was made both profitable and honourable; neither the fear of the Gods, nor the laws of men, restraining any. For, with respect to the one, they concluded, from what they saw, that it was all the same whether they worshipped, or not worshipped; all men dying without distinction; and, with respect to the other, no man expected his life would last until the law could punish him for his misbehaviour. But they thought there was now, over their heads, some greater judgment decreed against them, before which fell, it was but fit they should enjoy some little part of life. Such was the calamity that came upon the Athenians, and oppressed them greatly; their men dying of the disease within, and the enemy wasting the country without.

CONCLUSION OF THE HISTORY OF THE PLAGUE AT ATHENS.

Clifton having in his preface attempted to overthrow the opinion of this Plague, being the same as Hippocrates has described under his Pestilential Constitution, his reasons are placed here, for the consideration of the reader.—Ed.

"To correct a mistake that several learned men have run into, I have added (by way of comparison), at the end of the malignant or pestilential year, the account of the plague of Athens by Thucy-

dides, by which the reader will plainly see, that Hippocrates never intended a description of that plague, or of any other properly so called, but only of the raging ill-conditioned fevers, and other severe complaints, that then went about. There are indeed some circumstances concurring with Thucydides, such as the inflammations of the eyes, with sometimes a total loss of the sight; the disorders of the belly, and the private parts, &c.; but then no notice is taken of the violent heats in the head, the bloodiness of the throat, the sneezings and the hoarseness, the vomitings and the hiccups, the plungings into cold water and despondencies, (to pass by many other particulars,) mentioned by Thucydides; circumstances, that it was not possible for so curious an observer as Hippocrates to forget or overlook. Add to this, that the description here given contains nothing uncommon for such a country, or inconsistent with such a sultry wet season, and is supported by cases not at all from Athens, but from places far remote, and more upon the Thracian coast than any where else, such as Thasus and Abdera; places that Hippocrates chiefly resided at. Whereas, if the plague of Athens had been here intended, the cases would have been all related from the very place itself, and in a manner quite different from the present. I therefore conclude, that our learned countryman, Prideaux,[a] and all others of his opinion, are very much mistaken, when they look upon this section in Hippocrates, as a description of that terrible plague. But to consider the point a little farther. Thucydides observes, that the distemper broke out first in Lemnos, and many other places, before it came to Athens, beginning (by report) in that part of Ethiopia that lies above Egypt, and so came down into Egypt and Libya, and a great part of the King of Persia's dominions. Nor did it leave the Greek islands till some considerable time after. Accordingly we find a letter from Artaxerxes to Hystanes, the Persian governor of the Hellespont, complaining of the plague being got among his army, and desiring at any rate the assistance of Hippocrates. Now this seems to be the same plague described by Thucydides; and yet,

[a] See his *Connexion*, vol. ii. p. 569, the ninth edition, in 1725, where are these express words, viz.: "Lucretius has also given us a poetical description of it (meaning the plague), and Hippocrates has written of it as a physician. For that great master of the art of physic lived in those times, and was at Athens all the while this distemper raged there."

in the life of Hippocrates wrote by Soranus, we find another account very different: for the plague there mentioned, that gained him so much honour, is said to have begun among the Illyrians and Pœonians, and so came down into several parts of Greece. Now the Illyrians were a people that inhabited that part of the country which we call Servia, and Albania, bordering upon Dalmatia, Dardania (or Bosnia), Macedonia, and Pœonia; and the Pœonians bordered upon Macedonia to the south, Illyris to the north, Dardania to the west, and Thracia to the east; so that this plague (if any such there was) seems to have travelled from the north to the south; whereas the other travelled directly contrary, or at least from the southeast to the northwest. I conclude, therefore, that, if the Illyrian story is true, the description here given answers better to the state of diseases then; but that the whole story is false I am more inclined to believe, because the plague of Athens was the only one in those days recorded by men of credit. It is true, the Illyrians might have reason enough to complain of a very sickly season, and other countries might be attacked with the same, or even worse, disorders; all which might proceed from the plague originally, for any thing I can say to the contrary. For, as Thucydides observes, Lemnos and many other places were infected as well as Athens, the skill of the physicians availing nothing; and, if his account be true, the same winds that brought it there (supposing the wind to have had a share in the affair) might easily have carried it farther, Lemnos being but a little step from the Thracian shore one way, and the south parts of Macedonia another; though, in travelling there, the force and virulence of it might be so far broke as to produce no more than a very sickly season. But whether the malignant time here mentioned was actually at the time of the plague, or very near it, this at least is certain, that wet seasons, sultry heats, and calm weather, are always attended with bad diseases; and such was the year now in question; but, for want of a date (a great omission in Hippocrates) the precise time cannot certainly be known, though there is a great deal of room to believe, both from the title itself, καταστασις λοιμωδης, (which, however, Galen suspects as spurious) and the nature of the diseases there mentioned (which certainly were of a very bad, or, if you please, malignant sort), that it was drawn up much about that terrible time, and perhaps the very year of the plague; yet not as a description of the plague itself (for then it would have been περι λοιμου),

but only of a malignant year, not many degrees removed from the other."

We now return to Hippocrates.—Ed.

In Thasus, the son of Parion, who lived above the Temple of Diana, was seized with an acute fever, which at first was continual, burning, and attended with thirst. He was from the beginning comatose, and again watchful. His belly loose. His urine thin. The sixth day oily urine, with ramblings. The seventh, worse in all respects; no sleep; the urine as before; lightheadedness, together with bilious, fat, stools. The eighth, he bled a little at the nose; vomited æruginous stuff in a small quantity; and slept a little. The ninth, no alteration. The tenth, a remission of all the symptoms. The eleventh, a sweat, but not all over. He grew cold all over, and in a short time warm again. The twelfth, an acute fever; many bilious, thin stools; a thin cloud in the urine; and a rambling head. The seventeenth, great uneasiness, having had no sleep, but his fever did not increase. The twentieth, a sweat all over; no sleep; bilious stools; an aversion to food; and a coma. The twenty-fourth, a relapse. The thirty-fourth, no fever; the body not bound; but he grew hot again. The fortieth, no fever; the body bound, but not long; an aversion to food; a gentle fever again, but in the erratic way continually, sometimes present, sometimes not; for, if it left him or if he was easier, it returned again. What he eat was of the worst kind, and in a great quantity. After the return he slept badly, and was lightheaded. The urine was then thick, but turbid and bad. The body sometimes bound, sometimes lax. He was also continually feverish, had many thin stools, and the *hundred and twentieth day* he died.

This patient's belly was constantly, from the first day, either lax with many bilious liquid stools, or bound with hot and undigested matter. The urine bad all along; and a coma for the most part, with pains, watchings, loathing of food, and a burning fever continually.

In Thasus, the woman that lived by the cold Spring, after being delivered of a daughter, and not cleansed, was taken with an acute fever the third day, and a chilliness. But, long before she was brought to bed, she had been laid up with a fever, and aversion to food. After the shivering, the fever became continual, and acute, attended with a sense of horror or chilliness. The eighth day and

the following she was lightheaded, but came to herself again presently, and had many thin, watery, bilious stools, without thirst. The eleventh, she came to herself again, but was inclined to a stupidness; made a great deal of thin and black urine; and kept awake. The twentieth, was a little cold outwardly, and warm again presently; rambled a little, and kept awake. Her stools as before; and her urine watery, and plentiful. The twenty-seventh, neither fever, nor stool, but not long after a violent pain of the right hip that lasted long. She grew feverish again, and made watery urine. The fortieth, the hip was a little easier; but she had a continual cough, and very humid; no stool; a dislike to food; and the urine as before. The fever not entirely off, and the paroxysms in the erratic way, sometimes present, sometimes not. The sixtieth, the cough ceased without any sign; no concoction appearing in what was spit, nor any separation of what is usual, but the right jaw was convulsed. She was also comatose, and lightheaded again, but came to herself presently. Her aversion to food still continued; the jaw came to itself; the stools were a little bilious; the fever increased, not without chilliness; and the days following she lost her speech, recovered herself again, spoke, and died the eightieth.

This patient's urine was all along black, thin, and watery. A coma came on, with fasting, despondency, watchings, anger, impatience, and melancholy.

In Thasus, Pythion, who lived above the Temple of Hercules, after labour, and weariness, and careless eating, was taken with a great shivering, and an acute fever. His tongue was dry, thirsty, bilious. No sleep. His urine blackish, with a thin cloud above, and no sediment. The second day about noon his extremities were cold, especially his hands and head. He lost his voice, and could not speak; was short-breathed; in a little time grew warm; was thirsty; had a quiet night; and sweated a little about the head. The third, a quiet day. In the evening, about sunset, he grew a little cold; had a very restless night and no sleep; and voided little hard pellets. The fourth, in the morning early, he grew easy again, but about noon worse in all respects. He was also cold; lost his voice and speech too; was worse and worse; in time grew warm again; made black urine, with a little floating cloud; had a quiet night, and slept. The fifth, he seemed to be easier, but complained of a weight in the belly with pain; was thirsty; and had an uneasy

night. The sixth, in the morning early, he was quiet, but about sunset his pains increased, and he was worse; but, after a good discharge in the evening from a glyster, slept in the night. The seventh, he was qualmish in the day, and a little impatient; made oily urine; at night was much out of order, rambled, and got no sleep. The eighth, slept a little betimes in the morning, but presently grew cold, lost his speech, and breathed but faintly and less and less. In the evening was hot again, and delirious; but, as the day advanced, was a little easier. His stools simple, small, and bilious. The ninth, was comatose, and qualmish, when he was raised, but not very thirsty. About sunset was very restless, rambled, and had a bad night. The tenth in the morning early was speechless, very cold, very feverish, sweated much, and died.

His pains were upon equal days.

He that had a phrensy and was laid up the fifth day, vomited much green thin matter; was feverish and chilly; sweated much and continually all over; and had a weight and pain in the head and neck. He had also thin urine, with little clouds scattered up and down, that subsided not; thundering stools; rambled much; and got no sleep. The second day betimes in the morning he lost his speech; was very feverish; sweated, but did not lose his fever; trembled all over; and at night was convulsed. The third, was worse in all respects. The fourth, died.

In Larissa, one who was bald was taken suddenly with a pain in his right thigh, and nothing that was applied to it did him any good. The first day an acute and burning fever, which abated a little, but the pain still continued. The second, the pain of the thigh abated, but the fever increased. He was also somewhat impatient, without sleep, cold in his extreme parts, and made a great deal of water, but not good. The third, the pain of the thigh ceased, but he grew lightheaded upon it, greatly disordered, and full of tossing. The fourth, about noon, he died in a very acute manner.

In Abdera, Pericles was taken with an acute, continual, fever and pain. A great thirst succeeded, and a qualmishness; nor could he contain what he drank. He was also somewhat large-spleened, and heavy-headed. The first day, blood came from the left nostril; the fever raged much; and his urine was turbid, thin, copious, without a sediment after standing. The second, worse in all respects, but the urine was thick indeed, and rather subsided; and with respect to his oualmishness he was easier, and slept. The third, the

fever abated. The urine was increased, digested, and had a great sediment. The night was pleasant. The fourth day about noon, a great hot sweat all over. The fever was carried off by it, and returned not again.

In Abdera, a virgin, who lived upon the Holy Way, was seized with a burning fever, thirst, and watchfulness. Her menses came down then for the first time. The sixth day she was very sick at her stomach, high-coloured, shivering a little, and restless. The seventh, no alteration. The urine thin indeed, but well-coloured; the belly quite easy. The eighth, she was deaf, very feverish, watchful, qualmish, shivering a little, but yet in her senses, and made the same urine. The ninth, and the following days, no alteration. The deafness remained. The fourteenth, the mind was disordered, and the fever abated. The seventeenth, she bled much at the nose; the deafness abated a little; but the following days she was qualmish, deaf, and lightheaded. The twentieth a pain in her feet came on; her deafness and delirium went off; she bled a little at the nose, sweated, and lost her fever. The twenty-fourth, she relapsed, and was deaf again; the pain in her feet remained, and she grew delirious. The twenty-seventh, sweated much, and lost her fever and deafness; the pain in her feet remained a little, but in other respects the crisis was perfect.

In Abdera, Anaxion, who lived by the Thracian Gates, was seized with an acute fever. His right side was continually in pain, attended with a dry cough, that brought nothing up the first days. A thirst came on, with a want of sleep, and urine that was well-coloured, much, and thin. The sixth day he was lightheaded, and received no benefit from warm applications. The seventh, was very uneasy. The fever increased, and the pains abated not. The cough was very troublesome, and a difficulty of breathing came on. The *eighth, he was blooded* in the arm, and that *plentifully*, as he ought. The pains abated, but the dry cough still continued. The eleventh, the fever abated; he sweated a little about the head; coughed still; and brought away from the lungs something more humid. The seventeenth, he began to spit a little concocted matter, and was relieved; but was thirsty, and the lungs were not well cleansed. The twentieth, he sweated, lost his fever, and after the crisis was easier. The twenty-seventh, the fever returned; and much digested matter came away by coughing. The urine had a large white sediment; the thirst went off, and sleep came on. The

thirty-fourth, he sweated all over, had no fever, and was perfectly freed.

In Abdera, Heropythus was taken with a pain in his head as he was upon his legs, and not long after was forced to lie down. His house was by the upper path. An acute burning fever came on, with a vomiting of much bile at the beginning; a thirst; great uneasiness; and thin black urine, sometimes with, sometimes without, a cloud atop. The night was uneasy; the paroxysms of the fever uncertain; and for the most part out of the common course. About the fourteenth day he grew deaf; the fever increased; the urine, as before. The twentieth, and the following days, he was very light-headed. The fortieth, bled much at the nose, and came more to himself. The deafness remained still, but was less. The fever abated. The following days he bled again often, and a little at a time. About the sixtieth his bleedings stopped; but in the right hip was a violent pain; the fever increased; and not long after pains attacked all the lower parts. It happened too, that the fever was either greater, and the deafness considerable, or that, upon an abatement of these, the pains in the lower parts, about the hip, were stronger. About the eightieth, there was a general remission, but it did not go quite off. The urine was well-coloured, and had a good sediment; and the deliriums were abated. About the hundredth, a great discharge of bilious matter downwards, that did not cease presently. These were succeeded by dysenteric complaints and pain; though in other respects he was very easy. In fine, the fever went off, the deafness ceased, and upon the *hundredth* day a perfect crisis happened in this burning fever.

Nicodemus, in Abdera, after venery and drinking, was seized with a violent fever. In the beginning he was qualmish, heart-burnt, thirsty, with a burnt tongue, and thin black urine. The second day the fever increased. He was also chilly; qualmish; got no sleep; vomited bilious yellow stuff; made the same urine as before; had a quiet night, and slept. The third, every thing abated, and he was easy; but about sunset he was taken with an uneasiness again, and had a bad night. The fourth he shivered; was very feverish; in pain all over; made thin urine, with a cloud in it; and was very delirious. The seventh, easy again. The eighth, all the other complaints abated. The tenth, and the following days, he complained of pains, but not so much as before; and both pains and paroxysms were all along rather upon equal days. The twen-

tieth, white thick urine, that subsided not upon standing; a great sweat; the fever seemingly spent: but about sunset he grew hot again, and had the same pains, with chilliness, thirst, and a little rambling. The twenty-fourth, much white urine, with a good sediment; and a great hot sweat all over, that put an end to the fever, and produced a good crisis.

A peevish, melancholy woman, in Thasus, was taken, after grieving upon some occasion, with watchings, dislike to food, thirst, and great uneasiness, while standing and walking about. She lived near Pylades's, upon the Plain. The first day, as the night came on, she grew fearful, talked much, desponded, and had a little fever. The next morning early was much convulsed, and, upon the convulsions intermitting, was lightheaded, and talked obscenely. Her pains were many, great, and constant. The second day, no alteration; no sleep; the fever higher. The third, the convulsions ceased, but the coma and delirium remained. She waked again, got up, and could not contain herself; was very lightheaded, and very feverish. The same night she had a plentiful sweat, but not all over; the fever however left her; she slept, came to herself perfectly, and had a crisis. About the third day the urine was black and thin, and the cloud in it for the most part round and floating. At the crisis her menses came down plentifully.

In Lariffa, a maid was seized with an acute burning fever, attended with want of sleep, thirst, a fuliginous (or sooty) dry tongue, and urine that was well-coloured, but thin. The second day she was uneasy, and got no sleep. The third, had several watery stools, and the following days the like, without fatigue. The fourth, the urine was thin, a little in quantity, with an elevated cloud that subsided not. A delirium at night. The sixth, she bled very freely at the nose; shivered a little; sweated plentifully and hot all over; and the fever came to its crisis. But in the course of the fever, and upon the crisis happening, her menses came down then for the first time, she being a young virgin.

She was all along qualmish, subject to horrors, red in the face, and had a pain in her eyes, with a heaviness in her head. The crisis happened without a relapse, and her pains upon equal days.

Apollonius, in Abdera, was ill a long time, but not so as to be confined. He was a large-bowelled man, had an old pain about the liver a long while, and was at that time troubled with a jaundice, bloated, and of a whitish complexion. Upon eating beef and drink-

ing intemperately, he was at first seized with a little warmth, and went to bed. But upon using milk plentifully, both goat's and sheep's, boiled and raw, and a bad diet withal, all his complaints were made considerably worse. For his fever was exasperated, and of what he took in, very little to speak of passed through him. His urine was thin and little; his sleep, nothing at all; but a bad kind of inflation, a violent thirst, a coma, a painful elevation of the right flank, a coldishness all about the extremities, a little rambling, with a forgetfulness of what he had said, and at last a strong delirium laid hold of him. About the fourteenth day from the time that he shivered, grew hot, took to his bed, and was mad; he bawled out, was greatly disordered, talked much, and then was silent. After this he grew comatose, and had many bilious, unmixed, crude stools. His urine was black, little, and thin; his uneasiness great; his stools various, sometimes black, little, and thin; at other times fat, crude, and acid; and at last milky to appearance. About the twenty-fourth he was easier; in other respects no alteration, but came a little to himself, (whereas, from the time he laid down, he remembered nothing) and presently after lost himself again. Every thing hurried on for the worse. About the thirtieth, he was very feverish; had many small stools; was delirious; cold in his extremities; and dumb. The thirty-fourth, he died.

This patient, during my attendance, was all along disordered in his belly; his urine thin and black; and he was comatose, watchful, cold in his extremities, and perpetually delirious.

A woman in Cyzicus, who was delivered with much difficulty of two daughters, and not well cleansed afterwards, was taken at first with a chilliness and acute fever, attended with a weight and pain of the head and neck. She could get no sleep from the beginning; was silent, sullen, and inflexible. The urine was thin, and without colour. She was also thirsty, and for the most part qualmish and uneasy. The belly irregular, sometimes loose, and sometimes bound. The sixth day at night she was very delirious, and got no sleep. About the eleventh, was mad, and came to herself again. The urine black, thin, and, after a while, oily. The stools many, thin, and turbid. The fourteenth, she was much convulsed; cold in her extreme parts; lost her senses; and had a suppression of urine. The sixteenth, was dumb; and the seventeenth, died.

In Thasus, Dealces's wife, who lived upon the plain, was taken

with a chilliness and acute fever, occasioned by sorrow. She was covered up from the beginning, and, without ever speaking to the last, felt about with her hands, plucked off, scratched, and gathered the nap of the clothes; cried, and presently after laughed; got no sleep; had no stool, though the belly was stimulated with something; drank a little at the request of others; made a little thin water; was but moderately feverish to the touch; and cold in her extremities. The ninth, was very delirious, and soon after recovered herself, but was silent. The fourteenth, her breathing was deep and seldom, long and short. The seventeenth, another stimulus was used to the belly; after which what was drank passed through, without any gathering together, or stoppage. She was insensible of every thing; and her skin was distended and dry. The twentieth, she talked much, and again recovered herself, but was afterwards dumb, and breathed short. The twenty-first she died.

This patient's breathing was all along deep and slow. She was insensible of every thing; was always covered up; and either talked much, or was silent to the last.

In Melibæa, a young man, heating himself a long time with drink and venery to excess, was taken with a chilliness, a nauseousness, and want of sleep, but without a thirst. The first day, he had many stools, with a great flux of humours, and the following days many watery ones. The urine was thin, little, and without colour. The breathing seldom, deep, and long. The hypochondres distended, but somewhat soft, and that for a considerable length on both sides. He had also a continual palpitation of the heart to the last; made oily urine; rambled moderately; was composed again and quiet. His skin was dry and distended; his stools many, thin, bilious, and fat. The fourteenth, was worse in all respects; rambled, and raved much. The twentieth, was mad; threw his limbs about; made no water, and scarce kept his drink. The twenty-fourth, died.

THE SECOND BOOK OF EPIDEMICS.

Fœsius, p. 944.

It would seem from Haller's prefatory remarks, that Galen refers to certain books, which he insists must have been formed by Thessalus, from the common-place book of Hippocrates. The *first section* of the present one, pays attention to the subject of crises, more carefully and better arranged than any of the Hippocratic books. The other sections are entirely promiscuous. In the second section are some imperfect histories of patients, and of diseases, such as angina, &c. Section third contains the Perinthian epidemic; and predictions are intermingled with the history of diseases. In the fourth section, we have an account of the vessels, pretty much like that in the book "De Ossibus." The histories of diseases are introduced; among which is to be found a paralytic affection arising from the use of vitiated grain.[a] The two last sections contain predictions, and a mingled mass of other matters.

There appears to be here, as well as elsewhere, much useless variation in the divisions of these books, as given by Fœsius, Haller, Gardeil, and others, dependent, it may be presumed, on the individual fancy of each. Such diversity, however, renders reference more difficult, and appears to be called for by no solid reason.—Ed.

Gardeil, in some preliminary remarks on this book, says, that it is generally believed that the second, fourth, fifth, sixth, and seventh books on Epidemics, are not productions of Hippocrates; at least the same order that exists in the first and third, is here defective. We have, however, a commentary by Galen on the sixth book, which he looks upon as being the work of the Father of Medicine. In my opinion, continues Gardeil, the fifth and seventh books are quite as interesting as the sixth, in consequence of a considerable number of surgical observations. We might even be authorized,

[a] Analogous to what has been ascribed in later times to the use of ergoted rye.—Ed.

he adds, to consider all the five books above-mentioned, as the real works of Hippocrates, since we find in them the principles and facts precisely as we read them in the other treatises that are usually acknowledged to be his, such as the one "De Humoribus," &c. This, however, by no means proves that all the seven books on Epidemics, wherein so little order is preserved, have emanated from the same author to whom we are indebted for several of those we have given, yet all are generally regarded as being nearly of the same period, and as emanating from the same school. Many general propositions are given in an aphoristic form, accompanied with numerous observations.

Clifton, in the beginning of this book, leaves out several pages, amounting to nearly the whole of the first section of Fœsius, stating in a note, that it consists of "aphorisms of various kinds that noways agree with the title of the book, and so are placed under their proper heads in other parts of this work," &c., to which he makes reference.

I cannot commend his translation on many occasions; a better one, and more accurate to the text, is a desideratum.—Ed.

In Cranon, in the summer, were carbuncles. It rained, during the excessive heats, very much, and continually, but more with the southerly winds. Under the skin were thin sharp humours, which, being confined, grew hot, and caused an itching; after which pustules broke out, like what comes upon a burnt part, and occasioned a sense of burning underneath.

In this city inveterate pains are attended with cold; fresh ones, with heat; and most of them from the blood. Those from the hip are likewise cold.

A woman had the heartburn, and could not be easy; but upon steeping the finest flour of barley in the juice of quince, and eating but once a day, she vomited no more; as was the case of Charion.

Changes, where the change is not for the worse, are of service; as in fevers to vomit after taking a medicine. But where a vomit terminates in something simple and unmixed, there corruption is denoted, as in the case of Dexippus.

Serapis swelled after a looseness, but the exact time of the itching I know not, though it was not long. An abscess in the flank, that mortified, was her death.

Stymargus's wife swelled too, after recovering from a short looseness designedly stopped, and a miscarriage of a female child four months old.

Moschus, who was much troubled with the stone, had a little tumour like a barley-corn upon his upper eyelid in the part next the ear, which ulcerated inwardly. The fifth and sixth day the matter that was pent in broke out, and the complaints below were taken away. He had also a swelling of the gland by the ear, and another in the neck, right against the upper swelling.

Aristæus's wife's brother fatigued himself upon the road when he was hot, and so brought little black swellings, or tubercles, upon his leg, with a continual fever. The next day he sweated, and after that upon the other equal days, without being quit of his fever. His spleen was a little suspected; he bled often from his left nostril, though but little at a time; and was freed. The next day a tumour appeared behind the left ear, and the day after another behind the right, but this was less and grew warm. Both of them subsided gradually, without coming to suppuration.

He that came from Alcibiades had, a little before the crisis, a swelling in his left testicle from a fever. His spleen was large too, and his crisis happened upon the twentieth day. After this he grew a little warm now and then, and his spitting was somewhat florid.

She, who brought up little or nothing to speak of with her cough, was seized with a palsy in her right arm and left leg, without any alteration in her countenance, or understanding, or any other part; and even here it was not vehement. About the twentieth she began to go better, perhaps from the breaking out of her menses, which was then the first time; for she was a young virgin.

Apemantus, and the builder's father that broke the head, and Nicostratus, did not cough at all, but on the contrary were in pain about the kidneys. Being asked, they confessed they were always eating or drinking.

Hercules swelled the eighth day of his illness.

To one that suckled, pustules broke out all over the body, which, upon leaving off, were dispersed in the summer.

The currier's wife, that made the leathers, after she had been brought to bed, and to appearance perfectly well delivered, had a part of the membrane, chorion, left behind, which came away the fourth day with great difficulty; a strangury being upon her.

Soon after she proved with child again, and had a son. This course lasted many years, and at length her menses stopped. When she was brought to bed, her strangury gradually left her.

Another woman had a pain in her hip before conception, which was cured by conception. The twentieth day after the birth she was in pain again, and delivered of a son.

Another woman with child had little pustules upon the lower part of the right leg, and the thumb of the right hand, in the third or fourth month of her pregnancy; to which the chips of frankincense were applied. But whether she was brought to bed or not, I cannot say; for I left her in her sixth month. She lived, as I remember, at the house of Archelaus, by the precipice.

Antigenes's wife, who lived with Nicomachus, was delivered of a child all over fleshy, but distinct in the principal parts, and about the bigness of four fingers. It had no bones, and was afterwards thick and round. The mother was asthmatic before her lying-in, and in her delivery vomited a little matter like that which comes from the boil called a felon.

She that was delivered of two daughters after a hard labour, and was not well cleansed afterwards, swelled all over, and became very big in her belly, but fell away in her other parts. The reds continued for six months, and then the whites the rest of the time, in great quantities. These evacuations hindered her conception; but her menses came again pure, unmixed, and in a proper manner.

In lienteries of long standing, an acid belching, where nothing of this kind has happened before, is a good sign; as in the case of Demænetas. Art at this time should try to imitate nature; for such disturbances make a great alteration, and perhaps acid belchings will carry off a lientery.

Lycias, who was cured by drinking hellebore, was at last attacked with a painful swelling of the spleen, and a fever; and the pain reached up to her arm. The splenic vein in the elbow was opened, and beat often. Sometimes again it was not opened, and the pain went off spontaneously, or with a sweat. Upon this going off the spleen reached to the right side; her breathing was doubled within, and not great; she grew lightheaded; was covered up; troubled with wind, but nothing passed downwards, nor by urine; and, before she was delivered, she died.

The swellings, that were produced by a great flux of humours on

each side the throat, did not ulcerate, but passed off to the left; the spleen was affected with pain, and there was no crisis.

Hieron's crisis was the fifteenth day.

Cous's sister had a swelling upon her liver like the spleen, and died the second day.

Bion bled at the left nostril, after making a very great quantity of urine without a sediment; his spleen being hard, and gibbous. He got over it, but had a relapse.

Those who had the quinsy were thus affected. The vertebræ of the neck turned inwards, in some more, in others less, leaving a manifest cavity outwards; and here the neck upon touching was painful. It was also somewhat lower than the process called the tooth, and not altogether so acute. In some it was very evident by the greatness of the circumference; but the throat was not inflamed, except by the tooth above-mentioned, but subsided. The parts under the jaws swelled, but not as when inflamed; nor were the glands at all inflamed, but in their natural state. The tongue indeed could not easily be stirred, but seemed larger and more prominent; and the veins under it were very evident. They could not swallow, or but with great difficulty; and, if violence was used, the liquor returned by the nose; through which part the voice came likewise. The breathing was not attended with great elevation of the shoulders. In some the veins in the temples, head, and neck were tumefied; and in these, where the pains were renewed and augmented, the temples grew a little hot, though in other respects they were not feverish. The greatest part kept clear of suffocation, unless they desired to swallow their spittle or something else; nor did the eyes sink at all.

Where the tumour affected not any one side, but came directly forward, none of these, so far as I remember, became paralytic, but all recovered. Some grew easy in a very short time, but the greatest part continued forty days, and that without a fever. Many had some remains of the tumour a very long time, as appeared from their swallowing and their voice. The wasting of the uvula was a proof that the distemper was not quite gone off, though they seemed to have nothing bad about them. Where the tumour appeared sideways, there a palsy followed in the part from whence the vertebræ inclined, and they were drawn on one side. These were most evident in the face, the mouth, and the septum of the uvula. Add to this, that the lower jaws were changed in propor-

tion. The palsies did not affect the whole body, as in other cases, but stopped at the hand of the quinsy-side. What they spit was digested, and a hoarseness followed. Where the tumour was direct, they also spit. But where a fever attended, there the difficulty of breathing was much greater, the spittle could not be contained in speaking, and the veins were more tumefied. The feet, which are coldest of all, were remarkably so at this time; and those, who died not immediately, were unable to stand upright: but those, that I was acquainted with, all died.

Coughs began the fifteenth or twentieth day about the winter solstice,[a] from the frequent changing of the southerly and northerly winds, and snowy weather; some of which lasted but a little time, others longer; and were succeeded by peripneumonies in abundance. Many had a return again before the equinox, forty days for the most part from the beginning. In some indeed they were very short, and went off well; in others, inflammations of the throat, quinsies, palsies, and that disorder of the eyes called nyctalopia, happened, especially among children. The peripneumonies were very short; but inflammations of the throat came at last after coughing, or else held them a little while in the room of the cough. These were of short duration, especially the disorder of the eyes now mentioned; but the quinsies and palsies were either hard and dry, or little, and seldom attended with digested spittings. Some indeed brought away a great deal. Where any took more than ordinary pains in speaking, or fell into a shivering, there a quinsy was generally the consequence. Where any used their hands much, their hands only were paralytic: but where they rode, or walked much, or exercised their legs any other way, there paralytic weaknesses fell upon the loins or legs, with a weakness and pain in the thighs and shins. The hardest and most vehement coughs were such as ended in palsies. All these things happened in the relapses, but not very much in the beginning. In many they remitted about the middle, but did not leave them entirely, and appeared again at the return. Where the voice was broke with coughing, there the

[a] "This is the seventh section of the sixth book of Epidemics; a section entirely independent of the rest of the book, and of a piece, in some measure, with the observations we have been just now seeing. Whether he means fifteen or twenty days before or after the winter solstice, does not appear from the text."—Clifton.

Clifton employs too great a license on many occasions—as here, and in not unfrequently leaving out portions of the text.—Ed.

greatest part escaped a fever, and some had it but a little. Add to this, that neither peripneumonies, nor palsies, nor any thing else appeared in this case, but the crisis was determined by the voice alone. The disorder of the eyes above-mentioned was as when it comes from other causes, and affected children most. The black of the eye had a great variety, where the pupils were small; but in short it was generally black. The eyes were rather large than small, and the hair straight and black. Women were not equally fatigued with coughing, but a few had fevers. Of these very few came to peripneumonies, and such as did were among the elderly sort; all of whom recovered. The reason of this was, in my opinion, their not going abroad so much, and their not being at all so liable to be seized as men. Quinsies, and those of a very mild kind, happened to two free women, but among the slaves frequently, and, where they were violent, they proved fatal very soon. Many men were also seized, some of whom recovered, others died. In a word, those who were able but to drink had a very mild and easy time; those, who could not speak distinctly besides, had a more troublesome and tedious one. Those, whose veins in the temples and neck were swelled, were somewhat bad; and those, who breathed with great elevation of the shoulders, were very bad: for these grew hot also. The disorders were thus ally'd, or determined, as here described. The first happened without the last, but the last not without the first. They died very soon, after shivering now and then as in a fever. As they were not oppressed with frequent motions or risings to stool, I tried what stimulating the belly, and what bleeding would do, but nothing was of service to speak of. I also bled them under the tongue, and some I gave a vomit to. These things happened always in the summer, as many other things did of the eruptive kind. So painful ophthalmies, when the drought was greater than ordinary, were very common.

Swellings of the glands were likewise common, because the liver was inflamed and out of order; and where they proceeded from an artery ill-disposed, as in the case of Posidonius, it was a bad sign.

We came to Perinthus much about the summer solstice. The winter had been serene and southerly; the spring and summer very dry, to the setting of the Pleiades; or, if any rain fell, it was in small drops. The Etesiæ blew but little, and that not constantly. In the summer many burning fevers raged among the people;

during which they were free from vomitings, but subject to thin, watery, frothy stools in abundance, without bile, but not without a sediment now and then in that that was set by, and in that part of it which was exposed to the air. Now, where no alteration happens at any time, as to the appearance of the excrement, it is a bad sign. Many were comatose and lightheaded in their fevers, and some became so after sleeping, but recovered themselves entirely upon getting up. They elevated their shoulders in breathing, but not much. The urine was thin in most, and little in quantity, but in other respects not without colour. Bleedings at the nose were very rare; and so were swellings behind the ears; of which more notice will be taken afterwards. There was no swelling upon the spleen, nor upon the right hypochondre; neither did any great pain, or vehement distension attend it, but yet there was something of an indication, and the crisis happened for the most part upon the fourteenth day, partly by sweat, partly by shivering, with very few relapses. During the drops that fell in the summer, they began to sweat in their fevers, and some fell into them from the beginning without any injury; others about this time, and the crisis went off this way. In the summer fevers, about the seventh, the eighth, and the ninth day, little miliary roughnesses, very like the bites of gnats, appeared upon the body, without any great itching. These lasted to the crisis; but none of the men had them that I saw; nor did any of the women, that had them, die. Their appearance was foretold by a thickness of hearing, and a coma, where they were not very comatose before. These complaints did not last the whole year, but in the summer and to the setting of the Pleiades they were comatose and sleepy, but afterwards more watchful. Nor in fine did they die during this constitution or season. The purging could not be checked even by diet; but one might imagine that an irrational method of cure might be serviceable, though the discharges in some were very great, occasioned by lying on a bed in the cold; for cold ulcerates. The warming such bodies ought to be gradual, without offering any violence to nature; and as to those who are troubled with signs or complaints of this kind, whether more or less, viz., gaping, coughing, sneezing, yawning, stretching, belching, and flatus, all such tend to destruction.

Zoilus, who lived by the wall, was seized with an acute fever from a digested cough. His face was red, and his body bound, unless when loosened by art. His left side was painful, and the left

ear very painful; the head not so much. Spitting continually a somewhat purulent matter, he could not get well, but in other respects had a crisis, and discharged much matter by the ear, about the eighth or ninth day. The beginning of the ninth the pain of his ear ceased; but how the crisis could be without a shivering I know not. About his head was a great sweat, and about his ear and left side a fixed burning heat. With the pain of the ear above, the other pain ceased, especially about the shoulder-blade; but first came on a great spitting, which at the beginning was florid, and so on to the seventh or eighth day, and after that difficult and painful. The belly was bound till about the ninth or tenth day; the pain was quite removed, the swelling abated, and little sweats came on, but not critical, as appeared from other circumstances, and the going off. For, when the pain of the ear began, the belly was loose; the abscess from the ear was the ninth, and the crisis the fourteenth, without any shivering the same day. Add to this, that when the ear broke, the spitting became more copious and more digested; but sweats and tetters about the head lasted long, though they dried up (in a manner) the third day.

Whatever disappears without the proper signs makes the crisis difficult, as in the erysipelas that happened to Polemarchus's maid.

Scopus, upon an acrid, saline, bilious, distillation from the head, an inflammation of the chops, and a bad regimen, was bound in his body, and seized with a continual fever. His tongue was dry; his sleep gone from him; the rim of his belly violently, but equally, distended, the distension proceeding gradually to the bottom of the right side; his breathing, pretty frequent; his hypochondres in pain, both in breathing and turning; and he brought away, without coughing, a thickish matter. Upon taking peplium, the pain went off from the hypochondre, but nothing passed through. The next day two suppositories put up appeared no more; but the urine was thick and turbid, with a smooth and even sediment. The turbidness occasioned no stool; the belly grew softer; the spleen was swelled, pointing downwards; and his drink was mead with vinegar. The tenth, a little watery blood came from the left nostril, which gave him very little relief. In the sediment of the urine was something whitish and thin, sticking to the vessel, that was neither like, nor very unlike, seed, and continued so some little time. The next day (the eleventh), the crisis came on, and he lost his fever. His stools were somewhat viscid, and mixed with bile as they

came away. His urine was a great relief to him, both as to quantity and sediment, which, before he began to drink wine, was a little like thin phlegm. Though his stools were little upon the eleventh, they were at the same time viscid, stercoraceous, and turbid.

Query? Whether such a discharge is critical, as in the case of Antigenes in Perinthus?

Hippostratus's wife, after a quartan of a year's standing, was taken with a swelling, and was manifestly coldish with it. It went all over her body; a sweat followed upon it, and a crisis. Her menses afterwards came down in great abundance, continued longer than usual (having been stopped before), and seemed unwilling to give over.

In hemorrhages, attended with pulsations, the figure or position of the part is to be studied; and, if they happen in very depending parts, they are always to be elevated. So moderate ligatures in blood-letting promote the evacuation, but violent ones suppress it.

Those who are of a sanguine and somewhat bilious nature are subject to sour belchings, and perhaps at last fall into the black jaundice.

In Ænus, those who lived continually upon leguminous food, whether men or women, became infirm in their legs, and remained so. And those who lived upon vetches, or tares, complained of pain in their knees.

In order to recover the colour and fuse the humours, we should study to put a man in a violent passion; and, upon other occasions, to bring on cheerfulness or timorousness, and the like.

If the whole body is out of order, the cure should be general; if otherwise, particular.

Stymargus's servant, the Idumæan, upon a distortion of the mouth of the uterus, in her being delivered of a daughter, was seized with a pain in her hip and leg, which grew better by bleeding in the foot; but her body trembled all over. We are therefore to consider the occasion, and the beginning of that occasion, in diseases.

In the fourth section of this second book, we find that from the constant use of some kind of grain, ["ex assiduo leguminum usu, feminæ et masculi, crurum impotentes facti sunt, ac vitam degerunt."—Fœs., Hal.] several symptoms were induced, not dissimilar to those produced from ergoted rye.—Ed.

THE FOURTH BOOK OF EPIDEMICS.

Fœsius, p. 1120.

Of all the books on Epidemics, says Haller, this one to me appears of the least importance. All is intermingled and confused; imperfect histories of diseases, and aphorisms inadequately confirmed. Some few things appear, which possibly were written by Hippocrates, or were transcribed from him. Galen refers it to the Collectanea of Hippocrates, edited without the corrections of Thessalus,—nor is it unlikely. Much is interspersed respecting the seasons, and the atmospheric changes. Mention is made of the Cynic, who called the author to a patient. Now, as Diogenes was posterior to Hippocrates, and was also the founder of that sect, it is by many supposed, that the author of this book must be some physician posterior to Hippocrates.

Gardeil, in a note to this book, says, it is difficult to determine the country in which the patients herein mentioned are to be assigned, since this is not expressly mentioned. The same may be said of the books that follow. Nor must we, from the title of Epidemics, believe that they are confined to such diseases. They are rather to be viewed as a choice collection of observations.

Outline of contents.—Metastasis of certain humours after the vernal equinox; notice of various patients, some of them of interest; relapses frequent after the autumnal equinox; the state of the atmosphere, and the diseases in winter; frequent abortions; other cases. State of the urine in different persons; notice of the state of the sick towards the end of autumn; interesting case of a young man attacked with copious epistaxis on the third day of his illness, continuing till the sixth, with delirium and coma on the seventh. He seems to have surmounted this, and had a relapse, and that more than once. A discharge from the left ear of a viscous, thick, and ichorous matter, fell upon the teeth, inducing great destruction of the parts adjoining, viz., the palate bones, and upper jaw, and

septum nasi, with other effects; the result is not mentioned.—Crises, &c., with detached remarks and cases. A cursory notice of a *large star* or meteor,[a] followed by an earthquake. Menstruation during pregnancy not uncommon; case of delivery on the seventh day of seventh month; the woman goes out in four days; injury from, &c. Another case of injury to the jaws and teeth; various cases; a curious one stated of a woman, whose mouth was twisted to the right side, but which was turned to the left in the fifth month of pregnancy. A slave relieved from a swelling and tension of the belly by the return of menstruation, after a suspension of *seven* years. Observations on errhines, on tumours, on sciatica, &c.; peculiarities or diversity in the onset of diseases; observations on the intestinal evacuations, &c. Diseases occurring at Æno and elsewhere; various results of cough in this state of the air; nyctalopia; decay of the teeth; expectoration; some few aphoristic remarks towards the conclusion.

After the equinox and the setting of the Pleiades, a sort of corroding mucus, that opened the head, broke out above the ear; but in him who was with Leocydes, upon the foot; and in Phanodicus, upon the toes by the sole.

He, whose tibia was cut, had a blackness come upon the part. The ulcer was large on the outside, and the discharge from the hinder part. When it was cleansed, he was seized with a pain of the side and left breast opposite to it, grew feverish, and died of his fever.

The ropemaker complained of a very bilious disorder; and, upon applying caustical (or burning) remedies, he lost a great deal of blood downwards about the equinox.

A very old man, who had a great abscess, held out not above fourteen days.

He, who was marked and burned by Antiphilus, was freed from a bilious ardent fever (of that kind which is called τυφος) the seventh day. Three days after the crisis or thereabouts he spit blood, recovered, and had a relapse afterwards. His first crisis after this was, as it ought to be, about the setting of the Pleiades; and after

[a] Sydus insigne visum est, quinto autem post sextoque die terræ motus extetit. Hal. ii. 255; Fœs., 1128.

their setting his biliousness extended to madness. Another crisis happened the ninth day without a sweat, and he got over it.

The Chalcidonian, who was brought from the gates to the market-place, about the equinox, being in pain from a rupture about the right breast, spit up now and then a pale greenish matter. The belly was in good order. A sweat began the seventh, which lasted for the most part to the eighth, and the crisis happened the fourteenth. About the fortieth, swellings appeared behind both ears; nor was it unlikely that a suppuration should follow, though it did not.

Aristodemus was burnt upon his breast; and so was the son of Philis, for an abscess that came after a fall; but he had had a pain higher before this.

After the autumnal equinox relapses happen, and at other times to the winter solstice.

After the summer solstice, the wife of Achelous miscarried the sixth day, being full of blood and chilly. She sweated afterwards, and had a crisis the fourteenth. How many months gone with child I know not. Twenty days after this she said she miscarried of another male child; but, whether she said true or no, I cannot tell.

About the winter solstice the wind was northerly. Jaundices of very deep colours appeared, sometimes with a chilliness, sometimes without. The tongue was burnt up the third day. About the sixth and seventh, great disorders that lasted long. The fourteenth, an astringency in the belly that could not be removed by physic; and no sweats, as is usual in fevers. In some the spleens were small, extended to the right hypochondre, and rumbled upon being touched. Hemorrhages succeeded, and such depurations by urine, but more especially by stool (for the belly had been long bound), as produced a crisis. Where these things did not happen, but the spleens were tumefied, they bled at the left nostril.

After the solstice, rough winter weather, with northerly winds, and in a short time southerly, for fifteen days; and then abundance of snow for fourteen days more. About this season deep-coloured jaundices came on, that terminated not in a clear and evident manner, but returned again. After the snow came southerly winds and gentle showers. Runnings at the nose ensued, with and without a fever. In one person, who had been in moderate pain before, it fell upon the teeth on the right side, the eyebrows, and the eye. They

were hoarse too; the throat was inflamed, and the glands called σπογγοι (amygdalæ) swelled, attended with soft swellings about the ears and jaws, that subsided with the fever. Many of these happened above and on each side, at the beginning of the fever; and some had the tonsils swelled in the autumn and the winter. Add to this, branny foulnesses of the skin came on; and many women miscarried all kind of ways, and had hard labours.

A maid, who had a crisis the sixth day, had a relapse the sixth, and another crisis in six days. And in six or eight days all the crises happened at that time.

About the setting of the Pleiades, the wife of Meander, the blind man, spit from the first a pale greenish matter, and soon after, about the sixth day, purulent. The liver swelled, and she had a little purging. What she spit was in a small quantity, white, broad, and like purulent flesh. She had an aversion to food, and died about the twentieth.

Thestor's servant, in the neighbourhood, was taken with a bilious severe purging, and a distension of the hypochondres, occasioned by something that was caustical. The sixth day after the purging was stopped, she had one large thin stool, fell into a sweat immediately, and had a crisis, without any more purging. The same hour she shivered and grew feverish, but it went off again the same hour.

The wife of Thersander, who was not very leucophlegmatic, fell into an acute fever upon suckling. Her tongue, as other parts were burnt up, was likewise burnt at the same time, and became rough like thick hail. Worms also came out of her mouth. About the twentieth she had not a perfect crisis.

About the setting of the Pleiades, Metrophantus's son, who was wounded on the head with a brickbat by another boy, was taken with a fever twelve days after; occasioned by rubbing the parts about the wound in cleansing it. A coldness succeeded, and the lips swelled immediately, but the skin beyond the ulcer was in many places very thin. Upon trepanning without delay, neither pus came out, nor was the patient relieved; but upon the left jaw, by the ear, (for here the wound was,) there seemed to be a collection of matter. This, however, went off too without suppuration, and there was immediately a collection in the right arm. The patient died the twenty-fourth.

After the setting of the Pleiades, he who had a pain in his ear lost his speech twenty days after, and became paralytic on the

right side, without a fever, but not without sweating. The right ear and the right eye gave way a little, and drew something from the lower part. The eye was distorted to the left with a great deal of pain; the neck became hard, and within three hours was equally painful.

After the setting of the Pleiades, the servant of the Attican, who had been ill with a quartan, had a stupid foolishness fixed upon him.

Another at the same time was taken with a true typhomania; which, upon the hips and legs becoming painful, went off; but what day I know not.

About the same time chillinesses; vomitings; and, after the crisis, aversions to food; bilious discharges; great, hard, painful spleens, and likewise hemorrhages were the complaints of some; and of others, at the same time, hemorrhages from the nose of a pale greenish colour, occasioned by the spleens.

In Cranon, the wife of Nicostratus, who was seized with a fever, complained at once upon the fourteenth day of a paralytic disorder (or imbecility) in her neck and other parts. She had had no stool to the tenth; breathed often and little; could not contain herself, but felt about with her fingers; was delirious, sweated, and had her neck, mouth, eye, and nose drawn to the right side. The sediment in her urine was white, like pulse, at one time; at another, white, stringy, and membranous; and at another, somewhat pale with a greenish cast, like the meal of lentils. Sometimes again the surface would be fat and greasy, and that in a heap, resembling sheep's wool; and not much dispersed, as a scattered cloud appears in urine. After this her urine would have no sediment at all, but something of this kind. Again, it would have some such sediment, at one time broad and scattered up and down; at another, turbid. Sometimes the cloud would resemble a blackish cloud of some consistence; at another time it would be soft and thin. Again, it would be thin, and of this kind; at another time, like horses' urine; and at another, dark and shady.

The lad, that was first taken delirious, made thin clear urine; and his evacuations the other way were thin and plentiful, without bile. His tongue was very rough; his fever burning; his belly tumefied; and he could get no sleep. In his ravings upon the eighth day (if I mistake not) he behaved very wantonly, getting up, fighting, and talking very obscenely, contrary to his usual manner. Upon making a great deal of thin water in a gushing manner (for

it had been suppressed), sleep came on, together with a continual sweat, that seemed from the circumstances to be critical, much about the tenth day. After this his madness returned, and he died suddenly the eleventh; occasioned (I imagine) by his drinking much neat wine a little before his madness. His age was about twenty.

In the autumn, Eumenes's wife vomited black bile, as was also evident from the smell. A fever ensued with chilliness, heartburn, and little bilious vomitings, in which came away a worm. Her stools were thin all along before the setting of the Pleiades, and stopped about that time.

Hemorrhages; short fevers, that returned immediately for a little while; aversions to food; extreme languors and lassitudes; nauseas and heartburns happened about the same time, together with a discharge of worms about the crisis, shiverings, and bilious complaints.

The young man that was a stranger bled much at the nose the third, the fourth, and the fifth day; the sixth it stopped, and a moderate delirium followed. The seventh, no stool; a comatose disorder. The third day a relapse; the belly loosened; the urine I saw not. About the crisis things were as they ought. But about the setting of the Pleiades southerly winds set in, with gentle showers. The young man had then a great many mucous, bilious, digested, viscid stools; and a violent fever continually, with a dry tongue. The sixth day it came to its crisis. The seventh it returned again, and went off the same day with a trembling. The sixth day there was a glutinous thick discharge from the left ear.

The boy, that had the phagedænic ulcer, had his lower teeth, and the fore-teeth of the upper and lower jaw fall out by suppuration, and a cavity was left there. Now, where the bone of the palate comes away, the nose sinks in the middle: and where the upper teeth before, the end of the nose becomes broad. The fifth from the fore-teeth has four roots, two of which are united to both the next teeth, and all the extremities turned inwards. The third tooth is more liable to suppuration than all the other, and to occasion thick rheums from the nose, as well as pain in the temples. This was eaten away, especially the fifth, and in the middle was a tubercle of the two fore-teeth; the less was first eaten away in the inside by the two next. The seventh had a thick sharp root.

The Athenian boy had a pain of his tooth, the left side below, the right above, that was carried off by an abscess in the right ear.

After the Pleiades the weather was mild, cloudy, and misty. The crises happened upon the fifth, sixth, seventh day, and even later. The fevers were subject to return, to be erratic, to be bilious, and attended with aversions to food. Dysenteries also, with aversions to food, and vehement fevers, were complained of. About the setting of the Pleiades the southerly winds came strong, attended with hemorrhages, and fevers nearly resembling tertians, besides others of another kind, in which the patient is cold and shivering perpetually. They call them Ηπιαλα.

He that belonged to the shoemaker bled plentifully, purged a little, and had his crisis upon the seventh, with a shivering.

He that lived at the last public house bled plentifully the fourth, and immediately was lightheaded, bound in his body, and his hypochondres hard and painful. By means of a suppository the sixth day he had a yellow bad stool. The seventh in the morning early, was exceedingly restless, bawled out greatly, and had a pulsation of the vessels about the navel.

In the acutest fevers the pulsations are oftenest and strongest, as the paroxysms are in every disease, towards the evening.

With respect to the beginnings, the paroxysms, the first of the morning, the continuation of the distemper, and the season of the year, are to be taken into consideration.

The wind was southerly after the setting of the Pleiades. Crises came the fifth, then an intermission for one day, and a return the next. Eruptions of a soft and lax kind, like bladders, or like the effects of the prickly acanthus, also appeared. About the same time a great roughness came upon the skin, but without itchings or weepings, especially now. There were also tetters above the skin, like what happened to Pythodorus's wife, and him who kept the public house; not without a fever. But as to Pythodorus's wife, she was seized, pretty near the beginning of her fever, with a great weakness in the hips.

After the setting of the Pleiades came chilliness and hemorrhages from the nose.

The shoemaker had his crisis the seventh, an intermission one day, the next a return, and another crisis the fourth.

One who belonged to Leocydes, had his crisis the seventh; and another the fourth.

Moschus bled plentifully from the left nostril the ninth, and a little from the right; had his crisis the fourteenth, as he ought; but

at the beginning was much disturbed. The seventeenth, was guilty of mismanagements in diet. The nineteenth at night arose a small tumour on the right ear, hard within, but a little soft without, and painful without remission.

In those who are very bilious, especially where a suppuration is, what comes away by purging is like the ink of the cuttle-fish. Such was the purging of him who had the cupping-glass applied, when his hip was in pain. It removed downwards into his leg, and he was easy.

He who fell from the horse of clay, and had a cupping-glass applied immediately, complained of an inward burning. The twentieth, upon its breaking out again afresh, a hemorrhage ensued, with a discharge of feculent corroding matter.

The Tenedian woman miscarried the fourth day of a child, that, as she said, was thirty days old. She had also a loose small stool, a burnt tongue, and a crisis the fourth.

After the setting of the Pleiades disorders of the spleen came on, and to the fifth day hemorrhages with a crisis. Upon the seventh, the urine was like the water in which tares have been washed, all of a piece, and after that clear. A relapse followed. Megaris's son had also an intermission, and that without a hemorrhage, but the urine was white, thick, and all alike, as in Artigenes's case.

About the winter solstice a great star[a] appeared, and the fifth and sixth day after, an earthquake.

[a] "As to the great star that is said, in the fourth book of Epidemics, to have appeared about the winter solstice, attended with an earthquake, all the information I have been able to get (and for which I am very much obliged to that most ingenious and learned gentleman, Mr. Machin, Astronomy Professor at Gresham College, and Secretary to the Royal Society) amounts to this, viz., that there were two comets in the days of Hippocrates, and both of them attended with an earthquake. The first appeared about the time of the winter solstice, in the month Gamelion, in the second year of the 88th Olympiad, *i. e.* in the 427th year before Christ, the 5th year of the Peloponnesian war, and the 33d year of Hippocrates's age (according to Soranus's account of his birth); Eucleis (or Euclides, the son of Molon), the successor of Diotimus, being then Archon of Athens. See Arist. Meteorolog., cap. 6, lib. i. and Joh. Philopon. Meteorol. Arist., f. 96, p. 2, edit. Ven. 1551.

"The other was a great comet, called by Aristotle ὁ μεγας κομητης, *i. e.* the great comet, to distinguish it from all others. This appeared also in the winter in a clear frost, about sunset, and was attended with the earthquake and inundation of Achaia, that destroyed so many places and cities mentioned by Seneca (nat. quæst. lib. 7,) and others; Aristæus (or Asteus, as he is called by some) being then Archon of Athens, viz., in the fourth year of the 101st Olympiad, *i. e.* in the 373d year before

Antigenes's wife, who was in Perinthus, remained asthmatical, and had her menses come down at a time when she did not know whether she was with child or not. Her belly was sometimes small, sometimes large; for she was always coughing, as if she had been walking faster than ordinary. She was eight months gone when it stopped, and had been feverish before.

The wife of Apemantus's brother miscarried the seventh day of a girl, that, as she said, was sixty days old; and about the ninth was in great disorder. After the crisis she had a pain in the right side, as if from a distortion of the womb. She conceived again soon, and miscarried.

Another was delivered of a daughter with the whites upon her, another with the reds, as it should be.

Chillinesses, nauseas, aversions to food, relapses, bilious complaints, hemorrhages, and disorders of the spleen were to be met with, and most of them attended with pain from the left side.

Apemantus's wife, when she was turned on this side, was affected in her right eye; when on the contrary, in her flank.

Aristophon's daughter was feverish the third and fifth day, and remained dry for the most part; but her belly was lax and discomposed, the crisis difficult, and about the thirtieth day she lost her fever.

Pustules, that come upon no violent exercise, reach the seventh day, and are somewhat livid (the maid that lived behind Herous was taken with a shivering); the white and large are not of any great service in those who are seized with a deep stupidness, or dozing, or in diseases that are not of the falling kind, or where the bile stops; neither are those serviceable that subside not, whether the body be loose or bound.

Christ, and the 87th year of Hippocrates's age. But the appearance of this comet, though it is said to be in the winter, is not so particularly described as that of the other; Aristotle mentioning the appearance of the first to be about the winter solstice, agreeable to the Hippocratic memorandum; but of the second to have been in the winter only, without mentioning what time in the winter. Thucydides likewise observes, that in the fifth and sixth years of the Peloponnesian war there were many tremblings or shakings of the earth, and the plague, that had not been quite extinguished, broke out again at that time, and continued above a year after; so that it is very probable, if the malignant year already mentioned did not happen about the time of the plague in the beginning of the war, it was about the time of this comet's appearance, viz., in the fifth year of the same war; such appearances, and such tremblings, generally producing very sickly seasons."—Clifton, Preface.

Zoilus, the carpenter, had a trembling slow pulse; the discharges by stool and urine moderate, but without colour; the bottom of the belly distended on both sides directly to the navel, with an acute fever, an aversion to food, and no thirst.

The clerk of the market's daughter at Tecomaius's, when her pregnancy was uncertain, vomited for two months, sometimes phlegm, sometimes bile. After this she had a hard labour, was perfectly well cleansed, and vomited as before to the thirtieth. Then a purging came on, and her vomiting stopped. A lientery followed, and her menses kept up, but for two years she had the piles in the winter.

The two brothers, that lived by Cecrops's, were at the beginning seized with black stools; had afterwards feculent bloody stools, and, from very frothy ones, bilious.

He, who by agreement lift up the ass, immediately grew feverish, and bled the third, the fourth, the fifth, and the seventh. A crisis came the eighth by stool.

He, who was concerned in the mines, and had his right hypochondre stretched; his spleen large; his belly distended, hardish, and flatulent, without colour; was taken with a pain in his left knee, but had a relapse again, and after that a perfect crisis.

Temeneus's son had a little difficulty of breathing, so as to make him pale with a greenish cast, which colour reached to his hands too.

The husband of the woman that lyed-in near Sitodocus's, who had a jaundice upon him, and sent for me the seventh day, died the eighth without any evacuation by stool or urine. His flanks were large and hard, and his breathing quick; nor was his forehead moist with the pain, before he died.

The wife of this person miscarried of a girl the seventh day in her seventh month, the signs of which appeared the fourth. A pain seized her in her feet at the beginning, and, upon the fever ceasing, her difficulty of breathing was not carried off, but remained still. The pain likewise affected her hands and arms.

Where the urine stopped before the crisis, relapses were of long continuance.

Temeneus's sister's crisis was with a shivering. A pain seized her hands and shoulders upon the sudden going off of her pale greenish colour. These pains ceasing, her head was affected; the

upper eyelids were tumefied, and the tears ran out. The rest I am a stranger to. Her first crisis was the seventh day.

The case of him who kept Menander's vineyard was the same, except that at the beginning he had thin stools, which stopped afterwards, as well as the urine; but a crisis followed, without any shivering the seventh day, because of the purging that had happened before.

Potamon's son had no purging the seventh day, nor a shivering two days before the crisis, nor, for the same reason, a suppression of urine.

Hegesistratius, who had had an abscess near his eye, had a collection of matter about his last tooth. The eye was healed, and the nose discharged thick matter; but about the gums little round caruncles broke out, which about the third day seemed to suppurate, but it went off afterwards, and immediately his jaws and eyes swelled. Now, wherever abscesses form themselves about the eyes in burning fevers, a redness appears upon the cheeks, and a hemorrhage follows. The like happens in abscesses behind the ears; and perhaps abscesses in the joints are more likely to follow; but this I am not perfectly satisfied in.

Shiverings, with tremblings, distensions of the hypochondres, and a breaking out of the menses, happened the seventeenth day. If these things continued thus, in some the crisis was the third, in others the fifth, and in others the seventh.

Hegesistratius's two last teeth were in their turns eaten away. The last had two tubercles above the gums, one near the erosion, the other opposite. Where they both touched, there the roots were broad, alike, and answered to one another. On either side half remained that was almost round.

The woman, that had a hemorrhage the fourth and sixth day, had a crisis the seventh, with great redness.

The other, that had a violent pain in her head, had her crisis about the twentieth; at which time her hypochondres were hot and burning. The seventh day she did not bleed much; her stools were thin; and about the eighth an abscess appeared by the right eye.

A man was affected in the same manner, except that his crisis happened the seventh day, with a moderate swelling of the spleen on the left side. The eightieth day the eye was affected in this person, and longer too; perhaps, because it came after the crisis, and because there was much to come away.

Temeneus's sister had a difficulty of breathing, and a distension of the flanks a long time. Whether she was with child or no, I know not. Her body was bound at first, and then it was she vomited; afterwards the vomiting stopped, upon a great deal of viscid bilious matter passing downwards, without any hindrance from the hypochondres. The eleventh, the phlegmon attacked the right thumb: it broke, and the vomiting returned. Upon this she grew better, her dozing and fever abating. Her breath was also freer; because she brought up foul nasty stuff. The sixteenth her breath was little and quick, her fever came on, and she died.

She had a fever before the abscess, and died the seventh day after the abscess. She was also something florid.

Apemantus's sister's son had a swelling upon his hypochondres and spleen; a difficulty of breathing; a discharge of viscid, bilious, and somewhat stercoraceous matter downwards; and a weariness after working. The twentieth, his feet were affected. Query? Whether the crisis after such weariness does not happen upon the joints, rather than on the eyes? His hypochondres were distended too, and he had a dry gentle little cough.

What is left after a crisis is apt to cause relapses, and what is separated in the course of the disease. So will a spitting digested before its time; so will the belly, as it happens to be affected; so will intemperance, and the like.

Apemantus, who complained of pains in his fundament, his right flank, and a little below his navel, made bloody urine before the pain in his right side, which gave over the third day. The carpenter too made bloody urine from a pain of the contrary side in the same direction, and upon its stopping, both of them had a sediment the third day. Apemantus was very much heated; the other felt nothing but on the left side.

Nicostratus had also something at the extremity of the right side, lower than where it happened on the left. It reached too in both above the flank even to the navel.

The old woman at Sosileus's, who was of a leucophlegmatic habit, had hard, white, rough and scaly swellings upon her legs, and upon her feet too, but less. The parts below the thighs were also affected, and in many this complaint passes off with difficulty. Add to this, that the loins were also affected, the belly slender, the flanks softish, and the breath not very short. Most of these ceasing, our next care was about the eyes becoming grayish; a disorder

that was somewhat milder than the other. The pains of the hip and leg seemed to depend upon the womb: for a sweet-smelling suppository of meal and ointment dispersed and put an end to them quickly. The time of the abscess (or disorder) about the eye was a year.

One had a pain about the navel, where the pustules were not perfectly suppurated. The like happens too from dysenteric complaints.

In the village of Hippolochus there was a boy, who had something in both his hypochondres, that was in the lower part like the brasier's wife, who had a dropsy, which upon watery stools passing off was softened a little. This was upon the right side, all alike, but raised above the rest, and in some measure round. His navel was black from the birth, and deeply ulcerated; nor was any scar brought upon it. The glans of the penis was naked too, but not on a sudden, or from the birth; and became more so afterwards. He vomited for the most part, was feverish, and averse to food, but recovered. About the seventh day of his confinement to the bed (for he had been ill before), upon drinking much water, and perhaps committing other irregularities, he grew very restless and uneasy, and was somewhat convulsed. The convulsion ceasing, he died before we were aware of it; but first made water plentifully, and wind passed off audibly. The parts above were not at all softened; but, immediately upon his dying, a great relaxation followed; and the whole body appeared red as if beaten with rods, except where the tumour and the heat remained long.

One of Abdera had an evacuation downwards. Another had a swelling forwards, without a fever; and the swelling was to the touch like an abscess.

A servant maid that was asthmatical, and subject to hemorrhages, at the time of her menses was taken with an asthma. These stopping, a fever came on; her left breast suppurated above, and her ear from the beginning.

Olympiodorus's servant bled at the right nostril, and had a crisis the twentieth in the way that fevers generally terminate; and his stools were such as were commonly in the summer, like those of Hipponax.

Hyle, the servant of Aristides, upon taking a purge the eighth day, had the appearance of those who bear purging well, if their strength is not unreasonably pulled down by it; and voided neither

frothy nor bloody stools, but like eggs, as the wife of Heraclides did, who was purged briskly, and bore it with ease.

One, in the village of Bulagoras, upon purging began to be feverish from the spleen. Now those who have a rising on the right side, but no distension, are red. She was rather red than otherwise, and had a purging from the beginning; and it was expected it would have fixed upon the eye. The seventh day a salt humour ran down from the eyes like tears. It ran likewise through the nose, and into the throat, and upon the left ear. The fifteenth, she sweated, and shivered, but had no crisis. Before the shivering she grew very pale with a greenish cast; the countenance was distended, and fell. The opposite ear to the spleen, and the side, grew painful.

Children were subject to purgings, and dry coughs; and sometimes, towards the conclusion of the coughs, an abscess was formed in the shoulder.

The fuller was in pain about his neck and head. The seventh day his hand was numb. The ninth, his leg was numb too, and his cough ceased.

She, whose jaw was drawn aside, felt a contraction in her womb to the left side five months after.

In Cranon, Lycinus the grammarian, who was ill of a bilious fever that came upon a swelling of the spleen, was taken with a heaviness of the head, and some little hard tubercles or roughnesses about the spleen. Both his lips had ulcers on them, round within and small, and afterwards a little blood came out of the opposite part.

The bought servant, that I saw, who had a great hardness on the right side, not very painful, with a belly large and distended, but not like a dropsy; and who in other respects was fat, and not very short-breathed, but without colour, missed her menses for *seven* years. A dysentery attended her without a tenesmus, and after this the hardness became painful. A slow fever came on, but not above seven days, and her stools were like amber, somewhat glutinous, and large. She was well some days, and after that her menses came down; the hardness grew soft; her colour laudable; and her body thick.

Minois's wife, who fell into a mortification from too great a pressure upon an incision, presently gave notice, (upon the matters

fixing on the lungs,) how many days she was to live, and that something else was concealed within.

Upon putting any thing up the nose, if a fever ensues, or if the pain is removed, a flux is produced of thick matter from the nostril. But if neither the pain is removed, nor a fever excited, the matter is thin, and perhaps burning; as the thin matter in Hegesippus, who had something put up over night; but it was thick in Celeuris's son, of Corinth, who was like an eunuch.

Digested abscesses in diseases are known to be critical by these marks, viz., if, being of a hot burning nature, a fever follows not; or if, hard to be borne, they are nevertheless easily borne: as was the case of Charon, in what settled upon his fundament. But in Leambius, whose intestine was thought to be ulcerated, his arm and seat on the left side, upon taking medicines for a dysentery, were ulcerated, and a fever followed.

He, who was distended with wind, had his flank tumefied and painful. Upon drinking much milk and pure wine, and sleeping afterwards, he was taken presently with a sickness at his stomach and heat. Afterwards, making a fire, and, instead of meat, eating meal baked over the coals, his body was tied up, and something like pus came away. But, though the anus was inflamed, I affirm he had neither fever nor pain.

The old man, who lived in the stone-porch, had a pain in his loins and both his legs, which also affected both his thighs, and sometimes his shins; sometimes also his knees. This continued long, and returned often. His feet, legs, and loins swelled; the glands in his groin swelled a little too; the belly was hard; and all the lower part of his belly distended and painful. For the most part his bladder was hard and painful, attended with eruptions and heats.

Aristæas, of Amphilochus's village, was lightheaded the fourth day. His stools were pale and greenish; his sleeps sound; and his colour white.

Some at the beginning had a sort of trembling in the fingers, and lips, when they spoke; but in other respects were nimble-tongued enough, though not with the best manners. Such had a redness in their faces for the most part; were lovers of wine to excess; or, after vomiting advantageously, swelled.

He that lived at Medosadas's, who had many thin watery stools that were not bilious, had his hypochondres yielding and tumid.

He was also comatose. About the fourteenth, while the crisis was going forward, a shivering seized him without trembling, attended with a relaxation, a languidness, and a falling down of his limbs; his belly was loose; the coma continued; and he was lightheaded after sleeping, but not mad. The fourteenth, had a crisis, none of the critical signs opposing it.

Just so it was with the other person, who at the beginning had stools that were glutinous, of which the thick part proved critical. He was watchful too; and afterwards had stools that were somewhat glutinous, somewhat bilious, digested, more bilious, and not thin: but, when they began to have a consistence, the crisis soon came on. The hypochondre appeared distended about the sixth, with heat and pain, as when the veins are distended and agitated. After that he slept the seventh, and had a crisis the ninth. Both of them were white-coloured, not yellow. The watery stools, exposed to the air, were smooth and thin upon the surface, very like woad or yellow amber, and had a sediment at the bottom.

A softish distension of the right side denotes a phrensy, if it does not go off upon the fever's going off.

If, upon the softness of the belly, something happens to be collected there, hard, and painful, and of such a bad quality as not to be dispersed, perhaps a suppuration will follow from such a swelling.

Swellings on the right side, as many as are in a great measure soft, especially upon pressing, if a murmuring follows, are not to be deemed of a bad quality; as in the Amphilochian, and the Medosadean, who were both of them comatose and delirious in their sleep.

He who had an ulcer upon his shin had red large pustules break out, upon using the Attick ointment: and this, instead of a cough that was afterwards troublesome, for he had no cough before.

In Ænus, as many as were chilly, and wounded in the head, were in a bad way, and came to suppuration. They had also a pain in their feet upon travelling, from a tenesmus; and, in often attempting to discharge, a weariness. Such was the case of Clinias, who was averse to food, fell away, and discharged a matter that was sometimes a little bloody, at other times pure pus.

Hippeus's wife, who was dropsical, coughed for three years in the beginning of the spring, collected a great quantity of matter,

and in the winter became dropsical, but was relieved by purges for that purpose. The maid-servant died.

Those among the coughers, who laboured with their hands, as the boy that twisted osiers, and Amyntas's son, were both of them paralytic in the right hand only, and the cough ceased; after which they had it with the cough. Those who rid on horseback, or travelled, had it in their loins and thighs. But the coughs were for the most part dry; or, if not, very violent.

Enmyris's wife, who was taken ill (but not in the usual manner) seemed to be without a fever, and yet had something of a typhus. After this a trembling came on all over, a wasting, an aversion to food, a thirst, and a coldness.

Those who had the disease of the eyes called nyctalopia, and made a great deal of water, afterwards made but little; but upon coughing and growing feverish had abscesses broke behind the ears about the seventh or eighth day.

Enmyris's daughter was feverish, and pus came out of her ear about the eighth day; but I am not certain. Some had a tooth eaten away, especially the third of the upper jaw. In some it was painful, and suppurated; in others the suppuration was in the ears; and these coughed much more vehemently than those. Others again had a collection of matter with a fever, and were freed the seventh. Upon the hypochondres being irritated no solution happened; and, upon the belly's being softened, there were little glutinous concretions, not of any service; the urine like blood; the spittle frothy.

He the Cynick brought me to, was much disordered the seventh day, and had a crisis the fourteenth. The bad symptoms dwindled away by degrees. His throat was clear; and what he spit was little, broad, and digested. A few drops fell from his nose; his head was heavy; his hands and legs somewhat paralytic; his belly loose, and to good purpose; and his feet always warm. He also slept, and had nothing behind his ears, because of his digested spittings.

Demaratus's wife was warm in her feet, even when chilly; but, whether it tended to suppuration or not, she died.

The old man who died was taken ill with his wife, who had something concealed in her very furious; but upon a thickish worm coming away, and the refreshment of a little food, her complaints immediately ceased; she slept, and was quite well. The

old man had the skin of his body stretched, and his extremities cold. He was also soft, and trembled from the beginning in his lips, hands, and speech; was moderately lightheaded; and laid with his mouth open, not much oppressed in his breathing. He died at last, but how many days beyond twenty I know not.

Where the hypochondres and the belly discharge compressed matter in abundance, without any rumbling, as in Abdera, the excrement is variegated.

What is spit up in peripneumonies is in some bilious, when the disease will go off; in others very yellow, when the crisis will be short.

If such, as appear at the beginning, appear the same afterwards, this is an argument of very little concoction; and the crisis is as in him who lived with the master, or as I have seen it at other times.

Nicippus in his fever had frequent emissions, without any inconvenience; and was foretold that they would cease, when the fever was come to its crisis; and so it happened.

Critias was pestered with dreams in his fever, from which I know he was freed after the crisis.

Alcippus, who was subject to the piles, was forbid to be cured, and upon being cured went mad. An acute fever coming on, carried the other off.

In acute fevers, those who are thirsty, and deprived of drink by heir physicians or themselves (though they could drink a great deal), are the better for cold water given to vomit them; for much bilious matter will come away.

That the nerves (or tendons) attract one another, is plain from this: for, if the upper tendons of the hand are wounded, the hand will incline downwards, drawn by the lower; and so vice versa.

A dry cough produces a swelling of the testicle; and what comes from a cough upon the testicle must be cured by bleeding. Inflammations cause coughs. They also come upon fevers that arise from swelled glands.

THE FIFTH BOOK OF EPIDEMICS.

Fœsius, p. 1141.

To me, says Haller, there seems nothing in this book unworthy of Hippocrates. The part which adverts to the manifest affinity of sutures and fissures, is pointed out by Celsus, and by Plutarch, in praise of this great man. It is in parts obscure, and difficult to comprehend; but it contains histories of various surgical cases, not always indeed coherent, but many of which are uncommon and useful. Peripneumony from metastasis of angina; tetanus from acrid applications to a wound; and death from a slight blow on the head. The distinction between arteries and veins might lead to the idea of the book being of a later period. Galen ascribes it to Draco, or to the second Hippocrates. He considers the seventh book as spurious, but ascribes the second, fourth, and fifth to Hippocrates, although probably not edited by him. To me, adds Haller, the fifth and seventh appear much superior to the others mentioned.—Ed.

The gardener's wife, in Elis, had a continual fever, and received no benefit from purges. Below the navel the belly was hard, swelled, and in great pain. Upon its being handled, and pressed pretty much by the hand dipped in oil, a great deal of blood passed off downwards; after which she grew well, and continued so.

Timocrates, in Elis, after hard drinking, was seized with madness from black bile; and by the help of a purging potion brought away (though not without much uneasiness) a great deal of phlegm and black bile in the daytime, and had no more stools in the evening. After drinking some gruel he fell asleep, and did not awake till sunrise; but seemed all the while to the bystanders to be dead, neither fetching his breath, nor perceiving any thing that was said or done. His body was stretched out, and stiff; yet he was alive, and got up again.

Scomphus, in Oeniadæ, died of a pleurisy the seventh day, delirious, after having taken a purge the same day that wrought but little. The day before he was in his senses, but upon purging grew delirious.

Phœnix and Andreas, two brothers in Oeniadæ, had a swelling in one of their cheeks, and the lip that was opposite to the cheek and eye. Nothing appeared inwardly upon examination, nor was there any abscess outwardly, but it swelled, and putrefied, without discharging any thing. Both of them died; but Andreas died the seventh, after taking a purge to no purpose; whereas Phœnix had the putrefied part cut all round, and the ulcer discharged a great deal before he died. He died, however, though he held out long.

Pyridamus, in Oeniadæ, began to be delirious the tenth day in an inflammation of the lungs; but, being taken care of, came to himself again, and what he spit up was clearer than it had been. The disease grew better; a great deal of sleep followed upon it; but his eyes looked as in the jaundice, and about the twentieth he died.

A man in Oeniadæ had the following complaint. When he abstained from food, his belly rumbled mightily, and was in pain; and the very same complaints returned in a short time after he had eaten, and the food was ground small. His body also fell away and wasted; the food he took afforded no nourishment; and what passed downwards was of a bad sort and burnt. The rumbling and the pain were least perceived immediately after eating. He found no benefit from purges of every kind, both upwards and downwards; but being blooded at times in each hand, *till he had hardly any blood left*, he grew easier, and got rid of his complaint.

Eupolemus, in Oeniadæ, felt a pain in his right hip and groin, the nearest joining of the hip to the groin, and the forepart of the hip. Upon losing a vast deal of black thick blood from the ankle, and taking a smart purge downwards, he grew easier. The pains indeed did not cease, but the hip, the joining, and the part about the groin suppurated, though not without an increase of pain: for the pus laid deep, rather at the bone than in the flesh. He was neglected for some time in this condition, till he became extremely weak; and then a great many large eschars were made by the actual cautery, near one another, and a vast discharge of thick pus ensued. A few days after this he died, partly from the largeness and number of the ulcers, and partly from the weakness of his body. Whereas had one large incision been made, or even a second (if it

had been necessary), and the pus discharged that way, and all this in time, he might have recovered it.

Lycon in Oeniadæ was in other respects in the same condition, but the pains extended to the leg, though not very much. Here indeed was no suppuration, and yet he did well after a long time; but then he took physic, was cupped, blooded, and seemed to be better of his complaints.

A man at Athens was seized with an itching all over, especially in his testicles and his forehead, which proved exceedingly troublesome. His skin was thick from head to foot, in appearance like that of a leper; and could not be taken up any where for the thickness of it. This man could receive no benefit from any body; but, upon using the hot-baths at Melus, got rid of his itching and his thick skin. He died, however, of a dropsy afterwards.

A man at Athens was taken with the cholera (or overflowing of the gall); purged upwards and downwards; was in pain; and could not be relieved of either vomiting or purging. His speech failed him, and he could not move out of his bed. His eyes were misty and hollow. Convulsions seized him in the stomach from the intestine, and a hiccough followed. He also purged much more than he vomited. But upon drinking hellebore after the juice of lentils, and upon this the other lentil juice, in as great a quantity as he could, a vomiting ensued, which put a stop to both his evacuations; but he grew cold. His lower parts were therefore bathed very much up to his private parts, till the upper grew warm again. He recovered upon it, and the next day drank some thin gruel.

Gorgias's wife in Larissa, who had a suppression of her menses for four years, almost entirely, complained of a pulsation and weight in her womb, whichever side she lay on. She conceived afterwards, and conceived again upon the first. In nine months she was delivered of a *live girl with an ulcer on her hip.* The membranes came away, and with them a great flux of blood. The next day, the third, and the fourth, clotted blood came away; a fever attended for the first ten days; and the rest that came away was red. Her face, legs, feet, and one thigh swelled very much; her appetite failed her quite; and her thirst was very great. The coldest water was of service to her, but wine by no means. Her belly, after the first child came away, was somewhat softer, though it did not fall entirely, but was harder than it should be, and without pain. *Forty days after* the first, the second child came away,

like a lump of flesh; the belly fell; all the swellings went off; the flux was small; the blood offensive; and she recovered.

A woman in Pheræ was troubled a long time with a violent pain of her head, and could get no relief from any body, nor even from purging the head; but was easiest when her menses came down freely. Fragrant pessaries applied to the womb were of service to her, when her pain was violent; and a little purging followed upon it. Her pains left her upon proving with child.

A woman with child in Larissa lost a great deal of blood in fourteen days in her tenth month, but most three days before her delivery. The fourteenth, a dead child fell out of the womb, with *its right arm growing to the side.* The third day, the same hour of the night the child was born in, the membranes came away, and the whites followed. After this, for three days and nights, a great deal came away, but not immoderately. This was succeeded by a fever that lasted two days and as many nights, attended with pains all over the belly and the hips, especially the lower part of the belly, by the pubes.

Hipposthenes in Larissa was supposed by his physicians to have an inflammation of the lungs, but the case was quite otherwise. The beginning of his illness was from a fall upon his back in a hard place, and another falling upon him, as he was wrestling. He was afterwards washed with cold water, got his supper, and seemed to be heavier. The next day, was feverish, coughed without spitting, and breathed quick. The fifth, hawked up bloody matter, but not much; began to be delirious; and upon coughing complained of a pain in his breast and back. The sixth, bled about a quart at the nose, upon sneezing; in the evening neither spoke, nor perceived what was done or said. The eleventh, died.

He was, for five days, sometimes perfectly in his senses, sometimes not, and without a fever. He spit nothing at all; nor had he any rattling; because there was no spittle to occasion it.

Scamandrus in Larissa had a mortification in his hip, and an abscess of long standing at the bone. A large incision being made, even to the bone, and ustion used afterwards, a convulsion began the twelfth day after the incision, and held him strong, reaching from the leg to the ribs, and affected also the other side. The leg was sometimes contracted, sometimes extended, and he had the use of his other limbs, but his jaws were set. The eighth day after the first convulsion he died in another. The cure was carried on

by applying warm bottles and fomentations of tares to the whole body, not omitting a glyster; by which the fæces that had been long detained, came away in a small quantity. He also drank a bilious purge, and even a second; from which indeed there was a discharge, but to no advantage. After a little sleep he took another strong purge of the like kind, and in the evening died about sunset; but in all probability might have held out a long time, had not the physic been too strong for him.

A boy belonging to Palamedes's stables of Larissa, about eleven years old, was struck by a horse upon the forehead above his right eye. The bone seemed to be hurt, and a little blood spurted out. A large incision was made by the trepan even to the marrow, and the bone thus affected was healed; the other lamina (viz. the anterior) growing again presently. Twenty days after this a swelling appeared about the ear, attended with a fever and shivering; and this swelling was greater in the day, and painful. The fever began with shivering; and his eyes, forehead, and whole body swelled, rather on the right side of his head than otherwise, though the left was not entirely free; but no bad consequences followed. At length a continual fever came on; and these complaints lasted eight days, but were less. However, by burning, evacuating downwards by a purging potion, and applying a cataplasm to the tumour, he recovered. As to his complaints, they were not at all occasioned by the wound.

Theophorbus's son in Larissa had the scabies (or leprosy) of the bladder; made viscid urine; was in pain at the beginning and going off of his water; and rubbed his glans. After drinking a sharp diuretic nothing passed into the bladder, but he vomited a great deal of purulent matter and gall, part of which went also downwards. His belly was in pain, and as it were burnt within, while the rest of his body was cold, and entirely unbraced. Nor could he take any thing at all. His belly was grievously ulcerated, and that by the strength of the physic altogether; for the third day after it he died.

Antimachus's wife, in Larissa, after having been with child about fifty days, loathed her victuals the rest of the time, and complained of pain in the womb and the pit of her stomach for seven days. A fever came on, and nothing passed downwards. Upon drinking a stronger dose of elaterium than was proper, she vomited burnt bile, occasioned by her abstinence and fever. For she had drank no-

thing at all. She vomited a little again with violence, and with it some grumous matter. After this she grew sick, lay down, and, finding herself weak, would drink no more water to encourage it. The intestines were upon this seized with a terrible pain, (for the medicine had ulcerated them,) and presently with the stools she voided something that was viscid, stringy, and a little bloody, as if the guts had been shaved. Her weakness and the sickness at her stomach increased continually, and the purging amounted to almost three pints. This indeed stopped, by pouring a great deal of water upon the belly, but still she could take nothing; and about midnight she died; though in all probability she might have lived, if she could have drank water, and vomited immediately before it passed downwards.

Onesidemus's servant in Larissa had her stomach and bowels ulcerated by bile that was set afloat of itself; upon which bile and blood passed off upwards and downwards, not without a fever. She took, as she was a weak woman, a weak potion of elaterium, little in quantity and mixed with water. Upon this she vomited a great deal, and purged more; and in the evening it came upon her again. The next day she was feverish, but not much; the belly was ulcerated, and she had the same stools as before. The third she died about sunset, the fever raging vehemently.

The case appeared to be altogether desperate, but not at all from drinking cold water, while the vomiting lasted. But when the stomach, cleansed by the water, was become cold, she drank the cream of barley cold, and had some of the same injected.

Eudemus, in Larissa, who was troubled with the piles to a great degree and long, having but little blood left, was seized with the flowing of the gall. The body indeed was very little affected with it, but the belly was thrown into purgings, and what came away was bilious. The piles also came out. Upon drinking something to pass downwards he was purged well, and upon drinking the cream of barley after it he was purged more, not without a pain in the hypochondre. The belly not being in the best condition, the piles were taken in hand; for he wanted a farther cure, and vomited afterwards. Upon rubbing something upon the part swelled, a fever came on, and never left him till it killed him; for if at any time it intermitted, a shivering succeeded, and fever came on again, and bilious stools followed with wind that sometimes passed off, sometimes not; and the belly was also in pain. The

piles were swelled without the anus, from the time the purgings were made use of; and the wind passed through them by the help of sneezing at the beginning.

A man at Larissa was wounded behind by a broad javelin, from one very near him, the point of which penetrated below the navel. The part was livid and swelled for a great way. Upon receiving the wound, a violent pain first seized him, and his belly swelled. The next day he took something to pass through him, discharged a little bloody matter, and died. His intestines seemed to be hurt, and his belly to be full of blood.

Apellæus, of Larissa, who was about thirty, or something less, was taken ill of a distemper that used to affect him by night in his sleep, rather than by day, and continued so two years before he died; attended with a vomiting of sometimes yellow, sometimes black bile, upon being waked. After purging the head smartly for a long time, and taking physic twice, it left him six months. He was a great eater, and of a bilious habit. A violent shivering seized him after much wrestling; a fever followed, and in the night his old distemper. The next day and the following he seemed to be well; but the next night it came upon him again, after he had supped, and taken his first sleep, and continued till supper-time the next day. Nor did he recover his senses before he died. A convulsion first seized his right side, then his face, and whole body, and after that his left side. When it seemed to be over, he grew comatose, snorted or rattled in his throat, and had a return of his distemper.

Eumelus of Larissa had such a stiffness in his legs, hands, and jaws, that he could neither extend nor bend them, without the help of another; nor could he open his jaws, without another did it for him. He was in no pain any where else, nor did he eat any thing but a sort of flummery, with mead for his drink. The twentieth day he fell from his seat backwards, and struck his head very hard against a stone. Upon this his sight grew dim; but he soon got up again, recovered himself, and was entirely free, except that, when he got up after sleeping, his joints seemed bound together. He was twelve or thirteen years old, and ill three or four months.

A maid in Larissa, after vomiting a little blood, had a collection of matter formed; upon which a fever coming, she could not get the better of it, till death freed her from all within three months. Before she died, her ears were so deaf that she could hear nothing

at all, unless one bawled to her very loud: and before this vomiting of blood happened, she was but in a weak condition.

Dyseris's servant, of Larissa, in her youthful days, complained of violent pain in the act of venery, and not at any other time. She never proved with child; but, when she was about sixty, was taken after noon with violent pains like labour-pains, having eat just before a good deal of garlic. She got up, when her pains were more violent than ever, and felt something rough in the mouth of the womb; but, fainting away afterwards, another woman put up her hand, and brought from her a *rough stone* as big as the *whirl of a spindle.* She grew well upon it immediately, and remained so.

A loaded wagon came upon the ribs of one who belonged to Malea, and broke them. Matter lodged for some time under the ribs, but upon being cauterized below the spleen, and the ulcer kept open with lints and the like, he held out ten months. After the skin was cut, a cavity appeared both ways, reaching to the omentum, not without putrefaction. It extended likewise to the kidney and the bones. The habit of this man's body was not perceived to be bilious, and so the putrefaction became great and dry, affecting the omentum and other fleshy parts. A dry medicine was here immediately necessary, while the strength of the patient lasted; for the moist medicines were so far from abating, that they increased the putrefaction. The moisture being stopped by the lints that were applied, a shivering and a fever came on; the putrefaction increased; and a fetid, blackish, putrid matter ran out. But before we undertook the cure, a great deal of such stuff was discharged every day, though not freely. By this we knew the nature of the disease, and that it was deeper than the skin. So that if every thing had been done for him in a proper manner, yet his case would have been desperate; even though a purging had also happened.

Autonomus died in Omilus, the sixteenth day, in the middle of summer, of a wound of the head, occasioned by the throwing of a stone at a little distance upon the sutures in the middle of the os bregmatis, or parietal bone. I did not perceive that the trepan was wanting; for the injury was received upon the very sutures (as was extremely clear afterwards), and so deceived me. A violent pain seized the collar-bone first of all, and after that the side, together with a convulsion in both hands; for the wound was given in the middle of the head, and the parietal bone. The trepan was

applied the fifteenth; a little pus came out; and the membrane appeared free from any corruption.

A young girl in Omilus, about twelve years old, died in the middle of summer, the fourteenth day, of a wound in her head, occasioned by somebody's throwing a door upon her, that bruised and broke the bone. The wound was right upon the sutures, and it was plainly seen there was occasion for the trepan. It was accordingly applied, but not so far as it ought; however, what remained came to suppuration. The eighth day she shivered, and grew feverish; and though she was not as she should be, yet she was as she had been some time before, when she had no fever. The ninth, the remaining part was trepanned, and a very little pus, streaked with blood, appeared underneath. The membrane was clear, and sleep came on, but the fever never abated more. The left hand was convulsed, the wound being rather on the right side.

Cyrenius in Omilus was burnt upon the belly for a collection of pus there; and, though it was thirty days later than it ought to have been, yet he was pretty well after it, and the pus that was in the belly was dried up. But eating afterwards, in the hottest time of the year, the fruits of the season and other improper food, he fell into a fever and looseness, and went off.

Hecason in Omilus was cauterized later than he ought, just as the other was, and almost the whole belly was dried up too; but a dysentery came on; and, as soon as he got over it, he eat of every thing till he swelled all over. The pus afterwards broke its way downwards; a looseness attended it; and he died.

Hecason in Omilus had an acute pain fixed in his hip, from the foulness of his body, and injudicious purging. Upon its going off a fever ensued, that confined him to his bed a long while. He neither drank any thing, nor was thirsty, but was weak and chilly. His distemper went off in a proper manner, as it ought, and his body was the better for what was given him. At last the distemper broke downwards, and went all off with a great deal of bile. He grew delirious upon it, however, and died; but seemed to be able to get over it.

A man in Salamis, falling upon an anchor, was wounded in the belly, and in great pain. The physic he drank passed neither upwards nor downwards.

The woman that cut her own throat was strangled; but a purging potion, that was given her a good while after, passed through her.

The young man who came from Eubœa, and had been purged very much, grew feverish upon its intermitting and stopping. Concluding from this that a vomit was necessary, he drank a weak one, viz., the root, and elaterium, and died four days after, without any evacuation; but he was sleepy, and his thirst could not be quenched.

The maid-servant, that was a foreigner, vomited a little from what she drank, and was strangled; but purged very much downwards, and died in the night.

The man of Eubœa, upon drinking a purging potion, was purged three days, and died. His hand suppurated up to his elbow.

Symmachus's boy was strangled with bile, as he was asleep in the night, and feverish. The physic he drank would not stay with him, nor was he purged in six days before he died.

He who lived by the race-house, and vomited blood in the night, died the next day, vomiting a great deal of blood, and strangled. The spleen and parts below it had a quantity of bloody matter pass that way.

The boy, that was struck by a mule upon the belly and the liver, died the fourth. His breath was quick, his senses confused, and a fever attended besides.

Hermophilus's son, who was ill eleven days, was feverish, bound in his body, and delirious at first, but it went off in the night. The next day he lost his speech, rattled as he lay, had his eyes distorted, and was feverish. A feather being put down his throat, he brought up black bile, and by the help of a glyster had a very great discharge.

Aristion's servant had a mortification about the middle of her foot from the inside obliquely, without any reason for it. The bones putrefied, separated, and came away in a fistulous manner by little and little. Upon a looseness succeeding, she died.

A woman in good health, and corpulent, complained of pain in her belly, a colic in her bowels, and with these a swelling, after drinking something upon account of conception. A difficulty of breathing attended, with great uneasiness of mind and pain. She also vomited blood, but not much, and fainted away five times so as to be thought dead. Neither the pain nor the breathing were relieved by vomiting with cold water; the only thing that relieved her was the *pouring about thirty firkins of cold water upon her body*. For after this a great deal of bile passed downward, and

she recovered; whereas, when the pain was upon her, nothing could pass.

Antandrus, who was well in other respects after taking physic, seemed to have a pain about his bladder. A very great clearage and depuration was made there by what he had taken, and in the afternoon a violent pain seized him. The next day a suffocation, with great perplexity and restlessness. He vomited too, without any thing passing downwards, had a bad night, and no sleep. The third day a great deal went downwards, followed by blood, and so he died.

The cobbler of Pityus, as he was sewing a sole, ran the awl above his knee into his thigh about an inch, but no blood followed, and the wound closed up presently: however the whole thigh swelled upon it, and the swelling reached to the groin and flank. The third day he died.

A man received a wound in his groin by a dart, and recovered contrary to all expectation; for we saw the case. The head of the dart was neither taken out, because it lay very deep; nor was there any loss of blood to speak of, nor inflammation, or lameness; but *six years after* the accident we found the dart, and took it out. Our opinion is that it was buried between the nerves or tendons, without dividing either artery or vein.

Another received an insignificant wound to speak of (for it was not deep) a little below his neck behind from a sharp dart; which being taken out not long after, he was drawn and distorted backwards, as in the opisthotonus. His jaws were also fastened; and, if any thing moist was put into his mouth, and he attempted to swallow it, it returned again through the nose. In other respects he grew worse immediately. The second day he died.

A young man, running hastily over rough ground, felt a pain in his heel, especially the lower part. No moisture being collected, nor any abscess formed, the whole part turned black the fourth day, as far as the bone called astragalus, and the hollow part in the bottom of the foot. Before the mortification could break away or suppurate, he died, twenty days in all after the running.

He who was wounded by his eye, received it upon his eyelid, and the point of the dart went in deep, but the fang or beard of it appeared outwardly. Upon laying open the eyelid, every thing was taken out without any inconvenience: for the eye was saved and healed presently, and the blood flowed freely and sufficiently.

Nerius's handsome girl, about twenty, was struck upon the parietal bone with the palm of the hand by another young woman in play; upon which a mist came on, and she could not breathe. As soon as she was brought home, a violent fever attacked her, with a pain in her head, and a redness about her face. The seventh day, above a spoonful of fetid reddish pus came out of her right ear; she seemed to be better, and was lighter and easier. The fever, however, increased again, and was attended with a dozing, a loss of speech, a contraction of the right side of the face, a difficulty of breathing, a convulsion, and a trembling. The tongue was also confined, the eye fixed, and the ninth she died.

A young man, after drinking a great deal of genuine wine, fell asleep in a certain shade, and the serpent called Arges crept into his mouth. As soon as he perceived it, not being able to speak, he grinded his teeth, bit the serpent through, was seized with great pain, threw out his hands as if strangled, tumbled and tossed about, fell into convulsions, and died.

Note.—At this place Clifton leaves out several pages as they appear in Haller; and what follows is from the sixth book, omitting nearly the two first of the sections as given in Haller,—the only explanation for which is in the following note, which to me is not satisfactory.—Ed.

"This is the first observation[a] in the sixth book (see section the 2d, aph. 22,) that I could insert here; the former being all aphorisms of such a nature, as cannot be brought, with any propriety, into a book of Epidemics. The other observations are not so good as I could wish them, but yet must not be omitted."

[a] This refers to the sixth book, beginning with "Broad eruptions," in the next page.—Ed.

THE SIXTH BOOK OF EPIDEMICS.

Fœsius, p. 1164.

This, says Haller, is much of the same character with the preceding; and is said to have been transcribed from the note-book of Hippocrates, by Thessalus. Galen has commented upon it. It is a medley of histories of diseases, aphorisms, and predictions, frequently taken from the other writings of Hippocrates, often deficient in limitation, and half true. Herodicus ridicules his ratio medendi. Some physiological remarks are interspersed;—and a story is given of an Abderite woman, who was changed into a man, and whom the author in vain attempted to cure!

Gardeil, speaking of this book, says, that Galen had written a commentary on it, for the use of his disciples, a part only of which has reached us, from which we may however perceive how much he was frequently embarrassed to discover the real meaning of the author. This difficulty must now be much augmented; and he claims on this score the indulgence of the readers of his translation, stating that he had submitted its revision to several friends before committing it to press. These he gratefully names,—and asks for further favours from distant members of the profession, in case another edition should be required. He states this book as containing numerous sentences, mostly deserving attention, both in respect to hygiene and to therapeutics.—Ed.

Broad eruptions, without any great itchings (such as Simon's were in the winter), were not relieved by vomitings; but perhaps warm fomentations applied might have been of service; for he, upon being either anointed by the fire, or bathed with warm water, was relieved.

The woman that lived by the great theatre, behind the Heroes monument, was taken with a jaundice that remained with her; and

the man that lived by Timenes's niece was taken with a blackness all over.

In Perinthus, the urine was like seed. Such was also critical. Complaints about the pubes are relieved this way, when the case is curable by urine: for, without much flatus, or much (but viscid) excrement passing off, it grew soft; the hypochondre not being large. The seventh day he ate some cabbage, while a difficulty of breathing was upon him, grew softer about the pubes, breathed well, and his belly was loosened by it.

The woman, that I first cured in Cranon, had naturally a large spleen. Her fever was of the burning kind, attended with great redness and difficulty of breathing. The tenth day she sweated upwards for the most part; but, the fourteenth, a little downwards.

Agasius's daughter, when she was a girl, was short-breathed; and, when a woman, was taken with a little pain not long after her delivery; and, upon lifting up a great weight, something seemed to crack in her breast. The next day she was asthmatic, and had a pain in her right hip. When this was troublesome, her asthma was so too, but ceased with the other's ceasing. What she spit was frothy, but florid at the beginning; and, after standing, resembled a bilious thin vomiting. Her pains were greatest, when she worked with her hands. She was forbid meddling with garlic, pork, mutton, and beef; or to bawl, or put herself in a passion, whenever she had occasion to speak.

Where a tumour in the head spread itself, there burnt alum was at first serviceable. Another abscess followed, perhaps because the bone was to come away. This happened sixty days after, above the ear, whereas the wound was higher, upon the crown of the head.

A man after a fatiguing journey, was quite spent, heavy, and fell a spitting; a cough coming from the top of his head. A smart fever ensued, that was very uneasy to the touch. The next day a heaviness in his head, with a burnt tongue. No blood from the left nostril, though picked with his nails. The spleen was large, hard, and painful.

The autumn is bad for consumptive persons; and so is the spring, when the fig-leaves are like a crow's foot.

In Perinthus, a great many were consumptive in the spring, occasioned in some by an epidemic cough, in the winter; and in others by the long continuance of disorders: for thus what was doubtful

before was now confirmed. Some indeed, who had been long ill, escaped a consumption, as those did who were troubled with nephritic pains; and so did some others, as the man, for instance, the Cynic brought me to.

Satyrus, in Thasus, surnamed Grypalopex, when he was about five-and-twenty, often spent in his sleep, and indeed often in the daytime. A consumption seized him about thirty, and he died.

The keeper of the wrestling-place in Abdera, whose name was Stheneus (or the strong man), after wrestling much with a stronger, and falling upon his head, went away and drank a great deal of cold water. He could get no sleep that night, was very restless, and cold in his extremes. The next day he went home; had no stool, though a suppository was put up; made water a little, whereas before he had made none; was bathed at night, but yet could get no sleep, or lie still, and was lightheaded. The third day, was cold in his extremes; grew hot, and sweated; but died this very day, after drinking mead.

Phaethusa, in Abdera, the wife of Pytheus, who had had a child formerly when she was very young, upon her husband's being banished, missed her menses a long time; and her joints grew afterwards painful and red. Upon this her body became manly, and hairy all over; a beard thrust out, and her voice became rough. Every thing was tried by us that was likely to bring down her menses, but all to no purpose; and not long after she died.

The same thing happened in Thasus, to Namusias, the wife of Gorgippus. All the physicians that I talked with were of opinion, that the only hope left was in her menses coming down again as they ought. But this could never be brought about, though we tried every thing; and she died not long after.

Note.—Here, throughout, large portions of the text are omitted by Clifton; giving his reasons therefor in the preceding note.—Ed.

THE SEVENTH BOOK OF EPIDEMICS.

Fœsius, p. 1206.

This book, says Haller, is the production of the author of the fifth book, in both of which we find much repetition, and with little order, from his note-book, on the subjects of phrenitis, continued fever, dropsy, the diseases of pregnancy, and some surgical cases. A fœtus remaining in utero nine years, is mentioned. The book contains a larger number of histories of epidemic diseases than the others, the best of which are at the commencement.

In his notes, Gardeil has taken the pains to point out some of the parts of this book with which Book V. corresponds.—Ed.

After the dog-days the fevers were attended with sweats, nor were they thoroughly cold after sweating, but grew warm again, and were feverish a long time, had commonly a difficult crisis, and were not very thirsty. In some they ceased upon the seventh and the ninth day; in others upon the eleventh, the fourteenth, the seventeenth, and the twenty-second.

Polycrates had a fever, and sweated in the manner now mentioned. After taking a smart purge, his fever was so mild, that one could hardly perceive it, except in his temples. In the evening little sweats came on again about his head, neck, and breast, and afterwards all over; upon which he grew warm again. About the twelfth and the fourteenth the fever increased, his stools were few, and after purging he supped either broth or gruel. About the fifteenth, had a pain in his belly by the spleen and the left hypochondre, which was relieved by applying cold things rather than warm, and upon taking a soft glyster ceased entirely.

The same method relieved Cleocydes of a like pain and fever. About the sixteenth the heats seemed to abate; pure bile passed downwards; he grew fierce and audacious; breathed moderately,

and sometimes, when he drew it in plentifully, discharged it again tumultuously, as if he was swooning, or as a man breathes when he sits in the shade after travelling in the heat. The seventeenth, as he was sitting on his bench in the evening, he fainted away, lost his speech a long time, and was senseless. He drank some mead with great difficulty, the fibres of his neck being stretched, as when the throat is dried, and a general impotency upon one. At last he recovered himself with great difficulty, and the heats abated. After this his disorder left him the twenty-second.

About the same time Pythodorus was taken with a continual fever. The eighth day he sweated, and again grew hot. The tenth, another sweat. The twelfth, supped some ptisan, and to the fourteenth had no sensible fever, except in his temples; nor any thirst; and thought himself well. Sweats came on every day; and the fifteenth, after supping chicken broth he vomited bile, purged, and had his fever more than ever, but it stopped again. He sweated much, but the whole body, except the temples, was very cold, and the pulsation did not cease; it seemed however to cease for a little while, so that he thought he was going to be hot again. The twenty-fourth, after eating meat for many days, and dining, he was very feverish, and in the evening delirious as he slept. The fever was continual and strong, without any sleep for sometimes one, sometimes two nights; and all the rest of the time he was so heavy to sleep, that it was not the easiest matter to wake him. He was delirious too in his sleep; and, if at any time he was waked, he was hardly himself, had no thirst, breathed moderately, sometimes as Polycrates, and his tongue had some colour. Seven days after the relapse, ptisans were offered him; and, after the fourteenth, meat. The first seven days he broke wind and vomited, and sometimes matter a little bilious came away with his drink without any sickness, till a passage was opened downwards. The sweats left him after the relapse, except upon the forehead, where they were too small to signify any thing. His tongue, if he did not wash it after sleeping, faltered from the dryness of it, and ulcers broke out upon it, and also upon the lower lip, and about the teeth. His stools were few; but, about the fifteenth day after the relapse, more frequent and glutinous; which were stopped by a decoction of pomegranates. The urine, such as in long cases. Towards the conclusion a pain took him so in his breast, as he was swallowing his drink, that he put his hand upon it. This was removed by supping

cummin and egg. The tongue was relieved by a medicine made with the chips of frankincense. The fiftieth day from the beginning, about the rising of Arcturus, little short sweats came on about the loins and breast, with a coldness all over (except the temples), that lasted but a little while. The fifty-first, a remission, without a return the next day.

Eratolaus's boy was taken with a dysentery and a fever about the autumnal equinox. His stools were bilious, thin, frequent, and moderately bloody; but the pain of his belly vehement. Upon drinking whey and burnt milk his pains abated; his stools were somewhat bloody, and afterwards bilious; but he was forced to rise often, though without pain. Some part of the time, after the first six days, the fever seemed to the patient and to many others to be off, it was so imperceptible; but yet there was a pulsation in the temples, and the tongue faltered from its dryness. His thirst, however, was but moderate; and as to sleep, he could never obtain it. What he lived upon was soups and wines. About the fourteenth, hard, crude tumours appeared behind the ears, first one, then the other, which disappeared afterwards entirely, and were moderately painful; but his stools continuing, and all along bilious, the bile and the pain abated for some time, upon his supping the plant that was boiled with the meal; however, his discharges were still frequent and liquid; and his aversion to food so great, that he never took it but upon the utmost necessity. His fever, his tongue, and his thirst, were as I have related them, without any sweat at all. His memory failed him in such a manner, that, if he asked about any thing he had heard but a little before, after pausing a little he would ask again, just as if he had said nothing before; and upon sitting down would forget himself, if nobody put him in mind. This disorder he was sensible of himself; and yet fetched his breath like a man in health. From the thirtieth to the fortieth day the pain of his belly increased much; he lay down upon his back, and could not turn himself in the least. His pain was so violent that others were forced to feed him. His stools were large, separated, and thin, resembling sometimes the colour of the wine he had drank, and sometimes blood. The firmness of his body was wasted to the last degree; and so great a weakness came on, that he could not rise even with the assistance of another. If any one laid his hand between the navel and the cartilage (or pit of the stomach), there was a greater palpitation than is ever felt about the

heart after running or a fright. Upon drinking for two days together nine Attick cotylas[a] of ass's milk boiled, a very great discharge of bile followed, his pains ceased, and his appetite returned. After this he drank about four Attick cotylas of cows' milk raw, at the rate of a quarter of a pint at a time, in a day, first mixing a sixth part water, and a little black, rough wine. He eat but once a day, in the evening, about half a chœnix of bread baked under ashes, or a little rock-fish, dressed plain, or a bit of goat or mutton. The milk was drank forty days without water, after the first ten days, with a small quantity of black wine. Seventy days from the first he sweated a little in the night after bathing; drank but little; and, after eating, drank his usual drink, or rougher than he used to take it.

Ctesicrates was relieved more by that preparation with the meal than by goats' whey, when the pain was all over his belly, attended with fatigue, rising often, stools a little bloody, and a swelling in his feet. So was Adrianus for about twenty-five days; but Cæneus had most benefit from ass's milk boiled.

Cydis's son was taken, about the winter solstice, with a shivering, a fever, a pain of his right ear, and a pain of his head. He had been subject to this sort of pain from his infancy, with a running, and a fistula of a bad smell. While it was thus, he was generally without pain; but now his pain was acute, attended with a pain in his head. The second or third day he vomited bile, and, as he sat, had a bilious viscid stool, of a pale yellow like an egg. The fourth and fifth, was a little lightheaded; and the pain of his head and ear violent, with a fever besides. The sixth, was purged with the herb mercury, upon which the heat and pain seemed to be carried off. The seventh, was in a manner well, but the beating in his temples did not leave him, nor did any sweat follow. The eighth, supped the cream of barley, and in the evening the juice of bete; slept in the night, and had no manner of pain. The ninth, was in high spirits till sunset; but at night the pain of his head and ear returned with vehemence; and immediately, upon the pain's becoming vehement, pus ran out of the ear; but all that night, and the next day, and the greatest part of the night, he knew nobody, and groaned continually. The next day he came to himself; the pain ceased; the heat was milder; and, upon taking another soup

[a] An Attick cotyla is something more than our half-pint. See Arbuthnot's Tables.

or drink made of mercury, had, the eleventh day, phlegmy, slimy, fetid stools. The twelfth and the thirteenth, was pretty well. The fourteenth, began to sweat all over from daybreak till noon, sleeping and being so comatose that it was not the easiest matter to wake him. In the evening his sleep left him, and his body was moderately cool, but the beating in his temples remained. The fifteenth and sixteenth, supped some juices or creams. The seventeenth, his pains returned again at night, with lightheadedness, and a discharge of pus. The eighteenth, nineteenth, and twentieth, he was mad, bawled out, and attempted to raise himself up, but could not keep his head still; and, stretching out his hands, was always catching at something in vain. The twenty-first, sweated a little about his right side, breast, and head. The twenty-second, sweated most about his face; and, as to his speech at that time, if he took very great pains, he could say whatever he had a mind to, distinctly; but, if he did not take such great pains, imperfectly, and by halves. His mouth became paralytic, and his jaws and lips were always in motion, as if he had a mind to speak. His eyes moved quick, looked earnestly, and the colour of the right one was as if it had been blood-shotten. The upper eyelid swelled; his cheek was red before he died; all the veins in the face appeared; his ears were contracted; his eyes no longer winked, but were fixed, and the upper eyelid was elevated, as when something falls upon the eye. When he drank, a sound followed it, as it fell into the thorax and stomach, just as in Chartades's case. His breathing was generally moderate all along; his tongue of a pale white colour from the beginning, as in an inflammation of the lungs; his head in continual pain; his neck so stiff that it could not be moved with the head; and the spine from the neck downwards strong and inflexible. His posture in lying was as we have said already, and not always with his face upwards. The pus was serous, white, very troublesome to be dried up with sponges, and besides very fetid. As he drew near his end, he was insensible when his feet were touched.

Harpalidas's sister, in the fourth or fifth month of her pregnancy, had watery swellings in her legs, a swelling in the hollow part of her eyes, and her whole body puffed up as in a phlegmatic habit. Besides these she had a dry cough, a difficulty of breathing of the erect kind, and an asthma of the same. Sometimes she was so near suffocation in her breath, that she was obliged to sit up in her

bed continually, without being able to lie down; and, if she had any inclination or thought of sleeping, it was in a sitting posture; but yet she was seldom feverish. The child within her was the greatest part of the time without motion, and fell down as though corrupted or dead. Her asthma followed upon it near two months, but upon using beans mixed with honey, licking honey itself, and drinking Ethiopian cummin in wine, she grew easier. After this she coughed up a great deal of digested, phlegmatic, white matter; her difficulty of breathing went off, and she was brought to bed of a girl.

Polycrates's wife, in the summer, about the time of the dog-days, was taken with a fever. Her difficulty of breathing was less in a morning, and greater after the middle of the day, and a little quicker. She coughed and hawked up, immediately from the first, as those do who have pus within them. In the inside, about the windpipe and upper part of the gullet, there was a roughness and hissing. The countenance was of a good colour; the cheeks red, not indeed extremely, but moderately florid. In process of time the voice grew hoarse, and the body wasted. About the loins were breakings-out; and the belly at last became loose. The seventieth day she was feverish, but very cold outwardly, without any beating in her temples; and her breathing was quicker. After the beating ceased, her breath was so quick that she was forced to keep sitting till she died.

In the windpipe there was a great noise; her sweats were bad; but she was very composed to the last. The coldness continued above five days; and after the first she continually hawked up purulent matter.

The woman, that lived above the gates, had a little fever in her old age, which, upon ceasing, was followed with a pain of her neck down to her back-bone and loins; parts that she was not very strong in. Her jaws and teeth were so set, that a probe could not be introduced; her speech faltered, from the body's being paralytic, immovable, and weak; but still she kept in her senses. By warm applications and warm mead there was something of a relaxation the third day; and after this, by the help of soups and broths, she recovered perfectly. This happened about the end of autumn.

The anointer by Harpalis, growing impotent in his hands and legs about autumn, drank a medicine rashly that purged him upwards and downwards, after which he grew feverish. Something

fell upon his windpipe that hindered his speaking; and whenever he spoke he was asthmatic, as one in a quinsy with a hoarseness. He had also the suffocation and other symptoms that attend a quinsy, but no swelling. The fever and the cough increased, and a great deal of moist phlegm was hawked up. In the course of his illness a pain seized him in his chest and left breast; and, when he would rise or be moved, he was very asthmatical, and sweated upon his forehead and head. The complaints about his throat continued, but in a less degree, the pain removing to the chest. Upon these considerations he used beans with honey from the beginning; but, when the fever was upon him, rather warm oxymel, and a lambative of honey plentifully. After fourteen days all his complaints ceased; and, before it was long, he had very good command of his hands and legs.

Chartades had a burning fever, discharged much bile upwards and downwards, could get no sleep, and had a round swelling upon his spleen. The third day he rose early, upon a rumbling in his belly without pain; and, as he was discharging, above a gallon of fresh blood came away. After stopping a little, concreted lumps of blood came away the third time. His heart was sick, and greatly disordered; and a little sweat broke out almost all over, with a gentle fever. At first he seemed to be perfectly in his senses; but, as the day advanced, his sickness and restlessness increased; his breathing was a little quicker; his speech and reception bolder, and again more humane, than occasion required; and he seemed inclinable to faintings. Nor did the soups or the barley-water that were offered him take them off; but his breathing towards evening was exceedingly difficult; his tossing, first on one side, then on the other, very great, without being able to rest one moment. His feet were cold, his temples and head rather hot, with many little sweats about them, as death approached. His drink occasioned, as it passed, a sound about the breast and stomach; which was as bad a sign as could be: and, while he was saying that something wanted to pass downwards, he fixed his eyes, and in a short time expired.

Hermoptolemus's wife was taken in the winter time with a fever and pains in her head. Whenever she drank, it was with so much difficulty that she got up and said she had a great uneasiness at her heart, or at least the mouth of her stomach. Her tongue was livid from the beginning; and the occasion of all seemed to be a chilli-

ness after bathing. She got no sleep night nor day. After the first days she complained no more (upon our asking) of the pain of her head, but of pain all over her body. Her thirst was sometimes vehement, at other times moderate. The fifth and sixth, and almost to the ninth, she was delirious, but came in some measure to herself again, and spoke her words by halves, being comatose. Sometimes she reached out her hand to the wall, and clapped a little cold pillow that was under her head to her breast. At other times she threw off the clothes. Her right eye was a little bloody, and wept. Her urine such as we always count bad in children. Her stools from the first yellowish, and afterwards very watery, but of the same colour. The eleventh day the heat seemed to be more moderate. The thirst left her sometimes so far, that, if they did not give her any thing, she never asked. After the first time she commonly slept in the day, and kept awake in the night, complaining of more pain at that time. The ninth, her stools were watery, and so they were the eleventh. The following days she commonly got up often, and had the same sort of stools. The first days of her illness she was violently passionate, grieved like a child, cried out aloud, was frightened, and looked about her, when she came out of her coma. The fourteenth, it was a hard matter to hold her, she jumped and bawled so, on a sudden, and with as much vehemence, as if she had been struck, or was in great pain, or in a great surprise from somebody's seizing and detaining her a little. After this she was quiet again, comatose, and slept perpetually, without seeing at all, and sometimes without hearing, but not without frequent changes (almost the whole day) from one to another, first of ruffle, then of quiet. The next night she voided something a little bloody like slime, and again like muddy slimy stuff, and after this very leeky and black. The fifteenth, violent agitations of the body with frights, but the bawling moderate. Upon this followed fierceness, rage, and crying, if what she had a mind to was not reached her presently. She knew every body and every thing immediately from the first days. That about her eye went no further; but her unreasonable madness, and bawling, together with the change before-mentioned, followed to the coma. She heard unequally; sometimes very well, even though one spoke but low; at other times a louder voice was necessary. Her feet were always of an equal warmth to the last with the rest of her body, but the sixteenth less. The seventeenth, greater moderation than the other days; but at

night, contracting herself as if a chilliness had come upon her, she grew more feverish and very dry, other complaints of the like kind following. Her hands trembled; her head shook; her eyes looked bad; her thirst so vehement, that, after she had drank, she asked again, snatched the mug, and drank plentifully; nor could they pull it away from her. Her tongue was dry and very red; her whole mouth and lips ulcerated and dry. She carried both her hands to her mouth trembling, and fell a chewing; and, if any one offered her something to chew or sup, she drank and supped plentifully and like a mad woman, looking all the time badly. Three or four days before she died, such a chilliness came upon her that her body was contracted and covered up, and her breathing rendered very difficult. Her legs were stiff, her feet cold, her thirst and understanding, as before. Her gettings up to stool were either to no purpose, or what came away was little and thin, with some small tension. The last day of all, viz., the twenty-third, the eye was large in the morning, and she looked about but little, and was easy, sometimes without being covered, or without being comatose; but in the evening the right eye moved about, from the external angle to the nose, as if she was looking at, or wanted, something. She knew every body, and answered to what was asked her. A little after this, her speech, broke with bawling and hoarse withal, faltered.

Amphiphrades's son was taken in the summer with a pain of his left side, a cough, and many watery bilious stools. The fever seemed to go off about the seventh, but the cough continued. His spitting was whitish and palish; but about the fourteenth, of a pale yellow colour. As the disease advanced, his breathing was always thicker and asthmatical, attended with a kind of wheezing about his breast and windpipe. He made use of soups, and kept his senses all along. About the twenty-eighth he died. Sweats sometimes broke out.

The cook, that had an inflammation of his lungs, had also a discharge downwards immediately. About the fourth he sweated much; the fever seemed to go off; and his cough was nothing to speak of. The fifth, sixth, and seventh, was feverish again, and sweated again the eighth. The ninth, hawked up pale yellow matter. The tenth, purged very much, but not often. The eleventh, was easier; and the fourteenth, quite well.

Hermoptolemus, after the setting of the Pleiades, grew feverish,

coughed a little, and his tongue was as in an inflammation of the lungs. The ninth, he sweated, and was cold all over, to appearance. About noon they gave him the cream of barley, and he grew hot. The eleventh, he sweated again; and, upon his belly's being disturbed, had bilious stools that were followed by a small cough. The fourteenth, what he hawked up was pale, and he rattled in his throat. The fifteenth, after having been sensible all the time, he died.

Another person had the like noise upon the roof of his mouth; his tongue was dry, as in an inflammation of the lungs; his senses remained, and he died.

Posidonius was also taken, in the summer, with a pain in his breast, hypochondres, and side, that lasted a long time, but without a fever. Many years before he had had a collection of matter in his breast; and, being chilly in the winter, the pain increased, and a little fever came on. What he hawked up was purulent. His cough was attended with a wheezing in his throat and a rattling. He also kept his senses to the last moment.

Bales's son, having been guilty of all kind of irregularities in the summer, had upon the sixth day a very red bad tongue; a faltering voice; discoloured eyes, that moved up and down as in winking, for want of sleep; and the colour of the rest of his body not very much upon the jaundice, but palish and livid. His voice was bad, and not distinct; his tongue, as in an inflammation of the lungs; his senses, not perfect; his breathing, manifestly bad, and yet neither thick, nor deep; his feet, cold as stones. About the ninth he died.

The woman with the quinsy, who lived at or by Metron's, had a pain of her right hand and leg, with a little fever, a gentle cough, and a suffocation. The third day, a remission. The fourth, was convulsed and dumb, rattled in the throat, grated her teeth, and had a redness in her cheeks. Not being able to hold out any longer, she died the fifth or sixth; and of this the lividness that was in her hand was a sign.

Bion, after having been long ill of a dropsy, had an aversion to eating many days, and was taken with a strangury. An abscess came upon the left knee, that suppurated; and he died.

Ctesiphon fell into a dropsy after a violent burning fever; and, being dropsical and splenetic before, the scrotum, legs, and belly were filled prodigiously. Towards the conclusion a cough came

on, with stranglings in the night, more from the lungs (as those have whose lungs are vitiated) than elsewhere. Three or four days before he died, he shivered, was feverish, and, in the inner part of the right thigh by the middle vein that comes from the groin, a sort of lividish erysipelas gathered, that had withal a redness. At night a pain seized him about the heart, which was soon followed by loss of speech, strangling, rattling, and death.

One in Olynthus, who had also the dropsy, presently lost his speech, was lightheaded day and night, and died.

Prodromus's son could not speak plain in the summer; had a burning fever; a tongue so dry that his words could hardly be heard; a violent purging; and recovered.

Leophorbidas had an acute fever, after the winter solstice, attended with a pain of the flanks and belly; many liquid bilious stools; a stupid heaviness in the daytime; a peripneumonic tongue, and no cough. The twelfth, his stools were black, little, and leeky. The fourteenth, the fever seemed to go off; after which he made use of soups. The sixteenth, the mouth was very salt and dry. The beginning of the evening a shivering came on, and a fever. The twenty-first, about the middle of the day, he shivered and sweated. The fever went off, but yet a little heat remained. At night he sweated again. The twenty-second at night another sweat, and the heat abated. All the former days he was without a sweat, but the belly was humid, even in the relapse that afterwards seemed to happen.

Theocles's relation, who lived above, was taken with an acute fever, during the Pleiades. The sixth day it seemed to go off, and she bathed herself as if it was gone. The seventh, in the morning her cheek was very red, but which I don't remember. In the evening she was very feverish again, fainted, and lost her speech. Soon after this she sweated, and recovered perfectly the seventh.

Theodorus's wife lost a great deal of blood in a fever in the winter time; and, upon the fever's going off the second day, a weight first attacked her in her right side as if from the womb, and afterwards an acute pain of the breast. The pain in the side, upon fomenting the part, abated. The fourth, her pains returned. Her breathing was quicker; the windpipe wheezed a little, as she was scarce able to fetch her breath; and, lying with her face upwards, she could not easily be turned. At night the fever was more acute, attended with a short delirium. The fifth in the morning she seemed

to be easier. A little sweat broke out first upon the forehead for a short time, and then was diffused for a long time over all the body down to the feet. After this the violence of the heat abated, and the body was colder to the touch than it seemed to be by the arteries, the beating of which was greater in the temples than any where else. Her breathing was quicker; now and then she was delirious; and worse in all respects. Her tongue was all along very white; and she had no cough, except a little while the third and the fifth day. She had no thirst, but spit. Her right hypochondre was very much tumefied about the fifth, but after that softer. The third, she had a little stool from a suppository. The fifth, another that was liquid. The belly was soft. The urine viscid and like seed. The eyes like one fatigued, looking up and moving about with difficulty. The fifth, at night, she was very much out of order, and after that delirious. The sixth, she sweated much, about the same hour that the forum used to be full, first in the forehead, and afterwards all over a long time. She came to herself, and put her affairs in order; but about the middle of the day was very delirious. As to the cold, that was as before; but every thing about the body was heavier. In the evening her leg fell out of bed; she threatened her little boy unreasonably; then held her tongue, and was quiet again. About the first sleep she was very thirsty and mad; sat down and abused the company; then held her tongue, and was quiet again, and seemed to doze away the rest of the night, but her eyes were not closed. The next day she answered for the most part with nods; was quiet in her body, and tolerably sensible in her mind; and sweated again the same day. Her eyes were dejected as before, rather lying upon the lower eyelid, and looking fixed and stupidly. The whites were pale and deadish, and the whole colour pale and black. Her hands were generally employed about the wall, or the clothes. A great noise attended drinking, and it was returned upwards by the nose. She spread out her hands, picked up the nap of the bedclothes, and hid her face. After sweating, her hands were like crystals; a cold sweat followed, and the body was cold to the touch. She jumped up, bawled out, grew mad, breathed hard, trembled in her hands, and, as she drew near her end, was convulsed. The seventh day she died. The sixth, made but little water in the night, and that, upon drawing it out with a twig, appeared viscid and seedy; got

no sleep all the time; and after the sixth day made water a little bloody.

Antiphanes's son had a pain of his right side in the winter, with a cough and fever; but yet he eat, went about, was a little feverish, and seemed to have something broke within him. The ninth, the fever remitted, but did not leave him; his cough was much, thick, and frothy; his side was painful. About the fourteenth, and again about the twentieth, his fever seemed to leave him, but returned again. The heat indeed was but small, and in a little time left him. The cough was sometimes gone, sometimes vehement, with much strangling; then it abated, and he hawked up afterwards a great deal, coughing as if he should be choked. The purulent matter, that fell upon the vessel, boiled and frothed; and in the throat was generally a hoarse roughness and a kind of wheezing. He was always asthmatical, and breathed quick; seldom well. After forty days, and near sixty (as I remember), the left eye was blinded by a tumour without pain; and, not long after, the right. The pupils were very white and dry; and in a short time after this blindness (not above seven days) he died, rattling in the throat, and talked much out of the way.

The like symptoms happened from the like causes about the same time to Thessalion, as to the boiling, the frothing, the pus, the cough, and the hoarse roughness in the throat.

Polemarchus's wife had a swelling about the windpipe in a quinsy in the winter, and was very feverish. Upon being let blood the strangling in the throat went off, but the fever continued. About the fifth her left knee was painful and swelled; something seemed to be gathered about her heart; and she breathed as a man does after being dipped over head and ears. Such a sound came from the breast, as those impostors make, who, in prophesying events, speak from their belly, and are therefore called ἐγγαστρίμυθοι. About the eighth or ninth at night a purging came on, and her stools were many, liquid, tumultuous, bad, and fetid. Her speech failed her, and she died.

Aristippus, after receiving a wound in his belly from a javelin, had a great deal of difficulty to survive it. A violent pain of the belly came on, which heated it presently to such a degree that nothing passed downwards. He was sick at his stomach, and vomited bile of a very deep colour, after which he seemed to be easier, but in a little while his pains returned again with vehemence; the

belly was burnt up as in an ileus; he grew hot and dry, and in seven days expired.

Neopolis, from the like wound had the same complaints; but by the use of a sharp glyster had a great discharge downwards. The colour diffused over him was thin, pale, black. His eyes were squalid, heavy, turned inwards, and fixed.

He, who was wounded upon the liver by a dart near hand, had his colour changed presently to deadish. His eyes were hollow; and, after tumbling and tossing about with great anxiety, he died before the assembly was dismissed, the very day that he was wounded.

He who was wounded upon the head with a stone by the Macedonian, though the wound was little more than skin deep upon the left temple, was seized with a dizziness, and fell down. The third day he lost his speech, was exceedingly restless, feverish but not much, and had a small beating in his temples, as when the heat is mild. Add to this, that he lost his hearing and his senses, and could take no rest. The fourth day a dew broke out about his forehead, and under the nose down to the chin. The fifth, he died.

Æniâtes was wounded in Delus with a javelin upon the back part of his left side, but the wound was not painful. The third day his belly was in a little pain, and voided nothing; but, upon having a glyster at night, a stool followed, and the pain went off. The anus came out to the scrotum. The fourth, such a violent pain seized the pubes and the whole belly, that he could not rest. Bilious vomitings of a deep colour came on; his eyes were pale with a greenish cast, and like the appearance they make in a swoon. After five days he died. Add to this, he was a little hot.

Audellus being wounded in the back, a great deal of wind came through the wound with a noise, and blood followed it; but, upon applying, with a bandage, the medicine for green wounds, he recovered.

Philias's most unfortunate boy, upon the forehead's being laid bare, was taken with a fever the ninth day. The bone turned livid, and he died.

Phanius's son, and Euergus's, upon the bone's being livid, attended with a fever, had a separation of the skin from the bone, but the pus made its way inwards. Upon applying the trepan, a thin; serous, palish, fetid, deadly sanies came up from the very bone.

Vomitings came on in these patients, and towards the conclusion convulsions. Some in this case make a shrill noise, and others are quite impotent. Again, if the wound happens on the right side, the left is affected; if on the left, the right.

Theodorus's son, basking himself in the sun, the ninth day, was taken with a fever the tenth from the bone's being bare, though nothing at all to speak of. A lividness came on with the fever; the skin separated; and his voice was very shrill. The twenty-second his belly swelled, especially about the flanks. The twenty-third he died.

Those, whose bones are broke, are feverish upon the seventh day; sooner, if the weather be hot; and immediately, if they are very much broke.

Exarmodus's little boy was affected pretty much in this manner, and had a pain of his thigh, but not opposite to the wound. His voice was also shrill, and his neck painful.

Posidocreon was convulsed the third day, continually hot, and died the eighteenth.

Isagoras's son, who was wounded in the back part of his head, recovered the fifth, though the bone was shivered and turned black, but did not separate.

The master of a great ship had the forefinger and the lower bone of his right hand broke to pieces. An inflammation came on, a mortification, and a fever. The fifth day he was purged moderately; the heat and pain abated; and part of the finger fell off. After the seventh, a little gleet came away; and after this he said he could not pronounce his words plain. A prediction was made, that that kind of convulsion which draws one backward would happen; to which contributed the jaws being set, and drawn down to the neck. The third day the above-mentioned convulsion seized him all over, and he sweated. The sixth day after the prediction he died.

Telephanes's son, by Harpalus' freed woman, received a wound or bruise of his great toe. An inflammation came on, with a vast deal of pain. Upon its abating he went into the field, and, as he was going, a pain took him in his loins, for which he used bathing. At night his jaws were set, and the convulsion that draws one backward seized him. What he spit was frothy, and came from him through his teeth with difficulty. The third day he died.

Zeno, the son of Damon, had an ulcer about the bone of the leg

or the ankle by the tendon, that was now grown clean. Upon the application of a corroding medicine he fell into convulsions of the opisthotonic kind, and died.

Menon, who was but in a weak condition (about the rising of Arcturus and before) from a fever in the summer and a looseness, upon being fatigued with a journey was taken with a pain of his left side; and the cough, that he had had before from a catarrh, was now become vehement. He could get no sleep, and bore his fever from the very first with great uneasiness. The third day he sat down, and spit pale matter with a gentle wheezing and rattling in his windpipe. About the fifth day his breathing was commonly thick; his feet, shins, and extremities for the most part cold and uncovered. A bilious looseness came on from the first, and was moderate enough. The seventh, eighth, and ninth he seemed to bear his illness easier, got some sleep, and what he hawked up was more digested. The tenth, and even to the fourteenth, it was very white and clear. The right hypochondre was softer, and made the breathing easier; but the left was distended. However, upon using a suppository, a moderate discharge followed. The thirteenth, the spitting was pale again, and more so the fourteenth. The fifteenth, it was of a leek-colour; and a fetid, bilious, liquid stool followed frequently. The left hypochondre was swelled. The sixteenth, the swelling was very great; he rattled in his breathing; sweated about the forehead and neck, seldom about the breast. The extremities, and the forehead, were generally cold; the vessels in the temples kept beating; his sleeps were comatose day and night towards the conclusion; and his urine crude from the first, and of the colour of ashes. About the tenth, and to the thirteenth, it was thin, and not coloured at all; but from the thirteenth, just as at the beginning.

Cleochus had a pain of his side and a fever. The fever afterwards remitted, a sweat came on all over, a great deal went off by urine; after which it grew very turbid.

About the setting of the Pleiades, Olympiades's wife, who was eight months gone with child, was taken with an acute fever upon a fall. Her tongue was dry, reddish, and of a pale yellow, as in a burning fever. Her eyes were of a pale yellow, and the colour deadish. The fifth day she miscarried without any difficulty, and her sleep seemed to be of the comatose kind. In the evening, when they took her up, she was not sensible, but recovered her hearing

a little by the help of a sternutatory. She also drank some ptisan, and coughed a little in the drinking, but did not recover her voice by it, or bring any thing up. Her eyes looked dejected; her breath was fetched with much heaving, and drawn through her nose; her colour was bad; and a little before she died, a sweat appeared upon her feet and legs.

Nicolaus's wife had large swellings behind both her ears from a burning fever; one of which a short time after (the fever now seeming to abate upon the swelling's appearing) subsided about the fourteenth day, without any signs of solution; and so the fever returned again. The colour was deadish; the tongue rough, very thick, whitish, and dry; the discharge downwards much, liquid, and fetid all the time; and, before she died, (which happened about the twentieth) her body was consumed by the quantity.

Before the setting of the Pleiades, Andreas was taken with a chilliness, a fever, and vomiting. It appeared to be a semitertian from the first. The third day, while he was attending the forum again, he grew chilly and feverish; vomited pure bile; was light-headed, and at night easier again. The fifth, was very much out of order. The sixth, had some good stools from an infusion of mercury. The seventh was worse, and after this the fever was more continual. He had no sweats from the beginning, and was thirsty. His mouth in particular was dried up a little, and he could drink nothing with pleasure, there was so much disagreeableness about his mouth. His tongue was dry, inarticulate, rough, and of a pale white colour. He was also watchful, sick at his stomach, relaxed all over, and as it were broke to pieces. His tongue was sometimes so dry that he could not speak, without stammering, till he had washed his mouth. What he lived most upon was ptisan. The ninth or tenth day, the little swellings that were behind his ears disappeared without any sign. The urine all along had a colour, but no sediment. The fourteenth, he sweated upwards, not much indeed, but moderately. The seventeenth, the heat went off. After the tenth, his body was so bound as to discharge nothing without suppositories. About the twenty-fifth, small pustules that itched a little, and were hot, as if burnt with fire, broke out. A pain was also felt about the armpits and the sides, which afterwards removed to the legs, without any signs that were critical, and there ceased. Bathing was of service, and anointing with the ointment

made with vinegar. Two, or perhaps three, months after, the pain that he had complained of at times fixed upon his kidneys.

Aristocrates was taken, about the winter solstice, with a lassitude, a chilliness, and heat. The third day a pain of his side and loins came on, together with a hard swelling, that, arising from the armpit, reached all over the right side, and was red the whole way at first, but afterwards livid, as if heated and burnt with fire. He was also sick at his stomach; bore his illness badly; was very thirsty; had a whitish tongue; made no water; and was coldish in his feet. After an infusion of mercury he had a small, liquid, whitish, frothy discharge downwards. At night he heaved very much in his breathing; sweated a little about the forehead, was cold in his extreme parts; sick at his stomach and restless; bloated in his neck, but without a cough; and died very sensible.

Onesianax had an inflammation of his eyes about the autumn, and afterwards a quartan; in the beginning of which he was very averse to food, but in the progress of it very well pleased with it. Polychares was also affected in a quartan after the same manner as to eating; but Onesianax had a looseness before and for a long time after his fever, attended with a discharge of much white mucous matter; sometimes a little blood came away, without either trouble or pain; and, besides these, he had a rumbling noise in his belly. After the fever a hard tumour was formed about the anus, which remained undigested a long time, but at last broke into the gut, and became fistulous outwardly. As he was walking in the forum, flashes appeared before his eyes, that hindered him from seeing the sun very well. Upon quitting his place he was a little lightheaded and convulsed in his neck; and, when he was brought home, he scarce saw any thing, and was hardly himself. First of all he looked about upon those that stood around him; and his body was so cold that it could scarce be warmed by the application of warm things, and fomentations applied under him. When he came to himself, and got up, he was not for going out, but said he was afraid; and, if any body spoke of dangerous diseases, he withdrew himself for fear. Sometimes he said he was hot in his hypochondres, and the flashing of his eyes followed upon it. His evacuations downwards were copious, frequent, and like what he had had in the winter. He was blooded, took hellebore, drank cow's milk, and before that, ass's, which agreed well with him, and stopped his

looseness. He likewise drank water from the beginning, walked about, and was purged in his head.

Anechetus's son was thus affected in the winter. Upon being anointed by the fire after bathing he grew hot, and immediately fell into convulsions like epileptic fits; and, when many of these had attacked him, he looked about, and was not quite in his senses. After coming to himself he was convulsed again the next morning, but did not foam much. The third day he could not speak distinctly. The fourth, made signs with his tongue. The fifth, could not speak at all, but was stopped at the beginning of the words; and the very same day his tongue was very much affected; a convulsion came on, and he grew lightheaded again. Upon a remission of these, his tongue recovered, with difficulty, its former state. The sixth, he abstained from every thing, not excepting his soups and drink, and took nothing more.

Cleochus, after weariness and exercise, was seized with a swelling in his right knee upon the use of honey for some days, especially towards the lower part about the tendons that are under the knee. He went about, however, though a little lame. The calf of the leg swelled, and was hard even to the foot and the right ankle. His gums about his teeth were large, like grape-stones, livid, black, and without pain, when he did not eat. His legs were free from pain too, but when he got up: for the swelling came upon the left side, and was not so livid. In the swellings that were about the knees and feet, something like pus seemed to be contained; and at last he could neither stand nor go upon his heels, but was forced to keep his bed. Sometimes he was manifestly hot; loathed his victuals; and yet was not very thirsty, nor got up to his seat. A sickness and uneasiness attended him, and sometimes he was pusillanimous. Hellebore was prescribed him, and his head was purged. His mouth was also relieved with the medicine made of the chips of frankincense, mixed with other things. Lentil broth was also of service to the ulcers in his mouth. The sixtieth, the swellings subsided upon the second dose of hellebore, and only a pain affected the knees as he was laid. A humour mixed with bile fell upon his knees, and that many days before he took the hellebore.

Pisistratus had a pain and weight in his shoulder a long time, while he was walking about, and in other respects well. But in the winter a great pain of the side attacked him with heat, a cough, and a hawking up of frothy blood, which brought on a rattling in

the throat. He bore all this well, and was perfectly in his senses. The heat, the hawking, and the rattling abated; and about the fourth or fifth day he got well.

Simus's wife, who was shook in her delivery, had a pain about her breast and side, accompanied with a cough, a fever, purulent hawkings, and a consumption. The fever lasted six months, with a continual looseness. At last the fever stopped, and after that the looseness; but in seven days' time she died.

Euxenus's wife, too, seemed to derive her illness from fomenting. The heat never left her, but was rather greater towards the evening, and she sweated all over. When the fever was about to increase, her feet, and sometimes her legs and knees, were cold; a little dry cough came on, when the fever began to grow worse, and then ceased; but a rigor all over continued a long time; and she was all along free from thirst. Upon taking a purge, and whey afterwards, she grew rather worse. From the beginning she was entirely free from pain, and breathed well; but about the middle of the time a pain took her in her right side, attended with a cough, an asthma, and a hawking up of little, white, thinnish matter. The chilliness was no longer from the feet, but from the neck and back; the belly was more liquid; the fever abated with a great sweat; and the coldness returned again. Her asthma had great variety, and she died in her senses the seventh day after the remission.

Polemarchus's wife began to be feverish in the summer, but it left her the sixth day. After this she crept about, was hot at night, and, after another intermission, the fever seized her again, and held her near three months, with a violent cough, and a hawking of phlegm. From the twentieth day her breathing was always quick; noises were heard in the breast; and a sweat was commonly upon her. In a morning the fever was milder; a chilliness sometimes came on; and sleep ensued. She was also sometimes loose in her body, sometimes bound; and tasted her victuals tolerably. About the middle of the time a pain took her in her knees and legs, so that she could neither bend nor stretch them out without assistance; and this complaint of the legs continued to the last. As she drew near her end, her feet swelled up to the legs, and upon being touched were painful. The sweats and the shivering went off, and the fever was always increasing. Before she died, a looseness came on, but her senses still continued. Three days before she

went off, a rattling in the throat came on, and upon the return of it she expired.

Hegesipolis's little boy had a gnawing pain about his navel near four months, which in time increased. He beat and twitched his belly; was troubled with heats; and wasted away, except in his bones. His feet and testicles swelled. That part of his belly was puffed up, as when a disturbance or looseness of the belly is coming on. He was also averse to food, and lived upon nothing but milk. As he drew near his end a looseness came on, with a discharge of bloody, fetid sanies; the belly was exceeding hot with it, and he died vomiting a little phlegmy substance, that one would have almost taken for seed.

Plateas's boy had the suture of his head very much hollowed in his last moments, and in time of health was always beating the forepart of his head with his hand, but especially as he drew near his end, and yet the head was not in pain. In the left thigh the parts below the groin were livid (perhaps the day before), and his testicles were grown slender.

Hegetoridas's son was affected in the same manner, and died; but with this difference, that he had more vomitings towards the conclusion.

Hippias's sister, who was ill of a phrensy in the winter, tore herself the fifth day (not knowing what she did), as she was doing something with her hands. The sixth, at night she lost her speech, was comatose, bloated in her cheeks and lips as a person in his sleep, and died the seventh.

Asandrus was chilly, had a pain of his side, and in his knees and thigh; after eating grew delirious, and in a short time died.

Cleotimus, the cobbler, after a long illness, and a feverish disorder, had a rising like a tubercle about the liver, which fell upon the intestines, and occasioned a looseness. Another such tubercle came about the liver above, near the hypochondre, and he died.

Some were troubled with a violent pain of their head, and heat at the same time. Now where it affects half the head, and something of a thin or digested humour discharges itself downwards by the nose, or ears, or throat, there is the greatest security; but where these parts are dry, and the corruption of the brain very great, there danger is to be feared. If, besides all this, there is a ruffling, or bilious vomiting, a stupidness of the eyes, a loss of speech, or but a word now and then, or any delirium, death and

convulsions are then to be feared. Again, where a pain seizes half the head from a catarrh, and, the humour discharging itself by the nose, a gentle fever succeeds, in five or six days they grow cold again.

Echecrates, the blind man, had a violent pain of his head (rather behind, where the neck and head join), which proceeded to the crown, and in time to the left ear, affecting half his head very much. A mucous matter came away constantly, but commonly burnt a little; a little heat followed it, with a loathing of his food. In the day he was easy, but in the night in pain; and, when the pus made its way out at the ear, every thing ceased. This eruption happened about winter.

Query,—Whether, in all collections of matter, and in disorders of the eyes, the pains are at night?

Those who have coughs in the winter, and especially with the southerly winds, are subject to fevers during their hawking up much thick matter; but then they commonly cease in five days. But coughs will extend to forty, as in the case of Hegesipolis.

Those who have sometimes a cessation of great heats, are cured of them by sweating, not indeed all over the body, but either about the neck, the armpits, or the head.

Charites was taken in the winter with an acute fever upon a cough that was epidemical. He threw off the bed-clothes; was comatose, and uneasy; his urine was red, like the washing of vetches, with a large white sediment immediately from the first, and afterwards a reddish. The seventh, he had a little stool from a suppository. The coma continued, but without uneasiness. A dew appeared upon his forehead. He slept at night, and the heat was milder. The eighth, supped some ptisan, and remained comatose till the eleventh, the heat in a great measure then ceasing. Upon coughing he always hawked up a great deal with ease, first viscid, white, thick, and after that digested like pus. The urine after the eleventh was clearer, the sediment rough. The thirteenth, a pain on the right side to the flank and lower part of the belly. The urine stopped, but was relieved by an infusion or decoction of the Calliphyllum. The fifteenth, the pain returned again. The sixteenth, at night, the pain of the flank came more upon the belly, but was carried down by an infusion or decoction of mercury. The heat was spent within twenty days; but the hawking up of thick matter with ease continued forty.

The bellies of people should be gently purged in diseases, when the humours are digested; the lower, when you are satisfied that they are settled downwards: (this may be known by the patient's not being sick at his stomach or uneasy, or heavy in his head) and when the heat is mildest, or when it ceases after the fits; the upper (or the stomach) in the fits themselves; for, when the upper parts are sick, or uneasy and heavy, the humours are then raised upwards spontaneously. For this reason no purge should be given at the beginning, because at such a time they are purged spontaneously, or delays are dangerous.

The great process of the elbow being wounded by a fall, a mortification came on, and upon that a suppuration. When the matter was digested, a thick glutinous sanies was pressed out, and soon stopped, as in the cases of Cleogeniscus and Demarchus, the son of Aglaoteles. So again from the very same causes no pus came out, as in the case of Æschylus's son; but in most cases, where pus is gathering, a chilliness and fever attend.

Alcmanes, recovering from nephritic complaints, and being blooded downwards, the disease was translated to the liver. The heart was in such violent pain that the breath was suspended by it; the belly discharged with difficulty little pellets like goats' dung; there was no sickness or anxiety at the stomach, but sometimes he shivered, and was a little feverish. He sweated, too, and vomited. While the pain was upon him, he received no benefit from a glyster of sea-water, but from a decoction of brans he did. He had an aversion to food seven days; drank a simple kind of mead, lentil broth, and thin panada, with water after it. He then drank water, and eat a little of a boiled puppy, with a small quantity of maize as old as possible. As the time advanced, his diet was neat's feet, or pigs' petty-toes boiled. The next day he drank water again, rested, and covered himself up. For the nephritic complaint a glyster of wild cucumber was given.

Parmeniscus's boy was deaf, and received benefit from his ears being cleansed with wool, and then oil or netopum poured in, without any syringing. He was also ordered (and to advantage too) to walk, rise early, and drink white wine; to abstain from herbs, and to live upon bread and rock-fish.

Aspasius's wife had a violent pain of the tooth, with a swelling of her jaws. Upon washing with castor and pepper, and holding the same in her mouth, it abated. Her strangury complaints abated

too. The flour or meal that is mixed with ointment of roses is also healing.

Headaches from the womb are taken off by castor.

The greatest part of hysterics are caused by winds, as is plain from belchings, noises about the belly, swelling of the loins, and pains about the kidneys and hips. Black wine that has been kept so long under ground as to have nothing of the must left; or one third spices, and two of flour, boiled in sweet-scented white wine, and poured upon a cloth, apply, when it is daubed with the ointment, as a cataplasm, where the hysteric pains affect the belly.

Callimedon's son, who had a hard, large, crude, painful tubercle in his neck, was relieved by bleeding in the arm, and a cataplasm of torrefied linseed moistened with oil and white wine, not hot, nor much boiled, or else boiled in mead with the flour of fænugreek, or barley, or wheat.

Melisander was relieved by bleeding in the arm, in a great swelling of the gums, attended with much pain. Egyptian alum at the beginning is also of service as a represser.

Eutychides was seized at last with cramps in his legs, and a purging, from a cholera morbus. He vomited a great deal of bile of a deep colour, and very red, for three days and nights; drank something upon his vomiting; was mighty restless, and sick at his stomach; nor could he contain any thing that he either drank or eat. His evacuations by urine and stool were much suppressed; soft fæces came up with the vomitings, and also made their way downwards.

The Cholera Morbus, "witness the case of Bias, the champion, who was naturally voracious," proceeds from eating of flesh, especially swine's, with the blood in it; vetches; drinking to excess of old sweet-scented wine; insolation, or being exposed to the sun; from cuttle-fish, lobsters or cray-fish, and crabs; and from eating of herbs, especially leeks and onions. It also comes from boiled lettuce, cabbage, and the cruder docks; from desserts, sweetmeats, summer fruits, as apples, and ripe cucumbers; from milk and wine mixed; from tares, and new barley meal.

The summer is most productive of choleras, and intermitting fevers, and such as are attended with chillinesses. These are sometimes of a bad sort, and pass into acute diseases; but care must be taken. The fifth, the seventh, and the ninth days are the principal

indicants in these diseases; but it is better to be upon our guard to the fourteenth.

Calligenes, when he was about twenty-five, had a catarrh and a great cough, attended with much difficulty in bringing the matter up, but without any discharge downwards. This continued for four years, with gentle heats at the beginning. Hellebore was of no service at all, but a spare diet was, in conjunction with exercises of several kinds, eating of bread, drinking of black wine, eating with bread whatever he would, whether flesh or fish; and abstaining from every thing sharp, salt, or fat; the juice of silphium, and crude herbs; and with walking much. Drinking of milk was of no service, but drinking something more than three spoonfuls of sesamum with soft wine was.

Timocharis, in the winter, had a defluxion upon his nose, that was stopped entirely by venereal recreations. A lassitude and heat came on, with a heaviness in the head, and a great sweat, first about the head, and then all over. Sweats were familiar to him in time of health. The third day he recovered.

Cleomenes's boy began, in the winter, to loathe his food; fell away upon it, but had no fever; vomited his victuals and phlegm; and seemed thus disgusted two months.

The cook, that had the bunch upon his backbone after a phrensy, received no benefit from any kind of purging potions; but black wine, eating of bread, abstinence from bathing, anointing the part, and gentle friction after unction, with warming the part gently, and not by much fomenting, were of service to him.

Tesimus's daughter, upon drinking something for that purpose of her own head, miscarried of a fœtus thirty days old. Pain followed upon it; and, whenever she drank, she vomited much bilious, pale, leeky, black stuff. The third day was convulsed, and bit her tongue. The fourth I came to her, and found her tongue black and large; the whites of her eyes red. She got no sleep, and died the same day at night.

The girl that fell from the precipice lost her speech, was exceedingly restless, vomited at night, bled a great deal from the left ear that she fell upon, drank mead with difficulty, rattled in her throat and breathed quick like a dying person. The veins about her face were distended; her position was supine, her feet warm, her fever not much, but yet sometimes acute, with great stupidness in her understanding. The seventh, she recovered her speech; the heats were milder; and she got over it.

Onisantides was relieved, in a pain of his arm in the summer time from an abscess, by bathing or moistening his body and his arm for a long time in the sea. For three days together he drank a white watery wine lying in the sea, and made water there before he came out of it.

The fuller in Syrus, who was ill of a phrensy, and had a trembling in his legs after burning, was marked upon the skin like the bites of gnats. His eye was large, and the motion quick. His voice broken or interrupted, but yet distinct or intelligible. His urine clear, without a sediment. Query—Whether from his purging with thapsia? The eighteenth it remitted, and went off without a sweat.

Nicoxenus, in Olynthus, seemed to have the like remission the seventh day with a sweat. He afterwards took soups, wine, and grapes dried in the sun. The seventeenth day I came to him, and found his tongue burnt up, with a heat upon him, but not very vehement outwardly; his body was terribly loose and flabby; his voice so broke that it was a trouble to hear him, though it was at the same time distinct; his temples fallen; his eyes hollow; his feet soft and warm; and a distension about his spleen. He could not keep the glyster, but returned it. At night a stool came away a little solid, and a small quantity of blood; I suppose from the glyster. The urine was clear and bright; his position in bed supine; his legs parted as through excessive weariness; but he could get no sleep all the time. The heat went off within twenty days. His drink was bran-water, with the juice of apples and pomegranates, the juice of torrefied lentils cold, and the washings of meal boiled into a thin soup. He got over it.

The fullers had large and hard swellings of the glands, without pain, about the pubes, and the like about the neck. A fever attended at first for ten days, and a cough succeeded upon their breaking. The third or the fourth month the belly wasted; heats came on; the tongue was dry and thirsty; the evacuations downwards difficult; and death put an end to all.

Pherecydas, after the winter solstice, lost a pain of his right side at night that he had been used to before. He got his dinner, went out, was chilly, and at night feverish, but without pain. A dry cough came on. A great deal of urine, with much sediment, that appeared from the first like shavings, smooth, and dispersed, but after four days was turbid. The urine was not without colour,

and had a sediment, but no collection appeared in the chamber-pot, when it was cold. The third day, a natural stool. The fourth, by the help of a suppository, stercoraceous and bilious stools, with a great flux of humours. He slept a little in the night, and a little more in the day; and was not very thirsty. The same day, especially at night, the skin about his forehead and other parts was continually soft. The fever seemed to the touch to be brought under, and a dewy moisture broke out. The pulsation of the vessels in the forehead (or temples) was very obscure. Whenever he turned, or went to stool, a heaviness came upon him for a little while, but he was free from pain all along from the first, and after being sick at his stomach a little while vomited. The seventh, by means of a suppository had three stools, bilious, stercoraceous, very liquid, and pale; rambled a little; and soon had a dew upon his forehead again. He covered his face with the clothes, looked about again to no purpose, as if he saw something; winked again, and threw his clothes off. The ninth, a sweat began in the morning about his breast, and continued till he died. The fever raged; the delirium continued; he sweated much about his forehead, but with a terrible or whitish appearance; the skin under his hair was marked; his right hypochondre tumefied; and his discharges downwards bilious. The eighth, he was marked, as if bit by gnats. Before he died, he coughed up things like mushrooms, made of slime and surrounded with white phlegm; a little before which he hawked up white, milky, concretions.

A certain person was taken with a chilliness in his sleep after supper. The next morning he got up, and complained of a heaviness in his head, was chilly, vomited, and had the same heaviness still. At night it abated, and remained so till about the middle of next day. Then he grew chilly again, and passed the night but badly. The next day he was very feverish, had a stupidness in his head, vomited much bile, the greatest part of it porraceous; was better in all respects after it; slept at night; was cold all over next morning; sweated a little, and had a dew upon the greatest part of his body. His spleen (for he pointed to the place with his hand) had a collection of something without pain, that went off again presently. At night he got no sleep. About the hour of the assembly's meeting, the fever was exasperated; a sickness at the stomach came on; a dizziness; a pain of the intestines and head; and a vomiting of porraceous, smooth, viscid matter like phlegm. About sunset

every thing ceased. He sweated about the head and neck; and after vomiting had a stercoraceous, liquid, bilious discharge, neither black, nor convenient. The night and next day were tolerable. At night again he got no sleep; vomited in the morning as before, and also the next day, without any sickness. The pain of the head went off after sweating. In the evening every thing abated. The ninth, no vomiting, but he was rather hot. In other respects he seemed to have no fever, but yet had a pulsation in the temples. No pain any where, but a continual thirst. The same day, as he got up upon the stool, he fainted very much; by means of a suppository he voided black bilious shavings, and what dropped away was of a stercoraceous colour. The voice was broke; a heaviness attended turning; the eyes were hollow; the skin of the forehead stretched. As to the rest, he breathed well, and was composed; generally turned to the wall; and was moist, curved, and at rest in his bed. His tongue was also smooth and white. About the tenth day and after, the urine looked red about the edges, and a little white in the middle. The twelfth, the same bilious and abraded droppings from the suppository, and afterwards faintings. After that the mouth was dried, and always washed; and, if the water was not very cold, like snow itself, he would say it was warm. There was no thirst complained of. He always put the clothes off from his breast, nor would he suffer his gown to be warmed. The fire was at a distance, and but little. Both his cheeks were red. After this his speech was inarticulate, and he grew hot again a day or two, and then it terminated.

Androthales lost his speech, was ignorant of what passed, and withal delirious. But, these going off, he went about many years, and then relapsed. His tongue remained all the time so dry, that, unless he washed his mouth, he could not speak. There was also a great bitterness for the most part. The mouth of the stomach was sometimes in pain, but this was taken off by bleeding. Drinking of water and mead was of service to him. He also drank black hellebore, but nothing bilious passed off, or but very little. At last, being taken ill in the winter, a lightheadedness came on; the tongue was affected in the same manner as it had been; the heat was small, and without pain; the colour of the tongue nothing at all; and the voice, as in a peripneumony. He threw the clothes off of his breast, and ordered them to carry him out, as though he wanted to make water, not being able to speak any thing plain, nor

to keep his senses. He was accordingly led out, and died at night, after having lain two or three days.

Nicanor's disorder was of such a kind, that, when he was obliged to go to a drinking-bout, he was always afraid of a flute; and, when the piper began to play, the music immediately threw him into such a great fright, that he was not able to bear the disorder of it, if it was night; but if he heard it in the day, it gave him no uneasiness at all. This continued with him a long time.

Timocles, who was with him, seemed to be dim-sighted, and of a broken texture of body; and said he could not pass by a precipice, or over a bridge, or cross a ditch, though never so shallow, and that through fear of falling; but at the same time could go through that very ditch. This lasted some time too.

Phænix's complaint was of such a nature, that flashes like lightning seemed to dart from his eye, and generally his right eye. Not long after, a violent pain seized his right temple, and then his whole head and neck. The back part of his head at the vertebræ swelled; and the tendons were upon the stretch and hard. Now if he attempted to move his head, or to open his teeth, a pain seized him from the violence of the stretch. Vomitings, whenever they happened, removed the pains now mentioned, or made them easier. Bleeding was also of service; and hellebore draughts brought away all sorts of humours, especially porraceous.

Parmeniscus, who was formerly in a despairing way, and desirous of death, would sometimes be in his right senses, and well disposed. In Olynthus, he was taken one autumn with a loss of speech, but lay quiet, attempting to speak as little as possible; and, when he did speak any thing, he lost his speech again. Sometimes he slept, sometimes kept awake; tossed about without saying a word; was under great anxiety, and clapped his hand to his hypochondre, as if he was in pain there. Sometimes he turned away his face, and lay quiet; was feverish continually, but breathed well. At last he said he knew those that came in. Sometimes he would not drink for a whole day and night, though it was offered him; at another time he would snatch up the pitcher, and drink all the water. His urine was thick like that of beasts of burden. About the fourteenth it abated.

Conon's maid-servant, from a pain that began in her head, grew lightheaded, bawled and lamented mightily, and was seldom quiet.

About the fortieth day she died, but lost her speech, and was convulsed, ten days before she died.

Timochares's servant died in the same manner, and about the same time, affected (to appearance) with the same melancholy disorders.

Nicolaus's son was taken about the winter solstice with a chilliness after a drinking-bout, and was feverish at night. The next day he vomited a little pure bile. The third, while the assembly was full, sweated all over; lost his fever, but soon grew hot again. About the middle of the night shivered, was very feverish, and the next day shivered again at the same hour, but soon grew hot again, and vomited as before. The fourth, from an infusion of mercury had a very good stercoraceous liquid stool, but somewhat fetid. The urine was of the colour of ashes, not unlike the mercury infusion, but without any sediment; nor was there much urine, and but little cloud. The left flank and loins were in pain. He thought to fetch his breath well after vomiting, but fetched it sometimes double. His tongue was white, and had a small concretion sprouting out like a lupine, on the right side. He was withal a little thirsty, watchful, and lightheaded. The sixth, his right eye seemed larger than ordinary. The seventh, he died; but before his death his belly swelled, and his back parts were red after death.

Meton, after the setting of the Pleiades, had a fever, and a pain of the left side to the collar-bone, so acute that he could not possibly rest. The inflammation continued, and his stools were many and bilious. In about three days the pain went off, and the heat about the seventh or ninth. A cough attended, but what he hawked up was neither somewhat bilious, nor large in quantity, but a coughing up of phlegm succeeded. He tasted what he eat, and sometimes went out as if he was well; but was sometimes taken with little heats, that lasted not long. Gentle sweats came on at night. His breath, while the heat was upon him, was thicker; his cheek red; and about his side, under his armpits, and even to his shoulder, he felt a weight. The cough continued; and the medicine he took brought away bilious stuff upwards. The third day after the physic, pus broke out, forty days from the first of his illness. About five-and-thirty days after, he was purged again, and grew well.

Theotimus's wife, in a semitertian, was sick at her stomach, vomited, was chilly at the beginning, and dry. As it advanced, the heat was very great at the beginning of a fit; but upon drink-

ing mead, and returning it again, the chilliness and the sickness went off; after which she drank the juice of quinces.

Diopethes's sister, in a semitertian, had a violent pain at the mouth of her stomach, when the fit came on, and it lasted the whole day. Other women had nearly the same complaint; but, about the setting of the Pleiades, men were more rarely affected in this manner.

Apomotus's wife, about the time of Arcturus, had a violent pain at the mouth of her stomach upon a fit, in a semitertian, coming on. She vomited too, and had hysterical chokings at the same time, besides pains in the back near the spine. These, when they got there, put an end to her stomach-pains.

Terpidas's mother, who came from Doriscus, after miscarrying of twins by a fall in the fifth month (one coming away immediately, enclosed in a certain membrane, and the other in about forty days), conceived again. But in the ninth year she complained of violent pains in the stomach a long time, beginning sometimes from the neck and spine, and ending in the lower part of the stomach and groins; at other times from the right knee, and ending in the same place. When the pains were about the stomach, the belly was swelled; and when it went off, the heartburn came on, without any stranglings indeed, but the body was as cold as if it laid in water. At the time the pain was upon her, the other pains returned all over, but with more mildness than at first. Garlic, silphium, and all acrid things signified nothing; nor sweet, nor acid things, nor white wines, but black wines, and bathing now and then were of service. Terrible vomitings came on from the beginning, and no food could be taken; nor did her menses come down with the pains.

Cleomenes's wife, about the time of the west wind's blowing, was taken, after a sickness at her stomach and a weariness, with a pain of her left side, that began from the neck and shoulder. She grew feverish, was chilly, and sweated. After the fever began, it abated not, but increased. The pain was vehement; a cough came on, and what she brought up was a little bloody, pale, and in great quantity. Her tongue was white; her stools moderate and liquid; her urine bilious. The fourth at night her menses came down plentifully. The cough, and the hawking, abated. The pain abated also, and the heat was very moderate.

Epicharmus's wife, before she was brought to bed, had a dysen-

tery with a great deal of pain, and stools that were somewhat bloody and slimy. Upon her delivery she grew well immediately.

Polemarchus's wife, who had been troubled with pains in her joints, was taken on a sudden with a violent pain in her hip from her menses not flowing. Upon drinking an infusion of bete, she lost her voice a whole night, and to the middle of the next day. However, her hearing and her understanding were good, and she made signs with her hand that the pain was in her hip.

Licinius's sister, who was a little past her bloom, vomited whatever she took for fourteen days, without a fever; brought away blood in her vomitings; and complained of belchings. A contraction and strangling was also about the heart. Upon taking castor, seseli, and the juice of pomegranate, all was stopped; but a moderate pain went off to the flank. The juice of a bulb, austere wine milk-warm, and loaves as small as possible dipped in oil, were made use of.

Pausanias's daughter, upon eating a raw mushroom, was taken with a sickness at her stomach, a strangling, and a pain of her belly. Drinking warm mead, and vomiting, were of service to her, and so was warm bathing: for in the bath she brought up the mushroom; and, when every thing was going off, she fell into a sweat.

Epicharmus, about the setting of the Pleiades, was taken with a pain of his shoulder, and a very great weight upon the arm. He was also sick at his stomach, vomited frequently, and drank water.

Euphranor's son had eruptions like the bites of gnats for a little while, and the next day he grew feverish.

After the west wind, great droughts set in to the autumnal equinox. In the dog-days were excessive heats, hot winds, sweating fevers, that immediately grew hot again. Tubercles behind the ears appeared in many; particularly in the old woman with the cough, about the ninth day; in the young man whose spleen was out of order (the maid-servant's son) with a purging at the same time; in Ctesiphon, about Arcturus, and pretty near the seventh day; in the boy (the only case that came to suppuration); in Eratolaus's boy, where they went off again on both sides. No sweats followed; but a stuttering or lisping, from the dryness of the tongue. The Ornithiæ blew much and cold; snows fell sometimes after clear weather; and after the equinox came southerly winds mixed with northerly, and frequent showers. Many coughs went about

epidemically, especially among children; and in many behind the ears were appearances as in the satyrs. Sometimes the winter, even before this part of it, was rough and turbulent, attended with snow and northerly showers.

Timonax's little boy, about two months old, had small eruptions on his legs, hips, loins, and lower part of his belly. The swellings were very red, and upon their subsiding, or going in again, convulsions and epileptic fits attacked him, without a fever, for many days before his death.

Polemarchus's son, who had been troubled with a collection of matter and hawking some time before, grew hot afterwards, and dropsical, attended with a swelling of the spleen, and an asthma. If he went at any time up of high ground, he grew faint and thirsty; and sometimes he had a little aversion to eating. A dry cough continued with him a long time. However he crept about, and, if he had no more than one stool a day, with ease, he seemed full, and his asthma and suffocation increased. At last a catarrh and hawking came upon him with a cough; and what he brought up was thick and pale, but purulent. The fever was smart, but seemed to go off; the cough was milder; and what he hawked up was clear. The fever returned again with vehemence; he breathed thick, and died, but shivered first in his feet, and afterwards grew cold. His breath was more intercepted; his urine stopped; his extremities cold; and he died sensible, three days after the return.

Thynus's son was oppressed almost to death with hunger in a burning fever; had a great many stools, with bile, faintings, and much sweating; grew very cold, and lost his speech a whole day and night. The cream of barley, that was poured down, stayed with him. His understanding was clear, and his breath good.

Epicharmus's son, from walking and drinking, fell into a crudity of digestion; and the next day, upon drinking water, vinegar, and salt, in the morning, vomited phlegm. After this he shivered, bathed with a fever upon him, and felt a pain in his breast. The third day, about daybreak, a coma seized him for a little while, and he became delirious, very feverish, and restless under his disorder. The fourth, he could get no sleep, and died.

Ariston's toe was ulcerated. A fever came on, and he could speak distinctly. The mortification spread up to the knee, and killed him. The ulcer was black, dryish, and fetid.

He, that had the cancer in his throat burnt, was cured by us.

Polyphantus, in Abdera, had a pain of his head in a violent fever. His urine was thick and much, and the sediment thick and turbid. The pain of his head not ceasing, medicines were ordered the tenth day to sneeze with; after which a violent pain of his neck attacked him. The urine was red and turbid, like that of a beast of burden. He rambled like a man in a phrensy, and died in strong convulsions.

The domestic of Eualcides was affected in much the same manner. After the urine had come away thick a long time, and the head had been in pain, she became phrenitic, and died in strong convulsions as the former. For urine, that is very thick and turbid, is a certain sign of pain of the head, convulsions, and death.

The Halicarnassean, who lodged in Xantippus's house, was troubled in the winter with a pain in his ear, and a violent one in his head. He was then about fifty. A vein was opened by Mnesimarchus, from which the head, being emptied and cooled, was injured; for no suppuration followed. A phrensy took him, and he died. His urine was also thick.

Metrodorus's son, in Cardia, had a mortification of the jaw from a pain of the teeth, and a terrible excrescence of the gums. A moderate suppuration came on, and both the grinders and the jaw fell out.

Anaxenor, in Abdera, who was splenetic and ill-coloured, happened to have a swelling about the left thigh that disappeared on a sudden. Not many days after, that which they call epinyctis (from its beginning in the night) appeared upon the spleen, attended with a hard, red swelling. Four days after this a burning fever came on, and the parts all round looked livid and putrefied. Death ensued, but he was purged a little before that, and came to himself.

Clonigus, in Abdera, who had nephritic complaints about him, pissed blood by little and little, and generally with difficulty. A dysentery was added to his other misfortune. He was ordered to drink goat's milk in a morning, with a fifth part water, so that the whole quantity should amount to a pint and half; to eat in an evening bread thoroughly baked, and with his bread beet or cucumber. His urine was black and thin. He also eat ripe cucumbers. By this diet his dysentery stopped, his urine came away clear, and he continued the milk till the urine was come to its proper state.

A woman, in Abdera, had a cancer upon her breast of such a

nature, that a sanies somewhat bloody discharged itself through the nipple, which discharge, being stopped, killed her.

Dinius's little boy, in Abdera, had a slight wound upon the navel, that ended in a fistula; through which a thick worm sometimes passed, and sometimes bilious matter, (as he himself said,) when he was feverish. The gut being near, fell upon the fistula, and was corroded as that was. Another rupture succeeded, and would let nothing stay.

Python's son, in Pela, began to be very feverish immediately, and very heavy to sleep. His voice was lost, his sleeps came to him, and his belly was hard all the time. A suppository of gall being applied, a great discharge followed, and immediately upon that a remission. But the belly was soon swelled again, the fever raged, and the same heaviness to sleep came on. While he was in this condition, he took a little of those medicines that are made with wild saffron, wild cucumber, and meconium; upon which he fell into a bilious purging, and immediately the stupidness went off, the fever grew mild, every thing was easier, and the crisis happened the fourteenth.

Eudemus had a violent pain in his spleen, and was ordered by his physicians not to eat much, to drink a little thin wine, to walk often, and to keep strictly to this method. He was also blooded; lived but sparingly in his eating and drinking; walked by degrees; drank black thin wine; and recovered.

Philistides, the wife of Heraclidas, was taken with an acute fever. Her face was red, without any evident occasion; and a little after, in the day, a shivering came on, and was succeeded, as she did not grow hot, by a convulsion in her fingers and toes; a little after which she grew hot. Her urine had something in it compact, cloudy, and as it were torn off. She slept at night. The second day shivered again; grew a little hotter in the day; the redness abated; the convulsions became more moderate; and the urine the same. She slept again at night, but laid awake a little, without any manner of uneasiness. The third, her urine was better coloured, and had a little sediment. The same hour she shivered again, grew very hot, sweated at night all over; but in the evening her colour was changed to a jaundice, and she slept the whole night. The fourth she bled very much from the left nostril, and her menses appeared a little in their natural course. But the same hour she grew very feverish again; her urine had the like compacted par-

ticles in it, and was in small quantity. Her belly, which was naturally bound, was now much more so, and nothing passed downwards without a suppository. She slept at night. The fifth the fever was milder; at night she sweated all over; her menses went on; and she slept in the night. The sixth, she made a great deal of water in a gushing manner, and with the same particles as before. It had also a little sediment of the same colour. About the middle of the day she shivered again, grew a little hot, and sweated all over. Her water was of a good colour, and she had a perfect crisis.

Tychon, at the siege of Datus, was wounded upon the breast by the engine they used to throw darts or stones with, and in a short time fell into a fit of tumultuous noisy laughter. The physician, who took out the woody part, seemed to me to leave the iron of the dart within, by the diaphragm. In the evening he had a glyster and a purge, being in pain. The first night was very troublesome to him; but in the morning early his physician and others thought him better; because he was quiet. A prediction was made, that a convulsion would come and carry him off. The next night he was very restless, got no sleep, and lay upon his belly for the most part. The third day betimes in the morning a convulsion came, and he died about the middle of the day.

The eunuch, that lived by Elealces's spring, fell into a dropsy from hunting and running about. He had had for near six years the complaints that proceed from such riding, together with a swelling in his groin, a sciatica, and defluxions upon his joints.

A person in a dropsy should use exercise, sweat, eat hot bread dipped in oil, drink but little, bathe his head much with hot or rather warm water, drink white thin wine, and take but little sleep.

He who had the tabes dorsalis died the seventh.

In those who at first bring up undigested pus, salt things mixed with honey are good.

Venery is a cure for a long dysentery.

Leonidas's daughter's menses were coming down powerfully, but diverted another way. Bleeding at the nose ensued, and a great change. The physician did not perceive it, and the girl died.

Philotimus's boy, a stripling about fifteen, came to me with the bone of his skull as incurable. The wound was above, upon the crown of his head, and he was cured by a discharge of pus from the ears.

Pythocles used to prescribe his patients water, and milk mixed with a great deal of water, by way of nourishment.

Kibes are to be cured by scarification, calefaction, and heating the feet as much as possible by fire and water.

Lentils, sweet apples, and herbs are bad for the eyes. But for pains about the loins, or hips, or legs, from hard working, bathing the part with salt water and vinegar, fomenting with sponges dipped in the same, and binding up with unwashed wool and lamb-skin, are good.

Drinking origanum is bad for inflamed eyes and the teeth.

THE BOOK OF APHORISMS.

Aphorismorum Liber, ...	Fœsius, Treat. ii. p. 1242.
Liber Aphorismorum, ...	Haller, i. p. 460.
Des Aphorismes, ...	Gardeil, ii. p. 128.

This book of Aphorisms,[a] the most extensively known perhaps, and that which has probably been more frequently given to the world in an isolated form than any of the other writings that have reached us under the imposing title of Hippocrates, is divided under seven sections, by Fœsius, Haller, and others. C. J. Sprengel, in the English dress he has given to it, more than a century ago, (London, 1708,) has given it in eight sections, and has apparently added several aphorisms from other of the books that have heretofore been noticed. De Gorter has done the same, (Amsterdam, 1742,) and both accompanied with copious explanations and references. I have made a concise table of these different divisions, as in some respects they may be useful in reference.

	Sect. 1.	Sect. 2.	Sect. 3.	Sect. 4.	Sect. 5.	Sect. 6.	Sect. 7.	Sect. 8.	Total.
Fœsius, - -	25	54	31	82	72	60	88		412
Sprengel, - -	25	54	31	83	72	60	79	18	422
De Gorter, -	25	54	31	83	72	60	79	14	418
Haller, - -	25	54	31	83	72	60	85		420
Gardeil,[b] - -	25	54	31	82	72	60	88		412

At the beginning of the eighth section, Sprengel remarks, that "A great many have omitted this eighth section; some have only added six aphorisms of it to the foregoing; but others have added the whole section as we have done here. For there are several of them that ought not to be despised."

[a] "Aphorismus.—αφορισμος, est oratio, quæ omnes rei proprietates brevissimis verbis circumscribit."—Castelli Lexicon.

[b] Gardeil's division is into seven books.

De Gorter, at page 886, gives the residuary aphorisms (405 to 418) under the title of Aphorismi interjecti;—with some slight explanation, not very dissimilar from Sprengel, of the circumstances leading to the diversity of different editors.

"We might, (says Gardeil in concluding the book, and arranging the sections after Fœsius,) here remark, that in some editions, other aphorisms have been added that are not to be found in Fœsius; and we might augment the number of them, exclusively of those tracts that are written aphoristically, such as the Prognostics, Humours, Predictions, &c., by a variety of aphoristic sentences, especially from the books on Epidemics, and De Locis in Homine; but confining myself strictly to the Aphorisms really of Hippocrates. Those under the name of *Coacæ*, can scarcely be so regarded, although highly esteemed by ancient physicians, and which are truly a collection of Aphorisms, unaccompanied either by discussions or reasoning,—appearing to constitute a part of those writings that have been ascribed to Thessalus or Polybius,—or perhaps to some physicians of the celebrated school of Cos; though whether prior to, or after Hippocrates, is not fully settled."

In what may be deemed a preface to this book, Gardeil says, "The Aphorisms of Hippocrates are to be esteemed as general maxims, which he attempted to constitute from his practice, in proportion as the observation of the progress and issue of diseases presented various results. Certainly he could not consider all his Aphorisms as rules with no exceptions; but merely as facts of sufficient extent to deserve to be collected together; and every man endowed with a portion of genius and sagacity, in any profession, will be led by many circumstances to act like him. We all can judge that such a collection could never end, for it would be unceasingly augmented and corrected to the close of life. All admit, that in publishing this work in advanced life, he thought that it needed to be reviewed and corrected;—and we find scattered throughout the writings that appear under his name, many of such medical sentences, that could without difficulty be transferred to the close of this one."

Haller, in noticing this treatise, says, "That from time immemorial, it has been considered genuine, and as having been written by Hippocrates in advanced life and maturity of judgment. Yet it must be admitted by the lover of truth, that it was loosely performed, and handed to posterity; since many aphorisms are twice

repeated, and some are contradictory to each other, (which are all casually noticed by Gardeil.) The best parts are those that refer to the symptoms and termination of acute diseases; the worst are the physiological; some being false, respecting the fœtus, the signs of conception and of fruitfulness, as likewise of abortion from venesection." He here makes reference to the eighteen spurious aphorisms of some editions, and then indicates the character of those in each section.

The first and second sections consist chiefly of aphorisms that have reference to regimen and evacuations both in sickness and in health. The third, to the influence of different seasons, and the diseases incident to the various ages of life. The fourth, considers the subject of purgatives and the nature of the stools; though after the twenty-eighth, a variety of different ones are introduced, and from forty-one to sixty-seven, a succession of aphorisms in respect to fever; and on urines, from thence to the end of the section. The fifth, relates to the female sex, at least after the twenty-ninth aphorism to the sixty-third. The others are various, and appertain to convulsions, phthisis, heat, cold, &c. There is but little order in the distribution of the various aphorisms of the sixth and seventh books. They refer chiefly to the signs and presages of disease and health, &c., as deduced from different circumstances; and much is suspicious as to the authority from whence derived. Some are of trifling importance, others but repetitions or coincidences of some of the other sections, or even of the same one.

With this we terminate the seventh section, venturing the remark, that, although so often quoted and spoken of, as a whole, the Aphorisms, collectively taken, add nothing to the celebrity of Hippocrates.—Ed.

SECTION VIII.

EXTRANEOUS.

Besides the articles here mentioned, as found in the eighth section of Fœsius, accompanied with the Greek version; we find in Haller's edition (8vo. Laus., vol. iv. p. 199, et seq.) sundry other small tracts, and which, after those from Fœsius, I shall introduce among the εξωτικα,[a] as probably their most appropriate location. How Haller comes by them, I do not altogether comprehend; nor how it is that Fœsius makes no mention of them, or at least of only two or three which are intermingled with the letters. I enumerate the letters as I find them in Fœsius, without reference to their contents.—Ed.

EPISTOLÆ HIPPOCRATIS.

Haller, as a preface to these letters, says, they are very ancient, since Cato alludes to the one in which Hippocrates refuses his assistance to Artaxerxes. Many of them, however, are deemed problematical. The honorarium of ten talents from the Abderites to Hippocrates, was far beyond their means. The dream is unworthy of the gravity of Hippocrates, and the collection of letters appears to be rather the production of some sophist, than of that eminent man. Cratevas is manifestly of a different era; and the account of the plague cured by Hippocrates, can scarcely be reconciled with the narration of Thucydides; neither is it any where cited by Galen.

[a] This section contains in the arrangement of Fœsius (p. 1271), under the title of τα εξωτικα, hoc est externa, the following articles: Epistolæ aliquot;—Atheniensium Senatus-consultum;—Oratio ad Aram;—Thessali Legati oratio;—Genus et Vita Hippocratis secundum Soranum.

1. Artaxerxes to Pætus, respecting the plague in his army.
2. Pætus to Artaxerxes, recommending Hippocrates to him.
3. Artaxerxes to Hystanides, præfect, offering high rewards for the services of Hippocrates.
4. Hystanides to Hippocrates, announcing this to him.
5. Hippocrates to Hystanides, refusing his services to an enemy.
6. Hippocrates to Demetrius.
7. Hystanides to Artaxerxes.
8. Artaxerxes to the Coans, threatening them if Hippocrates is not sent.
9. The Coans, in reply, refusing his demand.
10. The Abderite senate and people, to Hippocrates, in behalf of Democritus.
11. Hippocrates, in reply.
12. Hippocrates to Philopæmon.
13. Hippocrates to Dyonisius.
14. Hippocrates to Damagetus.
15. Hippocrates to Philopæmon.
16. Hippocrates to Cratevas.
17. Hippocrates to Damagetes, a long letter in relation to Democritus.
18. Democritus to Hippocrates.
19. Hippocratis de Insania scriptum.
20. Hippocrates to Democritus.
21. Hippocratis de Veratri usu libellus.
22. Hippocrates to his son Thessalus.
23. Democritus to Hippocrates, de natura humana.
24. Hippocrates to King Demetrius.
25. Decree of the Athenians in favour of Hippocrates and the Coans.
26. Oration of Hippocrates before the altar of Minerva.
27. Oration of Thessalus, his son, to the Athenians.

These letters are followed by an account of the life, family, and writings of Hippocrates, from Soranus, and Vander Linden, with numerous testimonials from various sources; the last of which is taken from the "Itinerary of John Mandevyle," chap. 6, and is entitled, "De filia Hippocratis *mirabile*." A curious relation, from a curious traveller!

Subsequent to these testimonials, we find in Haller, vol. iv. p. 345 to 367, a collection of what he denominates, "Fragmenta et Elogia" ex eodem Lindenio, from numerous ancient writers,—Plato, Aristotle, &c., down to Ulpian and Bartolus. Following which, appear the "Consentientia ex Galeno," from various authors, p. 367 to 398; and lastly, a division entitled "Contradicta et Defensa," p. 399 to 414, with which the edition of Haller terminates.

A few short treatises, introduced by Haller under his division of "Hippocrati adscripta opera spuria," vol. iv. p. 127, require to be here noticed, as some of them do not appear in Fœsius; and they are therefore here added to complete the object of the editor.

I. LIBER DE HOMINIS STRUCTURA, AD PERDICCAM REGEM.

HALLER, iv. p. 199.

Haller tells us this exists only in the Latin. It treats of the four elements; of nature; and the four humours of the human body, their constitution, and location, &c.; of arteries; veins; the causes of mirth or sorrow, pusillanimity, &c.; of lethargy, phrenitis, palsy. Some affections of the head depend on the stomach; sutures of the head occasionally wanting; colour of the hair, baldness, &c., explained. Three gradations of voice: grave, acute, and intermediate. Liver, its influence in digestion. Five senses. Fourteen constituents of man stated (qu. tissues?—ED.), viz.: nerve, vein, artery, blood, spirit, flesh, fat, cartilage, nails, bones, marrow, hair, membrane, and humours. To these are added, in the female, milk and catamenia. Spine consists of twenty-four vertebræ, and as many ribs. Teeth more than thirty. Stomach in length five palms; intestines thirteen cubits. Names of the different fingers. The four seasons; their properties, &c. Some observations as to the non-naturals, &c.

II. DE NATURA HOMINIS.

HALLER, iv. p. 205.

This constitutes the twenty-third letter, of Democritus to Hippocrates, in the preceding list. It is, says Haller, a rhetorical description of parts of the body, in which much appears of a later period than that of Hippocrates. It is a piece of little or no importance.

III. LIBER DE ÆTATE.

HALLER, iv. p. 208.

A small treatise of two pages, which Haller says is a fragment; in which the signs are pointed out of fœtal death at seven and eight months, in a better way than in the legitimate treatises under those titles. A description is given of certain human ova, of seven days' formation, discharged by whores, through the agency of abortives; in which the outline of every part was conspicuous. Septenary periods of life, &c.

A small fragment on the same subject, by Philo, follows. It is entitled, "De Ætate Fragmentum, ex Philonis Judæi, de Opif. Mundi," p. 24. It seems a mere abstract of the above, and of about the same estimate.

IV. DE SEPTIMESTRI PARTU, LIBER SPURIUS.

HALLER, iv. p. 211.

Undeserving of notice, says Haller.—It is, however, well to look into it, if only to become acquainted with some former opinions.

V. DE SIGNIFICATIONE VITÆ ET MORTIS, SECUNDUM MOTUM LUNÆ, ET ADSPECTUS PLANETARUM.

HALLER, iv. p. 214.

Altogether astrological, says Haller, and very remote from the wisdom of Hippocrates. It does not exist in the Greek, and is the production of some later writer. It runs over (in fourteen paragraphs, and sixteen pages) the whole signs of the zodiac, and of the moon's locality in relation to them. Its perusal will afford some insight into the absurdities of astrology; a science still pointed to, in the figure as a frontispiece to many of our annual almanacs!

VI. LIBER DE MEDICAMENTIS PURGANTIBUS.

HALLER, iv. p. 238.

Some things herein, says Haller, are taken from the Aphorisms. A bold defence is set up for the doctrine of elective purgation, founded on the difference of the four humours.

The great variety in the operation of purgatives noticed. The

same one at times operating powerfully, at other times, not at all. Sometimes what is not expected is discharged, or in smaller amount, &c. All which is explained, and leads to the division of purgatives into chologogues, &c., according as they act on the humours; and directions are laid down for the success of this: for, adds the author, it is a shameful misfortune to kill a man by super-purgation.

VII. DE VERATRI USU.

Fœsius, Epist. xxi. p. 1287.—Haller, iv. p. 241.

Haller here states, that much is taken from the Aphorisms, Prognostics, and Prænotions, relating to the ptisan, and menstruation, which are quoted as if the productions of the author of this treatise. Towards the close, some extension is given to the subject of purgation by means of sesamoid; and cases are stated wherein veratrum is appropriate, and cautions given as to its employment. Purgation, in this treatise, seems more intended for vomition, or purging upward (sursum).

VIII. DE ANTIDOTO.

Ex Actuarii Methodi Medendi, vi.—Haller, iv. p. 243.

This is called by Haller, a "farrago aromatum," and is said to be from Myrepsus. It is in the text called an antidote of Hippocrates, "quo usus corona Athenis est donatus." Many virtues are attributed to its employment; its doses are stated, and mode of administration; its preparation is finally given, constituted of about twenty-five ingredients, and no doubt was equally a panacea with the confectio Damocritis, and Theriaca so celebrated by Galen!

IX. ANTIDOTUM.

Ex Nicolai Alexandrini, De Comp. Medic. i. 365.—Haller, iv. 244.

Pretty much of the same character with the preceding, but consisting of only eleven ingredients, one of which is opium. This is also called an antidote of Hippocrates, and was used as a panacea! Hundreds might be formed of equal importance, by drawing out the names of medicines from a wheel, and manipulating the ingredients secundum artem!

X. DE RE VETERINARIA.

HALLER, iv. p. 247.

Much posterior (says Haller) to the period of Hippocrates. A farrago of remedies, many of a superstitious character. It is not altogether devoid of interest, as being of so remote antiquity, and not deficient in treatment of sundry affections of importance. Venesection described, &c.

I have now brought to a conclusion the immediate object in view, that of affording a general outline of all the writings that have reached us under the name of Hippocrates, rather than a complete translation of the whole. I trust such a work may yet appear in the English language; and, although it will be perceived that of nearly eighty treatises, scarcely a dozen are attributed undisputedly to him,—yet their antiquity alone would be a sufficient plea for the medical profession, to desire to know the state of that profession nearly three hundred years before the birth of our Saviour;—and that, even if it did not contain much really useful matter. Were I now half a century younger, with my present feelings towards the memory of that great man, and of his still greater successor, Galen, I should take pleasure in assuming the task; but at the age of more than "threescore years and ten," I feel that the hour-glass of life must soon have its sand expended; and that other cares should now engross my mind. I will add, that imperfect as this present attempt is, by myself considered, I look forward with a fervent hope, that it may prove a pioneer for a more efficient labourer in the schools of Hippocrates and of Galen, when the present writer may perhaps, be holding an interesting communionship with those individuals themselves in a higher state of existence.—EDITOR.

END OF THE WORKS OF HIPPOCRATES.

AN ABSTRACT

OF THE

WRITINGS OF GALEN.

INTRODUCTORY REMARKS.

During several years, whilst holding successively the Professorships of Chemistry, and of Materia Medica and Pharmacy, in the University of Pennsylvania, I endeavoured in my Introductory Lectures to afford some slight information to my class, as to the character and writings of Hippocrates; and to vindicate him from the unwarrantable aspersions that have been cast upon him, even by those who considered themselves as being among his warmest admirers. That they derived their impressions of that great man from second-hand observations, whether favourable or unfavourable to him, I have no doubt; for I consider such an imperfect and partial acquaintance with his writings, as *being the only means* by which we can explain the singular circumstance, that fault has been found with him, and ignorance ascribed to him on subjects, which a due and personal acquaintance with his works, would have assuredly prevented. I pursued a similar plan with respect to Galen in two or three successive Introductories, but the continuance of which was precluded by my separation from that institution. Being thereby prevented from pursuing the object I contemplated, I have long been led to think that it might not be unacceptable to the Profession, if I should, by slightly modifying the lectures, present a brief outline of the works of both those wonderful and accomplished physicians. In the preceding pages, my readers will have attained some slight view as to Hippocrates and his writings; and in those that follow, will be found an epitome of Galen—his illustrious successor, his warmest advocate moreover, and vindicator, as well as commentator; hoping that it might lead to an eventual consideration of a

debt of gratitude to him, of long standing, that of giving him *a complete and perfect English dress;* by which thousands, unacquainted with the Greek original, or the Latin translation, might be enabled to peruse with pleasure and with benefit, his learned lucubrations.[a]

Not inferior, probably superior to Hippocrates, from possessing the advantage of four centuries of additional information, accumulated in the vast libraries of Alexandria, Greece, and Rome; improved moreover by the extension of that information, or rather its collection and concentration as it were into a focus, constituted of the Greek and Alexandrine schools, we cannot doubt that Medicine received its full proportion of attention; since, even prior to the time of Galen, it had obtained the fostering care of kings and princes. Mithridate, so called from the great King of Pontus, has reached the present day, though greatly modified; together with the Theriaca, prepared for use by the chief physician alone; and which last has been illustrated and described by Galen, in a curious and learned commentary, whilst it was held in the highest estimation for nearly fourteen hundred years.

That Galen and his doctrines should have so long maintained the highest rank in medicine, and been the arbiter of our science for upwards of a thousand years, will appear surprising to those alone, who are ignorant of him and of his imperishable writings! It is true, his works, originally in Greek, are from that cause a sealed book to a majority of the Profession; but numerous editions from the Juntas of Venice, and Frobinius of Basil, of the Latin translation exist, and might be obtained by all who really desire to consult them;—or at least if their high price should prove an obstacle to this, all will admit, that no public library, especially a medical one, can possibly be complete without them. Imagine them now presented in an English dress! how many embryos of the hundreds of our *since discovered facts and theories*, should we not behold?

[a] I appeal to those who may honour these pages with a perusal, whether they have ever known fully, what were the subjects of the voluminous writings of Galen, even by name?—And I might make the same appeal with respect to a large portion of the writings of Hippocrates!—By a majority of the medical profession, if this appeal were truly replied to, I doubt not the answer would be in the negative!—And yet the names of both those illustrious authors are familiar to all the Profession as their household gods!!

The plagiarists of past and present times would stand forth in bold relief, and credit would be awarded to the great original! *Hinc illæ lachrymæ!*—Our authors wish not to withdraw the veil, or else it might with ease be accomplished. Galen has never yet been permitted to assume the British toga, although the Roman fitted him so well.

I cannot but admire the apathy with which those extraordinary productions are regarded by many of the learned professors of our science! who, whilst they employ the lighter works of fancy to form the chief intermedia between the present and by-gone times; they look through a glass, darkly, along a vista of more than fifteen hundred years, when Galen constitutes the object of their contemplation! Fain would I hope, that his works may yet be given to the world, in such a dress, as readily to introduce them, not to our libraries only, but to our minds. May it devolve on America to discharge this debt;—but little hope can be anticipated from England, in this particular. It would present a mirror that would reflect back the images of facts and theories, long assumed and regarded as of domestic origin, with no acknowledgment of their Grecian source. Here, in the pages of Galen, would be discovered many of those great principles, both in theory and practice, which have, at different periods, been advanced as novelties; for Galen has remained a fixture only, on the shelves of medical libraries. As in the pages of Burton, the plagiarisms of Sterne have been demonstrated by Ferriar; so in those of Galen, an equally egregious memento of medical effrontery might be readily shown to exist. But who now, we may be permitted to inquire,—who reads his works?—Where indeed, with few exceptions, are they to be found, even in our public institutions for private reference? It is time that justice, so long delayed, should at length be exercised towards one of the most brilliant stars of the medical world. It is time to dispel those fanciful dreams, that in the mighty march of intellect, "all the talents" are concentrated in our present period, and that retrospection is unnecessary. The flippant usage of too many of our public writers and teachers, of denying to the ancients any merit, as if their intellects were barren as their own, cannot be too severely reprehended. Those ages which produced the poets and philosophers, whose works have reached us, and which have ever been considered as the standards of merit in their respective spheres; could never have been deficient in the yet more important and per-

sonally interesting science of medicine![a] Test this, by the writings of Galen alone, and its truth will conspicuously appear, in opposition to the *dicta* of our would-be master spirits, who fondly please themselves that they alone are the shining lights of the Profession; and which their vanity, and ignorance of those bygone writers whom they profess to contemn, yet, as opportunity serves, most ostentatiously quote, can alone explain.[b] When we hear the ancients most unblushingly undervalued, let us set it down as a fact, that such persons have never examined the authors they contemn, and are therefore desirous of retaining others on a level with themselves, either of ignorance or indifference.[c]

In following up the plan I have marked out, it is my intention briefly to glance at the contents of the several writings of the extraordinary person in question, that my readers may know what

[a] "O vous qui jugez avec autant d'injustice que de légéreté la physique de Séneque, et qui payez d'un souris dédaigneux et malin les fruits utiles de ses veilles; oubliez le moment où vous existez, et ce que vous devez aux découvertes de votre siecle sur cette science: transportez-vous au temps où il a écrit; proposez-vous les mêmes questions, et voyez si vous les résoudriez mieux que lui. Vous seriez peut-être très vains alors de rencontrer son erreur."—Avertisement de L'Editeur des Œuvres de Séneque, sur les Questions Naturelles. Vol. 6th, Paris edition, an 3.

In the above, the reader must be pleased to read "la médecine de Galen." Mutatis mutandis, the application is fully as correct.

[b] Did time and space permit, I could furnish from Fabricius a copious and extraordinary catalogue of "Opera deperdita," which would probably astonish the reader, and lead him to regret the loss the world has sustained from the non-discovery of printing in those bygone times. We may, however, like the old woman and the empty cask, in Æsop's Fables, form some judgment of our loss, by the comparatively few that have fortunately been spared from the ravages of time, under the controlling influence of despotism, barbarism, and superstition.

[c] These gentlemen might learn a lesson from Shakspeare's favourite knight, Sir John, at least, in relation to Galen, that would be useful to them.—*Vide* Henry IV. Part II. Sc. 2.

"*Lord Chief Justice.*—You would not come when I sent for you.

Falstaff.—I hear, moreover, his highness is fallen into this same whoreson apoplexy.

Ch. J.—Well, Heaven mend him! I pray let me speak with you.

Fal.—This apoplexy is, as I take it, a kind of lethargy, an't please your lordship; a kind of sleeping in the blood, a whoreson tingling.

Ch. J.—What tell you me of it? be it as it is.

Fal.—It hath its original from much grief; from study and perturbation of the brain: *I have read the cause of his effects in Galen:* it is a kind of deafness.

Ch. J.—I think you have fallen into the disease; for you hear not what I say to you.

Fal.—Very well, my lord, very well!—Rather, an't please you, it is the disease of *not listening*, the malady of *not marking*, that I am troubled with," &c.

they may expect to find in full, should they think fit to look into the venerable and nearly obsolete folios of their most illustrious predecessor; and if unable or unwilling so to do, that at least they may be checked in any attempt to decry them, by this slight epitome. It will consist, for the most part, of the simple outline (with a few exceptions more fully given), of those writings, as they have appeared to the editor; and which can scarcely be considered as even a skeleton, as it were, of the proudest work of which the science of medicine can boast, either in ancient or modern times, if estimated by its individual merits alone! No slavish and ignoble plagiarist was Galen. In thought, as in action, he appears to have been free: and those thoughts are evincive of superior genius, improved by all the arts and science of his own, and of preceding ages. In every page, his character stands forth in bold relief. His works are a library of past events, an encyclopedia of facts from every branch of medical literature; and forestalling many of the most extraordinary events of our own times; whilst even in experiments and in operations, *considered as novelties* in the present day, he has preceded them.

In order to comprehend the writings of Galen, he must, I think, be permitted to explain himself, through the context of other parts. That he was wrong on many points of physiology, when compared with those *deemed* perfect in our day, cannot be denied; but are we absolutely certain of the truth of all those we now maintain? Will not the fluctuation of the physiology of the last fifty years be adequate to set aside such flattering pretensions? The stamp of mutability is affixed to the science, now, at least as much so, as in the days of Galen; for, with all our boasted attainments, it can scarcely with justice be affirmed, that the superstructures we have erected, are more beautifully, or more securely and symmetrically arranged, than was that of Galen; or that we have, in truth, a system of physiology that is more settled or superior to his.[a] Let us

[a] I would earnestly request the older members of the Profession, (I mean those of thirty or forty years' standing), to cast a retrospective glance at the numerous changes in physiology, and pathology, and therapeutics, that have been given to the medical world, since their first connexion with it. Nearly a century ago, a Doctor Lizarri of Venice, published a defence of oleaginous remedies in bilious diseases, in opposition to the celebrated Tissot, who condemned their use. Lizzari affirms, that in order to favour his opinions, Tissot had even frequently mutilated the text of Hippocrates. A journalist of Venice, reviewing the work, exclaims, " Malheureux sort de l'humanité; il n'est

inquire how stands the fact, in two or three particulars. Whilst Galen regarded respiration as intended to cool and ventilate the blood, we have, at one time, been led to consider it as productive of animal heat, and at another, as being required to oxygenate, or, to decarbonize the blood. Now, of all these, which is true?—If some have supposed the air to be absorbed, in whole, or in part, in the different views of respiration, Galen had, before them, thought the same; and surely the ventilation of the blood, and conveying to it an aeriform fluid or spirit, as taught by the ancients, is an hypothesis at least as beautiful; and is by Galen as well maintained, as any of the present day; even if we cannot perceive in it a complete *forerunner* of those systems, which as now vamped up, are proclaimed as new, though based on a groundwork of nearly 2000 years. All this has been accomplished by the magic influence of a few new-fangled, and fresh-coined terms, derived from the fluctuating vocabularies of our changing systems of medical philosophy.

With respect to the various opinions as to the power and agency, by which the circulation is enforced and continued; whether by that of the heart alone, or by that of the arteries, or of both combined; it may be allowed us to inquire whether, with all our greater and more ample anatomical researches, aided by the microscope, and by injections, and by the most powerful physiological acumen, this interesting fact is better ascertained, or more conclusively substantiated than it was by Galen, who ascribes it to the heart alone; and founds his reasons, in part, on the synchronous character of its beat, with that of all the arteries of the body.

In regarding the *veins*, as the channel by which nourishment was conveyed to every part, according to our present views, Galen was in error.[a] That he perceived the absolute necessity of a circulation, from the very facts themselves, of nourishment and growth in every part, seems to follow, as an almost necessary result; and one that can scarcely be supposed to have been beyond the speculations of his penetrating and inquiring mind. Now this is

pas encore décidé si l'huile est salutaire ou nuisible dans telles maladies, et les malades, meurent pendant la dispute!" Will not this equally apply at present, to much of medicine in its different branches?

[a] It must be remembered that by the ancients, the term φλεψ, was a generic one for tubes of every kind capable of conveying fluids. It was not limited to the vessels alone in the human body; but in order to discriminate between an artery and a vein, the former was called a pulsating, the latter a non-pulsating vein.

infinitely strengthened by comparing and connecting those disjointed or independent portions of his multifarious pen; in which a circulation is more than merely obscurely hinted at, as we shall endeavour to demonstrate in the progress of these pages. The assumption, (for it is nothing more,) that his idea of a circulation was simply that of a flux and reflux of the blood in the same vessel, like the rise or fall of the tide, will not coincide with the circumstances of the text in numerous parts of his works; and can only be maintained by those, who, at all hazards, uphold *the sole right of Harvey* to the discovery of the circulation in all, its most unlimited extent. We can at present merely surmise, that Galen could not have looked, either for a general, or partial nutrition, without some definite views as to a channel of communication, for the especial purpose of transferring to every part, an ever-moving fluid, which he undoubtedly regarded as containing the nourishment of the system at large, and that nourishment taken in, ab extra, daily, at his meals. How he supposed nutrition to be actually accomplished from the blood, as freighted with its important addition, we may partly comprehend from his ingenious doctrines of attraction and repulsion; together with other powers, which he ascribes to every organ of the body; doctrines probably not surpassed by any since promulgated; and quite as ingeniously built up and sustained. We ascribe the deposit of various matters, either of nutrition or secretion, to arterial branches of the circulating system; yet, at the same time we admit the anomaly of the secretion of bile from venous branches. It is not then, perhaps, incorrect to admit that Galen was *partially* right on points, in which, even now, from our absolute uncertainty as to the exact character of the *capillary link* of circulation, we have no positive or fixed conviction.

It may excite surprise, but it is not the less true, that by changing our present nomenclature for that of Galen, we find the doctrine of *Tissues* very distinctly taught by him;—a doctrine so ably and beautifully, and let us cheerfully add, more fully and satisfactorily enlarged upon by the celebrated Bichat. That a doctrine so luminous and harmonious, should have occurred to both these illustrious men, may be regarded as a strong presumption of its being founded in truth; and identifies in a powerful manner, the congeniality of their minds and pursuits. It is possible that Bichat derived his views on this subject from Galen; yet it is not improbable, considering the neglect into which the writings of Galen had

fallen, that Bichat owed it to himself. Their mutual and strong attachment to anatomical research, qualified them certainly, for far more extended views of physiology and pathology, than falls to the lot of the major part of the Profession. At an interval then, of nearly sixteen hundred years, during which the doctrine had slumbered, it may be said to have again been discovered, or resuscitated and embellished, by those improvements which may be conceded to have sprung up.

Nor is the division of diseases into *Functional* and *Organic*, by any means obscurely taught by Galen. By merely a change of terms, we find the same ideas, that are now enunciated. And if, as Shakspeare says, "a rose, by any other name would smell as sweet,"—it would be difficult to say, why the doctrines of Galen should be less acceptable to us, under his primitive nomenclature, than as now set forth to the public, as novel, under a mask of new-fangled names and explanatory elucidations.

I cannot forbear to repeat, what Galen himself perpetually enforces, that the *fluctuation of names*, has always retarded the pursuit of knowledge; and that it has been, *is now*, and ever will be, the principal means adopted by every dexterous plagiarist, to mystify an otherwise well-known subject; and by giving it to the world in a new dress, an aspect of novelty, it is palmed upon ignorance or apathy, as the production of genius and research, such as previously had no existence. This nomenclatural fluctuation was well known to Galen; and whilst it is wofully deplored by him as a source of infinite evil, he fails not to castigate it by those sarcastic remarks he often indulges in.[a]

Although in several places, Galen seems to incline to the doctrine of the *unity of disease*, yet the prior claim to it by Hippocrates must be admitted, if there is any force in words.—"Morborum omnium *unum et idem* modus est, locus autem differentiam facit." —Lib. de Flatibus.—Or, as an annotator (Fracassini, opusc: Pathol. Leipsic, 1758, ch. 18, p. 92,) on this part has it: "Cum humanum corpus liquidis ac solidis, nempe vasis ipsa liquida continentibus, constet, et utraque in statu sano æquabili ac proportionato motu

[a] It might well be demanded of these incessant coiners of new terms, "by what authority" they do this? by which almost every science is kept in a constant fluctuation, if not absolutely retarded.—Let any one compare the changes of nomenclature for the last fifty years, in Medicine, in Botany, in Mineralogy, in Chemistry!—and then ask, "Cui bono?"

moveantur, vasa scilicet oscillatio quo dilatantur ac contrahuntur; liquida vero progressivo ac circulari, quotiescunque horum motuum interruptionis, vel perturbationis *causa, in qua morbus consistit, ex uno in alium locum transferatur*, essentia morbi *commutatur, ac altero exsurgente, alter sæpe recedit;* si vero per quodcunque organorum secretiorum materiæ trajiciundæ aptorum eliminetur, omnino extinguitur morbus."—Whatever may be thought of the explanation here given, there seems no room to doubt, that here is to be found a complete exposition of the "Unity of Disease."

These preliminary remarks are, however, sufficiently extended. In confining myself to the simplest outline, I shall take the liberty of making occasional observations, in order to direct attention to some particular point, in a more especial manner; and shall introduce but rarely, the appropriate quotations, on which those observations may be founded, as well as those on which I should rest my claims to the attention of the Profession, for Galen and his works.

EDITOR.

THE WORKS OF GALEN.

THE writings of Galen consist of nearly seven hundred books or treatises, of which several are lost, and they constitute a mass of materials that can scarcely be appreciated, except by direct reference to them. Originally written in the language of Greece, they have been translated into Latin by different persons; and these have passed through numerous editions, the principal and best of which may be considered to be those that have been published by the Juntas at Venice, and by Frobinius at Basil. Besides two different Greek editions, I possess in the Latin, the third of 1556; the sixth of 1586, and the ninth of 1609, all Venice copies; and the Basil edition of 1549,—from which last I have chiefly formed the following epitome. The editors of the Latin copies stated, have divided the writings differently from the Grecian. They have, however, carefully collected, not only those admitted to be from Galen, and complete, but likewise such as are spurious and imperfect.[a]

The writings of Galen in the Latin editions, have been principally divided into seven classes, embracing all the range of medical science, as will be comprehended by a concise exposition of the plan pursued. These classes are preceded by the PROLEGOMENA, or introductory books, denominated LIBRI ISAGOGICI.[b] They will be found in some measure to form an epitome of the whole, giving some general ideas to the reader of what may be expected in those that follow.

[a] I have lately added to my collection the edition by Kühn, in 20 vols. 8vo., containing both the Greek and Latin texts, and which is infinitely more convenient for reference than the ponderous folio.

[b] Εισαγωγη.—Introductio, Lexicon. Hence students, as beginners, are called by Galen, εισαγομενοι, i. e. Tyrones.—*Lib. de Pulsibus ad Tyrones.*

CLASS I.

This class embraces *Physiology*.[a]—Its different books are consequently devoted to the consideration of the nature of the human body, its elements, temperaments, humours, various structure and habits, the anatomy and use or functions of the various parts, together with their respective faculties or powers; observations respecting the seminal fluid and the fœtus, as necessarily connected with the subject of generation. In this class some of the most interesting works of Galen are introduced.

CLASS II.

This class embraces *Hygiene*[b]—or the means of preserving health, chiefly constituted of the various so-called non-naturals; viz.: air, food, drink, sleep, wakefulness, rest and motion, repletion and abstinence; and the affections and emotions of the mind. Herein too, we find several commentaries of much value, on some of the books of Hippocrates, as for example, three, on the celebrated treatise "De Aere, Aquis, et Locis;" and on that "De Salubri Diæta." Much is said of the powers of food; of the healthy or unhealthy state of the fluids; of the ptisan, so celebrated by the Grecian practitioners. Some mental affections are also considered; some gymnastic exercises; the influence of habits and customs, &c.; and it will be found, on the whole, a class of considerable interest.

CLASS III.

Is *Ætiological*[c]—that is, explanatory of diseases, and of their

[a] Φυσιολογια.—Idem est, quod Physica, vel specialiter in medicina ea dicitur pars ministra, quæ explicat tres res secundum naturam, puta sanitatem, causas ejus, et accidentia, in rebus naturalibus corporis humani fundatas.—*Castelli Lexicon Medicum.*

[b] Υγιεινη.—Vocatur methodi medicinalis pars prior, quæ tractat modum sanitatem conservandi in sanis per certas indicationes et congrua media.—*Castellus.*

[c] Αιτιολογια.—Vocatur quibusdam medicinæ pars pathologica, in qua non solùm caussæ morborum, sed et morbi ipsi et symptomata pertractantur.—*Castellus.*

different symptoms and causes, &c., all which are taken up in succession, and are duly considered. Some of the books of this class are commentaries on various Hippocratic writings, especially on the Epidemics, and are a valuable addition to the reader, in enabling him to comprehend them more readily.

CLASS IV.

Semeiotics[a] is the division of medicine that is connected with the symptoms which distinguish diseases and the parts affected, and by which, likewise, we are enabled to predict what is subsequently to happen; that is, the prognosis, derived from the attendant symptoms, as evinced by the pulse, by respiration, excretions, &c. In this class are several commentaries on Hippocrates, viz., his Prognostics and Prorrhetics. The subjects of crises and of critical days are also duly noticed; together with much interesting matter of a highly practical character, and which will amply repay the attentive perusal of these books.

CLASS V.

PHARMACY[b] OR PREPARATION, ETC., OF REMEDIES.

This class embraces all that is connected with simple remedies and their preparations and substitutes; purgatives, antidotes, compounding of medicines, weights, and measures. The class is of considerable interest, as giving probably the best history we possess of the various articles at that period employed in practice. We find many that have reached our own times, and which, consequently, may be deemed to have received the sanction of all the intermediate ages. Here too, we find the most particular details of the long-esteemed Theriaca, and of some other then-deemed Panaceas.

[a] Σημειωτικη.—Est pars medicinæ signorum omnium differentias et vires expendens. —*Castellus.*

[b] Φαρμακευτικη.—Vocatur pars ministra artis medicæ, tradens descriptionem medicamentorum et rite adhibendi modum.—*Castellus.*

CLASS VI.

This, although by far the shortest of all the different classes, is yet one of the most interesting, embracing, as it does, under the title of "*de cucurbitulis, scarificationibus, hirudinibus, et phlebotomia,*" every thing connected with the evacuation of blood through their means. The importance of blood-letting is maintained in opposition to Erasistratus, who seems to have been nearly as violent an opponent to it as old Van Helmont in times nearer to our own. Galen likewise attacks, with equal severity, the followers of Erasistratus, and shows, that, whatever they might say, they either did not comprehend their master, or if they did, that they made no scruple to deceive on the subject.

CLASS VII.

THERAPEUTICS.[a]

This class, which in its different books, is more or less diffusely considered, contains, as may be understood from the title, every thing appertaining to the practice of the profession, such as diet in acute and other diseases; remedies for each disease, &c.; the principles and practice of surgery, embracing the treatment of fractures and luxations, the description of bandages, &c., (fasciarum et laqueorum,) and of the different apparatus. We find also several commentaries on different books of Hippocrates, which serve greatly in their elucidation.

CLASS EXTRAORDINARY.

The above class closes the regular writings attributed chiefly to Galen. The present one is formed of those that are probably his also; but which are more of an aphoristic character. They are, however, of great interest, containing, as they do, commentaries on the Hippocratic aphorisms, as also an explanation of many obsolete words that are found in that author.

[a] Θεραπευτικη.—Pars medicinæ curatoria;—methodus medendi.—*Castellus.*

Superadded to this extra-class we have a variety of those *spurious* writings that have been attributed to Galen. Whether spurious or not, many of them abound in interest, and deserve to be known. They amount to nearly forty distinct essays or tracts, and they are followed by numerous FRAGMENTS, appertaining to different parts of medicine, which have been considered as derived from Galen; and which, although mere fragments, possess considerable interest.

In estimating the above as a mere table of contents, we may venture to state, that the writings of this great man will, without difficulty, arrange themselves under the following heads,—and amongst them, scarcely will there be found wanting a single subject, that in any way appertains to medicine.

1. General or introductory.
2. Such as appertain to Anatomy.
3. " " Physiology.
4. " " Hygiene — including the practice of Physic and Surgery.
5. " " Materia Medica et Alimentaria.
6. " " Philosophy and Metaphysics.
7. " " Miscellaneous subjects.

Can it be possible that such a writer can be devoid of merit, and his works undeserving of examination in the present day, when it is remembered, that for more than one thousand years they maintained a supremacy, that has never been exceeded, perhaps not even equalled!

I now proceed to present a concise notice of all the different works that are to be found in the above-mentioned classes.

PROLEGOMENA,

VEL GALENI LIBRI ISAGOGICI.

THE INTRODUCTORY TREATISES OF GALEN.

Under the above distinctive title, we have sixteen books or treatises of an introductory character; but which, in interest, are scarcely surpassed by any of those that are to be found in the succeeding divisions. We give, in a connected view, the respective title of each one.

1. Galeni, Oratio suasoria ad Artes.
2. Si quis optimus Medicus est, eundem esse Philosophus.
3. De Sophismatis in Verbo contingentibus.
4. Quod Qualitates incorporeæ sint.
5. De libris propriis Galeni.
6. De ordine librorum suorum.
7. De Sectis.
8. De optima Secta.
9. De optimo docendi genere.
10. De Subfiguratione Empirica.
11. Sermo adversus Empiricos Medicos.
12. De Constitutione Artis Medicæ.
13. Finitiones Medicæ.
14. Introductio, vel Medicus.
15. Quomodo morbum simulantes sint deprehendendi.
16. Ars Medicinalis.

I. ORATIO SUASORIA AD ARTES.

AN ORATION IN FAVOUR OF THE ARTS AND SCIENCES.

(EIGHT CHAPTERS.)

In this first book of the introductory division of the works of Galen, we have a topic of much interest presented for consideration. Galen sets off by showing that man alone, of all the animal creation, is endowed with reason, by which he is qualified for the pursuit of every art and science;[a] that consequently, the improvement of the mind is of infinitely more importance than that of the body, or than an increase of wealth; and therefore that it is disgraceful to neglect those sciences for the mere pursuit of gain. This leads him naturally to a description of Fortune, whose inconstancy is pointed out, and exemplified by several conspicuous and familiar instances; such as Crœsus, Priam, Dionysius, Cæsar, and others; and he deduces from various circumstances, the superiority of striving to improve in the beneficial arts, to that of toiling in the mere pursuit of riches; strengthening his remarks by quoting the opinions of Diogenes and Demosthenes and others on the subject. He furthermore points out the folly of those who lay great stress on their nobility, aiding his own, by the remarks of Themistocles and Anacharsis.—Even the elegance of the body, and of furniture and dress, &c., is considered by him of little importance, unless it be at the same time united with a well-adorned mind.[b] He cautions all to whom his remarks

[a] Brutes, however, he concedes that they possess somewhat of the like in common with us, some in a greater, others in a less degree—but all, with few exceptions, are deficient in art; and what these enact, man imitates—as spiders, bees, &c. From these and other enumerated causes, although reason is not wanting to other animals, yet man alone, as superior to them, is said to be endowed with it.

[b] Here he inserts a story of Diogenes, who received an invitation to dine with one whose house was splendidly furnished, in the highest order and taste, and nothing therein wanting. Diogenes, hawking, and as if about to spit, looked in all directions, and finding nothing adapted thereto, spat right in the face of the master. He, indignant, asked why he did so? Because (said D.) I saw nothing so dirty and filthy in all your house. For the walls were covered with pictures, the floors of the most precious tessellated character;—and ranged with the various images of gods, and other ornamental figures. Now (adds Galen), since we are connected with the gods by the use of reason, so are we with brutes, inasmuch as we are mortal; it is therefore more expedient to attend to the mind and its improvement, than to the body and its appendages, &c., by which we are on a par with the brutes alone.

apply, by no means to misapprehend him when he speaks of study or of the arts; none of which are of importance, unless they benefit society; and he supports his views, by giving some details and particulars relative to the care bestowed in the gymnastic trainings of the athletæ, in preparing for their duties of merely a corporeal character. He considers the nature of the arts as being twofold; the one is noble, from its connexion with the gifts of the mind; the other is ignoble or inferior, being dependent on corporeal labour alone; the first receives the name of *liberal;* the other is called *mechanical.* Then, as might be anticipated, he places medicine at the head of the first division, from its being superior to every other mental pursuit that classes such among the liberal arts.

II. SI QUIS OPTIMUS MEDICUS EST, EUNDEM ESSE PHILOSOPHUS.

A GOOD PHYSICIAN MUST ALSO BE A PHILOSOPHER.

In this book Galen endeavours to prove that, which the title amply implies, viz., how greatly the medical man is improved by an intercommunion with learned men, and by a knowledge of philosophy; and it is of further interest, by the insight it affords of much of the philosophy of that period.

III. DE SOPHISMATIS IN VERBO CONTINGENTIBUS.

OF VERBAL SOPHISTRY.

(FOUR CHAPTERS.)

Here, he takes notice of the sophisms in conversation, giving various examples of them. It is an ingenious and amusing treatise, but is not very particularly connected with medicine. It serves to demonstrate, nevertheless, the magnitude of a mind, which seems to have embraced the whole circle of science as then pursued, both at Rome, and elsewhere.

IV. QUOD QUALITATES INCORPOREÆ SINT.

WHETHER THE QUALITIES OF BODIES ARE INCORPOREAL.

(NINE CHAPTERS.)

In this metaphysical tract, the question is considered as to the propriety of the Stoics, in denominating the qualities and other accidents of bodies *corporeal.* Galen denies it, and gives a definition of a body.

V. DE LIBRIS PROPRIIS GALENI.

OF THE APPROPRIATE WRITINGS OF GALEN.

(EIGHTEEN CHAPTERS.)

This book is of importance, inasmuch as it enables us, (at least to a certain extent,) to establish the writings that are his, and to point out those that are erroneously ascribed to him. A preface explains the circumstance leading to his writing it. He then proceeds to mention the works he had written on his first arrival at Rome;—next, those that were written by him and given afterwards to his friends, when he left that city. He then speaks of his anatomical writings, and adverts to twenty books on anatomy by Marinus, which he had epitomized. After this, he mentions his books on Diagnostics, Therapeutics, and Prognostics; his commentaries on Hippocrates, on Erasistratus, Asclepiades, the Empirics, and the Methodists; and of those that pertain to demonstration, or which are proper and common in the arts. Lastly, he notices such of his works as belong to Moral Philosophy, to the Platonic, Aristotelian, Stoic, and Epicurean systems; and of those that were common to grammar and rhetoric.

VI. DE ORDINE LIBRORUM SUORUM.

OF THE ORDER IN WHICH HIS WRITINGS ARE TO BE PLACED.

The title sufficiently explains the purport of this book.

VII. DE SECTIS.

OF DIFFERENT SECTS IN MEDICINE.

This book gives an interesting account, and one, probably, more accurate than is elsewhere to be found, of the different sects in medicine. From this, every writer on the subject, from the days of Galen to the present period, seems deeply to have quaffed, either directly, or as copyists, without any, or but trifling acknowledgment. No one, whilst reading the lofty pretensions and explanations of hypotheses assumed to be of modern origin; or in hearing the same detailed in learned lucubrations, ex cathedra, would suppose that the subject had ever, previously, received the slightest elucidation! Happily for these conceited and oracular exponents, Galen preceded them by ten or more centuries; and from his extensive hives, those drones have stolen the honey, if any is to be found in their asserted claims. It is but just to pay our homage in return, and rendering to Cæsar the things that are his, confess his superiority with a "detur dignissimo."

This book embodies much matter that is of a character peculiarly interesting to those who may desire to explore the discrepancies of former sectarians, and to investigate by what means the *same remedies* were alike employed in the practice of them all, although it was founded on principles so different! Notice has also been taken as to what has, by turns, received the opposition of them all. The Methodists receive a due share of attention, both as to their defence, and to the attacks made upon them by the Empirics and Rationalists.

VIII. GALENI, DE OPTIMA SECTA.

OF THE BEST SECT.

This is an important and interesting book, consisting of no less than fifty-one chapters, in which the pretensions of the different sects in medicine are duly canvassed. Galen sets off with the proposition that every medical precept, and every general precept, should be founded in truth as its primary recommendation; then,

that it should be useful, and lastly, conformable to established principles. By these alone can a sound precept be properly judged of, and that, if deficient in either, it should not be tolerated. The whole of this book seems to base its remarks on these propositions, and an infinite variety of highly valuable matter is spread over the whole treatise. He adverts to the difficulties that spring up in considering and judging of precepts assumed from mere appearances, or which are assumed from the authority of others as having been previously demonstrated. He points to the cautions essential in such investigations, and strengthens his views by numerous cases, either actual or supposititious. By these propositions he enters into his inquiry as to the character, &c., of the three principal sects, viz., the Rationalist, the Empiric, and the Methodic; by which his judgment may be enlightened as to his selection of the best. This he fully does, and points out their respective advantages or defects, their discrepancies, and the imperfection of many of their remarks. In short, it is a valuable criticism, which may be very advantageously consulted by every medical man, who desires sincerely to arrive at truth in his researches, and not be led away by the empty and frivolous hypotheses that swell the publications and lectures of the last fifty years.

IX. DE OPTIMO DOCENDI GENERE.

OF THE BEST MODE OF EDUCATION.

This book is of a *general* character in respect to education, and is deserving attention, if merely as affording the views of a man most deeply impressed with, and who appears to have thought much, upon the subject.

X. DE SUBFIGURATIONE EMPIRICA.

AN EXPOSITION OF THE EMPIRIC SECT.

This may be regarded as a compendious history of the sect of the Empirics. As to their origin, they themselves derive it from Hippocrates; but Galen considers them as springing from the

Sceptics of the more ancient philosophers. The foundation of their art is said to be that of experience. What that consists of is considered, and an explanation given of some terms connected with it: such as αυτοψια, εμπειρια, &c. Galen adverts to the division made of the art by some of them, into two parts; by others into three, and four, and even five parts. Herophilus's definition of medicine is stated, and the difference is pointed out between Empiricism and Dogmatism. The whole book is replete with interest, at least to those who desire to investigate the origin and diversity of the various doctrines of those distant times.

XI. SERMO ADVERSUS EMPIRICOS MEDICOS.

In the Venice edition of Galen's works is a short essay which does not appear in the Basil edition of Frobinius, entitled "A Discourse delivered in opposition to the Empiric Physicians." It is of little or no importance, and why introduced at all would be difficult to say, especially in this part of Galen's works;—for, even in the Venice edition, it is called "Fragmentum quoddam exiguum et mendosum." Its title gives its intent.

XII. DE CONSTITUTIONE ARTIS MEDICÆ.

OF THE ART OF MEDICINE.

A considerable number of Galen's writings appear as letters, if we may so express it, addressed to different individuals, probably his disciples; and, at times, apparently under fictitious names: thus the present book is addressed in its prefatory remarks, to Patrophilus, which may, or may not be a real one. By some, the book has been divided into two parts, the first, consisting of remarks on such particulars as lead to a knowledge of bodies, either simple or compound. The second, of a notice of remedies, or those instruments of pharmacy and of aliment, in any way employed by the physician.

Galen commences by assigning his reasons for writing the book, and strongly exhorts to the pursuit of useful arts, declaiming at the same time against the ignorance of the age and of its increase.

He points out the arts as being of a fourfold character: 1. Contemplative; 2. Practical, or Active; 3. Effective, poetically; that is, in creating that which had no previous existence, or in correcting that which did exist. Of this description he affirms medicine to be. Lastly; 4. Acquisitive, or Accumulative, as in the various arts of hunting, fishing, &c. He then proceeds to a more particular consideration of medicine as a factitious art, and explains how it is so; its parts, and actions;—states the essence of each part to consist in its conformation, magnitude, number, sympathy, and use, with much other speculative, yet interesting matter, diversified with that of a medical character. He then remarks on the nature of remedies, their discovery; the mode of attainment of the nature of diseases, and of the part affected, especially if internal; speaks of their causes, symptoms, variety, prognosis, and divination, &c; of the selection of remedies, prevention of disease, and of convalescence.

XIII. FINITIONES MEDICÆ.

MEDICAL DEFINITIONS.

This is useful by directing attention to the importance of definitions. It adverts to physicians, anterior to the time of Hippocrates, as having written but little, and defined nothing. Hippocrates was the first to collect these scattered fragments, and add to them his own. Many after him pursued the same plan, though without any kind of order, but merely spread at random through their works, such as Herophilus, Apollonius, and others. We are now presented with a definition, of what a definition is;—then follow, definitions of a science, art, sect, medicine,—and its respective sects, &c. Man is defined, his elements, organs, humours, nature, age, respiration, sanguification, pulse, motion, senses, health, and sickness. To this, succeed that of fever and its varieties, and that of various other diseases, as of the head and other parts. He speaks of medicine as being divided into two parts, contemplative and active, that is into theory and practice. The affections of the uterus, its discharges; the hair and its diseases, of which nine varieties are enumerated, one, under the title of rhopalosis, (i. e.

"velut in baculos coagmentatio,") appears to me to be the plica, or nearly allied to it. Fractures of the skull follow; diseases of the eyes and other organs of sense; the semen and its formation,—in which is agitated the question of the female seed;—that of the fœtus, and its nourishment;—and also of monsters; of seven and eight month children, and of uterine polypi, whose excision is recommended when large. Hemorrhage;—surgery and its parts, are noticed. This book, is in fact, in many respects a very useful one; it enables us, in case of difficulty, to look into the *original* meaning of words; and if not practically important, it is interesting throughout, if only on this score; a good translation of it might be useful, under this consideration.

XIV. INTRODUCTIO VEL MEDICUS.

INTRODUCTION TO MEDICINE, OR THE PHYSICIAN.

This book has by some been ascribed to Herodotus, and this seems the opinion of the editor of the Junta edition. In either case, it is of great antiquity, and tends to fix the doctrines of the times. The Venice edition divides this book into nineteen chapters; that of Frobinius, into thirty. Why so, is not explained, nor is it probably of any consequence.[a] The whole is of sufficient interest to command attention, whoever be its author. A preface to it adverts to the manner in which medicine was discovered, and a detail is given of many of the nursery tales, and original fables on this point. Esculapius is reputed as its inventor; and the Asclepiades, (his successors,) especially Hippocrates, are mentioned as having first taught the principles of rational medicine. The author proceeds next to treat of the principles of medicine, which he regards as threefold, viz., inventive, constitutive, and traditionary or interpretative. He next mentions the three principal sects, viz., the Logicians or Rationalists, the Empirics, and Methodists, with remarks on each of them, and some account of their respective leaders. Of the Rational sect, he considers Hippocrates to be the author and the chief; then Diocles, Praxagoras, Herophilus, Calcedonius, Erasistratus, Mnesitheus, Asclepiades, and Prusias. Of the Empirics, Philinus

[a] Such variations in the divisions are very frequent in the two editions.

stands foremost, as being the first who separated from the former; then Serapion, the two Apollonii, father and son; Antiochenes, Menodotus, and Sextus. Of the Methodists, Themison led the way, quitting the phalanx of the Rationalists, and followed by Thessalus, Mnaseas, Dionysius, Proclus, and Antipater. Some differed from all the preceding, and by their seceding from them gave rise to various minor sects, as the Synthetic, Eclectic, &c. An inquiry is then entered into, whether medicine is an art; and the opinions of the different sects, on the subject, are pointed out. Next we are presented with an enumeration of the parts or divisions, and the definition of medicine. Its division is into five parts, viz.: 1. The contemplation or consideration of natural things, constituting physiology. 2. A consideration of the affections, and of a knowledge of their causes, giving rise to pathology and ætiology. 3. The rationale of preserving health, or hygiene. 4. Of the observance of signs or symptoms, or semeiotics. 5. Of the mode of cure, or therapeutics. After some remarks on each of these in particular, the author considers the propriety, or necessity, of this quintuple division; then takes a view concisely of the human elements, as laid down by Hippocrates and other philosophers; some of whom enumerate four, viz., fire, air, earth, and water. Some reckon only three, a humid, dry, and aerial element, (answering to the continentia, contenta, and impetum facientia, of later writers;) the first consisting of the solids, as bones, nerves, arteries, veins, &c. The second are the fluids, that are conveyed by vessels to every part of the body. The third consist of spirits, considered by the ancients as twofold, animal and natural. Erasistratus considered three species of vessels, arteries, veins, and nerves, (omitting humours and spirits,) as the beginning, and the elements of the whole body: and Athenæus maintained, that fire, air, water, and earth, were not themselves the four primary elements; but he had great respect to their qualities, of hot, cold, dry, and moist. These and many other views of ancient philosophy respecting the elements, are noticed by Galen, which need not be here mentioned. This part is succeeded by the names of the external parts of the body, their division and etymologies; the internal parts and etymologies in like manner; and here we find various parts called by names altogether different from those to which those names are now applied. Thus stomachus, implied the œsophagus, and not the organ of digestion, as now. An enumeration of others is here unnecessary, but it

is pretty fully detailed by Galen. The fluids are next adverted to, and some functions and diseases. Six species of intermittents are mentioned. Diseases are divided into febrile and non-febrile, acute and chronic; and their mode of treatment is concisely noticed. Then, a concise description of acute diseases and their treatment is given; next, of the chronic in like manner. Remedial measures are then referred to, as being internal or external. The internal are divided under twelve genera, deduced either from the affection itself or from the seat of the disease. The external are placed under eleven divisions. All this is followed up by a long chapter on the diseases of the eyes; these, by a notice of various cutaneous affections; and the remainder of the book embraces surgery and its various indications, &c., fractures, luxations, &c. This book, though replete with matter, is however very concise; and is yet deserving of attention.

XV. QUOMODO MORBUM SIMULANTES SINT DEPREHENDENDI.

HOW TO DETECT THE SIMULATION OF DISEASES.

This is called a *libellus;* but is not shorter than many, dignified by the title of *Liber*. It would seem that in former times, the march of intellect was fully competent as at present, to direct the mind to evil; and it would admit of much reflection, before a just estimate could be drawn as to the comparative superiority of vice or virtue of that distant period, over that of present times. In this production, Galen acquaints us with the simulation of diseases, and points out the means of detection. Tumours, inflammation, spitting of blood, extreme pain and delirium, &c., all become tributary to fraudulent intentions. A case is given of feigned colic; another of a swelled knee, excited by artificial means, in a servant desirous of avoiding out-of-door work. Some instruction may be derived from this treatise, at this period.

XVI. ARS MEDICINALIS.

OF THE ART OF MEDICINE.

This book is divided into one hundred chapters, containing much interesting and important matter, although of infinite diversity.

Some prefatory remarks are made on the triple doctrines, or modes of inquiry, as to what medicine is, &c., and replies are given to such inquiries. It is said to be the knowledge of that art or science, that teaches what is healthy, what induces disease, and of the causes and accompanying symptoms. The body is said to be the recipient; causes act and operate upon it; symptoms indicate, both the state of health, and of disease. All this is more particularly noticed under each respective head, of the healthy, unhealthy, and negative or neutral state; of healthy and unhealthy symptoms, and, of such as indicate the highest health. The difference of parts, is then considered, either as original, or derivative; thus, the brain, the heart, liver, testes, are regarded as original; whilst the nerves and spinal marrow are derived from the brain; arteries from the heart, veins from the liver, and the seminal vessels from the testes, &c., and from these, as from a centre, what respectively concerns each, is treated of; as of the signs connected with the brain, arising from its magnitude, &c., of reason, memory, and the various senses, and their organs. So of the heart and other parts, their different signs or symptoms, indicating approaching or actual disease; the various modes, or modified changes of the system; solution of continuity; most usual curative indications; obstruction as productive of disease, either in number, location, or in force, &c., and with this, the Libri Isagogici terminate.

CLASS I.

PHYSIOLOGY, ANATOMY, ETC.

This class contains twenty-eight books, and embraces an account of every thing connected with the human body, from its first formation of elementary matter; together with much physiological inquiry as to respiration, the pulse, muscular motion, generation, &c., all highly interesting, and containing the germs of many of the theories, or rather hypotheses of the present period.

The First Class consists of those works of Galen, that may be considered as chiefly belonging to Physiology; wherein is to be found abundant matter for speculation, as well as much of a practical nature. Here are nearly thirty distinct tracts, some consisting of several books or chapters; and in point of interest, scarcely yielding to any writings downwards to the present time. Sterne says, "I pity the man who can travel from Dan to Beersheba, and cry, 'tis all barren;—and so it is: and so is all the world to him who will not cultivate the fruits it offers."—(Sentimental Journey.) And in like manner, I would say, that whoever could read this class of Galen's writings, without feeling his whole soul pressing forward, *sympathetically*, to pay his respectful homage to the greatest ornament of the medical profession, must be incapable of appreciating truth and merit, because appearing in an ancient dress; whilst he receives with avidity, the plagiarisms and dicta of our schools; unconscious, that what is *praiseworthy* therein, is mostly derived from ancient authority, which their teachers profess to despise! whilst what is the reverse, is generally of "domestic manufacture!"—Ed.

INDEX OF THE VARIOUS BOOKS OF THIS FIRST CLASS.

1. Galeni, De Elementis, Lib. 2.
2. De Temperamentis, Lib. 3.
3. De Natura humana.
4. De Atrabile.
5. De optima nostri Corporis constitutione.
6. De bona habitudine.
7. De Ossibus.
8. De Musculorum dissectione.
9. De Nervorum dissectione.
10. De Venarum Arteriarumque dissectione.
11. An sanguis in arteriis natura contineatur.
12. De Anatomicis administrationibus, Lib. 9.
13. De utilitate respirationis.
14. De Causis respirationis.
15. De usu Partium, Lib. 17.
16. De dissectione Vulvæ.
17. De instrumento odoratu.
18. De Pulsuum usu.
19. De Hippocratis et Platonis decretis, Lib. 9.
20. De naturalibus facultatibus, Lib. 3.
21. De motu musculorum, Lib. 2.
22. De motu thoracis et pulmonis.
23. Quod animi vires Corporis temperaturas sequuntur.
24. De formatione fœtuum.
25. An omnes particulæ animalis quod fætatur, fiunt simul.
26. An animal sit, id, quod in Utero est.
27. De Semine, Lib. 2.
28. De septimestri partu.

I. GALENI, DE ELEMENTIS, LIBRI DUO.

OF THE ELEMENTS.

The first book is taken up with considering the nature of an element. It is regarded as being scarcely cognizable to the senses,

in consequence of its minuteness, but rather, appreciable by reason. Inquiry is made as to the number of elements, if one, or more; and attempts are made to prove that *one alone* is insufficient. This, although the belief of many, is refuted by reasons deduced from various considerations, as well as from the discrepancy of those who maintained the opinion; and the conclusion is drawn, that the idea is ridiculous, whether maintained by philosophers or physicians, that there is but a single element, either of man, or of the universe; for even they who most warmly contend for this opinion, can come to no agreement as to what this element is; and the author criticises them accordingly; more particularly Melissus. As chiefly speculative, this book, as well as the second on the same subject, is perhaps, of little absolute importance, further, than as they afford us the first views of philosophers and of medical men, on several particulars; from which, as a foundation, various hypotheses sprang up, and fructified, or decayed, in due proportion to the ingenuity of their respective proprietors. As a matter of curiosity, more than of real importance, it however is deserving of a full translation.

It is translated into Latin, from the Greek, by N. Leonicenus (Basil Ed.), and by Victor Trincavellius (Venice Ed.)

II. GALENI, DE TEMPERAMENTIS, LIBRI TRES.

OF TEMPERAMENTS.

THOM. LINACER, TRANSLATOR.

Hypothetical as are these three books, they are abundantly interesting and entertaining. The subject commences, by showing why it deserved investigation. Its division by different persons, some into two, others into four temperaments, together with the omissions of the older writers, are referred to. Some remarks relating to spring and autumn follow, and animadversions on the errors of nomenclature among the ancients; the right signification of names in connexion with temperament, together with the different accommodation of the same name, and the number and distinction of the temperaments, are fully considered.

The second book begins with a brief repetition of the preceding, and then notices the temperament of different ages, and explains them,

together with the contrary arguments of many, on these particulars; it enters into the consideration of the temperaments of different parts, as evinced to the senses and reason; and by various qualities, such as thickness, tenuity, roughness, smoothness, &c.

In the third book the temperaments, or degrees of medicines, are considered, and the means by which any article becomes possessed of power. The difference of substances received into the body, assimilation of particles, spontaneous combustion, with a digression to the combustion of the Roman fleet by Archimedes with specula, all are considered; and also aliment, in its variety, and as differing from medicines. These last are divided under four orders, and are treated of, together with the difference produced in them from mixture, or variety of administration, viz., whether applied externally, or internally taken. Notice is taken of the *harmless* nature of the poison of the viper, or of a rabid animal, when *internally* received, and its opposite tendency if externally applied. Experimental experience of the knowledge of remedies is insisted on, and much variety of particular subjects connected with this, is interspersed; together with a concise abstract of the whole treatise, which concludes the book.

III. GALENI, IN LIBRUM HIPPOCRATIS, DE NATURA HUMANA, COMMENTARIA DUO.

TWO COMMENTARIES OF GALEN ON THE BOOKS OF HIPPOCRATES, ENTITLED, "OF THE NATURE OF MAN."

H. C. CAMPENSIS, TRANSLATOR.

These two commentaries seem to be merely an appendage to the preceding books on the elements of bodies. They are comments on that work of Hippocrates, translated above, De Natura Humana, and by Haller and others, De Natura Hominis. Galen considers all, beyond that which his first commentary embraces, as spurious, and not coming from the pen of Hippocrates. He ascribes it to Polybius, his son-in-law. They are, nevertheless, closely connected, and are not devoid of interest. They advert chiefly to the four elements of nature, and to four in the human body, as influencing health and disease; and they give the general opinions,

(and the diversity also,) of physicians, as to what man consists of, viz.: of blood, bile, &c. We here find some remarks on the blood-vessels, in which some of the errors of that period, are intermingled with truths of later date; and adequate, if duly weighed with other parts, to assure us of a conviction of a circulation, even in yet more remote times, although its route was imperfectly comprehended.—Galen correctly observes, that our judgment is not always to be captivated by demonstration, but that reason is to have fair play; and he points out the error of some of those assumed demonstrations: such as, of four pair of vessels proceeding from the head; which, so far from being the case, as asserted by some, not any of the best anatomists had ever advanced. Much might be here adduced in order to aid our estimate of the extent to which the views of a circulation were really carried.

IV. GALENI, DE ATRA BILE, LIBELLUS.

OF THE ATRABILIS, OR BLACK BILE.

B. SYLVANEUS, TRANSLATOR.

This may be regarded as a treatise of some importance, in so far as it affords a view of the opinions of the ancients respecting the nature of this presumed peculiar principle of the body, the atrabilis, or black bile, as contra-distinguished from the yellow or natural bile, and as the supposed and abundant source of disease. After some censures on the writings of Plistonicus, Praxagoras, and Philotimus, on the subject of atrabilis, and praises of Hippocrates and Rufus for their statements; he adverts to the humours, and to their necessity in the body, among which is atrabilis. He rebukes the Erasistratians, Asclepiadeans, and Methodists, some of whom ventured to say, that any information as to the humours was useless in medicine.[a] He sets off, in speaking of the humours, with the blood; and notices the difference of colour between that of the arteries and veins; its coagulation out of the body, and in the body,

[a] Here we see the first dogmas of *exclusive* Solidism! A more absurd doctrine never found a place in medical science, with, perhaps, the exception of one founded on it in a great measure, that of sympathy, pushed to the extreme that it has been in the present day!

as in the belly, intestines, bladder, lungs, windpipe and other parts: he mentions the healthy and unhealthy appearance of it, as to its colour and consistence; and states that it is *sometimes like tar or pitch* ("liquidæ pici similis," p. 154, Bas. ed.) He considers the arterial and venous blood as being the same, and therefore entitled to one appellation; and proceeds to the notice of some other humours, pointing out their difference, &c., from the blood, and dwells particularly on the atrabilis, which is precisely expressed by our English word *melancholy*, i. e., μελας χολη, or black bile. He next adverts to several diseases assumed to be produced by its presence, &c. Other particulars are mentioned, and receive an explanation, different, perhaps, from that now given, but probably not more satisfactory; such for instance as the occasional injury sustained by curing hemorrhoids, &c., and other chronic complaints, and varicose ulcers of the leg, &c. All the humours are considered as being contained in the blood, (in venis, arteriisque,) and to be the source of health, when in due proportion, otherwise, as leading to disease, if this proportion is altered, either generally or locally. This change is often apparent in the modified appearance of the blood itself. The causes that augment or diminish the atrabilis are mentioned. He then opposes Erasistratus in his opinion as to the use of the spleen, and maintains that some of his views would lead to the belief that all kinds of evacuation, by bleeding, purging, &c., were equally beneficial at all times, and hence, that the daily observations of physicians in these particulars, are altogether useless. Much praise is bestowed on Hippocrates; and reference is made to Melampus, who treated affections arising from atrabilis, three hundred years before Erasistratus, who has said nothing, or but little, about it. Considering this humour to be contained in the blood, some remarks follow, which, although founded on an erroneous basis, yet they go to accredit a belief in a circulation, for, without such a supposition, even the erroneous foundation is itself devoid of sense.[a] A full persuasion of a circulation here, and elsewhere, seems unqualified: the *qua via* is not established by him, and is of no importance; it is in part apparently here, and throughout his writings. Its full perfection is not yet determined. Galen has done his part and full proportion towards it.—He terminates this book by referring to his own experience as to the

[a] Bas. ed. p. 163.

importance and necessity of the atrabilis to the system, (longa experientia mihi certo cognita, compertaque sunt,) and although our present *theories* discard this humour, *practically*, it is admitted on many occasions.

V. GALENI, DE OPTIMA CORPORIS CONSTITUTIONE.

OF THE BEST BODILY CONSTITUTION.

F. BALAMIO, TRANSLATOR.

In what this best constitution consists, is well laid down by Galen, viz., in an harmonious temperament of all the parts of the body, as well as in their proper situation, size, figure, number, and connexion. Health is stated to consist in that sound and wholesome state, in which all the actions of nature are correctly performed. What these are, are then more fully explained; and the opposite, or ill state of the body, is incidentally brought into view.

VI. GALENI, DE BONA HABITUDINE, LIBER.

OF A GOOD CONSTITUTION OR HABIT OF BODY.

SAME TRANSLATOR.

This book seems a necessary continuation of the preceding. Galen commences by stating what he means by *habit*, viz.: that it is a permanent and durable affection, whether that be good or bad; the latter may be such, either simply, or comparatively; but the former is simply so, in the best constitution. Such was the case with Milo, Hercules, Achilles, &c., differing from that of the athletæ, as is explained, and comparisons drawn between them. The athletæ, from their immoderate diet, or increased circulation (sanguine nimium aucto), are sometimes suffocated, or rupture a vessel in the lungs or liver. A case is detailed from Hippocrates, of the sudden loss of speech from vascular repletion.

VII. GALENI, DE OSSIBUS, LIBER.

OF THE BONES.

SAME TRANSLATOR.

This book, addressed to beginners (ad tyrones) affirms the absolute necessity to the physician, of being acquainted with the natural connexion of the bones. Galen traces their nature, uses, differences, and parts; their twofold mode of union, and the subordinate species, &c. Some remarks indicate his observations to have been made on the human body (humani corporis ossium, invicem cohærentium universa compactio sceletos appellatur), and not of brutes only. In a succession of chapters, he follows up a brief description of the bones of every part of the body, in a sufficient manner for the purpose of beginners; remarking at the conclusion, that the few rudiments of osteology thus laid down, he thinks adequate to the wants of a tyro; that the junction of all the bones, constitutes a skeleton, and, that as for sundry small bones, such as the sesamoid, it is not requisite to notice them here. He nowhere speaks as though his osteology was derived from brutes; and, such is the importance he attaches to the subject, the mind is forcibly impressed that his observations are derived from man, chiefly.

VIII. GALENI, DE MUSCULORUM DISSECTIONE.

OF MUSCULAR DISSECTION.

A. GAGALDINUS, TRANSLATOR.

This book is introduced into the Venice edition of Galen's works, but seems wanting in that of Basil. It appears, however, to have an important connexion with several of the succeeding books, which treat of dissection of the nerves, arteries, and veins, as well as with the preceding treatise; completing thereby the brief view of these parts; and thus preparing us for a more compendious work succeeding to them, "De Anatomicis administrationibus," of which,

most unfortunately, several books are lost. I introduce it here, as following the order in the Venice copy, and principally to afford the outline of its proemium, or preface. It commences by saying, that no one had written on the subject of muscular dissection without error; but that Marinus is the most accurate of such writers. Yet that, as in one book, he could not detail every thing, therefore, the works of Pelops, Lycus, and Ælian, should be consulted. Pelops (3d book of the Instit. of Hippoc.) dissected the muscles, as well as all the other parts of the body. Lycus composed a large book on the same subject; and Ælian, in a compend that he formed of the anatomical writings of his father, together with many other particulars, also wrote on muscular anatomy. The works of Lycus, owing to much prolix interpretation, and intermixture of logical questions with those arising out of dissection, besides much that relates to diseases, were scarcely connected with muscular dissection. Ælian and Pelops noticed carefully the objects presented to them, and which Galen was therefore the less induced to describe (quod et ego nihilo secius nunc facere decrevi), since he had, in two commentaries, elsewhere treated on muscular motion, wherein all that was useful in these particulars, is noticed. Exclusive of which, every thing that relates to the best mode of dissection, not of the muscles only, but of every other part, is detailed in the anatomical tracts; hence he deemed it useless to write expressly on the subject, saving, that he thought fit to state whatever was discovered in his own dissections, and collect into one book all that the authors above-mentioned might have omitted, or otherwise incorrectly noticed. Besides, adds Galen, "numerous friends required me to communicate, together with my own, such particulars as they themselves had observed in their own private dissections." He has given us merely the heads of what is demonstrated in other books, and those simply as helps to the memory.

The above explains sufficiently the character of the present book, which proceeds, in thirty-five chapters, to give a concise notice of the muscles, beginning with the platysma myoides, and other muscles of the head and neck, and proceeding downwards to the feet.

IX. GALENI, DE NERVORUM DISSECTIONE, AD TYRONES.

OF THE DISSECTION OF THE NERVES.

SAME TRANSLATOR, VEN.—ANT. FORTOLOVERSUS, BASIL.

In this book, the nerves are described, as being the organs of sense and motion, arising partly from the brain, and in part from the spinal marrow. Notice is taken of the anterior ventricles of the brain, and of the optic and other nerves up to the seventh pair, with their subdivisions, distributions, and inter-communications (qui inter se conjungantur), and of the discordant opinions of anatomists with respect to them; with an explanation of the causes of their ignorance of the subject. The close connexion of the nerve with the carotid arteries is mentioned, and enables him in another place (De Decretis Hipp. et Plat.) to explain some erroneous experiments on those arteries, leading to their incorrect denomination; after which the nerves of the spine and loins are mentioned.

X. GALENI, DE VENARUM, ARTERIARUMQUE DISSECTIONE.

OF THE DISSECTION OF THE VEINS AND ARTERIES.

ANT. FORTOLO, TRANSLATOR.

This book is addressed by Galen, to his beloved Antisthenes; and is a compend, requested by him on the subject, to refresh his memory as to what he has observed in the dissection of monkeys (simiæ);—but he states, that a more exact account is contained in his books of anatomy, not of the above parts only, but of all others. In order that Antisthenes may the more readily comprehend him, he desires him, in imagination, to look at the trunk of a tree; its lower part terminating in numerous roots, the upper, in many branches and twigs, as affording an idea of the blood-vessels; and to which they have been likened by Hippocrates and other celebrated anatomists, for facilitating their teaching. Thus, adds Galen, the veins that are spread over the belly and intestines, respond to the

roots of the tree; whilst those termed hepatic and cavæ, (jecorarium, tum cavam,) are, as it were, the *trunk* of all the veins distributed throughout the body. For a like reason, the arteries, having their origin in the heart, are in part, spread through the lungs, and may be regarded as the root, in their short series of distribution. Pursuing this train of ideas, he goes on to point out the distribution of the veins that proceed from the portæ of the liver, to the intestines, spleen, stomach, &c.,—and then those of the vena cava; mentions its conjunction with the axillary vein, and its ramifications down to the hand; the division of this vein, and of those veins going to the anterior part of the thorax, both internally and externally; and from the cava adjacent to the clavicle, &c. Of the external and internal jugulars, &c.; all of which is, he says, more fully stated in his anatomical books. He proceeds to those below the diaphragm, and to the divisions of the descending cava; the minute and capillary branches in the kidneys, testes, spine, &c.; the deltoid divarication of the cava in the loins, and its further subdivisions. He then mentions in like manner the arteries and their subdivisions, and adverts to such veins as are found unaccompanied by arteries, and of the latter, such as have no accompanying veins.

XI. AN SANGUIS IN ARTERIIS NATURA CONTINEATUR.

IS BLOOD NATURALLY CONTAINED IN THE ARTERIES?

M. ROTA, TRANSLATOR.

This book may be regarded as closely connected with the preceding one. That blood is naturally contained in the arteries is a proposition fully considered, and maintained by Galen, in opposition to Erasistratus and others. That they do contain it, he affirms from the fact, that it flows therefrom when they are wounded; it must, therefore, either exist there, or flow into them from some other source. Now, if they contained air, and the blood came from some other part, then the air should issue first,—which is not the case: a demonstration, says Galen, sufficient for those, who like him, are slaves to no sect; and who are capable of distinguishing true from false reasoning. But, as all physicians are not of that

description, he deemed it right to oppose them; since the followers of Erasistratus contradicted him, and asserted that his deductions were false. The dispute seemed to be, whether air alone is naturally contained in the arteries, or blood only, or both together. His opponents appear to have been somewhat divided among themselves as to their views, and equally so, as to where the air or spirit came from. Galen pursues them regularly in their explanations, points out the absurdities and difficulties of their opinions, and proposes a query for Erasistratus himself to resolve, as to what would result from a wound of an artery in the arm. In this quotation, one part is particularly deserving of attention, "Ab ea vero quæ descendit (the descending artery from the heart) aliæ (arteriæ) quæcunque in reliquum corpus diffunduntur; manifestum est hasce quoque omnes ad extremas usque ipsarum partes vacuas reddi oportere. Cum primum vero ad ultimas arteriarum partes vacuitas pervenerit, è venis in arteria, adapertis ipsarum ostiolis, quod solum contingit ubi totus spiritus exierit, sanguis transit," &c.—"Atque ita sanguis spiritum sequens, ab arteria brachii susceptus in vulnus feretur, sicque *universus sanguis, quisquis in toto corpore fuerit*, ad acus puncturam confluct,—atqui hoc nimium etiam verest. Videmus enim *ab una quavis arteria* (modo capacitatis alicujus sit) in fluxum supprimas, *universum è toto corpore sanguinem erumpere.*"

From this, as well as from numerous other parts, it plainly appears that a passage, or circulation of the blood from the veins into the arteries is fully asserted, although the route is not particularly pointed out. The fact of its adoption seems absolute, from the necessity insisted on, of arresting the flow of blood from its local point of discharge, in order to prevent its total and complete evacuation. The admirers of Harvey, in giving him the merit of the *full discovery* of the circulation, will do well to ponder on this part of Galen's writings; and *honestly estimate what proportion* of that alleged discovery should be awarded to his great predecessor.

Pursuing his objections to the views of Erasistratus, and his derision of the ignorance of his followers, as either forgetting or misunderstanding what their master says of the mesenteric arteries, (Bas. ed. p. 219,) some of the remarks made, would seem to indicate an acquaintance with, or at least a sight of the lacteals, which were mistaken for arteries. Galen affirms that nature does nothing in vain; and he draws an analogy from the stomachs of oxen, all varying, yet tending to one and the same end, towards which each

one has its own peculiar office. So with the arteries and veins; blood is contained in each, dissimilar in constitution, for some specific object, as he elsewhere (aliis in libris) explains. That blood is there, he demonstrates by laying bare an artery, and then tying it in two places; on opening the intervening part, nothing but blood is to be found. He notices the ignorance of the Erasistratians as to Dialectics; and sarcastically laughs at them (Bas. ed. 222). He adverts to other difficulties, &c., and explains how the arteries are filled, maintaining the power of the heart in the distention of the arteries, and referring its further consideration to another place, (De Decretis Hipp. et Plat.) He next adverts to an experiment which deserves our especial notice, *inasmuch as it forestalls* what has been repeated since by Harvey, and by others near to our own time, by persons who *seem not always to have known that it originated* with this great master of our science; or if so, they have given it as their own without any notice of Galen.[a]

A full translation of this book would be useful.

XII. GALENI, DE ANATOMICIS ADMINISTRATIONIBUS.

ANATOMICAL INVESTIGATIONS, IN NINE BOOKS.

J. ANDERNACH, TRANSLATOR.

Bas. Ed., 226 to 394.

Of these most interesting books of Galen we have already stated that part of the ninth, all of the tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth, are lost; and as we shall see shortly, a sixteenth also.—An hiatus, maxime deflendus!

[a] "Quibus si unum etiam addidero, quod è corporum dissectione colligimus, finem dicendi faciam; est autem id quod dicimus, ejusmodi; arteriam unam è magnis et conspicuis quampiam nudabis, primoque pelle remota ipsam ab adjacenti supposito: corpore tandiu separare non graveris, quoad funiculum circumdare valeas: deinde secundum longitudinem arteriam incide, *calamumque* et concavum et *pervium in foramen intrude, vel æneam aliquam fistulam*, quò et vulnus obturetur, et sanguis exilire non possit; quoadusque sic se arteriam habere conspicies, ipsam totam pulsare videbis. Cum primum vero obductum laqueum contrahens, arteriæ tunicas calamo obstrinxeris *non amplius arteriam ultra laqueum palpitare* videbis," &c.

BOOK I.

Galen begins by stating his reasons for writing on the subject of anatomy. He informs us that he had previously written on it, at the period of his return from Greece to Rome, in the beginning of the reign of Antoninus,[a] and who was then ruling. He states why he resumed the subject; one reason he assigns, was the intreaty of Flavius Boethus, a particular friend, and a great lover of anatomy, (anatomicæ speculationis amore flagrat, quam mortalium qui vixerunt unquam, ullus alius, &c.,) to whom he gave the copy in his possession on his departure from Rome, together with some other works. This copy he could not recover, on the demise of Boethus; and it would seem that he lost another, by a destructive fire at Rome.[b] Being now again urgently intreated by his friends, he was compelled to resume his pen;—and herein, we see a full display of the benefit of printing! Had Galen not written this third copy, we should now have been utterly unable to appreciate the anatomical merits of this wonderful man! He offers another reason, viz., that the work would be greatly improved, from various circumstances. He makes reference to anatomical books by Hippocrates and Erasistratus, besides commentaries on some, on living dissections (præter illos de vivis resecandis, item de mortuis, &c.,)—and informs us that he had composed a large work (ingens volumen) on the use of particular parts, in seventeen books, which he sent to Boethus; and notices three commentaries of his

[a] Antoninus was born A. D. 121, and reigned from 161 to 180, dying at fifty-nine years.

[b] Reference is elsewhere made, by Galen, (de Compos. Medic. per genera,) to this same event; and Justus Lipsius notices the occurrence as follows, in his treatise "de Magnitudine Romana," Lib. 3, chap. 6, p. 139, 3d ed.: Plantin. Antuerpiæ, 1605, 4to. It is of the celebrated Temple of Peace he speaks—which was larger than the Capitol itself—and in it the most choice and richest deposits were placed, the spoils of a conquered world—such as the golden vessels of the Jewish Temple, &c. &c.

"Quod magis impressiusque refero, ut tristius damnum cognoscatur, quod factum est Templi hujus incendio sub Commodo. Tunc enim, ut Herodianus refert, levi terræ motu prævio, sive ictu fulminis, sive igne è terra exspirante, subito et improvisò totum conflagravit, itemque Porticus, et totus ejus ambitus," &c. "Inter adjecta autem ve circumjecta, periit et bibliotheca quæ in ambitu ejus templi erat."

own, on the motion of the thorax and lungs, composed by him in his youth. He appears to have met with difficulties on the death of his friend, which, with other circumstances, impelled him to the steps he pursued. He adds, that he had shown Boethus many dissections, at which were always present Eudemus the peripatetic, and Alexander of Damascus, now (says he) holding at Athens, the public profession of that sect;—and hence, continues he, in order to oblige Boethus, I was at length induced to compose these principles of anatomy.

In the second chapter of this book, he enters more immediately into his subject. He says that the whole figure of the body is dependent on the bony fabric; and on this proposition, he proceeds to state, that, of all animals, the monkey, in its interior conformation, of muscles, arteries, nerves, &c., most resembles man, for such is the case in respect to his osteology. But how could Galen draw this analogy between man and apes, if he had not equally employed himself in the dissection of both? Yet, from this very chapter, have been drawn the principal arguments of those, who confine his anatomical researches to brutes alone! Indeed, he recommends an accurate knowledge of the bones, not from books merely, but from practice, and demonstration in the human subject.[a] Should difficulties present in this, he then commends the ape for dissection, giving a caution to select a species that most resembled man. I am, therefore, fully persuaded myself, from the general tenor of the chapter, that Galen did pursue his anatomical researches on man, and recurred to brutes, only for the purpose of comparative anatomy, or in a case of need; as is further shown by the following words (p. 230): "Ossium, ut dixi, omnium natura perdiscenda est, *sive in humana, sive in simiæ corpore*, modo possis; præstaret autem *in utroque*,"—and soon after, "Præstiteret sic instructum esse, ut si quando simiæ copia non datur, aliorum animantium corpora queas incidere," &c.[b]

[a] "Quoniam igitur corporis forma ossibus assimilatur, et his aliarum partium natura respondet, velim te imprimis exactam *humanorum* ossium cognitionem peritiamque indipisci, non obiter ea spectare, neque etiam ex libris solum discere," &c., Bas. ed. p. 228. And further on: "Hoc autem sit opus tuum, hoc studium, ut non librorum modo lectura, verum sedula etiam inspectione, fideque oculata, cujusque ossis humani speciem accurate perdiscas," &c.

[b] What has been stated both for and against Galen's anatomy of the human subject, is given pretty fully in Le Clerc.

Galen, in the third chapter, adverts to the importance of a knowledge of the muscles, and to the neglect of the ancients in dissecting them. He mentions a prolix commentary on the subject, of five thousand verses, and notices its omissions; shows the high value of their acquaintance to the surgeon in particular, from the frequent occurrence of deep-seated abscesses and ulcers among them, and from other assigned reasons; and he affirms, that he who is best acquainted with them, will cut when necessary, with more self-possession. All this, taken in connexion, impels me the more strongly to believe, that dissection was then far from being confined to brutes; but that, at least in his hands, it was intimately associated with human anatomy. It may, perhaps, strengthen this opinion, to add, that in this part, as well as elsewhere, Galen refers to the ignorance of many in this respect. Certainly, says he, we shall grievously offend all those who have neglected anatomy; nor is it at all surprising that such should be the case with many; since, whatever they may say in behalf of it, it is a fact, that they would not put themselves out of the way in its pursuit. He gives one instance in a member of his own family, (probably a student,) who, on first taking up the subject of dissection, and skinning a monkey for the purpose, considered it as a degradation—but, from Galen's account, he soon became partial to it; as will be the case inevitably with all, who, after the first impressions of disgust have subsided, pursue it diligently, and with a sincere desire for improvement.

In the fourth chapter, he thinks it expedient to explain his reasons for opposing the ancient anatomists, by pointing out their numerous contradictions; and the great discordance in their disputes respecting muscles having several heads and one tendon, and of others having only one head, and several tendons. All this is now, of but small importance, further, than as it tends to prove, that, even before his time, anatomy was in all probability as extensively pursued as in the present day, comparative, as well as human. Having disposed of these preliminary observations, Galen now proceeds to the consideration of the muscles and tendons of the arms and hands; on which he lays great stress, greater indeed than on those of other parts; inasmuch as he ascribes the vast superiority of man to brutes, chiefly to the wonderful construction and adaptation of those parts in him, and to their being peculiar to man alone. He is very minute in this examination and description, and probably, an accurate examination and a comparison of these parts,

by a competent anatomist, both in man and in the monkey, might determine whether the description given by Galen, is derived from dissections of man alone, or of both.

BOOK II.

This second book of Galen's anatomy, is even of superior interest to the preceding, since it fully and conclusively evidences the great extension of anatomical research among the ancients; and which we cannot question, without placing a seal upon almost the only writer whose works have escaped the ravages of time, and which are worthy of consideration. He begins by explaining the paucity of ancient anatomical writers, and if words have any meaning, we have in his statement the strongest reason to believe, that anatomy was infinitely more extended then, than it is at present! So far from being confined to the dissecting-room of the physician or surgeon, it seems to have constituted a part of regular instruction under the parental roof, even from childhood! Monkeys must have been as plenty as mushrooms, if such universal dissections had to depend on them alone. Let us hear his account of the matter. In the first chapter of this book, he says, that "it was altogether useless for the ancients to write commentaries on this subject, inasmuch as it was pursued at home from childhood (a pueritia), by reading and writing, and by the dissection of dead bodies (cadaverum); and this, not among physicians only, but also by philosophers. A memory thus early exercised, was not to be readily obliterated. In process of time, however, it seems to have become customary to extend this instruction to strangers, as well as to children, (non liberis modo, sed alienis etiam artem communicare honestum esse consuerant,) who consequently were no longer exercised in actual dissections; and its early exercise in youth, being thus abolished, the knowledge of anatomy was of a more superficial character." Galen then proceeds to show how things went on from bad to worse, and so limited in operation, that commentaries on the subject became necessary, in order to preserve what was known.

It does not appear, however, that such commentaries were wanting, even anterior to this period; for we find, in fact, that Galen refers to books on this subject; he mentions one of Diocles,

as the most ancient that had reached them; and that after him, the writings of some of the elder, and many of the younger physicians had come to hand, ("post hunc alii quidam veterum medicorum, neque pauci ex junioribus, quorum prius mentio facta est," &c.,) in which anatomy was so intermingled with other branches of medical science, such as diagnostics, prognostics, therapeutics, &c., that it was comparatively useless. He points out an example of this in Hippocrates, and adds, that "as there is danger of such works being lost, either from the negligence of the age as to acquiring information, or from the discontinuance in the instruction of youth, I think it expedient to write on the subject myself (merito commentarios scribimus); more especially, since some persons invidiously withhold their own information from others." The above, and other remarks of a like nature, sufficiently explain, I apprehend, the character and standing of anatomy, both in the time of Galen, and that which preceded. Its importance is still further enhanced by Galen, in pointing out its close connexion with surgery, as in the case of wounds, the extraction of darts, excision of bones—luxations, compound fractures, opening of fistulæ, of sinuses, abscesses, and the like; adding, that without a knowledge of the situation of a principal nerve, muscle, artery, or vein, a surgeon would prove himself the author of death, rather than the preserver of life! He then states what he considers best to be known, practically, and as of far more importance than mere speculation, which, although of interest to the mere philosopher, is so to the physician in a degree infinitely inferior.

It may not be improper, here to inquire into the causes which led to the opinion of Galen being unacquainted with human anatomy, and that his dissections were limited to the brute creation, and principally to that of monkeys. In this inquiry we are reluctantly led to tarnish the name of a man, long venerated and esteemed as among the earliest and best anatomists, and who has even been considered by many as the father of this important foundation of the science of medicine; I mean *Vesalius!* It is to him chiefly, that this derogation to the claims of Galen is owing; others have only followed in his footsteps, from placing unbounded reliance on his good faith; and from ignorance, I apprehend, of the writings of Galen themselves; for certainly, this illustrious man has not wanted strenuous advocates in his behalf, among those who evidently had made those writings the subject of study and reflection.

Fabricius (J. A., in his Elenchus Medicorum Veterum, article Galenus. Bibliotheca Græca, vol. xiii. p. 165), speaking of some of the writers of the life of Galen, &c., adverts to J. Woweranus, Th. Reinesius, and Caspar Hoffmannus,—who, "non sine causa dissentiunt a *Vesalio et Amato*, qui Galenum secuisse humana corpora negant," &c., although they admitted his dissection of brutes. Now, in order to strengthen this dissent of the above-named writers to Vesalius, it is necessary to adduce facts that have never been denied, that I know of; facts, derived from some of his contemporaries and associates, and others of later date.

C. N. Jenty, in an historical compend, prefixed to his anatomical lectures (3 vols. London, 1757), thus speaks upon the subject, after stating that Vesalius was born at Brussels in 1514, and died in 1564, at the age of fifty; and, that at the time Vesalius appeared, anatomists were so much blindfolded with the authority of Galen, that to have contradicted him had been looked upon as heresy: that Vesalius ventured to expose the mistakes, and correct the errors of Galen, both in physic and anatomy: which led to the censures of some distinguished authors, who charged him "with ignorance, want of honour, vainglory, and plagiarism." To confirm this, he presents to the reader (p. 94), an extract (translated) from *Piccolhominus*, whom he calls *an author of considerable note*. As I possess the work of Piccolhominus[a] (Prælectiones Anatomiçæ, fol. Romæ, 1586), I prefer to give it in his own original words, for Jenty *omits a part*, of some consequence to the full comprehension of the merited castigation of Vesalius. It will be perceived, that, (referring to his work, p. 207,) he is speaking of the fœtal heart, and lays claim for Galen, to certain parts that have been delivered by Vesalius as discoveries of his own; referring to the sixth book, De Usu Partium, cap. 20, 21, and ch. 6, of fifteenth book, in proof of Vesalius's dishonest conduct. His words are as follows,—after stating that Vesalius "in magno illo de re anatomica volumine" had not mentioned these particulars from Galen. "Qua ab eo prætermissa, duo perspicuè indicantur; alterum, *se in fœtubus dissecandi segnem et ignarum fuisse*, cum hanc neque invenerit neque prodiderit; alterum, se libros illos Galeni quos modo commemoravi, *nunquam legisse*. Nec minus mirari subit Fallopius, qui passim Vesalium *divinum* appellat! An

[a] By the inscription around the portrait of Piccolhominus, he died at the age of sixty; so that he was nearly contemporary with Vesalius.

divinitatis nomen meruerit quòd rei anatomicæ, omniumque corporis humani partium, fuerit inventor primus et observator?" (The above is omitted by Jenty.) "Si mihi aliquando per otium licebit, *luculenter commenstrabo, quæcumque bona scribuntur a Vesalio* in illo volumine, *omnia* ex Hippocrate, Aristotele, Galeno, aliisque antiquioribus *esse transcripta, horum virorum, nulla prorsus facta mentione; Quæcunque verò falsa*, ab eodem scribuntur, quæquam plurima sunt, ex suo furibundo marte prodidisse." And soon after, he adds, "Ex duobus itaque illis Galeni libris, et locis, in quibus admonet, horum vasorum coitionem in fœtu, nonnulla, veluti problemata eruam, quò res obscurissima, tractatur dilucidè et maximè perspicuè." A sentence is added here in Jenty's translation, omitted above, viz., "and though he has secretly stole many things from Galen, *yet he never mentions his name, unless it be with a view to find fault with him!*"

These are serious charges, we must admit, yet they do not rest on the assertions of Piccolhominus alone,—for Jenty thus proceeds: "The censure of Caius is still more remarkable. We both lodged, says he, in the same quarters at Padua, at the time when Vesalius wrote and prepared his book 'De Corpora Humana Fabrica.' One Aldinus Junta, a Venetian printer, employed him to correct the anatomical works of Galen, both Greek and Latin; and for that purpose, several emendations were sent him; but he *rendered Galen's text more corrupt* than it was before, *with no other view* than that he might have somewhat to find fault with:" and though Fallopius owns him to be the father of anatomy, yet he carps at his opinion almost every where.—Columbus talks thus of him: "I cannot but be surprised that he, who on all occasions lashes and chastises Galen for his having described apes and brutes, instead of men, should yet, himself, be so ridiculous, as to describe the larynx, tongue, and eyes of oxen, and not of men; without so much as ever giving a caution with regard to it. He also ascribed muscles to the epiglottis, which are only found in brutes!" Eustachius has also observed of him, that "he described and delineated a dog's kidney, instead of a man's." Arantius styles him the common master of anatomists, but accuses him of having delineated the pudenda of brutes, on account of the scarcity of the bodies of women; whereby it happened that Valverda, and those who immediately followed him, taking things upon trust, split upon the same rock. Johannes B. Carcan Leon speaks of him thus: "It is surprising that Vesalius, whilst he accuses Galen, the chief of

physicians and anatomists, of so many blunders and errors, should yet himself, be so justly liable to censure in the same respect; and, what is still worse, by these accusations, he seems widely to have mistaken Galen's meaning, ascribing to him things he never so much as dreamed of; and affirming, that he denied those things that he insisted on in the most distinct and explicit manner; and whilst he so often wonders at, and finds fault with Galen, he himself deserves to be wondered at, and found fault with."

I repeat, then, that these particulars respecting Vesalius, are deserving of the strongest reprobation; and yet Galen's character as an anatomist, has been settled by such an ungenerous conduct. Whatever may be the real standard of Vesalius's attainments, no one, after reading the above statements of those, whose names are well known in our anatomical researches, will venture to derogate from Galen's high standard, from the authority of his calumniator, who, in attempting to depress and depreciate him, vainly strove to elevate himself; and merits the contempt of every honourable member of the profession of medicine.

In the third chapter of this second book, we find much to interest, much to instruct us. Galen here enters into some details of the omissions and negligence of preceding anatomists respecting the muscles, nerves, arteries, and veins; and notices the ignorance of many, as to these particulars, even in his time. He adds that such knowledge is so absolutely essential to the medical man, that even the Empirics (the sect), who have written largely against Anatomy, have never dared to condemn it; but, whilst confessing it to be the most useful and important of any of the branches of medicine, they add, that it is attainable by the frequent inspection of wounds! He is wroth that any one should presume to think that a bare inspection of wounds can make an anatomist; and he pursues his remarks with much and well-seasoned sarcastic asperity, concluding that it is scarcely worth while to dispute with such people. He exhorts beginners to attend first to that which is most useful; amongst which he reckons the nerves, the arteries, and veins of such parts as are most likely to come under notice, rather than those deep-seated parts that are less under our control. He lays great stress on this, and tells us he does so, from the fact that he saw around him many who considered themselves very highly accomplished, although altogether ignorant in these particulars. He proceeds, in the subsequent chapters, to speak of the muscles of the thigh, leg,

&c.,—and makes a remark that I think adds strength to the impression I have advocated, of his dissections being human, and not limited to brutes; viz., when speaking of the foot of the monkey, he mentions it as being very different from that of man, and repeats the same as to the hands and fingers, which he would scarcely venture to assert without a due acquaintance with each. In the last chapter, some observations occur in opposition to Erasistratus, on the subject of the nails.

BOOK III.

Bas. Ed. 267.

This is an important book, and is connected with the nerves, the veins, and arteries of the hand and foot. Galen commences it with animadverting on those persons who make their studies to consist in sophistical discussions, rather than in the faithful and steady pursuit of anatomy. He points continually to the necessity of acquiring a knowledge of the external parts, and to the errors of judgment, and the unhappy results of practice, which an ignorance thereof induces. The extreme neglect he had witnessed in these particulars led him to the greater attention; and he strongly urges all who dissect, to pay early attention to the anatomy of the arteries, the veins, and nerves. We continually, says Galen, meet with physicians who know accurately how many membranes belong to the heart, or muscles to the tongue, with other things of like character; but who are altogether ignorant of the structure of the external parts, and of very much that they ought besides to have known. He gives a case or two in point; and in a succession of chapters, he notices the nerves proceeding from the spine to the arm, &c., the passage of the axillary vessels, the nerves of the thigh, leg, and foot, and their vessels. In chap. ix. he reiterates his views as to the diligence required in investigating the nerves and blood-vessels, and this, from considerations unsurpassed by any that could probably now be advanced by the first surgeons of this period. He here likewise gives a prominent instance of the gross ignorance, and consequent rashness, of a surgeon, who, in some affection of the arm, incautiously employing the scalpel, divided both the nerve and vessels of the part! Alarmed at the great effusion of blood, but expecting

nothing more, the vessels were tied ("funibus vasis quæ amputata erant, circumdatis," p. 284); immediately the patient discovered that he could not move his hand, and that sensation in many parts of the limb was entirely destroyed; on which he exclaimed to the physician, "Wretch, thou hast cut a nerve!" (ενευροκοπησας). So that, says Galen, by one single cut a whole limb was rendered useless. Again he refers to the general resemblance between man and the monkey, and commends a frequent recurrence to the latter. He speaks of a book (unfortunately lost) wherein he has treated on the danger of blood-letting; which book, probably, from the mode of expression respecting it, might have enabled us more fully to have appreciated the peculiar subjects of his anatomy ("ut nunc omittam quæ in sanguinis detractione mala designent, ignorantes quæ observanda sint, in *singulis cubiti venis*: de quibus etiam *in libro de mortuorum consectione* tractatum est.") The whole chapter is interesting, whilst the whole book, I think, sufficiently establishes the exercise of anatomy by Galen, as being on the human subject principally, although that of animals was not neglected; and that the assertions of Vesalius and others, are not to be at all relied on, when employed in disparagement of this great man.

BOOKS IV., V.

Bas. Ed. 290.

These two books continue a description of the muscles, viz., of the face, head, neck and scapula, thorax, abdomen, loins and spine, &c., embracing much interesting detail as to the order he had adopted for his anatomical books, &c., and in the first chapter, terms are employed in relation to the monkey, which show that he, at least, knew well the *difference* of *its* anatomy from that of man, ("simiam vero ridiculam hominis simulationem existere demonstravimus: ac *ob id* hominis quidem modo graditur; sed *in ipsis principalioribus partibus* manca est," &c.); of which he mentions sufficient proof. He moreover animadverts on the dissections of the physicians of his day, as being of parts the least important; and he esteems it his duty to impress this upon the minds of young men, and to urge them to a more useful line of conduct. This first chapter is, indeed, a kind of summary of the preceding books, and

of those that succeed. Some reference is made here to books apparently lost, and which I have already adverted to, as mentioned by the editor of Galen. These books are from the fifth chapter of the ninth book, all the tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth books, and in the first chapter, fourth book, he speaks of a "*decimus sextus* illius operis liber, agit de arteriis, venis et nervis," in which, he tells us, he has explained what is generally and commonly known respecting them. This must be considered as a great loss, for it would in all probability have enabled us more accurately to appreciate his anatomical skill, and the chief objects of his dissections; and also to estimate more fully his knowledge and views of a circulation of the blood. In the sixth chapter of the fifth book, he makes a slight reference to a singular case, which being more fully detailed in the seventh book, I shall there revert to it. He remarks on the ignorance of the older anatomists respecting the use of the intercostal muscles, notices the diaphragm (phrenes, vel septum transversum), and speaks of it as if it *was formed of two muscles*, an idea that has been entertained by later writers.[a]

BOOK VI.

The subject changes in this book; and those organs are taken up which receive and distribute nourishment, and subserve the excretions, &c. The approximation of the monkey to man is again touched on, and observations are occasionally interspersed, that approximate very closely to the present views *on Phrenology*, ("nullum itaque miraculum est cujusque animantis *internam compositionem ex figura exteriorum clare conspecta prænoscere*." Bas. edit. p. 332.) Indeed, the whole book is in a measure replete with it, together with much other ingenious and instructive matter; all tending to prove that Galen fully deserved the high standing he attained; and must excite our astonishment that worth like his should be *now* so completely forgotten or underrated, instead of causing him still to occupy the foremost rank, which was awarded formerly, and continued uninterruptedly for more than ten centuries! It might not be amiss at present, for every member of the Profession carefully to peruse these interesting books, and then with candour (if

[a] Among others, by Swedenborg, in his Regnum Animale.

self-love would permit it), contemplate his own attainments, and judge of them by Galen's standard, instead of estimating Galen by his own dimensions! Perhaps it might lead to the conviction, even though that self-love might receive thereby a deep wound, that "all the talents" have not been limited to the present period of the world, even with the aid of the superior facilities of attaining information which the improvements of philosophy and of education are supposed to afford!

Galen considers the organs of nourishment to be of three kinds, viz.: 1. For reception, digestion, and transmission of food. 2. Receptacula, for excrementitious matters; and 3. Of such as subserve the discharge of those matters. This view of the subject leads to a digression on the difference of stomachs, as connected with the different food of animals; ruminant and non-ruminant animals are noticed; the number of stomachs in the former, and the intention of that singular formation. He then treats of the peritoneum, omentum, mesentery, its arteries and veins; the coats of the stomach and intestines; the variety of the liver in man, and some animals; the spleen, the vessels, and gall-ducts connected with the liver; the kidneys and urinary passages; the various sphincter muscles in different parts; in all of which, the position seems strengthened as to his dissections being human. He tells us, (chap. xiii. p. 346,) that a useless dispute had been sustained by anatomists, respecting the name of the *ureter*, and if it were more appropriate to call it artery or vein—and then speaks more particularly of the sphincters, their situation and uses.

BOOK VII.

In this book Galen proceeds to treat of the heart, the lungs, and arteries, as seen, both in the dead, and in the living subject. He tells us the principal organs of breathing (spiritus) are three; the lungs, the heart, and the thorax. He takes notice of the twofold kind of artery, viz.: the one arising from the left ventricle, spreading throughout the body, and pulsating in unison with the heart; the other, called the aspera arteria, the upper part of which has the name of larynx, whilst below, it ramifies by numerous branches

through the lungs;—then follows an account of the pleura and pericardium, and a comparison is drawn between the former and the peritoneum; he proceeds to speak of the heart and arteries, and of the different opinions respecting the vessels of the lungs, and of the pulse.[a] I give a short quotation in a note, which, to many, I doubt not, will be interesting, as would much more of the same nature, in connexion with the subject of the circulation, which has so unadvisedly been *entirely* ascribed to Harvey. I do not wonder these books have never received an *English* translation! National pride would be shocked at the trappings which would inevitably fall from the mantle with which he has been invested, and find their original location in that of Galen!

Galen here takes notice of the *non-pulsation* of the vessels in the lungs;—a circumstance I do not recollect to have met with elsewhere. He further remarks, that it had been conjectured that these vessels *are continued into the left ventricle;* a conjecture, adds he, *not solely* probable, but, which seems certain, from the knowledge we have of its functions;—I believe this is the intent of his observation, which is connected with the above consideration of the pulsation or non-pulsation in the lungs. A complete translation of this book would be very desirable, since so much of it will be found to be intimately associated with the subject of the circulation, treating as it does of the heart and its valves, &c., and assuredly forestalling much of Harvey's assumed discoveries. The largest elephant, and the smallest bird, that breathe, (continues Galen,) have a similarly constructed heart and lungs. And in explaining some of the differences between an artery and a vein, (p. 353,) he adds: "Quales igitur toto corpore existunt arteriæ, tale vas ex dextro cordis sinu procedens, in totum pulmonem serie diffunditur. Quales autem venæ, tale ex sinistro: ut ex tribus vasis pulmonem intertexentibus, quod á sinistro cordis ventriculo pro-

[a] "Quemadmodum pulsans ipsum viscus, cor omnes appellant; sic etiam vasa singula pulsantia, arterias nuncupant. Alias autem omnes arterias, quotquot toto insunt corpore, sensu pulsantes dignoscere nullius est negocii, et omnium ipsarum cum *majore arteria* continuitas, idem hoc indicat. *Verum in pulmone pulsantes* sensu admodum evidenter deprehendere *nemo potest;* verum inde, *quod sinistro ventriculo sint continuæ*, conjecturam aliquis fecerit. Et si quidam *non conjecturam solum*, *vel probabilem* spem, *sed certam functionis ipsarum scientiam* habere arbitrantur, *non tamen eodem modo* utrique, quoniam ne ab eisdem quidem opinionibus omnino auspicantur," &c. &c.—(Frob. 351;—Ven. chap. iv.)

ficiscitur, *arteria venosa* nuncupetur, quod à dextro, *arteriosa vena*," &c.

In the thirteenth chapter, Galen reports the case I adverted to in the fifth book, as being here more fully detailed. It is one of *singular* interest, not only in point of curiosity, but because it really is singular, as being, I believe, the only case of its kind recorded in the Fasti of medicine. It is a case, which, by proving his unrivalled anatomical and surgical skill, must, I think, for ever set at rest any doubts as to his dissections having been of the human subject. No one since has had the opportunity of *exactly* following in his bold and successful attempt.[a] It is to this effect:—

The son of an actor received an injury on the sternum at some of the gymnastic games of the circus. It was not attended to, and he was supposed to have got well. About four months after, an abscess appeared, the part was incised, and speedily cicatrized. Inflammation again succeeded, and suppuration ensued; again an incision was made, but the part would not heal. At length, a consultation was proposed, to which Galen was invited. On examining the part it was sphacelated, the bone was affected, and even a pulsation of the heart was obvious. No one dared to remove the diseased bone. At length, Galen, without, however, promising a cu e, undertook to remove it, at the same time being uncertain of the state of the parts beneath. He accordingly cut away the diseased bone; and the vertex of the pericardium being also in a putrescent state, was likewise removed, thereby leaving the heart entirely bare. In due time the boy recovered perfectly; which, says Galen, could not have happened, if no one had been bold enough to remove the diseased bone, and which no one would have attempted, unless well versed in anatomy, ("nisi in administrationibus anatomicis præ-exercitatus.")—Another case, related in the same chapter, de-

[a] *A heart outside of the chest.*—The Baltimore Sun contains the following account of the birth of a living child, with its heart outside of the chest, which was noticed in our Baltimore letter yesterday. The heart is entirely outside of the body, and destitute of any pericardium; thus even without this natural protection it is protruded from the external surface of the chest, which at that point bears a mark resembling a cicatrix, as if the flesh had been opened, the heart pulled out, and the wound suffered to grow up again. Each pulsation, of course, can be distinctly observed, and the whole natural action of this delicate organ is made visible to the immediate investigation of the eye. This remarkable phenomenon in the history of human nature is an absolute and indisputable fact, however unlikely it is to meet with credibility on the part of the public.—*Ledger, June*, 1846.

monstrates clearly, I think, the employment of ligatures to restrain or arrest hemorrhage. It is of a person who had a portion of putrid flesh removed from an abscess of the arm, by an individual, who from ignorance divided a large artery. The immense discharge of blood so disconcerted him, that, it being deep-seated, he could scarcely secure it, (vix *laqueo* ipsam possit intercipere.) The danger, however, being arrested from this source, death ensued from gangrene of the artery at the ligature, which extended itself in every direction.—In the first case above narrated, Galen stands unrivalled. The only one at all resembling it, is one mentioned by Harvey, in which the heart was laid bare through the effect of disease, and in which art had no share. The case of removal of the ribs, related by Richerand, is in many particulars different, although it evinces great boldness and decision in him. Its event, at any rate, was unfavourable; and Galen's case continues as an immortal trophy to his well-established fame. I would here demand, whether such an operation on the living body, can be reasonably ascribed to anatomical skill derived from the dissection of brutes alone? If this is admitted, I would say, that it adds another laurel to his crown; whilst, at the same time, it diminishes the importance of human anatomy!

After these interesting details, Galen proceeds to state, what is to be seen in the thorax, on dissecting a living animal. This is a curious chapter, and in several places, we find expressions and sentences, bearing strongly on the doctrine of a general circulation. We find the pulsation of both sides of the heart particularly adverted to; and even the ultimate motion of the auricles, at lengthened intervals, continued after that of the ventricles had altogether ceased! In the conclusion of this book, Galen again renews his censures against the neglect of anatomy, and ridicules the followers of Erasistratus, who promised to demonstrate and show that the arteries were void of blood. A bet of one thousand drachmas seems to have been proffered, and to have even been deposited by one of the parties. Galen gives a most laughable description of the ensuing dissection, and appears to have enjoyed greatly its failure, in every respect of what was promised. He adds another anecdote with no less humour, of an old man of seventy, (senex quidam septuagenarius,) who also promised to show the artery empty. A comic account is given of the affair, and the deceptions practised in its progress are explained. He

ends by saying that such is the audacity of some, who most rashly affirm as facts, *what they never witnessed!* This remark might, without much difficulty, be verified in the present, as well as in the time of Galen! and that, in every department of medical science.

From some part of this chapter, there is reason to believe that Galen, or some of his contemporaries, had a view of the *lacteals;* and that they were mistaken for the mesenteric arteries. (Initio, igitur aiunt, simulac mesenterium denudatum fuerit, *arterias aëri similes* apparere, *postea lacte repleta conspici.*) He opposes the idea of the arteries being filled with air, and adds, that the very circumstance that is subsequently mentioned of their being filled with milk, sufficiently disproves it. The vessels thus seen, whether by himself or others, must undoubtedly have been the lacteals, as seems indeed to be proved from the very character of the experiment that precedes the statement, and to which reference is made.

BOOK VIII.

The subject of the thorax is here continued; its structure and boundaries—the ribs, clavicle, and muscles; the diaphragm, regarded as the governor or ruler of the motion of the thorax, and as aiding in the function of respiration. The motion of the ribs is considered and explained, and some ancient errors are pointed out. The division of the intercostal muscles, and the symptoms that follow, whether the incision be on one, or on both sides. He notices the dividing the nerves, by which the action of the intercostals is destroyed, and the voice is lost; dividing the spinal marrow in different parts, and of the affection of distant parts thereby produced. He notices and opposes some opinions of Erasistratus; and every circumstance throughout, evinces the indefatigable pursuit of anatomy by Galen; here, chiefly, on (living) animals as the subjects of his experiments, on numerous and highly interesting points. Assuredly we may be allowed to maintain, that no one so fully convinced of the importance of anatomy as he was, could dissect so long, and so accurately, and limit his dissections to brutes alone! The proposition seems to be so unreasonable, that I conceive it to be untenable, and submit the subject to the verdict of the best anatomists of the present day. In the last chapter of

this book, he speaks of experiments made on animals, by death from different causes, as drowning, strangling, division of the spinal marrow and large vessels, &c.; some of which, and the results have been since his time repeated, without any reference to his priority. I have wondered much, in my progress through the works of this great writer, where he found time to write, to pursue his researches, and to practise! What an illustrious example does he every where afford to the Profession! How few, alas, will follow in his footsteps!

BOOK IX.

This book commences with a few remarks on the propriety or utility of dissecting *living* animals, in order to comprehend the functions of the different parts; the dissection of the *dead* body pointing out other particulars, but not embracing this.

Imperfect as this book is, after the fifth chapter, as before stated, it yet gives the anatomy of the brain, speaks of its membranes, their vessels and their route; the choroid plexus, ventricles, and many other parts. Whether his descriptions are derived from human, or chiefly from comparative anatomy, such respect has still been paid to him in this department, that the names of most of the parts, as assigned or approved of by him, are continued to the present day. The portion of the book that is lost, would probably have shed greater light on the subject; its loss is a subject of deep regret; yet how much greater that which is felt from the loss of the six or seven books in continuation, can be appreciated only by him, who carefully investigates those writings which we happily possess.[a]

[a] "*Discovery of the six missing books of Galen's principal anatomical work.*—We have the following from a learned and much-esteemed correspondent. We beg to direct the particular attention of the Sydenham Society to the discovery.—*Lond. Med. Gazette*, Dec. 1844, p. 329.

"A very interesting and valuable discovery has lately been made at Oxford, which it seems right to lay before our medical brethren, though we are almost afraid that its importance will be better understood and more justly appreciated in France and Germany than in Great Britain. (!!) It is well known that Galen's principal anatomical work, called Περὶ Ανατομικῶν Εγκειρησεων,—De Administrationibus Anatomicis,—consisted originally of fifteen books, of which only eight and part of the ninth have come

XIII. GALENI, DE UTERI DISSECTIONE.

OF THE DISSECTION OF THE UTERUS.

J. CORNARIO, TRANSLATOR.

BAS. ED., p. 395.

This book treats, in twelve chapters, of the dissection of the uterus. It points out its situation, size, figure, its cornua, and the

down to us. The contents of each book are mentioned by himself, (De Libris Propriis, cap. 3, tom. xix. pp. 24, 25, ed. Kühn,) from which account, it appears that the last six treated of the eyes, tongue, œsophagus, larynx, os hyoides, the nerves belonging to these parts, the arteries, the veins, the nerves arising from the brain, those arising from the spinal marrow, and the organs of generation: so that Galen's account of several of the most important parts of the body, is contained in the lost books. In Ackerman's Historia Literaria, prefixed to Kühn's edition of Galen, (p. lxxxiv.), we find the following notice: 'E Golii arabico codice libros xi. usque ad xv. editurum se promiserat Thomas Bartholinus, De Libris legendis, Dissert. iii. p. 75 (p. 58, ed 1711). Erant Galeni De Adminis. Anatom. libri sex postremi cum adnotationibus Jacobi Golii in Bibliotheca Narcissi, Archiepiscopi Dublinensis, n. 1787.' No further information on the subject could Ackerman, (who was a most diligent and accurate inquirer,) obtain; nor apparently could Kühn himself, who, in the last volume of his edition of Galen, corrects some errors and supplies some omissions. In turning over the pages of a very different work, J. G. Wenrich's Dissertation, 'De Auctorum Græcorum Versionibus et Commentariis Syriacis, Arabicis, Armeniacis, Persicisque,' (Lips. 1842, 8vo.) we noticed that two copies of the Arabic translation were said (p. 245) to exist in the Bodleian Library at Oxford, one consisting of fifteen books, the other only of the last six. Upon referring to Uri's catalogue of the oriental manuscripts of the Bodleian, (p. 135,) we found that the latter manuscript was said to be in the handwriting of Golius himself; that it had belonged at one time to Narcissus Marsh, Archbishop of Dublin, and was, therefore, probably the very MS. spoken of by Ackerman; and the actual examination of the two MSS. in question has shown us that the modern one was copied from the other, the pages of the original being marked in the margin of the transcript. The original MS. is written on oriental paper, and by an oriental scribe, and contains the complete work of Galen in fifteen books. It was bought at Constantinople for forty-eight florins, (rather a large price,) but by whom is uncertain, nor is any thing else known of its history, except that it once belonged to the Archbishop of Dublin, though it does not appear in the list of his MSS. contained in the Catalogus Librorum MSS. Angliæ et Hiberniæ, printed in 1697. It appears to have been seen and used by Golius, (a celebrated Arabic scholar at Leyden), who must have known that the Greek copies of the work contained only nine books, and accordingly copied the remaining six with a view to publication. He did not, however, transcribe the remainder of the ninth book, which is wanting in the Greek

sinuses in multiparient animals, but which are not found in women; states the uses of the cornua; and proceeds to consider the connexion, union, dependence, and nourishment of the uterus, by veins and arteries, whose intertexture is adverted to. Here is to be found a tribute to the merits of Herophilus. The coats of the uterus are stated to be two, an external, simple and nervous; and an internal, which is double and vascular. Its neck is then treated of, as being muscular and cartilaginous, and although constricted in common, yet, in partu, it is capable of a most wonderful dilatability. Its coats are noticed, and their varied thickness or tenuity under different states, and periods of life. The female testes (ovaria), and their difference from the male;—their coats, and vessels, extending to the neck of the bladder, and unknown to prior anatomists. The changes which take place in the uterus during pregnancy, from the presence of the fœtus, membranes, &c: these membranes are the chorion, the amnion, and allantoid. Reasons are assigned for the greater facility of conception, just before, or after menstruation. The vascular adherence of the chorion to the uterus; what those vessels are; their existence asserted, although denied by some. The vessels thus distributed through the chorion, at length unite in two trunks, an arterial and venous, each of which is double, and go to constitute the umbilicus, having the allantoid between them. The fluid of the allantoid is said to be yellow, and small in amount; that contained in the amnion is considerable in quantity and whiter.

copies, and which is about twice as long as the portion hitherto known in Europe. The MS. was either given as a present by Golius, or bequeathed as a legacy at his death in 1667, to Thomas Bartholinus the elder, Professor of Anatomy at Copenhagen, and was in his possession in the year 1672, when he wrote his work De Libris Legendis. Probably after his death, in 1680, it came into the hands of Narcissus Marsh, Archbishop of Dublin, and appears in the catalogue quoted above. From him it came, either by gift or legacy, to the Bodleian Library at Oxford, where it still remains, together with the original MS. from which it was transcribed. It should be added, that, (as far as we are aware,) no other copy of the Arabic translation is to be found in any European library; nor do any of the old Latin translations contain the last six books of the treatise."

XIV. GALENI, DE INSTRUMENTO ODORATUS.

OF THE ORGAN OF SMELL.

L. BELISARIUS, TRANSLATOR.

BAS. ED., p. 403.

Smell, says Galen, signifies not only the immediate perception of odour, but also that power or faculty whence the sense of smell emanates. The nose is not the instrument, but merely the channel of smell; the instrument or organ itself, is somewhere beyond the nose. He then adverts to the openings of the nose or nostrils, and to the different parts within them; some having a connexion with the fauces, and with respiration; others extending to the brain, and by which that organ is enabled to evacuate its humours; the internal lining of the nose, and its nerves are noticed; the nerves, through which the sense of smell is effected, are pretty large and soft, as is the case with those of the eyes, tongue, ears, and mouth of the stomach; but those connected with the *touch*, are, on the contrary, small and firmer, and are distributed throughout the skin over the body; this sense is, therefore, less acute. These ideas are followed by further remarks on the other senses. Smelling, we are told, does not depend on the air only, as in hearing, nor on moisture only, as in taste, but on both united. Parts of the nose are bony, and are covered with a membrane, proving that neither of these are the instrument of smell; for bone is altogether void of sensibility, and the membranes have not nerves sufficient alone for the purpose; neither have they any affinity to the substance or matter of odour, for no smell is perceptible, unless the air is drawn in: the covering of the palate, fauces, or windpipe is not the instrument; for if we hold the nose, and thus compress the nostrils, no smell is perceived on inspiration. The air, we are told by Galen, is attracted to the brain, either by the motions induced by respiration, or, perhaps, by some proper motion of the brain itself; by which the air follows as the brain contracts itself, and is expelled on its expansion. He gives us some cases of imperfect smell, in which pepper mixed with oil being forcibly snuffed up, a biting sensation was felt in the brain (I presume resembling that which all have experienced by too large a portion of mustard with food, and which is instantly removed by

snuffing up the odorant emanation of a piece of bread); from whence he concludes the sense of smell to be seated in the anterior ventricles, and not in the membrane of the nose; in which he opposes the opinions of Aristotle, whose particular views on the subject are largely considered. This is followed by an explanation of the utility of *sternutatories* in some diseases of the brain, as lethargy, &c., founded on the principles which he advocates; and, if these be admitted, his superstructure is admirably erected upon them.

XV. GALENI, DE USU PARTIUM CORPORIS HUMANI.

OF THE USES OF THE DIFFERENT PARTS OF THE HUMAN BODY.

IN SEVENTEEN BOOKS.

N. R. CALABRO, TRANSLATOR.

Bas. Ed. p. 418.

BOOKS I., II.

These books are very interesting on many accounts, resembling in various parts those already noticed, De Administrationibus Anatomicis, and, like them, are well deserving of an accurate translation into English. The mere *exposé* here given, affords a very meagre and imperfect outline of their contents; scarcely, indeed, can it be regarded as a table of contents.

It has been before mentioned, that Galen considered the *hand* of man, from its peculiarity of structure, as the chief source of his great superiority over every other animal, both as to the operations of the body and the mind; and he enters fully, in these two books, into their consideration; confining his observations almost exclusively thereto, and to the carpus and forearm. It is almost impossible to form a regular abstract of them, sufficiently concise for the object of this compend, and I therefore prefer omitting so mutilated an attempt altogether.[a]

[a] The treatise on the Hand, by Sir Charles Bell, much as it has been admired, is, in my opinion, infinitely inferior to these books of Galen on the same subject. Indeed his best parts may be regarded as abstracted from those of Galen, clothed in the language of the present age.—Ed.

BOOK III.

In this book, the lower extremities are considered. Here, Galen expatiates on man's superiority, from having only two, instead of four or more legs; and ridicules, very justly, the amazing absurdity of Pindar, in his fanciful production of the Centaurs. He enters into a consideration of "why man was made a biped;" evincing, by his observations throughout, that even in an age of credulity, he possessed in perfection the mens sana, in corpore sano, and that he well knew how to draw the line between truth and falsehood, or fancy, if the term may be thought less offensive. He next takes notice of the *erect* character or position of man, and points to the physiological reasons of the case. He ridicules the idea of its being intended, as some affirmed (p. 447), "ut ad cœlum promptè suspiciat, et dicere possit, respicio adversus Olympum fronte intrepida,"[a]—that is, for the purpose of looking towards heaven! and he archly asks, whether they who thought so, had ever seen the fish, that by the Greeks is called ουρανοσχοπον, or looker towards heaven? Now, adds Galen, this fish, from its very formation, must *always* behold the heavens, but man, *only* when he throws back his head, and which an ass can perform equally well!—We must not omit here to notice the admirable piety of this pagan philosopher; it is, indeed, exemplified on every appropriate occasion, in various parts of his works; but here, more particularly, this excellent and extraordinary character, after considering the leg, and its instruments of motion, breaks out in admiration of the goodness, the wisdom, and infinite power of the Deity, as exemplified in the works of creation, and especially of man! (p. 495), a rhapsody not undeserving of translation, and of a place in some Christian publication.

BOOK IV.

Galen now engages in the consideration of the stomach, liver, and other organs appropriated for nourishment; that is, for the

[a] Os homini sublime dedit: cœlumque tueri
Jussit, et erectos ad sidera tollere vultus.
Ov. Metam. i. l. 85.

digestion of food, and its conveyance to every part; together with the emunctories for the discharge of superfluities, and excrementitious portions, &c. He supports with ardour the important agency of the liver in the process of sanguification, and the whole is accompanied with much interesting matter. In the thirteenth chapter of this book, we find sundry problems respecting the veins, the arteries, and nerves of the liver, that deserve consideration; and it is well remarked, that unless the particular uses of each part are well understood, as is too commonly the case, it would be better to omit its notice altogether. A question is proposed why a double sinus was not given to the liver as well as to the heart; in the consideration of which, expressions are employed which indicate his credence of a circulation; and, so far as relates to the doctrine of hæmatosis, or formation of blood, if any there be now, of superior preponderance; that of Galen, by which this important process is ascribed to one of the largest and most surprising organs of the body, is at least equal to it; and his arguments, &c., on the subject, not inferior to any I have met with in recent publications. He notices the distinctive appearance of the blood in the liver, spleen, and lungs, treats of the intestines, the mesentery, omentum, and other parts, their construction and uses, and in

BOOK V.

He considers the remaining organs of nutrition and excretion, the pancreas, kidneys, &c., in the same manner; states his disputes with several persons, in his books De Facultatibus Naturalibus; renews the subject of the mode of excretion, and treats of the diaphragm, and its uses in respiration, and as co-operating in the excretions.

BOOK VI.

The thorax, with its contents, the lungs and heart, &c., are considered in this book.

The œsophagus, called stomachus ventriculi, is mentioned; and we are told, that fish, having no lungs, have only the heart in the thorax, and therefore are mute; the use of the lungs being that of respiration; and that one of the uses of respiration, is "quod in

ipso fervet (the air) et *quasi combustum et fuliginosum est*, ex ipso profundens," p. 554,—and which I take to imply, that something is discharged in expiration, of a noxious character, of a burned or carbonated nature;—in other words, expressing what is now familiarly spoken of, as *decarbonizing the blood*. He lays much stress on the contrivance of nature to prevent any injury to the vena cava, by means of the soft elastic parenchyma of the lungs, with other curious matter, and ventures to apply the same intention, in the formation of the thymus gland. Do we know a more certain explanation? If he is wrong, how can we convict him of error, if we cannot supply one less beset with difficulty? In successive chapters, the heart, its figure, substance, divisions, &c., is taken up; the nutrition of the lungs; the vena arteriosa, and arteria venosa, with many other important subjects, succeed; amidst which, if we cannot find strong evidences of the circulation being known to him, it is, because we will not! The junction of the arteries and veins by anastomosis, is in language too palpable to be mistaken, independently of what is dispersed in one hundred passages of his writings.[a] I know not that the capillary circulation is *now* better described, or even understood, than by Galen, sixteen centuries ago; but it signifies nothing to support his claims in opposition to Harvey, who has stated *as his own*, what was long before known; and almost the whole of which was familiar to Galen. Whenever these books shall receive an English dress, that *all* may fairly and fully investigate his real claims, the award to Harvey will be reversed, and he will sink greatly from the height to which he by the British nation, to the total exclusion of Galen's claims, has been so unjustly elevated! It is no wonder that he has never received an English translation! This must be reserved for America!—I say nothing of others, his immediate predecessors and contemporaries, who have had their laurels insidiously abstracted, without acknowledgment, to form the crown that was bestowed upon him; as I am now only concerned for Galen, and have elsewhere fully treated of the whole subject.[b]—On the valves of the heart, Galen has been sufficiently explicit; and this having

[a] "In *toto corpore mutua est anastomosis*, atque *oscillorum apertio* arteriis simul et venis; transumuntque ex sese pariter sanguinem et spiritum per invisibiles quasdam atque angustas plane vias," &c.

[b] Inquiry into the Claims of Dr. Wm. Harvey to the Discovery of the Circulation of the Blood. Philadelphia, 1834.

been admitted by Harvey, I believe no one has contested the point; how he was led to concede it, I cannot surmise, seeing that with respect to those of the veins, he has arrogated to himself, if not absolutely, yet indirectly, their discovery; and assuredly, also, has claimed that of their presumed use in the system; a use which was announced by Piccolhomini, (perhaps by others,) before Harvey even began the study of medicine! but, eheu, jam satis!—I shall merely mark below a few references to the Basil[a] edition of Galen, (though all should, in fact, be read in connexion, to make the affair completely apparent), in which some idea may be formed, of the true extent to which Galen had carried his views of a circulation. Proof from these and other parts may be deduced, to satisfy every candid mind, that he knew the influence of the right side of the heart, the arterial character of the pulmonary veins, and the venous character of the pulmonary artery. He attacks Asclepiades and others, in a bitter strain of irony, respecting the vessels that go from the lungs, as to their character; and adverts to the valves, the auricles, and ventricles, as to their difference of thickness, and other particulars, in several successive chapters. In the seventeenth, p. 580, in opposition to Erasistratus, he maintains, that the arteries contain blood; and again adverts to their anastomoses with the veins.[b] He adds, that Erasistratus taught, that inflammation could not possibly take place, except by the flowing of the blood *from the veins* into the arteries; the absurdity of which he professes to expose, even from Erasistratus himself; and as being a subject he had often considered and disputed about. A dispassionate perusal of this whole book, must, I think, incline the reader to admit the claim of Galen to a knowledge of the circulation, if even not accordant altogether with our present views; but of the truth of which, in all its parts, a doubt may be entertained. His judicious views of the general contrivance of nature cannot be overturned by the sophistry of those, who give to Harvey the *exclusive* merit of the most interesting discovery in medical science. The remaining chapters of this book, are of equal interest. They

[a] Chap. ix. pp. 569, 575; chap. xii. p. 571; chap. xiii. p. 572; chap. xvii. p. 580; &c.

[b] "Orificiorum arteriarum ad venas apertiones non sine causa neque frustra paravit natura, sed ut respirationis ac pulsuum utilitas non cordi soli atque arteriis, sed cum eis, venis etiam distriburetur."

treat of the lungs and of the heart, &c., in the fœtal state, together with their functions and peculiarities.[a]

BOOK VII.

This book continues the subject of the thorax, lungs, and trachea, the construction of the larynx, its muscles, cartilages, nerves, &c., the os hyoides, diaphragm, &c.; and, as being located on the thorax, he makes a digression to the mammæ.

BOOK VIII.

Treats of the head, the brain, the neck; which last, he notices as being uniformly present in animals having lungs, and as being equally deficient, where the lungs are wanting. The common purposes of the head; the instruments of sense; cerebral nerves; ethmoid bone; meninges; pericranium; cerebellum; ventricles, &c., are all noticed, and sundry criticisms are made on Praxagoras and other philosophers, for their respective opinions.

BOOK IX.

In this book, the subject of the brain is continued; its arteries, veins, and nerves; its different channels of purgation; the cavernous structure of the cranium; plexus retiforme, and its convolutions as compared with that of the testicle. The mode of entrance of the cerebral vessels is described, and their variation from common distribution; the distinction of hard and soft nerves, and their appropriation to motion or to sense; cranial sutures, squamose bones, &c.

[a] What, *really and truly*, did Harvey discover and demonstrate as exclusively his own? Surely his admirers and advocates, can immediately place their finger thereto, or they have read him to little purpose! And I challenge them to the direct proof of any part belonging to him. I fear, however, they may have exhausted their praise and adulation on Harvey—and looked over his writings, whilst they have grossly *overlooked* the immortal pages of Galen! The full translation of this sixth book alone, would appear adequate to every unprejudiced reader to strip the laurels from the brow of Harvey.

BOOK X.

The organ of vision is here considered, its parts described, and an hypothesis on the subject of vision, quite as likely to be correct as those now advanced; at least, as well sustained, and certainly not less interesting, when regarded as the speculation of nearly twenty centuries past.

BOOK XI.

The remaining parts of the head are here considered; those of the face also, the muscles, teeth, and their variety in different animals; the tongue, pharynx, ears, nose, &c. One chapter, the thirteenth, is chiefly occupied with a consideration of the beauty of the parts, as superadded to their utility; which last is, however, admitted to be superior, inasmuch as it is the primary scope and intention of the whole construction. He then treats of the hair and beard, and attempts an explanation of the exemption of women from the last-named; also, why the eyebrows and lashes always continue of the same length; and much other curious matter, which no one but Galen would have deemed worthy of attention. That pagan philosophy did *not alone* occupy his mind is obvious, for, (p. 718,) we here find him adverting to *the writings of Moses*, in reference to some particulars respecting the hair, &c., from which he dissents; although he considers the opinions of Moses to be superior to those of Epicurus, yet maintaining that neither should be followed implicitly. He takes notice of the difference of the skin of different parts; also the motions of certain parts, as of the alæ nasi, &c., and gives some remarks on the bones; and he terminates the book with the following observation, to which every reader will assent, "Nam ita demum naturam maxime admiraberis, si omnia ejus opera perlustraris."

BOOK XII.

This book is occupied with the parts common to the neck and head, and its spinal connexions; muscles, ligaments, cartilages,

nerves, &c. The vertebræ, spinal marrow, &c., with reasons for, and problems respecting, the difference of size, form, &c., of the vertebræ and parts of the back, with various other matter.

BOOK XIII.

The subject is continued, and is replete with interest, both to the speculative and practical anatomist. The nerves of the vertebræ and neck; of the thorax, and those of the lower extremities. The meningeal coverings of the dorsal medulla. Of the scapula and other parts, with their difference in man and animals or quadrupeds; of the humeral and other articulations, and ending with observations on the wonderful address of nature in all these.

BOOK XIV.

A new subject, of great interest, here breaks in upon us; viz., the importance of the continued life of animals, through the process of *generation*, resembling in some measure, by such perpetual succession, a species of immortality. To this end, an appropriate set of organs, differing in the sexes of all animals, is provided. In the details hereof, much ingenious speculation and anatomical research are conspicuous. So far as this last respects the dissection of the uterus, it would seem to be principally of that of animals; and hence, several wrong deductions as to the human uterus, appear to be drawn from facts that are strictly correct of the former. The wonderful character and the connexion of the uterus and mammæ are pointed out; the superiority of man, the concurrence of the seminal fluids of both sexes, the production of males or females, the order of the formation of the fœtal parts, the testes, and the surprising distribution of their vessels, all are taken up, and duly considered;—and continued in

BOOK XV.

Which enters more fully into the character, formation, and structure of the fœtus, and its different parts; its coats, vessels, humours;

followed by an inquiry into the reason of its immense liver; and all interspersed with numerous curious physiological questions, viz.; as to the greater strength of the veins in early life, and the more gradual, but progressive augmentation of that of arteries and nerves; why the fœtal lungs are red; the close adhesion of the os uteri in pregnancy, &c., all serving to prove, that Galen was as inquisitive in physiology, as he was observant in practice, and that nothing escaped his penetrating observation and inquiry.

BOOK XVI.

This book goes far, I think, both directly, and by implication, in support of the opinion of Galen being acquainted with, and even of having taught, the fact of a circulation. Such continual implications cannot be ascribed to accident alone; but must be placed to the result of well-founded opinions, arising out of facts, isolated perhaps, but strongly supporting one another and the common doctrines to which they may have given origin. The book is taken up with a general consideration of the common distribution of the arteries and veins throughout the body. The artery, vein, and nerve, Galen calls the *common instruments* of the whole body, (de communibus totius corporis instrumentis, arteria, vena et nervo prius quidem dum partes exponeremus, verba sæpe fecimus," &c., ch. i. in initio,) and he repeats, that the great artery arises from the heart, the vein from the liver, and the spinal marrow and nerves from the brain. Now, since, (says he,) they require to be exhibited over the whole body, attend to me whilst I demonstrate the justice of the division. This is his object in the successive chapters of the book, wherein he enters more at large into the origin of the vessels and nerves. He then points out the insertion of the nerves, and notices several in particular, such as, of the voice, the viscera, and intestines, the neck, scapula, and head; the recurrent, those of the thorax, extremities, and of some of the muscles. Then follows the distribution of the great artery, or aorta, its rise, and progress through the body. Nature, says he, curiously derives the arteries that supply the testes and the mammæ from a distance, and gives a reason for this. After this, he proceeds to the ascending branch of the aorta, speaks of the carotids, and notices the insensibility of the arteries and veins, with some other peculiarities respecting them. Some veins

are found without corresponding arteries. The artery arising from the left ventricle is the root of all the arteries in the body. The great equality of the distribution of the vessels by nature, and the community of use of the arteries and veins is explicitly stated.[a] If the books mentioned as being lost, (De Anatomicis Administrationibus should ever be recovered (of which, however, no possible hope remains), I doubt not, that a full elucidation would be found of the interesting subject of the circulation, so as to satisfy every reasonable mind, that Harvey has been adorned unjustly, from the wardrobe of Galen![b]

BOOK XVII.

This last book is rather more speculative than the others. It consists of views respecting the proportions which the different parts of the body bear to each other, and to the universe at large; and it contains a kind of recapitulation of the preceding books, points out their utility, and gives numerous references to many of the older poets and writers. Upon the whole, there is a considerable degree of resemblance between these books, and those previously noticed "De Anatomicis Administrationibus." They tend mutually to support, and often to explain, apparent deficiencies. That they are well deserving of an English translation, no one who has perused, or even inspected them cursorily, could, I think, for an instant hesitate to admit. Even these imperfect outlines, I hope, will tend to forward such an end; or at least, to induce some younger member of the Profession to give an epitome, or a more extensive view than I have been able to afford. A more acceptable present, I cannot believe could be given to the medical community.

[a] P. 841. "Diximus etiam et de vasis quæ ad mammas et testes ferantur, dum communiter et de venis et arteriis ageremus, *que utræque communem usum haberent.* Pari modo et cum de arteriis ageremus, de venis diximus quæ ad manus perveniunt, quod communis utrarumque sit ratio," &c.

[b] This was written before it was known that a discovery had been made of these lost books, as stated in the note at p. 519; and as I have as yet seen no further evidence of the truth of this, I feel no disposition to expunge it.

XVI. GALENI, DE UTILITATE RESPIRATIONIS LIB.

OF THE UTILITY OF RESPIRATION.

J. CORNARIO, TRANSLATOR.

Galen proposes a question at the beginning of this book, which it might be well for each one to reflect on,—and candidly say, whether he can better reply to it, than Galen did sixteen centuries ago.

"Quænam est utilitas respirationis?"

Reader, pause here; and recall to mind the various physiological explanations of this wonderful function, since the period of the illustrious man who asks an answer to his question! Examine them well, and say whether you cannot find in Galen a groundwork of them all.

Wherein, he asks, does the utility of respiration depend? He replies, "unquestionably, it is of no common character; we cannot exist for an instant without it; consequently, it does not pertain to any one individual action, but must be connected with life itself: of its high importance, all indeed are convinced. It is even superior to the functions of the stomach or the brain, whose actions are greatly influenced by it." He then gives a concise statement of the opinions of his predecessors on this head, viz., of Asclepiades, Praxagoras, Philistion, Diocles, Hippocrates, and Erasistratus. His own seems to be, that it is intended for the preservation and regulation of the innate heat, (caloris insiti,) and for affording the animal spirit abounding in the brain. Here, he advances a proposition founded on fact, but erroneous in the deduction from it, at least, to a certain extent, for it is not altogether fallacious. It depended on the imperfect chemical knowledge of that period, (and almost indeed up to the present time,) of the composition of the atmosphere, then regarded as a simple element.

His proposition is, that the use, or benefit of respiration, or rather of the air in inspiration, depends, not upon its actual substance, but rather on *some quality* connected with it, ("utrum substantia aeris qui per inspirationem advenit, indigemus, an qualitate, an utrioque,") p. 852; and he thinks he proves it by the fact, that suffocation will ensue, when the lungs are filled with air, as readily as if we did

not breathe at all. The theory he adopts, viz., that the air was inspired, with the intention of *ventilating* the blood, and of *cooling* it, as some maintained; is quite as well advocated, and with as much ingenuity, as any of the present day respecting this important function. Nay, by a mere trifling alteration of the terms employed, we shall find it differs but little from that now generally adopted. Instead of ventilation, let us employ that of decarbonization of the blood, and consider animal heat as depending on the decomposition of the air inspired. It would indeed seem that Galen actually had an indistinct notion of this very particular, judging from the expressions made use of: "Quando quidem igitur ut ex aere quid adtrahat cor, thoracem id permittere necesse est, permittit autem cum dimensionem transmutat, transmutat autem inspirantibus nobis aut expirantibus, et tunc sanè cor transsumet." Much, however, must be gratuitous in the suppositions we may make, or be gathered by implication, and a collation and comparison of different passages, rather than by an immediate or direct appeal to an individual part. If in law, it is true, that circumstantial evidence is often of more importance than positive, why should not the same principle obtain in medicine and its branches? Science changes its theoretic speculations, just as the philosophy of the day may render it necessary; and different explanations will consequently be assigned to the same acknowledged fact at different times. This is sufficiently obvious, if we compare the physiological views of the present day, with those of only half a century preceding! If *then* asked to explain the difference of colour between arterial and venous blood, the reply would have been, that the *former* was oxygenated, or oxygen was absorbed in the process of respiration; and now, the answer to the same question is, that the venous blood is decarbonized. Now, it need not be said, that neither of these views, nor some others, on the same subject, are universally admitted to be correct, to the reversal of all the others. Nor can it be affirmed, that other views may not arise, from the changes or improvements in philosophy, that will put to flight all our previous hypotheses. What then, with all our boasted superiority, especially in chemical research, are we, in our physiology, as to this important function, in advance of Galen, devoid as he was of the light of science! If we cannot perceive the present doctrines, modified by new terms, to be merely scintillations from his forge; at least we shall find arguments as ingenious, and perhaps facts as numerous, as are to be noticed in our

own affirmed, more enlightened publications! at all events, as a physiological curiosity of so ancient a date, a good translation would be acceptable to the Profession, as a just tribute to the memory of a man, who is second to none in the whole train of medical observers![a]

XVII. GALENI, DE CAUSIS RESPIRATIONIS LIBER.

OF THE CAUSES OF RESPIRATION.

J. CORNARIO, TRANSLATOR.

Bas. Ed. p. 865.

The causes of respiration, are in this book stated by Galen to be threefold, (tres sint in genere respirationis causæ, facultas voluntaria, instrumenta voluntati subservientia, et ad hæc utilitas ipsa); that is, the faculty or power itself, the organs subserving thereto, and the end, or utility of the function. His statement of the multiform and variety of the instruments employed in the process, is concise and graphic. Some convey the air through appropriate channels, to others fitted for its reception; others are operative in the motion of every essential part; whilst the importance of the spinal nerves is not omitted, as being absolutely essential to the perfection of the process. Much incidental matter is introduced, of great interest; and the whole may be regarded as an appendix to the preceding book.

[a] It was not until the year 1776, that Dr. Priestley, in the sixty-sixth volume of the London Philosophical Transactions, attempted an explanation of what took place in the process of respiration, by affirming the discharge of phlogiston, at that time a ruling principle in chemistry. In the following year, Lavoisier read, at the sitting of the Royal Academy of Sciences of Paris, his views of the decomposition of the air in the lungs, to the following effect, viz.: "that it appears that our lungs *absorb* precisely that portion of atmospheric air, which combines with the metals in calcination; the residue of that air thus decomposed, has different properties, and though always elastic, it can no longer subserve the purpose of respiration." Seventy years are scarcely passed, and we now no longer admit of phlogiston, nor of the absorption of the air by the lungs. The use of respiration is now considered as being essential to the conversion of the carbon of the venous blood into carbonic acid gas, by which abstraction, the venous is restored to its arterial character:—and this effect, mutato nomine, is precisely the explanation given by Galen more than fifteen hundred years ago.

XVIII. GALENI, DE PULSUUM USU LIBER.

OF THE USE OF THE PULSE.

T. LINACER, TRANSLATOR.

Bas. Ed. p. 867.

The intent of this book seems to be, to show that the use of the pulse is that of preserving the innate heat, and of conveying the animal spirits to every part. Now, although the language employed may give a different aspect to our present views on this subject, and that of the circulation, yet I apprehend the doctrine of a circulation is adequately sustained. The influence of ventilating the blood and of cooling it, as has been previously noticed, is here adverted to, and the *abstraction* of something noxious from it, seems clearly expressed. In fact, except in name, we can almost exclaim, Mutato nomine, de te narratur; for this abstraction of noxious matter, is the present decarbonization of the vital fluid.

Physicians and philosophers alike concluded, p. 867, that respiration and the pulse both tended to one end, or subserved the same intention. Of this, Galen affords proof, as well as that the heat of each part is maintained by the pulse. He mentions the fact, that on opening the ventricles of the heart of an animal, especially the left one, if the finger is immediately introduced, the heat is there felt to be greater, and continues longer than in other parts. He advances several reasons, and some experiments, to prove that the heat flowed from the heart—such as tying the vessels; and he thinks both arteries and veins are engaged in this (p. 870); and from all he says, he deduces the connexion between the pulse and respiration, and speaks without ambiguity of the union of the arteries and veins. If in this book, the *candid* inquirer cannot find sufficient proof of a circulation being well known to Galen, even if it be not exactly explained and elucidated, as in the present day; and that, moreover, scarcely one fact or proof is adduced by Harvey, that is not equally asserted by Galen; I must confess that I have greatly misunderstood the tenor and intent of all his pages, which go to prove that his *actions* depended upon such a knowledge and belief; as well as from his necessary conviction of the absolute necessity of such a

function to every part of the system, (see p. 872,) in which is to be found, that man is included in the question there considered, and by which he is led to the following conclusion, "et cum semper vacuatas cum arteriis venas deprehendissemus, *veram esse sententiam de communibus* arteriarum et venarum *osculis*, et communi de una in alteram *per ea* transitu, *nobis persuasimus*," &c. This junction of the arteries and the veins, seems to have been a prevailing doctrine, equally, as that the arteries derive their power from the heart, and communicate with every part of the body. This communication between the arteries and the veins, is not so luminously explained by Harvey; for it was never understood by him, and he died in uncertainty, whether that communication was *direct*, by anastomosis, (as sustained by Galen, and as proved by microscopic observations,) or *indirect*, by an intermediate effusion from the one, and an absorption by the other; yet Harvey is regarded as the *full* discoverer of the circulation, and all his predecessors are alike consigned to oblivion, nay, in many cases, to contempt and obloquy! A *complete translation* of the works of Galen would effectually prove the frauds that have been perpetrated, to support the honour of the British nation, which would be tarnished by the abstraction of those laurels that have been so unjustly awarded to a man considered as the glory of their country!

XIX. GALENI, DE SUBSTANTIA FACULTATUM NATURALIUM, LIBELLUS.

OF THE SUBSISTENCE OF NATURAL FACULTIES.

Bas. Ed. p. 877.

The author adverts to the various and contradictory statements given by auditors of what they hear, and refers to Plato as having been thus made to contradict himself; of which, instances are given with respect to his views of an Anima Mundi, and which is more fully noticed in the treatise De Placitis Hipp. et Platonis.

Plants are said to want a principle of motion and of sensation, although it is not uniformly maintained. They are called cold, and animals warm, but this, not absolutely, but relatively; as is indeed also the power ascribed to plants, and which is attributed to

nature, rather than to a soul (anima). Reference is made to these views in relation to ethics, inasmuch as respects the certainty, probability, or doubtful character of what is asserted, &c. All admit of a soul, but from being ignorant of its essence, it has been called a power or faculty. The disputes on this point are adverted to, and hence Galen is led to state only what to him appears probable; and which, though not absolutely necessary either to medicine or ethics, is yet an ornament to them. He proceeds to point out, that all bodies consist of four elements mixed and united together; but whether such mixture pervades the essence of bodies, or their qualities only, he professes not to know. Some ideas are thrown out with respect to temperaments and their variations; and it is denied that a knowledge of the essence of the soul is necessary to medicine or to ethics.[a] He notices the attraction of the *natural faculties* to familiar objects, and their repulsion of strange ones, without being themselves possessed of sense or recognition. To the natural soul is granted only a notion or idea, that tends to pleasure or to pain; and as to sensible objects, only of that which relates to nourishment; hence it attracts that only which can subserve this intention, and be elaborated through its powers, all which is more extensively pursued; but the inutility of the subject to medicine and to ethics, is again affirmed.

XX. GALENI, DE HIPPOCRATIS ET PLATONIS DECRETIS, (DOGMATIBUS, BAS.) LIBRI NOVEM.

OF THE DOGMAS, OR OPINIONS OF HIPPOCRATES AND PLATO.

IN NINE BOOKS.

J. CORNARIO, TRANSLATOR.

BAS. ED. p. 880.

The ensuing nine books are not less deserving of notice than

[a] "Holy Scripture containeth *all things* necessary to salvation; so that whatsoever *is not read* therein, nor may *be proved* thereby, is *not to be required* of any man, that it should be believed as an article of the faith, or be thought necessary or requisite to salvation."—Sixth Art. of Religion of the Protestant Episcopal Church.

Apply this to the subject of the *soul*. Can its character as to materiality or imma-

their associates. They consist chiefly of criticisms and reviews of the opinions of preceding writers on a variety of subjects; of Aristotle, Erasistratus, Praxagoras, Chrysippus, the Stoics, and Peripatetics. Much is interspersed of metaphysics, which serves to elucidate many opinions of philosophers respecting the mind, whose seat, according to some, was the heart.

BOOK I.

The four first chapters of this book appear to be lost, as it begins abruptly, with, apparently, an account of the same case that is noticed in the seventh De Anat. Administ. It is here introduced, to prove, in opposition to Erasistratus, and his followers, that the cavities of the heart in the living animal are filled with blood, and not with air. By turning to the case in the place referred to, the particulars will be brought to recollection. The sternum being removed, and part of the putrefied pericardium, the heart became conspicuous, as if in an animal dissected for the purpose. The patient recovered, which Galen regards as by no means extraordinary, since the affection was attended by no worse consequences than are daily observed in contusions and other injuries of the thorax; the removal of the pericardium could not be the source of any great danger ("tunica cordi obsita proprium aliquod insigne periculum affert"), as Herophilus and many other physicians have before stated. Occasional notice is given to the blood-vessels (p. 884), indirectly bearing on the circulation; and he here opposes an opinion of Erasistratus, that the arteries terminated in nerves; proving its error, by tracing the progress of the different arteries. Among these, he mentions the carotids, (καρωτιδες seu soporariæ, ex χαρος, sopor,) and points out the error of the name as arising from ignorance in the successors of Hippocrates (p. 885). "Cor cerebro tria vasorum genera connectunt, ex iis inquam quæ toti corpori communia habentur; venæ, arteriæ, nervi. Venæ quæ jugulares appellantur, arteriæquæ carotides, quasi tu soporarias dicas," &c.

teriality be established by any thing we read in the Bible? If not, may not that question be investigated, or either side adopted, without giving offence, or at all influencing salvation? It is a subject that is not determined by Revelation, and not likely to be elucidated in this state of existence.

He shows the source of the error, from the experiment on which it was founded. In it, the nerve was tied up with the artery, the animal was thereby rendered comatose, which was ascribed *solely* to the ligature of the artery. However, (adds Galen, setting thereby a noble example to all who are perpetually changing names of long continuance, and even if faulty, perfectly understood,) however, the artery has so long retained the name, that I will not deprive it of it, and as at present fixed, so let it remain, (and thus it has remained to the present time, an evidence of the superior judgment of this great man.) In other parts he has taken up the subject of names, and reprehends the folly of many of them, derived from etymology and supposition. In the ninth chapter of this book we find several pertinent remarks on the subject.

BOOK II.

This book is an intermixture of metaphysical and physiological investigation as to the seat of the soul or rational mind, in which those who are fond of such inquiries will find much to interest them. Throughout, expressions appear, which to me, nothing short of a full belief of a circulation would at all justify; the whole sixth chapter is of this description. He states the difference of cutting the three species of vessels, (the nerves being then considered as tubular,) viz., the immediate death, from the immoderate effusion of blood, by dividing the jugular veins or carotid arteries, unless prevented by tying them up; but by tying or cutting the nerve, or by compressing it, the animal merely lost his voice.

BOOKS III., IV., V.

These three books are nearly of the same character as the preceding. Many quotations are given from Homer and Hesiod, as advanced by Chrysippus to sustain his opinions. They are opposed by Galen, and we must here contend for Galen's prior claim to the doctrines of phrenology, although since slumbering through many centuries before their late resuscitation by Gall and Spurzheim, (p. 982.) "Neque in una tantum animæ parte, neque in una facultate et judicia et affectus existere, ut Chrysippus sentit, sed plures esse,

diversusque tum facultates, tum partes." The whole of the fifth book is, indeed, metaphysical and phrenological, wherein the nature and importance of education are considered, as giving character to man. Few phrenologists can be found, who could not readily and essentially strengthen their opinions by those of Galen.

BOOK VI.

This is an important book, and one which, if duly translated, would greatly aid in enabling us to judge of Galen's real estimate and views as to the circulation. A favourite opinion is here enlarged on, viz., the important rank of the liver in the animal economy; perhaps it is nowhere so fully and strongly insisted on, as in this book, which appears almost to have been written with the intent of proving, by reason and experiment, or dissection, that this viscus is the source of the veins, and of hæmatosis, and also of concupiscence (animæ concupiscibilis). Many passages seem adequate to establish the knowledge and views of a circulation,—and a vindication is presented for Hippocrates against the erroneous opinions attributed to him of four pair of vessels arising from the head. His own opinion or hypothesis of the hepatic origin of the veins, is very ingeniously sustained by reasons principally derived from Hippocrates (p. 1010, Bas. ed. refers to his treatise, De Humoribus). In considering the liver as the great organ of hæmatosis, he draws a distinction to this effect,—that a procreative faculty or power exists in it of forming blood, and that it is, as it were, the feeder or nourisher of that faculty. It seems that a belief was entertained by some, that the *power* of forming the blood was derived from the veins of the heart, and the *materials* from the liver. All this speculation, ingenious to the full as any on the same subject at the present day, must nevertheless be admitted to be very much of a mystification. Much close attention is required to comprehend it, if, indeed, it will not receive a different meaning, in conformity to the previous impressions of the reader's mind! He contends, however, that the heart is not the commencing organ of the formation of the blood, but of the arteries only, and that this is conspicuous even in the fœtus, in which he opposes Erasistratus, who maintained the heart to be the beginning of both arteries and veins. He opposes Praxagoras and others, who considered the pulsation of the arteries to

depend solely on themselves, and he considers it proved, as he states it, from the pulsation ceasing when the artery is divided. The idea of a circulation was certainly common amongst philosophers, although differently explained by them, long before the time of Galen: even Plato suggests it in a manner no way obscure. "Cor vero qui simul et venarum fons est, et etiam *sanguinis qui in omnia membra vehementer circumferatur*, in satellitis apparatorisque sedem ac domicilium constituerunt," &c. (Bas. ed. p. 1026, c.)

BOOK VII.

This book, in maintaining the origin of the nerves from the brain, and explaining how sense and motion thence arise, falls again into metaphysical disquisitions and criticisms, on the opinions of others. Some phrenology is scattered throughout its pages, and his ideas are given as to the nature and structure of the nerves. He contends that sensation and motion may be maintained, even when the ventricles of the brain are wounded. There appears also an attempt to locate the mind. A nervous fluid is spoken of, and the difference of the optic from other nerves is pointed out. The humours of the eye, and the sense of smell, are treated of, and the opinions of Plato, Aristotle, and others, on these and other subjects, are discussed and opposed. He treats of the spinal marrow, its structure and power, and he affirms that Erasistratus in his old age was acquainted with the true origin of the nerves, but that Aristotle never was.

BOOK VIII.

After a slight recapitulation of the preceding seven books, this proceeds to consider the opinions of Hippocrates and Plato on the subject of the four elements, and of the formation of bodies from them. It then treats of respiration, and of the receptacles for food and drink. From a deficiency or excess of those four elements, it was commonly supposed that disease occurred. In admitting of four humours, their influence in health and disease is upheld, and their modification by season, age, and other causes, is pointed out. Some of the differences of opinion between Hippocrates and Plato

are noticed, together with many errors of Erasistratus; on which, however, Galen correctly remarks, that they are by no means deserving of contempt, for that all that may be erroneous, is far from being contemptible; dogmas are uncertain, and arguments that may be satisfactory to many, may yet be inconclusive to others, and such arguments are never wanting in support of our opinions. Among other points considered, he adverts to an opinion maintained by some of the ancients, that fluids, in drinking, passed into the lungs, which he denies, and refutes in the last chapter. (See Hippoc. in περι χαρδιης.)

BOOK IX.

This, the last of these books, is not less interesting than its predecessors. In some respects, it is even more so, as will be admitted, when it is stated to be an attempt to point out the best method of distinguishing truth from error. Here, the opinions of Hippocrates and Plato on the subject are compared, and the necessity of uniformity is pointed out; and consequently the great importance of such comparisons as to the similarity or dissimilarity of subjects, if you desire not to be deceived;—as with respect to the face and countenance of the sick, and all those other parts from which our judgments may be deduced; and he quotes largely from both writers. He also discusses the *intention* of the physician in his practice, and takes notice of the great dissimilarity amongst the members of the Profession in this respect. All, he tells us, propose to oppose disease; but some are actuated therein by humanity, some by ambition, avarice, and so forth. (p. 1090.) In an edition of Brown's Elements, by Beddoes, some years ago, we have in his preface a somewhat analogous generalization of physicians, which he drew up from the medical characters of Great Britain of his day. It is probable he was led to it by the example of Galen; nor is it improbable that the same might not be done in every large city in all parts of the world! The importance of method in investigating and in dividing diseases, is noticed; and the diversity of practice arising from this, is exemplified in pleurisy; some employing bloodletting, others purgatives, fomentations both wet and dry, &c., and equally diversifying their drinks and ptisans, &c.

Dissensions among physicians are injurious, says Galen; therein

differing from contrary opinions among artisans, in which opposition tends to improvement. He notices the reasons of such philosophic differences, and proposes sundry queries of utility to, or injurious to physicians and philosophers. Here we may perhaps discover a counterpart in the profession of our own times, in the picture he has drawn of men, who, in opposition to common opinion, most obstinately persist in their own, and *feign* to believe them implicitly (p. 1100, A., &c.), whilst others, denying the opinions of their opponents, *falsify in the most unblushing manner!* Had Galen lived in our times, he would not have wanted an ample harvest for his keen and caustic pen.

In considering, in a subsequent part of this book, the providence of a Supreme Being, as exemplified in the structure of the body, he hints at the folly of those who suppose it to be the work of chance; and in a manner both brief and comprehensive he replies thereto, in proof of its extreme absurdity, by recapitulating its wonderful structure, the number of its parts, the uniformity of infinitely numerous beings, the congruity and adaptation of every part, whether single or double, in organization; all proving a divine Architect, and the utter impossibility that a blind chance could have had any influence in the formation of the universe. He again quotes largely from Plato's Timæus, on the subject of the mind or soul and its faculties, and thus concludes the last of these most interesting commentaries on the Decreta of Hippocrates and Plato. Much unquestionably is speculative and metaphysical; but is it the less interesting from conveying to us the philosophy of the ancients as to the mind and its operations? Are the metaphysical dogmas of the present day so absolutely certain as to be universally admitted? If shadows, clouds, and darkness envelope the metaphysical principles of former times, not less discrepancy of opinion and wild speculation as to mind and its operations will be found in the eighteenth and nineteenth century! A comparison of both would possibly lead to the admission, that the opinions of Hippocrates, Plato, Aristotle, Galen, and such like philosophers, of twenty centuries' standing, are as likely to be correct, as the many-headed monsters of the present period.

XXI. GALENI, DE FACULTATIBUS NATURALIBUS, LIBRI TRES.

OF THE NATURAL FACULTIES, IN THREE BOOKS.

T. LINACRE, TRANSLATOR.

Bas. Ed. p. 1113.

The faculties (powers) are of three kinds, natural, vital, and animal. The first seems principally connected with the liver, and is distributed by the veins to every part; the second is connected with the heart, and through the arteries, with all the body; and the third with the brain, and through the nerves with the whole system. Galen here notices the difference of plants and animals, in the possession by the latter of sense and motion. He considers the difference of simple nature and the soul; sense and voluntary motion being the result of this last, whilst augmentation and increase, are the result of the former. It is the soul that governs; and in order to prevent misrepresentation, he defines the words he uses, and notices some of the opinions of the sophists respecting certain natural changes, such as that of food into blood, &c.; he considers that a certain faculty or power exists in different parts, by which those parts are enabled to induce certain changes. He notices four qualities in matter, two of which, *hot* and *cold*, are active, and two, *moist* and *dry*, are passive. By the operations of nature, we find three actions or faculties awakened, viz., a generative or productive, an augmentative or inductive of growth,—and one of nutrition; all of which, with other interesting subjects, he separately considers. He opposes the opinion of Asclepiades in relation to a direct passage of drinks to the bladder, and relates an experiment to refute it, viz., that of tying the ureters, and thus examining, from absolute observation, the real mode of transmission, (p. 1125.)

In giving an explanation of the ureters, (p. 1118,) considerable light is thrown upon the ancient views of different tubes in the body; which, although intended for different purposes, had, nevertheless, the *common* appellation of *phlebs*, or vein, given to them. He tells us the ureters are not arteries, since they neither pulsate, nor do they consist of two coats; neither are they veins, since they

contain no blood, nor do their coats resemble those of veins; and still less do they resemble nerves; and yet, adds he, every part of the body necessarily consists of an artery, vein, and nerve, or is composed of them. A considerable part of this book involves the consideration of *attraction*, as explanatory of many of the propositions assumed; such as with respect to the secretion of urine, &c.; and he introduces Epicurus's explanation of the magnetic attraction of iron, together with his disputes against Asclepiades on this subject, (p. 1128.) This seems a favourite subject, as he strongly opposes both Erasistratus and Asclepiades. In one part, his language is of a strong character, asserting, that in regard to the attraction of the kidneys, Erasistratus was a dissembler, but that Asclepiades was an absolute liar: "itaque Erasistratus dissimulavit, Asclepiades mentitus est," (p. 1135.) The primary, nay, the exclusive superiority of the arteries, veins, and nerves, in the opinion of the ancients, is here well exemplified: "Si namque ex singulis eorum instrumentorum, venas, nervos, et arterias exemeris, reliquum corpus, quatenus sensu animadverti licet, simplex elementareque est," &c., (p. 1118.) And elsewhere he says, that if we desire to comprehend the universal powers or faculties of nature, every individual organ must be carefully considered.

This book is deserving of attention in a variety of particulars; and few will read it, I imagine, without admiration and gratification. The same may be said of the second and third books, in which, with the author's own opinions on the subject of nutrition, &c., we find, in his opposition to many of the philosophical tenets of contemporaries and others, much of the physiology and speculative views of the then existing and preceding ages. The importance of the *humours* or fluids may be considered as having always stood prominent in the estimation of the ancients, since they, or some of them, counted up no less than ten different kinds, besides the blood, (p. 1159.)

The third book treats rather more particularly of the retentive and expulsive powers, as the preceding did of the attractive. The necessity of such powers is demonstrated in the stomach and uterus, and also in the urinary and gall-bladder; all tending to a general proposition, that there are four faculties or powers in nature, viz.: of appetency, attraction, retention, and expulsion. Towards the close of this third book, Galen explains his reasons for writing them; and they differ but little from those which might now, with great propriety, be

advocated by every *honourable member* of the Profession, viz., to oppose that sophistry, which, under the revered name of science, extends its baneful influence to the younger and ingenuous student, before he can possibly form a correct decision as to the doctrines that are promulgated by his teachers; and by which he becomes bound in fetters, from whose embrace he scarcely ever can effect an escape. This particular chapter (ix. p. 1170,) is one of such importance to truth in our researches, that it is well deserving of general extension in our medical schools!—A chapter of some interest (twelfth) is given, as to the means of exciting the expulsive powers to act. In it, the distention of the uterus, bladder, &c., is considered, and a variety of causes are stated, as inducing abortion. The same channels, it is said, are employed by nature, both for attraction and repulsion, though at different times; thus, the œsophagus, in swallowing food, and in the reverse case of nausea and vomiting; the gall-bladder, filled by regurgitation, and emptied by the same duct. The os uteri, regarded as the passage by which the semen reaches its destination, and that of the expulsion of its fœtal incumbrance.

Several passages in this book, are strongly illustrative of Galen's knowledge of a circulation, and of the strict and necessary communion between the arteries and the veins (see chap. xiii. p. 1180): "Si enim multis amplisque arteriis præcisis, jugulare per eas animal velis; invenies ejus *venas æque atque arterias vacuatas;* quod sanè nunquam fieret, *nisi inter se* haberent altera in alteram ora reclusa,"—and soon after, speaking of the pulmonary artery, he says of the blood that passes into it, "manifestum est, *quod in sinistrum sinum* transmittitur." The whole chapter deserves transcribing; and if translated, would, with numerous parts of his writings, greatly surprise the reader, to find that in almost every part, the wonderful Greek had preceded, and pointed out fully, the path, which has so incorrectly tended to establish the undeserved claim of Harvey to the discovery of the circulation of the blood! whilst the undoubted rights of Galen have been trampled under foot, to the disgrace of our profession, and the false honour claimed for him by the British nation!

XXII. GALENI, DE MOTU MUSCULORUM, LIBRI DUO.

OF MUSCULAR MOTION.

IN TWO BOOKS.

N. LEONICENO, TRANSLATOR.

Bas. Ed. p. 1182.

These two books on muscular motion are, to say the least of them, equal to any of the lectures delivered on the subject to the London College, under the name of the Croonian Lecture. Indeed, if we take into consideration the remote period at which they were written, perhaps more praise might be claimed for Galen in their behalf. Their general contents can alone be noticed. They present a pretty full statement of every thing that is connected with the subject of which they treat. Commencing with an explanation of a muscle as the instrument of voluntary motion, it considers the action, number, and mode of movement, with the difficulty of comprehending it; its difference from tendon, ligament, nerve, &c.; explains the nature of these, their origin, connexion, &c.; notices the spinal marrow, and its difference from the marrow of the bones; the communication of the brain and spinal marrow with the muscles, through the medium of the nerves; and the result of their division, or injury from any cause, on motion and sensation, &c. The extreme vascularity of the muscles is said to resemble a well-irrigated spot; this vascularity depends on its arteries and veins, which, originating in the heart and liver, are widely distributed through the body of the muscle;—the difference of tendon from nerve and ligament; its mode of insertion in the bone; what muscles (as of the tongue) have no tendon; the dissimilarity of the heart from the common muscles; some muscles, (as of the mouth, &c.,) have no connexion with bone; the œsophagus, &c., the muscles of the rectum, the diaphragm, and other parts, considered; their peculiar actions, as distinct from others accidental to them;—reference is made to the various peculiarities of muscles, and to their fourfold action, viz., of contraction, relaxation or extension, and variation as to these, or permanent tension; which leads to the consideration of the character

of swimming, flying, &c., and to the nature of tetanus; reasons assigned why, when a muscle is cut through, and it contracts most powerfully, yet the part to which it is attached is not moved by it; equality of power in opposite muscles, with remarks on Hippocrates' writings respecting the muscles. In the second book, the high character assigned by Galen to the upper extremities, leads him to a minute detail as to the various muscles of those parts, and to some views as to the exact character of the bones of the arm; the motions of extension and flexion, of pronation and supination, &c.; of the quiescence of muscles in sleep, drunkenness, fatigue, &c.; the best position for sleeping; sleeping whilst walking, of which he gives an instance in his own person; the almost constant tonic action of the temporal muscles; guardianship of the muscles of excretory organs during sleep, &c., except from some causes, as inebriety, phrenitis, &c.; and he condemns those who assert the soul to be quiescent in sleep, since they can feel, and speak, &c., yet all their actions are not natural. Of voluntary, involuntary, and mixed motions; singular case of delirium during thirteen days, relieved and cured by a sudden hemorrhage from the nose, followed by sweat, and having no recollection of his previous state. Galen's remarks thereon, and analogous cases;—important character of muscles in relation to the retention or expulsion of excrement; in the operations of respiration and the voice, &c.; explanation of expiration and inspiration; diaphragm and other muscles subserving respiration, &c. Many other particulars are noticed, which this scanty outline can scarcely afford a notice of; yet it is probably, adequate to show the high estimate of the subject in the mind of Galen; and that, although much is *here* unnoticed, he himself has omitted nothing, that directly, or by implication, has connexion with it.

XXIII. GALENI, DE MOTU THORACIS ET PULMONIS, FRAGMENTUM.

OF THE MOTION OF THE THORAX AND LUNGS.

Bas. Ed. p. 1216.

This short treatise, called a fragment, is stated to be found only in ancient translations, and is not in the Greek copies; does not

constitute a part of the Venice editions. What is here given, is from the Basil edition, but without the translator's name. Its purpose is to prove, that naturally, the lungs are devoid of motion, but depend for it on the action of the thorax. The want of connexion of the lungs with the thorax, in which they are loosely suspended, is stated; and this is assigned as a principal cause of the difficulty in affording an explanation; although it is certain, that no motion in them takes place, unless simultaneously with that of the thorax. Galen, however, if the treatise is his, endeavours manfully to meet the difficulty, and solves the problem in a manner not very dissimilar from that which is at present maintained, although perhaps not quite so philosophically illustrated and expressed. (p. 1216.) This great man had not reached the absurdity of his successors in talking familiarly of the *horror vacuæ* of nature; but confining himself to the simple fact of water rising in a tube, if the air be drawn out of it, he shows that the lungs, following the enlargement of the thorax, the air passes down into them, and is expelled on its contraction; from whence he concludes that the thorax is the prime mover of the lungs. Now, as he has elsewhere demonstrated the action of the intercostals and diaphragm to be the cause of motion in the thorax, so the chain of events is fully established by him, if even we should be disposed to disclaim his hypothesis, but which is too closely linked with his data to be easily rejected.

XXIV. GALENI, QUOD ANIMI MORES CORPORIS TEMPERATURAS SEQUANTUR.

THAT THE QUALITIES OF THE MIND DEPEND ON THE TEMPERAMENT OF THE BODY.

B. SYLVANEUS, TRANSLATOR.

Bas. Ed., p. 1218.

This is a very interesting book at the present period, from its metaphysical and phrenological tendency in various parts. From experience, not once or twice, but frequently, (*sæpius,*) he assures us he had found it to be true, that the powers of the mind (*animæ*

facultates) are closely connected with the temperament (κρασις) of the body: nor was this opinion confined to himself, but was sustained by teachers and philosophers after careful inquiry. The affections of infancy indicate great diversity both of mind and body in them: some are timid, some stupid, some generous, others avaricious,—some are impudent and others modest, with many other varieties. Of these species he notices three, as among the most excellent faculties, according to Plato, and yet they appear to act differently in different subjects; from whence Plato seems to have imagined three species or varieties of soul, located, the one in the liver, another in the heart, and a third in the brain. On these defects of Plato, in his consideration of the soul, Galen animadverts; as also on the opinions of Aristotle, the Stoics, and others as to the substance of the soul and its immortality, who appear to have ascribed much to certain qualities of heat, cold, humidity, and dryness, &c., and which leads Galen to ask if dryness is a cause of prudence, and humidity of madness; and to inquire into the peculiar temperament of the body, the heart and liver, and of other points sustained by the philosophers. The influence of the temperament (κρασις) of the body in inducing mental affections is considered, and the mind is affirmed to be injured by bodily diseases, such as vitiated humours, or a depraved state from any causes,—"Nemo enim sponte malus est," (says he in the progress of his observations, p. 1225,) "sed ob corporis pravum habitum, rudemq: educationem fit malus." Such even was Plato's opinion, and it seems to be acceded to fully by Galen. He agrees with Aristotle, that different faculties of the mind are influenced by the temperament of the blood; and that the character (animæ temperatura) may be learned from the physiognomy, as derived from the forehead, eyebrows, palpebræ, eyes, and ears; and he proves from Hippocrates, that a diversity of customs, studies, and arts, have their source in the variety of climates and seasons. The meaning of the ancients respecting the term *vein* as applied to arteries, is adverted to, and he explains that of the pulse, as distinctive of the arterial character, and how used by different persons. After some metaphysical enlargements on the subject of virtue, he considers seemingly the questions of necessity and free will, (p. 1233,) and of the attending difficulties of each; also of a threefold cause of punishment, and inculcates the suppression of vice, by education, study, and discipline. He wonders at the Stoics for thinking all men to be born

equally disposed to virtue; but he admits that they become perverted and depraved by their associations. This, says he, could not have been the case with the first man, who had no predecessors; and he seems thus to incline to the doctrine of *original sin;* yet he lays great stress on discipline, diet, and medicine, in restraining its consequences, which he admits could scarcely be depended on, if that doctrine, (de infantium corruptione) were altogether true.

I know not whether I have entirely succeeded in comprehending his views; but I am sure that phrenologists will here find abundant matter for reflection as to that science, as well as of physiognomy, in the days of Galen; whilst the moralist and metaphysician will not be disappointed on the interesting topics of the origin of virtue and of vice.

XXV. GALENI, DE FŒTUUM FORMATIONE LIBER.

OF THE FŒTAL FORMATION.

J. CORNARIO, TRANSLATOR.

BAS. ED., 1237.

Galen begins this book by stating, that from neglect of anatomical research, both physicians and philosophers had erred in their doctrines, and differed from each other in their views of the fœtal formation, and had derived their opinions from an accidental abortion. He tells us that Hippocrates was the first who, founding his remarks on experience, wrote correctly on the subject. Much of what is here given, is necessarily speculative; yet not less probable than the hypotheses of the past and present times, on the mysterious subject of generation, &c. Galen proceeds to treat of the vessels, the membranes, the urachus, and other parts; of the formation of the fœtal skin; of the formation and substance of the liver, which he considers to be anterior to the heart; of the nourishment and growth of the fœtus. He adverts to the common application of the word *vein* by the ancients, to both arteries and veins; and he assures us that in a fœtus of thirty days, the liver, heart, and brain, were distinctly to be seen. The dissection of living animals is

considered useful; and the close and essential connexion of respiration with the motion of the heart, and with life, is particularly insisted on. The sources by which respiration is impeded are stated, such as suffocation from hanging, drowning, inflammation of the fauces, &c., in which last may be discovered many analogies to the circumstances of croup. The extensive distribution of veins over the body; the mutual aid afforded by the brain, and heart, and liver; the importance of which last viscus he considers as every where apparent. On its account he deems the urinary and gall-bladders to have been made, and ingeniously speculates on this point. Explains the use of the double porta to the liver; speaks of the heart, its formation, and its two ventricles; the blood in the left one being hotter than in the right; the inferior temperature of animals not possessed of red blood. Blood is contained in the arteries, though denied by Erasistratus; in many places expressions occur, that bear apparently on his views relative to a circulation, (p. 1243, &c.) This whole book is full of interest, the latter part especially, wherein he speculates on the formative power (causa formatrix—nisus formativus of modern times) of the fœtus; the wisdom and art evinced in its construction, its numerous muscles and bones &c.,—all tending to the infinite power and extent of motion, and of the ends thereby proposed to be attained. He notices, moreover, the beauty and adaptation in the construction of every other part;—the intentions of each part, he says, would, if fully investigated, amount to thousands; adequate, if properly appreciated, alone, to demonstrate omnipotence and infinite wisdom in its construction; and he concludes with a remark that conveys a direct and positive assertion of a circulation, if words have any meaning! "Hoc igitur solum de causa animalia ipsa formante, ut possibile me pronunciare puto, nempe, artem et sapientiam ipsam existere maximam. Quemadmodum et hoc quod post formationem corporis, ipsum universum corpus per omnem vitam *tribus principiis motuum* gubernetur; eo quod ex cerebro est, per nervos et musculos; quod ex corde, per arterias; et quod ex hepate, per venas." The remainder of the book indicates the existing state of knowledge as to the soul; by which it would appear, that materialism and immaterialism, then, as now, had their respective partisans; and it may be safely presumed that the dogmas on this mysterious topic were equally unsatisfactory, as are those of present philosophers! "Ex quibus autem prin-

cipiis hæc fiant, hactenus non fui ausus palàm confessa opinione pronunciare, velut in multis operibus indicavi, et præsertim in eo quo de animæ speciebus tracto, de animæ substantia nullatenus sententiam ferre confisus sum. Neque enim hactenus reperi ullum aliquem, qui mathematicis et liniaribus demonstrationibus uteretur ad adstruendum, *num omnino incorporea sit* anima, *aut corporea*, aut prorsus sempiterna, aut corruptilis et interitura, quemadmodum in tractatione de animæ speciebus explicavi."—I cannot help adding a few words, when he is noticing the order of the progressive formation of the fœtus from the seminal fluid, as first calling into play the vessels which go to form the viscera, of which the heart and liver may be regarded as the foundation of the house, or keel of the ship, and as preparatory to its immediate connexion with the uterus, and progressing in addition and increase of parts: "Nequaquam igitur ab aliorum opificio natura animalium formatrix desistet, sed *et venas et arterias semper findens ad adnascendum his alia viscera* propellet, quemadmodum et hepar et cor adnasci dictum est, una cum hoc quòd et figuram decentem, et positionem, et quæcunque alia hujusmodi partes habere convenit, debito modo operatur."

XXVI. GALENI DE SEMINE, LIBRI DUO.

OF THE SEMEN, IN TWO BOOKS.

J. CORNARIO, TRANSLATOR.

Bas. Ed. 1255.

These books, speculative in a high degree, are yet of great interest, both anatomically and physiologically, and which it would be impossible fully to elucidate in the short compass assigned to this abstract. They contain the opinions of his predecessors, Hippocrates, Aristotle, and others, which he combats or maintains, as they agree with his own. The inquiring and independent mind of Galen, is perhaps no where so well depicted as by himself, in the very commencement of the book, in the consideration of the question, "num intus maneat semen eis quæ sunt concepturæ, an excernatur?" In replying to this, he tells us the investigation of it may be effected in

three ways:—first, and most certainly, by a measure which he says he often had pursued with respect to mares, dogs, asses, cows, goats, and sheep; this was by observing, whether after coition, they retained, or discharged the semen. He was told by those well skilled in these affairs (ejusmodi rerum peritis), that they had carefully remarked that when conception was to ensue, the semen was always retained. But, says Galen, "although I confess the fault, and may be reprehended for it, for throughout my life I have adhered to it, I never confided in what others said, unless I was satisfied of the same by my own experience, so far as it was in my power." Hence, although in the above case, all seemed uniformly to agree, yet he was not satisfied until, with his usual incredulity, he had himself made the experiment, and thereby was convinced of the truth.—Another mode, was by close inquiry of females, and his curiosity was amply satisfied, as to the fact being the same with them as with brutes. The third mode was by consulting the works of all who had written on the subject, and the same opinion was sustained by them.

The progress of fœtation is followed up, and he sustains the idea of the female seed, whose conjunction with that of the male, is essential to the formation of the fœtus, but which idea seems to have been pretty sharply contested. An explanation of the formation of its different parts is attempted, fully equal to any of present notoriety. His chief stress seems to be that of explaining the formation of the heart, the liver, brain, spinal marrow, aorta, and vena cava; and he speaks of four periods in the fœtal progress, viz., 1, as a semi-formal matter; 2, a fleshy-form; 3, the distinctive though obscure formation of the limbs; and, 4, their full perfection. In each of these periods, the rise of parts is respectively noticed; as ossification, pellicular covering, &c., and some views are given as to the origin of the semen from the blood. The testes and convolution of their vessels; the results of castration, and various other particulars are noticed in order; with the influence of the semen on the animal economy.

In the second book, he treats more particularly of the female testes: and opposition is made to some opinions of preceding writers. In insisting on the existence of a female seed, and speculating on the resemblance of children to their parents, he lays much stress on this, and affirms that unless possessed of testes and a seminal fluid, the venereal appetite would not be excited in females; he proposes sundry difficult questions, as requiring an answer from those maintaining an opposite opinion; refers to the eggs laid sometimes by

hens, and those of fish, without the male co-operation;—the similitude of sex, is also mentioned, in a curious and interesting display of the general difference between the outline and appearance of the male and female, among all classes of animals; by which they are at once discriminated, even at a distance, and before observing the more immediately distinctive criteria of the genital organs; and that even when they materially differ among themselves.—The semen being supposed by many to be derived from every part of the body, it would seem that it was imagined that the different parts in conception, were constituted from that part of the semen derived from its counterpart; and hence, that the parts peculiar to either sex were derived from that alone to which it belonged. A comparison is drawn between the sexual organs, and they are presumed to be nearly the same in both, differing chiefly in the location assigned to them by nature, viz., externally in the male, and internally in the female sex: their nourishment from the same arteries and veins, is insisted on, and the similar origin of their nerves.—The variety of operation, in the works of nature as displayed in animal life, is well delineated. The above is perhaps sufficient to excite to a desire of further investigation of the treatise at large; and it well deserves it. Galen must always be his own and best commentator, for it is uniformly seen (and here particularly,) that although his opinions were the predominant doctrines for so many centuries, yet that he never depended on those of others, when able to verify them himself,—asserting in the seventh aphorism of the sixth Epidemics, that it is a tyranny for any person being constrained to accede to any opinion, without the clearest demonstration of its truth;—and the same is repeated in the seventeenth aphorism of the same book.

XXVII. AN OMNES PARTICULÆ ANIMALIS QUOD IN UTERO EST, SIMUL FIUNT.

WHETHER ALL THE PARTS OF AN ANIMAL ARE SIMULTANEOUSLY CONSTITUTED?

REGIO, TRANSLATOR.

BAS. ED. p. 1303.

This book, consisting of a single chapter, is said not to be in the

Greek copy. Be it as it may, it is a curious little essay, that in the subject-matter has frequently been discussed since the time of Galen, and yet probably not more accurately, or with greater interest. It is simply an inquiry whether all the parts in the fœtal state are formed conjointly, or in due succession.[a] The conclusion adopted by Galen is, that they *are not* all constituted at its first formation, for the best reason, that nature does not want them; but that as she does nothing in vain, so she goes on progressively with her charge; and, as the architect, in building a house or ship, begins with the foundation or keel, and makes his additions as the various parts are required, so does nature call up the organs to complete the whole, in the direct order in which they are necessary.

XXVIII. AN ANIMAL SIT ID, QUOD IN UTERO EST.

IF WHAT IS FORMED IN THE WOMB, IS AN ANIMAL.

H. LIMAN, TRANSLATOR.

Bas. Ed. 1304.

This is stated as being falsely attributed to Galen, and to be the production of some "Iatrophist." For the reasons assigned, this may probably be the case; and yet, as affording us acquaintance with many speculative notions of the philosophers of Rome, it may be esteemed a choice morsel of curious inquiry, of which much may be said on both sides. It is unnecessary to dwell upon it here; the nature of the inquiry is explained by the title. I shall merely add, that the writer, whoever he be, seems to think the object in question is an animal, and that it is possessed of a soul and of reason; maintaining his opinions promptly, forcibly, and with apparent good faith. He terminates the book with the following apostrophe to the fœtus itself, which the translator treats as ridiculous;—whether meant so by the writer, is problematical! "Sed jam ad fœtum ipsum, tanquam animal id, ut nihil ipsi quo minus homo sit, desit, formatum,

[a] "Thine eyes did see my substance, yet being imperfect; and in thy book were all my members written;

"Which day by day were fashioned, when as yet there was none of them."—Psalms cxxxix. 15, 16.

nostra vertatur oratio. Prodite quæso è sinibus nihil timentes ò fœtus, neque generis demissionem, neque charissimos alienatos, neque opes auferendas. Non vos multorum calumnia, atque horum qui naturam ipsam injuria afficiunt, excludit malignitas; qua propter eos pœna vos afficietis, ut Pericles, ut Pisistratus, ut Paris, illeque Macedon Alexander, atque Hercules."

XXIX. GALENI, DE SEPTIMESTRI PARTU, LIBER.

OF THE SEVENTH-MONTH BIRTH.

J. CORNARIO, TRANSLATOR.

Much interest will be felt in this short treatise;—the subject of it is not less important now than formerly. Agreeing with Hippocrates, Galen points out the common, minimum, and maximum number of days that go to constitute a seventh-month birth. A computation of the Greek months is given, and calculations as to the days and division of the year. The years are all equal, but considerable variation appears in the months and hours. One hundred and eighty-two days is the period assigned to a seven-month birth, with some slight variation. Perhaps, under some circumstances of a medico-legal investigation, embracing this subject, reference might be usefully had to this treatise.

This terminates the *prima classis* of Galen's division. The following is of scarcely inferior interest, but will not occupy so large a space.

CLASS II.

HYGIENE.

This class appears to treat principally of the so-called non-naturals. The Venice (eighth) edition thus mentions it in the title page: "Materiam sanitatis conservatricem tradit; quæ circa aërem, cibum et potum, somnum et vigiliam, motum et quietem, inanitionem et repletionem, animi denique affectus versatur."

INDEX OF THE VARIOUS BOOKS OF THIS SECOND CLASS.

		TRANSLATOR.
1.	Galeni Hippocratis, aëre, aquis, et locis libellus.	J. Cornario.
2.	de Alimentorum facultatibus libri tres. -	M. Gregorio.
3.	de cibis boni et mali succi liber. - - -	F. Balamio.
4.	In librum de salubri diæta Commentarius.	H. Cruserius.
5.	de attenuante diæta liber. - - - - -	M. Gregorio.
6.	de Ptisana liber. - - - - - - - - -	J. Politio.
7.	de parvæ pilæ exercitio liber. - - - -	J. Cornario.
8.	de cognoscendis curandisque animi morbis, quas perturbationes Latini appellant, liber primus. - - - - - - -	B. Donato.
9.	de cujusque animi peccatorum notitia atque medela, liber secundus. - - -	J. P. Crassus.
10.	de Assuetudinibus liber. - - - - - -	N. Regio.
11.	de sanitate tuenda, libri sex. - - - -	T. Linacre.
12.	Ars tuendæ sanitatis num ad medicinalem artem spectet, an ad exercitoriam, liber. - - - - - - - - - - - -	J. P. Crassus.

I. GALENI, IN HIPPOCRATEM DE AËRE, AQUIS, ET LOCIS.

THREE COMMENTARIES ON THE TREATISE OF AIR, WATERS, AND LOCALITY, OF HIPPOCRATES.

Bas. Ed. tom. ii. p. 6.

The Basil edition (1549), contains merely the translation into Latin, of the Greek text of this work of Hippocrates. That of Venice, (8th, 1609,) has three commentaries of Galen thereon, translated by M. Alatinus, a Jewish physician, which supplies the want of the Basil edition, and which it acknowledges by saying, "Galeni commentaria desiderantur." Having, however, pursued the order of arrangement in the edition of Basil, I have not adverted to these commentaries, farther than to notice where they may be found; and especially as I have in the abstract of Hippocrates' writings given the translation of this book of his. I merely remark, that the first commentary is on the part that treats of the variation of the air, and diversity of situations, arising from the direction of the winds in different places; the second treats of the waters, their nature, and influence on the temperaments in different bodies, and according to their respective character; and the third, the salubrity or insalubrity of different seasons; and how the *temperies* of the air and condition of the heavens influence the nature of the human body; and how it is affected by the influence of society, according to age, sex, temperament, and season, &c. A variety of other topics are incidentally treated of, some of which are of a singular character, connected with the Scythians and their habits of life, &c.

II. GALENI, DE ALIMENTORUM FACULTATIBUS, LIBRI TRES.

OF THE FACULTIES OR POWERS OF ALIMENTS.

IN THREE BOOKS.

Bas. Ed. p. 22.

BOOK I.

We are told that many ancient writers had treated on the power of aliment, but differed so greatly among themselves, that a new work on the subject was demanded, founded on reason and experience, rather than on *apparent* demonstration, the great dependence of Empiricism; and the opinions of many are freely investigated and criticised. The different effects, and facility of digesting the same kind of food by different persons, are adverted to. In successive chapters, we are presented with an account of numerous articles of food, viz., that of wheat, and the various forms of food prepared from it; barley and its preparations; oats, which is said (previous to Dr. Johnson) to be the food (jumentorum) of cattle, and not of man, except in cases of extreme hunger; millet, rice, beans, vetches, lupins, and many other articles, among which the seed of the poppy is enumerated, as well as flaxseed and hempseed.

BOOK II.

In no less than seventy-one chapters, we here find enumerated almost every kind of fruit, whether derived from trees or plants, of the orchard, garden, &c., that is at present known; and also vegetables of every description, there appears to have been no want of choice. Lettuce, among other modes in use, appears to have been boiled, which, says Galen, "ego nunc, ex quo dentis mihi male habent cœpi facere."—There seems to have been a dispute as to the correct mode of spelling asparagus, whether so, or asphargus! I

write it in the former way, (adds Galen,) with those, whose business is to attend to health, and not to words. The danger of some of the fungi, is noticed.

BOOK III.

Animal food is considered in this book, and various articles derived from them, as eggs, milk, cheese, butter, blood, honey, &c. One chapter is devoted to wine. The animals mentioned, are the hog, the ox, &c. The flesh of hogs so much *resembles that of man*, that, independently of dogs eating the last without suspicion, it was *sometimes served up by dishonest tavern-keepers*. Castrated animals most appropriate. General rules are delivered; the female ass and the mare were employed as food. We are then presented with the particular parts employed, among which are enumerated the udder, the thymus gland, the testes, which are considered inferior to the teats or udders, especially when these last contain milk,—the testes of the bull, goat, and ram, seem, however, to have been too much even for a Roman stomach;—the brain, the liver, spleen, lungs, &c., stomach, *uterus*,[a] and intestines. We have a catalogue of animals, &c., derived from the fields, woods, waters, air, &c. Milk and its various preparations; asses' milk. A great variety of fish is mentioned; shell-fish, cartilaginous, scaly, and others. Salt provisions. We have, in short, in these books, a Materia Alimentaria; consisting chiefly, as may be presumed, of the facts of the day; and which, devoid of the remarks of Galen, are not very interesting; yet, as affording a table of contents for the feasts of the Romans, they are not undeserving of attention.

III. GALENI, DE CIBIS BONI ET MALI SUCCI, LIBER.

OF THE GOOD OR BAD JUICES OF FOOD.

Bas. Ed. p. 6.

This book will to many appear among the most interesting of the writings of Galen. Its intention seems to be chiefly that of pointing

[a] "Nil melius turdo, nil vulva pulchrius ampla."—Hor.

out the measures by which good and bad or vitiated humours are produced; in other words, how the system may be supplied with the former, and avoid the latter. In admitting a vitiated state of the humours, the claim of Galen stands pre-eminent, although the doctrine extends to the earliest records of our profession. We shall readily perceive, however, that, although the medical men during a long series of centuries, too slavishly adopted all his views, and considered any departure from them as heretical; yet he himself was the slave of no man, nor of any hypothesis of whose truth he was not fully satisfied; and in vindication of which he was always ready to give an answer to all of the faith that was in him; which is more than the majority of our medical partisans can now do! Galen, rising above the prejudices of a single sect, was truly an Eclectic; and, like the bee, quaffed honey from every flower; separating the dross from the ore, he adapted what he thus collected, in its state of refinement, to his own especial views and sentiments. Hence we find him an enlightened Solidist, in conjunction with the Humoralist; at least I think this is truly the case; for it is under the banner of this great man, that I have uniformly attempted to oppose the paltry and contracted views of either, when *exclusively* promulgated in our schools!

The chief interest of this book, nevertheless, arises in my opinion from other sources; the first of which is, the account it affords us of a mighty famine and plague in Rome, (or rather extended throughout the world,) and continuing for several years. The recurrence, from extreme necessity, to unwholesome plants and herbs, soon vitiated the fluids, and disposed the system to numerous diseases; such as various affections of the skin, ulcers, erysipelas, phlegmon, herpes, itch, and lepra, and others, accompanied with fever, affecting the intestines, &c., with dysentery, inflammation of the viscera and bladder, &c., and up to malignant diseases of the highest grade, with all their accompanying and frightful symptoms. In the beginning of these, some physicians bled their patients, and the blood, he tells us, was always bad, of a deeper and darker hue than natural, more watery and acrimonious, and the incision healing with difficulty. Many, it appears, died from eating some of the fungi, cicuta, and other noxious plants. After some further remarks, all tending to elucidate the mode by which the fluids may become affected from the diet employed, he gives a detail of his own mode of living, and of the state of his health from childhood under the

dietetic precepts of his father, whose knowledge and learning, and infinite virtues, he most piously commemorates. When, however, he reached the state of adolescence, and pursued his studies apart from his parent, with extreme assiduity both day and night, even in the dog-days, he largely lived on vegetables or fruit, and in consequence was attacked with an acute autumnal fever, for which he was bled. Changing this mode of living by his father's advice, he escaped the following (his nineteenth) year; but his father then dying, he pursued his previous mode of life, and had a return of his former complaint, which, annually, or every second year, attacked him until his twenty-eighth year, when he became apprehensive of an abscess in the liver at its connexion with the diaphragm, and discontinued all the fruits but grapes and figs, and finally overcame his complaint, and enjoyed for many years exemption from disease. He tells us he dwelt on these particulars, (and some others detailed,) from their having some connexion with the subject before him. It is unnecessary to detail the particulars of this book, which is, indeed, much of a like nature with the preceding; or, perhaps, rather a kind of commentary on every variety of food, both general and particular. There is, however, sufficient difference to render it of interest, even should the reader not coincide in all the premises of the illustrious writer. I shall only notice that the use of woman's milk in phthisis is particularly commended, and especially by actual suction of the female, as directed by Herodotus and others. A good deal is said respecting wines, in some of the last chapters; the celebrated Falernian seems to have been a sweet wine. Snow was much used in cooling wines and other liquids. He terminates the book by a list of many diseases that are induced by the influence of vitiated humours.

IV. GALENI, IN HIPPOCRATIS LIBRUM DE SALUBRI DIÆTA, COMMENTARIUS.

COMMENTARY ON HIPPOCRATES' BOOK OF A HEALTHY DIET.

BAS. ED., p. 151.

Here, under several heads, to which as texts his commentaries are appended, Galen affords information, both for public and pri-

vate life, of the appropriate diet, as connected with the variations arising from season, habits, age, sex, &c., and in which much of a useful character is to be found. It cannot, however, be readily abridged, and little is here noticed. Vomiting during the winter months is commended, and much is said on the subject, which at the present period will not be approved of:—the treatise is deservedly suspected, says Galen; some even regarding it as not being the production of Polybius, much less of Hippocrates. With such impressions, it may be considered extraordinary that Galen should have taken the trouble to comment on it. Many remarks by him, are, however, of importance.

V. GALENI, DE ATTENUANTE VICTUS RATIONE LIBER.

OF THE RATIONALE OF AN ATTENUATED DIET.

Bas. Ed., p. 166.

The utility of an attenuating diet in the cure of many diseases, or at least in mitigating them, is here attempted to be explained; and different kinds and preparations of food, are here pointed out, by which the humours may be kept in a healthy state, and disease obviated or removed; as in cases of gout, dyspnœa, enlarged spleen, and scirrhous liver; and it is on the whole, deserving of attention in many cases of chronic affection. What proves attenuant, is partly learned from experience, and in part from reason. Many articles are here enumerated. Poppy-seed, appears to have been not an uncommon admixture to their bread and cakes. The soporiferous property of the seed of lettuce is noticed. The book is in fact, closely associated with those preceding it. Condiments and salted food are noticed, and wine and honey are not omitted.

VI. GALENI, DE PTISANA LIBER.

ON THE PTISAN, OR BARLEY-WATER.

Bas. Ed., p. 181.

This book may in general be regarded as a treatise on barley-

water,[a]—and as this is by no means an unimportant article in the sick-room, it is not undeserving of attention. So much was it regarded in Roman practice, that Broussais is but a mere distant follower in their ranks. The ptisan was not used merely as a drink, as commonly imagined; it formed a part of their more solid nutriment. There appears to have existed a difference of opinion as to the superiority of the *whole*, or of the shelled (pearl) barley; the latter of which Galen seems to favour. Of its mode of preparation, of different strength to suit different circumstances; it was prescribed with strict attention as to time and quantity; and particular circumstances are referred to, which precluded its use.

VII. GALENI, DE EXERCITIO PER PARVAM PILAM.

OF THE GAME OF FIVES, OR TENNIS.

Bas. Ed., p. 187.

This book is connected with gymnastics; and the game treated of, which seems equivalent to our game of *fives*, would appear to have been a favourite with Galen; and he recommends it as superior in many particulars to various other gymnastic exercises, in which more danger of injury exists. Many of them, too, are expensive, and require much time;—this is prompt, and unexpensive; requiring but trifling apparatus, and only a moment's warning; and in extent it may be pursued to each one's content. It is, moreover, useful in the exertion of every part, whilst in other games, some parts are unemployed, and others overpowered with labour. The eyes and judgment are called into operation,—and other excellences are detailed, accompanied by a corresponding display of the inconveniences and hazards of various other games and exercises; and hence he concludes that this game is preferable to all others, and more especially as being adapted to every age, and to the weak as well as to the strong; it is devoid of danger, which is so common in the other gymnastic games and exercises. It is well deserving of the attention of physicians, who are often puzzled to direct aright the exercises of the convalescent state.

[a] Ptisana—a decoction of pearl barley, raisins, and liquorice.

VIII. GALENI, LIBELLUS DE COGNOSCENDIS CURANDISQUE ANIMI MORBIS, QUAS PERTURBATIONES LATINI APPELLANT.

OF THE KNOWLEDGE AND CURE OF MENTAL AFFECTIONS.

Bas. Ed., p. 194.

This book is stated to point out, how every one may become acquainted with and cure the affections of the mind; and that it was composed in favour of a friend, who had asked the opinion of Galen respecting a book of Antonius, an Epicurean, having the title of "De Ephidria, propriorum affectuum,"—and in which the word ephidria, or subsidium,[a] was not sufficiently explicit as to the meaning he intended to give it; a fault, he remarks, that was common to all his writings. Pursuing this train, in a kind of preface to the book, Galen tells his friend that many philosophers had written on the treatment of mental diseases, as Chrysippus, Aristotle, and Plato; and he remarks, that faults, and affections, though differing from one another, may yet be regarded under the common name of faults (peccata); adding, that although reference might be better made to the above authorities, yet, that in behalf of a friend, he was induced to take the subject in hand.

Entering on the subject, he tell us, that all commit faults even when they think themselves free from them; and he praises the saying of Æsop, that all men wear two cloaks, by means of which our own faults are concealed from view, whilst we readily see the faults of others; and he dwells on the extreme blindness exhibited to our own faults respectively,—whilst so ready to point out to others those which they possess. The whole book is one of morals, and well deserves attention; the emotions and passions of the mind are noticed, and their excess denounced; and a knowledge of oneself, as far as possible, is strongly recommended. He states the absurdities in which, in youth, his anger plunged him, and his successful endeavours to amend, which gradually improved. He relates the effects of anger which he had seen, one of which was of the Emperor Adrian, and gives some rules against the passions.

[a] Subsidium—aid, or help.

He compares the passion of anger, to the horse and dog; and concupiscence, intemperance, and lust, to the boar and goat; accompanying all his views with many sensible observations, praising temperance in all things; he speaks of contention, ambition, envy, &c., of the faults and depravities of youth, even by nature as well as from education, and the various ways in which exhibited; some are naturally quarrelsome, thieves, gluttons, liars, &c.,—and they differ in manners as well as in diseases, in their grades of modesty and decorum, of memory, prompt to learn, or idleness, &c; and he dwells on the importance of a correct education, which is analogous to the culture of plants, yet not always able to overcome evils of early establishment.

In the course of this book he gives an account of his excellent father, as being "ab omni iracundia alienum, justissimum, humanissimum;" but his poor mother, like another Xantippe, must have sorely tried this good man's patience; for she was, says Galen, "adeo iracundam, ut etiam morderet interdum ancillas, semper autem et vociferantur et contenderet cum patre, et longe quidem odiosius quam Xanthippe illa cum Socrate." This extreme diversity in his parents appears to have had a powerful influence on his young mind, seeing that under no circumstances was the equanimity of the father disturbed, whilst his mother was constantly suffering from the veriest trifle. At fourteen years of age he began to attend on the lessons of some of the philosophers, Stoics, and Platonists, and others; and he states his father's causing him also to pay attention to geometry, arithmetic, architecture, and astronomy, with which he himself was well acquainted; and his beneficial advice against becoming the slave of any sect: the advice is so beautifully exhibited, that I am compelled to give it in the words of Galen, (p. 210 et seq.)[a]

[a] "Ideirco inquit, oportet in tuis istis honestatis sapientiæque præceptis, ne minimam ne quidam discrepantiam inveniri, qua ipsa à se ipsis discordent: quemadmodum veteres quoque omnes in hisce artibus servavere, quarum geometria, arithmeticaque principem obtinet locum. Ut igitur non procacem aut præcipitem esse oportet, ut teipsum ab aliqua secta denomines, *sed longissimi temporis spatio et discere illas, et de illis ferre judicium*, sic omnes hominus comprobant, confitenturque etiam philosophi, magno studio quærenda esse hæc: quare nunc jam tibi ea sunt petenda æmulatione quadam, et discenda, et digna quæ a te augeantur existimanda, ut et justitiam, et modestiam, et animi magnitudenem, et prudentiam ex illis consequare. Laudant enim has virtutes cuncti, tametsi sibi ipsis conscii sunt, nullam se habere: dant etiam operam pro viribus ut aliis videantur et fortes et modesti, et justi et prudentes: unum illud est quod et si aliis non videantur, tamen revera esse ipsi magno studio contendunt ut

Now, says Galen, "I say, that the precepts I received from my father, I have, to this day, carefully followed; nor have I as yet allowed myself to be called by any sect, which I have studied with all diligence; unmoved by the various and daily changes in life, I remain as my father recommended, esteeming of little importance, honour, wealth, or fame." The whole of this part deserves publicity; but I am precluded from further quotation. He proceeds to paint the folly of an insatiable desire for riches, and the happiness of moderation and content; the former, if possessed beyond due bounds, tends to many vices, such as avarice, &c., and with much useful truth, the book closes.

IX. GALENI, DE CUJUSQUE ANIMI PECCATORUM NOTITIA ATQUE MEDELA, LIBER SECUNDUS.

OF THE KNOWLEDGE AND CURE OF MENTAL AFFECTIONS: BOOK SECOND.

BAS. ED. p. 219.

This book is, to all appearance, a continuation of the preceding; and it is called the second book, in the Basil edition; but in that of Venice, it is styled, libellus. If the former is deserving of notice, not less so is this; it is equally interesting and instructive, and that in many particulars, which the titles would scarcely lead us to expect; thus, in one of the chapters the subject of the clepsydra or water-clock, by which time was counted, is introduced, in order to demonstrate some of the positions assumed in this moral and ingenious tract; and he is to be pitied who can peruse it without benefit, even though not absolutely connected with the subject of medicine, to the same extent as are most of Galen's other writings. In the preceding book, affections of the mind are principally considered; in this, the faults or vices of the mind are taken up, and it is attempted to show how contrary they are both to judgment and to reason. In the first chapter we have the painful intelligence that, "*multo desunt in codice græco!*" Some distinction is drawn between faults and errors; and a state of doubt in regard to this, is placed by many, we are told, between virtue and vice; a good deal of the reasoning

mœroris videlicet omnis ac tristitiæ expertes sint; quare huic à te rei in primis studendum est, cui omnes utique homines student, præque omnibus aliis virtutibus unum hoe quærendum."

in this book is deduced from the views taken of certain sciences, as geometry, arithmetic, architecture, &c., on which much useful remark is bestowed. The errors arising from sectarian adhesion, or of hearing only one side of a question in philosophy or science, are pointed out, and reprobated; the contentions existing at that time on some of these, are stated, as on the subject of a vacuum, &c., the importance of demonstration,—yet liable to error, from haste and precipitation; which are always to be guarded against, and which he had sedulously adhered to, from youth upwards. The ready credence in the assertions of others, without duly weighing or investigating the subject, is a frequent source of error, and regret; this arises frequently, from an unhappy propensity to see more than others, and to attain it sooner; leading thus to ignorance rather than to truth and knowledge. Some philosophers both teach and dispute rashly, and without demonstration. Most men are ignorant in respect to subjects, doubtful or obscure; whilst our ("doxosophi,") wiseacres, are only ignorant of those that are manifest. The disputes of the Stoics and Epicureans on a vacuum, both between themselves, and against the Peripatetics, are noticed, and ended, he tells us, in mere probabilities; whilst they insisted on their being absolute demonstrations. We may remark that he makes an allusion to the squaring of the circle in one of his chapters (p. 222).

X. GALENI, DE CONSUETUDINE LIBER.

OF HABIT OR CUSTOM.

Bas. Ed., p. 235.

The force or power of habit on the body in various particulars, both of food, and exercise of body and mind, is strongly set forth in this book; and it is declared to constitute a curative indication of high importance; at the same time that other indications may not be neglected! The testimony of Hippocrates and Erasistratus in relation to the power of habit was confirmed by most physicians. The habits relating to food, drinks, &c., are noticed. Concoction or digestion,—how, and what; diversity of power in different persons, for the same food, &c.; the variety of food required by

different animals according to their genus, &c. The difference of food in respect to its taste, and the fluids that are prepared from them. The power of habit, from external causes, as changes in the air; how influenced; from heat and cold, &c.,—exercise of body, and of mind; Hippocrates' opinion as to this; moderation in both commended. Evacuations from the body, habitual; not, however, so essential from habit, but from the necessity of preventing the accumulation of noxious matters. Some remarks incidentally introduced on the plans of education are then pursued.

XI. GALENI, DE SANITATE, LIBRI SEX.

OF THE PRESERVATION OF HEALTH.

IN SIX BOOKS.

Bas. Ed., p. 246.

To detail the full intentions of these six books, would be impossible in the limits to which I am restricted. The head or argument of each book, will show its importance, and demonstrate that the whole series is deserving of the attention of medical men.

BOOK I.

This book purports to point out the reasons for striving to preserve the health, even up to old age. This constitutes an art, consisting chiefly of two parts, the one in the preserving of health, the other in opposing the powers of disease. The various circumstances by which life is sustained are adverted to, as air, and food, on which the author dwells, more especially from birth to the seventh year; giving many important directions, both as to nursing and subsequent education; strongly prohibiting the use of wine, and enforcing that of water. He continues his remarks on education during the second and third septenary, and in its connexion with health; adverts to the regularity of the discharges, as affording much to the healthy state of the organs which are employed for the purpose; the causes of retention of such discharges are noticed, and the means to be used to rectify the same. Health, we are told, is to be judged of by the natural functions; and he defines

health as consisting in that state of the constitution, wherein all its functions are freely performed without any pain or uneasiness. Milk, music, and motion are the three means or remedies in childhood. The various exercises of body and mind most appropriate at different ages. Pure water, and air, their respective signs.

BOOK II.

Here, we have pointed out the different modes and powers of exercise, friction, &c., including gymnastics. Nine kinds or varieties of friction, under three heads, of dura, mollis, mediocris; each of which is divided into pauca, multa, mediocris; with some significations of names employed. Frictions are employed as a remedy, or to preserve the body in a healthy state, or as preparatory to gymnastic exercises, and are therefore capable of much modification; and they will depend also on different circumstances, as to region, locality of the gymnasium, and the period of the year, or time of day in which employed; the various gymnastic kinds of exercise are explained, their powers and use. Muscular motion, per se, or indirectly; voluntary or involuntary; of the motion of the heart and arteries, &c., and its perpetual necessity; the variety of that of the pulse, and its causes. Motion from external sources, as from medicine, equitation; regulation of exercise to the state of the system, moderation in. General remarks and conclusion of the book, which seems to be intended to apply to the third septenary of life, viz., from fourteen to twenty-one, as the first was connected with the period from birth to fourteen years.

BOOK III.

A brief recapitulation of the two preceding books, followed by a continuation of the subject of exercise, especially of that of the gymnasium, the scope or intent of which is pointed out. The measures to be pursued in order to remove the debility of different parts, induced by various causes, are likewise considered, and are derived from diet, as well as from exercise. Frictions, dry, and with oil, in preparing for the gymnasium, are duly dwelt on; attention is bestowed as to the wind, that is respiration; the best means of

improving it, and the variety in the operation. Bathing, cold and warm, their effects. Weariness or fatigue, or rather debility, is divided into seven different kinds, which with their causes are explained, and their cure pointed out, as also the various evils incident to them.

BOOK IV.

The subject is still continued, and he enters into some explanations for his treating of the ratio medendi of many morbid affections, in a treatise on the preservation of health; which, he tells us was expressly to defend himself against the calumnies of the Sophists;—of the means of acquaintance with the vitiation of the fluids; the treatment of various forms of debility; some remarks on Erasistratus, and his opposition to blood-letting; various remedies spoken of, for various affections; amongst which, is the oil of savine: the article wine, is not forgotten.

BOOK V.

This book embraces principally the dietetics of advanced life, its diseases, cure, exercise, &c. The causes are enumerated which tend to promote obesity or thinness, and other changes in the body. The mode of living of two physicians, or grammarians, Antiochus and Telephus, is particularly noticed, who lived to a very advanced period. The nature and influence of various wines is treated of, as respects their country, colour, body, and taste;—their uses considered. Certain preparations of honey, with pepper and other articles, in old gouty, or calculous persons. The character and quality of bread, for different persons. Milk, its use and injury in different temperaments. Goat and asses' milk, and an excuse for treating on these subjects. An inquiry into the state of the bowels and urine in age, and remedies against their morbid states. The axiom is explained of "Contraria contrariorum remedia."

BOOK VI.

A brief recapitulation of the preceding five books, is here given; and the author adverts to the precepts that are intended for pre-

serving health, which, owing to the great diversity of constitutions, must necessarily vary greatly. Those enjoying liberty and a sound temperament, must in this, differ much from those impelled to incessant labour, and who know not any certain time for nourishment or exercise; as well as from such as are uniformly valetudinarians. Organic variations, and numerous other circumstances, promote vast differences in all these cases. Of the use of mild vomition under certain circumstances. Various temperaments and intemperies noticed. The state of servitude considered, and its disposition to disease. All disease is affirmed to be produced, either from redundant or vitiated humours; their removal noticed on general precepts. The author adverts to the diseases arising from intemperance; promoting an accumulation of vitiated matters, and even augmenting these, by their unnatural feasts; gout, stone, and others, affecting them, or acute diseases attacking them annually or every second year, or even twice a year, with other remarks of analogous character. In the course of his books he treats of hiera picra and its uses, and its triple preparation. The various defluxions and means of restraining them are touched upon; and a variety of matters more or less connected with medicine, are successively brought to our view.

Much useful matter may be found spread throughout these six books; it is, however, enveloped in a mass of chaff; and yet they will compel attention when we fairly engage in their perusal.

XII. GALENI, ARS TUENDÆ SANITATIS, NUM AD MEDICINALEM ARTEM SPECTET, AN AD EXERCITATORIAM, LIBER.

THE PRESERVATION OF HEALTH, WHETHER DOES IT DEPEND ON MEDICINE OR EXERCISE?

ADDRESSED TO THRASYBULUS.

BAS. ED., p. 402.

The occasion and reason for writing this book are afforded in a kind of preface, addressed to Thrasybulus. Who he was, we

are not told. In this book, the author states with accuracy, the respective claims of medicine, exercise, and diet, to the honour of preserving health; and he concludes that all, constitute as it were, links of one great chain, not easily to be separated; but which conjointly, constitute or form the science of medicine in its fullest extent. In the course of his remarks, he takes occasion to enter into an examination of the modes of defining medicine, which is closely and logically pursued in its different bearings; and as to the end or intention of this science, he alleges that seven arts are required in it, in relation to the human body, the scope of all being that of bodily health. In this view he enters into their consideration. Health, action, and beauty, in conjunction, form the summum bonum of the body; and what tends to this conjunction is by him traced in the particulars of the air, wakefulness and rest, sleep, motion, food, and drink; and the influence of moderation in preserving unchanged a state of health, is noticed. Some good remarks are made on the folly of investigating names, rather than things,—and an inquiry is instituted as to when dietetics and gymnastic and athletic exercises were first introduced. Much reference is made to Hippocrates, Homer, and others, and his subject terminates with an inquiry into the reason of the name of physician (medicus) as applied to the practitioner of medicine. The book is certainly ingenious and interesting in many particulars; and whilst evincing the profound researches of Galen on every point he treats of, yet, I think the subject has much of the mystification, that is not altogether uncommon in various parts of his writings.

This book is the concluding one, or end of those constituting the Second Class of Galen's works. We proceed now to the Third Class.

CLASS III.

ÆTIOLOGY.

Signa quibus tum dignoscere morbos, et locos affectos, tum præscire futura possimus, docet.—Eighth Venice Edition, 1609, Title.

Complectens, cui insunt quæ de morborum ac symptomatum causis differentiisque; et reliqua hisce finitima materia per artem totam traduntur, unà cum commentariis in libros Hippocratis, de morbis vulgaribus.—Basil Edit. 1549, Title.

INDEX OF THE VARIOUS BOOKS IN THIS THIRD CLASS.

		TRANSLATOR.
1.	Galeni, de differentiis Morborum, &c., libri sex. First and second,	Leonicenus.
	Third, fourth, fifth, and sixth,	Linacre.
2.	de differentiis febrium, libri duo,	N. Leonicenus.
3.	de inæquali intemperia liber,	T. Linacre.
4.	de Marasmo, sive Marcore liber,	J. Cornario.
5.	de Comate, ex sententia Hippoc. libellus,	A. Gagaldinus.
6.	de Palpitatione, Tremore, Rigore, et Convulsione lib.	J. Guinterius.
7.	de difficultate respirationis, lib. tres,	J. Cornario.
8.	de Plenitudine liber,	V. Trincavelius.
9.	de tumoribus præter naturam liber,	H. Limanus.
10.	de Morborum temporibus liber,	J. Andernach.

TRANSLATOR.

11. Galeni, de totius morbi temporibus liber, - - J. Andernach.
12. de Typis liber, - - - - - - - - - - J. Andernach.
13. ad eos qui de Typis scripserunt, vel de Circuitibus, liber, - - - - - - - - J. Andernach.
14. de causis procatarcticis liber, - - - - N. Regio.
15. in primum Hippoc. de Morb. Vulg. librum, Comment. tres, - - - - - - - - - H. Cruserius.
[a]16. in secundum H. de M. vulg. lib. Comm. secundus, novissime repertus. - - - J. B. Rasarius.
17. in tertium H. de M. vulg. librum, Comm. tres, - - - - - - - - - - - - - H. Cruserius.
18. in sextum H. de M. vulg. librum, Comm. sex, - - - - - - - - - - - - - J. P. Crassus.
[a]19. in librum Hip. de Humoribus, Com. tres, J. B. Rasarius.

I. GALENI, DE DIFFERENTIIS MORBORUM ET CAUSIS, SYMPTOMATUMQUE.

OF THE DIFFERENCE AND CAUSES OF DISEASES AND SYMPTOMS.

IN SIX BOOKS.

BAS. ED. p. 6.

These books, under a number of subdivisions, treat of the differences of diseases, of their causes, of their variety of symptoms, and of the causes of those symptoms. We notice them in the order pursued in the Basil edition.

[a] Numbers 16 and 19 do not appear in the Basil edition of 1549, but are introduced into the eighth Venice edition of 1609, the former number is noticed as being "novissime repertus."

BOOK I.

GALENI DE DIFFERENTIIS MORBORUM.

OF THE DIFFERENCE OF DISEASES.

This commences with propounding what is meant by disease, and what by health; what are primary and universal, and simple diseases; and, lastly, what those diseases are that are compounded of the former. It is that we may comprehend the nature of disease, that Galen first takes a concise view of its opposite, or the state of health. All men, says he, consider themselves well, when, by means of the various parts of the body, the actions essential to life are perfectly performed (sine aliquo vitio perfungi potuerint); and that if the operation of any part is painful (offensa sit), that part must be considered as in a state of disease (ægrotare).—If so, says he, then health is to be sought for in two things,—viz., in the natural functions of the parts, and in the structure of the organs (fabrica instrumentorum) by which those functions are performed. May we not be permitted here to inquire, if, in these few words, we have not a concise, yet comprehensive view of all that has been lately enlarged upon, in newfangled terms, as to organic and functional diseases? He goes on to say, with respect to disease, that it must therefore consist in "*vel operationis, vel structuræ oblæsio,*" and we may defy modern writers to define in fewer words, the objects thus brought to our notice.—To support his views, Galen is at no loss; but we cannot dwell on them. Certainly the merit of the doctrine, if any, belongs to him, but he has never been quoted as authority for it, that I know of, proh pudor!—I shall only remark, that he soon after adds, that, in order that any operation may ensue, the structure must be natural; if otherwise, it is productive of imperfect operation, or disease.

In considering the nature of the body, Galen regards it as a compound, and not, as some imagined, constituted of only one kind of matter; and he proceeds to state, that the composition and structure of the animal frame is of a triple character; viz., 1, of certain similar parts, such as arteries, veins, nerves, bones, cartilages, ligaments, membranes, flesh, &c. (Quere? What are these but the so-called *tissues* of the present day?) 2d, of various instruments or

organs, compounded of some or more of the above, as the brain, heart, lungs, liver, stomach, spleen, kidneys, the eyes, &c.;—and of 3d, the full and perfect body or animal system;—which thus is found to be constituted of the above different instruments or organs; and which, in like manner, are themselves constituted of the more simple, but similar parts, that are themselves formed by the conjunction of the primary or elementary matters. Thus, in illustration, he says, flesh, inasmuch as it is flesh, consists of the four primary elements; but, inasmuch as it constitutes a part of an organ or instrument, in its formation or magnitude, &c., a discrimination exists between them.

It would be impossible, without enlarging greatly, to pursue the views of Galen on this subject further; what is thus cursorily noticed, will, perhaps, suffice to give some slight appreciation of what is omitted; wherein he treats of the diseases incident to *similar* parts; of those incident to *organs* or instruments; of such as arise from defective formation, either natural or accidental; and of various other divisions he has thought it expedient to make. In speaking of redundancy in size, as constituting disease, he refers to an individual whose body augmented so greatly, that he could not move, adding that it was reported he was cured by Esculapius.

BOOK II.

GALENI, DE CAUSIS MORBORUM.

ON THE CAUSES OF DISEASE.

In this book are considered, as causes of disease, heat, cold, food, both as to quantity and quality; constipation, moisture, and dryness; —of the causes of compound diseases of similar parts;—of those connected with instruments or organs in various particulars;—and of the causes of a solution of continuity, &c. In one of the chapters of this book, he strongly enforces the injury sustained by children, from the careless or injudicious manner of bandaging them by the nurse; as well as subsequently, in attempts to enlarge certain parts, by pressure on others, by which spinal distortion ensues; so that the system of corsets and stays of the present period, appears to have equally prevailed in the females of the time of Galen; and from him downwards.

BOOK III.

GALENI, DE SYMPTOMATUM DIFFERENTIIS.

OF THE DIFFERENCE OF SYMPTOMS.

Here he commences by defining or explaining some terms, which, though frequently confounded, have yet a difference, which is pointed out; and many excellent remarks are made on the change of names by authors, with the endless disputes thereby induced, and which it would not be unreasonable to ask our perpetual innovators in nomenclature carefully to peruse. "Litigando, (says he, speaking of these modifiers of well-established names, in order to uphold a favourite doctrine,) litigando enim de nominibus totam vitam conterunt. Quare ad finem artis attingere nunquam possint." He considers in due order what a symptom is, both common, or proper;—some symptoms are referred to affections of the body; some to imperfect actions, and others to the circumstances connected with the excreta and retenta. The actions that become injured, are animal, natural, and vital; the first is subdivided under three heads; in one of which, that of sensation, Galen says something as to the five senses, and points out the symptoms arising from their diseased action. Symptoms are said to be of a fourfold nature; some are visible, some sensible to the smell, some to the taste, and some to the touch. Surely he ought to have added a fifth, that connected with hearing! Who can recognise the principal symptom of cynanche trachealis, by any better or more peculiar, than by the characteristic *sounds* of breathing or of coughing? And assuredly Galen was acquainted with this disease, as various references to the subject of angina, &c., may serve to testify. He does, indeed, say something on the subject of sound as a symptom, both as regards the voice, and of the crepitus and intestinal rumbling, &c., denoting their varieties by particular terms; which renders it the more extraordinary that he does not divide his symptoms by at least an equality of the senses.

BOOK IV.

GALENI, DE SYMPTOMATUM CAUSIS.

OF THE CAUSES OF SYMPTOMS.

This book, subdivided into three parts, is highly interesting, in following the learned author in his attempts to explain in various places the symptoms of diseases.

1. The first of these books treats of the causes of the symptoms, in the diseases of the senses of sight, hearing, smell, taste, and touch, and of the causes of pleasure and pain in each of them; and he seems to ascribe to the venereal orgasm a species of sense or sensation *sui generis*. He treats of the causes of symptoms arising from the *stomach*, appetite, hunger, thirst, &c., and in Chapter V. he dwells much on the *sympathy* between it and other parts of the system.[a] He distinguishes between nerves of sense and motion, and treats of the causes of the symptoms of the affections of the brain, and of its faculties, &c., and he calls the brain in one part the "sensoriorum sensorium." Some phrenological remarks may also here be noticed.

2. The second of these books embraces the investigation of the causes of the symptoms of depraved motions, in which the author treats of paralysis, convulsions, tremors, palpitation, rigor, cough, sneezing, pandiculation, itching, and many other vitiated motions. He then proceeds to consider the causes of the principal animal functions, in respect to their motions; and treats of the motions of the stomach, uterus, and other parts, both natural, and symptomatic of a diseased condition; of the causes of apoplexy, epilepsy, coma, lethargy, delirium, loss of memory, and other affections of the brain, &c.

3. The third book treats of the causes of the symptoms of the natural functions and faculties; of the causes of imperfect concoction in the stomach, vessels, and each particular member; of

[a] Forestalling a similar doctrine of present date, though with more moderation; and which might have been perhaps duly appreciated by an acquaintance with the writings of Galen.

the symptoms connected with distribution through the system, and of its excretions; of imperfect nutrition; unnatural excretions, as of hemorrhages, vomiting, and purging, &c.; of symptoms appertaining to the urinary organs; of sweating, fluxions from the head; and of symptoms connected with the uterus; of priapism and gonorrhœa, or rather involuntary seminal discharge; together with the causes of the symptoms connected with several other parts, &c.

These last three books terminate the six books embraced in the first book of this class, De differentiis Morborum.

II. GALENI, DE DIFFERENTIIS FEBRIUM, LIBRI DUO.

OF THE DIFFERENCE OF FEVERS: IN TWO BOOKS.

Bas. Ed. p. 113.

In this book some principles are laid down by which the differences of the various fevers may be comprehended; of their general division and the symptoms distinguishing them; the foreign causes of fever; of an ephemeral and pestilential fever; objections against those who consider fever of a putrid nature; and some analogies and differences noticed between putrefaction, in and out of the vessels;—of hectic fever and its varieties. In pointing out the principal differences of fevers, he seems to consider a preternatural heat as the essence of the disease; which heat is sometimes most extreme in the solids, at other times in the fluids, and sometimes in the spirits; according to a subdivision of Hippocrates, in some measure analogous to a theory of later times, of the continens or solids, the contenta or fluids, and the impetum facientia or spirits; the two last of which are regarded as more generally the first invaded, and if not soon resolved, the febrile disposition soon extends to the solids also. A long list of causes is given of the preternatural heat that gives origin to fever: such as fatigue, anger, &c.; external heat and cold, &c.; as also a pestilential state of the air. In the course of his remarks, he adverts to ignorance, especially of physicians, with accompanying reasons for such remarks; and divides such ignorant physicians into two genera: *the one*, confiding in *self-experience*, affirms that by reason alone, we cannot find out the nature of any thing; the other,

ascribing all knowledge to themselves, whilst, in fact, quite as ignorant as the others; yet always watching to catch the passing ideas of science. The hardness of the pulse in some diseases is taken notice of, in opposition to Archigenes; and many excellent observations and practical remarks abound throughout the whole book. The different forms of fever are adverted to, besides the above: intermittents, simple, continued, quotidian, tertian, quartan.—Of obstruction in the vessels.—A question seems to have been the subject of dispute, whether a fever in the blood occurred, and is considered by Galen. He says he had seen the state of rigor in quartans, without fever; and he presents to us a variety of the old names of febrile subdivisions, serving partly to illustrate the nosology of that period. The intermixture of febrile forms is pointed out; and, taking the whole of these two books into consideration, we shall be led to the conclusion, that sixteen centuries ago, the hypotheses and practical attainments as to the various particulars of fever and its symptoms, were as well cemented together, and quite as well explained and illustrated, as at the present *enlightened* period of medical science! Nor can it be doubted, I think, that a close perusal of them, will amply repay, both in pleasure and profit, all who will take the pains to examine them.

III. GALENI DE INÆQUALI INTEMPERIE LIBER.

OF AN UNEQUAL INTEMPERIES.[a]

BAS. ED. p. 162.

By intemperies, Galen apparently means that unseasonable or unfit state of some individual part of the body, or of the whole system, which predisposes to disease, if it be not actually disease itself. He makes four varieties of it,—simple, compound, equal, and unequal. A variety of affections are mentioned, seemingly as coming within the scope of this division. The modes of origin of this unequal intemperies are described; a concise view of his division of the body is given; and some particulars, as by what means

[a] Dyscrasia—δυσκρασια—significat intemperies; et opponitur temperamento, sive κρασει,—est autem intemperies duplex; alia sanitatis, alia morborum, &c.—Castelli Lexicon.

inflammation arises and terminates in any part. Sundry anomalies are explained of this temperament, such as the sense of heat and cold at the same time, and of rigors not followed by fever, &c.

IV. GALENI, DE MARCORE SIVE MARASMO LIBER.

OF ATROPHY, OR MARASMUS.

Bas. Ed. p. 170.

This state of the system is defined to be a corruption of the living body arising from dryness (siccitas). Marasmus, the Greek term, is that which is still used to signify a wasting away of the body; and has some analogy with tabes. An interesting subject it is made in the hands of Galen, who speaks of the inevitable approach of age, as one of the forms or states of marasmus; and he ridicules the folly of some Sophists who promised to make men immortal. He treats of it as affecting the whole, or a part of the body; and mentions one in his time, who wrote a book on the subject at the age of forty; he reached that of eighty, but was then so shrivelled and dried up, as to resemble the description given by Hippocrates in his Prognostics (the facies Hippocratica) as the precursor of death, viz., sharp nose, hollow eye, collapsed temples, cold contracted ears, with the lobes partially turned, the skin of the forehead, hard, tense, and dry;—the picture indeed of death, under the name of the Hippocratic countenance.

Galen here investigates the causes leading to old age, both in man and animals; he considers the usual comparison of life to a fire provided with fuel, and gradually becoming extinct by combustion, as altogether incorrect, although maintained by all the physicians and philosophers of the day. Equally does he oppose the idea of a similarity between the flame of fire and animal heat; and he vindicates Hippocrates from being the author of a book in which that subject is discussed. He attempts to prove the *necessity* of growing old, from the nature of the elements constituting the animal structure; and shows, that although it cannot be avoided, yet it may be hastened or anticipated. The different varieties of marasmus are in turn presented to notice, with the means of relief, from diet, bathing, drink, &c., together with much useful matter of a practical tendency, and well deserving attention.

V. GALENI, DE COMATE, LIBELLUS APUD HIPPOCRATEM.

OF COMA.

BAS. ED., p. 183.

This is rather a commentary on the Hippocratic views of coma, as exhibited in various parts of his works, (Prorrhetics, Epidemics, &c.) He points out the opinions entertained on the subject by him, and its connexion with cataphora; which last is considered as two-fold, viz., somnolent and wakeful, (coma vigil.) and which becomes in a measure a distinction between lethargy and phrenitis. Galen is far from agreeing to all the views of Hippocrates, and argues fairly when dissenting from him. Attention to this book may prove very useful to the physician, in some cephalic affections; and so may likewise attention to the succeeding book.

VI. GALENI, DE TREMORE, PALPITATIONE, RIGORE, ET CONVULSIONE LIBER.

OF TREMOR, PALPITATION, RIGOR, AND CONVULSION.

BAS. ED., p. 191.

The occasion of writing this book, appears to have been that of rectifying the error of Praxagoras, otherwise so superior in medicine and philosophy, in ascribing all the above, together with the pulse, to an affection of the arteries, differing only in degree; and in so doing, Galen has presented us with an excellent treatise, wherein he points out the kind and variety of motion, in tremor, convulsion, rigor, and palpitation; he notices the locality, causes, and difference of them. In that part where he treats particularly of palpitation, much stress is laid, when speaking of blood-letting, on the communion of the vessels. Adverting to the propriety of bleeding in some of these cases, which by many was much opposed, he notices the statement of Hippocrates of his daring so to do, and his reasons for so doing; and remarks on the locality from which blood should

be drawn in certain specified cases. Some remarks are made, tending to show a difference between convulsions and tetanic affections.

VII. GALENI, DE DIFFICULTATE RESPIRATIONIS, LIBRI TRES.

OF DIFFICULT RESPIRATION.

IN THREE BOOKS.

Bas. Ed., p. 214.

Few of the writings of Galen are, in my opinion, more interesting than these, or which will better repay the attention of the reader. It is impossible to do justice to them, within the compass I have allotted to myself. A full translation of them would, I think, prove acceptable to the Profession. I shall barely state, that setting off with the term of *difficultas respirandi*, he considers it to be the same with the dyspnœa of the Greeks;—the difference or variety in which, are to be learned by attending to the respiration, and thus, by comparison with that which is *natural*, judge of its existing state. This was strictly attended to by the ancients, although the latter, being as it were a unit, and the former infinite in variety, the difficulty was by no means small. The subject is largely pursued, in all its relations; its causes, natural and preternatural. Natural respiration by being either excessive or defective, becomes preternatural; the names attached to the variations, both of *inspiration* and *expiration;* of quick or slow, &c.; the mode of detecting their respective causes. Of the proportion between the pulse and respiration in health, the attention seems to have been extended in a degree of minuteness, that can scarcely be conceived of, to every particular connected with the function of respiration. The difference of respiration and of the pulse in youth and age is taken notice of; the influence of sleep on; of fever, and of other agencies, such as cold, heat, pain, internal congestions or suppurations, mental emotions, &c. The different varieties of respiration, as quick, slow, deep, irregular, &c., are all investigated; and a kind of classification seems to be attempted, in which the intimate connexion of the

function with the pulse is strongly laid down; and towards the end of the first book, the conclusion is drawn, that there are three genera of causes influencing respiration, viz., faculty or power, utility, and the essential instruments, which, separately, or conjointly, are productive of the changes, &c., which lead to its deterioration.

Continuing his observations in the second book, much reference is made to Hippocrates, as to what he remarks of the breathing, in his first and third Epidemics, in numerous cases of disease; a refutation of those who regarded respiration as involuntary, referring to his remarks in the second book, De Motu Musculorum. The whole book seems enthusiastic in praise of Hippocrates; and scarcely less so is the third book, wherein the other remaining books on Epidemics, ascribed to him, are referred to, and their cases considered; here, too, some inquiry is entered into, as to the authors of those writings. Not a little of the value of these books consists in the analysis thus necessarily entered into by Galen, of the writings of Hippocrates.

VIII. GALENI, DE (PLENITUDINE, VEN. ED.) MULTITUDINE LIBER.

OF PLETHORA.

Bas. Ed., p. 302.

This book opens with a statement of the confused opinions of the medical men in Galen's time, respecting plethora.[a] These various opinions he attacks, and turns the arguments of his opponents against themselves; indiscriminately urging his objections against the Rationalist and Empiric sects; against the Stoics, Herophilus, Erasistratus, and others. Partial and general plethora are noticed, and an inquiry is pursued as to whether plethora consists in the blood alone; in which many curious remarks on that fluid are to be found, as to its amount, &c., and not undeserving attention. The general indications of a plethoric state are pointed out, as redness, tension, sense of weight, pulsation, &c.

[a] "Plethora, πλησθωρα; Lat. *plenitudo*, *multitudo*, copia. Accipitur communiter in foro medico pro humorum omnium abundantia; quamvis minus accurate; cum hac ratione a cacochymia non recte possit distingui. Plethora igitur proprie *sanguinis redundantiam* significat," &c.—Castelli Lexicon.

IX. GALENI, DE TUMORIBUS PRÆTER NATURAM LIBER.

OF PRÆTERNATURAL SWELLINGS.

BAS. ED., p. 330.

Explaining what he means by a preternatural tumour, or swelling of a part, or of the whole body; he states that it may be sometimes caused by an excess, of that which in itself is natural, as in a great increase or augmentation of obesity; or of the natural fluids of the cavities, &c. He, however, principally treats of them, as the product of actual disease; beginning with inflammation or phlegmon, whose symptoms are detailed and explained, with as much probability perhaps, as in the present day, its termination in abscess is noticed, and its various locations, inducing empyema, sinuous ulcers, fistulæ, &c. He then treats of atheroma and other encysted tumours; of anthrax, cancer, erysipelas, herpes, œdema, scirrhus, ecchymosis, aneurism, scabies, lepra, elephantiasis;—speaks of buboes, or swellings in the inguinal glands; of sarcocele, hydrocele, and many others;—all indeed briefly,—and the whole of less importance than many others of his writings. It is not undeserving of a cursory examination, if only for the purpose of noticing the synonymes of many diseases, now differently denominated.

X. GALENI, DE MORBORUM TEMPORIBUS LIBER.

OF THE PERIODS OR STAGES OF DISEASES.

BAS. ED., p. 338.

This is an attempt to illustrate and explain the progressive periods of diseases, which he assimilates to the regular progression of the different stages of life, or age, in animals. He considers such consecutive changes in the progress of disease, as partly depending on the age of the patient; and that a doubt may be raised, whether any determinate point of time can be fixed on, as the beginning of disease, Much curious speculation is pursued in

the consideration of the subject, which is not devoid of interest. He concludes, however, in favour of a commencement; and opposes some opinions of Archigenes, and gives the views of medical men, anterior to the period of Archigenes. He then takes notice of the different periods in intermittents, and the variety of the class, interspersed with much useful observations in regard to the accession, progress, and stages of these diseases; together with practical remarks on the state of the pulse, under these various changes during the paroxysm; and he gives us a division of the paroxysm into six periods, viz., the beginning, a state of inequality intermediate between it and the third state of augmentation, or increase; the fourth is that of vigour, or full strength, or acmé; the fifth is the declension, and the sixth, the state of remission. Here he gives a digression, as to the abuse that had been made of ancient names, and the itch of coining new ones, which had led to much error and confusion; adding, that some were so prone to it, (quidam hujusmodi ingenio refractario sunt præditi,) that they would not have regarded Apollo or Esculapius, if giving them advice to the contrary. He, moreover, adduces this fault, as a cause, and that a chief one, of their errors and ignorance as to the difference of diseases. He proceeds to consider the terms or names applied to the stages of an intermittent paroxysm, and affords a variety of particulars connected with fever, and with the opinion of Hippocrates on the subject. The periods or stages of fever, non-intermitting, (continued,) are next attended to, and of some of a mixed character.

XI. GALENI, DE TOTIUS MORBI TEMPORIBUS.

OF THE PERIODS OF THE ENTIRE DISEASE.

Bas. Ed., p. 353.

This book, it is stated, ought not to be separated from the former, but should be considered as a part of it, and that Galen seems so to have intended it to be. Four times, or periods, are assigned to disease; the beginning, increase, acmé, and decline. These are respectively considered; the signs distinctive of each, pointed out; the variety in each under different circumstances, and other par-

ticulars. He then notices the nature of mortal diseases, their indications and periods; and the diversity induced, when, at the same time, the patient is attacked with several diseases; one generally predominating. Great stress is laid by Galen on strict attention to three principal parts of the body, viz., the brain, the heart, and the liver,[a] together with the vessels that belong to them, and their respective subdivisions—pointing out the utility of this knowledge, and of the stages of disease, as greatly assisting in their cure.

XII. GALENI, DE TYPIS LIBER, VEL COMMENTARIUS.

OF THE FORM OR ORDER OF DISEASES.

BAS. ED., p. 362.

It has by some been supposed that this is not the production of Galen, inasmuch as much of what is herein delivered, is in opposition to what is to be found in his other writings.

The author sets off by stating, that many having largely treated of this subject, he thought an abbreviated and simpler statement might be useful to beginners. He proceeds to explain what the term indicates, and distinguishes it from points with which it had been frequently confounded. Many diseases, he tells us, have their types, especially fevers, with the exception of continued. The *type* is the order in which the occurrences take place. The *period* or circuit is the time employed therein. He notices the difference and division of types;—those of fevers, with their symptoms; and gives an explanation of those of double fevers, as the double quartan, tertian, and quotidian; and shows their numerous complications in a singularly curious and terminating chapter. Some have short accessions and long remissions; the opposite is the case in other instances; and this leads to a twofold division. Some occur at stated periods, some precede, and others are tardy. A *quintan* and a *septan* type are treated of;—the difference of pulse under these varieties are mentioned. A good deal of subtile distinction is made in all these particulars; yet, even admitting his divisions to be problematical, there is considerable interest in the book.

[a] The lungs are equally entitled to the strictest attention, and it is extraordinary that Galen should have overlooked them here. "Aliquando dormitat."

XIII. GALENI, AD EOS QUI DE TYPIS SCRIPSERUNT LIBER.

AN ADDRESS TO THE WRITERS ON TYPES.

Bas. Ed. p. 367.

This may be considered as subsidiary to the preceding book; in it the author points out the error of those who confounded the types or order of diseases, with their period or circuit,—as well as in other respects. He gives a curious table, in which all the types of fevers are designated, in conformity with those erroneous hypotheses; from that of the quotidian, embracing twenty-four hours, up to one called quinquegesimanus, of eleven hundred and seventy-six hours, or forty-nine days;—which he says he formed at the request of his friends,—and points to the mistakes which such hypotheses lead to; saying that fools only would engage in such pursuits, to the total neglect of more important subjects. The whole is sufficiently interesting to demand perusal.

XIV. GALENI, DE CAUSIS PROCATARCTICIS LIBER.[a]

OF PROCATARCTIC CAUSES.

Bas. Ed.

Galen begins by maintaining the pre-existing causes of disease to have existence, and repels the sophistry of the older physicians. He then explains the action of such causes, by the changes they induce in the body; of which he affords instances in point, in order to satisfy his friend Gorgias, to whom the treatise is written. We have here a proof, that however sedulous in his profession, yet that he was not inattentive to the poetic precept—

"Neque semper arcum tendit Apollo;"

for we find him referring to the *theatre* as proving the truth of his

[a] Procatarctica—προκατάρκω—antegredior, præincipiens—est causa morborum præexistens, vel præ-incipiens, una cum aliis agens, unde primo morbus producitur.—*Blancard's Lexicon.*

propositions;—this resort of dissipation thus becoming in his hands a place for observation! Heu! quam pauci!—Accordingly, like the bee, culling from every variety of flower, so Galen draws important deductions from this locality, in speaking of Menander; in whom he prognosticated a hemorrhage from the nose, which took place, to the astonishment of those around him. His remarks are levelled principally at Erasistratus and Herophilus; but others are noticed, and we have thereby the means of attaining the opinions of several, whose writings have not reached us. In the progress of this, he introduces a train of legal distinctions, and an oratorical piece of imagery in defence of Orestes as the murderer of Clytemnestra, which is given as a reply to the sophisms of Erasistratus, and would not disgrace the acutest member of the bar. Another of the like nature, is the inquiry into the cause of death in a person to whom medicine is given,—whether it be the physician, the nurse, or the apothecary! all in a strain of mirth, yet accompanied with reason.

XV. GALENI, IN HIPPOCRATIS DE MORBIS VULGARIBUS, COMMENTARII.

I. COMMENTARIUS IN PRIMUM LIBRUM HIPP. PRIMUS.

COMMENTARY ON THE FIRST BOOK OF EPIDEMICS.

BAS. ED. p. 400.

As commentaries upon the books of Epidemics, it is scarcely necessary to say that a rich treat awaits all who will take the trouble to explore them—far beyond that, which the simple text of Hippocrates alone affords.

In the Basil edition of this first commentary, *about a page is wanting*, which appears in that of Venice. Three commentaries are given by Galen on this first book, and three on the third. Both these (the first and third) books are regarded as the genuine productions of Hippocrates; the others are at least problematical. On the *sixth* book of Hippocrates, we have six commentaries, *besides some additional ones, not appearing in the Basil edition, but are found in that of Venice.* It would be impossible to analyze them—they are themselves a luminous analysis of Hippocrates, with the superaddition of

Galen's reflections,—and which must suffer by any mutilation, as they consist of nearly three hundred folio pages. A translation of them would, I should think, be acceptable to the whole profession.

XVI. GALENI, IN LIBRUM SECUNDUM HIPP. DE MORBIS VULG: COMMENT. SECUNDUS.

A SECOND COMMENTARY ON THE SECOND BOOK OF EPIDEMICS.

VEN. ED., p. 198—Novissime Repertus.

It would seem that three commentaries on the second book of Hippocrates' Epidemics were written by Galen, or, at least, once had existence; but that this, the *second commentary*, has come to light at a period not very remote, (1609,) whilst the first is altogether wanting, as far as I can determine. The comments are pursued upon the same plan with the preceding,—and a vast deal of important practical and speculative matter is dispersed throughout. In several parts of these two commentaries, numerous lacunæ are unhappily supplied by stars, (* *), implying a loss or destruction in that part of the copy.

XVII. GALENI, IN LIB. TERTIUM HIPPOC. DE MORB. VULG. COMMENT. TRES.

THREE COMMENTARIES ON THE THIRD BOOK OF EPIDEMICS.

BAS. ED., p. 488.

This is one of the books considered as legitimate. It is on the same plan as the others. Some particular cases of disease, mentioned pretty concisely by Hippocrates, are very largely commented on by Galen, and are spread through all the three commentaries. The first is divided under twenty-nine paragraphs or sections, the second under nine, and the third under eighty-eight.

GALENI IN SEXTUM H. DE MORB. POPULARIBUS. LIBRI SEX.

Similar in arrangement, &c., to the preceding books.

GALENI, RELIQUUM SEXTI COMMENTARII IN SEXTUM DE MORB. POP. LIBRUM.

VEN. ED., p. 212.

This was not printed in the former editions of the commentary on the sixth book; it is stated (Ven. eighth edit.) to be "nuper in lucem prolatum," and is, as the title expresses, a continuation of the sixth commentary of the sixth book. It continues in the same style as the preceding, and begins with the ninth paragraph of the sixth book, and ends with the twenty-seventh.

GALENI IN SEXTUM HIPPOC. DE MORB. VULG. COMMENTARIUS SEPTIMUS.

VEN. ED., p. 215.

This, which is not in the Basil edition, follows the preceding, in that of Venice. It belongs properly to the consideration of Epidemics;—and it gives a description of the pestilential state of the air, explaining the various and successive symptoms, &c., in thirty-four paragraphs, accompanied with Galen's comments on them.

GALENI, IN SEXTUM HIPPOC. DE MORB. VULG. COMMENTARIUS OCTAVUS.

VEN. ED., p. 220.

As the preceding;—in forty-two paragraphs, and accompanying comments. In one of which (seventh), the "continentia, contenta, impetum facientia" of Hippocrates are explained.

The whole of these Hippocratic tracts, de morbis vulgaribus,

occupy, with their accompanying commentaries, about two hundred and fifty folio pages, and, certainly, are not undeserving of perusal, both on account of the facts stated, and of the explanatory aid afforded by Galen.

XIX. GALENI IN LIB. HIPPOC. DE HUMORIBUS, COMMENTARII TRES.

VEN. ED., p. 225.

These commentaries are not in the Basil edition, but they are in that of Venice (eighth), with a remark that they were not in the preceding editions. They are in different paragraphs; concise, and serving as texts on which Galen has abundantly enlarged; the three containing nearly one hundred paragraphs, and several lacunæ.

This book created formerly much dissension as to its paternity, whether it was written by Hippocrates or by his son Thessalus, or son-in-law Polybius. Galen has his doubts, but inclines to Thessalus. Be this as it may, it is deserving of attention, if only for the purpose of understanding the estimation in which the *fluids* were held in ancient times; and the folly and presumption of those who have at different periods risked the interests of medicine by their absurd attempts *to do without them;* explaining every thing by *sympathy*, and *associated motions*, (which they cannot demonstrate, but give upon trust) among the *solids* of the system alone!—It is not intended to affirm that all here said by the ancients is right, and all of modern date is wrong: it is the want of harmony and co-operation that is to be regretted in these particulars; which, by both parties might easily be surmounted, and a more equitable estimate had of every part of the system. It is the defect of information as to the real extent of the knowledge of our forefathers, that renders us so unjust to their merits, whilst we plume *our* writings with *their* feathers.

The third class terminates with the above. The fourth is now to be noticed. It is very much of the character of the preceding books, consisting chiefly of commentaries on particular parts of the writings of Hippocrates. All interesting, and of much value; yet scarcely capable of being epitomized.

CLASS IV.

SEMEIOTICS.

GALENI, librorum quarta classis, signa quibus tum dignoscere morbos, et locos affectos, tum præscire futura possimus, docet. Eighth Ven. Ed. Title, 1609.

INDEX OF THE VARIOUS BOOKS IN THIS FOURTH CLASS.

		TRANSLATOR.
1.	Galeni de locis affectis, libri sex, - -	G. Cope.
2.	de Pulsibus, ad Tyrones Libellus,	H. Cruserius.
3.	de Pulsuum differentiis, libri quatuor,	Idem.
4.	de dignotione Pulsuum, libri quatuor,	Idem.
5.	de causis Pulsuum, libri quatuor,	Idem.
6.	de præsagatione ex pulsibus, libri quatuor, - - - - -	Idem.
7.	Synopsis librorum sexdecem, de pulsibus, - - - - -	A. Gagaldinus.
8.	de Urinis liber, (spurius, Bas. Ed.)	J. Struthius.
9.	de Crisibus, libri tres, - -	N. Leonicenus.
10.	de diebus decretoriis, libri tres, -	J. Andernacus.
11.	in primum Prorrhetici librum, comment. tres, - - - - -	J. Vasæus.
12.	in Prognostica Hippoc. comment. tres,	L. Laurentianus.
13.	de Præsagiis ex insomniis Libellus,	A. Gagaldinus.
14.	de Præcognitione liber, - -	J. M. Rota.

I. GALENI, DE LOCIS AFFECTIS, LIBRI SEX.

SIX BOOKS ON THE PARTS AFFECTED BY DISEASE.

BAS. ED., tom. iv., p. 5.

BOOK I.

This treatise, taken generally, is of much interest, and of great importance. The very name may be considered as indicating this character. It consists of a general explanation of those various modes that had been adopted, in order to become acquainted with the parts affected by disease; after which the subject is taken up more in detail, that is, as to the affections of individual parts. The whole is deserving of attention, but that is incompatible with our present object: a few particulars from each book are all that can be expected.

This first book sets off with affirming the importance of a knowledge of the parts diseased, and of the necessity of anatomy in attaining that information. Examples are afforded in proof of this; among which is to be found a reference to *the discharge, by coughing, of the bronchial cells,* or portions of them in pulmonary ulcerations, and of the intestinal coats in dysentery, &c.—No action or function of a part, it is asserted, can be injured, unless from an affection of that part, although it may be scarcely discriminated at times, from its slightness, but is only different in degree from that of the highest character. The different subjects adverted to are numerous; in that of retention of urine, the catheter is noticed, and some general divisions are given, in order to facilitate the distinction of affections, and of their causes; thus the obstructed actions of a part, lead to the notice of the excreta, position, species of pain, and the appropriate symptoms. A distinction is made between idiopathic diseases and those from sympathy; and an interesting case is related of distant affections removed by applications made to the spine; and notice is taken of the occasional loss of motion, without the loss of sensation, and of the reverse of this; with other circumstances of much interest.

BOOK II.

Three modes are stated as leading to a knowledge of the parts affected; one has reference to each individual part; a second, to the causes and affections or disposition of the parts; and a third, to the difference in the accompanying symptoms. Many of the remarks in relation to the different kinds of pain, are directed against Archigenes and his observations, and an explanation of that diversity is attempted; a great number are mentioned under a specific nomenclature. The mode and rationale of the means of knowing the seat of a disease and its disposition, are then pointed out, and some cases of interest are occasionally referred to.

BOOK III.

The distinction of primary from sympathetic affections constitutes much of this book. Archigenes is again attacked, and his observations on the loss of memory are critically examined, and his mode of treatment is pronounced to be absurd. This leads to a consideration of the origin of the nerves; and many of the diseases that are dependent on their presence, as convulsions, epilepsy, and others, are cursorily noticed and explained.

BOOK IV.

The affections of the face and fauces, &c., are here taken up, and their distinctive marks; of those of the spinal marrow, in the consideration of which, the subject of angina is touched on, one species of which was supposed to arise from a luxation of the cervical spine. The vitiation of respiration, and of the voice, through the influence of spinal affections: pulmonary affections, hemorrhage from; and a case of hemorrhage from swallowing a leech, is of some interest. One also of Antipatrus, a Roman physician, who died suddenly, after a long-continued irregularity of the pulse, but without much indisposition, or difficulty of respiration, until a few days previous to that event. Some cardiac and thoracic affections are briefly noted.

BOOK V.

In this book are considered the affections of the heart, more extensively than in the preceding; and those of the thorax, diaphragm, with somewhat on phrenitis; the affections of the throat or gullet; of the os ventriculi, and liver; with remarks on dropsy and jaundice.

The palpitation of the heart and its danger, from the connexion of that organ with every part, is particularly noticed; its other peculiar diseases, and those of the pericardium. In various parts, the etymology of sundry organs, &c., is given, and the changes thereof at different periods; stricture of the œsophagus is noticed, and its causes, &c. Some remarks allied to the pulmonary circulation may be found in this book. The diaphragm, septum transversum, phrenes vel mediastinum, is said to have had the first name given to it by Plato, from διαφραττω, to limit or divide, as by a septum, the irascible power of the mind, supposed to be contained in the heart, from that of appetite or desire that was located in the liver. Such are the fluctuations of language, arising from fancy or hypothesis, and by which perpetual difficulty is presented to the advance of science. The os ventriculi, by which is now meant the upper orifice of the stomach opening into the œsophagus, was formerly called *cor;* from whence its name of cardiac orifice; it also had the name of stomachus, or rather, this term was applied to the œsophagus itself, subsequent to the time of Aristotle; whilst in Galen's time it had received the name of gula, from whence our gullet. It is obvious that infinite mistakes have arisen among medical writers by inattention to these changes, in investigating the works of the ancients, and thereby mistaking the accurate meaning of their terms! This ridiculous propensity for coining new names in every branch of science, in place of those well known and long employed, and more especially in medicine and its collateral branches, was never more extensive, (nor more absurdly conducted,) than at the present period, when the "march of mind" seems even to out-herod Herod himself.—A few interesting cases are to be found in this book.

BOOK VI.

Here we have the consideration of affections of the spleen, intestines, kidneys, bladder, uterus, and penis;—among those mentioned, we find nephritis and its various symptoms; diabetes, apparently a rare disease, since Galen seems to have met with but two cases of it, ("eum equidem ante hac, bis duntaxat videre potui.") In speaking of uterine affections, much is said respecting seminal and menstrual retention; and the question "num uterus animal," is duly considered and its absurdity pointed out. The subject of Hysteria, and its connexion with that organ is mentioned, especially as appearing in widowhood; and a curious trait in Diogenes is related; some reference is made to rabies, which is affirmed to be confined to dogs, though extended to man by means of their saliva. In speaking of the diseases of the penis, &c., various passages present an analogy to some of those diseases that are now considered to be venereal. From this brief account of these books, some slight idea of their importance may be had.

II. GALENI, DE PULSIBUS LIBELLUS, AD TYRONES.

A CONCISE TREATISE ON THE PULSE, FOR STUDENTS.

Bas. Ed., p. 166.

At No. xviii. of the *prima classis* of Galen's writings, (p. 491,) we have the treatise "*de pulsuum usu;*" and which, had I not fixed on the arrangement of the Venice and Basil editions, I should have rather connected with the present and succeeding books, as a more appropriate location. It is deserving attention, from having so much in it, of close connexion with the subject of the circulation of the blood; the few extracts given from it will perhaps serve to satisfy most persons, desirous of truth, rather than of being considered "addicti jurare in verba magistri." Before perusing the present treatise, it may not be useless to refer back to the book above-mentioned.

The outline of the *present book* is here presented, more in proof of Galen's ever active mind, than from any estimate of its absolute correctness, or of its practical utility; yet it contains much interesting matter for reflection.

The heart and arteries have a uniform pulsation, though not equally sensible in all the arteries; wherever it is capable of being felt, it is equally adapted for observation; but some parts are superior to others, and of these the carpus is best. The arteries are extended in every dimension, viz., in length, breadth, and depth. The quality of the motion; the interval or time of rest; equality and inequality of. Of a common and inordinate pulse; inequality of one pulsation; of a compound inequality of pulsation; vermicans, fluctuosus, formicans, magnus, longus, latus, altus, vehemens, mollis, celer, frequens, æqualis, ordinatus.—A threefold difference in the mutation of the pulse, viz., natural, non-natural, and præternatural. Each one may learn his own pulse by experience.—Of the pulse in men and women in infancy, and in age, and at intermediate periods. Modification of pulse according to season, country, &c. Pulse in pregnancy; in sleep; on waking;—changes of, from habits, natural or acquired; differences in, from different exercises, or baths, or food; influence of wine, water, &c., on; all which, immoderately used, are præternatural; their action is explained by the vital power, and the character of the pulse induced. Of the pulse of syncopal affections; of anger, pleasure, grief, fear, pain, and its varieties; of the pulse of inflammation; its locality and character, as of the diaphragm, in pleurisy, and its varieties; in empyema, marasmus, the hectic pulse in it, and in phthisis; pulse of peripneumony; of lethargy; phrenitis; catalepsy; catochos; convulsions; palsy; epilepsy; angina; orthopnœa; hysteria;—the pulse, and its diversity in various affections of the stomach; in dropsy, and its varieties; in elephantiasis, jaundice, and in those who have taken hellebore, &c.

We see by this brief *exposé*, to what an extent Galen carried his observations on the pulse; *can it be possible* he never dreamed of, or elucidated the route of the circulation!

In the succeeding books, the subject is very minutely entered upon. These books, are thus denominated.

De Pulsuum Differentiis. Bas. Ed., p. 178.
De Dignotione Pulsuum.
De Causis Pulsuum.
De Præsagatione ex Pulsibus.

Making sixteen separate treatises, and all of greater or less interest.

III. GALENI DE PULSUUM DIFFERENTIIS. LIB. QUATUOR.

OF THE DIFFERENCE OF PULSES.

IN FOUR BOOKS.

BOOK I.

Galen begins with some good remarks as to the use of names. In themselves, they only facilitate the attainment of, but add nothing to the art. He animadverts on the perpetual changes made in them, and on the useless commentaries and disputes on the subject. These seem to have been as numerous as in our times; and to have no less retarded the progress of the science. He then notices the *name of pulse*, on which numerous commentaries appear to have been written, (omnes qui de pulsibus instituerunt commentari," Ven. ed.) Hippocrates seems first to have employed the term, whilst others called it palpitation; and this was a common name both by physicians and the public. He then notices the intention of this book, and proceeds to consider the different genera, species, qualities, or difference of pulses, by all which names they have been called. This leads him on to the consideration of them more in detail; and he gives, in a tabular form, no less than twenty-seven varieties, dependent on the threefold distinction of quick, slow, and moderate; he next considers the *quality* of the stroke.—The difference of sects, some of whom judge of the variety of pulse by the distention of the artery, others by its contraction;—its state of quiescence, and the difference of *it*, and of *the rhythm*, which he explains;—also the different inequalities of motion; with tables, &c., he speaks here of various pulses, such as the undulating, vermicular, formicans, vibrating, and convulsive, &c., and gives an explanation of them, and of several others.

BOOK II.

This second book begins with an explanation of its use. Of the use of names, and of definitions, in opposition to the sophists; some

of whom he severely animadverts on, and calls one of them atrocious. This is a highly amusing chapter; and his description of his arguing with them, and turning them into ridicule, would form an admirable appendage to some of the writings of La Sage or Quevedo. He takes occasion to dwell on the opposition of Archigenes to himself (Archigenes) in his nomenclature. He then states how he discovered the differences of pulses, with reasons for distinguishing the common genera; and alternately lashes his opponents for their opinions, and their nomenclature.

BOOK III.

In this book Galen takes notice of several varieties of pulse; the vehement and languid, &c., refers many of the difficulties and contrarieties on the subject, to the intermixture of terms, and improper definitions. Archigenes, who is again the subject of his attack, errs greatly in even his definition of a vehement pulse; and the perpetual disputation about names, he tells us, had been more than useless, and that they have filled immense volumes with such follies as are undeserving of pardon; for since the subjects are obscure, if man's life was tripled, even then we should have but imperfect acquaintance with them.—Much more to this effect he says, that is deserving of consideration; and calls up for castigation various authors besides Archigenes, as Magnus, Herophilus, Athenæus, Asclepiades, &c., and points out their contradictions and intricacies; he especially speaks of Archigenes and his followers, as "imperitissimi et pertinacissimi," and of their entire ignorance, abuse, and obscurity in their names, when they speak of heavy, light, impeded, and repressed pulses. He gives a laughable interview and conversation with an old man of ninety years; and shows himself a deep critic in nomenclature and etymology, in adverting to the word ῥοιζώδης as improperly employed by Archigenes, meaning as it does, poetically, stridulus, which will not apply to the pulse in question.

It may be a question at present, whether this same term *stridulus* is properly applied to discriminate the peculiar sound in croup, as in different writers.—Objections are made to other definitions of Archigenes; and the host of hard names employed by him to explain the different pulses, are considered by Galen as being both obscure and useless. In this he was unquestionably right, if we may judge from those he has adduced, of which the following few

are samples, as difficult of pronunciation as any Polish or Indian words, in the softly-flowing Greek: *apokekroumnismenos, extethamboumenos, apopepougos, engkaluptomenos, ukopleptomenos, &c., &c.* The Latin translations are not a jot behind, either in obscurity or in utility, as applied to the pulse, and which they could scarcely be divested of, in an English dress, though possibly they might befit the unpronounceable dialects of Wales or Poland. Galen has well bestowed on this wretched host the epithet "id genus nominum immensus numerus." Alone, and separate, adds Galen, these words have some meaning, but they have no appropriate connexion with the pulse. He affords some idea of his own views of a vehement pulse; opposes the Pneumatists in their explanation of a full and empty pulse, and gives some reasons for changing those names. He states what he thinks to be the proper signification of a hard and soft pulse, and the deception of the Pneumatists in respect to them.[a]

BOOK IV.

In this book, we find Galen still sedulous in repelling the ancient definitions, by which each partisan thought fit to transmit the notions of the pulse peculiar to his sect. He assigns some reasons whereby he was compelled to combat the shadows of the Pneuma-

[a] It may be here remarked, as of some interest, that in this book, Galen evidences his acquaintance with the writings of both the Old and the New Testament. He is speaking of the difficulty of divesting one'self of sectarianism in medicine, and repeats from some writer,

"Ut ligna tortuosa nunquam corrigas, virides nec arbor vetus, aliò si transferas, produxerit stolones," &c. He then adds,

"Citius enim *Moysi asseclæ et Christi* decedant de sua disciplina, quám qui sectis sunt addicti et consecrati, Medici et Philosophi."—Basil Edit. 1549, as translated by Cruserius.

In an early edition of the Venice copy, the translation by Cruserius is given as above. But in the sixth Venice edition, it is thus changed:—

"Potius enim *alii omnes* decedant de sua disciplina, quam qui sectis," &c.—Now, why this change? In the *Greek* edition of Basle, 1538, the original words are Μωυσου και χριστω. It apparently can arise only from the Basil copies being from a Protestant press; whilst the Venice *primary* editions, being detected in these obnoxious references of Pagan origin, must have been altered in the subsequent copies, by authority from Rome! There, however, stands the original text in Greek, as given by Galen, and helps to strengthen our views of the universality of his researches.

tists; and explains his opinion of what the pulse properly is; and from what he says, it appears that young physicians, *then*, as *now*, gave publicity to their lucubrations, ("non requirunt multa verba, quibus scatent juniorum medicorum libri.") He speaks of the various definitions of the pulse by the ancients, and the disputes thereon, apparently, as numerous as in later periods. It is a curious chapter, (ii.) and quite as well deserving of attention as any of the speculative treatises of Parry, Hillier, and others. Some defined the pulse, as the motion of the arteries; to this, some superadded that of the heart; others say it is that of only the arterial part of the heart, or ventricle. Further disputes sprung up, as to whether the arteries pulsated by their own accord (sponte sua,) or by that of the heart, &c., and although he freely criticises, he yet seems to admire Aristotle. He notices the different structure of an artery and vein, and regards the pulse as a peculiar motion or action, especially (præcipue) of the heart, and then of the arteries, which, by a vital faculty are excited to distension and contraction, and whereby a degree of native heat is maintained. From Galen's statement, it would seem that the labour would be immense, and useless, to pursue all that had been said on the subject. That it was a favourite one, we cannot doubt; for he tells us, the pupils of Herophilus were the principal leaders of this curiosity, (hujus curiositatis), to whom several of the family of Erasistratus succeeded; and to these, many Pneumatists and Methodists.

In the succeeding chapter, (iii.) he gives the description of the pulse, by Heraclides of Tarentum, Alexander, Demosthenes, Bacchius, Aristoxenes, Chryserneus, another Heraclides of Erythrea, Agathimus, Archigenes, Magnus, Athenæus, Asclepiades and his followers, Moschion, Erasistratus and his followers; many of whom may be recognised as writers quoted by authors of the present day. We must suppose, therefore, that the pulse has always been a subject of great interest, and that among so many learned men, and anatomists, had their writings and observations reached us, in *full*, we should probably find *more* than mere conjecture and distant probabilities, of a well understood and acknowledged circulation. As to Erasistratus and his followers, since they disagreed amongst themselves, as much as they did with other sects, we are led to wonder, says Galen, not so much at the diversity of medical sects, as that *they* differed the most, who were the disciples of the same master!

IV. GALENI, DE DIGNOSCENDI PULSIBUS. LIBRI QUATUOR.

BOOK I.

ON THE KNOWLEDGE OF THE PULSE, FOUR BOOKS.

In this book, Galen remarks on the difficulty of attaining a knowledge of the pulse; and previously recapitulates his division of his books on the pulse, pointing out which are most connected with medicine, and which with philosophy. The first he considers common to both, (de differentiis.) The second and fourth (de diagnoscendis et præsagitione,) to the physician, and the third to the philosopher, (de causis.) Of particulars to be considered in the distension and contraction of the pulse, and in various other points; *how* to feel the pulse. He lays down four principles for knowing the pulse. Investigates the disputes as to whether the contraction of the pulse is felt;—how to apply the hand to the artery, to perceive the contraction; prognosticating by the pulse, and some cautions, &c.

BOOK II.

Here, he notices the *quick* and *slow* pulse, and compares them with the moderate pulse, to which reference is always to be made in becoming acquainted with any other variety. He animadverts on Herophilus and his followers, for being so careless and negligent respecting the pulse.

BOOK III.

Galen defines a *quick* and *slow* pulse, and points out how they are to be known; referring to his previous remarks respecting the intervals of motion, and the force of strength, and, keeping in view the moderate pulse, the state of distension, &c. He points out the attainment of the difference of the pulse in regard to length,

breadth, and depth, (longitudo, latitudo, profunditas), or the quality of the motion; he then notices the mode of acquiring a knowledge of the rhythmus,[a] (interval of stroke, &c., Qu.?) giving a tabular view of his ideas, in two columns, representing the states of *distension* and *contraction* of the pulse;—the commencement of this scale is that of quick (*celer*) in both, and the ending of it is (*tarda*) slow in both; *moderata* in both, constitutes the mean of the scale, and the intervening degrees are filled with varieties in combination of these three terms.

BOOK IV.

Here we have the *hard* and full pulse; and his opposition to Archigenes and other ancients, as to their knowledge of the pulse. He describes how we are to know the stroke (ictus) of the pulse. A *great* (magnus) pulse, by some judged of, from its vehemence; by others, from its hardness. Of a full and empty (vacuo) pulse; some did not distinguish a vehement from a full pulse; and Herophilus and his followers did not know it; whilst Archigenes has written obscurely and erroneously respecting it, and others equally so. Galen then explains a full pulse; full, being first considered as of three kinds. Much interesting and useful matter may be found interspersed through these four books.

V. GALENI DE CAUSIS PULSUUM. LIBRI QUATUOR.

ON THE CAUSES OF THE PULSE.

IN FOUR BOOKS.

BOOK I.

The causes giving rise to the pulse, are here *generally* adverted to, and are very ingeniously treated of under three heads or genera; —some arising from the nature of the instruments or organs; others

[a] Rhythmus—ῥυθμος—proportio pulsuum prioris cum subsequentibus. Castelli, Lexicon.

generated, as it were. He then speaks of these separately; the instrument or artery, and foreign agencies, as heat, emotions, passions of the mind, eating, drinking, exercise, and so forth. The influence of age, as in infancy, &c. The inequality and other changes of pulse, from these and other causes, are noticed.

BOOK II.

As the causes of the pulse *generally* constitute the principal intention of the former book, so those inductive of *inequality* in the pulse, are here considered. Of the causes of inequality in a single pulse,—of the vibratory, and many other varieties of pulse;—all, probably, as fully and as well explained as by any later writer.

BOOK III.

This may be in a measure considered as explaining the operation of the so-called *non-naturals*, in promoting the action and changes of the pulse:—of the pulses of man and woman,—of those of warm temperament,—of thin persons;—of its changes by age, season, climate, and state of air,—of pregnancy,—in sleep, and waking,—from artificial habits or temperaments,—exercise,—hot baths and cold,—food and wine. It is a book replete with interest, independent of its more immediate connexion with the pulse.

BOOK IV.

Preternatural causes are here noticed as productive of modifications of the pulse;—anger, joy, sorrow, fear, grief, pain;—the pulse of inflammation, of pleurisy, suppuration, decay, consumption, peripneumony, and a host of other diseases, are here noted; and, assuredly, in many, with a precision not inferior to any writer on the pulse of the present period.

VI. GALENI, DE PRÆSAGATIONE EX PULSIBUS, LIBRI QUATUOR.

OF PREDICTION FROM THE PULSE, IN FOUR BOOKS.

BOOK I.

Some general remarks on prognostication;—on that from a large and small pulse; from a quick and slow one; strong and weak, hard and soft pulse. In this consideration, the state of the pulse is to be connected with the particular disease, and not simply estimated from itself. The previous books on the pulse should be consulted before reading this. Various pulses noticed, and their changes; privation of pulse; of the long, short, broad, narrow, low and high pulses, from whose varied combinations twenty-seven different pulses originate, &c. Four general differences in distention; causes increasing and oppressing strength; what external causes produce a hard pulse, and a soft one, &c.

BOOK II.

After noticing four differences of pulse according to the contraction of the arteries, similar to those derived from distention, he proceeds to note the prognosis from a frequent and rare (raritate) pulse, by the rhythm, from inequality in, from intermission, &c. Signification of rhythm, and inequality, &c. What pulse affords two strokes in one distention. Signification of certain pulses, as caprizans, dicrotus, and others. What is presaged by order in the pulse, and what by its disturbance. An intermitting pulse in age and in childhood less to be dreaded than in youth.—Many of these terms have maintained their standing in some of the treatises on the pulse in later times.

BOOK III.

In this book, the peculiar pulse in the different diseases of the heart is noticed, and the appropriate pulses of different fevers. He

is very precise in defining his terms; thus he says, that he is about to treat of those pulses that are *peculiar* to affections (affectionibus) or diseases; and he calls that an affection that is preternatural, (præter naturam), and the pulse peculiar to each one, that which perpetually attends it, or most frequently. He then proceeds to the different cardiac and other affections arising from heat or cold; with some observations as to the pulse in pestilential fevers, and on other sources of prognosticating, in which he seems to have observed the heat about the præcordia greatly increased, whilst other parts were cold;—of the pulse in such states.—A very useful chapter follows, on the proper signification of names and metaphors, and its connexion in regard to the pulse is pointed out. The general character of the pulse in fever, and the individual character in some particular kinds, explained. Changes in the pulse, from certain causes acting on the heart and arteries.

BOOK IV.

Presages drawn from the pulse, as modified by affections of other parts, especially those of respiration, nutrition, the head, &c. He notices the pulse, thus created by affections of the lungs, thorax, liver, diaphragm, pleura, stomach, and other digestive organs; and those of various other parts, as inducing sympathetic action.

Thus, then, the sixteen books on the pulse are concluded; but we find, immediately succeeding to them, one entitled, (at least in the Ven. edit.), Synopsis librorum sexdecim de pulsibus, or Synopsis of the sixteen books on the pulse.

VII. GALENI, SYNOPSIS LIBRORUM SUORUM, SEXDECIM, DE PULSIBUS.

VEN. ED., p. 123.

The following preliminary remarks to this book, under the name of "*Censura*," may not be unacceptable to the reader, as showing that Galen had been induced to write such an epitome of his sixteen books on the pulse, that it might be more correct than if committed

to another person; and he commences by a recommendation to read his larger work first, as then, a few words of the synopsis, by association, would recal much to mind.

Galen, at the close of his book "*de arte medicinali*," thus writes, "It is my intention to write another book, in form of Epitome of all my sixteen books on the pulse, which I shall entitle Isagoge, Synopsis, or Epitome!" But in his book, "*de libris propriis*," chapter five, he says, "I have written one other book, a synopsis of the abovementioned sixteen books on the pulse." Now this must be that book abovementioned by Galen, for both the doctrine, and the reasons assigned for writing it evidently prove it. The author refers the reader frequently to the treatise on the pulse addressed to beginners, (Tyrones), and which he sometimes calls Isogogic; also to the larger work in sixteen books, and not unfrequently to the books "*de Crisibus*," and some others. Now as all those are declared by him to be his, this is found conformable to them; and he often declares that much will be gained by a previous acquaintance with the larger work, which he inculcates in the eleventh chapter of the present tract.

He then reminds the reader of the fourfold division of the work, viz.,

1. Of the difference of pulse, and mode of distinction.

2. Of the knowledge of the pulse, and how the distinction is made.

3. Of the causes, &c., of different pulses.

4. Of the prognosis of the pulse, and which he considers as the manifest point for which the whole was written. The danger of attending to names, rather than to facts, is strongly re-enforced. "Often," says Galen, "one word has various significations, and very often the same thing has different appellations, not always or equally appropriate, or of indiscriminate application. There is, therefore, a great chance of some equivocal meaning being bestowed by those who are not fully masters of a language, or of its various idioms," &c., and he therefore strongly urges the absolute necessity of giving to things their correct appellation.

The diastole (dilatation) and systole (contraction) of the arteries have received the name of *pulse*, to which two things or circumstances have relation, viz., the *space* through which the artery moves, and the *time* of that motion. He then assumes the position that four generic differences are to be considered in the diastole of

the artery, viz., as to quantity, time, tenor, and the body of the vessel itself. He hereby distinguishes twenty-seven special varieties in the pulse, though limited by others to a smaller number. Varieties further arise, in relation to the length, breadth, and depth of motion, &c. He attempts to prove, that no other than the above four named generic differences can be found in the diastole, by impugning the opinions of those who have explained a diversity of pulse, from the nature or character of the article conveyed (re infusa) through the artery; it being a question, if arteries were devoid of blood, or contained both it and spirits; also, as to the blood, whether it be serous and thin, thick and viscid, or intermediate between both.

He adverts to many absurdities advanced respecting the pulse; as of the *full* pulse, making three varieties, and confounding names, &c. He then proceeds to notice the different speculations on the systole of the artery; considered by some as sensible, by others, as insensible, and states the division of pulses founded thereon. After this he adverts to the hypothesis respecting the *rhythmus*, or interval between the diastole and systole, as to the equality or inequality of time, inductive of variation in the pulse with respect to strength, continuity, or interruption, &c.; then points out the mode of estimating the quantity of the diastole and systole; and says that the volume or smallness of the pulse, with its other variations, should be attended to in the systole. This is followed by noticing a triple genus of causes of the pulse, designated by the terms continent, antecedent, and procatarctic. This being explained, he points out the uses of diastole and systole; and remarks, that when those are augmented, such and such pulses are induced. He now proceeds to a consideration of the pulse in health, as leading to the knowledge of that which is preternatural or unhealthy; and examines the propositions of Herophilus on the subjects of diastole, systole and rhythmus; says that systole can scarcely be known in new-born children; but that as age advances, the four times or differences augment; and he then directs the reader to the mode of acquantance with the systole and diastole, both in febrile invasion, and in putrescence of the humours. Diastole, he says, relates to inspiration, systole to expiration; and by comparing these, the extent of lesion may be judged of. He then notices some pulses, in which the rhythmus varies; the difference of natural pulses, as induced by sex, age, season, &c., and takes a glance at those natural things or circum-

stances in sickness (symptoms) by which accurate information of the affection may be attained; next speaks of the signs of febrile invasion, and of those which Themison regarded as absolute and certain. He now proceeds to consider the causes of inequality in the pulse, and reckons up *nine* orders of such inequality in one pulse; says that the inequality in *one* pulsation is not in the softness or hardness of the artery; and that if it be in *several* pulsations, it will generally be in frequency or in slowness. He observes that a conjunction of inequalities in one pulse, will enable us to judge which concur in promoting a good or bad crisis; mentions what pulses should be considered in the diastole of the artery; what affection is peculiar to each, and what prognosis may be drawn from them. He then describes a great variety of pulses, under the names of vibrating, waving, undulating, vermicular, formicans, &c., and proceeds to notice some, that in one diastole, have an inequality in different parts of the artery; explains sundry occasional phenomena apparent in the pulse; speaks of the knowledge attained of fever, by means of the pulse; of the different forms of fever, and of the pulse peculiar to each, and of the indications of *crises* to be derived from it. He now proceeds to speak of the pulse peculiar to various diseased states, as pulmonic and thoracic affections, of the diaphragm, liver, spleen, stomach, bladder, uterus and its membranes, muscles, testes, &c., and then takes notice of the diagnostics of those causes (external) by which the pulse is altered in magnitude or diminution, such as baths, frictions, exercise, &c., —what indications are deducible from slow, frequent, intermitting, intercurrent and other pulses; and speaks of inequality as consisting either in the situation or the motion of the parts. In a synoptic view of the whole subject in his last chapter, Galen collects what has been said, and teaches how to prognosticate the termination of disease in health or in death; the time of recovery or death, and the mode of each; embracing in this consideration the rules for knowing whether the *vis vitalis* is weakened by its own exertions, or is overpowered by a host of foreign agencies; and concludes with some remarks on the termination of future crises in various modes.

This hasty summary of the different books on the pulse, occupying nearly two hundred folio pages, imperfect as it is, is sufficient, I should judge, to impress on every medical man, an opinion highly favourable to the illustrious author of these ancient views, had even

nothing further of his writings reached us. Upon the whole, on reviewing the sixteen books of Galen, on the pulse at large, or his condensed synopsis, and other treatises on the subject; I apprehend we may safely conclude that there is full as much good sense and reason in his speculations, as in any of those that have since his time been promulgated by Solano, Bordeau, Nihill, Falconer, and others, down to the later period of Hillier, Parry, and many more in Great Britain, and elsewhere. A comparison of his statements will establish the correctness of many of his propositions; and we may be inclined to doubt, whether a man, who here so fully proves his powers, and the resources of his art, could possibly have drawn his explanations and deductions on the pulse, from dissections and observations of the monkey alone; or that one who observed so cautiously and extensively, could be deficient in a knowledge of the circulation in most, or all of those particulars, which have been so pertinaciously awarded to Harvey! The loss of some of his writings has unquestionably thrown difficulties in the way of knowing the full extent of his information on this, and some other subjects; but enough is here said, in connexion with other parts of his works, to render such opinion not even tenable. I have largely discussed this subject elsewhere,[a] and shall only add, that so many authors are alluded to, whose works and opinions are known to us through Galen alone, as to give a high character to his extensive research and erudition; and our regret must be strengthened, that so much actual information of ancient science, especially that of medicine, should have been lost, in the conflagration of the Alexandrine and other libraries, before the general extension of printing had rendered such an event of comparative insignificance.

VIII. GALENI, DE URINIS, LIBER SPURIUS.

ON URINES.

Bas. Ed., p. 474.

It seems doubtful whether this be the production of Galen, although he did write one on the urines, as he mentions in his first commentary on the humours. That the ancients generally thought

[a] Refutation of Harvey's claims.

more on the subject of this discharge, and attended to it more uniformly and critically than is now done, cannot be doubted; and that many indications, &c., framed on the discharge, either as to colour, density, or tenuity, and other points, were well founded. It must be admitted that we fail greatly, by our almost total relinquishment of its inspection, whilst we sedulously attend to the discharges from the bowels, the stomach, lungs, &c. If these are required,[a] why not also, in a greater degree the inspection of that fluid, which comes freighted with so large an amount of saline and other matters secreted from the blood, and freeing that important fluid from some of its most injurious contents. Why has this occurred? And from what period may this solecism be dated? It may be difficult to respond to these questions. Possibly, the dignity of the Profession was humbled, by the empiric extension of this subject of inquiry, in the hands of the so-called water doctors, who regarded the urine as the sole register to be examined in respect to the patient! In laughing those rogueish medicasters out of countenance, the regular members have occasionally received some rubs, which seem to have caused a perfect obliviscence that the urine was a secretion from the blood; and an excrement whose discharge from the system was of infinite consequence. Its saturation and super-saturation with saline matter, that could find no exit from the circulation except through the kidneys; and the evil to be apprehended from its retention, to the system at large, or to particular parts; conspire to prove that it was deservedly considered of the highest importance by our patient and indefatigable forefathers in medicine! and that, although they may have overdrawn the subject, it is not the less deserving of our favour and protection.[b]

[a] Which are chiefly the mere excrementitious parts of the food taken in; is it possible that the urine coming by secretion from the *interior* of the system, can be justly neglected?

[b] *Water doctors.*—It is well known that within a very few years, some European practitioners acquired large sums by prescribing after simply inspecting the urine of their patient, by which they became fully acquainted with his disorder;—hence their common appellation was that of water doctors. At present our intention in adverting to the fact is merely to introduce a *jeu d'esprit*, applied, it would seem, to the celebrated Doctors Mead and Sloane. Whether either of those gentlemen, in their examination of the urine, went further than mere inspection, as was mostly the case, we know not. It is, however, a *good hit*—and ought not to be lost;—we can join in a laugh on the profession, although members of it; for we well know it is often well deserved. It does not, however, at all diminish our respect for the science, nor for

The author of this treatise, whoever he may be, has presented in successive chapters, all that apparently was then known on the subject; and no doubt, accurate observation on our part, would fully substantiate the truth of many particulars laid down in this and other writings connected with the subject. The treatise scarcely admits of abridgment. The importance of urine, as a *critical* discharge, is considered in the following treatise.

IX. GALENI, DE CRISIBUS, LIBRI TRES.

OF CRISES:—IN THREE BOOKS.

Bas. Ed., p. 482.

The doctrine of crises, it is well known, has at all times been a favourite and plausible one among the most learned members of our science, until within a short period; but even now, when it is considered as having been greatly exaggerated and overdone, in bygone times, there is not a doubt, that *we* still look, (with half assurance of its truth) for the same events, under equal circumstances, as are detailed in the pages of Hippocrates and Galen.

By the term *crisis*, the ancients understood a sudden and rapid change in disease, tending to recovery or to death. In this struggle

those great and able members who have helped to rescue it from that *general* ridicule bestowed on it by Le Sage, Quevedo and others, but which might have been legitimately and advantageously administered in particular cases.

"AN OLD WOMAN'S FUN; OR, THE DOCTORS OUTWITTED.

Two able physicians as e'er prescribed physic,
Were sent for in haste to repair down to Chyswick,
Each took *my lord's water*, viewed, tasted and smelt it,
Then apply'd to his pulse, and immediately felt it.
Quoth Mead, "I'd let blood, as *his lordship's red* water
Denotes an high fever,—and a bolus soon after."
"You are right brother Mead, and (to this, added Sloane,)
He that voided this water must needs have *the stone*;"
—You are out (*quoth the nurse*) and have both of you miss'd,
For it was *not my lord, but my lady* that ——"

Gent. Mag. 35, p. 478.

of Nature, if she prevailed, the patient was saved; but if she succumbed, the tendency was to death. In a more limited application, the term was sometimes used to signify a secretion of some of the humours, through which the semina morbi might be evacuated, and health restored.

Great allowance is to be made for the difference to be perceived, as to the facts themselves of the doctrine of crises, as abundantly set forth by former observers, when we consider the numerous alterations in the habits of life in almost every particular, from those of former times; each in its turn, no doubt, exercising some influence on the regular operations of the living system. Thus, the introduction of many articles of immense consumption, employed primarily perhaps as merely luxuries, but subsequently becoming of absolute and universal necessity. Is it possible such an entire change of habits should be unaccompanied by modifications in the human constitution, and thereby greatly tend to alter the natural actions of foreign agencies, whether of an healthy or morbid influence? Need we mention the articles of tea, coffee, punch, spirituous liquors of every description! the narcotic influence of tobacco amongst the nations of Europe and America, and of opium among the Eastern population, where wine is altogether prohibited! May we not to these superadd the extension of commerce, and the gradual increase of, and facilities in travelling, alike productive of infinite changes in the long established customs and habits of former ages? Changes, moreover, among a large proportion of mankind, arising out of the numerous modifications of religious and sectarian pursuits, that have sprung into existence since the reformation; by which those *salutary* habits of restriction in diet, by temperance and fasting, have been nearly abolished, or at least most imperfectly conformed to!—and latterly, the powerful influence of *liberty*, both of mind and body; which, originating principally through *our* revolutionary struggles, is still advancing, and must continue to advance, until the whole human race shall taste of that (to many, still forbidden) fruit! Consider the invigorated operations of the mind since printing shed its influence abroad; and which was in truth, the principal agency in advancing into broader day, what had before been merely dim and feeble glimmerings, amidst the Cimmerian darkness of the middle ages! Let us, I repeat, advert to these and other circumstances which will present themselves to the mind; and we shall probably discover sufficient causes for those discrepancies

that are to be found in the *critical* observations of the ancients and moderns.

Physicians formerly regarded themselves as merely the ministers of nature,—and acting under this impression, seldom interfered to restrain her operations. In the rapid advance of science, and the march of mind, fancy has not been idle! and the former humble follower of nature, has ventured to take the lead; and amid the revolutions of the world, the physician has assumed the privilege of enforcing, or of counteracting the laws of nature, by means of the adventitious and partial knowledge, that he has (or thinks he has) acquired! But, as the poet says of this mighty power,

"Natura si furca expellas, tamen usque recurrit."

And hence she strives continually to maintain that supremacy, to which she is so justly entitled! Shackled and enchained however by her ruthless tyrants, what can she, for the most part, effect, save abortive attempts; by which too frequently injury is produced, rather than the benefit that might have otherwise been anticipated! Under all the circumstances thus presented for reflection, it will be readily perceived that it would be unnecessary to enter further into the subject; and yet, very much of a practical nature might be attained from a correct translation of the books in question, and many acknowledged truths would be admitted by the reader.

X. GALENI, DE DIEBUS DECRETORIIS, LIBRI TRES.

OF CRITICAL DAYS: IN THREE BOOKS.

Bas. Ed., p. 558.

In the commencement of the first of these three books, Galen explains what is intended by crisis, and critical days, in a very satisfactory manner; and opposes those who deny the existence of the latter. He then enters on the consideration of the doctrine of these days, and that of each in particular; and minutely considers the subject under all its bearings.

In the second book the subject is continued, and that of astral influence is taken up, especially of the sun and moon. Hippocrates

is largely referred to, and, indeed, the whole may be regarded as in a great measure a commentary on that great physician. The comparison is made between the sun and the moon, the changes of the atmosphere from the influence of the latter in its occultation, &c., together with much of a meteorological nature. This is further extended in the third book, the beginning of which is chiefly a recapitulation of the preceding. The sol-lunar influence is as fully unfolded as by Balfour and others of later date. The changes of weather and of the winds, &c., as derived from the appearance of the moon, are given, in the quotation of some Latin hexameters from Aratus, which Galen says are correct; and he gives us his reason for writing this third book on the subject of critical days; which was, a vehement call on him from many friends, to carry it into effect, and he concludes by affording an explanation of what is meant by an acute and chronic, a short and a prolonged disease, &c.

And here we may ask, why the heavenly bodies, or planets, should not possess some influence on the living system both of animals and vegetables, when that influence is admitted on mere brute matter. The production of the tides is attributed to the influence of the moon, although the quo modo is not uniformly established. How far it is really true, is hard to say. Our highly-gifted Franklin doubts its correctness in an interesting essay or letter on the subject! Much may be urged on either side, and whether it be possible to arrive at a perfect solution, may well be doubted.

XI. GALENI, IN PRIMUM PRORRHETICI LIBRUM HIPPOC. COMMENT. TRES.

THREE COMMENTARIES ON THE FIRST BOOK OF THE PRORRHETICS OF HIPPOCRATES.

BAS. ED., p. 616.

There have been doubts as to the first book of Prorrhetics having been written by Hippocrates. However this be, the predictions, (170 in number,) with the commentaries upon them, are not undeserving of attention. They can scarcely be abbreviated: all that need be stated, is, that after pointing out, why predictions are necessary to the physician, we have several of the symptoms or signs, by which predictions are deduced; such as those derived from

the eyes, tongue, mode of lying in bed, and all such as are enumerated in the book of prognostics; and, as it seems to me, they should be conjointly studied, as affording mutual and great assistance. Like all the brief sentences or aphorisms of Hippocrates, they require the able comments of Galen, fully to appreciate them. Like isolated texts, without an explanation, they are very unimportant and incomprehensible, if not inconsistent; a position admitted by Galen himself, who, in the beginning of the second commentary, says, "Multa quidem in libro toto carent perspicuitate."—I may here remark, that this is one of the Hippocratic writings that has been translated by Moffatt, and printed 1788, with "large annotations, critical and explanatory." They serve, however, rather to whet the appetite, and thereby prepare it for the far more extended commentaries of Galen.

XII. GALENI, IN PROGNOSTICA HIPPOCRATIS, COMMENT. TRES.

THREE COMMENTARIES ON THE PROGNOSTICS OF HIPPOCRATES.

BAS. ED., p. 726.

This book of Prognostics is likewise translated by Moffatt, but it is of the text alone of Hippocrates, and unattended by any notes or commentaries, save a few at the foot of a page. Galen has been diffuse in his commentaries. This, like the preceding, can scarcely be abridged; and I could but repeat, what is there remarked. Certainly the comments of Galen in a good translation, would be well calculated to promote reflection; for they are on subjects of much interest and importance. In the Venice edition there appear to be one hundred and fifty-eight sections or texts, whilst in that of Basil, they are made to amount to one hundred and sixty-four.

XIII. GALENI, DE DIGNOTIONE EX INSOMNIIS LIBELLUS.

OF INDICATION FROM DREAMS.

BAS. ED., p. 820.

In this short treatise of scarcely a page, Galen has given us much

on the indications derivable from dreams; and undoubtedly the state of the body must, and does influence that of the mind on many occasions; so that a judicious physician will be enabled occasionally to call to his assistance even the "visions of the night" in aid of his opinion. His speculations as to the state or location of the mind (anima,) during dreams, and sundry speculations as to the causes, &c., are plausible at least as any that can be now advanced; and although this production is of no great importance, it yet affords additional proof of the indefatigable attention paid by Galen, to investigate his patient's complaints by every means that would afford him a probable assistance in attempting his cure!

XIV. GALENI, DE PRÆCOGNITIONE LIBER.

ON PROGNOSIS.

Bas. Ed., p. 822.

This book, addressed to Posthumus, maintains the capability of the physician to predict what is about to happen to each patient. In doing this, the writer informs his friend that he had offended many physicians on his first settling at Rome by the predictions he made on several occasions. He depicts the habits of the medical men, at that period residing in Rome; by which it appears that professional animosity was as high then in that city, as it has been elsewhere, at any time; and he comes to the following conclusion in relation to them, "Ergo, ut apud nos sibi latrones parcunt, et in facienda injuria, mutuo conveniunt, ita medici Romæ nunc habitantes faciunt, hocque solo a latronibus differunt, quod in urbibus, non in montibus scelera perpetrant."—In animadverting on the ignorance and malice of these men, he speaks of patients cured by himself after they had been deserted by them;—of his detecting by the pulse the love and anxiety of a female for a man; together with other cases of considerable interest; and finally mentions his retreat from Rome to his native country; and his recall by the Emperors Antoninus and Commodus;—then recurring to the subject of predictions, he states other instances of much merit, finishing thus the book;—and with it terminates the fourth class.

CLASS V.

OF PHARMACY.

Galeni Librorum quinta Classis eam medicinæ partem, quæ ad Pharmaciam spectat, exponens; simplicium medicamentorum, substitutorum, purgantium, antidotorum, componendorum tam per locos quam per genera medicamentorum, ponderum denique, ac mensurarum doctrinam comprehendit.—Venice Ed. 1609.

INDEX OF THE VARIOUS BOOKS CONTAINED IN THIS CLASS.

		TRANSLATOR.
1.	Galeni de simplicium medicamentorum facultatibus, libri undecim, - - - - - -	T. G. Gaudano.
2.	de substitutis medicinis liber, - - - -	J. M. Rota.
3.	de Purgantium medicamentorum facultate, - - - - - - - - - - -	Idem.
4.	Quos purgare conveniat, quibus medicamentis, et quo tempore, - - - -	Idem.
5.	de Theriaca, ad Pisonem liber, - - -	Idem.
6.	de usu Theriacæ, ad Pamphilianum liber,	Idem.
7.	de Antidotis libri duo, - - - - - -	Idem.
8.	de compositione medicamentorum secundum locos, libri decem, - - -	J. Cornarius.
9.	de compositione medicamentorum per genera, libri septem, - - - - -	J. Andernach.
10.	de ponderibus et mensuris, liber, - -	Idem.

These books, or fifth class, are of interest sufficient to engage the attention of all who are desirous to investigate the theoretic opinions of Galen and others, as to the asserted faculties or powers of simple medicines. It is impossible to abridge them; yet they are full of facts and practical matter; and, to the teacher, they open a wide field of information as to the Materia Medica of the day; and thus enable him to compare its present, with its past extent; and to find not a little, that in later days has been given to the world as altogether novel!

I. GALENI, DE SIMPL. MEDICAMENT. FACULTATIBUS, LIBRI UNDECIM.

OF THE POWERS OF SIMPLE REMEDIES.

IN ELEVEN BOOKS.

Bas. Ed., p. 5.

BOOK I.

Among the many subjects of this book we find *water* pretty fully noticed; and in the course of its consideration, reference is made to mineral waters; and even *artificial* mineral waters seem to have been known. After mentioning saline, nitrous, sulphurous and bituminous waters, Galen adds, "Imitari autem potes sicut marinam, sic aliarum quamlibet," &c. Connected with the subject, we find a speculation as to the cause of thirst, and of tastes, &c. Vinegar also is considered.

BOOK II.

In this book, he attacks the opinions of the Sophists who refused to confide in the senses, and confutes their demonstrations. Here the subject of oil is largely considered, in the course of his arguments against Archidamus. Other practical remarks occur throughout, of a pharmaceutic character.

BOOK III.

Repeating the outlines of the preceding books, the subject is discussed of hot, cold, moist and dry; and something is said respecting the necessity of experience, in order to know and properly estimate the powers of medicines; and this is made to diverge in a variety of particulars, much of which is speculative, and arising out of the hypothesis adopted by Galen.

BOOK IV.

The consideration of some individual articles and preparations is here further pursued. Astringents, bitters, and other divisions of the Materia Medica are elucidated; and the various tastes, &c., are considered as to their essence and existence.

BOOK V.

The uses of medicines are pointed to; such as refrigerate or moisten, and heat or dry the system;—in connexion with some of which the production of pus, of scirrhus and some other affections, &c., is explained; likewise purgation, diuresis, &c., and some other discharges.

BOOKS VI. TO IX.

These books embrace the consideration of all the individual articles, chiefly in alphabetical order, of the vegetable kingdom.

BOOK X.

The powers of medicines as derived from the animal kingdom are here treated of; chiefly, however, of the excrementitious parts, beginning with the blood of various animals; then follow, milk and its preparations, bile, sweat, urine, saliva, &c.—excrements of man,

of the dog, and many other animals, with their differences; and the sordes of the ears and skin!

BOOK XI.

The animals themselves, and their different parts, are herein mentioned. Thus, we have the viper, fox, hyena, weasel, frog, grasshopper, earthworm, bugs, cantharides, and many more. Notice is paid to the fat, lard, marrow, heads, bones, horns, liver, nails, skin, and other parts. Cobweb is also mentioned;—oysters, eggs, snails, crabs, swallows, sponge, and so forth. Several hundred articles are thus treated of in these eleven books, derived from the different kingdoms of nature, that appear to have been employed in the practice of medicine. Some few of these have reached us, and continue, under different indications, to augment the list of the present day.

II. GALENI DE SUBSTITUTIS MEDICINIS LIBER.

OF MEDICINAL SUBSTITUTES.

BAS. ED., p. 322.

Galen tells us that as Dioscorides and others, had written somewhat on this subject of succedania, or a *quid pro quo;* he also deemed it right to state what, in case of need, might be substituted for an article intended, and informs us by what means he was induced to follow it up. Alphabetically arranged, we have a list of two hundred and fifty articles and more, whose place may be supplied by others; and from those enumerated, it would seem of little importance which of them were employed; as for the most part they might be adopted at random.

III. GALENI, DE PURGANTIUM MEDICAMENTORUM FACULTATE.

OF THE FACULTY OR POWER OF PURGATIVE REMEDIES.

BAS. ED., p. 328.

In this treatise, Galen attempts to show, in opposition to Erasistratus and Asclepiades, that every purgative possesses the power of

attracting and discharging an appropriate humour; and that by this means the blood is purified. Not that the humours are capable of transmuting the medicine into themselves, nor is any humour *indiscriminately* discharged by any purgative. Bloodletting, inasmuch as all the humours are conjoined together in the vessels, promotes the discharge of all alike; and such is the case also, when by the operation of a violent remedy, blood is evacuated by stool; otherwise the remedy given, first purges off the humour to which its affinity is greatest, and then one of the others *may* follow. Some useful facts are dispersed throughout the treatise, which, founded on what are now regarded as erroneous data, is, nevertheless not unskilfully managed in the superstructure.

IV. GALENI, QUOS PURGARE CONVENIAT, QUIBUS MEDICAMENTIS, ET QUO TEMPORE, LIBER.

WHOM, WITH WHICH, AND AT WHAT TIME, PURGATION IS APPROPRIATE.

Bas. Ed., p. 340.

This book is by some asserted to be the production of Oribasius, made up from the writings of Galen. It is probably the case, for it is at best, a trifling work, and cannot add to the reputation of Galen. Some good remarks are made as to the occasional difficulty of exciting purgation, from the compact and hardened state of the fæces; under which circumstances enemata should precede the administration of the remedy.

V. GALENI, DE THERIACA, AD PISONEM, LIBER.

OF THE THERIACA.

Bas. Ed., p. 340.

The subject of this book seems to have been a favourite with Galen, who pursues it in all its bearings; and he explains what led physicians to the formation of so compound a remedy. A long list of the articles entering into the composition of the theriaca

forms perhaps the chief value of the book at the present day; and notice is taken as to numerous variations that had been introduced into its formation; its uses, doses, and other particulars find their respective places, both in prose and in verse.

VI. GALENI, DE USU THERIACÆ, AD PAMPHILIANUM, LIBER.

OF THE USE OF THE THERIACA.

BAS. ED., p. 372.

This is considered a doubtful production. It is of little importance in the present day, when its sixty or eighty ingredients have been cut down to fifteen or twenty. It may be regarded as a continuation of the preceding, and as deserving about the same degree of attention.

VII. GALENI, DE ANTIDOTIS, LIBRI DUO.

TWO BOOKS ON ANTIDOTES.

BAS. ED., p. 378.

BOOK I.

In this first book, explanation is afforded of what is understood by an antidote, viz., that it is a medicine, which taken internally, cures the evil affections (malas affectiones) of the body. The author proceeds to mention a great variety of such remedies, and particularly notices the Mithridate, and the Theriaca Andromachi, between which a comparison is drawn, and their preparation is unfolded, and the various frauds therein pointed out. The choice of the various articles is explained, and the different instruments and manipulations described. The preparation of the theriaca of the elder Andromachus is given afterwards in verse, its uses, and in what diseases, &c., and also of the theriaca of Damocrates.

BOOK II.

The subject is here continued; and a great number of antidotes from different authorities are described, many of them in Latin versification. Among the antidotes are many against the bite of a mad-dog, most of which have had their ups and down, in perpetual fluctuation of recommendation and contempt, which it is scarcely necessary to copy. I shall only state that amongst them we find the alyssus, trifolium, crabs-claws, and others that are occasionally still made to appear under the sanction of some quack. As giving us some slight acquaintance with the remedies at that time employed, a cursory glance may prove useful; and whilst laughing at the polypharmacy of past ages, let us not omit to consider, whether in our own time, this folly is not still too prevalent both in our prescriptions, and in our drug-stores; and equally so in the schools of medicine.[a]

VIII. GALENI, DE COMPOSITIONE MEDICAMENTORUM LOCALIUM, LIBRI DECEM.

OF THE COMPOSITION OF LOCAL REMEDIES.

IN TEN BOOKS.

Bas. Ed., p. 450.

Ten books on the subject of remedies appropriate for different parts and their respective diseases!! Specifics and panaceas, no doubt! yet amidst all this work of supererogation, there is to be found a good deal of useful matter, in the description of many of the diseases peculiar to the different parts or organs.

[a] A principal advantage of homœopathic practice consists in their "infinitesimal" doses;—for assuredly, if they do no good, they at least can do no harm; which is more than can be said of the large and repeated doses of the most powerful remedies in the allopathic practice. Nature being, after all, the real practitioner in the human system, she is less liable to be disturbed in her operations by homœopathy; whilst she is too often entirely put out of her way, by the ill-judged, and ill-timed practice of those who view her in the light of a servant, whose province it is implicitly to obey the extravagances of theoretic practice, in which they have been indoctrinated.

BOOK I.

In this we are first presented with the indications of cure, and the general preparation of remedies; followed by an account of the various affections of the hair of different parts of the body, and the different prescriptions at different times proposed. Alopecia is largely considered, and the means of prevention; as also for the growth of the hair; in which Cleopatra figures as a candidate, for the honour of preventing the necessity of a wig! Tinging or colouring the hair is largely expounded; and some treatises on this subject and on general ornamenting of the body, as collected by Crito, who appears to have embraced the whole art and manipulation of cosmetics and their congenera; his four books on which, the delight of the female sex, Galen tells us were in every one's possession. Our present perfumers and venders of arcana, sink into nothing before him; and if his books could be attained, they would indeed prove a treasure! Galen gives the heads of the chapters of each book, but the particulars are unnoticed, probably for the reasons above. One of the chapters is headed "Quæ conservant virginitatem!"—Perfumes, unguents, and other personal and domestic applications are numerous, whether for gratification or the removal of disease. Galen concludes the list, by saying, "In his quatuor libris Crito diligentissimè omnia fermè exornatoria pharmaca scripsit, appositis etiam comptoriis quæ spuriam pulchritudinem non veram inducunt, quapropter etiam ego ea relinquam." He does, however, notice a few articles "quæ pulchritudinem secundum naturam conservant." A chapter on Phthiriasis affords numerous articles for its cure.

BOOK II.

Headache from numerous causes is treated of in this book, its contusions, ulcers, &c., and the appropriate remedies, including amulets, epithemeta, &c., from various authorities.

BOOK III.

The various affections of the ears and nostrils are here considered, and their treatment given.

BOOK IV.

Here the diseases of the eyes and lids, &c., and remedies are noticed; and the multitude of both, would not disgrace our present authorities!

BOOK V.

Continues the subject; and to it succeed the affections of the chin and face, and those of the teeth and gums;—dentistry seems nearly at as high a state as at present; Archigenes, Appollonius, Asclepiades and others have forestalled us in preventing the loosening and fœtor of the teeth; or removing them without pain; and dentifrices were abundant. Crito is equally at home here, as in the first book. Galen's *own* prescriptions, which he mentions as "experimento comprobata" if we could readily verify all the articles mentioned, are here found.

BOOK VI.

Affections of the mouth follow. Many remedies are stated, and their preparation; and many authorities noticed. In this book is also noticed the *removal of the uvula by incision*, and as recommended by Hippocrates; an operation supposed by some of our confraternity to be of recent origin, and ignorantly ascribed to a late celebrated Professor; although it is mentioned by almost every writer from Hippocrates down; and by some of whom even a picture is given of the instruments by which it was to be executed!

BOOK VII.

Affections of the respiratory organs are here given. Dyspnœa, and other difficulties of breathing; hæmoptysis, phthisis, &c.,—remedies, &c.!

BOOK VIII.

This book is occupied with the remedies adapted to affections of

the stomach and liver. The various modes of preparing the Hiera are again given; volvulus, singultus, &c. Liver and its affections.

BOOK IX.

The liver and its affections continued; icterus. The spleen and its complaints, and remedies from various sources. Dropsy, colic, dysentery, affections of the rectum and anus, hæmorrhoids, prolapsus, affections of the pudenda, and of the uterus, especially hysteria.

BOOK X.

Here the remedies adapted to affections of the kidneys, bladder, and joints are noticed; nephritis, sciatica, gout, &c., as described by different authors.

These books have some interest, as containing the remedial measures of many physicians, whose names are not unknown to us; and some amusement may be found in the descriptions given of them, partly in prose and partly poetical.[a]

IX. GALENI, DE COMPOSITIONE MEDICAMENTORUM PER GENERA, LIBRI SEPTEM.

OF THE COMPOUNDING OF REMEDIES IN RELATION WITH THEIR GENERA. IN SEVEN BOOKS.

BAS. ED., p. 788.

Galen, in a kind of preface to these books, informs us that he had previously completed the two first, but that they were unfortunately destroyed in a fire, which burned down the Temple of Peace,[b] and the vast libraries (ingentes bibliothecæ) belonging to

[a] Perhaps but little use can be made of these books, or of those that succeed, amid the infinite changes of pharmacy and chemistry. They will at any rate serve to point out the groundwork of several of our present preparations, and to present to the Profession, proof of the indefatigable industry of their illustrious author.

[b] Vide "de Anatom. Administ. Lib. 1."

the palace. Several other of his writings shared their fate, and he was compelled, from the want of another copy, to renew his labour at the solicitation of his friends. He points out the previous attainments necessary for those who desire faithfully to compound medicines, and reproves those who maintain that in such compounds, the powers of the simple medicines are preserved; telling them they do not distinguish between proper, and acquired powers. He then states what is the use of compound remedies; and treats of a great variety of plasters, and of the principles that enter into their formation, and uses.

BOOK III.

Here, remedies are classed together that are employed in the affections of the nerves, from wounds, punctures, contusions; and he prides himself on being the first to pursue the plan, which differed greatly from that before adopted, and which was generally fatal. Many useful practical preliminary remarks occur, relating to the subject; and the history is given of the first invention by him of his mode of cure. Several other histories of cases are interspersed, pointing out the difference of, and danger of mistaking nerves, tendons, and ligaments for each other; and the equal folly of supposing that all kinds of wounds, ulcers, &c., were curable by one and the same remedy. The remedies of different physicians in such cases are enumerated by him from time to time.

BOOKS IV., V.

Remedies useful in putrid, malignant and other ulcers, are here treated of; many plasters of the elder physicians described. And such is the case in the *fifth book*, derived from every source, and certainly, in number, sufficient for every emergency.

BOOK VI.

This book, consists chiefly of plasters and the like; dignified with the adjunct of *many virtues*, (De emplastris polychrestis),

which they certainly possessed, if only of half the amount attributed to them.

BOOK VII.

Emollient, relaxing, discutient, and other like remedies are here treated of, still closely united with plasters; but differing a little in name, viz., malagmata, acopa, et alia.

X. GALENI, DE PONDERIBUS ET MENSURIS LIBELLUS,—SPURIUS.

OF WEIGHTS AND MEASURES.

BAS. ED., p. 1046.

This book is of importance in determining the value of the weights and measures employed in medicine, in the time of Galen. It is obvious, however, that it cannot be abbreviated; and that it requires close attention in all who may be interested in the consideration of the subject. If not the production of Galen, it may be esteemed as correct, until at least the contrary is proved.

With this ends the fifth class of Galen's works.

CLASS VI.

OF THE INSTRUMENTS OF CLINICAL PRACTICE.[a]

Galeni librorum sexta classis de Cucurbitulis, Scarificationibus, Hirudinibus, et Phlebotomia præcipuo artis remedio tradit.—Ven. Ed. 1609.

INDEX OF THE VARIOUS BOOKS CONTAINED IN THIS CLASS.

		TRANSLATOR.
1.	Galeni, de Hirudinibus, revulsione, cucurbitula, scarificatione, ac Venæ incisione libellus, - - - - - - - - - -	J. Cornarius.
2.	de Venæsectione, adversus Erasistratum, liber, - - - - - - - - - - - -	J. Tectander.
3.	de Venæsectione, adversus Erasistratæos, qui Romæ degebant, - - - - - -	Idem.
4.	de curandi ratione per sanguinis missionem liber, - - - - - - - - -	T. Gaudanus.

This sixth class, although the shortest, is yet, all things considered, one of, if not the most interesting of Galen's works, whether as tending to show his great promptitude in bloodletting, his excellent judgment in relation thereto, or in connexion with his admirable defence of it against Erasistratus and his followers. In most instances his rules are excellent, and some particulars may afford us instruction in several cases of a doubtful nature. If we admit that Galen did not fully comprehend the *circulation* as now (*yet imperfectly*) taught, we cannot doubt that the existence of such a function was strongly and uniformly present in his mind, and that he compre-

[a] Οργανα ες χλινικην.

hended its necessity, and acknowledged its importance, in his regulations for derivation and revulsion! A man who judges so correctly of venesection, and points out so minutely all its details and its practical utility, surely cannot be deemed ignorant of its existence universally; and in acknowledging the possibility of death from loss of blood from a single vessel, from the anastomosis of them in every part; surely, no great superiority over this information, can be strictly or justly ascribed to the assumed discoveries awarded to Harvey.

I. GALENI, DE HIRUDINIBUS, REVULSIONE, CUCURBITULA ET SCARIFICATIONE.

OF LEECHES, REVULSION, CUPS AND SCARIFICATION.

Bas. Ed., p. 1053.

In the first chapter of this book, he briefly notices the multiplied uses of leeches, with the means of insuring their biting, in which ablution of the part is particularly insisted on; and even preparing the leech for the operation, by putting it in warm water, and removing the sordes from their surface by soft sponge, &c.—if applied to the hands or feet, those parts are to be immersed in the water with them. Snipping off their tail, to keep up the flow of the blood, is mentioned; and the subsequent application of cups, if necessary to continue it. Several measures are given for stopping the bleeding when it continues beyond our wishes, amongst which are burnt galls, and heated pitch. He regards the action of this species of bloodletting as confined to the blood of the superficial skin and flesh, and that they are simple substitutes for cupping, and are to be removed when half the amount is abstracted, in order (it is to be presumed) to give place to the cups.

In treating of *revulsion* in the second chapter, some useful practical facts are afforded, even if dissatisfied with his doctrines. Thus, in promoting revulsion from the chest or belly, the application is to be made to the hand; and to the lower parts, when the revulsion is to be made from the stomach to arrest vomition; acrid glysters are recommended for a like intent. The application of cups to the breasts (mammas) is spoken of; and to the præcordia, in epistaxis, or in uterine hæmorrhage, and other particulars are laid down.

In respect to cups, (third chapter,) evacuations are previously recommended; and plethora seems to be regarded as opposed to their employment; for which cause they are not to be used in *the beginning* of inflammation of the brain and membranes, or other parts; but rather after all due evacuations are had recourse to. The effects of cupping are to abstract matter, allay pain, diminish inflammation, discuss swellings, induce appetite, restore energy to a weakened stomach, to cut short deliquium, translate morbid afflux from parts deep seated, restrain hæmorrhage, and benefit menstruation.

The subject of scarification is then taken up, and "multum in parvo" may be said of it; the when, and the where, are briefly pointed out to the reader.

Immediately following this book is a short one, in the Venice edition, called a discourse (sermo), by Oribasius; it is on nearly the same subjects, and taken from his seventh and eighth books, as by him abstracted from Galen, Antyllus, Herodotus, Apollonius, and Menamachus; and in so far as epitomizing several preceding writers, it is by no means devoid of interest. Not belonging to my subject, I, however, pass it by, merely stating that *different kinds* of cups are mentioned, such as *glass*, horn, and brass:—this last being most commonly employed; and the glass is commended from its enabling us to see the amount of blood discharged. The operation is effected with the glass or brass cups, by aid of heat; with the horn, by forcible suction through an aperture. On the subject of phlebotomy, Apollonius, who is very favourable to scarification, says, however, that no one will suspect him of thereby exploding it, for he never omits it in the most dangerous diseases; in which it is requisite to employ it speedily and largely, in proportion to their violence.

II. GALENI, DE VENÆSECTIONE ADVERSUS ERASISTRATUM LIBER.

OF VENÆSECTION, IN OPPOSITION TO ERASISTRATUS.

Bas. Ed., p. 1057.

Erasistratus appears to have been the prototype of old Van

Helmont in his enmity to bloodletting; and severely has Galen animadverted on him and his disciples. He commences this book by saying he deemed it worthy of inquiry, why, whilst Erasistratus had in relation to many trifling remedies, written most minutely, even as to their most insignificant points, as in the manipulations of a poultice, he had been altogether silent respecting bloodletting; even studiously so, whilst many celebrated ancient writers had fully treated of it before his time; and he tells us, that in all his writings, the word venæsection only once is to be found. This anomaly Galen attempts to elucidate, and gives us the opinions of Erasistratus in respect to the origin of fever and inflammation, and their conjunction; and then inquires, why he preferred abstinence to bloodletting, seeing it was so tardy in its effects, when the latter was prompt and immediate. Galen remarks on the *universal* evacuation from bloodletting, its rapid influence, and even the example of nature herself, who was so much esteemed by Erasistratus. The whole book is a satirical review of his opinions and conduct. Neither Dogmatist nor Empiric rejected phlebotomy; and physicians themselves uniting in its employment, only differed as to the amount, the precise period, and the part from which its abstraction was to be made; which points, he briefly treats on. He adverts to the facility of stopping the discharge at pleasure, and of the judgment that may be formed as to the amount *from the change of colour* in the blood as it flows.—Other remedies, after being taken, are no longer under our control, whether they work for good or evil; and this remark extends even to the aliment employed. He ridicules those who call themselves after Erasistratus, and tells them, they did not comprehend him. That their master had only three modes of evacuation,—baths, exercise, and the negative one of diminished diet; which last, he adds, is longer in promoting its effects, and is more injurious to the whole system than venæsection; which is more prompt, and safer, and not unfrequently prevents a rupture of some vessel. On these and other points, much is said, and he repeats that Erasistratus makes no reference to venæsection.

III. GALENI, DE VENÆSECTIONE ADVERSUS ERASISTRATÆOS QUI ROMÆ DEGEBANT.

OF VENÆSECTION, IN OPPOSITION TO THE ERASISTRATEANS OF ROME.

Bas. Ed., p. 1074.

It is probable that the preceding book had called down the indignation of the followers of Erasistratus; and that Galen wrote this, in reply to their affirmations in behalf of their master. He tells us that at first settling at Rome, he found many physicians who so totally repugned venæsection, that they would not bleed in cases of the greatest emergency; some of which cases he mentions, and their fatal issue. He affirms that they even mistook the opinions of their master, and fell into subterfuges on the subject. In evidence of this, he analyses in a masterly manner, several of these cases, which had evidently proved fatal, from a neglect of this evacuation; their errors are largely dwelt on, and combatted; and the practice pursued by them, is justly censured! The reasons assigned by them and their masters, for the omission, are considered; and some judicious remarks are made as to the use of this evacuation, or its omission. In one part of the book we find the unacceptable remark, that "Desiderantur hoc loco non pauca."

IV. GALENI, DE CURANDI RATIONE PER SANGUINIS MISSIONEM LIBER.

OF THE RATIONALE OF BLOODLETTING.

Bas. Ed., p. 1099.

This book may be considered as a full account of every thing connected with bloodletting; such as the mode of operating, and the preliminary considerations leading thereto; what affections chiefly require it, and wherefore; the locality to be selected, whether of an artery or vein, the amount, and other particulars. It is as a whole an admirable book, and deserves to be studied for its

merits as practically elucidating the benefits of venæsection. Unquestionably much useless speculation exists, but this ought not to preclude us from the information to be derived from other parts. The boldness of his practice is conspicuous throughout; his judgment not less so; neither of which are reconcilable to an ignorance or doubt of a circulation, even if some error may be ascribed to his demonstrations, so repeatedly enforced in order to enhance the merits of Harvey. No one has a right to judge in this, who has *neglected or omitted* to read the writings of *both Galen and Harvey;* and yet deems himself adequate, on mere second-hand authority, (too often itself removed alike from actual investigation,) to call in question the knowledge of the former, and to crown with laurel the head of the latter! If Harvey has actually discovered any individual parts of the circulation or its structural adaptations, unknown to Galen, or to any anterior to the period of his own elucidations, let them be *clearly advanced* in his behalf; but that such can be done by his warmest admirers, we have great doubts! for even now, all the mysteries of that wonderful contrivance are far from being fully comprehended, or universally admitted.

In this book, Galen again animadverts on the falsehoods of the Erasistrateans as to venæsection, telling them very plainly, that subtile as they are in their wicked sophistry, they well knew that they were lying at the time (mentiri se sciant), in striving to prove it a novelty. Whereas, many ancient writers, some of whom he mentions, had extolled it as first on the list of remedial agents. He affirms that on every question, reason or experience, or both united, must decide; and refers the reader to his treatise "de plenitudine" as a proper subject, previously to reading this book. He points out some of the circumstances that indicate the propriety of bloodletting, and others forbidding it; together with the general views to be considered when about to prescribe it, and the indications by which its propriety may be judged of. He speaks of its use in gout, and of his cures by it in the spring, as well as by purging; both of which are usually injurious in cases of intemperance, whether in eating or in drinking. He makes a remark of importance to show the conjectural character of medicine, as deduced from the different doses of medicine required; and points out, what cannot be too often repeated, as a guard to presumption in our doses, that such exhibition if erroneous, admits not of correction; whilst venæsection is superior in this respect, since we can at once arrest it; its efficacy is imme-

diate, when from plethora, &c., a violent and acute fever requires to be arrested, by bleeding ad deliquium, yet at the same time with proper caution.[a] He says he remembers thus having drawn off six cotyla[b] (about one lb. troy each) at once; with other instances of a like kind, being at the same time governed by the indications drawn from the pulse, the spissitude or tenuity of the blood, and *its improved hue* from a dark colour; *which last*, he tells us, *was Hippocrates' rule for bleeding in pleurisy*, and he gives various cautions for our benefit. The pulse, he tells us, he particularly attended to, as the blood was flowing, lest, when least expected, death might ensue instead of syncope, as happened in the practice of three physicians. He inculcates what practically we find erroneous, not to bleed (with some exceptions) under fourteen years of age, nor beyond seventy, to which he seems to have been led by some of his speculations on the subject of plethora. A case is recorded of ophthalmia, in the steward of a rich Roman, attended by a physician of the sect of Erasistratus; that is, one who was an enemy to bloodletting; and who had been under his hands for twenty days. By a little finesse, Galen obtained the chance of prescribing for him at his own (Galen's) house for three days, at which he was directed to call. "Venit autem, (says Galen,) circiter horam quintam: ac *prima* protinus *detractione*, *tres sanguinis libras* exhausi, deinde, hora nona, *aliam*,"—and by this treatment, and some topical application, on the third day, he sent him back to his master, nearly or quite restored. The other physician seems finally to have received from the master, the appellative or nickname of αιμαφοβον or sanguifugus.

Galen speaks very decidedly as to bleeding in inflammation of the throat and windpipe; and reprobates those physicians who limit blood-letting to the first days of the disease; some, he says, not

[a] It may be here added, the carelessness of physicians too often in writing their *prescriptions* so illegibly that mistakes are not unfrequent; committed, as they not uncommonly are, to some ignorant assistant. We have heard of death from the mistake of aqua fortis for aqua fontis, and others of a similar description; and we have lately seen a "Correction" publicly given, calling on the proprietors of a medical formulary to correct a *typographical* error as respected the *symbol of quantity* in so highly dangerous an article as prussic acid, in which an *ounce* (℥i.) is prescribed instead of a drachm (ʒi.) Typographical or not, the proof reader and the printer are both reprehensible, and should not have the charge of a publication, in which the lives of the community may be said to be hazarded.

[b] "Cotyla *Attica*, pendet uncias novem, ut Hemina Italica. Cotyla *Italica* vero est libra mensuralis unciarum xii." *Blancard's Lexicon.*

daring to extend it beyond the third, and others the fourth as the extreme; but he adds, we *must bleed even on the twentieth day*, if strength permits, and forbear even on the second, should prostration ensue. He laughs equally at the presumed hour of the day, on which some fixed the operation, as at five or six in the morning, &c. Night or day, says he, makes no odds;—giving at the same time some cautions on the subject; and concluding this interesting book with some remarks on arteriotomy, its dangers and advantages; the danger of aneurism, and even death from not being acquainted with the vessels by dissection; and declaring the necessity of tying up the artery *with a ligature*, when unhappily wounded, (necesse enim hic est laqueo vasculum constringere). He seems not to have omitted arteriotomy in different parts, on many occasions; and notices the circumstance of the ancients having called arteries by the name of veins, as being elsewhere treated of by him.

With this book the sixth class is brought to a termination.

CLASS VII.

THERAPEUTICS.

Galeni librorum septima classis curativam methodum tum diffuse tum breviter descriptam, victus rationem in morbis acutis, singulorum morborum facile paranda remedia, privatam quorundam morborum curationem, chirurgiæ constitutionem, fracturarum ac luxationum sanationem, fasciarum denique et laqueorum, et machinamentorum tractatum continet.—Venice Ed. 1609.

INDEX OF THE VARIOUS BOOKS CONTAINED IN THIS CLASS.

		TRANSLATOR.
1.	Galeni, Methodi Medendi, i. e., de morbis curandis *L. quatuordecem*, - - -	T. Linacre.
2.	de arte curativa, Lib. duo, - -	N. Leonicenus.
3.	in libros Hippoc. de Vict. rat. in Morb. acut. *Com. quatuor*, - - - - -	J. Vasseus.
4.	de remediis paratu facilibus, liber, - -	H. Barlandus.
5.	de remediis paratu facilibus, ad Solonem,—spurius, - - - - - -	J. P. Crassus.
6.	de rem. paratu facil. liber tertius,—spurius, - - - - - - - - - -	Idem.
7.	Documentum de puero epileptico, - -	N. L. Thomœus.
8.	de incantatione et amuletis et colli suspensione,—spurius, - - - -	*incertus.*
9.	Commentarius in lib. duabus de natura humana, - - - - - -	V. Trincavellius.
10.	de Oculis Therapeuticon,—spurius, -	Demetrius, *Græc.*
11.	de renum affectuum dignotione atque medela,—spurius, - - - - -	C. Heyl.

12. Galeni in lib. Hippocratis de officina medici, Com. tres, - - - - - - - - V. Vidius.
13. in lib. Hippoc. de Fracturis, Comment. tres, - - - - - - - - - - - - Idem.
14. in lib. Hippoc. de Articulis, Comment: quatuor, - - - - - - - - - - Idem.
15. de Fasciis, liber, - - - - - - Ven. Idem.
16. Oribasius de Laqueis, ex Heracle, - Ven. Idem.
17. Idem, de Machinamentis ex Heliodoro, Ven. Idem.

In the Venice edition, the following notice appears, " Hos sex libros, quos Vidius olim converterat, nunc idem etiam diligenter recognovit." The last three are not in the Basil edition.

I. GALENI, DE MEDENDI METHODO, SEU DE MORB. CURANDIS, LIBRI QUATUOR-DECEM.

OF THE METHOD OF CURING DISEASES.

BAS. ED., tom. vi., p. 6.

This treatise in nearly two hundred folio pages, may be regarded as a partial consideration of Galen's Practice of Physic, so far as medicine is concerned; for his whole writings point out how greatly he depended on diet. It would be impossible to give even a faint outline of this extensive work within the short limits to which I am restricted. A complete translation would not be useless at the present period.

The first book is a severe castigation of Thessalus (the prince of the Methodists) and of his sect; his principles he inveighs against, and overturns the foundations; pointing out the arrogance of the man, and the injury science had received through him. Some insight is afforded of the follies and vices of Rome, and ascribing the delay of his own writings to the idleness and debauchery every where surrounding him. Addressing himself to his beloved Hiero, he reminds him that he, and many friends, had exhorted him to write on the Practice of Physic; which, he adds, "I truly desire to

do, both to gratify him, and to benefit posterity. Yet, I always delayed, and that on many accounts; the chief of which was, that I feared I should write in vain, since scarcely any at this period paid attention to the seeking after truth. Money, civil power, and voluptuousness, alone took the lead; and all who pursued knowledge were regarded as madmen!" He complains greatly of ignorance in respect to the science of medicine, and of several other sciences at that era; and informs us that Thessalus boasted that he would teach his pupils the profession, in six months; so that, says Galen, it is the fact, that now, cobblers, dyers, carpenters, and blacksmiths, forsaking their respective occupations, at once jump into the Practice of Physic! and the mere compounders of mixtures for painters or perfumers do the same. Hence, says Galen, I feel compelled to detail the methodus medendi, so successfully begun by the ancients, and which their successors endeavoured to perfect.

Can we not here see, as in a glass, the features of that period reflected amongst us, when bookbinders and others, forgetting the precept of "ne sutor ultra crepidam," and recommended, moreover, by the fathers (!) of our science, quit their trades, in order to engage in the practice of physic; and by the assumption of some nostrum, *under their patronage*, realize fortunes, whilst the regular student, after taking his degree, starves in his professional career!

This man, Thessalus, rendered thus immortal by the castigation of Galen, who, noting his excessive vanity, and his envy of his predecessors, has likened him to Zoilus, who flagellated the statue of Homer, and to Salmoneus, who attempted to imitate the thunder of Jupiter; and also to a host of other miscreants, who feared neither men nor gods; this man, he adds, was nevertheless the leader of a sect, that upheld the doctrine of a *fluxum et clausum*, (a prototype of another subsequently maintained under the denomination of *strictum et laxum*.) Thus goes the world; old things become new, by the magic of a few unmeaning words, and by a change of nomenclature. The authors are forgotten, and arrogance joined with usurpation, or literary plagiarism of former doctrines, too often gives repute to the asserted novelties of present times!

The original modes of framing names for diseases are explained in the second book. The distinction of pain and disease, and several other particulars of interest to the medical reader. The third book is chiefly taken up with the consideration of ulcers and

their treatment, both simple, and when complicated with other diseases.—The fourth continues the subject of ulcers of a malignant character, explains their nature, treatment, difference of in form, locality, &c., and this is extended into the fifth book,—all connected with many interesting practical remarks, and observations on the remedies and diet required. The sixth book notices the mode of treatment in injuries of the nerves and tendons, in those of the bones, and of wounds of the peritoneum. The seventh has reference to the stomach and its affections. The eighth embraces fevers, and has numerous dietetic remarks, which are continued in the ninth, together with remarks as to the indications of cure, and on some of the remedial measures, as venæsection, &c. Hectic fever is considered in the tenth book, together with its treatment; and putrid fevers in the eleventh. The twelfth inquires into the nature of a symptom; one or two in particular, as syncope, &c., are especially noticed. Tumours of various kinds, phlegmonous especially, are considered in the thirteenth book; the rise of inflammation, its causes, and variation, according to the parts affected; treatment of, both remedial and dietetic. Several particular cases, as phrenitis, &c., referred to, and many interesting observations are largely dispersed throughout. Complicated tumours and swellings occupy the fourteenth book. Erysipelas, œdema, scirrhus, cancer, anthrax, scrofula, and many others; together with some remarks on affections of the hair and of the eyes.

In concluding this hasty and imperfect sketch, I must repeat that I think a translation of these fourteen books would prove an acceptable present to every intelligent physician; an agreeable *bon-bouche* to all who can divest themselves of prejudices early instilled into their minds, by self-opiniated teachers, both public and private, against the ancient writers, of whom, in fact they know little or nothing. It is time that our medical youth should be led to know and to believe, that "all the talents" are not confined to a few plausible theorists of present times; but that with common diligence, wheat in abundance may be winnowed from the chaff of ancient lore, to their own advantage; and to a conviction that the science, perhaps even the practice of medicine, was as well comprehended and pursued, with far inferior advantages, in the time of Galen as at the present period of the "march of mind." It is devoutly to be wished that a *revulsion* in favour of the ancients could fully and firmly be accomplished; which would be the case, if a translation

should be made of their writings, for who, now studies them in their original dress!—what if there be trash among them! is none apparent in the boasted productions of the present day? Can none, in theory or practice be pointed out, in the syllabi, and essays from our Professorial chairs?—who is it leads the student to believe that nought but trash exists within the musty folios of antiquity? who? why usually some pretender, who mystifies his hearers, and through their means the world at large, by assuming as his own, the opinions and views of others who have long preceded him; and but for which, his ignorance or idleness would have precluded his attaining. Desirous of shrouding the sources of his borrowed plumes, it is necessary to blind those who depend upon him for information, by the assertion that nothing good can "come out of Gallilee!" What! is there no pleasure even in contemplating the embodied *trash* of the early promulgators of science, if only to ascertain how high *we* have ascended beyond them in the route they had begun to trace? If the folios of old, exceed in magnitude, the octavos of our times; these last excel in number, and in rapidity of emission, that by no means compensate the contents of the larger proportion!

II. GALENI, DE ARTE CURATIVA, SEU RATIONE MEDENDI, LIBRI DUO.

OF THE METHOD OF CURING DISEASES.

BAS. ED., p. 366.

These books, addressed to Glaucus, may be considered as the continuation of the preceding, and might without impropriety rank as the fifteenth and sixteenth books; and from these too, may be abundantly gleaned a copious mass of information. The first book teaches us the reasons leading man to acquire information generally, and that of medicine particularly, as arising out of it. To illustrate this, the subject of fever is selected, and the causes and symptoms of the various kinds of fever are successively brought to view, viz., ephemeral, putrid, tertian, quartan, quotidian, continued, &c., affections of the head from various causes; crises, critical days, and numerous particulars connected therewith.

The second book embraces very fully the subject of inflammation,

its varieties, causes, &c., and the indication of cure, by general and topical means; œdema, abscesses, ulcers of different kinds, and morbid swellings of every description, are brought into view; and much practical information is every where to be found.

In these and other writings of former ages, we must be content to take them as we marry, for better and worse.—He must be fastidious in the extreme who cannot find something good; he that anticipates no error in them is a blockhead. In reading them we must "be to their faults a little blind"—at the same time remembering the centuries that have elapsed since they were penned, compare them candidly with those of the present period, and judge thereby of their extraordinary merits. No one will regret the loss of time in their perusal, for infinitely more is squandered away in the attention paid to the voluminous and reiterated *repetitions* in the successive volumes that now issue from the press.[a]

In the writings of Galen, much practical matter will repay his perusal, even when we may be inclined to reject his doctrines; doctrines, however, in which the germs of, I believe, most of late or present notoriety may be discovered. Remember him as a writer of sixteen centuries past! The author of more numerous works than any who preceded or followed him; and admitted chiefly as his genuine productions; besides that of many that have unfortunately been lost,—and of numerous commentaries on the Hippocratic writings; to say nothing of those deemed to be spurious, or merely philosophical, without having any very close connexion with the science of medicine!—Is such a man undeserving of notice by his medical posterity? Is it possible we can be satisfied to know him by name alone? It is high time such apathy should cease for sentiments of a more generous character; and delight would result from pursuing the train of thought that has been illuminated by the midnight taper of the greatest man that our science can boast of. The prince (or tyrant if so he must be called,) of the medical profession for one thousand years, if he is not worthy of consideration, I really know not who is, now! If the giants of medicine, who, during so long a period entered the nets of his disposing, were too

[a] Our medical works (with few exceptions) of the present period, are dull repetitions of some earlier author, *enriched* with a few scattered notes, "to make up a show."—a "repetatur haustus" of professional dexterity.

readily seduced to devour indiscriminately all that they contained; those of the present day are precluded from the same; for the passages have been obstructed by every possible means, that interested motives could induce.

In the Venice edition, at the end of this book, we are told, that here ought to be placed that book which appears in the fifth class, under the title of "Quos, et Quando, et Quibus Medicamentis purgare conveniat."

III. GALENI, IN LIBRUM HIPPOC. DE VICTUS RATIONE IN MORB. ACUTIS, COMM. QUATUOR.

OF THE RATIONALE OF FOOD IN ACUTE DISEASES.—FOUR COMMENTARIES.

Bas. Ed., p. 585.

To epitomize these commentaries is scarcely possible. Galen has divided the four books of Hippocrates on the subject stated, each into short sections or paragraphs, as texts, on which to build his remarks.

The first consists of forty-seven paragraphs; the argument of the book, in the *Venice eighth edition* is as follows, and sufficiently exhibits its contents.

Pertractat de iis, quæ veteribus medicis in acutorum morborum victu controversa erant; ac in primo quidem libro agit de Ptisana."

The second consists of fifty-five paragraphs, thus indicated:

"Exemplo doloris lateris agit de vi ac usu fomentorum, deinde de repentina tum in victu, tum in reliquis rebus mutatione; fusé latéque pertractat."

The third embracing sixty-two paragraphs, is thus headed:

"Exponit vini, mulsæ, oxymelitis, aquæ, et balneorum facultatem."

The fourth contains one hundred and twenty-three paragraphs; headed as follows:

"Liber á quopiam ex Hippocratis discipulis, multis diversisque

theorematis, inordinatéque dispositis, conflatus, quorum plurima ad acutos morbos videntur pertinere."

The reader is referred to the subject by Hippocrates, in the preceding part of this volume.

Following the preceding, in the *Venice* eighth edition we have a short book, itself imperfect in the beginning, entitled,—

GALENI, DE DIÆTA HIPPOCRATIS IN MORBIS ACUTIS.

ON THE HIPPOCRATIC DIET IN ACUTE DISEASES.

From a note given, it appears doubtful whether this work on which Galen discourses, is the production of Hippocrates; but the remark is made, that whoever was the author, he was well acquainted with the doctrine of Hippocrates. Much other matter is contained in it than what appertains solely to diet, yet all connected with medicine, and deserving at least of a cursory perusal, but scarcely admitting of an abstract.

IV. GALENI, DE REMEDIIS PARATU FACILIBUS LIBELLUS.

OF REMEDIES OF EASY PREPARATION.

Bas. Ed., p. 419.

This is a kind of domestic dispensatory or pharmacopœia, affording receipts for the preparation of different remedies for an extensive set of diseases; having a preface explanatory of the treatise, as being written for the use of country people, travellers, and persons living at a distance from medical assistance. It consists of one hundred and thirty-one short divisions or chapters,—in some of which, the precepts of other physicians are given.

Many of the prescriptions might subserve the interests of Charlatanism, by introducing some novelties to their notice. Much of it is praiseworthy, and fully equal to Buchan and his commentators on domestic medicine; superior indeed, in one particular, that of brevity!

We may connect with the above, the two succeeding books, for they are of precisely the same character, and seem as if they were the contents of Galen's common place-book of recipes, &c., derived from all quarters; they altogether form a curious, and not uninteresting part of the works of Galen, or of that age.

V. LIBER DE MEDICINIS FACILE PARABILIBUS, GALENO ASCRIPTUS, LIB. SECUNDUS.

OF MEDICINES OF EASY PREPARATION.

Bas. Ed., p. 447.

This is addressed or inscribed "ad Solonem, medicorum principem,"—and contains nearly one hundred and fifty recipes for sundry complaints and other intentions; some are connected with cosmetics, others for aphrodisiacal uses, &c, "Ad conceptum usum." "Ut mulier marem generet," &c., &c. Some promoting, others to prevent abortion, &c. "Aliquando dormitat bonus (Galenus) Homerus."

VI. LIBER DE MEDICINIS FACILE PARAB. GALENO ASCRIPTUS. LIB. TERTIUS.

Bas. Ed., p. 483.

This third book is called also by the title of "De medicamentis quæ ad manum sunt" (off-hand remedies), and consists of nearly three hundred prescriptions! in omnes ferè morbos, et quibusdem alios!

In these three books may be discovered the originals of many of the panaceas, and receipts of the present age, for Hydrophobia, and the "thousand ills that flesh is heir to." They constitute a kind of romance in the domains of prescription!

VII. GALENI DOCUMENTUM DE PUERO EPILEPTICO.

ADVICE FOR AN EPILEPTIC BOY.

Bas. Ed., p. 518.

This is a letter of advice from Galen to Cæcilianus, who had consulted him respecting his son; in which he enters pretty extensively into the treatment, both remedial and dietetic, which he deemed proper to be pursued, and gives his reasons for the same;—although not capable of being epitomised, it will by its perusal afford information.

VIII. GALENO ASCRIPTUS LIBER DE INCANTATIONE, ADJURATIONE, ET SUSPENSIONE.

ON INCANTATION, ADJURATION, AND CHARMS.

Bas. Ed., p. 526.

This book on charms, amulets and the like, is ascribed to Constantinus Africanus, in whose writings it appears; why it should have been attributed to Galen, does not appear. It commences by an address to Constantine's child (fili charissime), who seems to have inquired as to the utility of the objects in view; and whether any thing had been written on the subject by the Greeks or Indians? To this inquiry, the treatise is a reply; and Galen is referred to in more than one part. Much curious matter is spread over it,—and the influence of the mind or imagination on many occasions is pointed out, and its utility in practice is sustained. The folly of some of the notions then entertained, and which have come down nearly to our times, is pointed out, and the statements of some of the physicians of anterior period, as to charms, &c., are enumerated;

and although he seems to doubt them, further than as operating on the imagination; yet he acknowledges the difficulty of coming to certain conclusions, where not personally present; adding, that as we would doubt the attraction of iron by the magnet, if we had not seen it, so many things may be true, which we cannot comprehend.

IX. GALENI IN LIB. DE NATURA HUMANA, COMMENTARIUS SECUNDUS.

A SECOND COMMENTARY ON THE BOOK DE NATURA HUMANA.

VENICE ED., p. 180.

This book "de Natura Humana," is not acknowledged by Galen as one of Hippocrates. (class 1, no. 3.) This second commentary is on that part of the treatise regarded by Galen as spurious, and which he attributes to Polybius. He divides it under twenty-two paragraphs, as texts for his comments. The operation of some common cause in producing an epidemic is affirmed. The origin of four pair of vessels from the head is properly criticised, and some useful remarks are spread throughout the whole.

X. GALENI, DE OCULIS THERAPEUTICON.—SPURIUS.

OF THE TREATMENT OF OPHTHALMIC AFFECTIONS.

BAS. ED., p. 530.

This treatise, stated to be spurious, gives an account of the eyes, their construction, their tunics, humours, muscles, nerves, &c., the mode in which vision is accomplished, and other particulars relating thereto. Then, after some observations on the primary intentions of medicine in general, in relation to diseases, their causes and symptoms; the affections of the eyes, and of their respective parts, are considered, and the remedial measures to be adopted for their removal. An immense assortment of collyria is presented, headed "de collyriis multis ad oculorum ægritudines," and the patient must be hard to please who cannot find one for his purpose.

XI. GALENO ASCRIPTUS LIBER DE RENUM AFFECTUUM DIGNOTIONE ET MEDICATIONE.

OF DISEASES OF THE KIDNEYS, AND THEIR TREATMENT.

Bas. Ed., p. 566.

The kidneys are here described, as to substance, situation, parts, and uses. Nephritis, calculus, and other renal and vesical affections, are duly treated of. The causes of calculus, symptoms, &c., and of those impacted in the urethra. Difference of calculi in size, situation, figure and colour. Cure of, and relief, by various means, of a general character; followed by those adapted to particular cases. The latter part of the treatise is especially intended for, and is addressed to an individual labouring under calculus. Another tract upon the subject is partly promised.

XII. GALENI, IN HIPPOCRATEM DE OFFICINA MEDICI.—COM. TRES.

THREE COMMENTARIES ON THE HIPPOC. TREATISE OF THE OFFICE OF THE PHYSICIAN.

Bas. Ed., p. 746.

There seems some doubt with Galen, whether this treatise is not the production of Thessalus, one of the sons of Hippocrates, and intended by him simply as hints for remembrance. The commentaries on each paragraph are pretty extensive, and many of much interest. Indeed the treatise is itself far too brief to be properly comprehended now, without the aid of Galen. The second of Galen's commentaries commences with that part of Hippocrates' treatise that treats on bandages, and the right indication for their employment. In the Venice eighth edition we are presented with a series of engravings of the various bandages affixed to different parts of the head, body and extremities, with copious remarks. The subject is continued in the third commentary, and not a little is said

on fractures and luxations, which is, however, more fully pursued in the succeeding book.

XIII. GALENI IN LIB. HIPPOCRATIS DE FRACTURIS, COMMENT. TRES.

THREE COMMENTARIES ON THE BOOK OF FRACTURES BY HIPPOCRATES.

Bas. Ed., p. 840.

In these three commentaries the subject of fractures is largely discussed. After some preliminary observations as to the general nature of fractures, and the indications of treatment, they are individually considered, and some rude plates are given as explanatory of some parts, in the Venice edition. Luxations of sundry joints are treated of, as those of the femur, knee, ankle and others; and figures of some of the machines for extension in reducing them, are also afforded; some of which, probably, might be occasionally useful where at present pullies are employed, but which are not always to be had in the country at a moment's warning. Compound fractures, &c., constitute the subject of the last or third commentary, with some accessory observations on bandages, luxations, &c. Some of the cuts given, look considerably like splints, &c., that have given celebrity to later writers!

XIV. GALENI, IN LIB. HIPPOC. DE ARTICULIS, COMMENT. QUATUOR.

FOUR COMMENTARIES ON THE BOOK OF HIP. ON LUXATIONS.

Bas. Ed., p. 944.

As the preceding book, though nominally appropriated to fractures, contains much on the subject of luxations, so this, which is connected chiefly with luxations, has much respecting fractures. In the Venice edition we have a considerable number of cuts, explanatory of the processes pursued in the reduction of different luxations, especially of the humerus; the symptoms of each are pointed out,

and the rationale of the process pursued. As in the former, so in this, it would be impossible to give an epitome of the contents. The subjects are copiously handled, and especially some of the most important; thus, on the luxation of the femur, we have it treated of, under the following heads.

De Femore ex coxa prolapsa; divided under four varieties.

De capite Femoris in *exteriorem* partem luxato.
De Femoris capite in partem *priorem* luxato.
De Femoris capite in partem *interiorem* luxato.
De Femoris capite in partem *posteriorem* luxato.

There is a good deal of very singular and *heels-over-head* business in these books; for, under some circumstances, the reduction is made by hanging the patient by the legs, head-downwards, as described, and exemplified by engravings, and probably, in practice, not unavailing. Should curiosity lead any one to peruse these commentaries, some pearls may be found amongst a good deal of rubbish.

XV. GALENUS DE FASCIIS.

ON BANDAGES.

VEN. ED., p. 293.

The Latin translator (Vidus Vidius,) of this, which does not appear in the Basil edition, in an address to the reader, informs him that this is one of the three treatises on bandages, by Galen, Soranus, and Heliodorus; of which he gives only this, of Galen, since whoever knows it, will be masters of the other two. Satisfied that this is Galen's, he remarks that it is the very book he promised, in the second commentary: "De Officina Medici." As some few things are wanting that are found in Soranus and Heliodorus, he has here inserted them. Some further information of not much importance, is added, and the treatise itself immediately succeeds.

Various bandages (and many plates) for the head are described from different authorities, seventy in number;—followed by others

for the luxation of the extremities; fracture of the clavicle; suspensory and other bandages, all derived apparently from other writers; and some not undeserving of present notice. Some indeed are in use amongst us.

XVI. ORIBASIUS, DE LAQUEIS, EX HERACLE.

OF A NOOSE OR LIGATURE.

VEN. ED., p. 306.

This treatise introduced into the Venice edition, is only noticed here from that circumstance. It is, says the Translator Vidius, praised by Galen in his book on bandages (de Fasciis), and is elsewhere noticed by him, yet in the Greek copy, he adds, it is referred to Oribasius. However this be, he further remarks, there are many things in it necessary to the elucidation of medicine. The subject matter is that of ligatures, of various kinds, for tying up bandages or dressings, extension in the reducing of fractures, &c. Cuts are given of these, nearly twenty in number.

XVII. ORIBASIUS, DE MACHINAMENTIS, EX HELIODORO.

ON SURGICAL MACHINERY, OR APPARATUS.

VEN. ED., p. 309.

What is said above, will apply to this treatise on the machinery employed. It appears to be a collection made by Oribasius, from Hippocrates, Galen, and other authors—giving the description and use of such machinery, with the rationale of its employment. It is accompanied by figures.

This concludes the seventh class.

ADDITIONAL CLASS.[a]

Galeni extra ordinem Classium Libri, in quibus breves rerum determinationes traduntur, quarum perceptio, superiorum librorum lectionem requiret.—Venice edition, 1609.

INDEX OF THIS ADDITIONAL CLASS.

		TRANSLATOR.
1.	Galeni in Aphorismos Hippoc: Comment; Septem. - - - - - - - - -	N. Leonicenus.
2.	adversus Lycum, in Aphor.: Hippoc.	J. Alexandrino.
3.	contra ea quæ a Juliano in Hipp.: Aphor.: dicta sunt. - - - - -	Idem.
4.	explanatio linguarum obsoletarum Hippocratis. - - - - - - - -	J. Cornario.

The aphorisms of Hippocrates are in the hands of most physicians. They have been much read, and much commented on. They are in fact, almost the only part of his writings that are familiar to the Profession; and with much to be admired, and admitted as truth, contain not a little error. The commentaries of Galen are, in many parts interesting, and much practical use may be acquired from their perusal. An abstract of them is impossible. The aphorisms are singly taken, as texts, on which Galen very learnedly expatiates. All the three first numbers of this class, are of the same character. The latter (No. iv.), though united with these aphoristic books, is merely an explanation of obsolete words in the Hippocratic writings, and of consequence

[a] Το αφοριστικον.

forms a kind of lexicon in alphabetical order. The second number is a contradiction of the opinion of Lycus, in respect to a certain aphorism (fourteenth) of Hippocrates; and the third in like manner opposes some of the assertions of Julianus relating to the aphorisms.

We leave this class, and proceed to mention, what are in the Venice edition denominated "Spurii Libri," and in that of Basil, "Libri Galeno ascripti."

SPURII GALENO ASCRIPTI LIBRI.[a]

"Qui variam artis medicæ farraginem ex variis auctoribus excerptam continentes, optimo, quo fieri potuit, ordine sunt dispositi, et in unum corpus redacti."—Venice Ed. 1609.

These contain, as above stated, a vast medley of the medical art, extracted from numerous sources; disposed of in the best mode that could be devised, and brought thus into a compact form. A mere enumeration of the titles must suffice to show their respective character. There is, however, contained in them an abundant harvest of interesting and curious matter, deserving the attention of the philosopher and physician.

I. GALENI LIBER DE HISTORIA PHILOSOPHICA.

OF THE HISTORY OF PHILOSOPHY.

J. M. ROTA, TRANSLATOR.

This is very interesting. It begins with an account of the origin of philosophy, both moral and natural, prior to Socrates, the succession of the philosophers, sects, denominations, &c. &c. Metaphysics are largely dwelt on. God, the soul, necessity, fate, and an infinite number of topics of much interest, are successively considered. It would exhibit a curious outline of the different ideas of the philosophers of successive ages to the time of Galen, if clothed in a modern language!

[a] Τα Νοθα.

II. PROGNOSTICA DE INFIRMORUM DECUBITU, EX MATHEMATICA SCIENTIA.

MATHEMATICAL PROGNOSTICS ON THE DECUBITUS OF THE SICK.

This is a most singular production, and probably was highly instrumental in introducing astrology into medicine. Under the name of mathematics, which is here highly extolled, astrology seems to be intended; and its utility to medicine is insisted on, from the authority of Hippocrates and Diocles. The figure (configuratio) of the moon is run through all the signs of the Zodiac, and the effects in disease, &c., largely enumerated and predicted.

III. GALENI, DE PARTIBUS ARTIS MEDICÆ.

OF THE DIVISIONS OF MEDICINE.

N. R. CALABRI, TRANSLATOR.

The divisions of the science as made by different men, are enumerated and criticised; after which the author gives his own. The translator says of this book, "Qui nisi Galeni fuerit, eo tamen auctore dignus videtur."

III. GALENO ATTRIBUTUS LIBER DE DYNAMIDIIS.

Desideratur principium.

IV. GALENO ATTRIBUTUS LIBER ALTER DE DYNAMIDIIS.

What is spoken of in the first of these tracts, is stated to be more fully detailed "In libris facultatum medicamentorum simplicium." The greater part of the latter is said to be derived from Aetius. The term dynamis seems to imply, that the treatise is a store-house or assemblage of remedial means, and which are here noticed.

V. GALENO ASCRIPTUS LIBER DE SPERMATE.

ON THE SEED.

This treats of the male and female seed, and of its product the fœtus; with the influence of the seed, as to the greater or less amount of either, in determining the sex and its qualities, &c., according as conception is produced under the influence of the sanguine, choleric, phlegmatic or other temperament; or as connected with the state of the humours of the body, of the heavenly bodies, planets, &c. Some remarks appear to be connected with the planetary influence on disease, &c.

VI. DE NATURA ET ORDINE CUJUSLIBET CORPORIS.

Treats of the nature and effects of the four humours constituting the body of man. Of the fœtus in utero, in the disposition of its formation. A slight sketch is given of the anatomical structure of man. The book is correctly said to be "ordine et judicio carens."

VII. DE ANATOMIA PARVA. ASCRIPTUS GALENO.

ON COMPARATIVE ANATOMY.

This assigns some reason for Galen and others dissecting brutes. It points out the mode, and gives the anatomy of the hog, which in its internal structure is said to be closely allied to that of man. A most ridiculous description is given of the anatomy of the uterus and of the brain. The book is properly stated to be "maxime deridendus."

VIII. DE ANATOMIA VIVORUM.

OF THE ANATOMY OF LIVING SUBJECTS.

The body is divided into simple and compound parts, which are

respectively treated in detail. The book is said to contain much that is correct and worthy of Galen, but much also that is the reverse of this.

IX. DE ANATOMIA OCULORUM.

OF THE ANATOMY OF THE EYES.

N. REGIUS, TRANSLATOR.

A concise description of these organs, their coats, humours, &c.

X. DE COMPAGINE MEMBRORUM, SIVE DE NATURA HUMANA.

"Aliqua et hic vera, aliqua deridenda," says the editor. The book is partly anatomical, in part physiological. We have here a speck of phrenological location of the admitted faculties of the mind, when speaking of the brain and its division of parts. "Intra quam sunt divisiones tres, prima dicitur phantasia: secunda rationalis: tertia memorialis. Inter phantasiam et rationalem est pannus quidam frigidus et siccus," &c., &c.—"Ex memoriali vero procedunt duo canales tenues et humidi, qui penetrant per totam compaginem, et veniunt usque ad phantasiæ cellulam, per quos possit phantasticus spiritus et rationalis commendari memoriæ, et iterum memorialis duci ad rationem et phantasiam." The faculties, it would appear, then belonged to the *peripatetic* school! and were not permanently attached to one habitation.

XI. DE VIRTUTIBUS NOSTRUM CORPUS DISPENSANTIBUS.

"Ex veris Galeni libris fragmentum," says the editor.

The powers or faculties (virtutes) have their origin in three sources, viz., the heart, the head, and the liver;—the influence or effects arising therefrom. Animal and vital spirits. Generation is under the influence of all three.

XII. DE VOCE ET ANHELITU. TRACTATUS QUATUOR.

Of the voice and the organs producing it. How effected, impeded or lost. Diversity of, in gravity, or acuteness, &c. Injuries of the medulla spinalis, how affecting the voice and breathing. Natural breathing, if voluntary.

XIII. DE UTILITATE RESPIRATIONIS.

Many of the things in this book, the editor says, are correct, but for the most part are taken from Aristotle. The consideration is interesting, from the facts and speculations found in it.

XIV. COMPENDIUM PULSUUM.

"Liber jejunus, sed non omnino rejiciendus," says the editor.

XV. DE MOTIBUS MANIFESTIS ET OBSCURIS.

This treatise attributed to Galen, is stated to have been translated from the Greek into Arabic by Johannitius; and from the Arabic into Latin, by Marcus. By such repeated translations, several errors have been introduced. Galen mentions this book in several places; nor is it undeserving of attention. It may afford a slight idea of its contents to state that in ten short chapters the following subjects are embraced. Of the faculty or power of motion in different parts, its causes, &c. Of the motion in respiration, and of the difference of opinion as to its being voluntary or involuntary. A comparison drawn between such involuntary, or non-manifest motions, and the intestine motion of some fluids, &c.; of the motion of the penis; of the tongue; of the motions of vomiting and swallowing; of the motion of the eyelids; of the motions excited in coughing, laughing, and sneezing, &c.

XVI. DE DISSOLUTIONE CONTINUA CORPORIS HUMANI.

Many parts of this treatise are derived from Galen's books, "De alimentis et cibis boni et mali succi," and it is supposed to have been written by some one long after him. It consists principally of a statement of the nature of the food, with which the body is supplied, to make up the deficiences arising from the discharges.

XVII. DE AQUIS, EX GALENO, ET ALIIS PRÆSTANTISSIMIS MEDICIS.

A. GADALDINUS, TRANSLATOR.

The Venice eighth edition says that this book is entitled in the previous editions "De Bonitate Aquæ," and is greatly mutilated. It here consists of six chapters, derived from Oribasius, who has extracted them from different sources, as Galen, Rufus, Diocles, Athenæus, &c.

XVIII. DE VINIS. EX GALENO.

A. GADALDINUS, TRANSLATOR.

From the medical tracts of Oribasius.

XIX. PRÆSAGIUM EXPERIENTIA CONFIRMATUM.

G. VALLA, TRANSLATOR.

An imitation of some of Galen's books, but trifling in execution. It treats of præsages, in general, and of the signs indicative of future fever. Something is said on sweat, and bloodletting, on which last, evidence of bold and energetic practice is apparent, and is extracted from Galen.

XX. DE URINÆ SIGNIFICATIONE, EX HIPPOCRATE.

G. VALLA, TRANSLATOR.

XXI. DE SIMPLICIBUS MEDICAMINIBUS.

A short description of a long catalogue of remedies, addressed to a friend, whose diligence and skill he warmly praises. They are arranged in alphabetic order. It will serve for reference.

XXII. DE VIRTUTE CENTAUREÆ.

A book, says the editor, which though probably not from Galen, yet much is to be found in it not devoid of reason. It contains an account of two species of centaury, their powers, preparation, and use in disease.

XXIII. DE CATHARTICIS.

An incorrect (corruptus) book, says the editor, and to be cautiously compared with the true writings of Galen. Cathartics are here intended to apply to other evacuants than mere purgatives. In this book are therefore considered, not only such, but those also that cause vomition, a discharge of tears, or from the ears, nostrils, lungs, and thorax, liver, spleen, kidneys, and uterus, &c. Some useful hints may be derived from its perusal.

XXIV. DE GYNÆCEIS, ID EST, DE PASSIONIBUS MULIERUM.

N. RHEGIUS, TRANSLATOR.

A trifling treatise according to the editor. It consists of various prescriptions, for numerous female affections.

XXV. LIBER SECRETORUM.

ADDRESSED TO MONTEUS.

Although these secrets are not from Galen, yet, says the editor, something may be derived from their perusal. They consist of prescriptions, with an occasional record of some case in point, somewhat as a puff direct. An ingenious quack might here find arrows for his quiver! as well as advertisements for the public. Some of the prescriptions have so many ingredients, that the disease must be fastidious, that could not pick out some one for its benefit.

XXVI. DE MEDICINIS EXPERTIS, VEL MEDICINALIS EXPERIMENTATIO.

This is rather a singular treatise, and may *possibly* be correctly ascribed to Galen, judging from its beginning. "The lightning, says the author, which struck the altar, burnt up the King's books, and together with them, many medical works; many books of my own were destroyed, some of them complete, and some merely commenced. I do not so much regret them, as I do the loss of many experiments in medicine contained in them, which I had obtained from several excellent experimenters; for some of which thus obtained, I returned perhaps several, or purchased them for cash." It would seem, however, that copies must have been kept of many of them, for at the close of the preface, we are told that he composed this book, from medicines he had himself tried, and acquired from good physicians; and adds, that here are to be found not the remedies of universal note, but such, as for the most part were unknown to all. "If hereafter I acquire more, I will write another book respecting them." He then proceeds to give prescriptions for these remedies, received from sundry Empirics, and other physicians and philosophers, whose names are stated; concluding with some, which "multoties experti sumus." The whole is a curious farrago, and as a curiosity may deserve inspection.

XXVII. DE MELANCHOLIA, EX GALENO, RUFO, ET POSSIDONIO, AB AETIO[a] CONSCRIPTA.

J. CORNARIO, TRANSLATOR.

This disease seems to have had as many vagaries formerly, as at present, and to have been equally difficult of cure. The rationale of some of these vagaries is attempted, such as of those who considered themselves to be an earthen pipkin, (vas fictile.) Another who thought he had no head.[b] The observations are in many parts judicious; and the treatment is perhaps fully as correct as any now pursued.

XXVIII. DE CURA ICTERI.

Much herein, says the editor, is true, and derived from high authority. Phlebotomy and evacuations both up and down, with topical applications are urged, such as cataplasms, cups, &c. Baths, diet, &c., are not omitted, and various medicines are enumerated for particular indications.

XXIX. DE CURA LAPIDIS.

If judiciously perused, says the editor, something useful may be obtained. The treatise is regarded as of Arabian origin. Much utility is ascribed to diet and certain remedies in destroying the stone; and several prescriptions are interspersed, most of which seem to be of the order of diuretics. Some directions are given for the cure of incontinence of urine.

XXX. QUÆSITA ASCRIPTA GALENO, IN HIPPOC. DE URINIS.

These appear to be inquiries (to be pursued) as to certain points

[a] Lib. 6. cap 9.

[b] And girls turned bottles, call aloud for corks."—Pope.

on the subject of urine in the Prognostics and Aphorisms of Hippocrates.

XXXI. LIBER DE HUMORIBUS.

A. GADALDINUS, TRANSLATOR.

Probably short minutes of the larger treatise on this subject, under class third. Of little importance. Not found in the Basil edition.

XXXII. DE PLANTIS. TRANSLATUS DE ARABICO.

This appears to be a glossary of *Humain*, an Arabian, on several plants, &c., mentioned by Galen, possessing certain occult qualities, not fully investigated or proved, and which *Humain* undertakes to explain and illustrate under forty-six heads.—Not in the Basil edition.

XXXIII. DE CLYSTERIBUS ET COLICA.

This would seem to be also from the hand of *Humain*, and is stated to have been translated into Arabic from the Greek, and from the Arabic into Hebrew: the Latin Translator is not mentioned. Some good remarks occur as to glysters, and numerous prescriptions, adapted to various ends, especially in cases of colic.

With this, the Libri Spurii terminate, and a short series called *Fragments*, bring the writings of Galen to a conclusion. These are merely enumerated. They do not appear in the Basil edition.

FRAGMENTS.

GALENI, operum quorundam, quæ aliquo modo mutilata ad nos pervenere, FRAGMENTA, ad varias medicinæ partes attinentia, quæ proximæ tantum ante hanc editiones evulgaverant.—Ven. Ed. 1609.

1. Galeni, Commentaria quatuor in lib. Hippoc. de Alimento.
2. Fragmentum comment. in duo lib. Epidem. Hippocratis.
3. Brevis Denotatio Dogmatum Hippocratis, &c.
4. Fragmentum ex quatuor comment. quos ipse inscripsit de iis quæ medicè dicta sunt in Platonis Timæo.
5. Fragmentum de Motu Thoracis et Pulmonis.
6. Vocalium Instrumentorum Dissectio.
7. Fragmentum de substantia facultatum naturalium.
8. Frag. exiguum, ac mendosum Galeno ascriptus, cujus Titulus est Sermo adversus Empiricos Medicos.
9. Fragmenta ex Aphorismis Rabbi Moysis collecta.
10. Fragmenta ex Rasis lib. contin. collecta.
11. Coena Philosophica, ex Athenæo.
12. Ex libro Nemesii de anima, cap. duo.
13. De morsu, qui in ægritudine percipitur :—ex incerto.
14. Ex Themistio, in Paraphrasi quarti de naturali auscultatione, cap. quadriginta tres.
15. Ex Simplicio, in quartum de Natur. Auscult. Aristotelis. comm. quatuor-decem.
16. Ex Averroe libro priorum Aristot. primo, Cap. octo.

All the above are of slight importançe, further than as completing from every quarter all that relates to Galen and his works. The whole of the writings thus noticed briefly in the foregoing sheets, occupy several hundred folio pages, spread through six or

seven volumes in the Latin, and five in the Greek. A new edition in the present style of typography had been long wanting,[a] for numerous difficulties attend the perusal of the older copies, and are sufficient in the present day to preclude most persons from making the attempt. A few of these I shall notice. They consist of numerous contractions, omission of complete syllables, and often of the hyphen at the close of a line, in the division of the syllables of a word. The extreme closeness of many words to each other, at times nearly running into one another, as though but one. The use of one letter for another, as *j* in place of *i*, (thus *ijs* for *iis*, *v* for *u*, and reversely.) Of which the following are examples.

uictus	for victus,	uero	for vero,
vrina	" urina,	uua	" uva,
cauam	" cavam,	apvd	" apud,
vlcus	" ulcus,		

Contractions, &c.

oēs	for omnes,	errātes	" errantes,
oīa	" omnia,	solēt	" solent,
autē	" autem,	profluuia	" profluvia,
scdm	" secundum,	vuulā	" uvulam,
tūc	" tunc,	&c.,	&c., &c.

All these, and many others—together with a want of stops at times; at others, a full stop, followed by a small letter—render the reading very far from desirable. In the days of those editions, such contractions and other particulars enumerated, were fully understood, and were productive of neither mistake nor difficulty. Not so now, especially since the Latin language has become much less familiar. Now, these are not of merely rare occurrence; but occur by scores in every page, and as they are not *uniformly* maintained, the labour is much augmented.

At the end of Le Clerc's " Histoire de la Médecine," he has given us an apology for the condensed view he has afforded of the writings of Galen, which will serve with equal force in behalf of the

[a] This has been effected by the assiduity of the learned Gottlob Kühn, Professor of Physiology and Pathology in the University of Leipsic, in 1832, but whose edition did not come into my possession, until the preceding abstract was completed. It would have saved me much trouble had it reached me at the period of its publication.

editor of this volume; and which the editor begs to place before his readers with a like intention.

"Si l'on avoit voulu entrer dans un détail qui eût renfermé tout cela, il auroit fallu faire un gros livre; à moins de quoi il auroit été impossible de rendre exactement raison de tout ce qu'il y a de remarquable dans six volumes in folio que nous avons de Galien."

This apology is followed by a list of the writings of Galen, derived from the edition given by Chartier, the most full and perfect of any edition that had been given to the world previous to that of Kühns. It may not be unacceptable to the reader, and I give it therefore as it appears in Le Clerc.—Ed.

Liste des Livres de Galien, tirée de l'édition de Chartier.

La lettre L, qui est ajoutée à la fin de quelques-uns des titres des livres de Galien, marque que ces livres ne se trouvent qu'en Latin. Monsieur Chartier donne une autre liste des livres de Galien, qu'on n'a plus ni en Grec ni en Latin, ou qui sont cachez dans quelques Bibliotheques, & qui ne sont connus que par le titre. La plus grande partie de ces livres ne regardent pas la Médecine.

Galien, de ses propres livres, i.

De l'ordre de ses livres, i.

Harangue de Galien de Pergame, Paraphraste, fils de Menodotus, pour exhorter à apprendre les beaux arts. i. *Il est visible que c'est un autre Galien.*

De la meillure Doctrine, i.

De l'Histoire Philosophique, i.

Fragment de Galien, tiré de Jean le Grammairien. Livre attribué à Galien, intitulé, Que les qualitez sont incorporelles, i.

Fragment de Galien, tiré de Simplicius.

Autre, tiré d'Averrhoës.

Notes de Galien sur Hippocrate, tirées de Stobée.

Des Sophismes dans les mots, i.

Galien, Explication des vieux mots d'Hippocrate, i.
De l'établissement de l'art de la Médecine, i.
L'Art de la Médecine, i.
Définitions Médicinales, i.
Des parties de la Médecine, i. L.
Des Sectes, à ceux qui commencent à étudier, i.
De la meilleure Secte, i.
Discours contre les Empiriques, Fragment attribué à Galien. L.
Exposition du Systeme des Empiriques. L.
Qu'un bon Médecin doit aussi être Philosophe, i.
Introduction á la Médecine, où le Médecin, livre attribué à Galien, i.
Des Elémens, selon Hippocrate, ii.
Des Temperamens, iii.
Commentaires sur deux livres d'Hippocrate. De la nature de l'homme, ii.
Des Humeurs, i.
S'il y a naturellement du sang dans les artéres? i.
De la Bile noire, i.
De la Semence, iii. De la semence petit livre; L.
Des os, à ceux qui apprennent l'Anatomie, i.
Des Administrations Anatomiques, ix.
De l'Anatomie des Corps vivans, attribué à Galien, i. L.
De la petite Anatomie, attribué à Galien, i. L.
Dissection des organes de la voix, i. L.
De l'Anatomie des Yeux, attribué à Galien, i. L.
De la Dissection des Veines, & des Arteres, i.
De la Dissection des Nerfs, i.
Des Muscles, tiré des livres d'Oribase, i.
De la Dissection de la Matrice, i.
De l'Usage des parties, xvii.
De l'Ame, Fragment tiré du livre de Nemesius, intitulé de la nature de l'homme.
Autre Fragment tiré du chap. xx. du même Nemesius, touchant la Peur.
De la substance des facultez Naturelles, fragment.
Des Facultez qui gouvernent nôtre corps, attribué à Galien, i. L.
Des Facultez Naturelles, iii.

Galien, Des sentimens d'Hippocrate, & de Platon, ix.
Fragment sur le Timée de Platon. L.
De la formation du fœtus, i.
Si toutes les parties de l'animal se forment en même temps? L.
De la nature, & de l'ordre de chaque corps, attribué à Galien, i. L.
De la liaison des parties, ou de la Nature de l'homme, attribué à Galien, i. L.
Si ce qui est dans la matrice est un animal? i.
De l'Enfant qui naît le septième mois, i.
De l'organe de l'odorat, i.
Du Mouvement des Muscles, ii.
Des Mouvemens manifestes, & obscurs, attribué à Galien, i. L.
Fragment, tiré de cette même paraphrase du quatrième livre *de Physica auscultatione.*
Autre Fragment, tiré de cette même paraphrase.
Autre, tiré du livre des Songes, de Michel Ephésien.
Du Mouvement de la poitrine, & du Poumon, Fragment. L.
De l'Usage de la respiration, attribué à Galien, i. L.
De l'Usage de la respiration, reconnu pour être de Galien, i.
Des causes de la respiration, i.
De la Voix, & de la respiration, attribué à Galien, i. L.
De l'Usage des Pouls, i.
Que les qualitez de l'esprit suivent le temperament du corps, i.
De la bonne Constitution du corps, i.
De l'Embonpoint, i.
Si l'Art qui regle l'usage des choses qui regardent la Santé, dépend de la Médecine, ou de la Gymnastique? i.
De la Conservation de la Santé, vi.
Des Facultez des Alimens, iii.
Du flux continuel de la substance du corps; ou Quatrieme livre des alimens, attribué à Galien, i. L.
De la Manière de vivre attenuante, i. L.
Des bons, & des mauvais Sucs des alimens, i.
Préceptes touchant la constitution du corps; touchant la diete convenable dans les quatres saisons, & dans les douze mois de l'année, i.

Galien, De l'Usage des choses liquides, i.
De la manière de vivre de ceux qui se portent bien, iii.
Des Eaux, Fragment tiré de Galien, Oribase, &c.
Des Vins, autre Fragment tiré d'Oribase.
Autre Fragment sur le même sujet, tiré du même.
Autre Fragment sur le même sujet, tiré d'Athénée.
Du Pain, Fragment tiré d'Athénée.
De la Ptisane, i.
De l'Exercice de la petite paume, i.
De l'Acte Vénérien, Fragment.
De la connoissance des maladies tirée des Songes, i.
De la connoissance, & de la cure des passions de l'ame, i.
Autre livre dont le titre est presque semblable.
De la Coutume, i. L.
Des Differences des Maladies, i.
Des Causes des Maladies, i.
Des Differences des Symptomes, i.
Des Causes des Symptomes, iii.
Des Differences des Fiévres, ii.
De l'Intempérie Inégale, i.
Du Marasme, ou de la Consomption, i.
Des Tumeurs contre nature, i.
De la Plénitude, i.
Des Causes Procatarctiques, i. L.
Du Tremblement, de la Palpitation, de la Convulsion, du Frisson, i.
Du Coma, i.
De la Difficulté de respirer, iii.
Des Temps des Maladies, i.
Des Caracteres des Fiévres, i.
Contre ceux qui ont écrit des Caracteres des Fiévres, i.
De la Soif, Fragment.
De la Fiévre Hémitritée, i.
Des Parties affectées, vi.
Des Maladies des Femmes, i.
Des Maladies des Femmes, Fragment. L.
Des Pouls, à ceux qui commencent d'étudier, i.
Des Differences des Pouls, iv.
De la connoissance des Pouls, iv.
Des Causes des Pouls, iv.

Galien, Des Présages tirez des Pouls, iv.
Abrégé des seize livres des Pouls, i. L.
Abrégé des Pouls, attribué à Galien, i.
Des Pouls, petit livre, addressé au Philosophe Antoine.
Des Urines, attribué à Galien, i.
Abrégé des Urines, i.
Petit livre des Urines, tiré d'Hippocrate, de Galien, & de quelque autres.
Des Crises, iii.
Des Jours Critiques, iii.
Trois Commentaires sur le livre d'Hippocrate, des Humeurs. L.
Trois Commentaires sur les Prognostiques d'Hippocrate.
Trois Commentaires sur les Prédictions d'Hippocrate.
Du Prognostique, à Posthumus, i.
Du Prognostique, petit livre.
Vrai, & experimenté Prognostique.
De La Saignée, Fragment.
Prognostique sur la manière dont un malade est couché, tiré des Mathematiques, i.
Comment on découvre ceux qui feignent une maladie, i.
Questions sur Hippocrate, attribuées à Galien, i. L.
Trois Commentaires sur le premier des Epidémiques d'Hippocrate.
Un Commentaire sur le second des Epidémiques.
Fragment de Commentaire sur le même livre.
Trois Commentaires sur le troisième des Epidémiques.
Six Commentaires sur le sixième des Epidémiques.
Sept Commentaires sur les Aphorismes d'Hippocrate.
Qu'Hippocrate n'a point erré dans l'Aphorisme, qui commence ainsi; *Ceux qui croissent ont le plus de chaleur naturelle*, contre Lycus.
Contre ce que Julien a écrit contre les Aphorismes d'Hippocrate.
Fragmens de Galien, tirez des Aphorismes de Rabbi Moïse.
Fragment tiré de Rhases.
De la Méthode de traiter les maladies, xiv.
L'Art de guérir les maladies, addressé à Glauq, ii.
De la Saignée, contre Erasistrate, i.

Galien, De la Saignée, contre les Sectateurs d'Erasistrate qui sont à Rome, i.

De la manière de guérir par la Saignée, i.

Des Sansues, de la Révulsion, des Ventouses, & de la Scarification, i. L.

Des Facultez des médicamens purgatifs, i.

Des médicamens purgatifs, attribué à Galien, i. L.

Qui sont ceux que l'on doit purger, par quels médicamens, & quand on le doit faire.

Conseil pour un jeune garçon Epileptique.

De la Mélancholie, Fragment tiré d'Aëtius.

Des Yeux, attribué à Galien, i. L.

De la Colique, i. L.

De la Jaunisse, attribué à Galien, i. L.

Des maladies des Reins, livre supposé.

De la Pierre, attribué à Galien. L.

De la Sciatique, & de la Goutte, i.

Des Remèdes expérimentez, attribué à Galien, i. L.

Livre des Secrets, à Monteus, attribué à Galien, i. L.

De l'Incantation, de l'Adjuration, & de la Suspension, attribué à Galien, i. L.

De la cure Homerique, Fragment tiré de Trallian.

Des remèdes aissez à faire, i.

Des remèdes aissez à faire, addressé à Solon, Chef des Médecins, supposé, i.

De Dynamidiis, c'est à dire, des facultez des médicamens, ou des médicamens efficaces, attribué à Galien. *On croit que ce livre est de Gariopontus*, L.

Quatre Commentaires sur le livre d'Hippocrate de la Diéte dans les maladies aigues.

De la Diéte dans les maladies agues, petit livre. L.

Trois Commentaries sur le livre d'Hippocrate, de la Boutique du Médecin.

Trois Commentaires sur le livre d'Hippocrate, des Fractures.

Quatre Commentaires sur le livre d'Hippocrate, des Articulations.

Des Bandages.

Des Facultez, & Temperamens des Médicamens simples, xi.

Galien, De la Composition des Médicamens, considéréz par rapport aux parties du corps, x.

De la Composition des Médicamens, considéréz par rapport à leurs genres, vii.

Des Antidotes, ii.

De la Thériaque, à Pison, i. Ce livre paroît à quelques-uns supposé.

De la Thériaque, à Pamphilianus, attribué à Galien.

Des Médicamens Succédanées, i.

Des Poids, & des Mesures, i.

Des Médicamens simples, à Paternianus, attribué à Galien. L.

Des Plantes, attribué à Galien. L.

Des Facultez de la Centaurée, attribué à Galien. L.

Des Clysteres, i. L.

Trois Commentaires sur le livre d'Hippocrate, de l'Air, des Lieux, & des Eaux. L.

De l'anatomie des Muscles, â ceux qui apprennent, i. L.

Kühn, in the preface to his edition of Galen, has exhibited a determination, that could alone have enabled him to undertake and complete a task so herculean. He presumes that many, on seeing the first volume of the work, will accuse him of temerity, considering its magnitude and the uncertainty of life, &c., yet still he could not be deterred from it, but was incited more courageously (acrius) to continue the work, in hopes that even should he not live to effect it, it would still be happily accomplished. After full deliberation on the subject, he adds his hopes that no one who knows him will accuse him of levity in not sufficiently weighing the difficulty of the task, or taking into consideration his unfitness to bear such a burden as he assigned to himself. He nobly, in determining to fulfil it, thus expresses himself:

"Cæsarem igitur imitatus, qui cum ad Rubiconem dubius, an flumen trajiceret, nec ne, aliquamdiu stetisset, subito exclamans. Jacta alea esto! exercitum Rubiconem transire jussit, bono animo hujus editionis curandæ laborem aggressus sum."

He proceeds then to consider the imperfections of preceding editions, arising from the ignorance of transcribers, and want of care in obviating errors in manuscripts, &c.—that at the beginning of the sixteenth century, the number was so great, that the life of a man would have been inadequate, though daily employed, to compare them with the text of the Basil or Charterian copies. Other difficulties are enumerated, which not being able to overcome fully, he accomplished what was in his power, by consulting all the editions he could obtain the use of; a list of which he enumerates, animadverting on the defects of many, and acknowledging his obligations to several friends for aid in his researches, and hoping his undertaking may be happily brought to a completion.

After this preface, he proceeds to give the literary history of Galen, embraced in nearly two hundred and fifty pages. Of this I give the catalogue of the writings, which is more extended than those I have already introduced; but it appears so much more perfect, owing to additional discoveries, that I feel assured it will not be unacceptable to the Profession at large.

HISTORIA LITERARIA CLAUDII GALENI.

I. Vita Galeni.
II. Galeni in medicinalem scientiam merita generatim.
III. Medicinæ status iis temporibus, quibus Galenus universam ejus scientiam mutabat.
IV. Quid in singulis medicinalis scientiæ disciplinis invenerit Galenus rectiusque dixerit.
V. Systema Galeni medicum.
VI. Libri a Galeno conscripti. Eorum ratio.
VII. Classes, ordo librorum Galeni.
VIII. Institutum in ordine librorum Galeni a me servatum.
IX. Singulorum librorum Galeni, et quidem genuinorum, recensio.
1. De sectis ad eos, qui introducuntur.
2. De optima secta ad Thrasybulum.
3. De optima doctrina.
4. De sophismatis seu captionibus penes dictionem.
5. Quod optimus medicus sit quoque philosophus.
6. Suasoria ad artes oratio.
7. De constitutione artis medicæ ad Patrophilum.
8. De elementis ex Hippocrate lib. ii.
9. De temperamentis libri iii.
10. De atra bile.
11. De inæquali intemperie.
12. De optima corporis nostri constitutione.
13. De bono habitu.
14. De facultatibus naturalibus, lib. iii.
15. De substantia facultatum naturalium.
16. De anatomicis administrationibus libri ix.
17. De ossibus ad tirones.
18. De venarum arteriarumque dissectione.
19. De nervorum dissectione.
20. De musculorum dissectione.

21. De uteri dissectione.
22. An in arteriis natura sanguis contineatur.
23. De motu musculorum libri ii.
24. Vocalium instrumentorum dissectio.
25. De caussis respirationis.
26. De Hippocratis et Platonis decretis, libri ix.
27. Fragmentum in Timæum Platonis, vel ex iv. commentariis, quos inscripsit: De iis, quæ medice dicta sunt in Platonis Timæo.
28. De semine libri ii.
29. De usu partium corporis humani lib. xvii.
30. De instrumento odoratus.
31. De locis adfectis libri vi.
32. De differentiis febrium libri ii.
33. De morborum temporibus.
34. De respirationis usu.
35. De usu pulsuum.
36. De pulsibus libellus ad tirones.
37. De pulsuum differentiis libri iv.
38. De dignoscendis pulsibus libri iv.
39. De caussis pulsuum libri iv.
40. De præsagitione ex pulsibus libri iv.
41. Synopsis librorum suorum xvi. de pulsibus.
42. De diebus decretoriis libri iii.
43. De crisibus libri iii.
44. De difficultate respirationis libri iii.
45. De caussis procatarcticis.
46. De plenitudine.
47. De tumoribus præter naturam.
48. De tremore, palpitatione, convulsione et rigore.
49. De simplicium medicamentorum temperamentis et facultatibus libri xi.
50. Ars medica.
51. De differentiis morborum.
52. De morborum caussis.
53. De differentia symptomatum, libri iii.
54. De compositione medicamentorum secundum locos libri x.
55. De compositione medicamentorum secundum genera libri vii.
56. Methodus medendi libri xiv.
57. Ad Glauconem de medendi methodo libri ii.
58. De venæsectione adversus Erasistratum.
59. De venæsectione adversus Erasistrateos, Romæ degentes.
60. De curandi ratione per venæsectionem.
61. De marasmo.
62. Pro puero epileptico consilium.
63. Ad Thrasybulum liber, utrum medicinæ sit, vel gymnastices hygieine.
64. De attenuante victus ratione.
65. De tuenda sanitate libri vi.
66. De alimentorum facultatibus libri iii.
67. De probis pravisque alimentorum succis.
68. Quod animi mores corporis temperamenta sequantur.
69. Linguarum, seu dictionum exoletarum Hippocratis explicatio.
70. De septimestri partu.
71. De libris propriis.
72. De ordine librorum suorum ad Eugenianum.
73. De Ptisana.
74. De parvæ pilæ exercitio.
75. De hirudinibus, revulsione, cucurbitula, incisione et scarificatione.
76. Quomodo morbum simulantes sint deprehendendi.
77. De dignotione ex insomniis.
78. De propriorum animi cujusque adfectuum dignotione et curatione.
79. De cujuslibet animi peccatorum dignotione atque medela.
80. De prænotione ad Epigenem.
81. De antidotis libri ii.
82. De fœtuum formatione.

X. *Libri suspectæ originis.*

83. Introductio s. medicus.
84. De subfiguratione empirica.
85. De voce et anhelitu.
86. De respirationis usu.
87. An animal sit, quod in utero est.
88. An omnes partes animalis, quod procreatur, fiant simul.
89. De consuetudinibus.
90. De motu thoracis et pulmonis.
91. De totius morbi temporibus.
92. De typis.
93. Adversus eos, qui de typis scripserunt.
94. De comate secundum Hippocratem.
95. De victus ratione in morbis acutis ex Hippocratis sententia.

96. De purgantium medicamentorum facultate.
97. De remediis paratu facilibus libri iii.
98. De theriaca ad Pisonem.
99. De theriaca ad Pamphilianum.
100. De fasciis.

XI. *Libri manifeste spurii.*

101. De historia philosophica.
102. Definitiones medicæ.
103. De partibus artis medicæ.
104. De anatomia vivorum.
105. De compage membrorum sive de natura humana.
106. De natura et ordine cujuslibet corporis.
107. Quod qualitates incorporeæ sint.
108. De motibus manifestis et obscuris.
109. De facultatibus corpus nostrum dispensantibus.
110. De dissolutione continua, s. de alimentorum facultatibus.
111. Præceptum de humani corporis constitutione, de diæta quatuor anni tempestatum et duodecim mensium.
112. De humoribus.
113. De prænotione.
114. Omnino vera expertaque præsagitio.
115. De venæsectione.
116. Prognostica de decubitu ex mathematica scientia.
117. De urinis.
118. De urinis compendium.
119. De urinis ex Hippocrate, Galeno et aliis quibusdam.
120. Quæsita in Hippocratem de urinis.
121. De pulsibus ad Antoninum.
122. Compendium pulsuum.
123. De adfectuum renibus insidentium dignotione et curatione.
124. De colico dolore.
125. Introductorius liber, varias morborum curas complectens.
126. De cura icteri.
127. De melancholia ex Galeno, Rufo, et Marcello Sicamii Aëtii libellus.
128. De oculis.
129. De pica, vitioso appetitu.
130. De gynæceis.
131. De cura lapidis.
132. Liber secretorum ad Monteum.
133. De medicinis expertis.
134. De incantatione, adjuratione et suspensione.
135. Fragmentum libri de dunamidiis.
136. Liber secundus de dunamidiis.
137. De ponderibus et mensuris.
138. De succedaneis.
139. De simplicibus medicamentis.
140. De plantis.
141. De virtutibus centaureæ.
142. De clysteribus.
143. De catharticis.
144. De peste.

XII. *Fragmenta.*

1. De aquis.
2. De vinis.
3. De vinis.
4. De pane.
5. De aquarum natura et de balneis.
6. Sermo adversus empiricos medicos.
7. De morsu, qui in ægritudine precipitur.
8. De venereis.
9. Ex libris de demonstratione.
10. Ex commentariis Simplicii.
11. Ex Averroe.
12. Galeni notæ in Hippocratem e Stobæo.
13. Fragmenta ex Nemesio.
14. Ex Themistio.
15. Ex Michaele Ephesio.
16. Ex Moyse Maimonide.
17. Ex Rhase.
18. Quos, quibus purgantibus medicamentis et quando purgare oporteat.
19. Fragmentum de Homerica medicatione.

XIII. *Commentarii Galeni in Hippocratis libros.*

1. In Librum Hippocratis de natura humana commentarii ii.
2. In Hippocratem de salubri diætæ ratione privatorum.
3. In Hippocratem de aëre, aquis et locis commentarii iii.
4. In Hippocratem de alimento commentarii iv.
5. In Hippocratem de humoribus commentarii iii.
6. In Hippocratis prognosticon commentarii iii.

7. In Hippocr. prædictionum libr. i. commentarii iii.
8. In Hippocr. de morb. popular. libr. i. commentarii iii.
9. In Hippocr. de morb. popul. libr. ii. comment.
10. In Hippocr. de morb. popul. libr. iii. commentarii iii.
11. In Hippocr. de morb. popul. libr. vi. comment. vi.
12. In Hippocr. aphorism. lib. vii. comment vii.
13. Galeni adversus Lycum liber.
14. Galeni contra ea, quæ a Juliano in aph. Hippocr. dicta sunt.
15. In Hippocr. de diæta acutor. libr. comment. iv.
16. In Hippocr. de officina medici librum comment. iii.
17. In Hippocr. libr. de fracturis comment. iii.
18. In Hippocr. libr. de articulis comment iv.

XIV. Libri, qui sub Galeni nomine in bibliothecis latent, nondum typis exeusi.

XV. Libri Galeni medicinales, qui interierunt.

XVI. Libri Galeni, ad alias disciplinas pertinentes, deperditi.

XVII. Codices MSS. operum Galeni omnium, aut librorum plurium Græci et Latini.

XVIII. Editiones operum Galeni omnium, Græcæ, Græco-Latinæ, Latinæ.

XIX. Collectiones librorum Galeni, at non omnium, Græcæ, Græco-Latinæ, et Latinæ.

XX. Galenus in epitomen redactus. Specula Galeni, Theatrum, Indices.

XXI. Index auctorum, qui Galeno edendo, interpretando, illustrando operam dederunt. Commentarii in plures Galeni libros.

XXII. Libri, in quibus Galenus defenditur, confutatur, in quibus loca quædam Galeni explicantur.

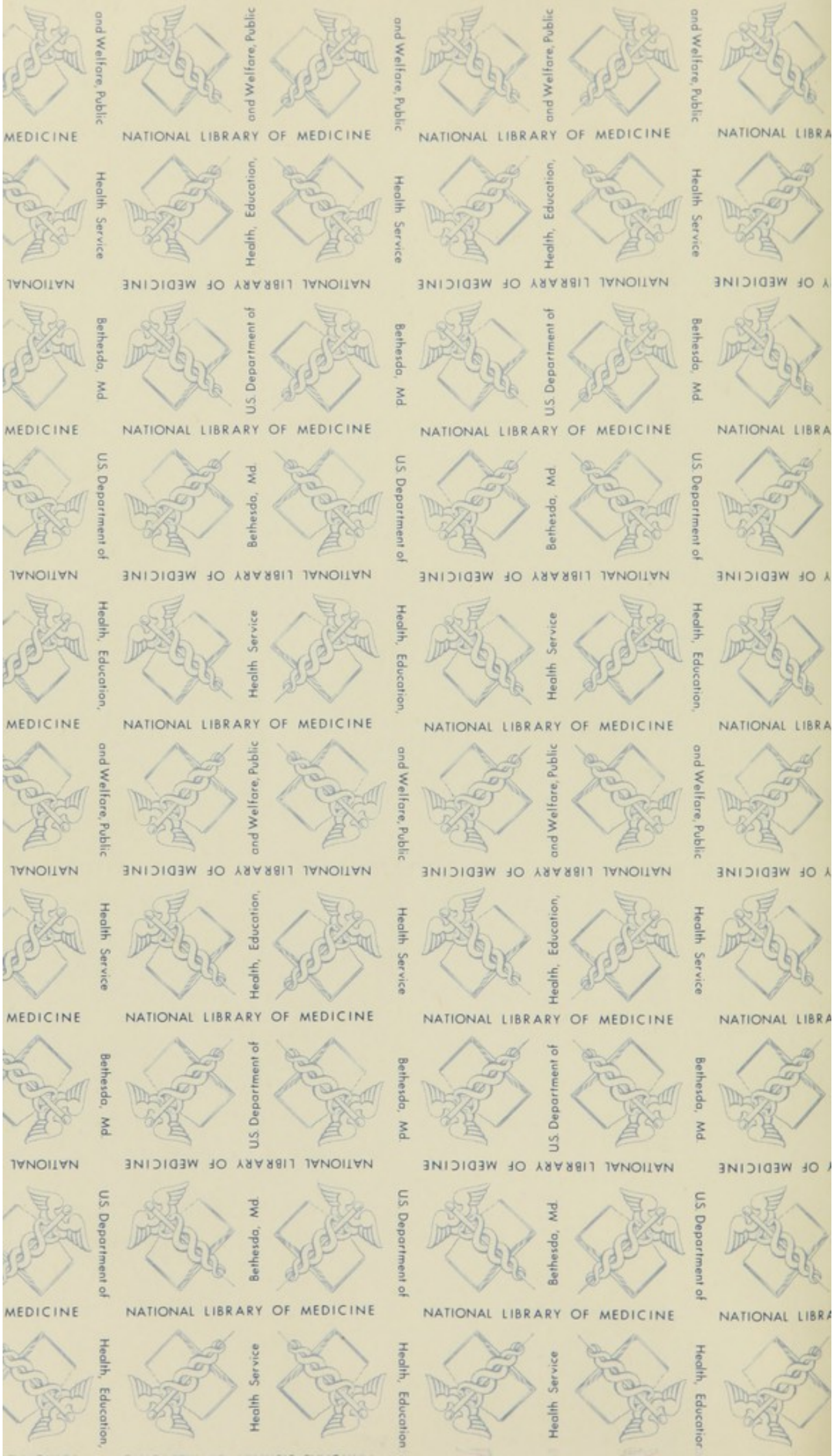
XXIII. Editiones operum Galeni, Græcæ, Græco-Latinæ et Latinæ, quæ lucem non viderunt.

Having brought to a termination the proposed epitome of the writings of Hippocrates and Galen, it is respectfully offered to the Medical Profession, with a fervent desire that it may awaken an interest in favour of our Great Predecessors, and eventually lead to a full and complete translation of their works. Should such prove to be the case, my warmest wishes will be gratified.

John Redman Coxe.

Philadelphia, September 16th, 1846.

THE END.


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