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HIPPOCRATES

VOL. I

HIPPOCRATES

WITH AN ENGLISH TRANSLATION BY

W. H. S. JONES

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CORRESPONDING MEMBER OF THE HISTORICAL SECTION
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PREFACE

THE works, some seventy in all, which in any of our manuscripts are assigned to Hippocrates, comprise what is called the "Hippocratic collection." During nearly three centuries there appeared many editions, of some or of all of these works, intended to instruct medical students or practitioners. The birth of modern medical science in the nineteenth century stopped finally this long series, but a few scholars still worked at the treatises from an historical standpoint. The literary merit, however, of the Hippocratic writings, at least of the majority, is not great, and it is only within the last few years that they have been subjected to the exact scholarship which has thrown such a flood of new light upon most of the classical authors. Even now very little has been done for text, dialect, grammar and style, although the realization of the value of the collection for the history of philosophy is rapidly improving matters. So for the present a translator must also be, in part, an editor. He has no scholarly tradition behind him upon which to build, but must lay his own foundations.

It will be many years before the task is finished, but in the meanwhile there is work for less ambitious students. My own endeavour has been to make as clear and accurate a translation as the condition of

the text permits, introducing as few novelties of my own as possible, and to add such comment as may bring out the permanent value of the various treatises. They are no longer useful as text-books, but all of us, whether medical or lay, may learn a lesson from the devotion to truth which marked the school of Cos, and from the blunders committed by theorizers who sought a short cut to knowledge without the labour of patient observation and careful experiment.

The present volume has been in preparation since 1910, and the actual writing has occupied all my leisure for the past three years. The time would have been longer, had it not been for the great kindness of Dr. E. T. Withington, whose name will probably appear on the title-page of one of the succeeding volumes.

My thanks are also due to the Rev. H. J. Chaytor for his helpful criticisms.

W. H. S. Jones.

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GENERAL INTRODUCTION

§ 1. Greek Medicine and "Hippocrates."

We have learned to associate, almost by instinct, the science of medicine with bacteria, with chemistry, with clinical thermometers, disinfectants, and all the apparatus of careful nursing. All such associations, if we wish even dimly to appreciate the work of Hippocrates and of his predecessors, we must endeavour to break; we must unthink the greater part of those habits of thought which education has made second nature. The Greek knew that there were certain collections of morbid phenomena which he called diseases; that these diseases normally ran a certain course; that their origin was not unconnected with geographical and atmospheric environment; that the patient, in order to recover his health, must modify his ordinary mode of living. Beyond this he knew, and could know, nothing, and was compelled to fill up the blanks in his knowledge by having recourse to conjecture and hypothesis. In doing so he was obeying a human instinct which assures us that progress requires the use of stop-gaps where complete and accurate knowledge is unattainable, and that a working hypothesis, although wrong, is better than no hypothesis at all. System, an organized scheme, is of greater value than chaos. Yet however healthy such an instinct may be, it has

added considerably to the difficulties of the historian in his attempts so to reconstruct the past as to make it intelligible to modern readers.

Primitive man regards everything he cannot explain as the work of a god. To him the abnormal, the unusual, is divine. The uncharted region of mysterious phenomena is the peculiar realm of supernatural forces. "It is the work of heaven" is a sufficient answer when the human intelligence can give no satisfactory explanation.

The fifth century B.C. witnessed the supreme effort of the Greeks to cast aside this incubus in all spheres of thought. They came to realize that to attribute an event to the action of a god leaves us just where we were, and that to call normal phenomena natural and abnormal divine is to introduce an unscientific dualism, in that what is divine (because mysterious) in one generation may be natural (because understood) in the next, while, on the other hand, however fully we may understand a phenomenon, there must always be a mysterious and unexplained element in it. All phenomena are equally divine and equally natural.

But this realization did not come all at once, and in the science of medicine it was peculiarly slow. There is something arresting in the spread of an epidemic and in the onset of epilepsy or of a pernicious fever. It is hard for most minds, even scientific minds, not to see the working of a god in them. On the other hand, the efficacy of human means to relieve pain is so obvious that even in Homer, our first literary authority for Greek medicine, rational treatment is fully recognized.

As the divine origin of disease was gradually

discarded, another element, equally disturbing, and equally opposed to the progress of scientific medicine, asserted itself. Philosophy superseded religion. Greek philosophy sought for uniformity in the multiplicity of phenomena, and the desire to find this uniformity led to guesswork and to neglect of fact in the attempt to frame a comprehensive theory. The same impulse which made Thales declare that all things are water led the writer of a treatise[1] in the Hippocratic *Corpus* to maintain that all diseases are caused by air. As Daremberg[2] says, "the philosophers tried to explain nature while shutting their eyes." The first philosophers to take a serious interest in medicine were the Pythagoreans. Alcmaeon[3] of Croton, although perhaps not strictly a Pythagorean, was closely connected with the sect, and appears to have exercised considerable influence upon the Hippocratic school. The founder of empirical psychology and a student of astronomy, he held that health consists of a state of balance between certain "opposites," and disease an undue preponderance of one of them.[4] Philolaus, who flourished about 440 B.C., held that bile, blood, and phlegm were the causes of disease. In this case we have a Pythagorean philosopher who tried to include medical

[1] The *περὶ φυσῶν*.

[2] *Histoire des sciences médicales*, p. 82.

[3] A young man in the old age of Pythagoras. See Aristotle *Meta.* A 986 a 30. Alcmaeon was more interested in medicine than in philosophy, but does not seem to have been a "general practitioner."

[4] *Ἀλκμαίων τῆς μὲν ὑγιείας εἶναι συνεκτικὴν τὴν ἰσονομίαν τῶν δυνάμεων, ὑγροῦ, ξηροῦ, ψυχροῦ, θερμοῦ, πικροῦ, γλυκέος, καὶ τῶν λοιπῶν, τὴν δ' ἐν αὐτοῖς μοναρχίαν νόσου ποιητικήν· φθοροποιὸν γὰρ ἑκατέρου μοναρχίαν.*—Aëtius V. 30. 1.

theory in his philosophical system.[1] Empedocles, who flourished somewhat earlier than Philolaus, was a "medicine-man" rather than a physician, though he is called by Galen the founder of the Italian school of medicine.[2] The medical side of his teaching was partly magic and quackery.

This combination of medicine and philosophy is clearly marked in the Hippocratic collection. There are some treatises which seek to explain medical phenomena by *a priori* assumptions, after the manner of the philosophers with their method of ὑποθέσεις or postulates; there are others which strongly oppose this method. The Roman Celsus in his preface[3] asserts that Hippocrates separated medicine from philosophy, and it is a fact that the best works of the Hippocratic school are as free from philosophic assumptions as they are from religious dogma. But before attempting to estimate the work of Hippocrates it is necessary to consider, not only the doctrine of the philosophers, but also the possibly pre-Hippocratic books in the *Corpus*. These are the *Prenotions of Cos* and the *First Prorrhetic*,[4] and perhaps the treatise—in Latin and Arabic, the Greek original having mostly perished—on the number seven (περὶ ἑβδομάδων).

[1] For the medical theories of Philolaus see the extracts from the recently discovered *Iatrica* of Menon, discussed by Diels in *Hermes* XXVIII., p. 417 foll.

[2] Galen X. 5.

[3] Hippocrates . . . ab studio sapientiae disciplinam hanc separavit, vir et arte et facundia insignis.

[4] Grimm, Ermerins and Adams are convinced of the early date of these. Littré seems to have changed his mind. Contrast I. 351 with VIII. xxxix. The writer in Pauly-Wissowa is also uncertain. I hope to treat the question fully when I come to *Prognostic* in Vol. II.

The *Prenotions of Cos* and the *First Prorrhetic* (the latter being the earlier, although both are supposed to be earlier than Hippocrates) show that in the medical school of Cos great attention was paid to the natural history of diseases, especially to the probability of a fatal or not fatal issue. The *Treatise on Seven,* with its marked Pythagorean characteristics, proves, if indeed it is as early as Roscher would have us believe, that even before Hippocrates disease was considered due to a disturbance in the balance of the humours, and health to a "coction" of them, while the supposed preponderance of seven doubtless exercised some influence on the later doctrine of critical days. The work may be taken to be typical of the Italian-Sicilian school of medicine, in which *a priori* assumptions of the "philosophic" type were freely admitted. Besides these two schools there was also a famous one at Cnidos,[1] the doctrines of which are criticised in the Hippocratic treatise *Regimen in Acute Diseases.* The defects of this school seem to have been:—

(1) the use of too few remedies;
(2) faulty or imperfect prognosis;
(3) over-elaboration in classifying diseases.[2]

We may now attempt to summarize the com-

[1] There are several Cnidian treatises in the *Corpus.* See p. xxiii. The Cnidian point of view admits of defence, and their desire to classify was a really scientific instinct. I hope to treat of the Cnidians fully when I come to translate *Regimen in Acute Diseases.*

[2] The Coan school, on the other hand, sought for a unity in diseases. Its followers tried to combine, the Cnidians to distinguish and to note differences. See Littré II. 202–204.

ponents of Greek medicine towards the end of the fifth century B.C.

(1) There was a religious element, which, however, had been generally discarded.

(2) There was a philosophic element, still very strong, which made free use of unverified postulates in discussing the causes and treatment—especially the former—of diseases.

(3) There was a rational element, which relied upon accurate observation and accumulated experience. This rationalism concluded that disease and health depended on environment and on the supposed constituents of the human frame.

Now if we take the Hippocratic collection we find that in no treatise is there any superstition,[1] in many there is much "philosophy" with some sophistic rhetoric, and among the others some are merely technical handbooks, while others show signs of a great mind, dignified and reserved with all the severity of the Periclean period, which, without being distinctively original, transformed the best tendencies in Greek medicine into something which has ever since been the admiration of doctors and scientific men. It is with the last only that I am concerned at present.

I shall make no attempt to fix with definite precision which treatises are to be included in this category, and I shall confine myself for the moment to three—*Prognostic, Regimen in Acute Diseases*, and *Epidemics I.* and *III.* These show certain characteristics, which, although there is no internal clue to

[1] A possible exception is *Decorum*, which I hope to discuss in Vol. II.

either date or authorship, impress upon the reader a conviction that they were written by the same man, and at a time before the great period of Greece had passed away. They remind one, in a subtle yet very real way, of Thucydides.[1]

The style of each work is grave and austere. There is no attempt at "window-dressing." Language is used to express thought, not to adorn it. Not a word is thrown away. The first two treatises have a literary finish, yet there is no trace in them of sophistic rhetoric. Thought, and the expression of thought, are evenly balanced. Both are clear, dignified—even majestic.

The matter is even more striking than the style. The spirit is truly scientific, in the modern and strictest sense of the word. There is no superstition, and, except perhaps in the doctrine of critical days, no philosophy.[2] Instead, there is close, even minute, observation of symptoms and their sequences, acute remarks on remedies, and recording, without inference, of the atmospheric phenomena, which preceded or accompanied certain "epidemics." Especially noteworthy are the clinical histories, admirable for their inclusion of everything that is relevant and their exclusion of all that is not.

The doctrine of these three treatises may be summarised as follows:—[3]

[1] The resemblance struck Littré. See Vol. I., pp. 474, 475.

[2] Of course even in the greatest works of the Hippocratic *Corpus* there is, and could not help being, some theory. But the writer does not love the theory for its own sake. Rather he is constantly forgetting it in his eagerness to record observed fact.

[3] There is a clear account of Hippocratic doctrine in Littré, Vol. I., pp. 440–464.

(1) Diseases have a natural course, which the physician must know thoroughly,[1] so as to decide whether the issue will be favourable or fatal.

(2) Diseases are caused by a disturbance[2] in the composition of the constituents of the body. This disturbance is connected with atmospheric and climatic conditions.

(3) Nature tries to bring these irregularities to a normal state, apparently by the action of innate heat, which "concocts" the "crude" humours of the body.

(4) There are "critical" days at fixed dates, when the battle between nature and disease reaches a crisis.

(5) Nature may win, in which case the morbid matters in the body are either evacuated or carried off in an ἀπόστασις,[3] or the "coction" of the morbid elements may not take place, in which case the patient dies.

(6) All the physician can do for the patient is to give nature a chance, to remove by regimen all that may hinder nature in her beneficent work.

It may be urged that this doctrine is as hypothetical as the thesis that all diseases come from air. In a sense it is. All judgments, however simple, attempting to explain sense-perceptions, are hypotheses. But hypotheses may be scientific or philosophic, the latter term being used to denote the

[1] This knowledge is πρόγνωσις.

[2] It is not clear whether this disturbance is regarded as quantitative, qualitative, or both.

[3] This term will be explained later. Roughly speaking, it means the collection and expulsion of morbid elements at a fixed point in the body. I translate it "abscession," a term which suggests "abscess," perhaps the most common form of an "abscession."

character of early Greek philosophy. A scientific hypothesis is a generalization framed to explain the facts of experience; it is not a foundation, but is in itself a superstructure; it is constantly being tested by appeals to sense-experience, and is kept, modified or abandoned, according to the support, or want of support, that phenomena give to it. A "philosophic" hypothesis is a generalization framed with a view to unification rather than to accounting for all the facts; it is a foundation for an unsubstantial superstructure; no efforts are made to test it by appeals to experience, but its main support is a credulous faith.

Now the doctrine of the *Epidemic* group is certainly not of the philosophic kind. Some of it was undoubtedly derived from early philosophic medicine, but in this group of treatises observed phenomena are constantly appealed to; nor must it be forgotten that in the then state of knowledge much that would now be styled inference was then considered fact, *e. g.* the "coction" of phlegm in a common cold. Throughout, theory is in the background, observation in the foreground. It is indeed most remarkable that Hippocratic theory is hard to disentangle from the three works on which my argument turns. It is a nebulous framework, implied in the technical phraseology—πέψις, κρίσις, κρᾶσις—and often illustrated by appeal to *data*, but never obtrusively insisted upon.

In 1836 a French doctor, M. S. Houdart,[1] violently attacked this medical doctrine on the ground that it

[1] *Études historiques et critiques sur la vie et la doctrine d'Hippocrate, et sur l'état de la médecine avant lui.* Paris and London.

neglected the physician's prime duty,[1] which is to effect a cure. Diagnosis, he urges, is neglected in the cult of prognosis; no attempt is made to localize the seat of disease; the observations in the *Epidemics* are directed towards superficial symptoms without any attempt to trace them to their real cause. The writer is an interested but callous spectator who looks on unmoved while his patient dies.[2]

In this rather rabid criticism there is a morsel of truth. The centre of interest in these treatises is certainly the disease rather than the patient. The writer is a cold observer of morbid phenomena, who has for a moment detached himself from pity for suffering. But this restraint is in reality a virtue; concentration on the subject under discussion is perhaps the first duty of a scientist. Moreover, we must not suppose that the fatally-stricken patients of the *Epidemics* received no treatment or nursing. Here and there the treatment is mentioned or hinted at,[3] but the writer assumes that the usual methods

[1] "Attendre qu'il plaise à la nature de nous délivrer de nos maux, c'est laisser l'économie en proie à la douleur, c'est donner le temps aux altérations de dévorer nos viscères, c'est, en un mot, nous conduire sûrement à la mort."—*Op. cit.* p. 253. M. Houdart was but following the example of Asclepiades, the fashionable physician at Rome in the first century B.C., who called the Hippocratic treatment a "meditation upon death."

[2] "Lisez les Épidémies. Si votre cœur résiste à cette lecture, vous l'avez de bronze. Qui peut voir en effet de sang-froid cette foule d'infortunés conduits à pas lents sur les bords de la tombe, où ils finissent la plupart par tomber, après avoir souffert durant trois ou quatre mois entiers les douleurs les plus variées et les plus aiguës?"—*Op. cit.* p. 246.

[3] E.g. *Epid.* III. Case VIII. (second series): *θερμάσματα* and *ὀγδόῃ ἀγκῶνα ἔταμον.*

were followed, and does not mention them because they are irrelevant.

The charge of callousness may be dismissed. More serious is the attack on the fundamental principle of Hippocratic medicine, that "nature" alone can effect a cure, and that the only thing the physician can do is to allow nature a chance to work. Modern medical science has accepted this principle as an ultimate truth, but did the writer of the three treatises under discussion do his best to apply it? Did he really try to serve nature, and, by so doing, to conquer her? Houdart says that practically all the author of the *Epidemics* did was "to examine stools, urine, sweats, etc., to look therein for signs of coction, to announce crises and to pronounce sentences of death,"[1] in other words that he looked on and did nothing. I have just pointed out that the silence of the *Epidemics* on the subject of treatment must not be taken to mean that no treatment was given, but it remains to be considered whether all was done that could have been done. What remedies were used by the author of *Regimen in Acute Diseases?* They were:—

(1) Purgatives and, probably, emetics.
(2) Fomentations and baths.
(3) (*a*) Barley-water and barley-gruel, in the preparation and administering of which great care was to be taken.
(*b*) Wine.
(*c*) Hydromel, a mixture of honey and water; and oxymel, a mixture of honey and vinegar.

[1] *Op. cit.* p. 247.

(4) Venesection.
(5) Care was taken not to distress the patient.[1]

If we take into account the scientific knowledge of the time, it is difficult to see what more the physician could have done for the patient. Even nowadays a sufferer from measles or influenza can have no better advice than to keep warm and comfortable in bed, to take a purge, and to adopt a diet of slops. Within the last few years, indeed, chemistry has discovered febrifuges and anaesthetics, the microscope has put within our reach prophylactic vaccines, and the art of nursing has improved out of all recognition, but nearly all these things were as unknown to M. Houdart as they were in the fifth century B.C.

This criticism of Hippocratic medicine has been considered, not because it is in itself worthy of prolonged attention, but because it shows that underlying the three treatises I have mentioned there is a fundamental principle, a unity, a positive characteristic implying either a united school of thought or else a great personality. All antiquity agreed that they were written by the greatest physician of ancient times—Hippocrates. Within the last hundred years, however, doubts have been expressed whether Hippocrates wrote anything. Early in the nineteenth century a doctor of Lille published a thesis intitled *Dubitationes de Hippocratis vita, patria, genealogia, forsan mythologicis, et de quibusdam eius libris multo*

[1] It should be noticed that in all the Hippocratic collection no attention is paid to the pulse. The doctor judged whether a patient was feverish, and estimated the degree of fever, by the touch. I have not translated πυρετὸς ὀξύς by "high temperature," but by "acute fever," because I wish to introduce as few anachronisms as possible.

antiquioribus quam vulgo creditur. Wellmann and Wilamowitz hold similar views nowadays. As the Hippocratic writings are all anonymous, such a hypothesis is not difficult to maintain. But it is a matter of merely antiquarian interest whether or not the shadowy "Hippocrates" of ancient tradition is really the writer of the *Epidemics.* The salient and important truth is that in the latter half of the fifth century works were written, probably by the same author, embodying a consistent doctrine of medical theory and practice, free from both superstition and philosophy, and setting forth rational empiricism of a strictly scientific character. If in future I call the spirit from which this doctrine emanated "Hippocrates" it is for the sake of convenience, and not because I identify the author with the shadowy physician of tradition.

Similar in style and in spirit to the three treatises discussed above are *Aphorisms* and *Airs Waters Places,* along with two surgical works, *Fractures* [1] and *Wounds in the Head.* The severely practical character of the last is particularly noteworthy, and makes the reader wonder to what heights Greek surgery would have risen had antiseptics been known. *Aphorisms* is a compilation, but a great part shows a close relationship to the Hippocratic group. The least scientific of all the seven treatises is *Airs Waters Places,* which, in spite of its sagacity and rejection of the supernatural, shows a tendency to facile and unwarranted generalization.

[1] With this should be joined the work *Articulations,* which is very closely allied to *Fractures,* and is supposed by Galen to have been originally combined with it as a single work. *Instruments of Reduction* appears to be a compendium of *Articulations.*

§ 2. The Hippocratic Collection.

We are now in a position to attempt a brief analysis of the *Corpus Hippocraticum*. For the moment the external evidence of Galen and other ancient commentators, for or against the authenticity of the various treatises, will be passed over. This evidence is of great importance, but may tend to obscure the issue, which is the mutual affinities of the treatises as shown by their style and content.

In the first place the heterogeneous character of the *Corpus* should be observed. It contains:—

(1) Text-books for physicians;
(2) Text-books for laymen;
(3) Pieces of research or collection of material for research.
(4) Lectures or essays for medical students and novices.
(5) Essays by philosophers who were perhaps not practising physicians, but laymen interested in medicine and anxious to apply to it the methods of philosophy.
(6) Note-books or scrap-books.

Even single works often exhibit the most varied characteristics. It is as though loose sheets had been brought together without any attempt at co-ordination or redaction. *Epidemics I.*, for instance, jumps with startling abruptness from a "constitution" of the diseases prevalent at one period in Thasos to the function of the physician in an illness, passing on to a few disjointed remarks on pains in the head and neck. Then follows another "constitution," after which comes an elaborate classification of the

ordinary fevers, with their periods, paroxysms and crises. At the end come fourteen clinical histories.

I have already mentioned a pre-Hippocratic group and a Hippocratic group, and it has been noticed that the main task of Greek medicine was to free science from superstition and from philosophic hypotheses. The *Corpus* contains two polemical works, *On Epilepsy* and *Ancient Medicine,* which attack respectively the "divine" origin of disease and the intrusion into medicine of the hypothetical speculation of philosophers.

There is another group of works which, while they do not display to any marked degree the Hippocratic characteristics, are nevertheless practical handbooks of medicine, physiology or anatomy. The list is a long one, and includes works by different authors and of different schools:—

The Surgery.
The Heart.
Places in Man.
Glands.
Anatomy.
Nature of the Bones.
Sight.
Dentition.
Diseases I.
Diseases II. and III.[1]
Affections.[1]
Internal Affections.[1]
Sores.
Fistulae.
Hemorrhoids.

[1] Shows influence of Cnidian school. So possibly do other books.

Prorrhetic II.
The Physician.
Crises.
Critical Days.
Purges.
Use of Liquids.

Seventh Month Child.
Eighth Month Child.
Generation.[1]
Nature of the Child.[1]
Diseases IV [1]
Diseases of Women.[1]
Barrenness.[1]
Diseases of Girls.
Nature of Women.
Excision of the Foetus.
Superfoetation.

Regimen in Health.[2]
Regimen II. and *III.* with *Dreams.*

Another most important group of works consists of those in which the philosophic element predominates over the scientific, the writers being anxious, not to advance the practice of medicine, but to bring medicine under the control of philosophic dogma, to achieve in fact the end attacked by the writer of *Ancient Medicine.* These works are *Nutriment, Regimen I.* and *Airs.* The first two are Heraclitean; the last is probably derived from Diogenes of Apollonia.

[1] Shows influence of Cnidian school. So possibly do other books.

[2] Really a continuation of *Nature of Man.*

Regimen I., however, while strongly Heraclitean, is eclectic. Animals are said to be composed of two elements, fire and water, fire being a composite of the hot and the dry, water of the cold and the moist. Certain sentences are strikingly reminiscent of Anaxagoras, so much so that it is impossible to regard the resemblances as accidental. Take for instance the following:—

(1) ἀπόλλυται μὲν οὖν οὐδὲν ἁπάντων χρημάτων, οὐδὲ γίνεται ὅτι μὴ καὶ πρόσθεν ἦν. ξυμμισγόμενα δὲ καὶ διακρινόμενα ἀλλοιοῦται.—*Regimen* I. IV.

(2) οὐδὲν γὰρ χρῆμα γίνεται οὐδὲ ἀπόλλυται, ἀλλ' ἀπὸ ἐόντων χρημάτων συμμίσγεταί τε καὶ διακρίνεται.—Anaxagoras, *fr.* 22 (Schaubach).

To assign exact dates to these works is impossible, but they are probably much later than Heraclitus himself. The interesting fact remains that Heraclitus had followers who kept his doctrine alive, second-rate thinkers, perhaps, and unknown in the history of science, but hearty supporters of a creed, and ready to extend it to embrace all new knowledge as it was discovered. Particularly interesting is the work *Nutriment*. This not only adopts the theory of Heraclitus, but also mimics his sententious and mysterious manner of expression. A few examples may not be out of place.

φύσις ἐξαρκέει πάντα πᾶσιν.—*Nutriment* XV.

κρατέει γὰρ [sc. ὁ θεῖος νόμος] . . . καὶ ἐξαρκέει πᾶσι.—Heraclitus *apud* Stob. *Flor.* III. 84.

μία φύσις εἶναι καὶ μὴ εἶναι.—*Nutriment* XXIV.

εἶμέν τε καὶ οὐκ εἶμεν.—Heraclitus *Alleg. Hom.* 24.

ὁδὸς ἄνω κάτω, μία.—*Nutriment* XLV.

ὁδὸς ἄνω καὶ κάτω μία καὶ ὠυτή.—Heraclitus *apud* Hippolyt. IX. 10.

πρός τι πάντα φλαῦρα καὶ πάντα ἀστεῖα.—*Nutriment* XLV.

θάλασσα ὕδωρ καθαρώτατον καὶ μιαρώτατον, ἰχθύσι μὲν πότιμον καὶ σωτήριον, ἀνθρώποις δὲ ἄποτον καὶ ὀλέθριον.—Heraclitus *apud* Hippolyt. IX. 10.

χωρεῖ δὲ πάντα καὶ θεῖα καὶ ἀνθρώπεια, ἄνω καὶ κάτω ἀμειβόμενα.—*Regimen* I. v.

Similar to these philosophic treatises are the essays, ἐπιδείξεις or displays, which propound theses which are not the ὑποθέσεις of philosophers. These are *The Art*, the object of which is to show that there *is* an art of medicine, and *Nature of Man*, which combats the monist philosophers, and sets forth the doctrine of the four humours as the cause of health, by their perfect *crasis*, and of disease, through a disturbance of that *crasis*. To this group we may perhaps add the treatise *Decorum*, which deals (among other things) with bed-side manners, and *Precepts*, a work similar in style and subject.

The last two works are interesting for their introductory remarks. *Decorum* practically identifies medicine and philosophy, which term is used to denote the philosophic spirit, with its moral as well as its intellectual attributes, and recognises the working of an agency not human; it is in fact typical of the ethical science, practical if occasionally commonplace, which came into vogue towards the end of the fourth century B.C. The introduction to *Precepts* is Epicurean. The first chapter, in fact, is a summary of Epicurean epistemology, and is full of the technical terms of that school. A single quotation will suffice :—

ὁ γὰρ λογισμὸς μνήμη τίς ἐστι ξυνθετικὴ τῶν μετ' αἰσθήσιος ληφθέντων· ἐφαντασιώθη γὰρ ἐναργέως ἡ αἴσθησις, προπαθὴς καὶ ἀναπομπὸς ἐοῦσα εἰς διάνοιαν τῶν ὑποκειμένων.—*Precepts* I.

This definition of λογισμός is practically the same as that of the Epicurean πρόληψις given in Diogenes Laertius X. 33.

A few of the contents of the *Corpus Hippocraticum* remain unclassified. Of these, by far the most Hippocratic are *Epidemics II., IV. VII.* It is indeed remarkable that in antiquity they were not generally assigned to the "great" Hippocrates. The clinical histories are invaluable, although they are not so severely pertinent as those of *Epidemics I.* and *III.*, betraying sometimes an eye for picturesque but irrelevant detail.

The treatise curiously misnamed *Fleshes* contains, amid a variety of interesting anatomical and physiological detail, traces of Pythagoreanism in the virtue attached to the number seven, and of Heracliteanism in the view put forward that warmth is the spirit that pervades the universe.

Humours deals with the relations of humours to the seasons and so on.

The Oath and *The Law* are small but interesting documents throwing light on medical education and etiquette.

Finally, the *Epistles*[1] and *Decree*, although merely imaginary essays, show what manner of man Hippocrates was supposed to have been by the Greeks of a later age.

[1] It is interesting to note that the Platonic collection and the New Testament, like the *Corpus*, end with a series of letters.

The Hippocratic collection is a medley, with no inner bond of union except that all the works are written in the Ionic dialect and are connected more or less closely with medicine or one of its allied sciences. There are the widest possible divergences of style, and the sharpest possible contradictions in doctrine. The questions present themselves, why were they united, and when did the union occur?

Littré's problem, "When was the Hippocratic collection published?"[1] cannot be answered, for it is more than doubtful whether, as a whole, the collection was ever published at all. The publication of a modern work must in no way be compared with the circulation of a book in ancient times. Printing and the law of copyright have created a revolution. As soon as an ancient author let go out of his possession a single copy of his book, it was, to all intents and purposes, "published." Copies might be multiplied without permission, and a popular and useful work was no doubt often circulated in this way. Now at least one hundred, perhaps three hundred, years separate the writing of the earliest work in the *Corpus* from the writing of the latest. Diocles knew the *Aphorisms*, Ctesias probably knew *Articulations*, and Menon certainly knew two or three treatises. Aristotle himself quotes from *Nature of Man*, though he ascribes it to Polybus. It is surely impossible to suppose with Littré that there was anything approaching a publication of the *Corpus* by the Alexandrian librarians. Even if they had published for the first time only a large portion of the collection, such a momentous event would scarcely have passed unnoticed by the

[1] Vol. I., chap. xi.

long series of commentators culminating in Galen. The librarians of Alexandria could not have done more than establish a canon, and if our present collection represents their work in this direction it was done very badly, as the most superficial critic would not fail to notice that a great part of its contents is neither by Hippocrates himself nor by his school.

The Hippocratic collection is a library, or rather, the remains of a library. What hypothesis is more probable than that it represents the library of the Hippocratic school at Cos? The ancient biographies of Hippocrates relate a fable that he destroyed the library of the Temple of Health at Cnidos (or, according to another form of the fable, at Cos) in order to enjoy a monopoly of the knowledge it contained. The story shows, at least, that such libraries existed, and indeed a school of medicine, like that which had its home at Cos, could not well have done without one. And what would this library contain? The works of the greatest of the Asclepiads, whether published or not; valuable works, of various dates and of different schools, bearing on medicine and kindred subjects; medical records and notes by distinguished professors of the school, for the most part unpublished; various books, of no great interest or value, presented to the library or acquired by chance.

The Hippocratic collection actually corresponds to this description. This is nearly all the historian is justified in saying. Beyond is mere conjecture. We can only guess when this library ceased to be the property of the Hippocratic school, and how it was transferred to one or other of the great libraries

which were collected in Alexandrine times, to be re-copied and perhaps increased by volumes which did not belong to the original collection.

It may be urged that if the Hippocratic *Corpus* were originally a library, it is improbable that all the treatises composing it would be written in Ionic. But it is by no means certain when Ionic ceased to be the normal medium for medical science; for all we know the dialect may have been in vogue until long after the κοινή established itself throughout the Greek world. Moreover, we do not know what levelling forces were at work among copyists and librarians, inducing them to assimilate the dialects of medical works to a recognized model. We do know, however, that as centuries passed more and more Ionisms, most of them spurious, were thrust upon the Hippocratic texts. The process we can trace in the later history of the text may well have been going on, in a different form, in the fourth and third centuries B.C.

It is because I regard the Hippocratic collection as merely a library that I do not consider it worth while to attempt an elaborate classification, like those of Littré, Greenhill, Ermerins, and Adams. A library is properly catalogued according to subject matter, date, and authorship; it is of little use to view each separate volume in its relationship to a particular writer. The Hippocrates of tradition and the Hippocrates of the commentators may well be left buried in obscurity and uncertainty. What we do know, what must be our foundation stone, is that certain treatises in the *Corpus* are impressed with the marks of an outstanding genius, who inherited much but bequeathed much more. He stands for

science and against superstition and hypothetical philosophy. The other contents of the *Corpus* are older or later than this nucleus, either in harmony with its doctrines or opposed to them. More than this we cannot hope to know for certain.

§ 3. Means of Dating Hippocratic Writings.

The means of fixing the dates of the treatises composing the Hippocratic collection are twofold—external and internal.

The external evidence consists of the statements of Galen and other ancient authors.

The internal tests are :—

(*a*) The philosophical tenets stated or implied ;
(*b*) The medical doctrines ;
(*c*) The style of the treatise ;
(*d*) The language and grammar.

(*a*) When a philosophic doctrine is adopted, or referred to as influential, it is presumptive evidence that the treatise was written before that doctrine grew out of date. We cannot, however, always be sure when a doctrine did grow out of date. It is a mistaken idea to suppose that the rise of a fresh school meant the death of its predecessors. It is certain, for instance, that Heraclitus had followers, after the rise of other schools, who developed his doctrines without altering their essential character.

(*b*) Medical doctrines also are by no means a certain test. If we could be sure that a knowledge

of the pulse was unknown to the writers of the chief Hippocratic treatises, we should be more confident in dating, *e.g.*, the work called *Nutriment*, which recognizes the existence of a pulse. It is a fact that no use is made of this knowledge in any treatise of the collection, but we must not infer from this that the Hippocratic writers were ignorant of pulses. We can only infer that they were ignorant of their medical importance.

(*c*) The style of a treatise is sometimes a sure test and sometimes not. Sophistic rhetoric is of such a marked character in its most pronounced form that a treatise showing it is not likely to be much earlier than 427 B.C., nor much later than 400 B.C., when sophistic extravagances began to be modified under the influence of the Attic orators. But a work moderately sophistic in general style and sentence-structure may be much later.

There is also a subtle quality about writings later than 300 B.C., an unnatural verbosity and tortuousness of expression, a suspicion of the "baboo," that is as unmistakable as it is impalpable. A few of the Hippocratic treatises display this characteristic.

(*d*) In some respects grammar and diction are the surest tests of all. If the negative μή is markedly ousting οὐ it is a sure sign of post-Alexandrine date. A preference for compound words with abstract meaning, in cases where a simple expression would easily have sufficed, is a mark of later Greek prose. If any reader wishes for concrete evidence to support my rather vague generalisations, he has only to read *Epidemics I.*, then *The Art* or *Regimen I.*, and finally *Precepts* or *Decorum*, and try to note the differences.

§ 4. Plato's References to Hippocrates.

In the *Protagoras* (311 B) Plato assumes the case of a young man who goes to Ἱπποκράτη τὸν Κῷον, τὸν τῶν Ἀσκληπιαδῶν, to learn medicine. This passage tells us little except that Hippocrates took pupils for a fee. But in the *Phaedrus* (270 C—E) there is another passage which professes to set forth the true Hippocratic method. It is as follows :—

Socrates. Do you think it possible, then, satisfactorily to comprehend the nature of soul apart from the nature of the universe?

ΣΩ. Ψυχῆς οὖν φύσιν ἀξίως λόγου κατανοῆσαι οἴει δυνατὸν εἶναι ἄνευ τῆς τοῦ ὅλου φύσεως;

Phaedrus. Nay, if we are to believe Hippocrates, of the Asclepiad family, we cannot learn even about the body unless we follow this method of procedure.

ΦΑΙ. Εἰ μὲν οὖν Ἱπποκράτει γε τῷ τῶν Ἀσκληπιαδῶν δεῖ τι πείθεσθαι, οὐδὲ περὶ σώματος ἄνευ τῆς μεθόδου ταύτης.

Socrates. Yes, my friend, and he is right. Yet besides the doctrine of Hippocrates, we must examine our argument and see if it harmonizes with it.

ΣΩ. Καλῶς γάρ, ὦ ἑταῖρε, λέγει. χρὴ μέντοι πρὸς τῷ Ἱπποκράτει τὸν λόγον ἐξετάζοντα σκοπεῖν εἰ συμφωνεῖ.

Phaedrus. Yes.

ΦΑΙ. Φημί.

Socrates. Observe, then, what it is that both Hippocrates and correct

ΣΩ. Τὸ τοίνυν περὶ φύσεως σκόπει τί ποτε λέγει Ἱπποκράτης τε καὶ ὁ

argument mean by an examination of nature. Surely it is in the following way that we must inquire into the nature of anything. In the first place we must see whether that, in which we shall wish to be craftsmen and to be able to make others so, is simple or complex. In the next place, if it be simple, we must inquire what power nature has given it of acting, and of acting upon what; what power of being acted upon, and by what. If on the other hand it be complex, we must enumerate its parts, and note in the case of each what we noted in the case of the simple thing, through what natural power it acts, and upon what, or through what it is acted upon, and by what.

ἀληθὴς λόγος. ἆρ' οὐχ ὧδε δεῖ διανοεῖσθαι περὶ ὁτουοῦν φύσεως; πρῶτον μέν, ἁπλοῦν ἢ πολυειδές ἐστιν, οὗ πέρι βουλησόμεθα εἶναι αὐτοὶ τεχνικοὶ καὶ ἄλλον δυνατοὶ ποιεῖν, ἔπειτα δέ, ἐὰν μὲν ἁπλοῦν ᾖ, σκοπεῖν τὴν δύναμιν αὐτοῦ, τίνα πρὸς τί πέφυκεν εἰς τὸ δρᾶν ἔχον ἢ τίνα εἰς τὸ παθεῖν ὑπὸ τοῦ; ἐὰν δὲ πλείω εἴδη ἔχῃ, ταῦτα ἀριθμησάμενον, ὅπερ ἐφ' ἑνός, τοῦτ' ἰδεῖν ἐφ' ἑκάστου, τῷ τί ποιεῖν αὐτὸ πέφυκεν ἢ τῷ τί παθεῖν ὑπὸ τοῦ;—*Phaedrus* 270 C, D.

It is obvious that if we could find passages in the Hippocratic collection which clearly maintain the doctrine propounded in this part of the *Phaedrus* we should be able to say with confidence that the

Hippocrates of history and tradition was the author of such and such a treatise.

Galen maintains that Plato refers to the treatise *Nature of Man*. I believe that few readers of the latter will notice any striking resemblances between this work[1] and the doctrine outlined by Plato. More plausible is the view of Littré, that Plato refers to Chapter XX of *Ancient Medicine*, which contains the following passage :—

ἐπεὶ τοῦτό γε μοι δοκεῖ ἀναγκαῖον εἶναι παντὶ ἰητρῷ περὶ φύσιος εἰδέναι, καὶ πάνυ σπουδάσαι ὡς εἴσεται, εἴπερ τι μέλλει τῶν δεόντων ποιήσειν, ὅ τί τέ ἐστιν ἄνθρωπος πρὸς τὰ ἐσθιόμενά τε καὶ πινόμενα, καὶ ὅ τι πρὸς τὰ ἄλλα ἐπιτηδεύματα, καὶ ὅ τι ἀφ' ἑκάστου ἑκάστῳ συμβήσεται.

Here the resemblance is closer—close enough to show that the author of *Ancient Medicine*, if he be not the Hippocrates of history, at least held views similar to his. And here the question must be left. Few would maintain with Littré that the resemblance between the two passages is so striking that they must be connected; few again would deny that Plato was thinking of *Ancient Medicine*. Ignorance and uncertainty seem to be the final result of most of the interesting problems presented by the Hippocratic collection.

§ 5. The Commentators and other Ancient Authorities.

About the time of Nero a glossary of unusual Hippocratic terms was written by Erotian, which

[1] To my mind the closest resemblances are in Chapters VII and VIII, which deal with the relations between the "four humours" and the four seasons.

still survives. Erotian was not the first to compose such a work, nor was he the last, the most famous of his successors being Galen. An examination of this glossary, combined with testimony derived from Galen, throws some light on the history of the Hippocratic collection. It will be well to quote a passage from Erotian's introduction, which contains a fairly complete list of commentators.

Παρὰ ταύτην γέ τοι τὴν αἰτίαν πολλοὶ τῶν ἐλλογίμων οὐκ ἰατρῶν μόνον, ἀλλὰ καὶ γραμματικῶν ἐσπούδασαν ἐξηγήσασθαι τὸν ἄνδρα καὶ τὰς λέξεις ἐπὶ τὸ κοινότερον τῆς ὁμιλίας ἀγαγεῖν. Ξενόκριτος γὰρ ὁ Κῷος, γραμματικὸς ὤν, ὥς φησιν ὁ Ταραντῖνος Ἡρακλείδης, πρῶτος ἐπεβάλετο τὰς τοιαύτας ἐξαπλοῦν φωνάς. ὡς δὲ καὶ ὁ Κιτιεὺς Ἀπολλώνιος ἱστορεῖ, καὶ Καλλίμαχος ὁ ἀπὸ τῆς Ἡροφίλου οἰκίας. μεθ' ὃν φασι τὸν Ταναγραῖον Βακχεῖον ἐπιβαλεῖν τῇ πραγματείᾳ καὶ διὰ τριῶν συντάξεων πληρῶσαι τὴν προθεσμίαν, πολλὰς παραθέμενον εἰς τοῦτο μαρτυρίας ποιητῶν, ᾧ δὴ τὸν ἐμπειρικὸν συγχρονήσαντα Φιλῖνον διὰ ἑξαβίβλου πραγματείας ἀντειπεῖν, καίπερ Ἐπικλέους τοῦ Κρητὸς ἐπιτεμομένου τὰς Βακχείου λέξεις διὰ . . . συντάξεων, Ἀπολλωνίου τε τοῦ Ὄφεως ταὐτὸ ποιήσαντος, καὶ Διοσκορίδου τοῦ Φακᾶ πᾶσι τούτοις ἀντειπόντος δι' ἑπτὰ βιβλίων, Ἀπολλωνίου τε τοῦ Κιτιέως ὀκτωκαίδεκα πρὸς τὰ τοῦ Ταραντίνου τρία πρὸς Βακχεῖον διαγράψαντος, καὶ Γλαυκίου τοῦ ἐμπειρικοῦ δι' ἑνὸς πολυστίχου πάνυ καὶ κατὰ στοιχεῖον πεποιημένου ταὐτὸ ἐπιτηδεύσαντος πρός τε τούτοις Λυσιμάχου τοῦ Κῴου κ' βιβλίων ἐκπονήσαντος πραγματείαν μετὰ τοῦ τρία μὲν γράψαι πρὸς Κυδίαν τὸν Ἡροφίλειον, τριὰ δὲ πρὸς Δημήτριον. τῶν δὲ γραμματικῶν οὐκ ἔστιν ὅστις ἐλλόγιμος φανεὶς παρῆλθε τὸν ἄνδρα. καὶ γὰρ ὁ ἀναδεξάμενος αὐτὸν Εὐφορίων πᾶσαν ἐσπούδασε λέξιν ἐξηγήσασθαι διὰ βιβλίων ς', περὶ ὧν γεγράφασιν

Ἀριστοκλῆς καὶ Ἀριστέας οἱ Ῥόδιοι. ἔτι δὲ Ἀρίσταρχος καὶ μετὰ πάντας Ἀντίγονος καὶ Δίδυμος οἱ Ἀλεξανδρεῖς.—pp. 4, 5 (Nachmanson).

A good account of the commentators is given by Littré, vol. I., pp. 83 foll. Herophilus (about 300 B.C.) appears to have been the first; Bacchius his pupil edited *Epidemics III.*, wrote notes on three other Hippocratic works, and compiled a glossary. A great number of short fragments of the works of Bacchius still survive. The most celebrated commentator, a medical man as well as a scholar, was Heraclides of Tarentum, who lived rather later than Bacchius.

Erotian in his introduction gives the following list of Hippocratic works:—

σημειωτικὰ μὲν οὖν ἐστι ταῦτα· Προγνωστικόν, Προρρητικὸν ά καὶ β′ (ὡς οὐκ ἔστιν Ἱπποκράτους, ἐν ἄλλοις δείξομεν), Περὶ χυμῶν. αἰτιολογικὰ δὲ καὶ φυσικά· Περὶ φυσῶν, Περὶ φύσεως ἀνθρώπου, Περὶ ἱερᾶς νόσου, Περὶ φύσεως παιδίου, Περὶ τόπων καὶ ὡρῶν. θεραπευτικὰ δέ· τῶν μὲν εἰς χειρουργίαν ἀνηκόντων· Περὶ ἀγμῶν, Περὶ ἄρθρων, Περὶ ἕλκῶν, Περὶ τραυμάτων καὶ βελῶν, Περὶ τῶν ἐν κεφαλῇ τραυμάτων, Κατὰ ἰητρεῖον, Μοχλικόν, Περὶ αἱμορροΐδων καὶ συρίγγων. εἰς δίαιταν· Περὶ νούσων ά β′, Περὶ πτισάνης, Περὶ τόπων τῶν κατὰ ἄνθρωπον, Γυναικείων ά β′, Περὶ τροφῆς, Περὶ ἀφύρων, Περὶ ὑδάτων. ἐπίμικτα δέ ἐστι ταῦτα· Ἀφορισμοί, Ἐπιδημίαι ζ′. τῶν δ' εἰς τὸν περὶ τέχνης τεινόντων λόγον· Ὅρκος, Νόμος, Περὶ τέχνης, Περὶ ἀρχαίας ἰατρικῆς. Πρεσβευτικὸς γὰρ καὶ Ἐπιβώμιος φιλόπατριν μᾶλλον ἢ ἰατρὸν ἐμφαίνουσι τὸν ἄνδρα.—p. 9 (Nachmanson).

The actual glossary, however, refers to more works than these, as will appear from the following table.

LISTS OF THE HIPPOCRATIC COLLECTION

[Works known to the authors, not necessarily attributed by them to Hippocrates.]

Littré vol.	Name.	Bacchius.	Celsus.	Erotian.
1	περὶ ἀρχαίης ἰητρικῆς		×	×
2	περὶ ἀέρων ὑδάτων τόπων	×	×	×
,,	προγνωστικόν	×	×	×
,,	περὶ διαίτης ὀξέων	×	×	×
,,	ἐπιδημίαι 1	×	×	×
3	ἐπιδημίαι 3	×	×	×
,,	περὶ τῶν ἐν κεφαλῇ τραυμάτων	×	×	×
,,	κατ' ἰητρεῖον	×	×	×
,,	περὶ ἀγμῶν	?	×	×
4	περὶ ἀρθρῶν	×	×	×
,,	μοχλικόν	×		×
,,	ἀφορισμοί	×	×	×
,,	ὅρκος			×
,,	νόμος			×
5	ἐπιδημίαι 2	×	×	×
,,	,, 4			×
,,	,, 5		×	×
,,	,, 6	×		×
,,	,, 7			×
,,	περὶ χυμῶν	×	×	×
,,	προρρητικὸν 1	×		×
,,	Κωακαὶ προγνώσεις		×	
6	περὶ τέχνης	×	×	×
,,	περὶ φύσιος ἀνθρώπου			×
,,	περὶ διαίτης ὑγιεινῆς		×	
,,	περὶ φυσῶν		×	×
,,	περὶ χρήσιος ὑγρῶν	×		×
,,	περὶ νούσων 1	×		××
,,	περὶ παθῶν		×	
,,	περὶ τόπων τῶν κατ' ἄνθρωπον	×		×
,,	περὶ ἱερῆς νούσου	×		×
,,	περὶ ἑλκῶν			×
,,	περὶ αἱμορροΐδων			×
,,	περὶ συρίγγων		×	×

Littré vol.	Name.	Bacchius.	Celsus.	Erotian.
6	περὶ διαίτης 1			××
,,	,, 2		×	××
,,	,, 3			××
,,	περὶ ἐνυπνίων			
7	περὶ νούσων 2		×	××
,,	περὶ νούσων 3			××
,,	περὶ τῶν ἔντος παθῶν		×	××
,,	περὶ γυναικείης φύσιος			
,,	περὶ ἑπταμήνου			
,,	περὶ ὀκταμήνου			
,,	περὶ γονῆς			××
,,	περὶ φύσιος παιδίου	×		×
,,	περὶ νούσων 4			
8	περὶ γυναικείων 1 and 2			×
,,	περὶ ἀφόρων			×
,,	περὶ παρθενίων			
,,	περὶ ἐπικυήσιος			
,,	περὶ ἐγκατατομῆς ἐμβρύου			
,,	περὶ ἀνατομῆς			
,,	περὶ ὀδοντοφυΐης			
,,	περὶ ἀδένων			
,,	περὶ σάρκων			××
,,	περὶ ἑβδομάδων			××
9	προρρητικὸν 2		×	×
,,	περὶ καρδίης	?	×	
,,	περὶ τροφῆς			×
,,	περὶ ὕψιος			
,,	περὶ ὀστέων φύσιος	×		××
,,	περὶ ἰητροῦ			
,,	περὶ εὐσχημοσύνης			
,,	παραγγελίαι			××
,,	περὶ κρισίων			
,,	περὶ κρισίμων			
,,	ἐπιστολαί			
,,	πρεσβευτικός			×
,,	ἐπιβώμιος			×
70		23?	25	49

Erotian knew also περὶ τραυμάτων καὶ βελῶν, now lost.
The double ×× means "by quotation, but not in the list."

N.B.—The list of Bacchius is made by noting where in the Hippocratic collection occur the strange words upon which he commented; that of Celsus by a comparison of similar passages; that of Erotian from his list, by noting where occur the γλῶσσαι explained by him, and from fragments in scholia (see E. Nachmanson's edition, pp. 99 foll.). Of course the list of Celsus is dubious from its nature, and Bacchius may have known many more treatises than those we are sure he did know.

The recently discovered history of medicine called Menon's *Iatrica*[1] contains several references to Hippocrates. Diels is of opinion that they are very erroneous.[2]

In § V. the writer says that according to Hippocrates diseases are caused by "airs" (φῦσαι), a statement which seems to be taken from περὶ φυσῶν, VI. 98 foll. Littré, and the doctrine is described in §§ V. and VI. In § VII. Hippocrates is said to hold doctrines which are taken from *Nature of Man*, VI. 52 foll. Littré. In § VIII. occur references to *Places in Man*, VI. 276, 294 Littré, and *Glands*, VIII. 564 Littré. In § XIX. occur references to *Nature of Man*, VI. 38 Littré, but the physician named is Polybus.

Galen

Galen is the most important of the ancient commentators on Hippocrates, and of his work a great part has survived.

[1] Edited by H. Diels, Berlin, 1893. The work was probably written by a pupil of Aristotle.

[2] See Diels, p. xvi, note 1, and in *Hermes* XXVIII., pp. 410 foll.

His writings are of value for two reasons :—

(1) They often give us a text superior to that of the MSS. of the *Corpus*. Sometimes this text is actually given in Galen's quotations; sometimes it is implied in Galen's commentary.[1]

(2) They sometimes throw light upon the interpretation of obscure passages.

Galen's ideal of a commentator is beyond criticism. He prefers ancient readings, even when they are the more difficult, and corrects only when these give no possible sense. In commenting he is of opinion that he should first determine the sense of the text and then see whether it corresponds with the truth.[2]

Unfortunately he is not so successful when he attempts to put his ideal into practice. He is intolerably verbose, and what is worse, he is eager so to interpret Hippocrates as to gain support therefrom for his own theories. A good example of this fault is his misinterpretation of *Epidemics* III. XIV. Littré gives as another fault his neglect of observation and observed fact.[3]

Galen wrote commentaries, which still survive, on the following :—

Nature of Man.	One book in ancient times.
Regimen of People in Health.	
Regimen in Acute Diseases.	
Prognostic.	
Prorrhetic I.	
Aphorisms.	

[1] On the value of Galen for a reconstruction of the text see especially I. Ilberg in the *Prolegomena* to Kühlewein's edition Vol. I., pp. xxxiv–xlix and lviii–lxii.

[2] See Littré I. 120, 121. [3] I. 121.

Epidemics I., II., III., VI.
Fractures.
Articulations.
Surgery.
Humours.[1]
Nutriment.[1]
Airs, Waters, Places (only fragments survive).

We also have his *Glossary.*

Commentaries on the following are altogether lost:—

Sores.
Wounds in the Head.
Diseases.
Affections.

He also wrote (or promised to write) the following, none of which survive:—*Anatomy of Hippocrates, Characters in Epidemics III., Dialect of Hippocrates, The Genuine Writings of the Physician of Cos.*

Galen also knew: *Coan Prenotions, Epilepsy, Fistulae, Hemorrhoids, Airs, Places in Man, Regimen, Seven Months' Child, Eight Months' Child, Heart, Fleshes, Number Seven, Prorrhetic II., Glands,* and probably *Precepts.*

The most important of the Hippocratic treatises not mentioned by Galen are *Ancient Medicine* and *The Art.*

§ 6. Life of Hippocrates.

We possess three ancient biographies of Hippocrates: one by Suidas, one by Tzetzes, and one by Soranus, a late writer of uncertain date.

[1] These are supposed by the latest criticism not to be genuine.

From these we gather that Hippocrates was born in Cos in 460 B.C.;[1] that he belonged to the guild of physicians called Asclepiadae; that his father was Heraclides, and his teachers were Herodicus and his own father; that he travelled all over Greece, and was a great friend of Democritus of Abdera; that his help was sought by Perdiccas king of Macedonia and by Artaxerxes king of Persia; that he stayed the plague at Athens and in other places; that his life was a long one but of uncertain length, the traditions making him live 85, 90, 104 or 109 years.

In these accounts there is a certain amount of fable, but in the broad outline there is nothing improbable except the staying of the Athenian plague, which is directly contrary to the testimony of Thucydides, who expressly states that medical help was generally unsuccessful.

The *Epistles* in the Hippocratic collection, and the so-called *Decree of the Athenians*, merely give, with fuller picturesqueness of detail, the same sort of information as is contained in the biographies.

Plato refers to Hippocrates in two dialogues—the *Protagoras*[2] and the *Phaedrus*.[3] The former passage tells us that Hippocrates was a Coan, an Asclepiad, and a professional trainer of medical students; the latter states as a fundamental principle of Hippocratic physiology the dogma that an understanding of the body is impossible without an understanding of nature as a whole, in modern

[1] Aulus Gellius *N.A.* XVII. 21 says that he was older than Socrates. This statement, if true, would put his birth prior to 470 B.C.

[2] 311 B,C. [3] 270 C–E.

language, physiology is inseparable from physics and chemistry.

From Aristotle[1] we learn that Hippocrates was already known as "the Great Hippocrates."

Such is the ancient account of Hippocrates, a name without writings, as Wilamowitz says. There is no quotation from any treatise in the *Corpus* before Aristotle,[2] and he assigns as the author not Hippocrates but Polybus.[3] The *Phaedrus* passage, indeed, has been recognized by Littré as a reference to *Ancient Medicine*, but Galen is positive that it refers to *Nature of Man*.

In fact the connexion between the great physician and the collection of writings which bears his name cannot with any confidence be carried further back than Ctesias the Cnidian,[4] Diocles of Carystus[5] and Menon,[6] the writer of the recently discovered *Iatrica*. Ctesias and Diocles belong to the earlier half of the fourth century, and Menon was a pupil of Aristotle.

§ 7. The Asclepiadae.

Hippocrates was, according to Plato, an Asclepiad. This raises the very difficult question, who the Asclepiadae were. Its difficulty is typical of several

[1] *Politics*, VII. 4 (1326 a).

[2] Who quotes from *Nature of Man*.

[3] See Littré VI. 58 and Aristotle *Hist. Animal.* III. 3 (512 b), and compare Galen XV. 11.

[4] Ctesias appears to have known the treatise *Articulations*, Littré I. 70.

[5] Diocles criticises *Aphorisms* II. 33. See Dietz *Scholia in Hippocratem et Galenum* II. 326, and Littré I. 321–323.

[6] Menon refers to *Airs* (περὶ φυσῶν), *Nature of Man*, *Places in Man*, and *Glands*, Hippocrates being expressly connected with the first two.

Hippocratic problems. Certainty, even approximate certainty, is impossible owing to the scantiness of the evidence.

The old view, discarded now by the most competent authorities, is that the Asclepiadae were the priests of the temples of Asclepius, combining the functions of priest and physician. This view implied that Hippocratic medicine had its origin in temple-practice. For a thorough refutation of it see Dr. E. T. Withington's excursus in my *Malaria and Greek History*[1] and his own book *Medical History from the Earliest Times.*[2]

Another view is that the Asclepiadae were a guild, supposed to have been founded by Asclepius, the members of which were bound by rules and swore the Hippocratic "Oath." Such is the view of Dr. Withington himself. It is one which is free from all intrinsic objections, but it is supported by the scantiest of positive evidence.

It should be noticed that the term "Asclepiadae" means literally "the family of Asclepius," and it is at least possible that the Asclepiads were a clan of hereditary physicians who claimed to be descended from Asclepius. It would be very easy for such a family to develop into something like a guild by the admission, or rather adoption, of favoured outsiders. In this way the term might readily acquire the general meaning of medical practitioner, which it apparently has in *e.g.* Theognis 432 :—

εἰ δ' Ἀσκληπιάδαις τοῦτό γ' ἔδωκε θεός,
ἰᾶσθαι κακότητα καὶ ἀτηρὰς φρένας ἀνδρῶν,
πολλοὺς ἂν μισθοὺς καὶ μεγάλους ἔφερον.

[1] pp. 137–156. [2] pp. 45, 46 and 378.

I do not think that it has been noticed what an interesting parallel is afforded by the term "Homeridae." A family of poets tracing their descent from Homer finally could give their name to any public reciter of the Homeric poems.[1]

§ 8. The Doctrine of Humours.

The doctrine of the humours probably had its origin[2] in superficial deductions from obvious facts of physiology, but it was strongly coloured by philosophic speculation, in particular by the doctrine of opposites. Indeed it is impossible to keep distinct the various influences which acted and reacted upon one another in the spheres of philosophy and medicine; only the main tendencies can be clearly distinguished.

Even the most superficial observer must notice (*a*) that the animal body requires air, fluid, and solid food; (*b*) that too great heat and cold are fatal to life, and that very many diseases are attended by fever; (*c*) that fluid is a necessary factor in digestion;[3] (*d*) that blood is in a peculiar way connected with life and health.

These simple observations were reinforced by the speculations of philosophers, particularly when philosophy took a biological or physiological turn, and

[1] See *e.g.* Pindar, *Nemeans* II. 1.

[2] It is supposed by some that the humoral pathology originated in Egypt. See Sir Clifford Allbutt, *Greek Medicine in Rome*, p. 133.

[3] See *Nutriment* LV.: ὑγρασίη τροφῆς ὄχημα. See also *Diseases* IV., Littré VII. 568: τὸ σῶμα . . . ἀπὸ τῶν βρωτῶν καὶ τῶν ποτῶν τῆς ἰκμάδος ἐπαυρίσκεται.

became interested in the organs of man and their functions.[1]

The second of the Greek philosophers, Anaximander,[2] taught that creation was made up of "opposites," though it is not clear how many he conceived these opposites to be. Many later thinkers, working on lines similar to those of Anaximander, made them four in number—the hot, the cold, the moist and the dry. These were the essential qualities of the four elements, fire, air, water, earth.

There was, however, no uniformity among thinkers as to the number of the opposites, and Alcmaeon, a younger contemporary of Pythagoras and a native of Croton, postulated an indefinite number.[3] Alcmaeon was a physician rather than a philosopher, and asserted that health was an *ἰσονομία* of these opposites and disease a *μοναρχία* of one.[4] This doctrine had a

[1] Empedocles, Philistion and Pausanias were the chief pioneers in this union of philosophy with medicine which the writer of *Ancient Medicine* so much deplores. See Burnet, *Early Greek Philosophy*, pp. 234, 235 (also Galen X. 5, *οἱ ἐκ τῆς Ἰταλίας ἰατροὶ Φιλιστίων τε καὶ Ἐμπεδοκλῆς καὶ Παυσανίας καὶ οἱ τούτων ἑταῖροι.*)

[2] He was also interested in biology. See Burnet, pp. 72, 73.

[3] Aristotle *Meta.* A 986a 31: *φησὶ γὰρ εἶναι δύο τὰ πολλὰ τῶν ἀνθρωπίνων, λέγων τὰς ἐναντιότητας οὐχ ὥσπερ οὗτοι* [sc. *οἱ Πυθαγόρειοι*] *διωρισμένας ἀλλὰ τὰς τυχούσας, οἷον λευκὸν μέλαν, γλυκὺ πικρόν, ἀγαθὸν κακόν, μέγα μικρόν.*

[4] Aëtius V. 30. 1, and Galen (Kühn) XIX. 343: *Ἀλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν ἰσονομίαν τῶν δυνάμεων ὑγροῦ, θερμοῦ, ξηροῦ, ψυχροῦ, πικροῦ, γλυκέος καὶ τῶν λοιπῶν, τὴν δὲ ἐν αὐτοῖς μοναρχίαν νόσου ποιητικήν.* See also 344: *τὴν δὲ ὑγείαν σύμμετρον τῶν ποιῶν τὴν κρᾶσιν.* It would be interesting if the technical word *κρᾶσις* could be traced back to Alcmaeon himself.

strong influence upon the Coan school of medicine, and indeed upon medical theory generally.

But the opposites are not χυμοί: they are only δυνάμεις. The humoral pathology was not fully developed until for δυνάμεις were substituted fluid substances.[1] In tracing this development the historian is much helped by *Ancient Medicine*. It is here insisted that the hot, the cold, the moist and the dry are not substances; they are only "powers," and, what is more, powers of merely secondary importance.[2] The body, it is maintained, has certain essential χυμοί, which χυμοί have properties or "powers" with greater influence upon health than temperature. The number of the χυμοί is left indefinite. If the body be composed of opposite humours, and if health be the harmonious mixture or blending (κρᾶσις) of them, we shall expect to see one or other "lording it over the others" (μοναρχία) in a state of disease.

The two commonest complaints in ancient Greece, chest troubles and malaria, suggested as chief of these humours four: phlegm, blood (suggested by hemorrhage in fevers), yellow bile and black bile (suggested by the vomits, etc., in remittent malaria).

That the humours are four is first clearly stated in *Nature of Man*, which Aristotle assigns to Polybus, though Menon quotes a portion of it as Hippocratic. The passage in question runs: τὸ δὲ σῶμα τοῦ ἀνθρώπου

[1] It is a pity that the treatise *Humours* tells us so little about the humours themselves. It is merely a series of notes for lectures, heads of discourse to medical students.

[2] See especially Chapters XIV–XVII, in particular XVII: ἀλλ ἔστι καὶ πικρὸν καὶ θερμὸν τὸ αὐτό, καὶ ὀξὺ καὶ θερμόν, καὶ ἁλμυρὸν καὶ θερμόν . . . τὰ μὲν οὖν λυμαινόμενα ταῦτ' ἐστί.

ἔχει ἐν ἑωυτῷ αἷμα καὶ φλέγμα καὶ χολὴν ξανθήν τε καὶ μέλαιναν, καὶ ταῦτα ἐστὶν αὐτῷ ἡ φύσις . . . ὑγιαίνει μὲν οὖν μάλιστα ὁκόταν μετρίως ἔχῃ ταῦτα τῆς πρὸς ἄλληλα κρήσιος καὶ δυνάμιος καὶ τοῦ πλήθεος, καὶ μάλιστα μεμιγμένα ᾖ κ.τ.λ. (Littré VI. 38 and 40).

Some thinkers, belonging to the school of Empedocles, and being more inclined towards philosophy than towards medicine, made the four chief opposites, materialized into fire, air, water and earth, the components of the body, and disease, or at any rate some of the chief diseases, an excess of one or other. We see this doctrine fairly plainly in Menon's account of Philistion,[1] and it is copied by Plato in the *Timaeus*.[2]

The doctrines I have described admitted many variations, and in Menon's *Iatrica*, which is chiefly an account of the origins of disease as given by various physicians, the most diverse views are set forth. Petron of Aegina, while holding that the body is composed of the four opposites, stated that disease was due to faulty diet, and that bile was the result and not the cause of disease.[3] Hippon thought that a suitable quantity of moisture was the cause of health;[4] Philolaus that disease was due to bile, blood and phlegm;[5] Thrasymachus of Sardis that blood, differentiated by excess of cold or heat into phlegm, bile, or τὸ σεσηπός (matter or pus), was

[1] *Iatrica* XX.: Φιλιστίων δ' οἴεται ἐκ δ ἰδεῶν συνεστάναι ἡμᾶς, τοῦτ' ἔστιν ἐκ δ στοιχείων· πυρός, ἀέρος, ὕδατος, γῆς. εἶναι δὲ καὶ ἑκάστου δυνάμεις, τοῦ μὲν πυρὸς τὸ θερμόν, τοῦ δὲ ἀέρος τὸ ψυχρόν κ.τ.λ.

[2] 86 A: τὸ μὲν οὖν ἐκ πυρὸς ὑπερβολῆς μάλιστα νοσῆσαν σῶμα ξυνεχῆ καύματα καὶ πυρετοὺς ἀπεργάζεται, τὸ δ' ἐξ ἀέρος ἀμφημερινούς κ.τ.λ.

[3] *Iatrica*, XX. [4] *Ibid.*, XI. [5] *Ibid.*, XVIII.

the cause;[1] Menecrates that the body is composed of blood, bile, breath and phlegm, and that health is a harmony of these.[2]

The Hippocratic collection shows similar diversity of opinion. *Diseases* IV. 51, gives as the four humours bile, blood, phlegm and ὕδρωψ (not water, but a watery humour).[3] *Affections I.* ascribes all diseases to bile and phlegm.[4] *Ancient Medicine* recognizes an indefinite number of humours.

The great Hippocratic group imply the doctrine of humours in its phraseology and outlook on symptoms, but it is in the background, and nowhere are the humours described. It is clear, however, that bile and phlegm are the most prominent, and bilious and phlegmatic temperaments are often mentioned in *Airs Waters Places* and *Epidemics I.* and *III.* There are signs of subdivision in πικρόχολοι[5] and λευκοφλεγματίαι.[6]

Amid all these differences, which by their very variety indicate that they belonged to theory without seriously affecting practice, there is one common principle—that health is a harmonious mingling of the constituents of the body. What these constituents are is not agreed, nor is it clear what exactly is meant by "mingling."

The word ἄκρητος, which I have translated "unmixed" or "uncompounded," is said by Galen to mean "consisting of one humour only." It is more

[1] *Iatrica*, XI. (end).
[2] *Ibid.*, XIX.
[3] Littré VII. 584.
[4] *Ibid.*, VI. 208.
[5] *Regimen in Acute Diseases*, XXXIII.: οἱ πικρόχολοι τὰ ἄνω: *Epidemics* III. XIV. (end).
[6] *Epidemics* III. XIV.

likely that the word means properly "showing signs that *crasis* has not taken place."

Coction

The course of our inquiry has brought us to the doctrine of "coction" (πέψις). Familiar as a modern is with the difference between chemical blending and mechanical mixture, it is difficult for him to appreciate fairly theories put forward when this difference was unknown, and the human mind was struggling with phenomena it had not the power to analyse, and trying to express what was really beyond its reach. We must try to see things as the Greek physician saw them.

We have in Chapters XVIII and XIX of *Ancient Medicine* the most complete account of coction as the ancient physician conceived of it. It is really the process which leads to κρᾶσις as its result. It is neither purely mechanical nor yet what we should call chemical; it is the action which so combines the opposing humours that there results a perfect fusion of them all. No one is left in excess so as to cause trouble or pain to the human individual. The writer takes three types of illnesses—the common cold, ophthalmia and pneumonia—and shows that as they grow better the discharges become less acrid and thicker as the result of πέψις.

In one respect the writer of *Ancient Medicine* is not a trustworthy guide to the common conception of πέψις. He attached but little importance to heat, and it can scarcely be doubted that the action of heat upon the digestibility of foods, and the heat which accompanies the process of digestion itself,

must have coloured the notion of πέψις as generally held. It is true that we read little about innate heat in the Hippocratic collection, but that is an accident, and it certainly was thought to have a powerful influence upon the bodily functions.[1]

A disease was supposed to result when the equilibrium of the humours, from some "exciting cause" or other (πρόφασις), was disturbed, and then nature, that is the constitution of the individual (φύσις), made every effort she could through coction to restore the necessary κρᾶσις.

Crisis

The battle between nature and the disease was decided on the day that coction actually took place or failed to take place. The result was recovery, partial or complete, aggravation of the disease, or death. The crisis (κρίσις) is "the determination of the disease as it were by a judicial verdict."[2]

After a crisis there might, or might not, be a relapse (ὑποστροφή), which would be followed in due course by another crisis.

The crisis, if favourable, was accompanied by the expulsion of the residue remaining after coction and κρᾶσις of the humours had occurred. This expul-

[1] See *Aphorisms*, § I. 14: τὰ αὐξανόμενα πλεῖστον ἔχει τὸ ἔμφυτον θερμόν· πλείστης οὖν δεῖται τροφῆς· εἰ δὲ μή, τὸ σῶμα ἀναλίσκεται κ.τ.λ.

[2] See Dr. E. T. Withington, *Classical Review*, May–June 1920, p. 65. There is a good definition of κρίσις in *Affections* VIII. (Littré VI. 216): κρίνεσθαι δέ ἐστιν ἐν ταῖς νούσοις, ὅταν αὔξωνται αἱ νοῦσοι ἢ μαραίνωνται ἢ μεταπίπτωσιν ἐς ἕτερον νόσημα ἢ τελευτῶσιν.

sion might take place through any of the ordinary means of evacuation—mouth, bowels, urine, pores—and the evacuated matters were said to be concocted (*πέπονα*), that is to say, they presented signs that coction had taken place.[1]

But nature was not always able to use the ordinary means of evacuation. In this case there would be an abscession (*ἀπόστασις*). When the morbid residue failed to be normally evacuated, it was gathered together to one part of the body and eliminated, sometimes as an eruption or inflammation, sometimes as a gangrene or tumour, sometimes as a swelling at the joints.

An abscession did not necessarily mean recovery; it might merely be a change from one disease to another. The Hippocratic writers are not clear about the point, but apparently the abscession might fail to accomplish its purpose, and so the disease continued in an altered form.[2] In other words there was abscession without real crisis.

To trace the course of a disease through its various stages, and to be able to see what is portended by symptoms in different diseases and at different stages of those diseases, was an art upon which Hippocrates laid great stress. He called it *πρόγνωσις*, and it included at least half of the physician's work.

[1] The chief signs of coction were greater consistency, darker colour, and "ripeness" or "mellowness."

[2] The most important passages are:—

(*a*) *οὐδὲ γὰρ αἱ γιγνόμεναι τούτοις ἀποστάσιες ἔκρινον ὥσπερ ἐπὶ τοῖς ἄλλοις* (*Epidemics* III. XII.).

(*b*) *ἀποστάσιες ἐγένοντο, ἢ μέζους ὥστε ὑποφέρειν μὴ δύνασθαι, ἢ μείους ὥστε μηδὲν ὠφελεῖν ἀλλὰ ταχὺ παλινδρομεῖν κ.τ.λ.* (*Epidemics* I. VIII.).

Critical Days

Crises took place on what were called critical days. It is a commonplace that a disease tends to reach a crisis on a fixed day from the commencement, although the day is not absolutely fixed, nor is it the same for all diseases. The writer of *Prognostic* and *Epidemics I.* lays it down as a general law that acute diseases have crises on one or more fixed days in a series.

In *Prognostic* Chapter XX the series for fevers is given thus:—4th day, 7th, 11th, 14th, 17th, 20th, 34th, 40th, 60th.

In *Epidemics* I. xxvi. two series are given:—

(*a*) diseases which have exacerbations on even days have crises on these even days: 4th, 6th, 8th, 10th, 14th, 20th, 24th, 30th, 40th, 60th, 80th, 120th.

(*b*) diseases which have exacerbations on odd days have crises on these odd days: 3rd, 5th, 7th, 9th, 11th, 17th, 21st, 27th, 31st.

A crisis on any other than a normal day was supposed to indicate a probably fatal relapse.

Galen thought that Hippocrates was the first to discuss the critical days, and there is no evidence against this view, though it seems more likely that it gradually grew up in the Coan school.[1]

What was the origin of this doctrine? Possibly it may in part be a survival of Pythagorean magic, numbers being supposed to have mystical powers, which affected medicine through the Sicilian-Italian

[1] On the other hand, critical days are not discussed at all in *Coan Prenotions*, the supposed repository of pre-Hippocratic Coan medicine.

school. But a man so free from superstition as the author of *Epidemics I.* was unlikely to be influenced by mysticism, particularly by a mysticism which left his contemporaries apparently untouched. More probably there is an effort to express a medical truth. In malarious countries, all diseases, and not malaria only, tend to grow more severe periodically; latent malaria, in fact, colours all other complaints. May it not be that severe exacerbations and normal crises were sometimes confused by Hippocrates, or perhaps a series of malarial exacerbations attracted the crisis to one of the days composing it? The sentence in *Epidemics* I. xxvi. is very definitely to the effect that when exacerbations are on even days, crises are on even days; when exacerbations are on odd days, crises are on odd days. Evidently the critical days are not entirely independent of the periodicity of malaria.

§ 9. Chief Diseases Mentioned in the Hippocratic Collection.

Diseases were classified by ancient physicians according to their symptoms; they are now classified according to the micro-organisms which cause them. Accordingly it often happens that no exact equivalent in Greek corresponds to an English medical term and *vice versa*. The name of a Greek disease denotes merely a syndrome of symptoms.

Perhaps the most remarkable point arising in a discussion of Greek diseases is the apparent absence of most infectious fevers. Plagues, vaguely referred to by the term λοιμός,[1] occurred at intervals, but the

[1] For the common Greek conception of λοιμός see pseudo-Aristotle *Problems* I. 7.

medical writings in the Hippocratic collection are occupied almost entirely with endemic disease and do not describe plagues, not even the great plague at Athens. There is no mention of smallpox or measles; no certain reference occurs to diphtheria, scarlet fever, bubonic plague or syphilis. It is extremely doubtful whether typhoid was present in Greece, for although it is similar to severe cases of καῦσος and φρενῖτις, the latter were certainly in most cases pernicious malaria, which is often so like typhoid that only the microscope can distinguish them. It is expressly stated by pseudo-Aristotle [1] that fevers were not infectious, and it is difficult to reconcile this statement with the prevalence of typhoid. The question must be left open, as the evidence is not clear enough to warrant a confident decision.[2]

Colds, "with and without fever," [3] were common enough in ancient times, but whether influenza prevailed cannot be stated for certain. Its all too frequent result, pneumonia, was indeed well known, but it is puzzling that in the description of epidemic cough at Perinthus,[4] the nearest approach to an influenza wave in the Hippocratic collection, it is expressly stated that relapses into pneumonia were rare.[5]

Consumption (φθίσις) is one of the diseases most frequently mentioned in the *Corpus*, and it is remarkable that in the very passage where we are told

[1] *Problems*, VII. 8.
[2] See Stéphanos, *La Grèce*, p. 502.
[3] See *Epidemics IV.*, Littré V., p. 149.
[4] *Epidemics VI.*, Littré, pp. 331–337.
[5] *Loc. cit.*, p. 333.

that fevers are not infectious it is also stated that consumption is so. To consumption are added "ophthalmias," which term will therefore include all contagious inflammations of the eyes.[1]

The greatest plague of the Greek and of the ancient world generally was malaria, both mild and malignant, both intermittent and remittent.

The intermittents (διαλείποντες πυρετοί) are :—

ἀμφημερινὸς πυρετός (quotidians)
τριταῖος πυρετός (tertians)
τεταρταῖος πυρετός (quartans)[2]

The remittents (often συνεχεῖς πυρετοί) included :—

καῦσος, so called because of the intense heat felt by the patient, a remittent tertian often mentioned in the *Corpus*.

φρενῖτις, characterized by pain in the hypochondria and by delirium. It generally had a tertian periodicity.

λήθαργος, characterized by irresistible coma. It bore a strong likeness to what is now known as the comatose form of pernicious malaria.

ἡμιτριταῖος, semitertian, was pernicious remittent malaria with tertian periodicity.[3]

τῦφος or τῖφος, of which five different kinds are mentioned in the Cnidian treatise περὶ τῶν ἐντὸς παθῶν

[1] Pseudo-Aristotle *Problems* VII. 8: διὰ τί ἀπὸ φθίσεως καὶ ὀφθαλμίας καὶ ψώρας οἱ πλησιάζοντες ἁλίσκονται· ἀπὸ δὲ ὕδρωπος καὶ πυρετῶν καὶ ἀποπληξίας οὐχ ἁλίσκονται, οὐδὲ τῶν ἄλλων;

[2] See *e.g. Epidemics* I. XXIV., where quintans, septans and nonans also are mentioned. In the fourth century the existence of these fevers was denied.

[3] I have discussed these diseases more fully in my *Malaria and Greek History*, pp. 63–68.

(Littré VII. 260 foll.), was in at least two cases a species of remittent malaria.

In connexion with the question of malaria it should be noticed that malarial cachexia, the symptoms of which are anaemia, weakness, dark complexion and enlarged spleen, is often described in the Hippocratic collection. Especially vivid is the description in *Airs Waters Places*. This is further evidence of the malarious condition of the ancient Greek world.

μελαγχολία

This word is closely connected both with the doctrine of the humours and with the prevalence of malaria. It is fully discussed in *Malaria and Greek History*, pp. 98–101. Generally it means our "melancholia," but sometimes merely "biliousness." In popular speech μελαγχολία and its cognates sometimes approximate in meaning to "nervous breakdown." Probably the name was given to any condition resembling the prostration, physical and mental, produced by malaria, one form of which (the quartan) was supposed to be caused by "black bile" (μέλαινα χολή).

ἐρυσίπελας

See Foes' *Oeconomia*, p. 148, where quotations are given which enable us to distinguish ἐρυσίπελας from φλεγμονή. Both exhibit swelling (ὄγκος) and heat (θερμασία), but whereas ἐρυσίπελας is superficial and yellowish, φλεγμονή is internal also and red.

διάρροια and δυσεντερία

The former is local, and causes merely the passing of unhealthy excreta. The latter is accompanied by

fever, and is a dangerous disease, in which the bowel is ulcerated, with the passing of blood. See *περὶ παθῶν* 23 and 25 (Littré VI. 234, 235), and more especially *περὶ διαίτης* 74 (Littré IV. 616):—

τοῦτο γὰρ (διάρροια) ὀνομάζεται ἕως ἂν αὐτὴ μόνη σαπεῖσα ἡ τροφὴ ὑποχωρῇ. ὁκόταν δὲ θερμαινομένου τοῦ σώματος κάθαρσις δριμέα γένηται, τό τε ἔντερον ξύεται καὶ ἑλκοῦται καὶ διαχωρεῖται αἱματώδεα, τοῦτο δὲ δυσεντερίη καλεῖται, νόσος χαλεπὴ καὶ ἐπικίνδυνος.

"Dysentery" would include what is now called by this name and any severe intestinal trouble, perhaps typhoid and paratyphoid if these were diseases of the Greek world, while "diarrhoea" means merely undue laxity of the bowels.

Delirium

The Hippocratic collection is rich in words meaning delirium of various kinds. It is probable, if not certain, that each of them had its own associations and its own shade of meaning, but these are now to a great extent lost. Only the broad outlines of the differences between them can be discerned by the modern reader. The words fall into two main classes:—

(1) Those in which the mental derangement of delirium is the dominant idea; *e.g.* *παραφέρομαι*, *παραφρονῶ* (the word common in *Prognostic*), *παρανοῶ*, *παρακοούω* (the most common word in *Epidemics I.* and *III.*), *παρακοπή*, *ἐκμαίνομαι*, *μανία*.

(2) Those in which stress is laid upon delirious talk; *e.g.* *λῆρος*, *παράληρος*, *παραληρῶ*, *παραλέγω*, *λόγοι πολλοί*.

It is more difficult to say exactly which words in each class signify the greater degree of delirium. Of class (1) ἐκμαίνομαι is obviously the most vigorous word, meaning "wild raving," μανία comes next to it, and παρακοπή is apparently slightly stronger than the others. Of class (2) λῆρος or παράληρος seems to be the strongest, then παραλέγω, and finally λόγοι πολλοί.

Pain

There are two common words for pain in the *Corpus*, πόνος and ὀδύνη. They seem practically synonymous. Perhaps πόνος is more commonly used of violent pains, and ὀδύνη of dull, gnawing pains, but I think that no reader would care to pronounce a confident opinion on the matter.

Ague

There are two words commonly used to describe the chilly feeling experienced in fevers, especially in malarial fevers. These are (*a*) ῥῖγος and its derivatives, and (*b*) φρίκη and its derivatives. The former lays stress upon the chilly feeling, the latter upon the shivering accompanying it. But in this case also it is possible to discriminate too finely; see *e. g.* in *Epidemics* III. Case 11. (second series), φρικώδης is followed by μετὰ τὸ γενόμενον ῥῖγος, referring apparently to the same occasion.

The reader should note the extreme care with which symptoms are described in the Hippocratic group of treatises. It has been pointed out, for instance, that in *Epidemics* I. Case 1., and *Epidemics* III. Case xv. (second series), there are possibly

instances of Cheyne-Stokes breathing. Noticed by the writer of these works, this important symptom was overlooked until the eighteenth century.

§ 10. πολύς AND ὀλίγος IN THE PLURAL.

It is at least curious that one of the translator's greatest difficulties is to decide what are the meanings of πολύς and ὀλίγος (also of σμικρά) when used in the plural. The reader is at first sight inclined to think that ῥεύματα πολλά (*Epidemics* III. IV.) means "many fluxes," and so possibly it may. But just above we have ῥεῦμα πολύ, "a copious flux," and so the plural may well mean "copious fluxes." The ambiguity becomes more serious when the words are applied to the excreta. Is frequency or quantity the more dominant idea? It seems impossible to say for certain, but the evidence tends towards the latter view. From *Prognostic* Chapter XI it seems that quantity is the more important thing, and in the same passage πυκνόν is the word used to denote frequency. The usage in *Epidemics I.* and *III.* bears out this view. "Frequently shivering" is φρικώδεες πυκνά (*Epid.* III. XIII.). In the same chapter occurs the sentence, αἱ δὲ βῆχες ἐνῆσαν μὲν διὰ τέλεος πολλαί, καὶ πολλὰ ἀνάγουσαι πέπονα, where πολλαί means "many" and πολλά "copious." In *Epid.* III. Case II. (second series) βῆχες συνεχέες ὑγραὶ πολλαί means "continued coughing with watery and copious sputa." In Case IX. of the same series "frequent, slight epistaxis" is ἡμορράγει . . . . πυκνὰ κατ' ὀλίγον. After long consideration of this difficult question I conclude that πολύς and ὀλίγος in the plural, when

used of excreta, etc., should be translated "copious" or "abundant" unless the context makes the other meaning absolutely necessary.

The case is somewhat similar with the word σμικρά. Used adverbially this word means "slightly," "a little," more often than it does "in small quantities." σμικρὰ κατενόει is almost certainly "lucid intervals," and σμικρὰ ἐκοιμήθη is "snatches of sleep," but I do not feel sure that σμικρὰ παρέκρουσε means more than "slight delirium," nor σμικρὰ ἐπύρεξε (*Epid.* III. XIII.) more than "slightly feverish."

§ 11. The Ionic Dialect of the Hippocratic Collection.

The later MSS. of the *Corpus* exhibit a mass of pseudo-ionic forms which are not to be found, or are only rarely found, in the earlier MSS. The uncontracted forms, too, are more common in the later authorities. If we follow closely the earlier MSS. we have a text which is very like Attic, with a mild sprinkling of Ionic forms. These facts seem to show that, when Ionic became the medium of scientific prose, it lost touch gradually with the spoken speech and assimilated itself to the predominant Attic, and later on possibly to the κοινή. It retained just enough Ionic to keep up the tradition and to conform to convention. The later scribes, under the mistaken impression that the texts before them had been atticized, restored what they considered to be the ancient forms, often with disastrous results. Many of their ionisms are sheer monstrosities.

In 1894 A. W. Smyth discussed the dialect of the *Corpus* in his work *The Sounds and Inflections of the*

Greek Dialects: Ionic.[1] He pointed out, however, that the labours of Littré[2] had left much to be done in this department of Hippocratic study, and that the material for a sound judgment was not yet available.

The collection of this material is not yet complete, but a good start was made by Kühlewein, who in Chapter III of the *Prolegomena* to the first volume of the Teubner Hippocrates (*de dialecto Hippocratica*)[3] laid down the principles followed in the present edition.

§ 12. Manuscripts.

None of our MSS. are very old, but the oldest are far superior to the later, both in readings and in dialect. There is no regular canon, and no recognized order; each independent MS. seems to represent a different "collection" of Hippocratic works. This fact fits in well with the theory that the nucleus of the *Corpus* was the library (or the remains of it) of the Hippocratic medical school at Cos.

θ Vindobonensis med. IV., tenth century. Our oldest MS., containing: *περὶ τῶν ἔντος παθῶν. περὶ παθῶν. περὶ ἱερῆς νούσου. περὶ νούσων ᾱ. περὶ νούσων γ̄ περὶ νούσων β̄. περὶ διαίτης ᾱ. περὶ διαίτης β̄. περὶ διαίτης γ̄* (with *περὶ ἐνυπνίων*). *περὶ γυναικείων ᾱ. περὶ γυναικείων β̄. περὶ γυναικείης φύσιος.* Of some books parts are missing.

A Parisinus 2253, eleventh century. It contains:

[1] See §§ 94–103, pp. 100–110.
[2] See Vol. I., 479–502.
[3] pp. lxv–cxxviii.

Κωακαὶ προγνώσεις. περὶ τροφῆς. περὶ πτισάνης. περὶ χυμῶν. περὶ ὑγρῶν χρήσιος. ἐπιβώμιος. περὶ τέχνης. περὶ φύσιος ἀνθρώπου. περὶ φυσῶν. περὶ τόπων τῶν κατὰ ἄνθρωπον. περὶ ἀρχαίης ἰητρικῆς. ἐπιδημιῶν α̅. An excellent MS., the use of which has transformed our Hippocratic text. There are four or five correcting hands.

B Laurentianus 74, 7, eleventh or twelfth century. It contains: κατ' ἰητρεῖον. περὶ ἀγμῶν. περὶ ἄρθρων. περὶ τῶν ἐν κεφαλῇ τρωμάτων. Two correcting hands.

V Vaticanus graecus 276, twelfth century. It contains: ὅρκος. νόμος. ἀφορισμοί. προγνωστικόν. περὶ διαίτης ὀξέων. κατ' ἰητρεῖον. περὶ ἀγμῶν. περὶ ἄρθρων. περὶ τῶν ἐν κεφαλῇ τρωμάτων. περὶ ἀέρων, ὑδάτων, τόπων. ἐπιδημιῶν α̅β̅γ̅δ̅ε̅ϛ̅. περὶ φύσεως ἀνθρώπου. περὶ φύσεως παιδίου. περὶ γονῆς. περὶ ἐπικυήσεως. περὶ ἑπταμήνου. περὶ ὀκταμήνου. περὶ παρθένων. περὶ γυναικείης φύσιος. περὶ ὀδοντοφυΐας. περὶ τόπων τῶν κατὰ ἄνθρωπον. γυναικείων α̅β̅. περὶ ἀφόρων. περὶ ἐπικυήσιος (again). περὶ ἐγκατατομῆς παιδίου. περὶ ἰητροῦ. περὶ κρίσεων. περὶ κραδίης. περὶ σαρκῶν. περὶ ἀδένων οὐλομελίης. περὶ ἀνατομῆς. ἐπιστολαί. δόγμα Ἀθηναίων. ἐπιβώμιος. πρεσβευτικός.

M Marcianus Venetus 269, eleventh century. It contains: ὅρκος. νόμος. περὶ τέχνης. περὶ ἀρχαίης ἰητρικῆς. παραγγελίαι. περὶ εὐσχημοσύνης. περὶ φύσεως ἀνθρώπου. περὶ γονῆς. περὶ φύσεως παιδίου. περὶ ἄρθρων. περὶ χυμῶν. περὶ τροφῆς. περὶ ἑλκῶν. περὶ ἱερῆς νούσου. περὶ νούσων α̅. περὶ νούσων β̅. περὶ νούσων γ̅. περὶ νούσων δ̅. περὶ παθῶν. περὶ τῶν ἐντὸς παθῶν. περὶ διαίτης α̅. περὶ διαίτης β̅. περὶ διαίτης γ̅. περὶ ἐνυπνίων. περὶ ὄψιος. περὶ κρισίμων. ἀφορισμοί. προγνωστικόν. περὶ διαίτης ὀξέων. περὶ φυσῶν. μοχλικόν. περὶ ὀστέων φύσιος. περὶ ἀγμῶν.

κατ' ἰητρεῖον. περὶ ἐγκατατομῆς ἐμβρύου. περὶ γυναικείων ᾱ. περὶ γυναικείων β. περὶ ἀφόρων. περὶ ἐπικυήσιος. περὶ ἑπταμήνου. περὶ ὀκταμήνου. περὶ παρθενίων. περὶ γυναικείης φύσεως. Part of *ἐπιδημίων ε̄. ἐπιδημιῶν ϛ̄. ἐπιδημιῶν ζ̄. ἐπιστολαί. ὁ περὶ μανίης λόγος. δόγμα Ἀθηναίων. πρεσβευτικός* (mutilated).

C′ Paris 446 suppl. Tenth century.
D Paris 2254
E Paris 2255 } Fourteenth century.
F Paris 2144
H Paris 2142. Thirteenth century.
I Paris 2140
J Paris 2143 } Fourteenth century.
K Paris 2145
S′ Paris 2276
R′ Paris 2165. Sixteenth century.
𝔅 Barberinus I. 5. Fifteenth century.

§ 13. Chief Editions and Translations, etc., of the Hippocratic *Corpus*.

1525 Hippocratis Coi medicorum longe principis octoginta volumina, quibus maxima ex parte annorum circiter duo millia latina caruit lingua, Graeci vero, Arabes et prisci nostri medici, plurimis tamen utilibus praetermissis, scripta sua illustrarunt, nunc tandem per M. Fabium Calvum, Rhavennatem, virum undecumque doctissimum, latinitate donata, Clementi VII pont. max. dicata, ac nunc primum in lucem edita, quo nihil humano generi salubrius fieri potuit.

Romae ex aedibus Francisci Minitii Calvi Novocomensis. 1 vol. fol.

1526 *Ἅπαντα τὰ τοῦ Ἱπποκράτους.* Omnia opera

Hippocratis. Venetiis in aedibus Aldi et Andreae Ansulani soceri. Fol.

1538 Ἱπποκράτους Κῴου ἰατροῦ παλαιοτάτου πάντων ἄλλων κορυφαίου βιβλία ἅπαντα. Hippocratis Coi medici vetustissimi, et omnium aliorum principis, libri omnes ad vetustos codices summo studio collati et restaurati. Froben, Basileae. Fol.

This edition was edited by Janus Cornarius.

1545 Hippocratis Coi medicorum omnium facile principis opera quae extant omnia. Iano Cornario medico physico interprete. Venet. Oct. Apud I. Gryphium.

1588 Hippocratis Coi opera quae extant, graece et latine veterum codicum collatione restituta, novo ordine in quatuor classes digesta, interpretationis latinae emendatione et scholiis illustrata ab Hieron. Mercuriali Foroliviensi. Venetiis industria ac sumptibus Juntarum. Fol.

1588 Oeconomia Hippocratis alphabeti serie distincta, Anutio Foesio authore. Francofurti. Fol.

1595 Τοῦ μεγάλου Ἱπποκράτους πάντων τῶν ἰατρῶν κορυφαίου τὰ εὑρισκόμενα.

Magni Hippocratis medicorum omnium facile principis opera omnia quae extant in VIII sectiones ex Erotiani mente distributa, nunc recens latina interpretatione et annotationibus illustrata, Anutio Foesio Mediomatrico medico authore. Francofurti apud Andreae Wecheli haeredes. Fol.

Reprinted 1621, 1624, 1645 and at Geneva 1657.

1665 Magni Hippocratis Coi opera omnia graece et latine edita et ad omnes alias editiones accommodata industria et diligentia Joan. Antonidae van der Linden. Lugduno-Batav. 1665. 2 vol. octavo.

1679 Hippocratis Coi et Claudii Galeni Pergameni

ἀρχιατρῶν opera. Renatus Charterius Vindocinensis, plurima interpretatus, universa emendavit, instauravit, notavit, auxit . . . Lutetiae Parisiorum, apud Jacobum Villery. 13 vol. fol.

1743 Τὰ Ἱπποκράτους ἅπαντα . . . studio et opera Stephani Mackii. Viennae. 2 vol. fol.

1825 Τοῦ μεγάλου Ἱπποκράτους ἅπαντα. Magni Hippocratis opera omnia. Editionem curavit D. Carolus Gottlob Kühn. Lipsiae. 3 vol. octavo.

1834 Scholia in Hippocratem et Galenum, F. R. Dietz. 2 vols.

1839–1861 Œuvres complètes d'Hippocrate, traduction nouvelle, avec le texte grec en regard . . . Par. É. Littré. Paris. 10 vol.

1846 Article "Hippocrates" in Smith's *Dictionary of Greek and Roman Biography and Mythology*, by Dr. W. A. Greenhill.

1849 The genuine works of Hippocrates translated from the Greek with a preliminary Discourse and Annotations by Francis Adams. London. 2 vol.

1859–1864 Hippocratis et aliorum medicorum veterum reliquiae. Edidit Franciscus Zacharias Ermerins. Trajecti ad Rhenum. 3 vol.

1864–1866 Ἱπποκράτης κομιδῇ Car. H. Th. Reinhold. Ἀθήνῃσι. 2 vol.

1877, 1878 Chirurgie d'Hippocrate, par J. E. Pétrequin. 2 vols.

1894 Hippocratis opera quae geruntur omnia. Recensuit Hugo Kühlewein. Prolegomena conscripserunt Ioannes Ilberg et Hugo Kühlewein.

The second volume appeared in 1902.

1913 Article "Hippokrates (16)" in Pauly-Wissowa *Real-Encyclopädie der classischen Altertumswissenschaft.*

The early editions are learned but uncritical, being stronger on the medical side than in scholarship. Special mention should be made of the *Oeconomia* of Foes, a perfect mine of medical lore, and it is supplemented by the excellent notes in Foes' edition. Such a work could have appeared only in an age when Hippocrates was a real force in medical practice.[1]

The first scholarly edition was that of Littré, and only those who have seriously studied the works of Hippocrates can appreciate the debt we owe to his diligence, or understand why the task occupied twenty-two years. Unfortunately Littré is diffuse, and not always accurate. His opinions, too, changed during the long period of preparation, and the additional notes in the later volumes must be consulted in order to correct the views expressed in the earlier.

As a textual critic he shows much common sense, but his notes are awkward to read, and his knowledge was practically confined to the Paris MSS.

He is at his best as a medical commentator, and he was the first to explain Hippocratic pathology by proving that the endemic diseases of the Hippocratic writings must be identified, not with the fevers of our climate, but with the remittent forms of malaria common in hot climates. It is not too much to say that without keeping this fact in view we cannot understand a great part of the *Corpus*. It is curious to note that Hippocrates was a medical text-book almost down to the time (about 1840)

[1] This is in a way a defect. Foes, like Galen, is not sufficiently "detached" from Hippocratic teaching to judge Hippocrates impartially.

when malaria ceased to be a real danger to northern Europe.

The most useful critical edition of Hippocrates is that of Ermerins. He was a scholar with a lucid and precise mind, and his critical notes are a pleasure to read The introductions, too, are stimulating, instructive and interesting, written in a style full of life and charm. As a philologist he was very deficient.

The edition in the Teubner series, edited by Kühlewein, of which two volumes have appeared, marks a distinct advance. Fresh manuscripts have been collated, and the text has been purged of the pseudo-ionisms which have so long disfigured it.

A word should perhaps be said about Reinhold, whose two volumes of text give us more plausible conjectures than the work of any other scholar.

Of the scholars who have worked at parts of the *Corpus* mention should be made of Gomperz and Wilamowitz, but especial praise is due to the remarkable acuteness of Coray, whose intellect was like a sword. He always instructs and inspires, even when the reader cannot accept his emendations.

Adams' well-known translation is the work of a man of sense, who loved his author and was not without some of the qualifications of a scholar. The translation is literal and generally good, but is occasionally misleading. The medical annotation is far superior to the scholarship displayed in the work.

HIPPOCRATES

ANCIENT MEDICINE

INTRODUCTION

AMONG ancient writers Erotian is the only one who expressly ascribes this little treatise to Hippocrates himself. Modern critics generally regard it as old, but as not by Hippocrates, the chief exception being Littré. Adams is uncertain, but is inclined to think that Hippocrates was not the author.

Thus the external evidence in support of the view that Hippocrates was the author of this treatise is very slight indeed. The internal evidence is considerably stronger.

(1) The writer, like Hippocrates,[1] holds that health is caused by a "coction" of the "humours."

(2) He recognises the importance of "critical" days in an illness.

(3) He holds that medical science is founded on observation and reasoning, not on speculation.

(4) He attaches great importance to the use of "slops" of various degrees of consistency.

All these doctrines are in conformity with the views expounded in the works assigned to Hippocrates. On the other hand, no stress is laid upon prognosis, which Hippocrates considered of primary importance. Again, it would be impossible to show from the works of Hippocrates that the father of

[1] By "Hippocrates" is meant the writer of *Prognostic*, of *Regimen in Acute Diseases*, and of *Epidemics*, *I.*, *III.*

medicine thought little of the power of heat and cold in producing health or disease; our author, however, rates them very low. Moreover, like the Pythagorean physician Alcmaeon, he holds that there is an indefinite number of "opposites," the harmony or *crasis* of which produces health. The historical Hippocrates is said to have reduced the number of the humours to four, although I can find no trace of this limitation to four in any treatise earlier than the one on the *Nature of Man*, which is not generally considered authentic.

It may be said that, were the external evidence stronger, the treatise would be accepted as an authentic work of Hippocrates.

Littré[1] argues that the well-known passage in the *Phaedrus*,[2] where "Hippocrates the Asclepiad" is mentioned as holding a theory that a knowledge of the human body is impossible without a knowledge of the universe—interpreted to mean an examination of the δύναμις (or δυνάμεις) of a body according to its inter-relations with other things —refers to Chapter XX of the περὶ ἀρχαίης ἰητρικῆς, and not, as Galen maintains, to the treatise *On the Nature of Man*. Littré[3] also points out that a passage in our treatise[4] is very similar to one in *Regimen in Acute Diseases*, the authenticity of which is undoubted.

[1] i. pp. 294–310. Gomperz is inclined to support this view.

[2] 270, C. D. Littré's discussion of the sentence τὸ τοίνυν περὶ φύσεως σκόπει τί ποτε λέγει Ἱπποκράτης τε καὶ ὁ ὀρθὸς λόγος, to show that it does not refer to any actual words of Hippocrates, is, of course, quite beside the mark. The sentence means "what H. and right reason mean by περὶ φύσεως."

[3] pp. 314, 315.

[4] Chapter X.

Littré may have shown that there is a resemblance to our author in the *Phaedrus* passage. Resemblances, however, show merely that the writer was Hippocratic, not that he was Hippocrates.

The reference, in Chapter XV, to participation (κοιννωείη) in εἴδη and to "absolute existences" (αὐτό τι ἐφ' ἑωυτοῦ) might lead a critic to infer that the writer lived in the age of Plato. But there are two insuperable difficulties to this hypothesis. One is that in Chapter XX the word σοφιστής is used in its early sense of "philosopher," which implies that the writer lived before Plato attached to the word the dishonourable meaning it has in later Greek. The other is that the writer attacks the intrusion of philosophic speculation into the science of medicine, and the speculation he has constantly in mind, as being, apparently, the most influential in his day, is that of Empedocles,[1] who is actually mentioned in Chapter XX as a typical writer περὶ φύσεως. There is a sentence in Chapter XIV which closely resembles, in both thought and diction, the fragments of Anaxagoras.[2] It certainly looks as though the writer of *Ancient Medicine* was not unfamiliar with the works of this philosopher. All this evidence tends to fix the date as approximately 430–420 B.C., and to suggest as the writer either Hippocrates or a very capable supporter of the medical school of which Hippocrates was a contemporary member.

The author of *Ancient Medicine* in Chapter II asserts

[1] Or possibly that of the Milesian school with its doctrine of opposites, of which opposites the Empedoclean "roots" are four, definitely corporealised.

[2] ὅταν δέ τι τούτων ἀποκριθῇ καὶ αὐτὸ ἐφ' ἑωυτοῦ γένηται, τότε καὶ φανερόν ἐστι καὶ λυπεῖ τὸν ἄνθρωπον.

that empiric medicine was in his day an old art, and that the attempt to foist the method of philosophy upon it was comparatively modern. He is obviously correct. Hippocratic science must have been the ripe fruit of a long period of active inquiry; philosophy began early in the sixth century B.C., and it was late in that century that medicine and philosophy were combined in the persons of prominent Pythagoreans.[1] It was only natural that, as the main interest of philosophy shifted from cosmology to biology, philosophy should occupy itself with medical problems. The union was closest in Empedocles, thinker, seer, and "medicine-man," but by the end of the fifth century philosophy had discarded medicine, although to its great loss medicine did not discard philosophy.[2]

Several recent critics, notably Professor A. E. Taylor,[3] have pointed out the importance of this little work in the history of thought. It has even been urged that it proves that the technical phrases, and perhaps the doctrine also, of the theory of Ideas, usually ascribed to Plato, were well-known to educated men a generation at least before Plato. The language used in Chapter XV is, indeed, strikingly like the terminology of Plato, far too much so to be a mere coincidence.

However this may be, it is plain that in the fifth century B.C. there were thinkers, holding principles nearly akin to those of modern science, who were violently opposed to the application of philosophic

[1] See Burnet, *Early Greek Philosophy*, pp. 223–226 for Alcmaeon, and pp. 339–341 for the later Pythagoreans.

[2] See especially Burnet, *op. cit.* pp. 234–235.

[3] *Varia Socratica*, pp. 74–78 and 214–218.

procedure to science. This procedure the writer calls the method of ὑποθέσεις. The student of Plato is at once reminded of the *Phaedo, Republic,* and *Sophist,* in which dialogues a theory of knowledge is expounded which is stated to be the best possible method of inquiry until the Ideas have been apprehended. It should be noticed that a ὑπόθεσις is something very different from a modern scientific hypothesis. The latter is a summary of observed phenomena, intended to explain them by pointing out their causal relationship. The former is not a summary of phenomena; it is a postulate, intended to be accepted, not as an explanation, but as a foundation (ὑπο-τίθημι) upon which to build a superstructure. An hypothesis must by tested by further appeals to sense-experience; a ὑπόθεσις must not be so tested, it must be taken for granted as an obvious truth. Plato would have nothing to do with appeals to sense-experience. According to him, if a ὑπόθεσις is not accepted, it must be abandoned, and a more general ὑπόθεσις postulated, until one is reached to which the opponent agrees.[1] The writer of *Ancient Medicine* suggests,[2] as the proper sphere of ὑποθέσεις, the celestial regions and those beneath the earth. Here, among τὰ ἀφανέα τε καὶ ἀπορεόμενα, where we have no means of applying a satisfactory test, where in fact sense-perception fails us, is the proper place for ὑποθέσεις. He would exclude them all from medicine, but he is constantly suggesting what we moderns call "hypotheses." The best examples of ὑποθέσεις are the axioms and postulates of geometry.

[1] *Phaedo,* 101 D, E.

[2] Chapter I. The language of the author is more than a little sarcastic.

These are not tested or proved; they are assumed, and upon the assumptions a whole science is built.

In place of ὑποθέσεις the author of *Ancient Medicine* relies, as a modern scientific thinker relies, on careful observation and critical examination[1] of phenomena, hoping thereby to reach, not the complete and perfect knowledge Plato hoped to attain through his Ideas, but an approximation to truth.[2]

So the two methods, that of Greek philosophy and that of modern science, stand face to face. The struggle between them was, for the time being, short. Medicine, almost the only branch of Greek science scientifically studied, was worsted in the fight, and medical science gradually degenerated from rational treatment to wild speculation and even quackery and superstition.[3] The transcendant genius of Plato, strong in that very power of persuasion the use of which he so much deprecated, won the day. The philosophic fervour which longed with passionate desire for unchangeable reality, that felt a lofty contempt for the material world with its ever-shifting phenomena, that aspired to rise to a heavenly region where changeless Ideas might be apprehended by pure intelligence purged from every bodily taint, was more than a match for the humble researches of men who wished to relieve human suffering by a patient study of those very phenomena that Plato held of no account.

[1] λογισμῷ, Chapter XII.

[2] εἰ μὴ ἔχει περὶ πάντα ἀκρίβειαν, ἀλλὰ πολὺ μᾶλλον διὰ τὸ ἐγγὺς οἷμαι τοῦ ἀτρεκεστάτου δύνασθαι ἥκειν. *Ibid.* The forty-two clinical histories, given in the *Epidemics* of Hippocrates, are excellent examples of the observation which the Hippocratic school considered the only foundation of science.

[3] See E. T. Withington, in *Malaria and Greek History*, by W. H. S. Jones and E. T. Withington.

So for centuries philosophy flourished and science languished, in spite of Aristotle, Euclid and Archimedes.

Analysis.

(1) The rejection of ὑποθέσεις and the defence of the old method in medicine (Ch. I–III).

(2) The origin of medicine, and its connection with the art of dieting (III–XII).

(3) The comparative unimportance of the four "opposites" in health and disease (XIII–XV).

(4) The importance of certain secretions as compared with heat and cold (XVI–XIX).

(5) The correct method of studying medicine (XX–XXIV).

Text, etc.

There has never been published any separate edition of this treatise, but of course it is included in all the great editions of Hippocrates. Not much was done to improve the text before Littré, who seems to have bestowed care and thought upon the little book. The edition of Kühlewein introduced a radical reformation of the pseudo-ionic forms that disfigured earlier texts, and also several improvements in detail, but his changes are not always happy.

The chief manuscript authority is A,[1] which seems infinitely superior to all the others. The next most important manuscript is M, the others being of very little help.

In this edition I have kept closely to the spelling of Kühlewein, but the text itself is my own. It

[1] Called by Littré 2253.

follows the MS. A very closely, but on several occasions I have accepted (with acknowledgements) the emendations of Coray, Reinhold, Ermerins, Littré, Diels and Kühlewein. One passage I have rejected on my own authority, and in another I have presented a new combination of readings which I think restores sense out of nonsense. I have generally noted readings only when the choice makes a decided difference to the translation.

The translator is often perplexed how to render semi-technical words which belong to a time when the ideas underlying them were in a transition stage, or when ideas were current which the progress of time has destroyed. "Hot" and "cold" were no longer bodies, but they were not yet qualities. As Professor Taylor[1] shows, the word εἶδος is most elusive, referring to the form, appearance, structure of a thing, the physique of persons, etc., and yet it is becoming capable of being applied to immaterial reality. There are about half a dozen words to describe the process which we describe by the single word "digestion."[2] These nice distinctions must be lost in an English version. The most difficult word of all is perhaps δύναμις. Scientific thought in the fifth century B.C. held that certain constituents of the body, and indeed of the material world generally, manifested themselves to our senses and feelings in certain ways. These are their δυνάμεις, "powers," or, as we may sometimes translate, "properties,"

[1] *Loc. cit.*

[2] In deference to authority I translate ἀπαλλάσσειν in Chapters X and XX "come off" well or ill. But I am almost convinced that in both cases the word means "to get rid of food," "to digest." Compare Chapter III, p. 18, l. 32.

"characteristics," "effects." Almost equally difficult is the word φύσις. This appears sometimes to have the meaning which Professor Burnet shows it has in early philosophy, "primordial matter," "primitive element or elements," the "stuff" of which the world is made. Often, again, it has its later meaning, "nature," while sometimes the two senses are combined or confused. In all these cases perfect consistency of rendering can only be achieved by sacrificing the thought. In my work I have been constantly impressed, and depressed, by the truth of the proverb, "Translators are traitors."

ΠΕΡΙ ΑΡΧΑΙΗΣ ΙΗΤΡΙΚΗΣ

Ι. Ὁπόσοι μὲν ἐπεχείρησαν περὶ ἰητρικῆς λέγειν ἢ γράφειν, ὑπόθεσιν αὐτοὶ αὐτοῖς ὑποθέμενοι τῷ λόγῳ, θερμὸν ἢ ψυχρὸν ἢ ὑγρὸν ἢ ξηρὸν ἢ ἄλλο τι ὃ ἂν θέλωσιν, ἐς βραχὺ ἄγοντες τὴν ἀρχὴν τῆς αἰτίης τοῖσι ἀνθρώποισι νούσων τε καὶ θανάτου, καὶ πᾶσι τὴν αὐτήν, ἓν ἢ δύο ὑποθέμενοι, ἐν πολλοῖσι μὲν καὶ[1] οἷσι λέγουσι καταφανέες εἰσὶ ἁμαρτάνοντες, μάλιστα δὲ ἄξιον μέμψασθαι, ὅτι ἀμφὶ τέχνης ἐούσης, ᾗ χρέονταί τε πάντες ἐπὶ τοῖσι μεγίστοισι καὶ τιμῶσι μάλιστα τοὺς ἀγαθοὺς χειροτέχνας καὶ δημιουργούς. εἰσὶν δὲ δημιουργοὶ οἱ μὲν φαῦλοι, οἱ δὲ πολλὸν διαφέροντες· ὅπερ, εἰ μὴ ἦν ἰητρικὴ ὅλως, μηδ' ἐν αὐτῇ ἔσκεπτο μηδ' εὕρητο μηδέν, οὐκ ἂν ἦν, ἀλλὰ πάντες ὁμοίως αὐτῆς ἄπειροί τε καὶ ἀνεπιστήμονες ἦσαν, τύχῃ δ' ἂν πάντα τὰ τῶν καμνόντων διοικεῖτο. νῦν δ' οὐχ οὕτως ἔχει, ἀλλ' ὥσπερ καὶ τῶν ἄλλων τεχνέων πασέων οἱ δημιουργοὶ πολλὸν ἀλλήλων διαφέρουσιν κατὰ χεῖρα καὶ κατὰ γνώμην, οὕτω δὲ καὶ ἐπὶ ἰητρικῆς. διὸ οὐκ ἠξίουν αὐτὴν ἔγωγε κενῆς[2]

[1] καί MSS. : καινοῖσι Kühlewein after Schöne.
[2] κενῆς M : καινῆς A.

ANCIENT MEDICINE

I. All who, on attempting to speak or to write on medicine, have assumed for themselves a postulate as a basis for their discussion—heat, cold, moisture, dryness, or anything else that they may fancy—who narrow down the causal principle of diseases and of death among men, and make it the same in all cases, postulating one thing or two, all these obviously blunder in many points even of their statements,[1] but they are most open to censure because they blunder in what is an art, and one which all men use on the most important occasions, and give the greatest honours to the good craftsmen and practitioners in it. Some practitioners are poor, others very excellent; this would not be the case if an art of medicine did not exist at all, and had not been the subject of any research and discovery, but all would be equally inexperienced and unlearned therein, and the treatment of the sick would be in all respects haphazard. But it is not so; just as in all other arts the workers vary much in skill and in knowledge,[2] so also is it in the case of medicine. Wherefore I have deemed that it has

[1] Or, reading καινοῖσι κ.τ.λ., "of their novelties."
[2] Or "manual skill" and "intelligence."

ὑποθέσιος δεῖσθαι ὥσπερ τὰ ἀφανέα τε καὶ ἀπορεόμενα, περὶ ὧν ἀνάγκη, ἤν τις ἐπιχειρῇ τι λέγειν, ὑποθέσει χρῆσθαι, οἷον περὶ τῶν μετεώρων ἢ τῶν ὑπὸ γῆν· ἃ εἴ[1] τις λέγοι καὶ γινώσκοι ὡς ἔχει, οὔτ' ἂν αὐτῷ τῷ λέγοντι οὔτε τοῖς ἀκούουσι δῆλα ἂν εἴη, εἴτε ἀληθέα ἐστὶν εἴτε μή. οὐ γὰρ ἔστι
27 πρὸς ὅ τι χρὴ ἀνενέγκαντα εἰδέναι τὸ σαφές.

II. Ἰητρικῇ δὲ πάλαι πάντα ὑπάρχει, καὶ ἀρχὴ καὶ ὁδὸς εὑρημένη, καθ' ἣν τὰ εὑρημένα πολλά τε καὶ καλῶς ἔχοντα εὕρηται ἐν πολλῷ χρόνῳ, καὶ τὰ λοιπὰ εὑρεθήσεται, ἤν τις ἱκανός τε ἐὼν καὶ τὰ εὑρημένα εἰδὼς ἐκ τούτων ὁρμώμενος ζητῇ. ὅστις δὲ ταῦτα ἀποβαλὼν καὶ ἀποδοκιμάσας πάντα, ἑτέρῃ ὁδῷ καὶ ἑτέρῳ σχήματι ἐπιχειρεῖ ζητεῖν, καί φησί τι ἐξευρηκέναι, ἐξηπάτηται[2] καὶ ἐξαπατᾶται· ἀδύνατον γάρ· δι' ἃς δὲ ἀνάγκας ἀδύνατον,
10 ἐγὼ πειρήσομαι ἐπιδεῖξαι, λέγων καὶ ἐπιδεικνύων τὴν τέχνην ὅ τι ἐστίν.[3] ἐκ δὲ τούτου καταφανὲς ἔσται ἀδύνατα ἐόντα ἄλλως πως τούτων εὑρίσκεσθαι. μάλιστα δέ μοι δοκεῖ περὶ ταύτης δεῖν λέγοντα τῆς τέχνης γνωστὰ λέγειν τοῖσι δημότῃσι. οὐ γὰρ περὶ ἄλλων τινῶν οὔτε ζητεῖν οὔτε λέγειν προσήκει ἢ περὶ τῶν παθημάτων ὧν αὐτοὶ οὗτοι

[1] ἃ εἴ suggested by Littré : ἀεί A.

[2] So the MSS. ἐξαπατᾷ τε has been suggested. See Diels in *Hermes* XLV. 125.

[3] ὅ τι ἐστίν M : ὅτι A and ἔστιν Kühlewein.

[1] Or, reading καινῆς, "a novel postulate." But the writer's objection is not that the postulate is novel, but that it *is* a postulate. A postulate, he says, is "empty" in a sphere where accurate and verifiable knowledge is possible. Only

no need of an empty postulate,[1] as do insoluble mysteries, about which any exponent must use a postulate, for example, things in the sky or below the earth. If a man were to learn and declare the state of these, neither to the speaker himself nor to his audience would it be clear whether his statements were true or not. For there is no test the application of which would give certainty.

II. But medicine has long had all its means to hand, and has discovered both a principle and a method, through which the discoveries made during a long period are many and excellent, while full discovery will be made, if the inquirer be competent, conduct his researches with knowledge of the discoveries already made, and make them his starting-point. But anyone who, casting aside and rejecting all these means, attempts to conduct research in any other way or after another fashion, and asserts that he has found out anything, is and has been the victim of deception.[2] His assertion is impossible; the causes of its impossibility I will endeavour to expound by a statement and exposition of what the art is.[3] In this way it will be manifest that by any other means discoveries are impossible. But it is particularly necessary, in my opinion, for one who discusses this art to discuss things familiar to ordinary folk. For the subject of inquiry and discussion is simply and solely the sufferings of these same

in regions where science cannot penetrate are ὑποθέσεις legitimate. For this reason I read κενῆς.

[2] Or, with the reading suggested, "both deceives and is deceived."

[3] Or, reading ὅτι ἔστιν, "that the art really is an art, really exists."

νοσεουσί τε καὶ πονέουσι. αὐτοὺς μὲν οὖν τὰ σφέων αὐτῶν παθήματα καταμαθεῖν, ὡς γίνεται καὶ παύεται καὶ δι' οἵας προφάσιας αὔξεταί τε καὶ φθίνει, δημότας ἐόντας οὐ ῥηίδιον· ὑπ' ἄλλου δὲ εὑρημένα καὶ λεγόμενα, εὐπετές. οὐδὲν γὰρ ἕτερον ἢ ἀναμιμνήσκεται ἕκαστος ἀκούων τῶν αὐτῷ[1] συμβαινόντων. εἰ δέ τις τῆς τῶν ἰδιωτέων γνώμης ἀποτεύξεται καὶ μὴ διαθήσει τοὺς ἀκούοντας οὕτως, τοῦ ἐόντος ἀποτεύξεται. καὶ διὰ ταῦτα οὖν ταῦτα οὐδὲν δεῖ ὑποθέσιος.

III. Τὴν γὰρ ἀρχὴν οὔτ' ἂν εὑρέθη ἡ τέχνη ἡ ἰητρικὴ οὔτ' ἂν ἐζητήθη—οὐδὲν γὰρ αὐτῆς ἔδει—εἰ τοῖσι κάμνουσι τῶν ἀνθρώπων τὰ αὐτὰ διαιτωμένοισί τε καὶ προσφερομένοισι, ἅπερ οἱ ὑγιαίνοντες ἐσθίουσί τε καὶ πίνουσι καὶ τἄλλα διαιτέονται, συνέφερεν, καὶ μὴ ἦν ἕτερα τούτων βελτίω. νῦν δὲ αὐτὴ ἡ ἀνάγκη ἰητρικὴν ἐποίησεν ζητηθῆναί τε καὶ εὑρεθῆναι ἀνθρώποισι, ὅτι τοῖσι κάμνουσι ταὐτὰ προσφερομένοισι, ἅπερ οἱ ὑγιαίνοντες, οὐ συνέφερεν, ὡς οὐδὲ νῦν συμφέρει. ἔτι δὲ ἄνωθεν ἔγωγε ἀξιῶ οὐδ' ἂν τὴν τῶν ὑγιαινόντων δίαιτάν τε καὶ τροφήν, ἣ νῦν χρέονται, εὑρεθῆναι, εἰ ἐξήρκει τῷ ἀνθρώπῳ ταὐτὰ ἐσθίοντι καὶ πίνοντι βοΐ τε καὶ ἵππῳ καὶ πᾶσιν ἐκτὸς ἀνθρώπου, οἷον τὰ ἐκ τῆς γῆς φυόμενα, καρπούς τε καὶ ὕλην καὶ χόρτον. ἀπὸ τούτων γὰρ καὶ τρέφονται καὶ αὔξονται καὶ ἄπονοι διάγουσιν οὐδὲν προσδεόμενοι ἄλλης διαίτης. καί τοι τήν γε ἀρχὴν ἔγωγε δοκέω καὶ τὸν ἄνθρωπον τοιαύτῃ τροφῇ κεχρῆσθαι. τὰ δὲ νῦν διαιτήματα εὑρημένα καὶ τετεχνημένα ἐν

[1] ἑωυτῷ most MSS.

ordinary folk when they are sick or in pain. Now to learn by themselves how their own sufferings come about and cease, and the reasons why they get worse or better, is not an easy task for ordinary folk; but when these things have been discovered and are set forth by another, it is simple. For merely an effort of memory is required of each man when he listens to a statement of his experiences. But if you miss being understood by laymen, and fail to put your hearers in this condition, you will miss reality. Therefore for this reason also medicine has no need of any postulate.

III. For the art of medicine would never have been discovered to begin with, nor would any medical research have been conducted—for there would have been no need for medicine—if sick men had profited by the same mode of living and regimen as the food, drink and mode of living of men in health, and if there had been no other things for the sick better than these. But the fact is that sheer necessity has caused men to seek and to find medicine, because sick men did not, and do not, profit by the same regimen as do men in health. To trace the matter yet further back, I hold that not even the mode of living and nourishment enjoyed at the present time by men in health would have been discovered, had a man been satisfied with the same food and drink as satisfy an ox, a horse, and every animal save man, for example the products of the earth—fruits, wood and grass. For on these they are nourished, grow, and live without pain, having no need at all of any other kind of living. Yet I am of opinion that to begin with man also used this sort of nourishment. Our present ways of living have, I think, been

πολλῷ χρόνῳ γεγενῆσθαί μοι δοκεῖ. ὡς γὰρ ἔπασχον πολλά τε καὶ δεινὰ ὑπὸ ἰσχυρῆς τε καὶ θηριώδεος διαίτης ὠμά τε καὶ ἄκρητα καὶ μεγάλας δυνάμιας ἔχοντα ἐσφερόμενοι. οἷά περ ἂν καὶ νῦν ὑπ' αὐτῶν πάσχοιεν πόνοισί τε ἰσχυροῖσι καὶ νούσοις περιπίπτοντες καὶ διὰ τάχεος θανάτοισι. ἧσσον μὲν οὖν ταῦτα τότε εἰκὸς ἦν πάσχειν διὰ τὴν συνήθειαν, ἰσχυρῶς δὲ καὶ τότε. καὶ τοὺς μὲν πλείστους τε καὶ ἀσθενεστέρην φύσιν ἔχοντας ἀπόλλυσθαι εἰκός, τοὺς δὲ τούτων ὑπερέχοντας πλείω χρόνον ἀντέχειν· ὥσπερ καὶ νῦν ἀπὸ τῶν ἰσχυρῶν βρωμάτων οἱ μὲν ῥηϊδίως ἀπαλλάσσονται, οἱ δὲ μετὰ πολλῶν πόνων τε καὶ κακῶν. διὰ δὴ ταύτην τὴν αἰτίην καὶ οὗτοί μοι δοκέουσι ζητῆσαι τροφὴν ἁρμόζουσαν τῇ φύσει καὶ εὑρεῖν ταύτην, ἣ νῦν χρεώμεθα. ἐκ μὲν οὖν τῶν πυρῶν βρέξαντές σφας καὶ πτίσαντες καὶ καταλέσαντές τε καὶ διασήσαντες καὶ φορύξαντες καὶ ὀπτήσαντες ἀπετέλεσαν ἄρτον, ἐκ δὲ τῶν κριθέων μᾶζαν· ἄλλα τε πολλὰ περὶ ταῦτα πρηγματευσάμενοι ἥψησάν τε καὶ ὤπτησαν καὶ ἔμιξαν, καὶ ἐκέρασαν τὰ ἰσχυρά τε καὶ ἄκρητα τοῖς ἀσθενεστέροις, πλάσσοντες πάντα πρὸς τὴν τοῦ ἀνθρώπου φύσιν τε καὶ δύναμιν, ἡγεύμενοι, ὅσα μὲν ἂν ἰσχυρότερα ᾖ ἢ[1] δυνήσεται κρατεῖν ἡ φύσις, ἣν ἐμφέρηται, ἀπὸ τούτων δ' αὐτῶν πόνους τε καὶ νούσους καὶ θανάτους ἔσεσθαι, ὁπόσων δ' ἂν δύνηται ἐπικρατεῖν, ἀπὸ τούτων τροφήν τε καὶ αὔξησιν καὶ ὑγιείην. τῷ δὲ εὑρήματι τούτῳ καὶ ζητήματι τί ἄν τις

[1] So Littré, but he does not admit the conjecture into his text. The MSS. show a great variety of readings, giving the same sense but irregular constructions.

discovered and elaborated during a long period of time. For many and terrible were the sufferings of men from strong and brutish living when they partook of crude foods, uncompounded and possessing great powers[1]—the same in fact as men would suffer at the present day, falling into violent pains and diseases quickly followed by death. Formerly indeed they probably suffered less, because they were used to it, but they suffered severely even then. The majority naturally perished, having too weak a constitution, while the stronger resisted longer, just as at the present time some men easily deal with strong foods, while others do so only with many severe pains. For this reason the ancients too seem to me to have sought for nourishment that harmonised with their constitution, and to have discovered that which we use now. So from wheat, after steeping it, winnowing, grinding and sifting, kneading, baking, they produced bread, and from barley they produced cake. Experimenting with food they boiled or baked, after mixing, many other things, combining the strong and uncompounded with the weaker components so as to adapt all to the constitution and power of man, thinking that from foods which, being too strong, the human constitution cannot assimilate when eaten, will come pain, disease, and death, while from such as can be assimilated will come nourishment, growth and health. To this discovery and research what juster or more appropriate name

[1]Or "strong qualities."

ὄνομα δικαιότερον ἢ προσῆκον μᾶλλον θείη ἢ ἰητρικήν; ὅτι γε εὕρηται ἐπὶ τῇ τοῦ ἀνθρώπου ὑγιείῃ τε καὶ σωτηρίῃ καὶ τροφῇ, ἄλλαγμα ἐκείνης τῆς διαίτης, ἐξ ἧς οἱ πόνοι καὶ νοῦσοι καὶ θάνατοι ἐγίνοντο.

IV. Εἰ δὲ μὴ τέχνη αὕτη νομίζεται εἶναι, οὐκ ἀπεοικός· ἧς γὰρ μηδείς ἐστιν ἰδιώτης, ἀλλὰ πάντες ἐπιστήμονες διὰ τὴν χρῆσίν τε καὶ ἀνάγκην, οὐ προσήκει ταύτης οὐδένα τεχνίτην καλεῖσθαι· ἐπεὶ τό γε εὕρημα μέγα τε καὶ πολλῆς σκέψιος τε καὶ τέχνης. ἔτι γοῦν καὶ νῦν οἱ τῶν γυμνασίων τε καὶ ἀσκησίων ἐπιμελόμενοι αἰεί τι προσεξευρίσκουσιν κατὰ τὴν αὐτὴν ὁδὸν ζητέοντες ὅ τι ἐσθίων τε καὶ πίνων ἐπικρατήσει τε αὐτοῦ μάλιστα καὶ ἰσχυρότερος αὐτὸς ἑωυτοῦ ἔσται.

V. Σκεψώμεθα δὲ καὶ τὴν ὁμολογεομένως ἰητρικήν, τὴν ἀμφὶ τοὺς κάμνοντας εὑρημένην, ἣ καὶ ὄνομα καὶ τεχνίτας ἔχει, ἦρά τι καὶ αὐτὴ τῶν αὐτῶν ἐθέλει, καὶ πόθεν ποτὲ ἦρκται. ἐμοὶ μὲν γάρ, ὅπερ ἐν ἀρχῇ εἶπον, οὐδ' ἂν ζητῆσαι ἰητρικὴν δοκεῖ οὐδείς, εἰ ταὐτὰ διαιτήματα τοῖσί τε κάμνουσι καὶ τοῖσι ὑγιαίνουσιν ἤρμοζεν. ἔτι γοῦν καὶ νῦν ὅσοι ἰητρικῇ μὴ χρέονται, οἵ τε βάρβαροι καὶ τῶν Ἑλλήνων ἔνιοι, τὸν αὐτὸν τρόπον, ὅνπερ οἱ ὑγιαίνοντες, διαιτέονται πρὸς ἡδονήν, καὶ οὔτ' ἂν ἀπόσχοιντο οὐδενὸς ὧν ἐπιθυμέουσιν οὔθ' ὑποστείλαιντο ἄν. οἱ δὲ ζητήσαντες καὶ εὑρόντες ἰητρικὴν τὴν αὐτὴν ἐκείνοισι διάνοιαν ἔχοντες, περὶ ὧν μοι ὁ πρότερος λόγος εἴρηται, πρῶτον μέν, οἶμαι, ὑφεῖλον τοῦ πλήθεος τῶν σιτίων αὐτῶν τούτων, καὶ ἀντὶ πλειόνων ὀλίγιστα ἐποίησαν. ἐπεὶ δὲ αὐτοῖσι τοῦτο ἔστι μὲν ὅτε πρός τινας

could be given than medicine, seeing that it has been discovered with a view to the health, saving and nourishment of man, in the place of that mode of living from which came the pain, disease and death?

IV. That it is not commonly considered an art is not unnatural, for it is inappropriate to call anyone an artist in a craft in which none are laymen, but all possess knowledge through being compelled to use it. Nevertheless the discovery was a great one, implying much investigation and art. At any rate even at the present day those who study gymnastics and athletic exercises are constantly making some fresh discovery by investigating on the same method what food and what drink are best assimilated and make a man grow stronger.

V. Let us consider also whether the acknowledged art of medicine, that was discovered for the treatment of the sick and has both a name and artists, has the same object as the other art,[1] and what its origin was. In my opinion, as I said at the beginning, nobody would have even sought for medicine, if the same ways of life had suited both the sick and those in health. At any rate even at the present day such as do not use medical science, foreigners and some Greeks, live as do those in health, just as they please, and would neither forgo nor restrict the satisfaction of any of their desires. But those who sought for and discovered medicine, having the same intention as the men I discussed above, in the first place, I think, lessened the bulk of the foods, and, without altering their character, greatly diminished their quantity. But they found that this treatment was

[1] *I.e.* that of dieting in health. See Chapter VII.

τῶν καμνόντων ἤρκεσε καὶ φανερὸν ἐγένετο ὠφελῆσαν, οὐ μέντοι πᾶσί γε, ἀλλ' ἦσάν τινες οὕτως
20 ἔχοντες, ὡς μὴ ὀλίγων σιτίων δύνασθαι ἐπικρατεῖν, ἀσθενεστέρου δὲ δή τινος οἱ τοιοίδε ἐδόκεον δεῖσθαι, εὗρον τὰ ῥυφήματα μίξαντες ὀλίγα τῶν ἰσχυρῶν πολλῷ τῷ ὕδατι καὶ ἀφαιρεόμενοι τὸ ἰσχυρὸν τῇ κρήσει τε καὶ ἑψήσει. ὅσοι δὲ μηδὲ τῶν ῥυφημάτων ἐδύναντο ἐπικρατεῖν, ἀφεῖλον καὶ ταῦτα, καὶ ἀφίκοντο ἐς πόματα, καὶ ταῦτα τῇσι τε κρήσεσι καὶ τῷ πλήθει διαφυλάσσοντες ὡς μετρίως ἔχοι, μήτε πλείω τῶν δεόντων μήτε ἀκρη-
29 τέστερα προσφερόμενοι μηδὲ ἐνδεέστερα.

VI. Εὖ δὲ χρὴ τοῦτο εἰδέναι, ὅτι τισὶ τὰ ῥυφήματα ἐν τῇσι νούσοισιν οὐ συμφέρει, ἀλλ' ἄντικρυς,[1] ὅταν ταῦτα προσαίρωνται, παροξύνονταί σφισι οἵ τε πυρετοὶ καὶ τὰ ἀλγήματα· καὶ δῆλον τὸ προσενεχθὲν τῇ μὲν νούσῳ τροφή τε καὶ αὔξησις γενόμενον, τῷ δὲ σώματι φθίσις τε καὶ ἀρρωστίη. ὅσοι δὲ ἂν τῶν ἀνθρώπων ἐν ταύτῃ τῇ διαθέσει ἐόντες προσενέγκωνται ξηρὸν σιτίον ἢ μᾶζαν ἢ ἄρτον, καὶ ἦν πάνυ σμικρόν,
10 δεκαπλασίως ἂν μᾶλλον καὶ ἐπιφανέστερον κακωθεῖεν ἢ ῥυφέοντες, δι' οὐδὲν ἄλλο ἢ διὰ τὴν ἰσχὺν τοῦ βρώματος πρὸς τὴν διάθεσιν· καὶ ὅτῳ ῥυφεῖν μὲν συμφέρει, ἐσθίειν δ' οὔ, εἰ πλείω φάγοι, πολὺ ἂν μᾶλλον κακωθείη, ἢ εἰ ὀλίγα·[2] καὶ εἰ ὀλίγα δέ, πονήσειεν ἄν. πάντα δὴ τὰ αἴτια τοῦ πόνου ἐς τὸ αὐτὸ ἀνάγεται, τὰ ἰσχυρότατα μάλιστά τε καὶ ἐπιφανέστατα λυμαίνεσθαι τὸν ἄνθρωπον καὶ
18 τὸν ὑγιᾶ ἐόντα καὶ τὸν κάμνοντα.

[1] ἄντικρυς M : φανερῶς A : Hesychius gives φανερῶς as an explanation of ἄντικρυς.

sufficient only occasionally, and although clearly beneficial with some patients, it was not so in all cases, as some were in such a condition that they could not assimilate even small quantities of food. As such patients were thought to need weaker nutriment, slops were invented by mixing with much water small quantities of strong foods, and by taking away from their strength by compounding and boiling. Those that were not able to assimilate them were refused even these slops, and were reduced to taking liquids, these moreover being so regulated in composition and quantity as to be moderate, and nothing was administered that was either more or less, or less compounded, than it ought to be.

VI. It must be clearly understood that some are not benefited in disease by slops, but when they take them, their fever and pain grow manifestly worse, and it is plain that what is taken proves nourishment and increase to the disease, but wears away and enfeebles the body. Any men who in this condition take dry food, barley-cake or bread, even though it be very little, will be hurt ten times more, and more obviously, than if they take slops, simply and solely because the food is too strong for their condition; and a man to whom slops are beneficial, but not solid food, will suffer much more harm if he eat more than if he eat little, though he will feel pain even if he eat little. Now all the causes of the pain can be reduced to one, namely, it is the strongest foods that hurt a man most and most obviously, whether he be well or ill.

[2] ἢ εἰ ὀλίγα Ermerins: ἢ ὀλίγα A: the words are generally omitted in MSS.

VII. Τί οὖν φαίνεται ἑτεροῖον διανοηθεὶς ὁ καλεύμενος ἰητρὸς καὶ ὁμολογεομένως χειροτέχνης, ὃς ἐξεῦρε τὴν ἀμφὶ τοὺς κάμνοντας δίαιτάν τε καὶ τροφήν, ἢ ἐκεῖνος ὁ ἀπ' ἀρχῆς τοῖσι πᾶσιν ἀνθρώποισιν τροφήν, ἣ νῦν χρώμεθα, ἐξ ἐκείνης τῆς ἀγρίης τε καὶ θηριώδεος διαίτης εὑρών τε καὶ παρασκευασάμενος; ἐμοὶ μὲν γὰρ φαίνεται ὁ αὐτὸς λόγος καὶ ἓν καὶ ὅμοιον τὸ εὕρημα. ὁ μέν, ὅσων μὴ ἐδύνατο ἡ φύσις ἡ ἀνθρωπίνη ὑγιαίνουσα ἐπικρατεῖν ἐμπιπτόντων διὰ τὴν θηριότητά τε καὶ τὴν ἀκρησίην, ὁ δέ, ὅσων ἡ διάθεσις, ἐν οἵῃ ἂν ἑκάστοτε ἕκαστος τύχῃ διακείμενος, μὴ δύνηται ἐπικρατεῖν, ταῦτα ἐζήτησεν ἀφελεῖν. τί δὴ τοῦτο ἐκείνου διαφέρει ἀλλ' ἢ † πλέον † [1] τό γε εἶδος, καὶ ὅτι ποικιλώτερον καὶ πλείονος πρηγματίης, ἀρχὴ δὲ ἐκείνη ἡ πρότερον γενομένη;

VIII. Εἰ δέ τις σκέπτοιτο τὴν τῶν καμνόντων δίαιταν πρὸς τὴν τῶν ὑγιαινόντων, εὕροι ἂν τὴν τῶν θηρίων τε καὶ τῶν ἄλλων ζῴων οὐ βλαβερωτέρην πρὸς τὴν τῶν ὑγιαινόντων. ἀνὴρ γὰρ κάμνων νοσήματι μήτε τῶν χαλεπῶν τε καὶ ἀπόρων μήτε αὖ τῶν παντάπασιν εὐηθέων, ἀλλ' ὅ τι αὐτῷ ἐξαμαρτάνοντι μέλλει ἐπίδηλον ἔσεσθαι, εἰ ἐθέλοι καταφαγεῖν ἄρτον καὶ κρέας ἢ ἄλλο τι ὧν οἱ ὑγιαίνοντες ἐσθίοντες ὠφελέονται, μὴ πολλόν, ἀλλὰ πολλῷ ἔλασσον ἢ ὑγιαίνων ἂν ἐδύνατο, ἄλλος τε τῶν ὑγιαινόντων φύσιν ἔχων μήτε

[1] πλέον MSS. : omitted by Reinhold. Was πλέον a misread gloss (πλὴν) on ἀλλ' ἤ?

[1] Or "appearance." The two pursuits are really one, but they appear to a superficial observer to differ.

VII. What difference then can be seen between the purpose of him we call physician, who is an acknowledged handicraftsman, the discoverer of the mode of life and of the nourishment suitable for the sick, and his who discovered and prepared originally nourishment for all men, which we now use, instead of the old savage and brutish mode of living? My own view is that their reasoning was identical and the discovery one and the same. The one sought to do away with those things which, when taken, the constitution of man in health could not assimilate because of their brutish and uncompounded character, the other those things which the temporary condition of an individual prevented him from assimilating. How do the two pursuits differ, except in their scope [1] and in that the latter is more complex and requires the greater application, while the former is the starting point and came first in time?

VIII. A consideration of the diet of the sick, as compared with that of men in health, would show that the diet of wild beasts and of animals generally is not more harmful, as compared with that of men in health.[2] Take a man sick of a disease which is neither severe and desperate nor yet altogether mild, but likely to be pronounced under wrong treatment, and suppose that he resolved to eat bread, and meat, or any other food that is beneficial to men in health, not much of it, but far less than he could have taken had he been well; take again a man in health, with a constitution neither altogether weak nor altogether

[2] The text here is very uncertain; I have combined that of Littré with that of Kühlewein so as to give a good sense: "The diet of men in health is as injurious to the sick as the diet of wild beasts is to men in health."

παντάπασιν ἀσθενέα μήτε αὖ ἰσχυρὴν φάγοι τι ὧν βοῦς ἢ ἵππος φαγὼν ἂν ὠφελοῖτό τε καὶ ἰσχύοι, ὀρόβους ἢ κριθὰς ἢ ἄλλο τι τῶν τοιούτων, μὴ πολύ, ἀλλὰ πολλῷ μεῖον ἢ δύναιτο, οὐκ ἂν ἧσσον ὁ ὑγιαίνων τοῦτο ποιήσας πονήσειέ τε καὶ κινδυνεύσειε κείνου τοῦ νοσέοντος, ὃς τὸν ἄρτον ἢ τὴν μᾶζαν ἀκαίρως προσηνέγκατο. ταῦτα δὴ πάντα τεκμήρια, ὅτι αὕτη ἡ τέχνη πᾶσα ἡ ἰητρικὴ τῇ αὐτῇ ὁδῷ ζητεομένη εὑρίσκοιτο ἄν.

IX. Καὶ εἰ μὲν ἦν ἁπλοῦν, ὥσπερ ὑφήγητο, ὅσα μὲν ἦν ἰσχυρότερα, ἔβλαπτεν, ὅσα δ' ἦν ἀσθενέστερα, ὠφέλει τε καὶ ἔτρεφεν καὶ τὸν κάμνοντα καὶ τὸν ὑγιαίνοντα, εὐπετὲς ἂν ἦν τὸ πρῆγμα· πολλὸν γὰρ τοῦ ἀσφαλέος ἂν ἔδει περιλαμβάνοντας ἄγειν ἐπὶ τὸ ἀσθενέστερον. νῦν δὲ οὐκ ἔλασσον ἁμάρτημα, οὐδὲ ἧσσον λυμαίνεται τὸν ἄνθρωπον, ἢν ἐλάσσονα καὶ ἐνδεέστερα τῶν ἱκανῶν προσφέρηται. τὸ γὰρ τοῦ λιμοῦ μένος δύναται ἰσχυρῶς ἐν τῇ φύσει τοῦ ἀνθρώπου καὶ γυιῶσαι καὶ ἀσθενέα ποιῆσαι καὶ ἀποκτεῖναι. πολλὰ δὲ καὶ ἄλλα κακὰ ἑτεροῖα τῶν ἀπὸ πληρώσιος, οὐχ ἧσσον δὲ δεινά, καὶ ἀπὸ κενώσιος. διότι πολλὸν ποικιλώτερά τε καὶ διὰ πλείονος ἀκριβείης ἐστί. δεῖ γὰρ μέτρου τινὸς στοχάσασθαι. μέτρον δὲ οὔτε ἀριθμὸν οὔτε σταθμὸν ἄλλον, πρὸς ὃ ἀναφέρων εἴσῃ τὸ ἀκριβές, οὐκ ἂν εὕροις ἀλλ' ἢ τοῦ σώματος τὴν αἴσθησιν. διὸ ἔργον οὕτω καταμαθεῖν ἀκριβέως, ὥστε σμικρὰ ἁμαρτάνειν ἔνθα ἢ ἔνθα. κἂν ἐγὼ τοῦτον τὸν ἰητρὸν ἰσχυρῶς ἐπαινέοιμι τὸν σμικρὰ ἁμαρτάνοντα. τὸ δὲ ἀτρεκὲς ὀλιγάκις ἔστι κατιδεῖν. ἐπεὶ οἱ πολλοί γε τῶν ἰητρῶν τὰ αὐτά μοι δοκέουσιν τοῖσι κακοῖσι

strong, and suppose he were to eat one of the foods that would be beneficial and strength-giving to an ox or a horse, vetches or barley or something similar, not much of it, but far less than he could take. If the man in health did this he would suffer no less pain and danger than that sick man who took bread or barley-cake at a time when he ought not. All this goes to prove that this art of medicine, if research be continued on the same method, can all be discovered.

IX. If the matter were simple, as in these instances, and both sick and well were hurt by too strong foods, benefited and nourished by weaker foods, there would be no difficulty. For recourse to weaker food must have secured a great degree of safety. But as it is, if a man takes insufficient food, the mistake is as great as that of excess, and harms the man just as much. For abstinence has upon the human constitution a most powerful effect, to enervate, to weaken and to kill. Depletion produces many other evils, different from those of repletion, but just as severe. Wherefore the greater complexity of these ills requires a more exact method of treatment. For it is necessary to aim at some measure. But no measure, neither number nor weight, by reference to which knowledge can be made exact, can be found except bodily feeling. Wherefore it is laborious to make knowledge so exact that only small mistakes are made here and there. And that physician who makes only small mistakes would win my hearty praise. Perfectly exact truth is but rarely to be seen. For most physicians seem to me to be in the same

κυβερνήτῃσι πάσχειν. καὶ γὰρ ἐκεῖνοι ὅταν ἐν γαλήνῃ κυβερνῶντες ἁμαρτάνωσιν, οὐ καταφανέες εἰσίν· ὅταν δὲ αὐτοὺς κατάσχῃ χειμών τε μέγας καὶ ἄνεμος ἐξώστης, φανερῶς πᾶσιν ἤδη ἀνθρώποις δι' ἀγνωσίην καὶ ἁμαρτίην δῆλοί εἰσιν ἀπολέσαντες τὴν ναῦν. οὕτω δὴ καὶ οἱ κακοί τε καὶ οἱ πλεῖστοι ἰητροί, ὅταν μὲν θεραπεύωσιν ἀνθρώπους μηδὲν δεινὸν ἔχοντας, ἐς οὓς ἄν τις τὰ μέγιστα ἐξαμαρτάνων οὐδὲν δεινὸν ἐργάσαιτο— πολλὰ δὲ τοιαῦτα νοσήματα καὶ πολλόν τι πλείω τῶν δεινῶν ἀνθρώποις συμβαίνει—ἐν μὲν τοῖσι τοιούτοις ἁμαρτάνοντες οὐ καταφανέες εἰσὶν τοῖσιν ἰδιώτῃσιν· ὅταν δ' ἐντύχωσιν μεγάλῳ τε καὶ ἰσχυρῷ καὶ ἐπισφαλεῖ νοσήματι, τότε σφέων τά τε ἁμαρτήματα καὶ ἡ ἀτεχνίη πᾶσι καταφανής· οὐ γὰρ ἐς μακρὸν αὐτῶν ἑκατέρου αἱ τιμωρίαι, ἀλλὰ διὰ τάχεος πάρεισιν.

Χ. Ὅτι δ' οὐδὲν ἐλάσσους ἀπὸ κενώσιος ἀκαίρου κακοπάθειαι γίνονται τῷ ἀνθρώπῳ ἢ ἀπὸ πληρώσιος, καταμανθάνειν καλῶς ἔχει ἐπαναφέροντας ἐπὶ τοὺς ὑγιαίνοντας. ἔστι γὰρ οἷσιν αὐτῶν συμφέρει μονοσιτεῖν, καὶ τοῦτο διὰ τὸ συμφέρον οὕτως αὐτοὶ ἐτάξαντο, ἄλλοισι δὲ ἀριστῆν διὰ τὴν αὐτὴν ἀνάγκην· οὕτω γὰρ αὐτοῖσι συμφέρει. καὶ μὴν τοῦτ' εἰσὶ οἳ[1] δι' ἡδονὴν ἢ δι' ἄλλην τινὰ συγκυρίην ἐπετήδευσαν ὁπότερον αὐτῶν. τοῖς μὲν γὰρ πλείστοισι τῶν ἀνθρώπων οὐδὲν διαφέρει, ὁπότερον ἂν ἐπιτηδεύσωσιν, εἴτε μονοσιτεῖν εἴτε ἀριστῆν, τούτῳ τῷ ἔθει χρῆσθαι. εἰσὶ δέ τινες οἳ οὐκ ἂν δύναιντο ἔξω τοῦ συμφέροντος ποιέοντες ῥηϊδίως ἀπαλλάσσειν, ἀλλὰ συμβαίνει αὐτῶν

[1] καὶ μὴν τοῦτ' εἰσὶ οἳ Reinhold : μὴ τούτοισιν οἳ MSS.

case as bad pilots; the mistakes of the latter are unnoticed so long as they are steering in a calm, but, when a great storm overtakes them with a violent gale, all men realise clearly then that it is their ignorance and blundering which have lost the ship. So also when bad physicians, who comprise the great majority, treat men who are suffering from no serious complaint, so that the greatest blunders would not affect them seriously—such illnesses occur very often, being far more common than serious disease—they are not shown up in their true colours to laymen if their errors are confined to such cases; but when they meet with a severe, violent and dangerous illness, then it is that their errors and want of skill are manifest to all. The punishment of the impostor, whether sailor or doctor, is not postponed, but follows speedily.

X. That the discomforts a man feels after unseasonable abstinence are no less than those of unseasonable repletion, it were well to learn by a reference to men in health. For some of them benefit by taking one meal only each day, and because of this benefit they make a rule of having only one meal; others again, because of the same reason, that they are benefited thereby, take lunch also. Moreover some have adopted one or other of these two practices for the sake of pleasure or for some other chance reason. For the great majority of men can follow indifferently either the one habit or the other, and can take lunch or only one daily meal. Others again, if they were to do anything outside what is beneficial, would not get off easily, but if they

ἑκατέροισι παρ' ἡμέρην μιαν καὶ ταύτην οὐχ ὅλην μεταβάλλουσιν ὑπερφυὴς κακοπάθεια. οἱ μὲν γὰρ ἦν ἀριστήσωσιν μὴ συμφέροντος αὐτοῖσι, εὐθέως βαρέες καὶ νωθροὶ καὶ τὸ σῶμα καὶ τὴν γνώμην χάσμης τε καὶ νυσταγμοῦ καὶ δίψης πλήρεες· ἢν δὲ καὶ ἐπιδειπνήσωσι, καὶ φῦσα καὶ στρόφος καὶ ἡ κοιλίη καταρρήγνυται. καὶ πολλοῖσιν ἀρχὴ νούσου αὕτη μεγάλης ἐγένετο, καὶ ἦν τὰ σιτία, ἃ μεμαθήκεσαν ἅπαξ ἀναλίσκειν, ταῦτα δὶς προσενέγκωνται καὶ μηδὲν πλείω. τοῦτο δέ, ἦν ἀριστῆν μεμαθηκώς τις—καὶ οὕτως αὐτῷ συμφέρον ἦν—μὴ ἀριστήσῃ, ὅταν τάχιστα παρέλθῃ ἡ ὥρη, εὐθὺς ἀδυναμίη δεινή, τρόμος, ἀψυχίη· ἐπὶ τούτοις ὀφθαλμοὶ κοῖλοι, οὖρον χλωρότερον καὶ θερμότερον, στόμα πικρόν, καὶ τὰ σπλάγχνα δοκεῖ οἱ κρέμασθαι, σκοτοδινίη, δυσθυμίη, δυσεργείη. ταῦτα δὲ πάντα, καὶ ὅταν δειπνεῖν ἐπιχειρήσῃ, ἀηδέστερος μὲν ὁ σῖτος, ἀναλίσκειν δὲ οὐ δύναται ὅσα ἀριστιζόμενος πρότερον ἐδείπνει. ταῦτα δὲ αὐτὰ μετὰ στρόφου καὶ ψόφου καταβαίνοντα συγκαίει τὴν κοιλίην, δυσκοιτέουσί τε καὶ ἐνυπνιάζουσι τεταραγμένα τε καὶ θορυβώδεα. πολλοῖσι δὲ καὶ τούτων αὕτη ἀρχὴ νούσου ἐγένετο.

XI. Σκέψασθαι δὲ χρή, διὰ τίνα αἰτίην αὐτοῖσιν ταῦτα συνέβη. τῷ μέν, οἶμαι, μεμαθηκότι μονοσιτεῖν, ὅτι οὐκ ἀνέμεινεν τὸν χρόνον τὸν ἱκανόν, μέχρι αὐτοῦ ἡ κοιλίη τῶν τῇ προτεραίῃ προσενηνεγμένων σιτίων ἀπολαύσῃ τελέως καὶ ἐπικρατήσῃ καὶ λαπαχθῇ τε καὶ ἡσυχάσῃ, ἀλλ' ἐπὶ

change their respective ways for a single day, nay, for a part of a single day, they suffer excessive discomfort. Some, who lunch although lunch does not suit them, forthwith become heavy and sluggish in body and in mind, a prey to yawning, drowsiness and thirst; while, if they go on to eat dinner as well, flatulence follows with colic and violent diarrhœa. Many have found such action to result in a serious illness, even if the quantity of food they take twice a day be no greater than that which they have grown accustomed to digest once a day. On the other hand, if a man who has grown accustomed, and has found it beneficial, to take lunch, should miss taking it, he suffers, as soon as the lunch-hour is passed, from prostrating weakness, trembling and faintness. Hollowness of the eyes follows; urine becomes paler and hotter, and the mouth bitter; his bowels seem to hang; there come dizziness, depression and listlessness. Besides all this, when he attempts to dine, he has the following troubles: his food is less pleasant, and he cannot digest what formerly he used to dine on when he had lunch. The mere food, descending into the bowels with colic and noise, burns them, and disturbed sleep follows, accompanied by wild and troubled dreams. Many such sufferers also have found these symptoms the beginning of an illness.

XI. It is necessary to inquire into the cause why such symptoms come to these men. The one who had grown accustomed to one meal suffered, I think, because he did not wait sufficient time, until his digestive organs had completely digested and assimilated the food taken the day before, and until they had become empty and quiet, but had taken fresh

ζέουσάν[1] τε καὶ ἐζυμωμένην καινὰ ἐπεσηνέγκατο. αἱ δὲ τοιαῦται κοιλίαι πολλῷ τε βραδύτερον πέσσουσι καὶ πλείονος δέονται ἀναπαύσιός τε καὶ ἡσυχίης. ὁ δὲ μεμαθηκὼς ἀριστίζεσθαι, διότι, ἐπειδὴ τάχιστα ἐδεήθη τὸ σῶμα τροφῆς καὶ τὰ πρότερα κατανάλωτο καὶ οὐκ εἶχεν οὐδεμίαν ἀπόλαυσιν, οὐκ εὐθέως αὐτῷ προσεγένετο καινὴ τροφή, φθίνει δὴ καὶ συντήκεται ὑπὸ λιμοῦ. πάντα γάρ, ἃ λέγω πάσχειν τὸν τοιοῦτον ἄνθρωπον, λιμῷ ἀνατίθημι. φημὶ δὲ καὶ τοὺς ἄλλους ἀνθρώπους ἅπαντας, οἵτινες ἂν ὑγιαίνοντες ἄσιτοι δύο ἡμέρας ἢ τρεῖς γένωνται, ταῦτα πείσεσθαι, οἷάπερ ἐπὶ τῶν ἀναρίστων γενομένων εἴρηκα.

XII. Τὰς δὲ τοιαύτας φύσιας ἔγωγέ φημι τὰς ταχέως τε καὶ ἰσχυρῶς τῶν ἁμαρτημάτων ἀπολαυούσας ἀσθενεστέρας εἶναι τῶν ἑτέρων. ἐγγύτατα δὲ τοῦ ἀσθενέοντός ἐστιν ὁ ἀσθενής, ἔτι δὲ ἀσθενέστερος ὁ ἀσθενέων, καὶ μᾶλλον αὐτῷ προσήκει ὅ τι ἂν τοῦ καιροῦ ἀποτυγχάνῃ πονεῖν. χαλεπὸν δὲ[2] τοιαύτης ἀκριβείης ἐούσης περὶ τὴν τέχνην τυγχάνειν αἰεὶ τοῦ ἀτρεκεστάτου. πολλὰ δὲ εἴδεα κατ' ἰητρικὴν ἐς τοσαύτην ἀκρίβειαν ἥκει, περὶ ὧν εἰρήσεται. οὔ φημι δὲ δεῖν διὰ τοῦτο τὴν τέχνην ὡς οὐκ ἐοῦσαν οὐδὲ καλῶς ζητεομένην τὴν ἀρχαίην ἀποβάλλεσθαι, εἰ μὴ ἔχει περὶ πάντα ἀκρίβειαν, ἀλλὰ πολὺ μᾶλλον διὰ τὸ ἐγγὺς οἶμαι τοῦ ἀτρεκεστάτου δύνασθαι ἥκειν λογισμῷ[3] ἐκ πολλῆς ἀγνωσίης θαυμάζειν τὰ ἐξευρημένα, ὡς καλῶς καὶ ὀρθῶς ἐξεύρηται καὶ οὐκ ἀπὸ τύχης.

[1] ἐπὶ ζέουσαν Zwinger: ἐπιζέουσαν MSS.

[2] Littré with some MSS. reads μὴ here.

[3] After λογισμῷ in a MS. now lost occurred the words προσίεσθαι καὶ.

food while the organs were still in a state of hot turmoil and ferment. Such organs digest much more slowly than others, and need longer rest and quiet. The man accustomed to take lunch, since no fresh nourishment was given him as soon as his body needed nourishment, when the previous meal was digested and there was nothing to sustain him, naturally wastes and pines away through want. For I put down to want all the symptoms which I have said such a man shows. And I assert furthermore that all other men besides, who when in good health fast for two or three days, will show the same symptoms as I have said those exhibit who do not take their lunch.

XII. Such constitutions, I contend, that rapidly and severely feel the effects of errors, are weaker than the others. A weak man is but one step removed from a sickly man, but a sickly man is weaker still, and is more apt to suffer distress whenever he misses the due season. And, while the art can admit of such nice exactness, it is difficult always to attain perfect accuracy. But many departments of medicine have reached such a pitch of exactness, and I will speak about them later. I declare, however, that we ought not to reject the ancient art as non-existent, or on the ground that its method of inquiry is faulty, just because it has not attained exactness in every detail, but much rather, because it has been able by reasoning to rise from deep ignorance to approximately perfect accuracy, I think we ought to admire the discoveries as the work, not of chance, but of inquiry rightly and correctly conducted.

XIII. Ἐπὶ δὲ τῶν τὸν καινὸν τρόπον τὴν τέχνην ζητεύντων ἐξ ὑποθέσιος τὸν λόγον ἐπανελθεῖν βούλομαι. εἰ γάρ τί ἐστιν θερμὸν ἢ ψυχρὸν ἢ ξηρὸν ἢ ὑγρὸν τὸ λυμαινόμενον τὸν ἄνθρωπον, καὶ δεῖ τὸν ὀρθῶς ἰητρεύοντα βοηθεῖν τῷ μὲν θερμῷ ἐπὶ τὸ ψυχρόν, τῷ δὲ ψυχρῷ ἐπὶ τὸ θερμόν, τῷ δὲ ξηρῷ ἐπὶ τὸ ὑγρόν, τῷ δὲ ὑγρῷ ἐπὶ τὸ ξηρόν. ἔστω μοι ἄνθρωπος μὴ τῶν ἰσχυρῶν φύσει, ἀλλὰ τῶν ἀσθενεστέρων· οὗτος δὲ πυροὺς ἐσθιέτω, οὓς ἂν ἀπὸ τῆς ἄλω ἀνέλῃ, ὠμοὺς καὶ ἀργούς, καὶ κρέα ὠμὰ καὶ πινέτω ὕδωρ. ταύτῃ χρεώμενος τῇ διαίτῃ εὖ οἶδ' ὅτι πείσεται πολλὰ καὶ δεινά· καὶ γὰρ πόνους πονήσει καὶ τὸ σῶμα ἀσθενὲς ἔσται καὶ ἡ κοιλίη φθαρήσεται καὶ ζῆν πολὺν χρόνον οὐ δυνήσεται. τί δὴ χρὴ βοήθημα παρεσκευάσθαι ὧδ' ἔχοντι; θερμὸν ἢ ψυχρὸν ἢ ξηρὸν ἢ ὑγρόν; δῆλον γὰρ ὅτι τούτων τι. εἰ γὰρ τὸ λυμαινόμενόν ἐστιν τούτων τὸ ἕτερον, τῷ ὑπεναντίῳ προσήκει λῦσαι, ὡς ὁ ἐκείνων λόγος ἔχει. τὸ μὲν γὰρ βεβαιότατόν τε καὶ προφανέστατον φάρμακον ἀφελόντα τὰ διαιτήματα, οἷς ἐχρῆτο, ἀντὶ μὲν τῶν πυρῶν ἄρτον διδόναι, ἀντὶ δὲ τῶν ὠμῶν κρεῶν ἑφθά, πιεῖν τε ἐπὶ τούτοισιν οἶνου. ταῦτα μεταβαλόντα οὐχ οἷόν τε μὴ οὐχ ὑγιᾶ γενέσθαι, ἤν γε μὴ παντάπασιν ᾖ διεφθαρμένος ὑπὸ χρόνου τε καὶ τῆς διαίτης. τί δὴ φήσομεν; πότερον αὐτῷ ἀπὸ ψυχροῦ κακοπαθέοντι θερμὰ ταῦτα προσενέγκαντες ὠφέλησαν ἢ τἀναντία; οἶμαι γὰρ ἔγωγε πολλὴν ἀπορίην τῷ ἐρωτηθέντι παρασχεῖν. ὁ γὰρ τὸν ἄρτον παρασκευάζων τῶν πυρῶν τὸ θερμὸν ἢ τὸ ψυχρὸν ἢ τὸ ξηρὸν ἢ τὸ ὑγρὸν ἀφείλατο;

XIII. But I want to return to the theory of those who prosecute their researches in the art after the novel fashion, building on a postulate. For if there be such a thing as heat, or cold, or dryness, or moistness, which injures a man, it necessarily follows that the scientific healer will counteract cold with hot, hot with cold, moist with dry and dry with moist. Now suppose we have a man whose constitution is not strong, but weaker than the average. Let this man's food be wheat straight from the threshing-floor, unworked and uncooked, and raw meat, and let his drink be water. The use of this diet will assuredly cause him much severe suffering; he will experience pains and physical weakness, his digestion will be ruined and he will not be able to live long. Well, what remedy should be prepared for a man in this condition? Heat or cold or dryness or moistness? One of these, plainly; for, according to the theory of the new school, if the injury was caused by one of the opposites, the other opposite ought to be a specific. Of course the most obvious as well as the most reliable medicine would be to abandon his old diet, and to give him bread instead of wheat, boiled meat instead of raw meat, and besides these things, a little wine to drink. This change must restore him to his health, unless indeed it has been entirely ruined by long continuance of the diet. What then shall we say? That he was suffering from cold, and that the taking of these hot things benefited him? Or shall we say the opposite? I think that I have nonplussed my opponent. For is it the heat of the wheat, or the cold, or the dryness, or the moistness, that the baker took away from it? For a thing which has been

ὃ γὰρ καὶ πυρὶ καὶ ὕδατι δέδοται καὶ ἄλλοις πολλοῖσι ἤργασται, ὧν ἕκαστον ἰδίην δύναμιν καὶ φύσιν ἔχει, τὰ μὲν τῶν ὑπαρχόντων ἀποβέβληκε, ἄλλοισι δὲ κέκρηταί τε καὶ μέμικται.

XIV. Οἶδα μὲν γὰρ καὶ τάδε δήπου, ὅτι διαφέρει ἐς τὸ σῶμα τοῦ ἀνθρώπου καθαρὸς ἄρτος ἢ συγκομιστός, ἢ ἀπτίστων πυρῶν ἢ ἐπτισμένων, ἢ πολλῷ ὕδατι πεφυρημένος ἢ ὀλίγῳ, ἢ ἰσχυρῶς πεφυρημένος ἢ ἀφύρητος, ἢ ἔξοπτος ἢ ἔνωμος, ἄλλα τε πρὸς τούτοισι μυρία. ὡς δ' αὕτως καὶ περὶ μάζης. καὶ αἱ δυνάμιες μεγάλαι τε ἑκάστου καὶ οὐδὲν ἡ ἑτέρη τῇ ἑτέρῃ ἐοικυῖα. ὅστις δὲ ταῦτα οὐκ ἐπέσκεπται ἢ σκεπτόμενος οὐκ οἶδεν, πῶς ἄν τι οὗτος δύναιτο τῶν κατ' ἄνθρωπον παθημάτων εἰδέναι; ὑπὸ γὰρ ἑνὸς ἑκάστου τούτων πάσχει τε καὶ ἑτεροιοῦται ὁ ἄνθρωπος ἢ τοῖον ἢ τοῖον. καὶ διὰ τούτων πᾶς ὁ βίος καὶ ὑγιαίνοντι καὶ ἐκ νούσου ἀνατρεφομένῳ καὶ κάμνοντι. οὐκ ἂν οὖν ἕτερα τούτων χρησιμώτερα οὐδὲ ἀναγκαιότερα εἴη εἰδέναι δήπου, ὡς δὲ καλῶς καὶ λογισμῷ προσήκοντι ζητήσαντες πρὸς τὴν τοῦ ἀνθρώπου φύσιν εὗρον αὐτὰ οἱ πρῶτοι εὑρόντες καὶ ᾠήθησαν ἀξίην τὴν τέχνην θεῷ προσθεῖναι, ὥσπερ καὶ νομίζεται. οὐ γὰρ τὸ ξηρὸν οὐδὲ τὸ ὑγρὸν οὐδὲ τὸ θερμὸν οὐδὲ τὸ ψυχρὸν οὐδὲ ἄλλο τούτων ἡγησάμενοι οὐδὲν οὔτε λυμαίνεσθαι οὔτε προσδεῖσθαι οὐδενὸς τούτων τὸν ἄνθρωπον, ἀλλὰ τὸ ἰσχυρὸν ἑκάστου καὶ τὸ κρέσσον τῆς φύσιος τῆς ἀνθρωπείης, οὗ μὴ ἠδύνατο κρατεῖν, τοῦτο βλά-

[1] Or "power." [2] Or "powers."

exposed to fire and to water, and has been made by many other things, each of which has its own individual property[1] and nature, has lost some of its qualities and has been mixed and combined with others.

XIV. Of course I know also that it makes a difference to a man's body whether bread be of bolted or of unbolted flour, whether it be of winnowed or of unwinnowed wheat, whether it be kneaded with much water or with little, whether it be thoroughly kneaded or unkneaded, whether it be thoroughly baked or underbaked, and there are countless other differences. Barley-cake varies in just the same way. The properties[2] too of each variety are powerful, and no one is like to any other. But how could he who has not considered these truths, or who considers them without learning, know anything about human ailments? For each of these differences produces in a human being an effect and a change of one sort or another, and upon these differences is based all the dieting of a man, whether he be in health, recovering from an illness, or suffering from one. Accordingly there could surely be nothing more useful or more necessary to know than these things, and how the first discoverers, pursuing their inquiries excellently and with suitable application of reason to the nature of man, made their discoveries, and thought the art worthy to be ascribed to a god, as in fact is the usual belief. For they did not consider that the dry or the moist or the hot or the cold or anything else of the kind injures a man, or that he has need of any such thing, but they considered that it is the strength of each thing, that which, being too powerful for the human constitution, it cannot assimilate, which causes harm, and

πτειν ἠγήσαντο καὶ τοῦτο ἐζήτησαν ἀφαιρεῖν. ἰσχυρότατον δ' ἐστὶ τοῦ μὲν γλυκέος τὸ γλυκύτατον, τοῦ δὲ πικροῦ τὸ πικρότατον, τοῦ δὲ ὀξέος τὸ ὀξύτατον, ἑκάστου δὲ πάντων τῶν ἐνεόντων ἡ ἀκμή. ταῦτα γὰρ ἑώρων καὶ ἐν τῷ ἀνθρώπῳ ἐνεόντα καὶ λυμαινόμενα τὸν ἄνθρωπον. ἔνι γὰρ ἐν ἀνθρώπῳ καὶ ἁλμυρὸν καὶ πικρὸν καὶ γλυκὺ καὶ ὀξὺ καὶ στρυφνὸν καὶ πλαδαρὸν καὶ ἄλλα μυρία παντοίας δυνάμιας ἔχοντα πλῆθός τε καὶ ἰσχύν. ταῦτα μὲν μεμιγμένα καὶ κεκρημένα ἀλλήλοισιν οὔτε φανερά ἐστιν οὔτε λυπεῖ τὸν ἄνθρωπον. ὅταν δέ τι τούτων ἀποκριθῇ καὶ αὐτὸ ἐφ' ἑωυτοῦ γένηται, τότε καὶ φανερόν ἐστι καὶ λυπεῖ τὸν ἄνθρωπον· τοῦτο δέ, τῶν βρωμάτων ὅσα ἡμῖν ἀνεπιτήδειά ἐστιν καὶ λυμαίνεται τὸν ἄνθρωπον ἐμπεσόντα, τούτων ἓν ἕκαστον ἢ πικρόν ἐστιν ἢ ἁλμυρὸν ἢ ὀξὺ ἢ ἄλλο τι ἄκρητόν τε καὶ ἰσχυρόν, καὶ διὰ τοῦτο ταρασσόμεθα ὑπ' αὐτῶν, ὥσπερ καὶ ὑπὸ τῶν ἐν τῷ σώματι ἀποκρινομένων. πάντα δὲ ὅσα ἄνθρωπος ἐσθίει ἢ πίνει, τὰ τοιαῦτα βρώματα ἥκιστα τοιούτου χυμοῦ ἀκρήτου τε καὶ διαφέροντος δῆλά ἐστιν μετέχοντα, οἷον ἄρτος τε καὶ μᾶζα καὶ τὰ ἑπόμενα τούτοις, οἷς εἴθισται ὁ ἄνθρωπος πλείστοισί τε καὶ αἰεὶ χρῆσθαι, ἔξω τῶν πρὸς ἡδονήν τε καὶ κόρον ἠρτυμένων τε καὶ ἐσκευασμένων. καὶ ἀπὸ τούτων πλείστων ἐσιόντων ἐς τὸν ἄνθρωπον τάραχος καὶ ἀπόκρισις τῶν ἀμφὶ τὸ σῶμα δυναμίων ἥκιστα γίνεται, ἰσχὺς δὲ καὶ αὔξησις καὶ τροφὴ μάλιστα δι' οὐδὲν ἕτερον γίνεται ἢ ὅτι εὖ τε κέκρηται καὶ οὐδὲν ἔχει οὔτε ἄκρητον οὔτε ἰσχυρόν, ἀλλ' ὅλον ἓν τε γέγονε καὶ ἁπλοῦν.

this they sought to take away. The strongest part of the sweet is the sweetest, of the bitter the most bitter, of the acid the most acid, and each of all the component parts of man has its extreme. For these they saw are component parts of man, and that they are injurious to him; for there is in man salt and bitter, sweet and acid, astringent and insipid,[1] and a vast number of other things, possessing properties of all sorts, both in number and in strength. These, when mixed and compounded with one another are neither apparent nor do they hurt a man; but when one of them is separated off, and stands alone, then it is apparent and hurts a man. Moreover, of the foods that are unsuitable for us and hurt a man when taken, each one of them is either bitter, or salt, or acid, or something else uncompounded and strong, and for this reason we are disordered by them, just as we are by the secretions separated off in the body. But all things that a man eats or drinks are plainly altogether free from such an uncompounded and potent humour, *e.g.* bread, cake, and suchlike, which men are accustomed constantly to use in great quantity, except the highly seasoned delicacies which gratify his appetite and greed. And from such foods, when plentifully partaken of by a man, there arises no disorder at all or isolation of the powers[2] resident in the body, but strength, growth and nourishment in great measure arise from them, for no other reason except that they are well compounded, and have nothing undiluted and strong, but form a single, simple whole.

[1] Or "flat," the opposite of "sharp." [2] Or "properties."

XV. Ἀπορέω δ' ἔγωγε, οἱ τὸν λόγον ἐκεῖνον λέγοντες καὶ ἄγοντες ἐκ ταύτης τῆς ὁδοῦ ἐπὶ ὑπόθεσιν τὴν τέχνην τίνα ποτὲ τρόπον θεραπεύουσι τοὺς ἀνθρώπους, ὥσπερ ὑποτίθενται. οὐ γάρ ἐστιν αὐτοῖς, οἶμαι, ἐξευρημένον αὐτό τι ἐφ' ἑωυτοῦ θερμὸν ἢ ψυχρὸν ἢ ξηρὸν ἢ ὑγρὸν μηδενὶ ἄλλῳ εἶδει κοινωνέον. ἀλλ' οἴομαι ἔγωγε ταὐτὰ βρώματα καὶ πόματα αὐτοῖσι ὑπάρχειν, οἷσι πάντες χρεώμεθα. προστιθέασι δὲ τῷ μὲν εἶναι θερμῷ, τῷ δὲ ψυχρῷ, τῷ δὲ ξηρῷ, τῷ δὲ ὑγρῷ, ἐπεὶ ἐκεῖνό γε ἄπορον προστάξαι τῷ κάμνοντι θερμόν τι προσενέγκασθαι. εὐθὺ γὰρ ἐρωτήσει· τί; ὥστε ληρεῖν ἀνάγκη ἢ ἐς τούτων τι τῶν γινωσκομένων καταφεύγειν. εἰ δὲ δὴ τυγχάνει τι θερμὸν ἐὸν στρυφνόν, ἄλλο δὲ θερμὸν ἐὸν πλαδαρόν, ἄλλο δὲ θερμὸν ἄραδον ἔχον—ἔστι γὰρ καὶ ἄλλα πολλὰ θερμὰ καὶ ἄλλας δυνάμιας ἔχοντα ἑωυτοῖς ὑπεναντίας— ἦ διοίσει τι[1] αὐτῶν προσενεγκεῖν τὸ θερμὸν καὶ στρυφνὸν ἢ τὸ θερμὸν καὶ πλαδαρὸν ἢ ἅμα τὸ ψυχρὸν καὶ στρυφνόν—ἔστι γὰρ καὶ τοιοῦτο—ἢ τὸ ψυχρόν τε καὶ πλαδαρόν· ὥσπερ γὰρ ἐγὼ οἶδα, πᾶν τοὐναντίον ἀφ' ἑκατέρου αὐτῶν ἀποβαίνει, οὐ μοῦνον ἐν ἀνθρώπῳ, ἀλλὰ καὶ ἐν σκύτει καὶ ἐν ξύλῳ καὶ ἐν ἄλλοις πολλοῖς, ἃ ἐστιν ἀνθρώπου ἀναισθητότερα. οὐ γὰρ τὸ θερμόν ἐστιν τὸ τὴν μεγάλην δύναμιν ἔχον, ἀλλὰ τὸ στρυφνὸν καὶ τὸ πλαδαρὸν καὶ τἄλλα ὅσα μοι εἴρηται καὶ ἐν τῷ ἀνθρώπῳ καὶ ἔξω τοῦ ἀνθρώπου, καὶ ἐσθιόμενα καὶ πινόμενα καὶ ἔξωθεν ἐπιχριόμενά τε καὶ προσπλασσόμενα.

[1] ἦ διοίσει τι M: εἰ δεοίσει τί A: εἰ δεήσει τι most MSS.: δεήσει δέ τι Littré: ἦ μὴ διοίσει τι; Gomperz.

XV. I am at a loss to understand how those who maintain the other view, and abandon the old method to rest the art on a postulate, treat their patients on the lines of their postulate. For they have not discovered, I think, an absolute hot or cold, dry or moist, that participates in no other form. But I think that they have at their disposal the same foods and the same drinks as we all use, and to one they add the attribute of being hot, to another, cold, to another, dry, to another, moist, since it would be futile to order a patient to take something hot, as he would at once ask, "What hot thing?" So that they must either talk nonsense or have recourse to one of these known substances. And if one hot thing happens to be astringent, and another hot thing insipid, and a third hot thing causes flatulence (for there are many various kinds of hot things, possessing many opposite powers), surely it will make a difference whether he administers the hot astringent thing, or the hot insipid thing, or that which is cold and astringent at the same time (for there is such a thing), or the cold insipid thing. For I am sure that each of these pairs produces exactly the opposite of that produced by the other, not only in a man, but in a leathern or wooden vessel, and in many other things less sensitive than man. For it is not the heat which possesses the great power, but the astringent and the insipid, and the other qualities I have mentioned, both in man and out of man, whether eaten or drunk, whether applied externally as ointment or as plaster.

XVI. Ψυχρότητα δ' ἐγὼ καὶ θερμότητα πασέων ἥκιστα τῶν δυναμίων νομίζω δυναστεύειν ἐν τῷ σώματι διὰ τάσδε τὰς αἰτίας· ὃν μὲν ἂν δήπου χρόνον μεμιγμένα αὐτὰ ἑωυτοῖς ἅμα τὸ θερμόν τε καὶ ψυχρὸν ἐνῇ, οὐ λυπεῖ. κρῆσις γὰρ καὶ μετριότης τῷ μὲν θερμῷ γίνεται ἀπὸ τοῦ ψυχροῦ, τῷ δὲ ψυχρῷ ἀπὸ τοῦ θερμοῦ. ὅταν δ' ἀποκριθῇ χωρὶς ἑκάτερον, τότε λυπεῖ. ἐν δὲ δὴ τούτῳ τῷ καιρῷ, ὅταν τὸ ψυχρὸν ἐπιγένηται καί τι λυπήσῃ τὸν ἄνθρωπον, διὰ τάχεος πρῶτον δι' αὐτὸ τοῦτο πάρεστιν τὸ θερμὸν αὐτόθεν ἐκ τοῦ ἀνθρώπου, οὐδεμιῆς βοηθείης οὐδὲ παρασκευῆς δεόμενον. καὶ ταῦτα καὶ ἐν ὑγιαίνουσι τοῖς ἀνθρώποις ἀπεργάζεται καὶ ἐν κάμνουσι. τοῦτο μέν, εἴ τις θέλει ὑγιαίνων χειμῶνος διαψῦξαι τὸ σῶμα ἢ λουσάμενος ψυχρῷ ἢ ἄλλῳ τῳ τρόπῳ, ὅσῳ ἂν ἐπὶ πλεῖον αὐτὸ ποιήσῃ, καὶ ἢν γε μὴ παντάπασιν παγῇ τὸ σῶμα, ὅταν εἵματα λάβῃ καὶ ἔλθῃ ἐς τὴν σκέπην, ἔτι μᾶλλον καὶ ἐπὶ πλεῖον θερμαίνεται τὸ σῶμα· τοῦτο δέ, εἰ ἐθέλοι ἐκθερμανθῆναι ἰσχυρῶς ἢ λουτρῷ θερμῷ ἢ πυρὶ πολλῷ, ἐκ δὲ τούτου τὸ αὐτὸ εἶμα ἔχων ἐν τῷ αὐτῷ χωρίῳ τὴν διατριβὴν ποιεῖσθαι ὥσπερ διεψυγμένος, πολὺ φαίνεται καὶ ψυχρότερος καὶ ἄλλως φρικαλεώτερος· ἢ εἰ ῥιπιζόμενός τις ὑπὸ πνίγεος καὶ παρασκευαζόμενος αὐτὸς ἑωυτῷ ψῦχος ἐκ τοιούτου ἂν τρόπου διαπαύσαιτο τοῦτο ποιέων, δεκαπλάσιον ἔσται τὸ καῦμα καὶ πνῖγος ἢ τῷ μηδὲν τοιοῦτο ποιέοντι.

Τόδε δὴ καὶ πολὺ μέζον· ὅσοι ἂν διὰ χιόνος ἢ ἄλλου ψύχεος βαδίσαντες ῥιγώσωσι διαφερόντως πόδας ἢ χεῖρας ἢ κεφαλήν, οἷα

XVI. And I believe that of all the powers[1] none hold less sway in the body than cold and heat. My reasons are these. So long as the hot and cold in the body are mixed up together, they cause no pain. For the hot is tempered and moderated by the cold, and the cold by the hot. But when either is entirely separated from the other, then it causes pain. And at that season, when cold comes upon a man and causes him some pain, for that very reason internal heat first is present quickly and spontaneously, without needing any help or preparation. The result is the same, whether men be diseased or in health. For instance, if a man in health will cool his body in winter, either by a cold bath or in any other way, the more he cools it (provided that his body is not entirely frozen) the more he becomes hotter than before when he puts his clothes on and enters his shelter. Again, if he will make himself thoroughly hot by means of either a hot bath of a large fire, and afterwards wear the same clothes and stay in the same place as he did when chilled, he feels far colder and besides more shivery than before. Or if a man fan himself because of the stifling heat and make coolness for himself, on ceasing to do this in this way he will feel ten times the stifling heat felt by one who does nothing of the sort.

Now the following is much stronger evidence still. All who go afoot through snow or great cold, and become over-chilled in feet, hands or head, suffer at

[1] Or "properties."

πάσχουσιν ἐς τὴν νύκτα, ὅταν περισταλεωσί τε καὶ ἐν ἀλέῃ γένωνται ὑπὸ καύματος καὶ κνησμοῦ. καὶ ἔστιν οἷσι φλύκταιναι ἀνίστανται ὥσπερ τοῖς ἀπὸ πυρὸς κατακεκαυμένοις. καὶ οὐ πρότερον τοῦτο πάσχουσιν, πρὶν θερμανθέωσιν. οὕτως ἑτοίμως ἑκάτερον αὐτῶν ἐπὶ θάτερον παραγίνεται. μυρία δ' ἂν καὶ ἄλλα ἔχοιμι εἰπεῖν. τὰ δὲ κατὰ τοὺς νοσέοντας, οὐχὶ ὅσοις ἂν ῥῖγος γένηται, τούτοις ὀξύτατος ὁ πυρετὸς ἐκλάμπει; καὶ οὐχὶ ὅπως[1] ἰσχυρός,[2] ἀλλὰ καὶ παυόμενος δι' ὀλίγου, καὶ ἄλλως τὰ πολλὰ ἀσινὴς καὶ ὅσον ἂν χρόνον παρῇ διάθερμος; καὶ διεξιὼν διὰ παντὸς τελευτᾷ ἐς τοὺς πόδας μάλιστα, οὗπερ τὸ ῥῖγος καὶ ἡ ψῦξις νεηνικωτάτη καὶ ἐπὶ πλεῖον ἐνεχρόνισεν· πάλιν τε ὅταν ἱδρώσῃ τε καὶ ἀπαλλαγῇ ὁ πυρετός, πολὺ μᾶλλον διέψυξε ἢ εἰ μὴ ἔλαβε τὴν ἀρχήν. ᾧ οὖν διὰ τάχεος οὕτω παραγίνεται τὸ ἐναντιώτατόν τε καὶ ἀφαιρεόμενον τὴν δύναμιν ἀπὸ τωὐτομάτου, τί ἂν ἀπὸ τούτου μέγα ἢ δεινὸν γένοιτο; ἢ τί δεῖ πολλῆς ἐπὶ τούτῳ βοηθείης;

XVII. Εἴποι ἄν τις· ἀλλ' οἱ πυρεταίνοντες τοῖσι καύσοισί τε καὶ περιπνευμονίῃσι καὶ ἄλλοισι ἰσχυροῖσι νοσήμασι οὐ ταχέως ἐκ τῆς θέρμης ἀπαλλάσσονται, οὐδὲ πάρεστιν ἐνταῦθα ἔτι τὸ θερμὸν ἢ τὸ ψυχρόν. ἐγὼ δέ μοι τοῦτο μέγιστον τεκμήριον ἡγεῦμαι εἶναι, ὅτι οὐ διὰ τὸ θερμὸν ἁπλῶς πυρεταίνουσιν οἱ ἄνθρωποι, οὐδὲ τοῦτο εἴη τὸ αἴτιον τῆς κακώσιος μοῦνον, ἀλλ' ἔστι καὶ πικρὸν καὶ θερμὸν τὸ αὐτό, καὶ ὀξὺ καὶ θερμόν,

[1] οὐχὶ ὅπως Diels : οὐχὶ οὕτως A : οὐχ οὕτως M.
[2] ἰσχυρὸς Coray : ἰσχυρῶς MSS.

night very severely from burning and tingling when they come into a warm place and wrap up; in some cases blisters arise like those caused by burning in fire. But it is not until they are warmed that they experience these symptoms. So ready is cold to pass into heat and heat into cold. I could give a multitude of other proofs. But in the case of sick folk, is it not those who have suffered from shivering in whom breaks out the most acute fever? And not only is it not powerful, but after a while does it not subside, generally without doing harm all the time it remains, hot as it is? And passing through all the body it ends in most cases in the feet, where the shivering and chill were most violent and lasted unusually long. Again, when the fever disappears with the breaking out of the perspiration, it cools the patient so that he is far colder than if he had never been attacked at all. What important or serious consequence, therefore, could come from that thing on which quickly supervenes in this way its exact opposite, spontaneously annulling its effect?[1] Or what need has it of elaborate treatment?

XVII. An opponent may retort, "But patients whose fever comes from ardent fevers,[2] pneumonia, or other virulent disease, do not quickly get rid of their feverishness, and in these cases the heat and cold no longer alternate." Now I consider that herein lies my strongest evidence that men are not feverish merely through heat, and that it could not be the sole cause of the harm; the truth being that one and the same thing is both bitter and hot, or acid and

[1] Or "power."

[2] καῦσος was almost certainly a form of remittent malaria. See my *Malaria and Greek History* (index).

καὶ ἁλμυρὸν καὶ θερμόν, καὶ ἄλλα μυρία, καὶ πάλιν γε ψυχρὸν μετὰ δυναμίων ἑτέρων. τὰ μὲν οὖν λυμαινόμενα ταῦτ' ἐστί· συμπάρεστι δὲ καὶ τὸ θερμόν, ῥώμης μὲν ἔχον ὅσον τὸ[1] ἡγεύμενον καὶ παροξυνόμενον καὶ αὐξόμενον ἅμα ἐκείνῳ, δύναμιν δὲ οὐδεμίαν πλείω τῆς προσηκούσης.

XVIII. Δῆλα δὲ ταῦτα ὅτι ὧδε ἔχει ἐπὶ τῶνδε τῶν σημείων· πρῶτον μὲν ἐπὶ τὰ[2] φανερώτερα, ὧν πάντες ἔμπειροι πολλάκις ἐσμέν τε καὶ ἐσόμεθα. τοῦτο μὲν γάρ, ὅσοισι ἂν ἡμέων κόρυζα ἐγγένηται καὶ ῥεῦμα κινηθῇ διὰ τῶν ῥινῶν, τοῦτο ὡς τὸ πολὺ δριμύτερον τοῦ πρότερον γινομένου τε καὶ ἰόντος ἐκ τῶν ῥινῶν καθ' ἑκάστην ἡμέρην καὶ οἰδεῖν μὲν ποιεῖ τὴν ῥῖνα καὶ συγκαίει θερμήν τε καὶ διάπυρον ἐσχάτως, ἢν δὴ[3] τὴν χεῖρα προσφέρῃς· κἢν πλείω χρόνον παρῇ, καὶ ἐξελκοῦται τὸ χωρίον ἄσαρκόν τε καὶ σκληρὸν ἐόν. παύεται δέ πως τὸ καῦμα ἐκ τῆς ῥινός, οὐχ ὅταν τὸ ῥεῦμα γίνηται καὶ ἡ φλεγμονὴ ᾖ, ἀλλ' ἐπειδὰν παχύτερόν τε καὶ ἧσσον δριμὺ ῥέῃ, πέπον καὶ μεμιγμένον μᾶλλον τοῦ πρότερον γινομένου,[4] τότε δὲ ἤδη καὶ τὸ καῦμα πέπαυται. ἀλλ' οἷσι δὲ[5] ὑπὸ ψύχεος φανερῶς αὐτοῦ μούνου γίνεται μηδενὸς ἄλλου συμπαραγενομένου, πᾶσι δὲ ἡ αὐτὴ ἀπαλλαγή, ἐκ μὲν τῆς ψύξιος διαθερμαιθῆναι, ἐκ δὲ τοῦ καύματος διαψυχθῆναι, καὶ ταῦτα ταχέως παραγίνεται καὶ πέψιος οὐδεμιῆς προσδεῖται. τὰ δ'

[1] μὲν ἔχον ὅσον τὸ Reinhold : μετέχον, ὡς ἂν τὸ MSS.
[2] ἐπὶ τὰ AM : ἐστι many MSS. : ἔπι τὰ Kühlewein.
[3] ἐσχάτως, ἢν δὴ Coray : ἐσχάτως. ἢν δὲ MSS.
[4] τοῦ πρότερον γινομένου Coray and Reinhold : τὸ πρότερον γινομένῳ A : τῷ πρότερον γινομένῳ M.
[5] ἀλλ' οἷσι δὲ Littré : ἄλλοισι δὲ MSS.

hot, or salt and hot, with numerous other combinations, and cold again combines with other powers.[1] It is these things which cause the harm. Heat, too, is present, but merely as a concomitant, having the strength of the directing factor which is aggravated and increases with the other factor, but having no power[2] greater than that which properly belongs to it.

XVIII. That this is so is plain if we consider the following pieces of evidence. First we have the more obvious symptoms, which all of us often experience and will continue so to do. In the first place, those of us who suffer from cold in the head, with discharge from the nostrils, generally find this discharge more acrid than that which previously formed there and daily passed from the nostrils; it makes the nose swell, and inflames it to an extremely fiery heat, as is shown if you put your hand upon it.[3] And if the disease be present for an unusually long time, the part actually becomes ulcered, although it is without flesh and hard. But in some way the heat of the nostril ceases, not when the discharge takes place and the inflammation is present, but when the running becomes thicker and less acrid, being matured and more mixed than it was before, then it is that the heat finally ceases. But in cases where the evil obviously comes from cold alone, unaccompanied by anything else, there is always the same change, heat following chill and chill heat, and these supervene at once, and need no coction. In all other instances,

[1] Or "properties."

[2] Or "effect."

[3] Or, with the MSS. reading, "And if you keep putting your hand to it, and the catarrh last a long time," etc.

ἄλλα πάντα, ὅσα διὰ χυμῶν δριμύτητας καὶ ἀκρησίας, φημὶ ἔγωγε γίνεσθαι τὸν αὐτὸν τρόπον
24 καὶ ἀποκαθίστασθαι πεφθέντα καὶ κρηθέντα.

XIX. Ὅσα τε αὖ ἐπὶ τοὺς ὀφθαλμοὺς τρέπεται τῶν ῥευμάτων, ἰσχυρὰς καὶ παντοίας δριμύτητας ἔχοντα, ἑλκοῖ μὲν βλέφαρα, κατεσθίει δ' ἐνίων γνάθους τε καὶ τὰ ὑπὸ τοῖσι ὀφθαλμοῖσι, ἐφ' ὅ τι ἂν ἐπιρρυῇ, ῥήγνυσι δὲ καὶ διεσθίει τὸν ἀμφὶ τὴν ὄψιν χιτῶνα. ὀδύναι δὲ καὶ καῦμα καὶ φλογμὸς ἔσχατος κατέχει μέχρι τινός, μέχρι ἂν τὰ ῥεύματα πεφθῇ καὶ γένηται παχύτερα καὶ λήμη ἀπ' αὐτῶν ᾖ. τὸ δὲ πεφθῆναι γίνεται ἐκ τοῦ μιχθῆναι καὶ
10 κρηθῆναι ἀλλήλοισι καὶ συνεψηθῆναι. τοῦτο δέ, ὅσα ἐς τὴν φάρυγγα, ἀφ' ὧν βράγχοι γίνονται καὶ συνάγχαι, ἐρυσιπέλατά τε καὶ περιπνευμονίαι, πάντα ταῦτα τὸ μὲν πρῶτον ἁλμυρά τε καὶ ὑγρὰ καὶ δριμέα ἀφίει, καὶ ἐν τοῖσι τοιούτοις ἔρρωται τὰ νοσήματα. ὅταν δὲ παχύτερα καὶ πεπαίτερα γένηται καὶ πάσης δριμύτητος ἀπηλλαγμένα, τότε ἤδη καὶ οἱ πυρετοὶ παύονται καὶ τἆλλα τὰ λυπέοντα τὸν ἄνθρωπον. δεῖ δὲ δήπου ταῦτα αἴτια ἑκάστου ἡγεῖσθαι εἶναι, ὧν παρεόντων μὲν τοιου-
20 τότροπον γίνεσθαι ἀνάγκη, μεταβαλλόντων δὲ ἐς ἄλλην κρῆσιν παύεσθαι. ὁπόσα οὖν ἀπ' αὐτῆς τῆς θέρμης εἰλικρινέος ἢ ψύξιος γίνεται καὶ μὴ μετέχει ἄλλης δυνάμιος μηδεμιῆς, οὕτω παύοιτο ἄν, ὅταν μεταβάλλῃ ἐκ τοῦ θερμοῦ ἐς τὸ ψυχρὸν καὶ ἐκ τοῦ ψυχροῦ ἐς τὸ θερμόν. μεταβάλλει δὲ ὅνπερ προείρηταί μοι τρόπον. ἔτι τοίνυν τἆλλα ὅσα κακοπαθεῖ ὁ ἄνθρωπος πάντα ἀπὸ δυναμίων γίνεται. τοῦτο μὲν γάρ, ὅταν πικρότης τις ἀποχυθῇ, ἣν δὴ χολὴν ξανθὴν καλέομεν, οἷαι ἄσαι

where acrid and unmixed humours come into play, I am confident that the cause is the same, and that restoration results from coction and mixture.

XIX. Again, such discharges as settle in the eyes, possessing powerful, acrid humours of all sorts, ulcerate the eyelids, and in some cases eat into the parts on to which they run, the cheeks and under the eyes; and they rupture and eat through the covering of the eyeball. But pains, burning and intense inflammation prevail until the discharges are concocted and become thicker, so that rheum is formed from them. This coction is the result of mixture, compounding and digestion. Secondly, the discharges that settle in the throat, giving rise to soreness, angina, erysipelas and pneumonia, all these at first emit salt, watery and acrid humours, whereby the diseases are strengthened. But when they become thicker and more matured, and throw off all trace of their acridness, then the fevers too subside with the other symptoms that distress the patient. We must surely consider the cause of each complaint to be those things the presence of which of necessity produces a complaint of a specific kind, which ceases when they change into another combination. All conditions, then, resulting from heat or cold pure and simple, with no other power [1] as a factor, must cease when heat changes into cold or cold into heat. This change takes place in the manner I have described above. Moreover, all other complaints to which man is liable arise from powers.[2] Thus, when there is an outpouring of the bitter principle, which we call yellow

[1] Or "quality."

[2] Or "qualities."

καὶ καύματα καὶ ἀδυναμίαι κατέχουσιν· ἀπαλλασσόμενοι δὲ τούτου, ἐνίοτε καὶ καθαιρόμενοι, ἢ αὐτόματοι ἢ ὑπὸ φαρμάκου, ἢν ἐν καιρῷ τι αὐτῶν γίνηται, φανερῶς καὶ τῶν πόνων καὶ τῆς θέρμης ἀπαλλάσσονται. ὅσον δ' ἂν χρόνον ταῦτα μετέωρα ᾖ καὶ ἄπεπτα καὶ ἄκρητα, μηχανὴ οὐδεμία οὔτε τῶν πόνων παύεσθαι οὔτε τῶν πυρετῶν. καὶ ὅσοισι δὲ ὀξύτητες προσίστανται δριμεῖαί τε καὶ ἰώδεες, οἷαι λύσσαι καὶ δήξιες σπλάγχνων καὶ θώρηκος καὶ ἀπορίη· οὐ παύεταί τι[1] τούτου πρότερον, πρὶν ἢ ἀποκαθαρθῇ τε καὶ καταστορεσθῇ καὶ μιχθῇ τοῖσιν ἄλλοισιν· πέσσεσθαι δὲ καὶ μεταβάλλειν καὶ λεπτύνεσθαί τε καὶ παχύνεσθαι ἐς χυμῶν εἶδος δι' ἄλλων εἰδέων καὶ παντοίων— διὸ καὶ κρίσιες καὶ ἀριθμοὶ τῶν χρόνων ἐν τοῖσι τοιούτοισι μέγα δύνανται—πάντων δὴ τούτων ἥκιστα προσήκει θερμῷ ἢ ψυχρῷ πάσχειν· οὔτε γὰρ ἂν τοῦτό γε σαπείη οὔτε παχυνθείη. †τί γὰρ αὐτὸ φήσωμεν εἶναι; κρήσιας αὐτῶν ἄλλην πρὸς ἄλληλα ἐχούσας δύναμιν.†[2] ἐπεὶ ἄλλῳ γε οὐδενὶ τὸ θερμὸν μιχθὲν παύσεται τῆς θέρμης ἢ

[1] *τι* Ermerins from a lost MS: *τε* M: omitted by A.

[2] *τί γὰρ αὐτὸ φήσωμεν εἶναι; κρήσιας αὐτῶν ἄλλην πρὸς ἄλληλα ἐχούσας δύναμιν.* So A. M has *τί δ' ἂν αὐτὸ φαίημεν . . . κρῆσίς τε αὐτέων ἐστι, πλὴν πρὸς ἄλληλα ἔχουσα δύναμιν.* Kühlewein reads *φήσομεν*, deletes the question stop at *εἶναι* and puts it after *δύναμιν*. Littré has *τί δ' ἂν αὐτὸ φαίημεν εἶναι; κρήσιας αὐτέων, ἄλλην πρὸς ἄλληλα ἐχούσας δύναμιν.*

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[1] Or "distress." [2] Or "property."

[3] There are many reasons for supposing that this sentence is either (*a*) in its wrong place, or (*b*) an interpolation. It seems quite irrelevant, and *αὐτῶν* should grammatically refer to *τὸ θερμὸν* and *τὸ ψυχρόν*, but there is *not* a crasis of these,

bile, great nausea, burning and weakness prevail. When the patient gets rid of it, sometimes by purgation, either spontaneous or by medicine, if the purging be seasonable he manifestly gets rid both of the pains and of the heat. But so long as these bitter particles are undissolved, undigested and uncompounded, by no possible means can the pains and fevers be stayed. And those who are attacked by pungent and acrid acids suffer greatly from frenzy, from gnawings of the bowels and chest, and from restlessness.[1] No relief from these symptoms is secured until the acidity is purged away, or calmed down and mixed with the other humours. But coction, alteration, thinning or thickening into the form of humours through other forms of all sorts (wherefrom crises also and fixing their periods derive great importance in cases of illness)—to all these things surely heat and cold are not in the least liable. For neither could either ferment or thicken. †For what shall we call it? Combinations of humours that exhibit a power[2] that varies with the various factors.[3]† Since the hot will give up its heat only when mixed with the cold, and the cold can be

but only of *χυμοί*. Hot and cold mixed produce only hot or cold, not a crasis. The sentence might be more relevantly placed at the end of Chapter XVIII, as an explanation of the process *ἀποκαθίστασθαι πεφθέντα καὶ κρηθέντα*. But transposition will not remove the other difficulties of the sentence. What is *αὐτό*? Health or disease? If health, then there is but *one* crasis producing it, not "many, having various properties." If disease, then it cannot be a crasis at all, but *ἀκρασία*. Finally, *ἄλλην πρὸς ἄλληλα* is dubious Greek. The whole sentence looks like an interpolation, though it is hard to say why it was introduced. The scribe of M seems to have felt the difficulties, for he wrote *κρῆσις, πλὴν* for *ἄλλην*, and *ἔχουσα*.

τῷ ψυχρῷ οὐδέ γε τὸ ψυχρὸν ἢ τῷ θερμῷ. τὰ δὲ ἄλλα πάντα τὰ περὶ τὸν ἄνθρωπον, ὅσῳ ἂν πλείοσι μίσγηται, τοσούτῳ ἠπιώτερα καὶ βελτίω. πάντων δὲ ἄριστα διάκειται ὁ ἄνθρωπος, ὅταν πᾶν[1] πέσσηται καὶ ἐν ἡσυχίῃ ᾖ, μηδεμίαν δύναμιν ἰδίην ἀποδεικνύμενον, περὶ οὗ ἡγεῦμαι ἐπιδεδεῖ-
57 χθαι.

XX. Λέγουσι δέ τινες ἰητροὶ καὶ σοφισταί, ὡς οὐκ εἴη δυνατὸν ἰητρικὴν εἰδέναι ὅστις μὴ οἶδεν ὅ τί ἐστιν ἄνθρωπος. ἀλλὰ τοῦτο δεῖ καταμαθεῖν τὸν μέλλοντα ὀρθῶς θεραπεύσειν τοὺς ἀνθρώπους. τείνει δὲ αὐτοῖς ὁ λόγος ἐς φιλοσοφίην, καθάπερ Ἐμπεδοκλῆς ἢ ἄλλοι οἳ περὶ φύσιος γεγράφασιν ἐξ ἀρχῆς ὅ τί ἐστιν ἄνθρωπος, καὶ ὅπως ἐγένετο πρῶτον καὶ ὁπόθεν συνεπάγη.[2] ἐγὼ δὲ τοῦτο μέν, ὅσα τινὶ εἴρηται ἢ σοφιστῇ ἢ ἰητρῷ ἢ γέγραπται
10 περὶ φύσιος, ἧσσον νομίζω τῇ ἰητρικῇ τέχνῃ προσήκειν ἢ τῇ γραφικῇ. νομίζω δὲ περὶ φύσιος γνῶναί τι σαφὲς οὐδαμόθεν ἄλλοθεν εἶναι ἢ ἐξ ἰητρικῆς· τοῦτο δὲ οἷόν τε καταμαθεῖν, ὅταν αὐτήν τις τὴν ἰητρικὴν ὀρθῶς περιλάβῃ· μέχρι δὲ τούτου πολλοῦ μοι δοκεῖ δεῖν· λέγω δὲ ταύτην τὴν ἱστορίην εἰδέναι, ἄνθρωπος τί ἐστιν καὶ δι' οἵας αἰτίας γίνεται καὶ τἆλλα ἀκριβέως. ἐπεὶ τοῦτό γέ μοι δοκεῖ ἀναγκαῖον εἶναι ἰητρῷ περὶ φύσιος εἰδέναι καὶ πάνυ σπουδάσαι ὡς εἴσεται, εἴπερ τι μέλλει
20 τῶν δεόντων ποιήσειν, ὅ τί τέ ἐστιν ἄνθρωπος πρὸς τὰ ἐσθιόμενά τε καὶ πινόμενα καὶ ὅ τι πρὸς

[1] πᾶν added by Kühlewein.

[2] Reinhold transposes from καὶ ὅπως to συνεπάγη to the end of the first sentence of the chapter.

neutralized only by the hot. But all other components of man become milder and better the greater the number of other components with which they are mixed. A man is in the best possible condition when there is complete coction and rest, with no particular power[1] displayed. About this I think that I have given a full explanation.

XX. Certain physicians and philosophers assert that nobody can know medicine who is ignorant what a man is; he who would treat patients properly must, they say, learn this. But the question they raise is one for philosophy; it is the province of those who, like Empedocles, have written on natural science,[2] what man is from the beginning, how he came into being at the first, and from what elements he was originally constructed. But my view is, first, that all that philosophers or physicians have said or written on natural science no more pertains to medicine than to painting.[3] I also hold that clear knowledge about natural science can be acquired from medicine and from no other source, and that one can attain this knowledge when medicine itself has been properly comprehended, but till then it is quite impossible—I mean to possess this information, what man is, by what causes he is made, and similar points accurately. Since this at least I think a physician must know, and be at great pains to know, about natural science, if he is going to perform aught of his duty, what man is in relation to foods and drinks,

[1] Or "property."

[2] About "nature," how the universe was born and grew out of primal elements. We might almost translate *φύσις* by "evolution."

[3] Or, perhaps, "pertains even less to medicine than to literature."

τὰ ἄλλα ἐπιτηδεύματα, καὶ ὅ τι ἀφ' ἑκάστου ἑκάστῳ συμβήσεται, καὶ μὴ ἁπλῶς οὕτως· πονηρόν ἐστιν βρῶμα τυρός. πόνον γὰρ παρέχει τῷ πληρωθέντι αὐτοῦ, ἀλλὰ τίνα τε πόνον καὶ διὰ τί καὶ τίνι τῶν ἐν τῷ ἀνθρώπῳ ἐνεόντων ἀνεπιτήδειον. ἔστι γὰρ καὶ ἄλλα πολλὰ βρώματα καὶ πόματα πονηρά, ἃ διατίθησι τὸν ἄνθρωπον οὐ τὸν αὐτὸν τρόπον. οὕτως οὖν μοι ἔστω οἷον· οἶνος ἄκρητος πολλὸς ποθεὶς διατίθησί πως τὸν ἄνθρωπον· καὶ πάντες ἂν οἱ εἰδότες τοῦτο γνοίησαν, ὅτι †αὕτη δύναμις οἴνου καὶ αὐτὸς αἴτιος·† καὶ οἷσί γε τῶν ἐν τῷ ἀνθρώπῳ τοῦτο δύναται μάλιστα, οἴδαμεν. τοιαύτην δὴ βούλομαι ἀληθείην καὶ περὶ τῶν ἄλλων φανῆναι. τυρὸς γάρ, ἐπειδὴ τούτῳ σημείῳ ἐχρησάμην, οὐ πάντας ἀνθρώπους ὁμοίως λυμαίνεται, ἀλλ' εἰσὶν οἵτινες αὐτοῦ πληρούμενοι οὐδ' ὁτιοῦν βλάπτονται, ἀλλὰ καὶ ἰσχύν, οἷσιν ἂν συμφέρῃ, θαυμασίως παρέχεται. εἰσὶ δ' οἳ χαλεπῶς ἀπαλλάσσουσι. διαφέρουσιν οὖν τούτων αἱ φύσιες. διαφέρουσιν δὲ κατὰ τοῦτο, ὅπερ ἐν τῷ σώματι ἔνεστι πολέμιον τυρῷ καὶ ὑπὸ τούτου ἐγείρεταί τε καὶ κινεῖται· οἷς ὁ τοιοῦτος χυμὸς τυγχάνει πλείων ἐνεὼν καὶ μᾶλλον ἐνδυναστεύων ἐν τῷ σώματι, τούτους μᾶλλον καὶ κακοπαθεῖν εἰκός. εἰ δὲ πάσῃ τῇ ἀνθρωπίνῃ φύσει ἦν κακόν, πάντας ἂν ἐλυμήνατο. ταῦτα δὲ εἴ τις εἰδείη, οὐκ ἂν πάσχοι τάδε.[1]

XXI. Ἐν τῇσιν ἀνακομιδῇσι τῇσιν ἐκ τῶν νούσων, ἔτι δὲ καὶ ἐν τῇσι νούσοισι τῇσι μακρῇσι γίνονται πολλαὶ συνταράξιες, αἱ μὲν ἀπὸ τωὐτομάτου, αἱ δὲ καὶ ἀπὸ τῶν προσενεχθέντων τῶν

and to habits generally, and what will be the effects of each on each individual. It is not sufficient to learn simply that cheese is a bad food, as it gives a pain to one who eats a surfeit of it; we must know what the pain is, the reasons for it, and which constituent of man is harmfully affected. For there are many other bad foods and bad drinks, which affect a man in different ways. I would therefore have the point put thus:—"Undiluted wine, drunk in large quantity, produces a certain effect upon a man." All who know this would realise that this is a power of wine, and that wine itself is to blame,[1] and we know through what parts of a man it chiefly exerts this power. Such nicety of truth I wish to be manifest in all other instances. To take my former example, cheese does not harm all men alike; some can eat their fill of it without the slightest hurt, nay, those it agrees with are wonderfully strengthened thereby. Others come off badly. So the constitutions of these men differ, and the difference lies in the constituent of the body which is hostile to cheese, and is roused and stirred to action under its influence. Those in whom a humour of such a kind is present in greater quantity, and with greater control over the body, naturally suffer more severely. But if cheese were bad for the human constitution without exception, it would have hurt all. He who knows the above truths will not fall into the following errors.

XXI. In convalescence from illness, and also in protracted illnesses, many disturbances occur, some spontaneously and some from things casually

[1] See Appendix on p. 64.

[1] The MSS have πάσχοι. τὰ δ' ἐν κ.τ.λ. I have adopted the punctuation of Gomperz.

τυχόντων. οἶδα δὲ τοὺς πολλοὺς ἰητρούς, ὥσπερ τοὺς ἰδιώτας, ἢν τύχωσι περὶ τὴν ἡμέρην ταύτην τι κεκαινουργηκότες, ἢ λουσάμενοι ἢ περιπατήσαντες ἢ φαγόντες τι ἑτεροῖον, ταῦτα δὲ πάντα βελτίω προσενηνεγμένα ἢ μή, οὐδὲν ἧσσον τὴν αἰτίην τούτων τινὶ ἀνατιθέντας καὶ τὸ μὲν αἴτιον ἀγνοεῦντας, τὸ δὲ συμφορώτατον, ἢν οὕτω τύχῃ, ἀφαιρέοντας. δεῖ δὲ οὔ, ἀλλ' εἰδέναι, τί λουτρὸν ἀκαίρως προσγενόμενον ἐργάσεται ἢ τί κόπος. οὐδέποτε γὰρ ἡ αὐτὴ κακοπάθεια τούτων οὐδετέρου, οὐδέ γε ἀπὸ πληρώσιος οὐδ' ἀπὸ βρώματος τοίου ἢ τοίου. ὅστις οὖν ταῦτα μὴ εἴσεται ὡς ἕκαστα ἔχει πρὸς τὸν ἄνθρωπον, οὔτε γινώσκειν τὰ γινόμενα ἀπ' αὐτῶν δυνήσεται οὔτε χρῆσθαι ὀρθῶς.

XXII. Δεῖν δέ μοι δοκεῖ καὶ ταῦτα εἰδέναι, ὅσα τῷ ἀνθρώπῳ παθήματα ἀπὸ δυναμίων γίνεται καὶ ὅσα ἀπὸ σχημάτων. λέγω δέ τι τοιοῦτον, δύναμιν μὲν εἶναι τῶν χυμῶν τὰς ἀκρότητάς τε καὶ ἰσχύν, σχήματα δὲ λέγω ὅσα ἔνεστιν ἐν τῷ ἀνθρώπῳ, τὰ μὲν κοῖλά τε καὶ ἐξ εὐρέος ἐς στενὸν συνηγμένα, τὰ δὲ καὶ ἐκπεπταμένα, τὰ δὲ στερεά τε καὶ στρογγύλα, τὰ δὲ πλατέα τε καὶ ἐπικρεμάμενα, τὰ δὲ διατεταμένα, τὰ δὲ μακρά, τὰ δὲ πυκνά, τὰ δὲ μανά τε καὶ τεθηλότα, τὰ δὲ σπογγοειδέα τε καὶ ἀραιά. τοῦτο μὲν οὖν, ἑλκύσαι ἐφ' ἑωυτὸ καὶ ἐπισπάσασθαι ὑγρότητα ἐκ τοῦ ἄλλου σώματος, πότερον τὰ κοῖλά τε καὶ ἐκπεπταμένα ἢ τὰ στερεά τε καὶ στρογγύλα ἢ τὰ κοῖλά τε καὶ ἐς στενὸν ἐξ εὐρέος συνηγμένα δύναιτο ἂν μάλιστα; οἶμαι μὲν τὰ τοιαῦτα, τὰ ἐς στενὸν συνηγμένα ἐκ κοίλου τε καὶ εὐρέος. καταμανθάνειν δὲ δεῖ ταῦτα ἔξωθεν ἐκ τῶν φανερῶν.

administered. I am aware that most physicians, like laymen, if the patient has done anything unusual near the day of the disturbance—taken a bath or a walk, or eaten strange food, these things being all beneficial—nevertheless assign the cause to one of them, and, while ignorant of the real cause, stop what may have been of the greatest value. Instead of so doing they ought to know what will be the result of a bath unseasonably taken or of fatigue. For the trouble caused by each of these things is also peculiar to each, and so with surfeit or such and such food. Whoever therefore fails to know how each of these particulars affects a man will be able neither to discover their consequences nor to use them properly.

XXII. I hold that it is also necessary to know which diseased states arise from powers and which from structures. What I mean is roughly that a "power" is an intensity and strength of the humours, while "structures" are the conformations to be found in the human body, some of which are hollow, tapering[1] from wide to narrow; some are expanded, some hard and round, some broad and suspended, some stretched, some long, some close in texture, some loose in texture and fleshy, some spongy and porous. Now which structure is best adapted to draw and attract to itself fluid from the rest of the body, the hollow and expanded, the hard and round, or the hollow and tapering? I take it that the best adapted is the broad hollow that tapers. One should learn this thoroughly from unenclosed objects[2] that can be

[1] Or "contracting."

[2] *i. e.* objects that are not concealed, as are the internal organs.

τοῦτο μὲν γάρ, τῷ στόματι κεχηνὼς ὑγρὸν οὐδὲν ἀνασπάσεις·[1] προμυλλήνας δὲ καὶ συστείλας, πιέσας τε τὰ χείλεα καὶ ἔπειτεν[2] αὐλὸν προσθέμενος ῥηϊδίως ἀνασπάσαις ἂν ὅ τι ἐθέλοις. τοῦτο δέ, αἱ σικύαι προσβαλλόμεναι ἐξ εὐρέος ἐς στενώτερον συνηγμέναι πρὸς τοῦτο τετέχνηνται, πρὸς τὸ ἕλκειν ἐκ τῆς σαρκὸς καὶ ἐπισπᾶσθαι, ἄλλα τε πολλὰ τοιουτότροπα. τῶν δὲ ἔσω φύσει τοῦ ἀνθρώπου σχῆμα τοιοῦτον κύστις τε καὶ κεφαλή, καὶ ὑστέρη γυναιξίν· καὶ φανερῶς ταῦτα μάλιστα ἕλκει καὶ πλήρεά ἐστιν ἐπάκτου ὑγρότητος αἰεί. τὰ δὲ κοῖλα καὶ ἐκπεπταμένα ἐπεσρυεῖσαν μὲν ὑγρότητα μάλιστα δέξαιτο πάντων, ἐπισπάσαιτο δ' ἂν οὐχ ὁμοίως. τὰ δέ γε στερεὰ καὶ στρογγύλα οὔτ' ἂν ἐπισπάσαιτο οὔτ' ἂν ἐπεσρυεῖσαν δέξαιτο· περιολισθάνοι τε γὰρ καὶ οὐκ ἔχοι ἕδρην, ἐφ' ἧς μένοι. τὰ δὲ σπογγοειδέα τε καὶ ἀραιά, οἷον σπλήν τε καὶ πνεύμων καὶ μαζοί, προσκαθεζόμενα μάλιστα ἀναπίνοι καὶ σκληρυνθείη ἂν καὶ αὐξηθείη ὑγρότητος προσγενομένης ταῦτα μάλιστα. οὐ γὰρ ἂν[3] ὥσπερ ἐν κοιλίῃ, ἐν ᾗ τὸ ὑγρόν, ἔξω τε περιέχει αὐτὴ ἡ κοιλίη, ἐξαλίζοιτ' ἂν καθ' ἑκάστην ἡμέρην, ἀλλ' ὅταν πίῃ καὶ δέξηται αὐτὸ ἐς ἑωυτὸ τὸ ὑγρόν, τὰ κενὰ καὶ ἀραιὰ ἐπληρώθη καὶ τὰ σμικρὰ πάντῃ καὶ ἀντὶ μαλθακοῦ τε καὶ ἀραιοῦ σκληρός τε καὶ πυκνὸς ἐγένετο καὶ οὔτ' ἐκπέσσει οὔτ' ἀφίησι. ταῦτα δὲ πάσχει διὰ τὴν φύσιν τοῦ σχήματος. ὅσα δὲ φῦσάν τε καὶ ἀνειλήματα ἀπεργάζεται ἐν τῷ σώματι, προσήκει

[1] ἀνασπάσεις two late Paris MSS. (2144, 2145): ἀνασπά-

seen. For example, if you open the mouth wide you will draw in no fluid; but if you protrude and contract it, compressing the lips, and then insert a tube, you can easily draw up any liquid you wish. Again, cupping instruments, which are broad and tapering, are so constructed on purpose to draw and attract blood from the flesh. There are many other instruments of a similar nature. Of the parts within the human frame, the bladder, the head, and the womb are of this structure. These obviously attract powerfully, and are always full of a fluid from without. Hollow and expanded parts are especially adapted for receiving fluid that has flowed into them, but are not so suited for attraction. Round solids will neither attract fluid nor receive it when it has flowed into them, for it would slip round and find no place on which to rest. Spongy, porous parts, like the spleen, lungs and breasts, will drink up readily what is in contact with them, and these parts especially harden and enlarge on the addition of fluid. They will not be evacuated every day, as are bowels, where the fluid is inside, while the bowels themselves contain it externally; but when one of these parts drinks up the fluid and takes it to itself, the porous hollows, even the small ones, are everywhere filled, and the soft, porous part becomes hard and close, and neither digests nor discharges. This happens because of the nature of its structure. When wind and flatulence are produced in the body, the

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σειεν 2141 : ἀνασπάσειε 2143 : ἀναπάσαις A. The opt. may be right, as in this treatise the potential optative sometimes occurs without ἄν. See p. 44, l. 59, and p. 52, l. 2.

[2] ἔπειτεν Kühlewein : καὶ ἐπί τε A : καὶ ἔτι τε M.

[3] Littré adds, after ἄν, ἐν σπληνί.

ἐν μὲν τοῖσι κοίλοισι καὶ εὐρυχώροισι, οἷον κοιλίῃ τε καὶ θώρηκι, ψόφον τε καὶ πάταγον ἐμποιεῖν. ὅτε γὰρ ἂν μὴ ἀποπληρώσῃ οὕτως ὥστε στῆναι, ἀλλ' ἔχῃ μεταβολάς τε καὶ κινήσιας, ἀνάγκη ὑπ' αὐτῶν ψόφον καὶ καταφανέας κινήσιας γίνεσθαι. ὅσα δὲ σαρκώδεά τε καὶ μαλθακά, ἐν τοῖσι τοιούτοισι νάρκη τε καὶ πληρώματα οἷα ἐν τοῖσι ἀποπληγεῖσι[1] γίνεται. ὅταν δ' ἐγκυρήσῃ πλατεῖ τε καὶ ἀντικειμένῳ, καὶ πρὸς αὐτὸ ἀντιπέσῃ, καὶ φύσει τοῦτο τύχῃ ἐὸν μήτε ἰσχυρόν, ὥστε δύνασθαι ἀνέχεσθαι τὴν βίην καὶ μηδὲν κακὸν παθεῖν, μήτε μαλθακόν τε καὶ ἀραιόν, ὥστ' ἐκδέξασθαί τε καὶ ὑπεῖξαι, ἀπαλὸν δὲ καὶ τεθηλὸς καὶ ἔναιμον καὶ πυκνόν, οἷον ἦπαρ, διὰ μὲν τὴν πυκνότητα καὶ πλατύτητα ἀνθέστηκέ τε καὶ οὐχ ὑπείκει, φῦσα δ' ἐπισχομένη[2] αὔξεταί τε καὶ ἰσχυροτέρη γίνεται καὶ ὁρμᾷ μάλιστα πρὸς τὸ ἀντιπαῖον. διὰ δὲ τὴν ἀπαλότητα καὶ τὴν ἐναιμότητα οὐ δύναται ἄνευ πόνων εἶναι, καὶ διὰ ταύτας τὰς προφάσιας ὀδύναι τε ὀξύταται καὶ πυκνόταται πρὸς τοῦτο τὸ χωρίον γίνονται ἐμπυήματά τε καὶ φύματα πλεῖστα. γίνεται δὲ καὶ ὑπὸ φρένας ἰσχυρῶς, ἧσσον δὲ πολλόν. διάτασις μὲν γὰρ φρενῶν πλατείη καὶ ἀντικειμένη, φύσις δὲ νευρωδεστέρη τε καὶ ἰσχυροτέρη, διὸ ἧσσον ἐπώδυνά ἐστιν. γίνεται δὲ καὶ περὶ ταῦτα καὶ πόνοι καὶ φύματα.

XXIII. Πολλὰ δὲ καὶ ἄλλα καὶ ἔσω καὶ ἔξω τοῦ σώματος εἴδεα σχημάτων, ἃ μεγάλα ἀλλήλων διαφέρει πρὸς τὰ παθήματα καὶ νοσέοντι καὶ ὑγιαίνοντι, οἷον κεφαλαὶ σμικραὶ ἢ μεγάλαι, τράχηλοι λεπτοὶ ἢ παχέες, μακροὶ ἢ βραχέες,

rumbling noise naturally occurs in the hollow, broad parts, such as the bowels and the chest. For when the flatulence does not fill a part so as to be at rest, but moves and changes its position, it cannot be but that thereby noise and perceptible movements take place. In soft, fleshy parts occur numbness and obstructions, such as happen in apoplexy. And when flatulence meets a broad, resisting body, and rushes on it, and this happens by nature to be neither strong so as to endure its violence without harm, nor soft and porous so as to give way and admit it, but tender, fleshy, full of blood, and close, like the liver, because it is close and broad it resists without yielding, while the flatulence being checked increases and becomes stronger, dashing violently against the obstacle. But owing to its tenderness and the blood it contains, the part cannot be free from pain, and this is why the sharpest and most frequent pains occur in this region, and abscesses and tumours are very common. Violent pain, but much less severe, is also felt under the diaphragm. For the diaphragm is an extended, broad and resisting substance, of a stronger and more sinewy texture, and so there is less pain. But here too occur pains and tumours.

XXIII. There are many other structural forms, both internal and external, which differ widely from one another with regard to the experiences of a patient and of a healthy subject, such as whether the head be large or small, the neck thin or thick, long or short, the bowels long or round, the chest and

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[1] ἀποπληγεῖσι Littré : ἀποσφαγίσι A : ἀποσφαγεῖσι M : ἀποφραγεῖσι Coray.

[2] ἐπισχομένη Reinhold : ἐπιχεομένη A : ἐπιδεχομένη M.

κοιλίαι μακραὶ ἢ στρογγύλαι, θώρηκος καὶ πλευρέων πλατύτητες ἢ στενότητες, ἄλλα μυρία, ἃ δεῖ πάντα εἰδέναι ἢ διαφέρει, ὅπως τὰ αἴτια ἑκάστων εἰδὼς ὀρθῶς φυλάσσηται·

XXIV. Περὶ δὲ δυναμίων χυμῶν αὐτῶν τε ἕκαστος ὅ τι δύναται ποιεῖν τὸν ἄνθρωπον ἐσκέφθαι, ὥσπερ καὶ πρότερον εἴρηται, καὶ τὴν συγγένειαν ὡς ἔχουσι πρὸς ἀλλήλους. λέγω δὲ τὸ τοιοῦτον· εἰ γλυκὺς χυμὸς ἐὼν μεταβάλλοι ἐς ἄλλο εἶδος, μὴ ἀπὸ συγκρήσιος, ἀλλὰ αὐτὸς ἐξιστάμενος, ποῖός τις ἂν πρῶτος γένοιτο, πικρὸς ἢ ἁλμυρὸς ἢ στρυφνὸς ἢ ὀξύς; οἶμαι μέν, ὀξύς. ὁ ἄρα ὀξὺς χυμὸς ἀνεπιτήδειος προσφέρειν ἂν τῶν λοιπῶν εἴη μάλιστα, εἴπερ ὁ γλυκὺς τῶν γε πάντων ἀνεπιτηδειότατος.[1] οὕτως εἴ τις δύναιτο ζητέων ἔξωθεν ἐπιτυγχάνειν, καὶ δύναιτο ἂν πάντων ἐκλέγεσθαι αἰεὶ τὸ βέλτιστον. βέλτιστον δέ ἐστι αἰεὶ τὸ προσωτάτω τοῦ ἀνεπιτηδείου ἀπέχον.

[1] I obtain this reading by combining A, which has ἀνεπιτήδειος, ἂν before τῶν λοιπῶν, and τῶν before γε, with the ἀνεπιτηδειότατος of M. Other MSS. have ἂν ἐπιτήδειος, omit ἂν before τῶν λοιπῶν and τῶν before γε, and read ἐπιτηδειότατος. Kühlewein has ὁ ἄρα ὀξὺς χυμὸς ἂν ἐπιτήδειος προσφέρειν τῶν λοιπῶν εἴη μάλιστα, εἴπερ ὁ γλυκύς γε ἐπιτηδειότατος.

ribs broad or narrow, and there are very many other things, the differences between which must all be known, so that knowledge of the causes of each thing may ensure that the proper precautions are taken.

XXIV. As I have said before, we must examine the powers of humours, and what the effect of each is upon man, and how they are related to one another. Let me give an example. If a humour that is sweet assumes another form, not by admixture, but by a self-caused change, what will it first become, bitter, or salt, or astringent, or acid? I think acid. Therefore where sweet humour is the least suitable of all, acid humour is the next least suitable to be administered.[1] If a man can in this way conduct with success inquiries outside the human body, he will always be able to select the very best treatment. And the best is always that which is farthest removed from the unsuitable.

[1] Because:—

(1) Health is a *crasis* of all the humours, none being in excess;

(2) Sweet humour passes readily into acid;

(3) Therefore, when sweet is the least suitable as a remedy (there being an excess of it already), acid (which is likely to be reinforced from the sweet) is the next least suitable.

Kühlewein's text makes sense only if we transpose ὀξύς and γλυκύς. If you want ὀξὺς χυμός for *crasis* you can get it best by adding ὀξύς, next best by adding γλυκύς, which naturally turns into ὀξύς.

APPENDIX

Appendix on Chapter XX, p. 54.

οἶνος ἄκρητος πολλὸς ποθεὶς διατίθησί πως τὸν ἄνθρωπον· καὶ πάντες ἂν οἱ εἰδότες τοῦτο γνοίησαν, ὅτι αὕτη δύναμις οἴνου καὶ αὐτὸς αἴτιος.

So A; other MSS. have *ἀσθενέα* after *ἄνθρωπον*, *ἰδόντες* for *οἱ εἰδότες*, *ἡ* after *αὕτη* and *ἐστιν* after *αὐτός*.

This passage contradicts the general argument, which is that in medicine statements about foods must not be made *ἁπλῶς*. Cheese is not bad food; it is only bad in certain conditions, and in certain ways, and at certain times. In these circumstances cheese has a *δύναμις* which does not belong to cheese in itself, but is latent until certain conditions call it forth. The error, says the writer, is not made in the case of wine. Everybody knows that in itself wine is not bad; it is drinking to excess, or at wrong times, which is mischievous.

Now the reading of A (in fact any MS. reading) makes the writer say that wine itself *is* to blame (*αὐτὸς αἴτιος*)—an obvious contradiction of the general argument. My colleague the Rev. H. J. Chaytor most ingeniously suggests that *αὐτός* refers not to wine but to the man. He would therefore translate "this *δύναμις* of wine and the man himself are to blame." But not only is it more natural for *αὐτός* to refer to wine, but the writer's whole point is that in and by itself *no* food is *αἴτιος*. A food is a cause only in certain conditions, or, rather, certain conditions call forth certain *δυνάμεις*.

I think, therefore, that the right reading is *ὅτι τοιαύτη δύναμις οἴνου καὶ οὐκ αὐτὸς αἴτιος*. "Such and such a *δύναμις* of wine (*i. e.* a *δύναμις* caused by excess of wine acting upon the human *φύσις*) is to blame and not mere wine by itself." *ὅτι τοιαύτη* might easily turn into *ὅτι αὕτη*, and the omission of *οὐ* by scribes is not uncommon.

There is an attractive vigour about the reading *ἰδόντες* for *οἱ εἰδότες*, and it may be correct. "Anybody can see at a glance that in the case of wine it is excess, etc., and not merely wine itself which is to blame."

AIRS WATERS PLACES

INTRODUCTION

No ancient critic appears to have doubted the authenticity of this work, and only Haller among the moderns has rejected it.

It is divided roughly into two parts. The first (Chapters I–XI) deals chiefly with the effects of climate and situation upon health; the second (XII–XXIV) deals chiefly with the effects of climate upon character. At the end of XII a portion has been lost dealing with the Egyptians and Libyans.

The style of the book has the dignified restraint which we associate with the Hippocratic group of treatises. In tone it is strikingly dogmatic, conclusions being enunciated without the evidence upon which they are based. Modern physicians are sceptical about many of these conclusions while fully recognizing the value of the principle that geographical conditions and climate influence health.

The second part of the work is scarcely medical at all, but rather ethnographical. It bears a close resemblance to certain parts of Herodotus, but lacks the graceful *bonhomie* which is so characteristic of the latter writer. Indeed it is hard not to see a close connection between the account of the impotent effeminates of Chapter XXII and the ἐνάρεες of Herodotus I. 105.

MSS. AND EDITIONS.

THE chief MSS. are V and ℬ, the latter being a fifteenth-century MS. at Rome called *Codex Barberinus*. To these must be added the readings of a MS. called by Kühlewein b, which is now lost, but its readings have been noted by Gadaldinus of Venice. There are two Paris MSS. worth noticing. One (2255 or E) divides the treatise into two parts, and the other (7027) is a Latin translation which sometimes helps in the reconstruction of the text.

The work has often been edited. The earliest edition was published at Venice in 1497, and there were at least ten others during the sixteenth century.[1] The best edition is that of Coray (2 vols., Paris, 1800). Though verbose it is both scholarly and medically accurate, Coray being a Greek by birth, a medical man by training, and a scholar by inclination.

There are English translations by Peter Low (London, 1597), John Moffat (London, 1788), Francis Clifton (London, 1734), and, of course, Francis Adams (London, 1849).

The following table, taken from Aetius III. 164, may prove useful in determining the periods of the year mentioned in the Hippocratic writings.

March 23 . .	*ἰσημερία ἐαρινή.*
April 1 . .	*αἱ πληιάδες ἀκρόνυχοι φαίνονται.*
April 19 . .	*αἱ πληιάδες ἑσπέριοι κρύπτονται.*
April 21 . .	*αἱ πληιάδες ἅμα ἡλίου ἀνατολῇ ἐπιτέλλουσι.*
May 7 . . .	*αἱ πληιάδες ἑῷαι φαίνονται* (heliacal rising).

[1] See Littré, II. 9, 10.

June 6 . . .	ἀρκτοῦρος δύνει.
June 25 . .	τροπαὶ θεριναί.
July 19 . .	ὁ κύων ἑῷος ἐπιτέλλει.
September 17	ἀρκτοῦρος ἐπιτέλλει (heliacal rising).
September 25	ἰσημερία φθινοπωρινή.
November 6	αἱ πληιάδες ἑῶαι δύνουσι (cosmic setting).
December 23	τροπαὶ χειμεριναί.
February 25	ἀρκτοῦρος ἑσπέριος ἐπιτέλλει καὶ (26) χελιδόνες πέτονται καὶ φαίνονται.

Spring began with the equinox, but was often popularly dated from the appearance of swallows and the acronychal rising of Arcturus in February. The heliacal rising of the Pleiades marked the beginning of summer, which ended with that of Arcturus, an event nearly coinciding with the autumnal equinox. Finally, winter began with the cosmic setting of the Pleiades.

A star is said to rise heliacally when it gets far enough in front of the sun to be visible before dawn. It sets cosmically when it gets so much further in advance as to be first seen setting in the west before dawn. The acronychal is the evening rising of a star, when it is visible all night, and contrasts with the heliacal, or morning, rising, when it soon disappears in the sun's rays.

Galen, in his commentary on the third section of *Aphorisms*, implies that there are two meanings of μεταβολαὶ τῶν ὡρέων, a common term in *Airs Waters Places*:

(1) the actual changes from season to season;

(2) sharp contrasts of weather during the seasons.

It is clear from the passages in *Airs Waters Places* where the phrase occurs that it may have either meaning. The notion underlying it is that of violent change in the weather.

The reader should note the meanings of the following :

(1) "between the winter rising of the sun and the winter setting," *i. e.* roughly E.S.E. to W.S.W. ;
(2) "between the summer setting and the summer rising," *i. e.* roughly W.N.W. to E.N.E. ;
(3) "between the summer and winter risings," *i. e.* roughly E.N.E. to E.S.E.

The exact number of degrees is a question of latitude. The directions given above are roughly correct for the Mediterranean area.

ΠΕΡΙ ΑΕΡΩΝ ΥΔΑΤΩΝ ΤΟΠΩΝ

Ἰητρικὴν ὅστις βούλεται ὀρθῶς ζητεῖν, τάδε χρὴ ποιεῖν· πρῶτον μὲν ἐνθυμεῖσθαι τὰς ὥρας τοῦ ἔτεος, ὅ τι δύναται ἀπεργάζεσθαι ἑκάστη· οὐ γὰρ ἐοίκασιν ἀλλήλοισιν οὐδέν, ἀλλὰ πολὺ διαφέρουσιν αὐταί τε ἐφ' ἑωυτέων καὶ ἐν τῇσι μεταβολῇσιν· ἔπειτα δὲ τὰ πνεύματα τὰ θερμά τε καὶ τὰ ψυχρά, μάλιστα μὲν τὰ κοινὰ πᾶσιν ἀνθρώποισιν, ἔπειτα δὲ καὶ τὰ ἐν ἑκάστῃ χώρῃ ἐπιχώρια ἐόντα. δεῖ δὲ καὶ τῶν ὑδάτων ἐνθυμεῖσθαι τὰς δυνάμιας· ὥσπερ γὰρ ἐν τῷ στόματι διαφέρουσι καὶ ἐν τῷ σταθμῷ, οὕτω καὶ ἡ δύναμις διαφέρει πολὺ ἑκάστου. ὥστε ἐς πόλιν ἐπειδὰν ἀφίκηταί τις, ἧς ἄπειρός ἐστι, διαφροντίσαι χρὴ τὴν θέσιν αὐτῆς, ὅκως κεῖται καὶ πρὸς τὰ πνεύματα καὶ πρὸς τὰς ἀνατολὰς τοῦ ἡλίου. οὐ γὰρ τωὐτὸ δύναται ἥτις πρὸς βορέην κεῖται καὶ ἥτις πρὸς νότον οὐδ' ἥτις πρὸς ἥλιον ἀνίσχοντα οὐδ' ἥτις πρὸς δύνοντα. ταῦτα δὲ χρὴ[1] ἐνθυμεῖσθαι ὡς κάλλιστα καὶ τῶν ὑδάτων πέρι ὡς ἔχουσι, καὶ πότερον ἑλώδεσι χρέονται καὶ μαλθακοῖσιν ἢ σκληροῖσί τε καὶ ἐκ μετεώρων καὶ πετρωδέων εἴτε ἁλυκοῖσι καὶ ἀτεράμνοισιν· καὶ τὴν γῆν, πότερον ψιλή τε καὶ ἄνυδρος ἢ δασεῖα καὶ ἔφυδρος καὶ εἴτε ἔγκοιλός ἐστι καὶ πνιγηρὴ εἴτε μετέωρος καὶ ψυχρή· καὶ τὴν δίαιταν τῶν ἀνθρώπων, ὁκοίῃ ἥδονται, πότερον φιλοπόται καὶ

AIRS WATERS PLACES

WHOEVER wishes to pursue properly the science of medicine must proceed thus. First he ought to consider what effects each season of the year can produce; for the seasons are not at all alike, but differ widely both in themselves and at their changes. The next point is the hot winds and the cold, especially those that are universal, but also those that are peculiar to each particular region. He must also consider the properties of the waters; for as these differ in taste and in weight, so the property of each is far different from that of any other. Therefore, on arrival at a town with which he is unfamiliar, a physician should examine its position with respect to the winds and to the risings of the sun. For a northern, a southern, an eastern, and a western aspect has each its own individual property. He must consider with the greatest care both these things and how the natives are off for water, whether they use marshy, soft waters, or such as are hard and come from rocky heights, or brackish and harsh. The soil too, whether bare and dry or wooded and watered, hollow and hot or high and cold. The mode of life also of the inhabitants that is pleasing to them, whether they

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[1] χρὴ b: omitted in other MSS.

ἀριστηταὶ καὶ ἀταλαίπωροι ἢ φιλογυμνασταί τε
28 καὶ φιλόπονοι καὶ ἐδωδοὶ καὶ ἄποτοι.

II. Καὶ ἀπὸ τούτων χρὴ ἐνθυμεῖσθαι ἕκαστα. εἰ γὰρ ταῦτα εἰδείη τις καλῶς, μάλιστα μὲν πάντα, εἰ δὲ μή, τά γε πλεῖστα, οὐκ ἂν αὐτὸν λανθάνοι ἐς πόλιν ἀφικνεόμενον, ἧς ἂν ἄπειρος ᾖ, οὔτε νοσήματα ἐπιχώρια οὔτε τῶν κοινῶν ἡ φύσις, ὁκοίη τίς ἐστιν· ὥστε μὴ ἀπορεῖσθαι ἐν τῇ θεραπείῃ τῶν νούσων μηδὲ διαμαρτάνειν· ἃ εἰκός ἐστι γίνεσθαι, ἢν μή τις ταῦτα πρότερον εἰδὼς προφροντίσῃ περὶ ἑκάστου· τοῦ δὲ χρόνου
10 προϊόντος καὶ τοῦ ἐνιαυτοῦ λέγοι ἄν, ὁκόσα τε νοσήματα μέλλει πάγκοινα τὴν πόλιν κατασχήσειν ἢ θέρεος ἢ χειμῶνος, ὁκόσα τε ἴδια ἑκάστῳ κίνδυνος γίνεσθαι ἐκ μεταβολῆς τῆς διαίτης. εἰδὼς γὰρ τῶν ὡρέων τὰς μεταβολὰς καὶ τῶν ἄστρων τὰς[1] ἐπιτολάς τε καὶ δύσιας, καθότι ἕκαστον τούτων γίνεται, προειδείη ἂν τὸ ἔτος ὁκοῖόν τι μέλλει γίνεσθαι. οὕτως ἄν τις ἐννοεύμενος καὶ προγινώσκων τοὺς καιροὺς μάλιστ' ἂν εἰδείη περὶ ἑκάστου καὶ τὰ πλεῖστα τυγχάνοι
20 τῆς ὑγιείης καὶ κατορθοίη οὐκ ἐλάχιστα ἐν τῇ τέχνῃ. εἰ δὲ δοκέοι τις ταῦτα μετεωρολόγα εἶναι, εἰ μετασταίη τῆς γνώμης, μάθοι ἄν, ὅτι οὐκ ἐλάχιστον μέρος συμβάλλεται ἀστρονομίη ἐς ἰητρικήν, ἀλλὰ πάνυ πλεῖστον. ἅμα γὰρ τῇσιν ὥρῃσι καὶ αἱ νοῦσοι καὶ αἱ κοιλίαι μεταβάλλουσιν
26 τοῖσιν ἀνθρώποισιν.

III. Ὅκως δὲ χρὴ ἕκαστα τῶν προειρημένων σκοπεῖν καὶ βασανίζειν, ἐγὼ φράσω σαφέως.

[1] τὰς added by Wilamowitz.

are heavy drinkers, taking lunch,[1] and inactive, or athletic, industrious, eating much and drinking little.

II. Using this evidence he must examine the several problems that arise. For if a physician know these things well, by preference all of them, but at any rate most, he will not, on arrival at a town with which he is unfamiliar, be ignorant of the local diseases, or of the nature of those that commonly prevail; so that he will not be at a loss in the treatment of diseases, or make blunders, as is likely to be the case if he have not this knowledge before he consider his several problems. As time and the year passes he will be able to tell what epidemic diseases will attack the city either in summer or in winter, as well as those peculiar to the individual which are likely to occur through change in mode of life. For knowing the changes of the seasons, and the risings and settings of the stars, with the circumstances of each of these phenomena, he will know beforehand the nature of the year that is coming. Through these considerations and by learning the times beforehand, he will have full knowledge of each particular case, will succeed best in securing health, and will achieve the greatest triumphs in the practice of his art. If it be thought that all this belongs to meteorology, he will find out, on second thoughts, that the contribution of astronomy to medicine is not a very small one but a very great one indeed. For with the seasons men's diseases, like their digestive organs, suffer change.

III. I will now set forth clearly how each of the foregoing questions ought to be investigated, and

[1] That is, taking more than one full meal every day.

ἥτις μὲν πόλις πρὸς τὰ πνεύματα κεῖται τὰ θερμά —ταῦτα δ' ἐστὶ μεταξὺ τῆς τε χειμερινῆς ἀνατολῆς τοῦ ἡλίου καὶ τῶν δυσμέων τῶν χειμερινῶν —καὶ αὐτῇ ταῦτα τὰ πνεύματα ἐστι σύννομα, τῶν δὲ ἀπὸ τῶν ἄρκτων πνευμάτων σκέπη, ἐν ταύτῃ τῇ πόλει ἐστὶ τά τε ὕδατα πολλὰ καὶ ὕφαλα,[1] καὶ ἀνάγκη εἶναι μετέωρα, τοῦ μὲν θέρεος θερμά, τοῦ δὲ χειμῶνος ψυχρά· τούς τε ἀνθρώπους τὰς κεφαλὰς ὑγρὰς ἔχειν καὶ φλεγματώδεας, τάς τε κοιλίας αὐτῶν πυκνὰ ἐκταράσσεσθαι ἀπὸ τῆς κεφαλῆς τοῦ φλέγματος ἐπικαταρρέοντος· τά τε εἴδεα ἐπὶ τὸ πλῆθος αὐτῶν ἀτονώτερα εἶναι· ἐσθίειν δ' οὐκ ἀγαθοὺς εἶναι οὐδὲ πίνειν. ὁκόσοι μὲν γὰρ κεφαλὰς ἀσθενέας ἔχουσιν, οὐκ ἂν εἴησαν ἀγαθοὶ πίνειν· ἡ γὰρ κραιπάλη μᾶλλον πιέζει. νοσήματά τε τάδε ἐπιχώρια εἶναι· πρῶτον μὲν τὰς γυναῖκας νοσερὰς καὶ ῥοώδεας εἶναι· ἔπειτα πολλὰς ἀτόκους ὑπὸ νούσου καὶ οὐ φύσει ἐκτιτρώσκεσθαί τε πυκνά· τοῖσί τε παιδίοισιν ἐπιπίπτειν σπασμούς τε καὶ ἄσθματα καὶ ἃ νομίζουσι τὸ παιδίον[2] ποιεῖν καὶ ἱερὴν νοῦσον εἶναι· τοῖσι δὲ ἀνδράσι δυσεντερίας καὶ διαρροίας καὶ ἠπιάλους καὶ πυρετοὺς πολυχρονίους χειμερινοὺς καὶ ἐπινυκτίδας πολλὰς καὶ αἱμορροΐδας ἐν τῇ ἕδρῃ. πλευρίτιδες δὲ καὶ περιπνευμονίαι καὶ καῦσοι καὶ ὁκόσα ὀξέα νοσήματα νομίζονται εἶναι οὐκ ἐγγίνονται πολλά. οὐ γὰρ οἷόν τε, ὅκου ἂν κοιλίαι ὑγραὶ ἔωσι, τὰς νούσους ταύτας ἰσχύειν. ὀφθαλμίαι τε ἐγγίνονται ὑγραὶ καὶ οὐ χαλεπαί,

[1] Perhaps one should read ὑφαλυκά.

[2] παιδίον MSS. : θεῖον Coray, who reads ὃ for ἃ, and Zwinger in margin.

the tests to be applied. A city that lies exposed to the hot winds—these are those between the winter rising of the sun and its winter setting—when subject to these and sheltered from the north winds, the waters here are plentiful and brackish, and must be near the surface,[1] hot in summer and cold in winter. The heads of the inhabitants are moist and full of phlegm, and their digestive organs are frequently deranged from the phlegm that runs down into them from the head. Most of them have a rather flabby physique, and they are poor eaters and poor drinkers. For men with weak heads will be poor drinkers, as the after-effects are more distressing to them. The endemic diseases are these. In the first place, the women are unhealthy and subject to excessive fluxes. Then many are barren through disease and not by nature, while abortions are frequent. Children are liable to convulsions and asthma, and to what they think causes the disease of childhood, and to be a sacred disease.[2] Men suffer from dysentery, diarrhoea, ague, chronic fevers in winter, many attacks[3] of eczema, and from hemorrhoids. Cases of pleurisy, pneumonia, ardent fever, and of diseases considered acute, rarely occur. These diseases cannot prevail where the bowels are loose. Inflammations of the eyes occur with running, but are not

[1] μετέωρος "elevated," both here and in Chapter XXIV, seems, when applied to springs, to mean the opposite of "deep," *i. e.* rising from a point near the surface of the soil. Contrast Chapter VII, where water ἐκ βαθυτάτων πηγέων is said to be warm in winter and cool in summer.

[2] That is, epilepsy. Coray's reading means, "that affection which they think is caused by Heaven, and to be sacred."

[3] Or "forms."

ὀλιγοχρόνιοι, ἢν μή τι κατάσχῃ νόσημα πάγκοινον ἐκ μεταβολῆς μεγάλης.[1] καὶ ὁκόταν τὰ πεντήκοντα ἔτεα ὑπερβάλωσι,[2] κατάρροοι ἐπιγενόμενοι ἐκ τοῦ ἐγκεφάλου παραπληκτικοὺς ποιέουσι τοὺς ἀνθρώπους, ὁκόταν ἐξαίφνης ἡλιωθέωσι τὴν κεφαλὴν ἢ ῥιγώσωσι. ταῦτα μὲν τὰ νοσήματα αὐτοῖσιν ἐπιχώριά ἐστι. χωρὶς δέ, ἤν τι πάγκοινον κατάσχῃ νόσημα ἐκ μεταβολῆς τῶν ὡρέων, καὶ τούτου μετέχουσιν.

IV. Ὁκόσαι δ' ἀντικέονται τούτων πρὸς τὰ πνεύματα τὰ ψυχρὰ τὰ μεταξὺ τῶν δυσμέων τῶν θερινῶν τοῦ ἡλίου καὶ τῆς ἀνατολῆς τῆς θερινῆς, καὶ αὐτῇσι ταῦτα τὰ πνεύματα ἐπιχώριά ἐστι, τοῦ δὲ νότου καὶ τῶν θερμῶν πνευμάτων σκέπη, ὧδε ἔχει περὶ τῶν πολίων τούτων· πρῶτον μὲν τὰ ὕδατα σκληρά τε καὶ ψυχρὰ ὡς ἐπὶ τὸ πλῆθος ἐγγίνεται.[3] τοὺς δὲ ἀνθρώπους εὐτόνους τε καὶ σκελιφροὺς ἀνάγκη εἶναι, τούς τε πλείους τὰς κοιλίας ἀτεράμνους ἔχειν καὶ σκληρὰς τὰς κάτω, τὰς δὲ ἄνω εὐροωτέρας· χολώδεάς τε μᾶλλον ἢ φλεγματίας εἶναι. τὰς δὲ κεφαλὰς ὑγιηρὰς ἔχουσι καὶ σκληράς· ῥηγματίαι τέ εἰσιν ἐπὶ τὸ πλῆθος. νοσεύματα δὲ αὐτοῖσιν ἐπιδημεῖ τάδε· πλευρίτιδές τε πολλαὶ αἵ τε ὀξεῖαι νομιζόμεναι νοῦσοι. ἀνάγκη δὲ ὧδε ἔχειν, ὁκόταν αἱ κοιλίαι σκληραὶ ἔωσιν· ἔμπυοί τε πολλοὶ γίνονται ἀπὸ πάσης προφάσιος. τούτου δὲ αἴτιόν ἐστι τοῦ σώματος ἡ ἔντασις καὶ ἡ σκληρότης τῆς κοιλίης. ἡ γὰρ ξηρότης ῥηγματίας ποιεῖ εἶναι καὶ τοῦ ὕδατος ἡ ψυχρότης. ἐδωδοὺς δὲ ἀνάγκη

[1] μεγάλης omitted by Greek MSS.: *de magna metabula* 7027.

serious; they are of short duration, unless a general epidemic take place after a violent change. When they are more than fifty years old, they are paralyzed by catarrhs supervening from the brain, when the sun suddenly strikes their head or they are chilled. These are their endemic diseases, but besides, they are liable to any epidemic disease that prevails through the change of the seasons.

IV. But the following is the condition of cities with the opposite situation, facing the cold winds that blow from between the summer setting and the summer rising of the sun, being habitually exposed to these winds, but sheltered from the hot winds and from the south. First, the waters of the region are generally hard and cold. The natives must be sinewy and spare, and in most cases their digestive organs are costive and hard in their lower parts, but more relaxed in the upper. They must be bilious rather than phlegmatic. Their heads are healthy and hard, but they have in most cases a tendency to internal lacerations. Their endemic diseases are as follow. Pleurisies are common, likewise those diseases which are accounted acute. It must be so, since their digestive organs are hard, and the slightest cause inevitably produces in many patients abscesses, the result of a stiff body and hard digestive organs. For their dryness, combined with the coldness of the water, makes them liable to internal lacerations. Such

[2] *ὑπερβάλωσι* Coray: *ὑπερβάλλωσι* MSS.

[3] *ἐγγίγνεται* Littré: *γλυκαίνεται* most MSS.: *οὐ γλυκαίνεται* Coray: *καὶ ἁλυκὰ γίνεται* Kühlewein.

τὰς τοιαύτας φύσιας εἶναι καὶ οὐ πολυπότας· οὐ γὰρ οἷόν τε ἅμα πολυβόρους τε εἶναι καὶ πολυπότας.[1] ὀφθαλμίας τε γίνεσθαι μὲν διὰ χρόνου, γίνεσθαι δὲ σκληρὰς καὶ ἰσχυράς, καὶ εὐθέως ῥήγνυσθαι τὰ ὄμματα· αἱμορροίας δὲ ἐκ τῶν ῥινῶν τοῖσι νεωτέροισι τριήκοντα ἐτέων γίνεσθαι ἰσχυρὰς τοῦ θέρεος· τά τε ἱερὰ νοσεύματα καλεύμενα, ὀλίγα μὲν ταῦτα, ἰσχυρὰ δέ. μακροβίους δὲ τοὺς ἀνθρώπους τούτους μᾶλλον εἰκὸς εἶναι τῶν ἑτέρων· τά τε ἕλκεα οὐ φλεγματώδεα ἐγγίνεσθαι οὐδὲ ἀγριοῦσθαι· τά τε ἤθεα ἀγριώτερα ἢ ἡμερώτερα. τοῖσι μὲν ἀνδράσι ταῦτα τὰ νοσήματα ἐπιχώριά ἐστι· καὶ χωρίς, ἤν τι πάγκοινον κατάσχῃ ἐκ μεταβολῆς τῶν ὡρέων· τῇσι δὲ γυναιξί· πρῶτον μὲν στερίφαι[2] πολλαὶ γίνονται διὰ τὰ ὕδατα ἐόντα σκληρά τε καὶ ἀτέραμνα καὶ ψυχρά. αἱ γὰρ καθάρσιες οὐκ ἐπιγίνονται τῶν ἐπιμηνίων ἐπιτήδειαι, ἀλλὰ ὀλίγαι καὶ πονηραί. ἔπειτα τίκτουσι χαλεπῶς· ἐκτιτρώσκουσι δὲ οὐ σφόδρα. ὁκόταν δὲ τέκωσι, τὰ παιδία ἀδύνατοι τρέφειν εἰσί· τὸ γὰρ γάλα ἀποσβέννυται ἀπὸ τῶν ὑδάτων τῆς σκληρότητος καὶ ἀτεραμνίης· φθίσιές τε γίνονται συχναὶ ἀπὸ τῶν τοκετῶν. ὑπὸ γὰρ βίης ῥήγματα ἴσχουσι καὶ σπάσματα. τοῖς δὲ παιδίοισιν ὕδρωπες ἐγγίνονται ἐν τοῖσιν ὄρχεσιν, ἕως μικρὰ ἦ· ἔπειτα προϊούσης τῆς ἡλικίης ἀφανίζονται· ἡβῶσί τε ὀψὲ ἐν ταύτῃ τῇ πόλει.

V. Περὶ μὲν οὖν τῶν θερμῶν πνευμάτων καὶ τῶν ψυχρῶν καὶ τῶν πολίων τούτων ὧδε ἔχει ὡς προείρηται. ὁκόσαι δὲ κέονται πρὸς τὰ πνεύματα

[1] So most MSS.: omitted by Ald b and Kühlewein. It contradicts Chapter VII, ll. 20, 21.

constitutions necessarily make men eat much and drink little; for one cannot be both a great eater and a great drinker. Inflammations of the eyes occur at last; they are hard and violent, and rapidly cause rupture of the eyes. Men under thirty suffer from violent bleedings at the nose in summer. Instances of the disease called "sacred" are rare but violent. These men are more likely to be long-lived than are others. Their sores become neither phlegmatic[1] nor malignant, but their characters incline to fierceness, not to mildness. For men these diseases are endemic, besides there are epidemic diseases which may prevail through the change of the seasons. As to the women, firstly many become barren through the waters being hard, indigestible and cold. Their menstrual discharges are not healthy, but are scanty and bad. Then childbirth is difficult, although abortion is rare. After bearing children they cannot rear them, for their milk is dried up through the hardness and indigestibility of the waters, while cases of phthisis are frequent after parturition, for the violence of it causes ruptures and strains. Children suffer from dropsies in the testicles while they are little, which disappear as they grow older. In such a city puberty is late.

V. The effects of hot winds and of cold winds on these cities are such as I have described; the following are the effects of winds on cities lying

"Suppurating."

[1] στερίφαι Coray: στεριφναὶ or στριφναὶ MSS.: στιφραὶ Ermerins and Reinhold.

τὰ μεταξὺ τῶν θερινῶν ἀνατολέων τοῦ ἡλίου καὶ τῶν χειμερινῶν καὶ ὁκόσαι τὸ ἐναντίον τούτων, ὧδε ἔχει περὶ αὐτέων· ὁκόσαι μὲν πρὸς τὰς ἀνατολὰς τοῦ ἡλίου κέονται, ταύτας εἰκὸς εἶναι ὑγιεινοτέρας τῶν πρὸς τὰς ἄρκτους ἐστραμμένων καὶ τῶν πρὸς τὰ θερμά, ἢν καὶ στάδιον[1] τὸ μεταξὺ ᾖ. πρῶτον[2] μὲν γὰρ μετριώτερον ἔχει τὸ θερμὸν καὶ τὸ ψυχρόν· ἔπειτα τὰ ὕδατα, ὁκόσα πρὸς τὰς τοῦ ἡλίου ἀνατολάς ἐστι, ταῦτα λαμπρά τε εἶναι ἀνάγκη καὶ εὐώδεα καὶ μαλθακὰ καὶ ἐρατεινὰ ἐγγίνεσθαι ἐν ταύτῃ τῇ πόλει· † ὁ γὰρ ἥλιος κωλύει ἀνίσχων καὶ καταλάμπων. † τὸ γὰρ ἑωθινὸν ἑκάστοτε αὐτὸς ὁ ἠὴρ ἐπέχει ὡς ἐπὶ τὸ πολύ.[3] τά τε εἴδεα τῶν ἀνθρώπων εὔχροά τε καὶ ἀνθηρά ἐστι μᾶλλον ἢ ἄλλῃ ἢν μή τις νοῦσος κωλύῃ. λαμπρόφωνοί τε οἱ ἄνθρωποι[4] ὀργήν τε καὶ σύνεσιν βελτίους εἰσὶ τῶν προσβορείων,[5] ἥπερ καὶ τὰ ἄλλα τὰ ἐμφυόμενα ἀμείνω ἐστίν. ἔοικέ τε μάλιστα ἡ οὕτω κειμένη πόλις ἦρι κατὰ τὴν μετριότητα τοῦ θερμοῦ καὶ τοῦ ψυχροῦ· τί τε νοσεύματα ἐλάσσω μὲν γίνεται καὶ ἀσθενέστερα, ἔοικε δὲ τοῖς ἐν τῇσι πόλεσι γενομένοις νοσεύμασι τῇσι πρὸς τὰ θερμὰ πνεύματα ἐστραμμένῃσιν. αἵ τε γυναῖκες αὐτόθι ἀρικύμονές[6] εἰσι σφόδρα καὶ τίκτουσι ῥηϊδίως.

VI. Περὶ μὲν τούτων ὧδε ἔχει. ὁκόσαι δὲ πρὸς τὰς δύσιας κεῖνται καὶ αὐτῇσίν ἐστι σκέπη

[1] So all MSS. and editors. I would insert *μόνον*.

[2] *πρῶτον* Coray: *πρότερον* MSS.

[3] The part within daggers is as given in most MSS. For *κωλύει* (which cannot govern *ὕδατα* as an object) Coray would read *καλλύνει*, and Ermerins and Reinhold bracket

exposed to those between the summer and winter risings of the sun, and to those opposite to these. Those that lie towards the risings of the sun are likely to be healthier than those facing the north and those exposed to the hot winds, even though they be but a furlong apart. In the first place, the heat and the cold are more moderate. Then the waters that face the risings of the sun must be clear, sweet-smelling, soft and delightful, in such a city. For the sun, shining down upon them when it rises, purifies them. The persons of the inhabitants are of better complexion and more blooming than elsewhere, unless some disease prevents this. They are clear-voiced, and with better temper and intelligence than those who are exposed to the north, just as all things growing there are better. A city so situated is just like spring, because the heat and the cold are tempered; the diseases, while resembling those which we said occur in cities facing the hot winds, are both fewer and less severe. The women there very readily conceive and have easy deliveries.

VI. Such are the conditions in these cities. Those that lie towards the settings of the sun, and are

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τὸ γὰρ ἑωθινὸν . . . . . πολύ. Perhaps καθαίρει (not unlike κωλύει in uncials) should be read for κωλύει, and the gloss read τὸ γὰρ ἑωθινὸν ἑκάστοτε αὐτὰ (αὐτὸς is meaningless) ὁ ἠὴρ ἐπέχει ὡς ἐπὶ τὸ πολύ. Has κωλύει arisen from κωλύῃ in the next sentence? In his notes Coray suggests ὁ γὰρ ἥλιος κωλύει (or κολούει) τὸν ἠέρα ἀνίσχων καὶ καταλάμπων· τὸ γὰρ ἑωθινὸν αὐτόσε ἠὴρ κ.τ.λ. But can αὐτόσε = αὐτόθι?

[4] καὶ should perhaps be added after ἄνθρωποι.

[5] προσβορείων Kühlewein: προσβορέων V 𝔅: πρὸς βορέην most MSS.

[6] ἀρικύμονες Coray: ἐναρικύμονες V 𝔅.

τῶν πνευμάτων τῶν ἀπὸ τῆς ἠοῦς πνεόντων τὰ τε θερμὰ πνεύματα παραρρεῖ καὶ τὰ ψυχρὰ ἀπὸ τῶν ἄρκτων, ἀνάγκη ταύτας τὰς πόλιας θέσιν κεῖσθαι νοσερωτάτην. πρῶτον μὲν γὰρ τὰ ὕδατα οὐ λαμπρά· αἴτιον δέ, ὅτι ὁ ἠὴρ τὸ ἑωθινὸν κατέχει ὡς ἐπὶ τὸ πολύ, ὅστις τῷ ὕδατι ἐγκαταμιγνύμενος τὸ λαμπρὸν ἀφανίζει· ὁ γὰρ ἥλιος πρὶν ἄνω ἀρθῆναι οὐκ ἐπιλάμπει. τοῦ δὲ θέρεος ἕωθεν μὲν αὖραι ψυχραὶ πνέουσι καὶ δρόσοι πίπτουσι· τὸ δὲ λοιπὸν ἥλιος ἐγκαταδύνων ὥστε μάλιστα διέψει τοὺς ἀνθρώπους, διὸ καὶ ἀχρόους τε εἰκὸς εἶναι καὶ ἀρρώστους, τῶν τε νοσευμάτων πάντων μετέχειν μέρος τῶν προειρημένων· οὐδὲν γὰρ αὐτοῖς ἀποκέκριται. βαρυφώνους τε εἰκὸς εἶναι καὶ βραγχώδεας διὰ τὸν ἠέρα, ὅτι ἀκάθαρτος ὡς ἐπὶ τὸ πολὺ αὐτόθι γίνεται καὶ νοσώδης· οὔτε γὰρ ὑπὸ τῶν βορείων ἐκκρίνεται σφόδρα· οὐ γὰρ προσέχουσι τὰ πνεύματα· ἅ τε προσέχουσιν αὐτοῖσι καὶ πρόσκεινται ὑδατεινότατά ἐστιν· ἐπεὶ τοιαῦτα τὰ ἀπὸ[1] τῆς ἑσπέρης πνεύματα· ἔοικέν τε μετοπώρῳ μάλιστα ἡ θέσις ἡ τοιαύτη τῆς πόλιος κατὰ τὰς τῆς ἡμέρης μεταβολάς, ὅτι πολὺ τὸ μέσον γίνεται τοῦ τε ἑωθινοῦ καὶ τοῦ πρὸς τὴν δείλην.

VII. Περὶ μὲν πνευμάτων, ἅ τέ ἐστιν ἐπιτήδεια καὶ ἀνεπιτήδεια, ὧδε ἔχει. περὶ δὲ τῶν λοιπῶν[2] ὑδάτων βούλομαι διηγήσασθαι, ἅ τέ ἐστι νοσώδεα καὶ ἃ ὑγιεινότατα καὶ ὁκόσα ἀφ' ὕδατος κακὰ εἰκὸς γίνεσθαι καὶ ὅσα ἀγαθά. πλεῖστον γὰρ

[1] ἐπεὶ τοιαῦτα τὰ ἀπὸ Coray: ἐπεὶ τὰ ἐπὶ most MSS.
[2] λοιπῶν omitted by 7027 and Wilamowitz.

sheltered from the east winds, while the hot winds and the cold north winds blow past them—these cities must have a most unhealthy situation. In the first place, the waters are not clear, the reason being that in the morning mist is generally prevalent, which dissolves in the water and destroys its clearness, as the sun does not shine upon it before it is high on the horizon. In the summer cold breezes blow in the morning and there are heavy dews; for the rest of the day the sun as it advances towards the west thoroughly scorches the inhabitants, so that they are likely to be pale and sickly, subject to all the diseases aforesaid, for none are peculiar to them.[1] They are likely to have deep, hoarse voices, because of the atmosphere, since it is usually impure and unhealthy in such places. For while it is not clarified much by the north winds, which are not prevalent there, the winds that do prevail insistently are very rainy, such being the nature of westerly winds. Such a situation for a city is precisely like autumn in respect of the changes of the day, seeing that the difference between sunrise and afternoon is great.

VII. So much for winds, healthy and unhealthy. I wish now to treat of waters, those that bring disease or very good health, and of the ill or good that is likely to arise from water. For the influence

[1] αὐτοῖς may be either a dative of advantage or one of disadvantage. There can thus be two meanings:—

(1) "for none are isolated to their advantage," *i. e.* they are exempt from none;

(2) "for none are isolated to their disadvantage," *i. e.* they have no disease peculiar to themselves. I have taken the latter meaning, with Littré, but a good case could be made out for the former.

μέρος συμβάλλεται ἐς τὴν ὑγιείην. ὁκόσα μὲν οὖν ἐστιν ἑλώδεα καὶ στάσιμα καὶ λιμναῖα, ταῦτα ἀνάγκη τοῦ μὲν θέρεος εἶναι θερμὰ καὶ παχέα καὶ ὀδμὴν ἔχοντα, ἅτε οὐκ ἀπόρρυτα ἐόντα· ἀλλὰ τοῦ τε ὀμβρίου ὕδατος ἐπιφερομένου[1] αἰεὶ νέου τοῦ τε ἡλίου καίοντος ἀνάγκη ἄχροά τε εἶναι καὶ πονηρὰ καὶ χολώδεα, τοῦ δὲ χειμῶνος παγετώδεά τε καὶ ψυχρὰ καὶ τεθολωμένα ὑπό τε χιόνος καὶ παγετῶν, ὥστε φλεγματωδέστατα εἶναι καὶ βραγχωδέστατα. τοῖσι δὲ πίνουσι σπλῆνας μὲν αἰεὶ μεγάλους εἶναι καὶ μεμυωμένους καὶ τὰς γαστέρας σκληράς τε καὶ λεπτὰς καὶ θερμάς, τοὺς δὲ ὤμους καὶ τὰς κληῖδας καὶ τὸ πρόσωπον καταλελεπτύσθαι· ἐς γὰρ τὸν σπλῆνα αἱ σάρκες συντήκονται, διότι ἰσχνοί εἰσιν· ἐδωδούς τε εἶναι τοὺς τοιούτους καὶ διψηρούς· τάς τε κοιλίας ξηροτάτας τε καὶ θερμοτάτας καὶ τὰς ἄνω καὶ τὰς κάτω ἔχειν, ὥστε τῶν φαρμάκων ἰσχυροτέρων δεῖσθαι. τοῦτο μὲν τὸ νόσημα αὐτοῖσι σύντροφόν ἐστι καὶ θέρεος καὶ χειμῶνος. πρὸς δὲ τούτοισιν οἱ ὕδρωπες πλεῖστοί τε γίνονται καὶ θανατωδέστατοι. τοῦ γὰρ θέρεος δυσεντερίαι τε πολλαὶ ἐμπίπτουσι καὶ διάρροιαι καὶ πυρετοὶ τεταρταῖοι πολυχρόνιοι. ταῦτα δὲ τὰ νοσεύματα μηκυνθέντα τὰς τοιαύτας φύσιας ἐς ὕδρωπας καθίστησι καὶ ἀποκτείνει. ταῦτα μὲν αὐτοῖσι τοῦ θέρεος γίνεται. τοῦ δὲ χειμῶνος τοῖσι νεωτέροισι μὲν περιπνευμονίαι τε καὶ μανιώδεα νοσεύματα, τοῖσι δὲ πρεσβυτέροισι καῦσοι διὰ τὴν τῆς κοιλίης σκληρότητα. τῇσι δὲ γυναιξὶν οἰδήματα ἐγγίνεται καὶ φλέγμα λευκόν, καὶ ἐν γαστρὶ ἴσχουσι μόλις καὶ τίκτουσι χαλεπῶς· μεγάλα τε τὰ ἔμβρυα καὶ

of water upon health is very great. Such as are marshy, standing and stagnant must in summer be hot, thick and stinking, because there is no outflow; and as fresh rain-water is always flowing in and the sun heats them, they must be of bad colour, unhealthy and bilious. In winter they must be frosty, cold and turbid through the snow and frosts, so as to be very conducive to phlegm and sore throats. Those who drink it have always large, stiff spleens, and hard, thin, hot stomachs, while their shoulders, collar-bones and faces are emaciated; the fact is that their flesh dissolves to feed the spleen, so that they are lean. With such a constitution they eat and drink heavily. Their digestive organs, upper and lower, are very dry and very hot, so that they need more powerful drugs. This malady is endemic both in summer and in winter. In addition the dropsies that occur are very numerous and very fatal. For in the summer there are epidemics of dysentery, diarrhoea and long quartan fever, which diseases when prolonged cause constitutions such as I have described to develop dropsies that result in death. These are their maladies in summer. In winter young people suffer from pneumonia and illnesses attended by delirium, the older, through the hardness of their digestive organs, from ardent fever. Among the women occur swellings and leucophlegmasia; they conceive hardly and are delivered with difficulty. The babies are big and swollen, and

[1] *ἐπιφερομένου* b: *ἐπιτρεφομένου* most MSS.

οἰδέοντα. ἔπειτα ἐν τῇσι τροφῇσι φθινώδεά τε καὶ πονηρὰ γίνεται· ἥ τε κάθαρσις τῇσι γυναιξὶν οὐκ ἐπιγίνεται χρηστὴ μετὰ τὸν τόκον. τοῖσι δὲ παιδίοισι κῆλαι ἐπιγίνονται μάλιστα καὶ τοῖσιν ἀνδράσι κίρσοι καὶ ἕλκεα ἐν τῇσι κνήμῃσιν, ὥστε τὰς τοιαύτας φύσιας οὐχ οἷόν τε μακροβίους εἶναι, ἀλλὰ προγηράσκειν τοῦ χρόνου τοῦ ἱκνευμένου. ἔτι δὲ αἱ γυναῖκες δοκέουσιν ἔχειν ἐν γαστρί, καὶ ὁκόταν ὁ τόκος ᾖ, ἀφανίζεται τὸ πλήρωμα τῆς γαστρός. τοῦτο δὲ γίνεται, ὁκόταν ὑδρωπιήσωσιν αἱ ὑστέραι. τὰ μὲν τοιαῦτα ὕδατα νομίζω μοχθηρὰ εἶναι πρὸς ἅπαν χρῆμα· δεύτερα δὲ ὅσων εἶεν[1] αἱ πηγαὶ ἐκ πετρέων—σκληρὰ γὰρ ἀνάγκη εἶναι—ἢ ἐκ γῆς, ὅκου θερμὰ ὕδατά ἐστιν, ἢ σίδηρος γίνεται ἢ χαλκὸς ἢ ἄργυρος ἢ χρυσὸς ἢ θεῖον ἢ στυπτηρίη ἢ ἄσφαλτον ἢ νίτρον. ταῦτα γὰρ πάντα ὑπὸ βίης γίνονται τοῦ θερμοῦ. οὐ τοίνυν οἷόν τε ἐκ τοιαύτης γῆς ὕδατα ἀγαθὰ γίνεσθαι, ἀλλὰ σκληρὰ καὶ καυσώδεα διουρεῖσθαί τε χαλεπὰ καὶ πρὸς τὴν διαχώρησιν ἐναντία εἶναι. ἄριστα δὲ ὁκόσα ἐκ μετεώρων χωρίων ῥεῖ καὶ λόφων γεηρῶν. αὐτά τε γάρ ἐστι γλυκέα καὶ λευκὰ καὶ τὸν οἶνον φέρειν ὀλίγον οἷά τέ ἐστιν. τοῦ δὲ χειμῶνος θερμὰ γίνεται, τοῦ δὲ θέρεος ψυχρά. οὕτω γὰρ ἂν εἴη ἐκ βαθυτάτων πηγέων. μάλιστα δὲ ἐπαινέω ὧν τὰ ῥεύματα πρὸς τὰς ἀνατολὰς τοῦ ἡλίου ἐρρώγασι καὶ μᾶλλον πρὸς τὰς θερινάς. ἀνάγκη γὰρ λαμπρότερα εἶναι καὶ εὐώδεα καὶ κοῦφα. ὁκόσα δέ ἐστιν ἁλυκὰ καὶ ἀτέραμνα καὶ σκληρά, ταῦτα μὲν πάντα πίνειν οὐκ ἀγαθά· εἰσὶ δ' ἔνιαι φύσιες καὶ νοσεύματα, ἐς ἃ ἐπιτήδειά ἐστι τὰ τοιαῦτα ὕδατα πινόμενα,

then, as they are nursed, they become emaciated[1] and miserable. The discharge after childbirth is bad. Children are very subject to hernia and men to enlarged veins and to ulcers on the legs, so that such constitutions cannot be long-lived but must grow prematurely old. Moreover, the women appear to be with child, yet, when the time of delivery comes, the fullness of the womb disappears, this being caused by dropsy in that organ. Such waters I hold to be absolutely bad. The next worst will be those whose springs are from rocks—for they must be hard—or from earth where there are hot waters, or iron is to be found, or copper, or silver, or gold, or sulphur, or alum, or bitumen, or soda. For all these result from the violence of the heat. So from such earth good waters cannot come, but hard, heating waters, difficult to pass and causing constipation. The best are those that flow from high places and earthy hills. By themselves they are sweet and clear, and the wine they can stand is but little. In winter they are warm, in summer cold. They would naturally be so, coming from very deep springs. I commend especially those whose flow breaks forth towards the rising—by preference the summer rising—of the sun. For they must be brighter, sweet-smelling and light; while all that are salt, harsh and hard are not good to drink, though there are some constitutions and some diseases which are benefited by drinking such waters, concerning which I will speak

[1] Or "consumptive."

[1] εἶεν so most MSS.: εἴην V: εἰσὶν Reinhold (unnecessarily, for the "vague" opt. without ἄν is not rare in the Hippocratic writings). However, 7027 reads *sunt*.

περὶ ὧν φράσω αὐτίκα. ἔχει δὲ περὶ τούτων ὧδε· ὁκόσων μὲν αἱ πηγαὶ πρὸς τὰς ἀνατολὰς ἔχουσι, ταῦτα μὲν ἄριστα αὐτὰ ἑωυτῶν ἐστι· δεύτερα δὲ τὰ μεταξὺ τῶν θερινῶν ἀνατολέων ἐστὶ τοῦ ἡλίου καὶ δυσίων, καὶ μᾶλλον τὰ πρὸς τὰς ἀνατολάς· τρίτα δὲ τὰ μεταξὺ τῶν δυσμέων τῶν θερινῶν καὶ τῶν χειμερινῶν· φαυλότατα δὲ τὰ πρὸς τὸν νότον καὶ τὰ μεταξὺ τῆς χειμερινῆς ἀνατολῆς καὶ δύσιος. καὶ ταῦτα τοῖσι μὲν νοτίοισι πάνυ πονηρά, τοῖσι δὲ βορείοισιν ἀμείνω. τούτοισι δὲ πρέπει ὧδε χρῆσθαι· ὅστις μὲν ὑγιαίνει τε καὶ ἔρρωται, μηδὲν διακρίνειν, ἀλλὰ πίνειν αἰεὶ τὸ παρεόν. ὅστις δὲ νούσου εἵνεκα βούλεται τὸ ἐπιτηδειότατον πίνειν, ὧδε ἂν ποιέων μάλιστα τυγχάνοι τῆς ὑγιείης· ὁκόσων μὲν αἱ κοιλίαι σκληραί εἰσι καὶ συγκαίειν ἀγαθαί, τούτοισι μὲν τὰ γλυκύτατα συμφέρει καὶ κουφότατα καὶ λαμπρότατα· ὁκόσων δὲ μαλθακαὶ αἱ νηδύες καὶ ὑγραί εἰσι καὶ φλεγματώδεες, τούτοισι δὲ τὰ σκληρότατα καὶ ἀτεραμνότατα καὶ τὰ ὑφαλυκά· οὕτω γὰρ ἂν ξηραίνοιντο μάλιστα. ὁκόσα γὰρ ὕδατά ἐστιν ἔψειν ἄριστα καὶ τακερώτατα, ταῦτα καὶ τὴν κοιλίην διαλύειν εἰκὸς μάλιστα καὶ διατήκειν· ὁκόσα δέ ἐστιν ἀτέραμνα καὶ σκληρὰ καὶ ἥκιστα ἑψανά, ταῦτα δὲ συνίστησι μάλιστα τὰς κοιλίας καὶ ξηραίνει. ἀλλὰ γὰρ ψευσάμενοι[1] εἰσὶν οἱ ἄνθρωποι τῶν ἁλμυρῶν ὑδάτων πέρι δι' ἀπειρίην, καὶ ὅτι[2] νομίζεται διαχωρητικά· τὰ δὲ ἐναντιώτατά ἐστι πρὸς τὴν διαχώρησιν· ἀτέραμνα γὰρ καὶ ἀνέψανα, ὥστε καὶ τὴν κοιλίην ὑπ' αὐτῶν στύφεσθαι μᾶλλον ἢ τήκεσθαι.

presently. Aspect affects spring waters thus. Those whose sources face the risings of the sun are the very best. Second in excellence come those between the summer risings and the summer settings, by preference in the direction of the risings. Third best are those between the summer and winter settings. The worst are those that face the south, and those between the winter rising and setting. These are very bad indeed when the winds are in the south, less bad when they are in the north. Spring waters should be used thus. A man in health and strength can drink any water that is at hand without distinction, but he who because of disease wishes to drink the most suitable can best attain health in the following way. Those whose digestive organs are hard and easily heated will gain benefit from the sweetest, lightest and most sparkling waters. But those whose bellies are soft, moist, and phlegmatic, benefit from the hardest, most harsh and saltish waters, for these are the best to dry them up. For waters that are best for cooking and most solvent naturally loosen the digestive organs the most and relax them; but harsh waters, hard and very bad for cooking, contract most these organs and dry them up. In fact the public are mistaken about saline waters through inexperience, in that they are generally considered to be laxative. The truth is that they are just the reverse; they are harsh and bad for cooking, so that the digestive organs too are stiffened by them rather than loosened.

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[1] ψευσάμενοι so V ℬ: ἐψευσμένοι Kühlewein.

[2] καὶ ὅτι MSS.: Wilamowitz would delete ὅτι; Coray would read κατότι for καὶ ὅτι. Perhaps καὶ should be deleted.

VIII. Καὶ περὶ μὲν τῶν πηγαίων ὑδάτων ὧδε ἔχει. περὶ δὲ τῶν ὀμβρίων καὶ ὁκόσα ἀπὸ χιόνος φράσω ὅκως ἔχει. τὰ μὲν οὖν ὄμβρια κουφότατα καὶ γλυκύτατά ἐστι καὶ λεπτότατα καὶ λαμπρότατα. τήν τε γὰρ ἀρχὴν ὁ ἥλιος ἀνάγει καὶ ἀναρπάζει τοῦ ὕδατος τό τε λεπτότατον καὶ κουφότατον. δῆλον δὲ οἱ ἅλες ποιέουσι. τὸ μὲν γὰρ ἁλμυρὸν λείπεται αὐτοῦ ὑπὸ πάχεος καὶ βάρεος καὶ γίνεται ἅλες, τὸ δὲ λεπτότατον ὁ ἥλιος ἀναρπάζει ὑπὸ κουφότητος· ἀνάγει δὲ τὸ τοιοῦτο οὐκ ἀπὸ τῶν ὑδάτων μοῦνον τῶν λιμναίων, ἀλλὰ καὶ ἀπὸ τῆς θαλάσσης καὶ ἐξ ἁπάντων ἐν ὁκόσοισι ὑγρόν τι ἔνεστιν. ἔνεστι δὲ ἐν παντὶ χρήματι. καὶ ἐξ αὐτῶν τῶν ἀνθρώπων ἄγει τὸ λεπτότατον τῆς ἰκμάδος καὶ κουφότατον. τεκμήριον δὲ μέγιστον· ὅταν[1] ἄνθρωπος ἐν ἡλίῳ βαδίζῃ ἢ καθίζῃ ἱμάτιον ἔχων, ὁκόσα μὲν τοῦ χρωτὸς ὁ ἥλιος ἐφορᾷ, οὐχ ἱδρῴη ἄν· ὁ γὰρ ἥλιος ἀναρπάζει τὸ προφαινόμενον τοῦ ἱδρῶτος· ὁκόσα δὲ ὑπὸ τοῦ ἱματίου ἐσκέπασται ἢ ὑπ' ἄλλου του, ἱδροῖ. ἐξάγεται μὲν γὰρ ὑπὸ τοῦ ἡλίου καὶ βιάζεται, σῴζεται δὲ ὑπὸ τῆς σκέπης, ὥστε μὴ ἀφανίζεσθαι ὑπὸ τοῦ ἡλίου. ὁκόταν δὲ ἐς σκιὴν ἀφίκηται, ἅπαν τὸ σῶμα ὁμοίως ἱδίει·[2] οὐ γὰρ ἔτι ὁ ἥλιος ἐπιλάμπει. διὰ ταῦτα δὲ καὶ σήπεται τῶν ὑδάτων τάχιστα ταῦτα καὶ ὀδμὴν ἴσχει πονηρὴν τὸ ὄμβριον, ὅτι ἀπὸ πλείστων συνῆκται καὶ συμμέμικται, ὥστε σήπεσθαι τάχιστα. ἔτι δὲ πρὸς τούτοισιν ἐπειδὰν ἁρπασθῇ καὶ μετεωρισθῇ περιφερόμενον καὶ καταμεμιγμένον ἐς τὸν ἠέρα, τὸ μὲν θολερὸν αὐτοῦ καὶ νυκτοειδὲς ἐκκρίνεται καὶ ἐξίσταται καὶ γίνεται ἠὴρ καὶ ὁμίχλη, τὸ δὲ λαμπρότατον[3]

VIII. Such are the facts about spring waters. I will now proceed to speak of rain water and snow water. Rain waters are the lightest, sweetest, finest and clearest. To begin with, the sun raises and draws up the finest and lightest part of water, as is proved by the formation of salt. The brine, owing to its coarseness and weight, is left behind and becomes salt; the finest part, owing to its lightness, is drawn up by the sun. Not only from pools does the sun raise this part, but also from the sea and from whatever has moisture in it—and there is moisture in everything. Even from men it raises the finest and lightest part of their juices. The plainest evidence thereof is that when a man walks or sits in the sun wearing a cloak, the parts of his skin reached by the sun will not sweat, for it draws up each layer of sweat as it appears. But those parts sweat which are covered by his cloak or by anything else. For the sweat drawn forcibly out by the sun is prevented by the covering from disappearing through the sun's power. But when the man has come into a shady place, his whole body sweats alike, as the sun no longer shines upon it. For this reason too rain-water grows foul quicker than any other, and has a bad smell; being a mixture gathered from very many sources it grows foul very quickly. Furthermore, when it has been carried away aloft, and has combined with the atmosphere as it circles round, the turbid, dark part of it separates out, changes and becomes mist and fog, while the clearest and

[1] Cobet would insert γὰρ after ὅταν.

[2] ἰδίει Heringa, from Erotian, who gives ἰδίειν = ἰδροῦν: διΐει most MSS.: διιεῖ Coray and Littré.

[3] λαμπρότατον V JB b: λεπτότατον many MSS.

καὶ κουφότατον αὐτοῦ λείπεται καὶ γλυκαίνεται ὑπὸ τοῦ ἡλίου καιόμενόν τε καὶ ἑψόμενον. γίνεται δὲ καὶ τἆλλα πάντα τὰ[1] ἑψόμενα αἰεὶ γλυκύτερα. ἕως μὲν οὖν διεσκεδασμένον ᾖ καὶ μήπω συνεστήκῃ, φέρεται μετέωρον. ὁκόταν δέ κου ἀθροισθῇ καὶ συστραφῇ ἐς τὸ αὐτὸ ὑπὸ ἀνέμων ἀλλήλοισιν ἐναντιωθέντων ἐξαίφνης, τότε καταρρήγνυται, ᾗ ἂν τύχῃ πλεῖστον συστραφέν. τότε γὰρ ἐοικὸς τοῦτο μᾶλλον γίνεσθαι, ὁκόταν τὰ νέφεα ὑπὸ ἀνέμου στάσιν μὴ ἔχοντος[2] ὡρμημένα ἐόντα[3] καὶ χωρέοντα ἐξαίφνης ἀντικόψῃ πνεῦμα ἐναντίον καὶ ἕτερα νέφεα· ἐνταῦθα τὸ μὲν πρῶτον αὐτοῦ συστρέφεται, τὰ δὲ ὄπισθεν ἐπιφέρεταί τε καὶ οὕτω παχύνεται καὶ μελαίνεται καὶ συστρέφεται ἐς τὸ αὐτὸ καὶ ὑπὸ βάρεος καταρρήγνυται καὶ ὄμβροι γίνονται. ταῦτα μέν ἐστιν ἄριστα κατὰ τὸ εἰκός. δεῖται δὲ ἀφέψεσθαι καὶ ἀποσήπεσθαι·[4] εἰ δὲ μή, ὀδμὴν ἴσχει πονηρὴν καὶ βράγχος καὶ βῆχες καὶ βαρυφωνίη τοῖς πίνουσι προσίσταται.

Τὰ δὲ ἀπὸ χιόνος καὶ κρυστάλλων πονηρὰ πάντα. ὁκόταν γὰρ ἅπαξ παγῇ, οὐκ ἔτι ἐς τὴν ἀρχαίην φύσιν καθίσταται, ἀλλὰ τὸ μὲν αὐτοῦ λαμπρὸν καὶ κοῦφον καὶ γλυκὺ ἐκκρίνεται καὶ ἀφανίζεται, τὸ δὲ θολωδέστατον καὶ σταθμωδέστατον λείπεται. γνοίης δ' ἂν ὧδε· εἰ γὰρ βούλει, ὅταν ᾖ χειμών,[5] ἐς ἀγγεῖον μέτρῳ ἐγχέας ὕδωρ θεῖναι ἐς τὴν αἰθρίην, ἵνα πήξεται μάλιστα, ἔπειτα τῇ ὑστεραίῃ ἐσενεγκὼν ἐς ἀλέην, ὅκου χαλάσει

[1] τά, Wilamowitz would delete this.

[2] ὑπὸ ἀνέμου στάσιν μὴ ἔχοντος van der Linden and Coray: μὴ ὑπὸ ἀνέμου στάσιν ἔχοντος MSS. and Littré: νέφεα ὑπὸ ἀνέμου σύστασιν ἔχοντα Kühlewein.

lightest part of it remains, and is sweetened as the heat of the sun produces coction, just as all other things always become sweeter through coction. Now as long as it is scattered and uncondensed, it travels about aloft, but as soon as it collects anywhere and is compressed into one place owing to sudden, contrary winds, then it bursts wherever the most compression happens to take place. For this is more likely to occur when the clouds, set in motion and carried along by a wind that allows them no rest, are suddenly encountered by a contrary blast and by other clouds.[1] In such cases the front is compressed, the rear comes on and is thus thickened, darkened and compressed into one place, so that the weight bursts it and causes rain. Such waters are naturally the best. But they need to be boiled and purified[2] from foulness if they are not to have a bad smell, and give sore throat, coughs and hoarseness to those who drink them.

Waters from snow and ice are all bad. For, once frozen, water never recovers its original nature, but the clear, light, sweet part is separated out and disappears, while the muddiest and heaviest part remains. The following experiment will prove it. Pour by measure, in winter, water into a vessel and set it in the open, where it will freeze best; then on the next day bring it under cover, where the ice will

[1] The reading of Kühlewein means, "condensed, set in motion and carried along by a wind, are suddenly," etc.

[2] Or, with the reading of Coray, "filtered."

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[3] *ἐόντα* of the MSS. should probably be deleted as an anticipation of the end of *χωρέοντα*.

[4] *ἀποσήπεσθαι* MSS.: *ἀποσήθεσθαι* Coray after Foes.

[5] *ὅταν ᾖ χειμὼν ἐς* Coray: *ὅταν οἱ χειμῶνες* V JB: *ὅταν χειμὼν εἰς* b.

μάλιστα ὁ παγετός, ὁκόταν δὲ λυθῇ, ἀναμετρεῖν τὸ ὕδωρ, εὑρήσεις ἔλασσον συχνῷ. τοῦτο τεκμήριον, ὅτι ὑπὸ τῆς πήξιος ἀφανίζεται καὶ ἀναξηραίνεται τὸ κουφότατον καὶ λεπτότατον, οὐ τὸ βαρύτατον καὶ παχύτατον· οὐ γὰρ ἂν δύναιτο. ταύτῃ οὖν νομίζω πονηρότατα ταῦτα τὰ ὕδατα εἶναι τὰ ἀπὸ χιόνος καὶ κρυστάλλου καὶ τὰ τού-
68 τοισιν ἑπόμενα πρὸς ἅπαντα χρήματα.

IX. Περὶ μὲν οὖν ὀμβρίων ὑδάτων καὶ τῶν ἀπὸ χιόνος καὶ κρυστάλλων οὕτως ἔχει. λιθιῶσι δὲ μάλιστα ἄνθρωποι[1] καὶ ὑπὸ νεφριτίδων καὶ στραγγουρίης ἁλίσκονται καὶ ἰσχιάδων, καὶ κῆλαι γίνονται, ὅκου ὕδατα πίνουσι παντοδαπώτατα καὶ ἀπὸ ποταμῶν μεγάλων, ἐς οὓς ποταμοὶ ἕτεροι ἐμβάλλουσι, καὶ ἀπὸ λίμνης, ἐς ἣν ῥεύματα πολλὰ καὶ παντοδαπὰ ἀφικνεῦνται, καὶ ὁκόσοι ὕδασιν ἐπακτοῖσι χρέονται διὰ μακροῦ ἀγομένοισι καὶ
10 μὴ ἐκ βραχέος. οὐ γὰρ οἷόν τε ἕτερον ἑτέρῳ ἐοικέναι ὕδωρ, ἀλλὰ τὰ μὲν γλυκέα εἶναι, τὰ δὲ ἁλυκά τε καὶ στυπτηριώδεα, τὰ δὲ ἀπὸ θερμῶν ῥεῖν. συμμισγόμενα δὲ ταῦτα ἐς τωὐτὸ ἀλλήλοισι στασιάζει καὶ κρατεῖ αἰεὶ τὸ ἰσχυρότατον. ἰσχύει δὲ οὐκ αἰεὶ τωὐτό, ἀλλὰ ἄλλοτε ἄλλο κατὰ τὰ πνεύματα· τῷ μὲν γὰρ βορέης τὴν ἰσχὺν παρ-
ἔχεται, τῷ δὲ ὁ νότος, καὶ τῶν λοιπῶν πέρι ὡύτὸς λόγος. ὑφίστασθαι οὖν τοῖσι τοιούτοισιν ἀνάγκη ἐν τοῖς ἀγγείοις ἰλὺν καὶ ψάμμον· καὶ ἀπὸ τούτων
20 πινομένων τὰ νοσήματα γίνεται τὰ προειρημένα· ὅτι δὲ οὐχ ἅπασιν, ἐξῆς φράσω.

Ὁκόσων μὲν ἥ τε κοιλίη εὐρόος τε καὶ ὑγιηρή ἐστι καὶ ἡ κύστις μὴ πυρετώδης μηδὲ ὁ στόμαχος τῆς κύστιος συμπέφρακται λίην, οὗτοι μὲν διου-

melt best; if, when it is dissolved, you measure it again you will find it much diminished. This shows that freezing dries up and causes to disappear the lightest and finest part, not the heaviest and coarsest, to do which it has no power. In this way, therefore, I am of opinion that such waters, derived from snow or ice, and waters similar to these, are the worst for all purposes.

IX. Such are the properties of rain waters, and of those from snow and ice. Stone, kidney disease, strangury and sciatica are very apt to attack people, and ruptures occur, when they drink water of very many different kinds, or from large rivers, into which other rivers flow, or from a lake fed by many streams of various sorts, and whenever they use foreign waters coming from a great, not a short, distance. For one water cannot be like another; some are sweet, others are impregnated with salt and alum, others flow from hot springs. These when mixed up together disagree, and the strongest always prevails. But the strongest is not always the same; sometimes it is one, sometimes another, according to the winds. One has its strength from a north wind, another from the south wind, and similarly with the others. Such waters then must leave a sediment of mud and sand in the vessels, and drinking them causes the diseases mentioned before. That there are exceptions I will proceed to set forth.

Those whose bowels are loose and healthy, whose bladder is not feverish, and the mouth of whose bladder is not over narrow, pass water easily, and no

ἄνθρωποι MSS.: ὦνθρωποι Kühlewein.

ρεῦσι ῥηϊδίως, καὶ ἐν τῇ κύστει οὐδὲν συστρέφεται. ὁκόσων δὲ ἂν ἡ κοιλίη πυρετώδης ᾖ, ἀνάγκη καὶ τὴν κύστιν τωὐτὸ πάσχειν. ὁκόταν γὰρ θερμανθῇ μᾶλλον τῆς φύσιος, ἐφλέγμηνεν αὐτῆς ὁ στόμαχος. ὁκόταν δὲ ταῦτα πάθῃ, τὸ οὖρον οὐκ ἀφίησιν, ἀλλ' ἐν ἑωυτῇ συνέψει καὶ συγκαίει. καὶ τὸ μὲν λεπτότατον αὐτοῦ ἀποκρίνεται καὶ τὸ καθαρώτατον διιεῖ καὶ ἐξουρεῖται, τὸ δὲ παχύτατον καὶ θολωδέστατον συστρέφεται καὶ συμπήγνυται. καὶ[1] τὸ μὲν πρῶτον μικρόν, ἔπειτα δὲ μέζον γίνεται. κυλινδεύμενον γὰρ ὑπὸ τοῦ οὔρου, ὅ τι ἂν συνίστηται παχύ, συναρμόζει πρὸς ἑωυτό, καὶ οὕτως αὔξεταί τε καὶ πωροῦται· καὶ ὁκόταν οὐρῇ, πρὸς τὸν στόμαχον τῆς κύστιος προσπίπτει ὑπὸ τοῦ οὔρου βιαζόμενον καὶ κωλύει οὐρεῖν καὶ ὀδύνην παρέχει ἰσχυρήν· ὥστε τὰ αἰδοῖα τρίβουσι καὶ ἕλκουσι τὰ παιδία τὰ λιθιῶντα· δοκεῖ γὰρ αὐτοῖς τὸ αἴτιον ἐνταῦθα εἶναι τῆς οὐρήσιος.[2] τεκμήριον δέ, ὅτι οὕτως ἔχει· τὸ γὰρ οὖρον λαμπρότατον οὐρέουσιν οἱ λιθιῶντες, ὅτι τὸ παχύτατον καὶ θολωδέστατον αὐτοῦ μένει καὶ συστρέφεται. τὰ μὲν πλεῖστα οὕτω λιθιᾷ· γίνεται δὲ παισὶν καὶ ἀπὸ τοῦ γάλακτος, ἢν μὴ ὑγιηρὸν ᾖ, ἀλλὰ θερμόν τε λίην καὶ χολῶδες. τὴν γὰρ κοιλίην διαθερμαίνει καὶ τὴν κύστιν, ὥστε τὸ οὖρον συγκαιόμενον ταῦτα πάσχειν. καί φημι ἄμεινον εἶναι τοῖς παιδίοισι τὸν οἶνον ὡς ὑδαρέστατον διδόναι· ἧσσον γὰρ τὰς φλέβας συγκαίει καὶ συναναίνει. τοῖσι δὲ θήλεσι λίθοι οὐ γίνονται ὁμοίως· ὁ γὰρ οὐρητὴρ βραχύς ἐστιν ὁ τῆς κύστιος καὶ εὐρύς, ὥστε βιάζεσθαι τὸ οὖρον ῥηϊδίως. οὔτε γὰρ τῇ χειρὶ τρίβει τὸ αἰδοῖον

solid matter forms in their bladder. But feverishness of the bowels must be accompanied by feverishness of the bladder. For when it is abnormally heated its mouth is inflamed. In this condition it does not expel the urine, but concocts and heats it within itself. The finest part is separated off, and the clearest passes out as urine, while the thickest and muddiest part forms solid matter, which, though at first small, grows in course of time. For as it rolls about in the urine it coalesces with whatever solid matter forms, and so it grows and hardens. When the patient makes water, it is forced by the urine to fall against the mouth of the bladder, and staying the flow of the urine causes violent pain. So that boys that suffer from stone rub and pull at their privy parts, under the impression that there lies the cause of their making water.[1] That my account is correct is shown by the fact that sufferers from stone emit urine that is very clear, as the thickest and muddiest part of it remains and solidifies. This in most cases is the cause of stone. Children get stone also from the milk, if it be unhealthy, too hot and bilious. For it heats the bowels and the bladder, so that the urine is heated and affected as I have described. And my opinion is that we should give to young children only very diluted wine, which heats and parches the veins less. Females suffer less from stone. For their urethra is short and broad, so that the urine is easily expelled. Nor do they rub the privy parts as do males, nor handle the

[1] Coray's emendation would mean, "the cause of the stoppage," an attractive alteration.

[1] καὶ added by Wilamowitz.
[2] Coray would insert οὐκ before οὐρήσιος.

ὥσπερ τὸ ἄρσεν, οὔτε ἅπτεται τοῦ οὐρητῆρος· ἐς γὰρ τὰ αἰδοῖα ξυντέτρηνται, οἱ δὲ ἄνδρες οὐκ εὐθὺ τέτρηνται, καὶ διότι οἱ οὐρητῆρες οὐκ εὐρεῖς· καὶ πίνουσι πλεῖον ἢ οἱ παῖδες.

Χ. Περὶ μὲν οὖν τούτων ὧδε ἔχει ἢ ὅτι τούτων ἐγγύτατα. περὶ δὲ τῶν ὡρέων ὧδε ἄν τις ἐνθυμεύμενος διαγινώσκοι, ὁκοῖόν τι μέλλει ἔσεσθαι τὸ ἔτος, εἴτε νοσερὸν εἴτε ὑγιηρόν· ἢν μὲν γὰρ κατὰ λόγον γένηται τὰ σημεῖα ἐπὶ τοῖς ἄστροισι δύνουσί τε καὶ ἐπιτέλλουσιν, ἔν τε τῷ μετοπώρῳ ὕδατα γένηται, καὶ ὁ χειμὼν μέτριος καὶ μήτε λίην εὔδιος μήτε ὑπερβάλλων τὸν καιρὸν τῷ ψύχει, ἔν τε τῷ ἦρι ὕδατα γένηται ὡραῖα καὶ ἐν τῷ θέρει, οὕτω τὸ ἔτος ὑγιεινότατον εἰκὸς εἶναι. ἢν δὲ ὁ μὲν χειμὼν αὐχμηρὸς καὶ βόρειος γένηται, τὸ δὲ ἦρ ἔπομβρον καὶ νότιον, ἀνάγκη τὸ θέρος πυρετώδες γίνεσθαι καὶ ὀφθαλμίας καὶ δυσεντερίας ἐμποιεῖν. ὁκόταν γὰρ τὸ πνῖγος ἐπιγένηται ἐξαίφνης τῆς τε γῆς ὑγρῆς ἐούσης ὑπὸ τῶν ὄμβρων τῶν ἐαρινῶν καὶ ὑπὸ τοῦ νότου, ἀνάγκη διπλόον τὸ καῦμα εἶναι, ἀπό τε τῆς γῆς διαβρόχου ἐούσης καὶ θερμῆς καὶ ὑπὸ τοῦ ἡλίου καίοντος, τῶν τε κοιλιῶν μὴ συνεστηκυιῶν τοῖς ἀνθρώποις μήτε τοῦ ἐγκεφάλου ἀνεξηρασμένου—οὐ γὰρ οἷόν τε τοῦ ἦρος τοιούτου ἐόντος μὴ οὐ πλαδᾶν τὸ σῶμα καὶ τὴν σάρκα—· ὥστε τοὺς πυρετοὺς ἐπιπίπτειν ὀξυτάτους ἅπασιν, μάλιστα δὲ τοῖσι φλεγματίῃσι. καὶ δυσεντερίας εἰκός ἐστι γίνεσθαι καὶ τῇσι γυναιξὶ καὶ τοῖς εἴδεσι τοῖς ὑγροτάτοισι. καὶ ἢν μὲν ἐπὶ κυνὸς ἐπιτολῇ ὕδωρ ἐπιγένηται καὶ χειμὼν καὶ οἱ ἐτησίαι πνεύσωσιν, ἐλπὶς παύσασθαι καὶ τὸ μετόπωρον ὑγιηρὸν γενέσθαι· ἢν δὲ μή, κίν-

urethra. For it opens directly into the privy parts, which is not so with males, nor is their urethra wide. And they drink more than boys do.

X. This, or something very like this, is the truth concerning these matters. As to the seasons, a consideration of the following points will make it possible to decide whether the year will prove unhealthy or healthy. If the signs prove normal when the stars set and rise; if there be rains in autumn, if the winter be moderate, neither too mild nor unseasonably cold, and if the rains be seasonable in spring and in summer, the year is likely to be very healthy. If, on the other hand, the winter prove dry and northerly, the spring rainy and southerly, the summer cannot fail to be fever-laden, causing ophthalmia and dysenteries. For whenever the great heat comes on suddenly while the earth is soaked by reason of the spring rains and the south wind, the heat cannot fail to be doubled, coming from the hot, sodden earth and the burning sun; men's bowels not being braced nor their brain dried—for when spring is such the body and its flesh must necessarily be flabby—the fevers that attack are of the acutest type in all cases, especially among the phlegmatic. Dysenteries are also likely to come upon women and the most humid constitutions. If at the rising of the Dog Star stormy rain occurs and the Etesian winds blow, there is hope that the distempers will cease and that the autumn will be healthy. Otherwise there is danger lest deaths

δυνος θανάτους τε γενέσθαι τοῖσι παιδίοισι καὶ τῇσι γυναιξίν, τοῖσι δὲ πρεσβύτῃσιν ἥκιστα, τούς τε περιγενομένους ἐς τεταρταίους ἀποτελευτᾶν καὶ ἐκ τῶν τεταρταίων ἐς ὕδρωπας. ἢν δ' ὁ μὲν χειμὼν νότιος γένηται καὶ ἔπομβρος καὶ εὔδιος, τὸ δὲ ἦρ βόρειόν τε καὶ αὐχμηρὸν καὶ χειμέριον, πρῶτον μὲν τὰς γυναῖκας, ὁκόσαι ἂν τύχωσιν ἐν γαστρὶ ἔχουσαι καὶ ὁ τόκος αὐτῇσιν ᾖ πρὸς τὸ ἦρ, ἐκτιτρώσκεσθαι· ὁκόσαι δ' ἂν καὶ τέκωσιν, ἀκρατέα τὰ παιδία τίκτειν καὶ νοσώδεα, ὥστε ἢ αὐτίκα ἀπόλλυσθαι, ἢ ζῶσι λεπτά τε ἐόντα καὶ ἀσθενέα καὶ νοσώδεα. ταῦτα μὲν τῇσι γυναιξί· τοῖσι δὲ λοιποῖσι δυσεντερίας καὶ ὀφθαλμίας ξηρὰς καὶ ἐνίοισι καταρρόους ἀπὸ τῆς κεφαλῆς ἐπὶ τὸν πνεύμονα. τοῖσι μὲν οὖν φλεγματίῃσι τὰς δυσεντερίας εἰκὸς γίνεσθαι καὶ τῇσι γυναιξὶ φλέγματος ἐπικαταρρυέντος ἀπὸ τοῦ ἐγκεφάλου διὰ τὴν ὑγρότητα τῆς φύσιος· τοῖσι δὲ χολώδεσιν ὀφθαλμίας ξηρὰς διὰ τὴν θερμότητα καὶ ξηρότητα τῆς σαρκός· τοῖσι δὲ πρεσβύτῃσι καταρρόους διὰ τὴν ἀραιότητα καὶ τὴν ἔκτηξιν τῶν φλεβῶν, ὥστε ἐξαίφνης τοὺς μὲν ἀπόλλυσθαι, τοὺς δὲ παραπλήκτους γίνεσθαι τὰ δεξιὰ ἢ τὰ ἀριστερά. ὁκόταν γὰρ τοῦ χειμῶνος ἐόντος νοτίου καὶ θερμοῦ τοῦ σώματος μὴ συνιστῆται ὁ ἐγκέφαλος μηδὲ αἱ φλέβες, τοῦ ἦρος ἐπιγενομένου βορείου καὶ αὐχμηροῦ καὶ ψυχροῦ ὁ ἐγκέφαλος, ὁπηνίκα αὐτὸν ἔδει ἅμα καὶ [1] τῷ ἦρι διαλύεσθαι καὶ καθαίρεσθαι ὑπό τε κορύζης καὶ βράγχων, τηνικαῦτα πήγνυταί τε καὶ συνίσταται, ὥστε ἐξαίφνης τοῦ θέρεος ἐπιγενομένου καὶ τοῦ καύματος καὶ τῆς μεταβολῆς ἐπιγινομένης ταῦτα τὰ νοσεύματα

occur among the women and children, and least of all among the old men; and lest those that get better lapse into quartans, and from quartans into dropsies. But if the winter be southerly, rainy and mild, and the spring be northerly, dry and wintry, in the first place women with child whose delivery is due by spring suffer abortion; and if they do bring forth, their children are weak and sickly, so that either they die at once, or live puny, weak and sickly. Such is the fate of the women. The others have dysenteries and dry ophthalmia, and in some cases catarrhs descend from the head to the lungs. Phlegmatics are liable to dysenteries, and women also, phlegm running down from the brain because of the humidity of their constitution. The bilious have dry ophthalmia because of the warm dryness of their flesh. Old men have catarrhs because of their flabbiness and the wasting of their veins, so that some die suddenly, while others become paralyzed on the right side or the left. For whenever, owing to the winter being southerly and the body warm, neither brain nor veins are hardened, a northerly, dry, cold spring supervening, the brain, just at the time when it ought to have been relaxed along with spring and purged by cold in the head and hoarseness, congeals and hardens, so that the heat of summer having suddenly supervened and the change supervening, these diseases befall. Such

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ἐπιπίπτειν. καὶ ὁκόσαι μὲν τῶν πολίων κέονταί τε καλῶς τοῦ ἡλίου καὶ τῶν πνευμάτων ὕδασί τε χρέονται ἀγαθοῖσιν, αὗται μὲν ἧσσον αἰσθάνονται τῶν τοιούτων μεταβολέων· ὁκόσαι δὲ ὕδασί τε ἑλείοισι χρέονται καὶ λιμνώδεσι κέονταί τε μὴ καλῶς τῶν πνευμάτων καὶ τοῦ ἡλίου, αὗται δὲ μᾶλλον. κὴν μὲν τὸ θέρος αὐχμηρὸν γένηται, θᾶσσον παύονται αἱ νοῦσοι· ἢν δὲ ἔπομβρον, πολυχρόνιοι γίνονται· καὶ φαγεδαίνας κίνδυνος ἐγγίνεσθαι ἀπὸ πάσης προφάσιος, ἢν ἕλκος ἐγγένηται. καὶ λειεντερίαι καὶ ὕδρωπες τελευτῶσι τοῖσι νοσεύμασιν ἐπιγίνονται· οὐ γὰρ ἀποξηραίνονται αἱ κοιλίαι ῥηϊδίως. ἢν δὲ τὸ θέρος ἔπομβρον γένηται καὶ νότιον καὶ τὸ μετόπωρον, τὸν[1] χειμῶνα ἀνάγκη νοσερὸν εἶναι καὶ τοῖς φλεγματίῃσι καὶ τοῖς γεραιτέροισι τεσσαράκοντα ἐτέων καύσους γίνεσθαι εἰκός, τοῖσι δὲ χολώδεσι πλευρίτιδας καὶ περιπνευμονίας. ἢν δὲ τὸ θέρος αὐχμηρὸν γένηται καὶ βόρειον, τὸ δὲ μετόπωρον ἔπομβρον καὶ νότιον, κεφαλαλγίας ἐς τὸν χειμῶνα καὶ σφακέλους τοῦ ἐγκεφάλου εἰκὸς γίνεσθαι, καὶ προσέτι βράγχους καὶ κορύζας καὶ βῆχας, ἐνίοισι δὲ καὶ φθίσιας. ἢν δὲ βόρειόν τε ᾖ καὶ ἄνυδρον καὶ μήτε ὑπὸ κύνα ἔπομβρον μήτε ἐπὶ τῷ ἀρκτούρῳ, τοῖσι μὲν φλεγματίῃσι φύσει συμφέρει μάλιστα καὶ τοῖς ὑγροῖς τὰς φύσιας καὶ τῇσι γυναιξί· τοῖσι δὲ χολώδεσι τοῦτο πολεμιώτατον γίνεται. λίην γὰρ ἀναξηραίνονται καὶ ὀφθαλμίαι αὐτοῖσιν ἐπιγίνονται ξηραί, καὶ πυρετοὶ ὀξέες καὶ πολυχρόνιοι, ἐνίοισι δὲ καὶ μελαγχολίαι. τῆς γὰρ χολῆς τὸ μὲν ὑγρότατον καὶ ὑδαρέστατον ἀναξηραίνεται καὶ ἀναλίσκεται,

cities as are well situated with regard to sun and winds, and use good waters, are less affected by such changes; but if they use marshy or standing waters, and are not well situated with regard to winds and sun, they are more affected. If the summer prove dry, the diseases cease more quickly; if it be rainy, they are protracted. Sores are apt to fester from the slightest cause. Lienteries and dropsies supervene on the conclusion of the diseases, as the bowels do not readily dry up. If the summer and the autumn be rainy and southerly, the winter must be unhealthy; phlegmatics and men over forty are likely to suffer from ardent fevers, bilious people from pleurisy and pneumonia. If the summer prove dry and northerly, and the autumn rainy and southerly, it is likely that in winter headaches occur and mortifications of the brain,[1] and in addition hoarseness, colds in the head, coughs, and in some cases consumption as well. But if the weather be northerly and dry, with no rain either during the Dog Star or at Arcturus, it is very beneficial to those who have a phlegmatic or humid constitution, and to women, but it is very harmful to the bilious. For these dry up overmuch, and are attacked by dry ophthalmia and by acute, protracted fevers, in some cases too by melancholies. For the most humid and watery part of the bile is dried up and is spent, while the

[1] See Littré V. 581 foll.

[1] τὸν added by Wilamowitz.

τὸ δὲ παχύτατον καὶ δριμύτατον λείπεται καὶ τοῦ αἵματος κατὰ τὸν αὐτὸν λόγον· ἀφ' ὧν ταῦτα τὰ νοσεύματα αὐτοῖσι γίνεται. τοῖσι δὲ φλεγματίῃσι πάντα ταῦτα ἀρωγά ἐστιν. ἀποξηραίνονται γὰρ καὶ ἐς τὸν χειμῶνα ἀφικνέονται οὐ
98 πλαδῶντες, ἀλλὰ ἀναξηραινόμενοι.

XI. Κατὰ ταῦτά τις ἐννοεύμενος καὶ σκοπεύμενος προειδείη ἂν τὰ πλεῖστα τῶν μελλόντων ἔσεσθαι ἀπὸ τῶν μεταβολέων. φυλάσσεσθαι δὲ χρὴ μάλιστα τὰς μεταβολὰς τῶν ὡρέων τὰς μεγίστας καὶ μήτε φάρμακον διδόναι ἐκόντα μήτε καίειν ὅ τι ἐς κοιλίην μήτε τάμνειν, πρὶν παρέλθωσιν ἡμέραι δέκα ἢ καὶ πλείονες· μέγισται δέ εἰσιν αἵδε αἱ τέσσαρες[1] καὶ ἐπικινδυνόταται· ἡλίου τροπαὶ ἀμφότεραι καὶ μᾶλλον αἱ θεριναὶ
10 καὶ αἱ ἰσημερίαι νομιζόμεναι εἶναι ἀμφότεραι, μᾶλλον δὲ αἱ μετοπωριναί· δεῖ δὲ καὶ τῶν ἄστρων τὰς ἐπιτολὰς φυλάσσεσθαι καὶ μάλιστα τοῦ κυνός, ἔπειτα ἀρκτούρου, καὶ ἔτι πληϊάδων δύσιν. τά τε γὰρ νοσεύματα μάλιστα ἐν ταύτῃσι τῇσιν ἡμέρῃσιν κρίνεται. καὶ τὰ μὲν ἀποφθίνει, τὰ δὲ
12 λήγει, τὰ δὲ ἄλλα πάντα μεθίσταται ἐς ἕτερον εἶδος καὶ ἑτέρην κατάστασιν.

XII. Περὶ μὲν τούτων οὕτως ἔχει. βούλομαι δὲ περὶ τῆς Ἀσίης καὶ τῆς Εὐρώπης δεῖξαι ὁκόσον διαφέρουσιν ἀλλήλων ἐς τὰ πάντα καὶ περὶ τῶν ἐθνέων τῆς μορφῆς, ὅτι διαλλάσσει καὶ μηδὲν ἔοικεν ἀλλήλοισιν. περὶ μὲν οὖν ἁπάντων πολὺς ἂν εἴη λόγος, περὶ δὲ τῶν μεγίστων καὶ πλεῖστον διαφερόντων ἐρέω ὥς μοι δοκεῖ ἔχειν. τὴν Ἀσίην πλεῖστον διαφέρειν φημὶ τῆς Εὐρώπης

thickest and most acrid part is left, and similarly with the blood. Consequently these diseases come upon them. But all these conditions are helpful to the phlegmatic, for they dry up and reach winter dried up and not flabby.

XI. By studying and observing after this fashion one may foresee most of the consequences of the changes. One should be especially on one's guard against the most violent changes of the seasons, and unless compelled one should neither purge, nor apply cautery or knife to the bowels, before at least ten days are past. The following are the four most violent changes and the most dangerous:—both solstices, especially the summer solstice, both the equinoxes, so reckoned, especially the autumnal. One must also guard against the risings of the stars, especially of the Dog Star, then of Arcturus, and also of the setting of the Pleiades. For it is especially at these times that diseases come to a crisis. Some prove fatal, some come to an end, all others change to another form and another constitution.

XII. So much for the changes of the seasons. Now I intend to compare Asia[1] and Europe, and to show how they differ in every respect, and how the nations of the one differ entirely in physique from those of the other. It would take too long to describe them all, so I will set forth my views about the most important and the greatest differences. I hold that Asia differs very widely from Europe in the

[1] That is, Asia Minor.

[1] *αἵδε αἱ τέσσαρες* Kühlewein: *αἱ τέσσαρες* B: *αἱ δέκα* V: *αἵδε καὶ ἐπικινδυνόταται* Coray and Littré, perhaps rightly.

ἐς τὰς φύσιας τῶν συμπάντων τῶν τε ἐκ τῆς
γῆς φυομένων καὶ τῶν ἀνθρώπων. πολὺ γὰρ
καλλίονα καὶ μέζονα πάντα γίνεται ἐν τῇ Ἀσίῃ,
ἥ τε χώρη τῆς χώρης ἡμερωτέρη καὶ τὰ ἤθεα
τῶν ἀνθρώπων ἠπιώτερα καὶ εὐοργητότερα. τὸ
δὲ αἴτιον τούτων ἡ κρῆσις τῶν ὡρέων, ὅτι τοῦ
ἡλίου ἐν μέσῳ τῶν ἀνατολέων κεῖται πρὸς τὴν
ἠῶ τοῦ τε ψυχροῦ πορρωτέρω. τὴν δὲ αὔξησιν
καὶ ἡμερότητα παρέχει πλεῖστον ἁπάντων, ὁκό-
ταν μηδὲν ᾖ ἐπικρατέον βιαίως, ἀλλὰ παντὸς ἰσο-
μοιρίη δυναστεύῃ. ἔχει δὲ κατὰ τὴν Ἀσίην οὐ παν-
ταχῇ ὁμοίως, ἀλλ' ὅση μὲν τῆς χώρης ἐν μέσῳ κεῖ-
ται τοῦ θερμοῦ καὶ τοῦ ψυχροῦ, αὕτη μὲν εὐκαρ-
ποτάτη ἐστὶ καὶ εὐδενδροτάτη καὶ εὐδιεστάτη
καὶ ὕδασι καλλίστοισι κέχρηται τοῖσί τε οὐρανί-
οισι καὶ τοῖς ἐκ τῆς γῆς. οὔτε γὰρ ὑπὸ τοῦ
θερμοῦ ἐκκέκαυται λίην οὔτε ὑπὸ αὐχμῶν καὶ
ἀνυδρίης ἀναξηραίνεται, οὔτε ὑπὸ ψύχεος βε-
βιασμένη οὔτε νοτία τε καὶ διάβροχός ἐστιν ὑπό
τε ὄμβρων πολλῶν καὶ χιόνος· τά τε ὡραῖα
αὐτόθι πολλὰ εἰκὸς γίνεσθαι, ὁκόσα τε ἀπὸ
σπερμάτων καὶ ὁκόσα αὐτὴ ἡ γῆ ἀναδιδοῖ φυτά,
ὧν τοῖς καρποῖσι χρέονται ἄνθρωποι, ἡμεροῦντες
ἐξ ἀγρίων καὶ ἐς ἐπιτήδειον μεταφυτεύοντες· τά
τε ἐντρεφόμενα κτήνεα εὐθηνεῖν εἰκός, καὶ μά-
λιστα τίκτειν τε πυκνότατα καὶ ἐκτρέφειν κάλ-
λιστα· τούς τε ἀνθρώπους εὐτραφέας εἶναι καὶ
τὰ εἴδεα καλλίστους καὶ μεγέθει μεγίστους καὶ
ἥκιστα διαφόρους ἐς τά τε εἴδεα αὐτῶν καὶ τὰ
μεγέθεα· εἰκός τε τὴν χώρην ταύτην τοῦ ἦρος
ἐγγύτατα εἶναι κατὰ τὴν φύσιν καὶ τὴν μετρι-
ότητα τῶν ὡρέων. τὸ δὲ ἀνδρεῖον καὶ τὸ ταλαί-

nature of all its inhabitants and of all its vegetation. For everything in Asia grows to far greater beauty and size; the one region is less wild than the other, the character of the inhabitants is milder and more gentle. The cause of this is the temperate climate, because it lies towards the east midway between the risings[1] of the sun, and farther away than is Europe from the cold. Growth and freedom from wildness are most fostered when nothing is forcibly predominant, but equality in every respect prevails. Asia, however, is not everywhere uniform; the region, however, situated midway between the heat and the cold is very fruitful, very wooded and very mild; it has splendid water, whether from rain or from springs. While it is not burnt up with the heat nor dried up by drought and want of water, it is not oppressed with cold, nor yet damp and wet with excessive rains and snow. Here the harvests are likely to be plentiful, both those from seed and those which the earth bestows of her own accord, the fruit of which men use, turning wild to cultivated and transplanting them to a suitable soil. The cattle too reared there are likely to flourish, and especially to bring forth the sturdiest young and rear them to be very fine creatures.[2] The men will be well nourished, of very fine physique and very tall, differing from one another but little either in physique or stature. This region, both in character and in the mildness of its seasons, might fairly be said to bear a close resemblance to spring

[1] That is, the winter rising and the summer rising.

[2] Or, if πυκνότατα and κάλλιστα be adverbs, "they are very prolific and the best of mothers."

πωρον[1] καὶ τὸ ἔμπονον καὶ τὸ θυμοειδὲς οὐκ ἂν δύναιτο ἐν τοιαύτῃ φύσει ἐγγίνεσθαι οὔτε[2] ὁμοφύλου οὔτε[2] ἀλλοφύλου, ἀλλὰ τὴν ἡδονὴν ἀνάγκη κρατεῖν . . . . . διότι πολύμορφα γίνεται τὰ ἐν τοῖς θηρίοις.

XIII. Περὶ μὲν οὖν Αἰγυπτίων καὶ Λιβύων οὕτως ἔχειν μοι δοκεῖ. περὶ δὲ τῶν ἐν δεξιῇ τοῦ ἡλίου τῶν ἀνατολέων τῶν θερινῶν[3] μέχρι Μαιώτιδος λίμνης—οὗτος γὰρ ὅρος τῆς Εὐρώπης καὶ τῆς Ἀσίης—ὧδε ἔχει περὶ αὐτῶν· τὰ δὲ ἔθνεα ταῦτα ταύτῃ[4] διάφορα αὐτὰ ἑωυτῶν μᾶλλόν ἐστι τῶν προδιηγημένων διὰ τὰς μεταβολὰς τῶν ὡρέων καὶ τῆς χώρης τὴν φύσιν. ἔχει δὲ καὶ κατὰ τὴν γῆν ὁμοίως ἅπερ καὶ κατὰ τοὺς ἄλλους ἀνθρώπους. ὅκου γὰρ αἱ ὧραι μεγίστας μεταβολὰς ποιέονται καὶ πυκνοτάτας, ἐκεῖ καὶ ἡ χώρη ἀγριωτάτη καὶ ἀνωμαλωτάτη ἐστί, καὶ εὑρήσεις ὄρεα τε πλεῖστα καὶ δάσεα καὶ πεδία καὶ λειμῶνας ἐόντας. ὅκου δὲ αἱ ὧραι μὴ μέγα ἀλλάσσουσιν, ἐκείνοις ἡ χώρη ὁμαλωτάτη ἐστίν. οὕτω δὲ ἔχει καὶ περὶ τῶν ἀνθρώπων, εἴ τις βούλεται ἐνθυμεῖσθαι. εἰσὶ γὰρ φύσιες αἱ μὲν ὄρεσιν ἐοικυῖαι δενδρώδεσί τε καὶ ἐφύδροισιν, αἱ δὲ λεπτοῖσί τε καὶ ἀνύδροις, αἱ δὲ λειμακεστέροις τε καὶ ἑλώδεσι, αἱ δὲ πεδίῳ τε καὶ ψιλῇ καὶ ξηρῇ γῇ. αἱ γὰρ ὧραι αἱ μεταλλάσσουσαι τῆς μορφῆς τὴν φύσιν[5] εἰσὶ διάφοροι. ἦν δὲ

[1] ταλαίπωρον Littré: ἀταλαίπωρον MSS.

[2] οὔτε . . . . . οὔτε Littré from Galen's quotation: μήτε . . . . . μήτε MSS.

[3] τῶν θερινῶν Coray: τῶν χειμερινῶν most MSS.: omitted by B.

[4] It is probable that either ταῦτα or ταύτῃ should be deleted.

Courage, endurance, industry and high spirit could not arise in such conditions either among the natives or among immigrants,[1] but pleasure must be supreme . . .[2] wherefore in the beasts they are of many shapes.

XIII. Such in my opinion is the condition of the Egyptians and Libyans. As to the dwellers on the right of the summer risings of the sun up to Lake Maeotis, which is the boundary between Europe and Asia, their condition is as follows. These nations are less homogeneous than those I have described, because of the changes of the seasons and the character of the region. The land is affected by them exactly as human beings in general are affected. For where the seasons experience the most violent and the most frequent changes,[3] the land too is very wild and very uneven; you will find there many wooded mountains, plains and meadows. But where the seasons do not alter much, the land is very even. So it is too with the inhabitants, if you will examine the matter. Some physiques resemble wooded, well-watered mountains, others light, dry land, others marshy meadows, others a plain of bare, parched earth. For the seasons which modify a physical frame differ; if the

[1] The writer is thinking of Asiatic natives and the Greek colonists on the coast of Asia Minor.

[2] There is a gap in the text here dealing with the Egyptians and Libyans.

[3] Or, more idiomatically, "the variations of climate are most violent and most frequent." The four changes at the end of the four seasons were only the most important of many *μεταβολαί*. See Chapter XI, and pp. 68, 69.

[5] There is probably a gap in the text after *φύσιν*.

διάφοροι ἔωσι μέγα[1] σφέων αὐτέων, διαφοραὶ
24 καὶ πλείονες γίνονται τοῖς εἴδεσι.

XIV. Καὶ ὁκόσα μὲν ὀλίγον διαφέρει τῶν ἐθνέων παραλείψω, ὁκόσα δὲ μεγάλα ἢ φύσει ἢ νόμῳ, ἐρέω περὶ αὐτῶν ὡς ἔχει. καὶ πρῶτον περὶ τῶν Μακροκεφάλων. τούτων γὰρ οὐκ ἔστιν ἄλλο ἔθνος ὁμοίας τὰς κεφαλὰς ἔχον οὐδέν· τὴν μὲν γὰρ ἀρχὴν ὁ νόμος αἰτιώτατος ἐγένετο τοῦ μήκεος τῆς κεφαλῆς, νῦν δὲ καὶ ἡ φύσις συμβάλλεται τῷ νόμῳ. τοὺς γὰρ μακροτάτην ἔχοντας τὴν κεφαλὴν γενναιοτάτους ἡγέονται. ἔχει
10 δὲ περὶ νόμου ὧδε· τὸ παιδίον ὁκόταν γένηται τάχιστα, τὴν κεφαλὴν αὐτοῦ ἔτι ἁπαλὴν ἐοῦσαν μαλθακοῦ ἐόντος ἀναπλάσσουσι τῇσι χερσὶ καὶ ἀναγκάζουσιν ἐς τὸ μῆκος αὔξεσθαι δεσμά τε προσφέροντες καὶ τεχνήματα ἐπιτήδεια, ὑφ' ὧν τὸ μὲν σφαιροειδὲς τῆς κεφαλῆς κακοῦται, τὸ δὲ μῆκος αὔξεται. οὕτως τὴν ἀρχὴν ὁ νόμος κατειργάσατο, ὥστε ὑπὸ βίης τοιαύτην τὴν φύσιν γενέσθαι· τοῦ δὲ χρόνου προϊόντος ἐν φύσει ἐγένετο, ὥστε τὸν νόμον μηκέτι ἀναγκάζειν. ὁ γὰρ
20 γόνος πανταχόθεν ἔρχεται τοῦ σώματος, ἀπό τε τῶν ὑγιηρῶν ὑγιηρὸς ἀπό τε τῶν νοσερῶν νοσερός. εἰ οὖν γίνονται ἔκ τε φαλακρῶν φαλακροὶ καὶ ἐκ γλαυκῶν γλαυκοὶ καὶ ἐκ διεστραμμένων στρεβλοὶ ὡς ἐπὶ τὸ πλῆθος, καὶ περὶ τῆς ἄλλης μορφῆς ὁ αὐτὸς λόγος, τί κωλύει καὶ ἐκ μακροκεφάλου μακροκέφαλον γίνεσθαι; νῦν δὲ ὁμοίως οὐκέτι γίνονται ὡς πρότερον· ὁ γὰρ νόμος οὐκέτι
28 ἰσχύει διὰ τὴν ὁμιλίην τῶν ἀνθρώπων.

[1] μέγα Coray : μετὰ MSS.

differences be great, the more too are the differences in the shapes.

XIV. The races that differ but little from one another I will omit, and describe the condition only of those which differ greatly, whether it be through nature or through custom. I will begin with the Longheads.[1] There is no other race at all with heads like theirs. Originally custom was chiefly responsible for the length of the head, but now custom is reinforced by nature. Those that have the longest heads they consider the noblest, and their custom is as follows. As soon as a child is born they remodel its head with their hands, while it is still soft and the body tender, and force it to increase in length by applying bandages and suitable appliances, which spoil the roundness of the head and increase its length. Custom originally so acted that through force such a nature came into being; but as time went on the process became natural, so that custom no longer exercised compulsion. For the seed comes from all parts of the body, healthy seed from healthy parts, diseased seed from diseased parts. If, therefore, bald parents have for the most part bald children, grey-eyed parents grey-eyed children, squinting parents squinting children, and so on with other physical peculiarities, what prevents a long-headed parent having a long-headed child?[2] At the present time long-headedness is less common than it was, for owing to intercourse with other men the custom is less prevalent.

[1] Practically nothing more is told us about this race by our other authorities, Pliny, Harpocration and Suidas. But see Littré IV., xi. and xii.

[2] Modern biologists hold that acquired characteristics are not inherited.

XV. Περὶ μὲν οὖν τούτων οὕτως ἔχειν μοι δοκεῖ. περὶ δὲ τῶν ἐν Φάσει· ἡ χώρη ἐκείνη ἑλώδης ἐστὶ καὶ θερμὴ καὶ ὑδατεινὴ καὶ δασεῖα, ὄμβροι τε αὐτόθι γίνονται πᾶσαν ὥρην πολλοί τε καὶ ἰσχυροί· ἥ τε δίαιτα τοῖς ἀνθρώποις ἐν τοῖς ἕλεσίν ἐστιν, τά τε οἰκήματα ξύλινα καὶ καλάμινα ἐν τοῖς ὕδασι μεμηχανημένα· ὀλίγῃ τε χρέονται[1] βαδίσει κατὰ τὴν πόλιν καὶ τὸ ἐμπόριον, ἀλλὰ μονοξύλοις διαπλέουσιν ἄνω καὶ κάτω· διώρυγες γὰρ πολλαί εἰσι. τὰ δὲ ὕδατα θερμὰ καὶ στάσιμα πίνουσιν ὑπό τε τοῦ ἡλίου σηπόμενα καὶ ὑπὸ τῶν ὄμβρων ἐπαυξόμενα. αὐτός τε ὁ Φᾶσις στασιμώτατος πάντων τῶν ποταμῶν καὶ ῥέων ἠπιώτατα. οἵ τε καρποὶ οἱ[2] γινόμενοι αὐτόθι πάντες ἀναλδέες εἰσὶ καὶ τεθηλυσμένοι καὶ ἀτελέες ὑπὸ πολυπληθείης τοῦ ὕδατος· διὸ καὶ οὐ πεπαίνονται. ἠήρ τε πολὺς κατέχει τὴν χώρην ἀπὸ τῶν ὑδάτων. διὰ ταύτας δὴ τὰς προφάσιας τὰ εἴδεα ἀπηλλαγμένα τῶν λοιπῶν ἀνθρώπων ἔχουσιν οἱ Φασιηνοί· τά τε γὰρ μεγέθεα μεγάλοι, τὰ πάχεα δ' ὑπερπάχητες, ἄρθρον τε κατάδηλον οὐδὲν οὐδὲ φλέψ· τήν τε χροιὴν ὠχρὴν ἔχουσιν ὥσπερ ὑπὸ ἰκτέρου ἐχόμενοι· φθέγγονταί τε βαρύτατον ἀνθρώπων, τῷ ἠέρι χρεώμενοι οὐ λαμπρῷ, ἀλλὰ νοτώδει[3] καὶ θολερῷ· πρός τε τὸ ταλαιπωρεῖν τὸ σῶμα ἀργότεροι πεφύκασιν. αἵ τε ὧραι οὐ πολὺ μεταλλάσσουσιν οὔτε πρὸς τὸ πνῖγος οὔτε πρὸς τὸ ψῦχος. τά τε πνεύματα τὰ[4] πολλὰ νότια πλὴν αὔρης μιῆς ἐπιχωρίης. αὕτη δὲ πνεῖ ἐνίοτε βίαιος καὶ χαλεπὴ καὶ θερμή· καὶ κέγχρονα ὀνομάζουσι

XV. These are my opinions about the Longheads. Now let me turn to the dwellers on the Phasis. Their land is marshy, hot, wet, and wooded; copious violent rains fall there during every season. The inhabitants live in the marshes, and their dwellings are of wood and reeds, built in the water. They make little use of walking in the city and the harbour, but sail up and down in dug-outs made from a single log, for canals are numerous. The waters which they drink are hot and stagnant, putrefied by the sun and swollen by the rains. The Phasis itself is the most stagnant and most sluggish of all rivers. The fruits that grow in this country are all stunted, flabby and imperfect, owing to the excess of water, and for this reason they do not ripen. Much fog from the waters envelops the land. For these causes, therefore, the physique of the Phasians is different from that of other folk. They are tall in stature, and of a gross habit of body, while neither joint nor vein is visible. Their complexion is yellowish, as though they suffered from jaundice. Of all men they have the deepest voice, because the air they breathe is not clear, but moist and turbid. They are by nature disinclined for physical fatigue. There are but slight changes of the seasons, either in respect of heat or of cold. The winds are mostly moist, except one breeze peculiar to the country, called *cenchron*, which sometimes blows strong, violent

[1] Before βαδίσει Coray inserts τῇ, probably rightly.
[2] οἱ added by Coray.
[3] νοτώδει καὶ θολερῷ b: χνοώδει τε καὶ διερῷ V.
[4] τὰ added by Coray.

τοῦτο τὸ πνεῦμα. ὁ δὲ βορέης οὐ σφόδρα ἀφ-
33 ικνεῖται· ὁκόταν δὲ πνέῃ, ἀσθενὴς καὶ βληχρός.

XVI. Καὶ περὶ μὲν τῆς φύσιος τῆς διαφορῆς καὶ τῆς μορφῆς τῶν ἐν τῇ Ἀσίῃ καὶ τῇ Εὐρώπῃ οὕτως ἔχει. περὶ δὲ τῆς ἀθυμίης τῶν ἀνθρώπων καὶ τῆς ἀνανδρείης, ὅτι ἀπολεμώτεροί εἰσι τῶν Εὐρωπαίων οἱ Ἀσιηνοὶ καὶ ἡμερώτεροι τὰ ἤθεα αἱ ὧραι αἴτιαι μάλιστα, οὐ μεγάλας τὰς μεταβολὰς ποιεύμεναι οὔτε ἐπὶ τὸ θερμὸν οὔτε ἐπὶ τὸ ψυχρόν, ἀλλὰ παραπλησίως.[1] οὐ γὰρ γίνονται ἐκπλήξιες τῆς γνώμης οὔτε μετάστασις ἰσχυρὴ τοῦ σώματος,
10 ἀφ' ὅτων εἰκὸς τὴν ὀργὴν ἀγριοῦσθαί τε καὶ τοῦ ἀγνώμονος καὶ θυμοειδέος μετέχειν μᾶλλον ἢ ἐν τῷ αὐτῷ αἰεὶ ἐόντα. αἱ γὰρ μεταβολαί εἰσι τῶν πάντων αἱ ἐπεγείρουσαι τὴν γνώμην τῶν ἀνθρώπων καὶ οὐκ ἐῶσαι ἀτρεμίζειν. διὰ ταύτας ἐμοὶ δοκεῖ τὰς προφάσιας ἄναλκες εἶναι τὸ γένος τὸ Ἀσιηνὸν καὶ προσέτι διὰ τοὺς νόμους. τῆς γὰρ Ἀσίης τὰ πολλὰ βασιλεύεται. ὅκου δὲ μὴ αὐτοὶ ἑωυτῶν εἰσι καρτεροὶ οἱ ἄνθρωποι μηδὲ αὐτόνομοι, ἀλλὰ δεσπόζονται, οὐ περὶ τούτου
20 αὐτοῖσιν ὁ λόγος ἐστίν, ὅκως τὰ πολέμια ἀσκήσωσιν, ἀλλ' ὅκως μὴ δόξωσι μάχιμοι εἶναι. οἱ γὰρ κίνδυνοι οὐχ ὁμοῖοί εἰσι. τοὺς μὲν γὰρ στρατεύεσθαι εἰκὸς καὶ ταλαιπωρεῖν καὶ ἀποθνήσκειν ἐξ ἀνάγκης ὑπὲρ τῶν δεσποτέων ἀπό τε παιδίων καὶ γυναικὸς ἐόντας καὶ τῶν λοιπῶν φίλων. καὶ ὁκόσα μὲν ἂν χρηστὰ καὶ ἀνδρεῖα ἐργάσωνται, οἱ δεσπόται ἀπ' αὐτῶν αὔξονταί τε καὶ ἐκφύονται, τοὺς δὲ κινδύνους καὶ θανάτους αὐτοὶ καρποῦνται. ἔτι δὲ πρὸς τούτοισι τῶν τοιούτων ἀνθρώπων

and hot. The north wind rarely blows, and when it does it is weak and gentle.

XVI. So much for the difference, in nature and in shape, between the inhabitants of Asia and the inhabitants of Europe. With regard to the lack of spirit and of courage among the inhabitants, the chief reason why Asiatics are less warlike and more gentle in character than Europeans is the uniformity of the seasons, which show no violent changes either towards heat or towards cold, but are equable. For there occur no mental shocks nor violent physical change, which are more likely to steel the temper and impart to it a fierce passion than is a monotonous sameness. For it is changes of all things that rouse the temper of man and prevent its stagnation. For these reasons, I think, Asiatics are feeble. Their institutions are a contributory cause, the greater part of Asia being governed by kings. Now where men are not their own masters and independent, but are ruled by despots, they are not keen on military efficiency but on not appearing warlike. For the risks they run are not similar. Subjects are likely to be forced to undergo military service, fatigue and death, in order to benefit their masters, and to be parted from their wives, their children and their friends. All their worthy, brave deeds merely serve to aggrandize and raise up their lords, while the harvest they themselves reap is danger and death. Moreover, the land of men like these

[1] παραπλησίως Galen and Littré: παραπλήσιαι MSS.

ἀνάγκη ἐρημοῦσθαι τὴν γῆν ὑπό τε πολεμίων[1] καὶ ἀργίης, ὥστε καὶ εἴ τις φύσει πέφυκεν ἀνδρεῖος καὶ εὔψυχος, ἀποτρέπεσθαι τὴν γνώμην ὑπὸ[2] τῶν νόμων. μέγα δὲ τεκμήριον τούτων· ὁκόσοι γὰρ ἐν τῇ Ἀσίῃ Ἕλληνες ἢ βάρβαροι μὴ δεσπόζονται, ἀλλ' αὐτόνομοί εἰσι καὶ ἑωυτοῖσι ταλαιπωρεῦσιν, οὗτοι μαχιμώτατοί εἰσι πάντων· τοὺς γὰρ κινδύνους ἑωυτῶν πέρι κινδυνεύουσι, καὶ τῆς ἀνδρείης αὐτοὶ τὰ ἆθλα φέρονται καὶ τῆς δειλίης τὴν ζημίην ὡσαύτως. εὑρήσεις δὲ καὶ τοὺς Ἀσιηνοὺς διαφέροντας αὐτοὺς ἑωυτῶν, τοὺς μὲν βελτίονας, τοὺς δὲ φαυλοτέρους ἐόντας. τούτων δὲ αἱ μεταβολαὶ αἴτιαι τῶν ὡρέων, ὥσπερ μοι εἴρηται ἐν τοῖς προτέροισι.

XVII. Καὶ περὶ μὲν τῶν ἐν τῇ Ἀσίῃ οὕτως ἔχει. ἐν δὲ τῇ Εὐρώπῃ ἔστιν ἔθνος Σκυθικόν, ὃ περὶ τὴν λίμνην οἰκεῖ τὴν Μαιῶτιν διαφέρον τῶν ἐθνέων τῶν ἄλλων. Σαυρομάται καλεῦνται. τούτων αἱ γυναῖκες ἱππάζονταί τε καὶ τοξεύουσι καὶ ἀκοντίζουσιν ἀπὸ τῶν ἵππων καὶ μάχονται τοῖς πολεμίοις, ἕως ἂν παρθένοι ἔωσιν. οὐκ ἀποπαρθενεύονται δέ, μέχρι ἂν τῶν πολεμίων τρεῖς ἀποκτείνωσι, καὶ οὐ πρότερον συνοικέουσιν ἤπερ τὰ ἱερὰ θύσωσιν τὰ ἔννομα. ἣ δ' ἂν ἄνδρα ἑωυτῇ ἄρηται, παύεται ἱππαζομένη, ἕως ἂν μὴ ἀνάγκη καταλάβῃ παγκοίνου στρατείης. τὸν δεξιὸν δὲ μαζὸν οὐκ ἔχουσι. παιδίοις γὰρ ἐοῦσιν ἔτι νηπίοις αἱ μητέρες χαλκίον τετεχνημένον ἐπ' αὐτῷ τούτῳ

[1] *ἐρημοῦσθαι τὴν γῆν ὑπό τε πολεμίων* most MSS.: *ἠμεροῦσθαι τὴν ὀργὴν* Zwinger; Ilberg would also read *ἀπολεμιῶν* from the *ἀπολεμίων* of V B.

must be desert, owing to their enemies and to their laziness,[1] so that even if a naturally brave and spirited man is born his temper is changed by their institutions. Whereof I can give a clear proof. All the inhabitants of Asia, whether Greek or non-Greek, who are not ruled by despots, but are independent, toiling for their own advantage, are the most warlike of all men. For it is for their own sakes that they run their risks, and in their own persons do they receive the prizes of their valour as likewise the penalty of their cowardice. You will find that Asiatics also differ from one another, some being superior, others inferior. The reason for this, as I have said above, is the changes of the seasons.

XVII. Such is the condition of the inhabitants of Asia. And in Europe is a Scythian race, dwelling round Lake Maeotis, which differs from the other races. Their name is Sauromatae. Their women, so long as they are virgins, ride, shoot, throw the javelin while mounted, and fight with their enemies. They do not lay aside their virginity until they have killed three of their enemies, and they do not marry before they have performed the traditional sacred rites. A woman who takes to herself a husband no longer rides, unless she is compelled to do so by a general expedition. They have no right breast; for while they are yet babies their mothers make

[1] Or, reading ἡμεροῦσθαι τὴν ὀργὴν ὑπό τε ἀπολεμίων κ.τ.λ., "the temper of men like these must be gentle, because they are unwarlike and inactive."

[2] ὑπὸ b: ἀπὸ V JB.

διάπυρον ποιέουσαι πρὸς τὸν μαζὸν τιθέασι τὸν δεξιὸν καὶ ἐπικαίεται, ὥστε τὴν αὔξησιν φθείρεσθαι, ἐς δὲ τὸν δεξιὸν ὦμον καὶ βραχίονα πᾶσαν
18 τὴν ἰσχὺν καὶ τὸ πλῆθος ἐκδιδόναι.

XVIII. Περὶ δὲ τῶν λοιπῶν Σκυθέων τῆς μορφῆς, ὅτι αὐτοὶ αὐτοῖσιν ἐοίκασι καὶ οὐδαμῶς [1] ἄλλοις, ὡύτὸς λόγος καὶ περὶ τῶν Αἰγυπτίων, πλὴν ὅτι οἱ μὲν ὑπὸ τοῦ θερμοῦ εἰσι βεβιασμένοι, οἱ δὲ ὑπὸ τοῦ ψυχροῦ. ἡ δὲ Σκυθέων ἐρημίη καλευμένη πεδιάς ἐστι καὶ λειμακώδης καὶ ψιλὴ [2] καὶ ἔνυδρος μετρίως. ποταμοὶ γάρ εἰσι μεγάλοι, οἳ ἐξοχετεύουσι τὸ ὕδωρ ἐκ τῶν πεδίων. ἐνταῦθα καὶ οἱ Σκύθαι διαιτεῦνται, Νομάδες δὲ καλεῦνται,
10 ὅτι οὐκ ἔστιν οἰκήματα, ἀλλ' ἐν ἁμάξῃσιν οἰκεῦσιν. αἱ δὲ ἅμαξαί εἰσιν αἱ μὲν ἐλάχισται τετράκυκλοι, αἱ δὲ ἑξάκυκλοι· αὗται δὲ πίλοις περιπεφραγμέναι· εἰσὶ δὲ καὶ τετεχνασμέναι ὥσπερ οἰκήματα τὰ μὲν διπλᾶ, τὰ δὲ τριπλᾶ. ταῦτα δὲ καὶ στεγνὰ πρὸς ὕδωρ καὶ πρὸς χιόνα καὶ πρὸς τὰ πνεύματα. τὰς δὲ ἁμάξας ἕλκουσι ζεύγεα τὰς μὲν δύο, τὰς δὲ τρία βοῶν κέρως ἄτερ. οὐ γὰρ ἔχουσι κέρατα ὑπὸ τοῦ ψύχεος. ἐν ταύτῃσι μὲν οὖν τῇσιν ἁμάξῃσιν αἱ [3] γυναῖκες διαιτεῦνται.
20 αὐτοὶ δ' ἐφ' ἵππων ὀχεῦνται οἱ ἄνδρες. ἕπονται δὲ αὐτοῖς καὶ τὰ πρόβατα τὰ [4] ἑόντα καὶ αἱ βόες καὶ οἱ ἵπποι. μένουσι δ' ἐν τῷ αὐτῷ τοσοῦτον χρόνον, ὅσον ἂν ἀποχρῇ αὐτοῖσι τοῖς κτήνεσιν ὁ χόρτος· ὁκόταν δὲ μηκέτι, ἐς ἑτέρην χώρην ἔρχονται. αὐτοὶ δ' ἐσθίουσι κρέα ἑφθὰ καὶ

[1] οὐδαμῶς MSS.: οὐδαμοῖς Wilamowitz.
[2] ψιλὴ most MSS.: ὑψηλὴ V Ꝑ.
[3] αἱ added by Coray.

red-hot a bronze instrument constructed for this very purpose and apply it to the right breast and cauterise it, so that its growth is arrested, and all its strength and bulk are diverted to the right shoulder and right arm.

XVIII. As to the physique of the other Scythians, in that they are like one another and not at all like others, the same remark applies to them as to the Egyptians, only the latter are distressed by the heat, the former by the cold.[1] What is called the Scythian desert is level grassland, without trees,[2] and fairly well-watered. For there are large rivers which drain the water from the plains. There too live the Scythians who are called Nomads because they have no houses but live in wagons. The smallest have four wheels, others six wheels. They are covered over with felt and are constructed, like houses, sometimes in two compartments and sometimes in three, which are proof against rain, snow and wind. The wagons are drawn by two or by three yoke of hornless oxen. They have no horns because of the cold. Now in these wagons live the women, while the men ride alone on horseback, followed by the sheep they have, their cattle and their horses. They remain in the same place just as long as there is sufficient fodder for their animals; when it gives out they migrate. They themselves eat boiled

[1] Both people are of peculiar physique, and the cause of the peculiarity is in the one case extreme heat, and in the other extreme cold.

[2] Or, reading ὑψηλή, "a plateau."

[4] τὰ added by Coray.

πίνουσι γάλα ἵππων. καὶ ἱππάκην τρώγουσι·
27 τοῦτο δ' ἐστὶ τυρὸς ἵππων.

XIX. Τὰ μὲν ἐς τὴν δίαιταν αὐτῶν οὕτως ἔχει καὶ τοὺς νόμους· περὶ δὲ τῶν ὡρέων καὶ τῆς μορφῆς, ὅτι πολὺ ἀπήλλακται τῶν λοιπῶν ἀνθρώπων τὸ Σκυθικὸν γένος καὶ ἔοικεν αὐτὸ ἑωυτῷ ὥσπερ τὸ Αἰγύπτιον καὶ ἥκιστα πολύγονόν ἐστι, καὶ ἡ χώρη ἐλάχιστα θηρία τρέφει κατὰ μέγεθος καὶ πλῆθος. κεῖται γὰρ ὑπ' αὐτῇσι τῇσιν ἄρκτοις καὶ τοῖς ὄρεσι τοῖς Ῥιπαίοισιν, ὅθεν ὁ βορέης πνεῖ. ὅ τε ἥλιος τελευτῶν ἐγγύτατα
10 γίνεται, ὁκόταν ἐπὶ τὰς θερινὰς ἔλθῃ περιόδους, καὶ τότε ὀλίγον χρόνον θερμαίνει καὶ οὐ σφόδρα· τὰ δὲ πνεύματα τὰ ἀπὸ τῶν θερμῶν πνέοντα οὐκ[1] ἀφικνεῖται, ἢν μὴ ὀλιγάκις καὶ ἀσθενέα, ἀλλ' ἀπὸ τῶν ἄρκτων αἰεὶ πνέουσι πνεύματα ψυχρὰ ἀπό τε χιόνος καὶ κρυστάλλου καὶ ὑδάτων πολλῶν. οὐδέποτε δὲ τὰ ὄρεα ἐκλείπει· ἀπὸ τούτων δὲ δυσοίκητά ἐστιν. ἠήρ τε κατέχει πολὺς τῆς ἡμέρης τὰ πεδία, καὶ ἐν τούτοισι[2] διαιτεῦνται· ὥστε τὸν μὲν χειμῶνα αἰεὶ εἶναι, τὸ δὲ θέρος
20 ὀλίγας ἡμέρας καὶ ταύτας μὴ λίην. μετέωρα γὰρ τὰ πεδία καὶ ψιλὰ καὶ οὐκ ἐστεφάνωνται ὄρεσιν, ἀλλ' ἢ ἀνάντεα ἀπὸ[3] τῶν ἄρκτων· αὐτόθι καὶ τὰ θηρία οὐ γίνεται μεγάλα, ἀλλ' οἷά τέ ἐστιν ὑπὸ γῆν σκεπάζεσθαι. ὁ γὰρ χειμὼν κωλύει καὶ τῆς γῆς ἡ ψιλότης, ὅτι οὐκ ἔστιν ἀλέη οὐδὲ σκέπη. αἱ δὲ[4] μεταβολαὶ τῶν ὡρέων

[1] οὐκ added by Littré from the Latin manuscript 7027.
[2] τούτοισι Reinhold: αὐτέοισι Littré from 7027 (illis).
[3] ἀλλ' ἢ ἀνάντεα ἀπὸ Kühlewein: ἀλλ' ἀνάντη ὑπὸ most MSS.: ἀλλ' ἢ ἂν τῇ ἀπὸ ΑΒ: ἀλλ' ἡ αὐτὴ ἀπὸ V.

meats and drink mares' milk. They have a sweetmeat called *hippace*, which is a cheese from the milk of mares (*hippoi*).

XIX. So much for their mode of living and their customs. As to their seasons and their physique, the Scythians are very different from all other men, and, like the Egyptians, are homogeneous; they are the reverse of prolific, and Scythia breeds the smallest and the fewest wild animals. For it lies right close to the north and the Rhipaean mountains, from which blows the north wind. The sun comes nearest to them only at the end of its course, when it reaches the summer solstice, and then it warms them but slightly and for a short time. The winds blowing from hot regions do not reach them, save rarely, and with little force; but from the north there are constantly blowing winds that are chilled by snow, ice, and many waters,[1] which, never leaving the mountains, render them uninhabitable. A thick fog envelops by day the plains upon which they live, so that winter is perennial, while summer, which is but feeble, lasts only a few days. For the plains are high and bare, and are not encircled with mountains, though they slope from the north. The wild animals too that are found there are not large, but such as can find shelter under ground. They are stunted owing to the severe climate and the bareness of the land, where there is neither warmth[2] nor shelter. And the changes of the seasons are

[1] Or, "heavy rains."

[2] Strangely enough, both Littré and Adams translate as though they took ἀλέη to be the Epic word meaning "means of escape."

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[4] δὲ Wilamowitz: γὰρ MSS.

οὔκ εἰσι μεγάλαι οὐδὲ ἰσχυραί, ἀλλ' ὁμοῖαι καὶ ὀλίγον μεταλλάσσουσαι· διότι καὶ τὰ εἴδεα ὁμοῖοι[1] αὐτοὶ ἑωυτοῖς εἰσι σίτῳ τε χρεώμενοι
30 αἰεὶ ὁμοίῳ ἐσθῆτί τε τῇ αὐτῇ καὶ θέρεος καὶ χειμῶνος, τόν τε ἠέρα ὑδατεινὸν ἕλκοντες καὶ παχύν, τά τε ὕδατα πίνοντες ἀπὸ χιόνος καὶ παγετῶν, τοῦ τε ταλαιπώρου ἀπεόντες. οὐ γὰρ οἷόν τε τὸ σῶμα ταλαιπωρεῖσθαι οὐδὲ τὴν ψυχήν, ὅκου μεταβολαὶ μὴ γίνονται ἰσχυραί. διὰ ταύτας τὰς ἀνάγκας τὰ εἴδεα αὐτῶν παχέα ἐστὶ καὶ σαρκώδεα καὶ ἄναρθρα καὶ ὑγρὰ καὶ ἄτονα, αἵ τε κοιλίαι ὑγρόταται πασέων κοιλιῶν αἱ κάτω. οὐ γὰρ οἷόν τε νηδὺν ἀναξηραίνεσθαι ἐν τοιαύτῃ
40 χώρῃ καὶ φύσει καὶ ὥρης καταστάσει, ἀλλὰ διὰ πιμελήν τε καὶ ψιλὴν τὴν σάρκα τά †τε†[2] εἴδεα ἔοικεν ἀλλήλοισι τά τε ἄρσενα τοῖς ἄρσεσι καὶ τὰ θήλεα τοῖς θήλεσι· τῶν γὰρ ὡρέων παραπλησίων ἐουσέων φθοραὶ οὐκ ἐγγίνονται οὐδὲ κακώσιες ἐν τῇ τοῦ γόνου συμπήξει, ἢν μή τινος
46 ἀνάγκης βιαίου τύχῃ ἢ νούσου.

XX. Μέγα δὲ τεκμήριον ἐς τὴν ὑγρότητα παρέξομαι. Σκυθέων γὰρ τοὺς πολλούς, ἅπαντας[3] ὅσοι Νομάδες, εὑρήσεις κεκαυμένους τούς τε ὤμους καὶ τοὺς βραχίονας καὶ τοὺς καρποὺς τῶν χειρῶν καὶ τὰ στήθεα καὶ τὰ[4] ἰσχία καὶ τὴν ὀσφὺν δι' ἄλλ' οὐδὲν ἢ διὰ τὴν ὑγρότητα τῆς φύσιος καὶ τὴν μαλακίην. οὐ γὰρ δύνανται οὔτε τοῖς τόξοις συντείνειν οὔτε τῷ ἀκοντίῳ ἐμπίπτειν τῷ ὤμῳ ὑπὸ ὑγρότητος καὶ ἀτονίης. ὁκόταν δὲ
10 καυθέωσιν, ἀναξηραίνεται ἐκ τῶν ἄρθρων τὸ πολὺ

[1] ὁμοῖοι αὐτοὶ Coray : ὅμοια αὐτὰ MSS.

neither great nor violent, the seasons being uniform and altering but little. Wherefore the men also are like one another in physique, since summer and winter they always use similar food and the same clothing, breathing a moist, thick atmosphere, drinking water from ice and snow, and abstaining from fatigue. For neither bodily nor mental endurance is possible where the changes are not violent. For these causes their physiques are gross, fleshy, showing no joints, moist and flabby, and the lower bowels are as moist as bowels can be. For the belly cannot possibly dry up in a land like this, with such a nature and such a climate, but because of their fat and the smoothness of their flesh their physiques are similar, men's to men's and women's to women's. For as the seasons are alike there takes place no corruption or deterioration in the coagulation of the seed,[1] except through the blow of some violent cause or of some disease.

XX. I will give clear testimony to their moistness. The majority of the Scythians, all that are Nomads, you will find have their shoulders cauterized, as well as their arms, wrists, breast, hips and loins, simply because of the moistness and softness of their constitution. For owing to their moistness and flabbiness they have not the strength either to draw a bow or to throw a javelin from the shoulder. But when they have been cauterized the excess of moisture

[1] As a modern physiologist might put it, "abnormal variations in the formation of the embryo."

[2] τε Wilamowitz would delete.
[3] ἅπαντας most MSS.: μάλιστα JB.
[4] καὶ τὰ added by Coray.

τοῦ ὑγροῦ, καὶ ἐντονώτερα μάλλον γίνεται καὶ τροφιμώτερα καὶ ἠρθρωμένα τὰ σώματα μᾶλλον. ῥοϊκὰ δὲ γίνεται καὶ πλατέα, πρῶτον μὲν ὅτι οὐ σπαργανοῦνται ὥσπερ ἐν Αἰγύπτῳ οὐδὲ νομίζουσι[1] διὰ τὴν ἱππασίην, ὅκως ἂν εὐέδροι ἔωσιν· ἔπειτα δὲ διὰ τὴν ἕδρην· τά τε γὰρ ἄρσενα, ἕως ἂν οὐχ οἷά τε ἐφ' ἵππου ὀχεῖσθαι, τὸ πολὺ τοῦ χρόνου κάθηνται ἐν τῇ ἀμάξῃ καὶ βραχὺ τῇ βαδίσει χρέονται διὰ τὰς μεταναστάσιας καὶ περιελάσιας· τὰ δὲ θήλεα θαυμαστὸν οἷον ῥοϊκά ἐστι τε καὶ βραδέα[2] τὰ εἴδεα. πυρρὸν δὲ τὸ γένος ἐστὶ τὸ Σκυθικὸν διὰ τὸ ψῦχος, οὐκ ἐπιγινομένου ὀξέος τοῦ ἡλίου. ὑπὸ δὲ τοῦ ψύχεος ἡ λευκότης ἐπικαίεται καὶ γίνεται πυρρή.

XXI. Πολύγονον δὲ οὐχ οἷόν τε εἶναι φύσιν τοιαύτην. οὔτε γὰρ τῷ ἀνδρὶ ἡ ἐπιθυμίη τῆς μείξιος γίνεται πολλὴ διὰ τὴν ὑγρότητα τῆς φύσιος καὶ τῆς κοιλίης τὴν μαλθακότητά τε καὶ τὴν ψυχρότητα, ἀφ' ὅτων ἥκιστα εἰκὸς ἄνδρα οἷόν τε λαγνεύειν· καὶ ἔτι ὑπὸ τῶν ἵππων αἰεὶ κοπτόμενοι ἀσθενέες γίνονται ἐς τὴν μεῖξιν. τοῖσι μὲν ἀνδράσιν αὗται αἱ προφάσιες γίνονται, τῇσι δὲ γυναιξὶν ἥ τε πιότης τῆς σαρκὸς καὶ ὑγρότης· οὐ γὰρ δύνανται ἔτι συναρπάζειν αἱ μῆτραι τὸν γόνον· οὔτε γὰρ ἐπιμήνιος κάθαρσις αὐτῇσι γίνεται ὡς χρεών ἐστιν, ἀλλ' ὀλίγον καὶ διὰ χρόνου, τό τε στόμα τῶν μητρέων ὑπὸ πιμελῆς συγκλείεται καὶ οὐχ ὑποδέχεται τὸν γόνον· αὐταί τε ἀταλαίπωροι καὶ πίεραι καὶ αἱ κοιλίαι ψυχραὶ

[1] Is there a gap in the text after *νομίζουσι*? *οὐδὲ νομίζουσι* adds nothing to *οὐ σπαργανοῦνται*, and requires an infinitive or some phrase to complete the sense. I once conjectured

dries up from their joints, and their bodies become more braced, more nourished and better articulated. Their bodies grow relaxed and squat, firstly because, unlike the Egyptians, they do not use swaddling clothes, of which they have not the habit,[1] for the sake of their riding, that they may sit a horse well; secondly, through their sedentary lives. For the boys, until they can ride, sit the greater part of the time in the wagon, and because of the migrations and wanderings rarely walk on foot; while the girls are wonderfully flabby and torpid in physique. The Scythians are a ruddy race because of the cold, not through any fierceness in the sun's heat. It is the cold that burns their white skin and turns it ruddy.

XXI. A constitution of this kind prevents fertility. The men have no great desire for intercourse because of the moistness of their constitution and the softness and chill of their abdomen, which are the greatest checks on venery. Moreover, the constant jolting on their horses unfits them for intercourse. Such are the causes of barrenness in the men; in the women they are the fatness and moistness of their flesh, which are such that the womb cannot absorb the seed. For neither is their monthly purging as it should be, but scanty and late, while the mouth of the womb is closed by fat and does not admit the seed. They are personally fat and lazy, and their

[1] This is a literal translation of the text, but see the footnote on the opposite page.

ὥσπερ οὐδ' ἐν Αἰγύπτῳ νομίζουσι, and I find that Coray too has suggested this emendation, on the ground that it is unlikely that the Egyptians used swaddling clothes.

[2] βραδέα ΑΒ b: βλαδέα Coray.

καὶ μαλθακαί. ὑπὸ[1] τούτων τῶν ἀναγκέων οὐ πολύγονόν ἐστι τὸ γένος τὸ Σκυθικόν. μέγα δὲ τεκμήριον αἱ οἰκέτιδες ποιέουσιν· οὐ γὰρ φθάνουσι παρὰ ἄνδρα ἀφικνεύμεναι καὶ ἐν γαστρὶ ἴσχουσιν διὰ τὴν ταλαιπωρίην καὶ ἰσχνότητα τῆς σαρκός.

XXII. Ἔτι τε πρὸς τούτοισιν εὐνουχίαι γίνονται οἱ[2] πλεῖστοι ἐν Σκύθῃσι καὶ γυναικεῖα ἐργάζονται καὶ ὡς αἱ γυναῖκες διαιτεῦνται[3] διαλέγονταί τε ὁμοίως· καλεῦνταί τε οἱ τοιοῦτοι Ἀναριεῖς.[4] οἱ μὲν οὖν ἐπιχώριοι τὴν αἰτίην προστιθέασι θεῷ καὶ σέβονται τούτους τοὺς ἀνθρώπους καὶ προσκυνέουσι, δεδοικότες περὶ ἑωυτῶν ἕκαστοι. ἐμοὶ δὲ καὶ αὐτῷ δοκεῖ ταῦτα τὰ πάθεα θεῖα εἶναι καὶ τἆλλα πάντα καὶ οὐδὲν ἕτερον ἑτέρου θειότερον οὐδὲ ἀνθρωπινώτερον, ἀλλὰ πάντα ὁμοῖα καὶ πάντα θεῖα. ἕκαστον δὲ αὐτῶν ἔχει φύσιν τὴν ἑωυτοῦ καὶ οὐδὲν ἄνευ φύσιος γίνεται. καὶ τοῦτο τὸ πάθος ὥς μοι δοκεῖ γίνεσθαι φράσω· ὑπὸ τῆς ἱππασίης αὐτοὺς κέδματα λαμβάνει, ἅτε αἰεὶ κρεμαμένων ἀπὸ τῶν ἵππων τοῖς ποσίν· ἔπειτα ἀποχωλοῦνται καὶ ἐλκοῦνται τὰ ἰσχία, οἳ ἂν σφόδρα νοσήσωσιν. ἰῶνται δὲ σφᾶς αὐτοὺς τρόπῳ τοιῷδε. ὁκόταν γὰρ ἄρχηται ἡ νοῦσος, ὄπισθεν τοῦ ὠτὸς ἑκατέρου φλέβα τάμνουσιν. ὁκόταν δὲ ἀπορρυῇ τὸ αἷμα, ὕπνος ὑπολαμβάνει ὑπὸ ἀσθενείης καὶ καθεύδουσιν. ἔπειτα ἀνεγείρονται, οἱ μέν τινες ὑγιέες ἐόντες, οἱ δ' οὔ. ἐμοὶ μὲν οὖν δοκεῖ ἐν ταύτῃ τῇ ἰήσει διαφθείρεσθαι ὁ γόνος. εἰσὶ γὰρ παρὰ τὰ

[1] Before ὑπὸ the MSS. have καί, which Wilamowitz deletes.

abdomen is cold and soft. These are the causes which make the Scythian race unfertile. A clear proof is afforded by their slave-girls. These, because of their activity and leanness of body, no sooner go to a man than they are with child.

XXII. Moreover, the great majority among the Scythians become impotent, do women's work, live like women and converse accordingly. Such men they call Anaries. Now the natives put the blame on to Heaven, and respect and worship these creatures, each fearing for himself. I too think that these diseases are divine, and so are all others, no one being more divine or more human than any other; all are alike, and all divine. Each of them has a nature of its own, and none arises without its natural cause. How, in my opinion, this disease arises I will explain. The habit of riding causes swellings at the joints,[1] because they are always astride their horses; in severe cases follow lameness and sores on the hips. They cure themselves in the following way. At the beginning of the disease they cut the vein behind each ear. When the blood has ceased to flow faintness comes over them and they sleep. Afterwards they get up, some cured and some not. Now, in my opinion, by this treatment the seed is destroyed. For by the side of the ear are veins, to

[1] For this difficult word see Littré V. 320 and VIII. xxxix foll.

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[2] Should not *οἱ* be deleted? It is unlikely that "the majority" were impotent, but "very many" might be.

[3] *διαιτεῦνται* added by Gomperz.

[4] *Ἀναριεῖς* Gomperz (cf. Herodotus I. 105): *ἀνδριεῖς* V: *ἀνανδριεῖς* 𝔅: *ἀναρδρεῆς* b.

ὦτα φλέβες, ἃς ἐάν τις ἐπιτάμῃ, ἄγονοι γίνονται οἱ ἐπιτμηθέντες. ταύτας τοίνυν μοι δοκέουσι τὰς φλέβας ἐπιτάμνειν. οἱ δὲ μετὰ ταῦτα ἐπειδὰν ἀφίκωνται παρὰ γυναῖκας καὶ μὴ οἷοί τ' ἔωσι χρῆσθαί σφισιν, τὸ πρῶτον οὐκ ἐνθυμεῦνται, ἀλλ' ἡσυχίην ἔχουσι. ὁκόταν δὲ δὶς καὶ τρὶς καὶ πλεονάκις αὐτοῖσι πειρωμένοισι μηδὲν ἀλλοιότερον ἀποβαίνῃ, νομίσαντές τι ἡμαρτηκέναι τῷ θεῷ, ὃν ἐπαιτιῶνται, ἐνδύονται στολὴν γυναικείην καταγνόντες ἑωυτῶν ἀνανδρείην. γυναικίζουσί τε καὶ ἐργάζονται μετὰ τῶν γυναικῶν ἃ καὶ ἐκεῖναι.

Τοῦτο δὲ πάσχουσι Σκυθέων οἱ πλούσιοι,[1] οὐχ οἱ κάκιστοι ἀλλ' οἱ εὐγενέστατοι καὶ ἰσχὺν πλείστην κεκτημένοι, διὰ τὴν ἱππασίην, οἱ δὲ πένητες ἧσσον· οὐ γὰρ ἱππάζονται. καίτοι ἐχρῆν, ἐπεὶ θειότερον τοῦτο τὸ νόσευμα τῶν λοιπῶν ἐστιν, οὐ τοῖς γενναιοτάτοις τῶν Σκυθέων καὶ τοῖς πλουσιωτάτοις προσπίπτειν μούνοις, ἀλλὰ τοῖς ἅπασιν ὁμοίως, καὶ μᾶλλον τοῖσιν ὀλίγα κεκτημένοισιν, εἰ δὴ τιμώμενοι[2] χαίρουσιν οἱ θεοὶ καὶ θαυμαζόμενοι ὑπ' ἀνθρώπων καὶ ἀντὶ τούτων χάριτας ἀποδιδόασιν. εἰκὸς γὰρ τοὺς μὲν πλουσίους θύειν πολλὰ τοῖς θεοῖς καὶ ἀνατιθέναι ἀναθήματα ἐόντων χρημάτων πολλῶν καὶ τιμᾶν, τοὺς δὲ πένητας ἧσσον διὰ τὸ μὴ ἔχειν, ἔπειτα καὶ ἐπιμεμφομένους ὅτι οὐ διδόασι χρήματα αὐτοῖσιν, ὥστε τῶν τοιούτων ἁμαρτιῶν τὰς ζημίας τοὺς ὀλίγα κεκτημένους φέρειν μᾶλλον ἢ τοὺς πλουσίους. ἀλλὰ γάρ, ὥσπερ καὶ πρότερον ἔλεξα, θεῖα μὲν καὶ ταῦτά ἐστιν ὁμοίως τοῖς ἄλλοις· γίνεται δὲ κατὰ φύσιν ἕκαστα. καὶ ἡ τοιαύτη νοῦσος ἀπὸ τοιαύτης

cut which causes impotence, and I believe that these are the veins which they cut. After this treatment, when the Scythians approach a woman but cannot have intercourse, at first they take no notice and think no more about it. But when two, three or even more attempts are attended with no better success, thinking that they have sinned against Heaven they attribute thereto the cause, and put on women's clothes, holding that they have lost their manhood. So they play the woman, and with the women do the same work as women do.

This affliction affects the rich Scythians because of their riding, not the lower classes but the upper, who possess the most strength; the poor,[1] who do not ride, suffer less. But, if we suppose this disease to be more divine than any other, it ought to have attacked, not the highest and richest classes only of the Scythians, but all classes equally—or rather the poor especially, if indeed the gods are pleased to receive from men respect and worship, and repay these with favours. For naturally the rich, having great wealth, make many sacrifices to the gods, and offer many votive offerings, and honour them, all of which things the poor, owing to their poverty, are less able to do; besides, they blame the gods for not giving them wealth, so that the penalties for such sins are likely to be paid by the poor rather than by the rich. But the truth is, as I said above, these affections are neither more nor less divine than any others, and all and each are natural. Such a disease arises

[1] *οἱ πλούσιοι*, Cobet (*Mnemosyne* IX. 70) would delete these words.

[2] *εἰ δὴ τιμώμενοι* Coray: *οὐ τιμωμένοισιν ἤδη εἰ* MSS.

προφάσιος τοῖς Σκύθῃσι γίνεται οἵην εἴρηκα. ἔχει δὲ καὶ κατὰ τοὺς λοιποὺς ἀνθρώπους ὁμοίως. ὅκου γὰρ ἱππάζονται μάλιστα καὶ πυκνότατα, ἐκεῖ πλεῖστοι ὑπὸ κεδμάτων καὶ ἰσχιάδων καὶ ποδαγριῶν ἁλίσκονται καὶ λαγνεύειν κάκιστοί εἰσι. ταῦτα δὲ τοῖσι Σκύθῃσι πρόσεστι, καὶ εὐνουχοειδέστατοί εἰσιν ἀνθρώπων διὰ ταύτας τε[1] τὰς προφάσιας καὶ ὅτι ἀναξυρίδας ἔχουσιν αἰεὶ καί εἰσιν ἐπὶ τῶν ἵππων τὸ πλεῖστον τοῦ χρόνου, ὥστε μήτε χειρὶ ἅπτεσθαι τοῦ αἰδοίου, ὑπό τε τοῦ ψύχεος καὶ τοῦ κόπου ἐπιλήθεσθαι τοῦ ἱμέρου καὶ τῆς μείξιος, καὶ μηδὲν παρακινεῖν πρότερον ἢ ἀνανδρωθῆναι.[2]

XXIII. Περὶ μὲν οὖν τῶν Σκυθέων οὕτως ἔχει τοῦ γένεος. τὸ δὲ λοιπὸν γένος τὸ ἐν τῇ Εὐρώπῃ διάφορον αὐτὸ ἑωυτῷ ἐστι καὶ κατὰ τὸ μέγεθος καὶ κατὰ τὰς μορφὰς διὰ τὰς μεταλλαγὰς τῶν ὡρέων, ὅτι μεγάλαι γίνονται καὶ πυκναί, καὶ θάλπεά τε ἰσχυρὰ καὶ χειμῶνες καρτεροὶ καὶ ὄμβροι πολλοὶ καὶ αὖτις αὐχμοὶ πολυχρόνιοι καὶ πνεύματα, ἐξ ὧν μεταβολαὶ πολλαὶ καὶ παντοδαπαί. ἀπὸ τούτων εἰκὸς αἰσθάνεσθαι[3] καὶ τὴν γένεσιν ἐν τῇ συμπήξει τοῦ γόνου ἄλλοτε[4] ἄλλην καὶ μὴ τῷ αὐτῷ τὴν αὐτὴν γίνεσθαι ἔν τε τῷ θέρει καὶ τῷ χειμῶνι μηδὲ ἐν ἐπομβρίῃ καὶ αὐχμῷ. διότι τὰ εἴδεα διηλλάχθαι νομίζω τῶν Εὐρωπαίων μᾶλλον ἢ τῶν Ἀσιηνῶν καὶ τὰ μεγέθεα διαφορώτατα αὐτὰ ἑωυτοῖς εἶναι κατὰ πόλιν ἑκάστην. αἱ γὰρ φθοραὶ πλείονες ἐγγίνονται τοῦ γόνου ἐν τῇ συμπήξει ἐν τῇσι μεταλλαγῇσι τῶν ὡρέων πυκνῇ-

[1] τε added by Wilamowitz.

among the Scythians for such a reason as I have stated, and other men too are equally liable to it, for wherever men ride very much and very frequently, there the majority are attacked by swellings at the joints, sciatica and gout, and are sexually very weak. These complaints come upon the Scythians, and they are the most impotent of men, for the reasons I have given, and also because they always wear trousers and spend most of their time on their horses, so that they do not handle the parts, but owing to cold and fatigue forget about sexual passion, losing their virility before any impulse is felt.

XXIII. Such is the condition of the Scythians. The other people of Europe differ from one another both in stature and in shape, because of the changes of the seasons, which are violent and frequent, while there are severe heat waves, severe winters, copious rains and then long droughts, and winds, causing many changes of various kinds. Wherefore it is natural to realize that generation too varies in the coagulation of the seed,[1] and is not the same for the same seed in summer as in winter nor in rain as in drought. It is for this reason, I think, that the physique of Europeans varies more than that of Asiatics, and that their stature differs very widely in each city. For there arise more corruptions in the coagulation of the seed when the changes of the sea-

[1] *I. e.* "in the formation of the foetus."

[2] Coray, with at least one MS., would read *ἀνδρωθῆναι*, that is, "attempt no sexual act before they recover their virility."

[3] *αἰσθάνεσθαι* Kühlewein would delete, as interpolated from Chapter X: *συνίστασθαι* Wilamowitz.

[4] *ἄλλοτε* added (with *καὶ* preceding) by Coray.

σιν ἐούσῃσιν ἢ ἐν τῇσι παραπλησίῃσι καὶ ὁμοίῃσι. περί τε τῶν ἠθέων ὁ αὐτὸς λόγος· τό τε ἄγριον καὶ τὸ ἄμεικτον καὶ τὸ θυμοειδὲς ἐν τῇ τοιαύτῃ φύσει ἐγγίνεται. αἱ γὰρ ἐκπλήξιες πυκναὶ γινόμεναι τῆς γνώμης τὴν ἀγριότητα ἐντιθέασι, τὸ δὲ ἥμερόν τε καὶ ἥπιον ἀμαυροῦσι. διὸ καὶ εὐψυχοτέρους νομίζω τοὺς τὴν Εὐρώπην οἰκέοντας εἶναι ἢ τοὺς τὴν Ἀσίην. ἐν μὲν γὰρ τῷ αἰεὶ παραπλησίῳ αἱ ῥᾳθυμίαι ἔνεισιν, ἐν δὲ τῷ μεταβαλλομένῳ αἱ ταλαιπωρίαι τῷ σώματι καὶ τῇ ψυχῇ. καὶ ἀπὸ μὲν ἡσυχίης καὶ ῥᾳθυμίης ἡ δειλίη αὔξεται, ἀπὸ δὲ τῆς ταλαιπωρίης καὶ τῶν πόνων αἱ ἀνδρεῖαι. διὰ τοῦτό εἰσι μαχιμώτεροι οἱ τὴν Εὐρώπην οἰκέοντες καὶ διὰ τοὺς νόμους, ὅτι οὐ βασιλεύονται ὥσπερ οἱ Ἀσιηνοί. ὅκου γὰρ βασιλεύονται, ἐκεῖ ἀνάγκη δειλοτάτους εἶναι. εἴρηται δέ μοι καὶ πρότερον. αἱ γὰρ ψυχαὶ δεδούλωνται καὶ οὐ βούλονται παρακινδυνεύειν ἑκόντες εἰκῇ ὑπὲρ ἀλλοτρίης δυνάμιος. ὅσοι δὲ αὐτόνομοι—ὑπὲρ ἑωυτῶν γὰρ τοὺς κινδύνους αἱρεῦνται καὶ οὐκ ἄλλων—προθυμεῦνται ἑκόντες καὶ ἐς τὸ δεινὸν ἔρχονται. τὰ γὰρ ἀριστεῖα τῆς νίκης αὐτοὶ φέρονται. οὕτως οἱ νόμοι οὐχ ἥκιστα τὴν εὐψυχίην ἐργάζονται.

XXIV. Τὸ μὲν οὖν ὅλον καὶ τὸ ἅπαν οὕτως ἔχει περί τε τῆς Εὐρώπης καὶ τῆς Ἀσίης. ἔνεισι δὲ καὶ ἐν τῇ Εὐρώπῃ φῦλα διάφορα ἕτερα ἑτέροισι καὶ τὰ μεγέθεα καὶ τὰς μορφὰς καὶ τὰς ἀνδρείας. τὰ δὲ διαλλάσσοντα ταὐτά[1] ἐστιν, ἃ καὶ ἐπὶ τῶν πρότερον εἴρηται. ἔτι δὲ σαφέστερον φράσω. ὁκόσοι μὲν χώρην ὀρεινήν τε οἰκέουσι καὶ τρηχεῖαν καὶ ὑψηλὴν καὶ ἔνυδρον, καὶ αἱ μεταβολαὶ αὐτοῖσι

sons are frequent than when they are similar or alike. The same reasoning applies also to character. In such a climate arise wildness, unsociability and spirit. For the frequent shocks to the mind impart wildness, destroying tameness and gentleness. For this reason, I think, Europeans are also more courageous than Asiatics. For uniformity engenders slackness, while variation fosters endurance in both body and soul; rest and slackness are food for cowardice, endurance and exertion for bravery. Wherefore Europeans are more warlike, and also because of their institutions, not being under kings as are Asiatics. For, as I said above, where there are kings, there must be the greatest cowards. For men's souls are enslaved, and refuse to run risks readily and recklessly to increase the power of somebody else. But independent people, taking risks on their own behalf and not on behalf of others, are willing and eager to go into danger, for they themselves enjoy the prize of victory. So institutions contribute a great deal to the formation of courageousness.

XXIV. Such, in outline and in general, is the character of Europe and of Asia. In Europe too there are tribes differing one from another in stature, in shape and in courage. The differences are due to the same causes as I mentioned above, which I will now describe more clearly. Inhabitants of a region which is mountainous, rugged, high, and watered,

[1] ταὐτά Coray : ταῦτά B : ταῦτ' V.

γίνονται τῶν ὡρέων μέγα διάφοροι, ἐνταῦθα εἰκὸς εἴδεα μεγάλα εἶναι καὶ πρὸς τὸ ταλαίπωρον καὶ τὸ ἀνδρεῖον εὖ πεφυκότα, καὶ τό τε ἄγριον καὶ τὸ θηριῶδες αἱ τοιαῦται φύσιες οὐχ ἥκιστα ἔχουσιν. ὁκόσοι δὲ κοῖλα χωρία καὶ λειμακώδεα καὶ πνιγηρὰ καὶ τῶν θερμῶν πνευμάτων πλέον μέρος μετέχουσιν ἢ τῶν ψυχρῶν ὕδασί τε χρέονται θερμοῖσιν, οὗτοι δὲ μεγάλοι μὲν οὐκ ἂν εἴησαν οὐδὲ κανονίαι, ἐς εὖρος δὲ πεφυκότες καὶ σαρκώδεες καὶ μελανότριχες, καὶ αὐτοὶ μέλανες μᾶλλον ἢ λευκότεροι, φλεγματίαι δὲ ἧσσον ἢ χολώδεες· τὸ δὲ ἀνδρεῖον καὶ τὸ ταλαίπωρον ἐν τῇ ψυχῇ φύσει μὲν οὐκ ἂν ὁμοίως ἐνείη, νόμος δὲ προσγενόμενος ἀπεργάζοιτ' ἄν. καὶ εἰ μὲν ποταμοὶ ἐνείησαν ἐν τῇ χώρῃ, οἵτινες ἐκ τῆς χώρης ἐξοχετεύουσι τό τε στάσιμον καὶ τὸ ὄμβριον, οὗτοι ἂν ὑγιηροί τε εἴησαν καὶ λαμπροί. εἰ μέντοι ποταμοὶ μὲν μὴ εἴησαν, τὰ δὲ ὕδατα λιμναῖά[1] τε καὶ στάσιμα πίνοιεν καὶ ἑλώδεα, ἀνάγκη τὰ τοιαῦτα εἴδεα προγαστρότερα καὶ σπληνώδεα εἶναι. ὁκόσοι δὲ ὑψηλήν τε οἰκέουσι χώρην καὶ λείην καὶ ἀνεμώδεα καὶ ἔνυδρον, εἶεν ἂν εἴδεα μεγάλοι καὶ ἑωυτοῖσι παραπλήσιοι· ἀνανδρότεραι δὲ καὶ ἡμερώτεραι αἱ γνῶμαι. ὁκόσοι δὲ λεπτά τε καὶ ἄνυδρα καὶ ψιλά, τῇσι μεταβολῇσι τῶν ὡρέων οὐκ εὔκρητα, ἐν ταύτῃ τῇ χώρῃ τὰ εἴδεα εἰκὸς σκληρά τε εἶναι καὶ ἔντονα καὶ ξανθότερα ἢ μελάντερα καὶ τὰ ἤθεα καὶ τὰς ὀργὰς αὐθάδεάς τε καὶ ἰδιογνώμονας. ὅκου γὰρ αἱ μεταβολαί εἰσι πυκνόταται τῶν ὡρέων καὶ πλεῖστον διάφοροι αὐταὶ ἑωυτῇσιν, ἐκεῖ καὶ τὰ εἴδεα καὶ τὰ ἤθεα καὶ τὰς φύσιας εὑρήσεις πλεῖστον διαφερούσας.

where the changes of the seasons exhibit sharp contrasts, are likely to be of big physique, with a nature well adapted for endurance and courage, and such possess not a little wildness and ferocity. The inhabitants of hollow regions, that are meadowy, stifling, with more hot than cool winds, and where the water used is hot, will be neither tall nor well-made, but inclined to be broad, fleshy, and dark-haired; they themselves are dark rather than fair, less subject to phlegm than to bile. Similar bravery and endurance are not by nature part of their character, but the imposition of law can produce them artificially. Should there be rivers in the land, which drain off from the ground the stagnant water and the rain water, these [1] will be healthy and bright. But if there be no rivers, and the water that the people drink be marshy, stagnant, and fenny, the physique of the people must show protruding bellies and enlarged spleens. Such as dwell in a high land that is level, windy, and watered, will be tall in physique and similar to one another, but rather unmanly and tame in character. As to those that dwell on thin, dry, and bare soil, and where the changes of the seasons exhibit sharp contrasts, it is likely that in such country the people will be hard in physique and well-braced, fair rather than dark, stubborn and independent in character and in temper. For where the changes of the seasons are most frequent and most sharply contrasted, there you will find the greatest diversity in physique, in character, and in constitution.

[1] The people or the rivers? Probably the former, in which case "bright" will mean "of bright (clear) complexion."

[1] λιμναῖα B: κρηναῖα all other MSS.

Μέγισται μὲν οὖν εἰσιν αὗται τῆς φύσιος αἱ διαλλαγαί, ἔπειτα δὲ καὶ ἡ χώρη, ἐν ᾗ ἄν τις τρέφηται καὶ τὰ ὕδατα. εὑρήσεις γὰρ ἐπὶ τὸ πλῆθος τῆς χώρης τῇ φύσει ἀκολουθέοντα καὶ τὰ εἴδεα τῶν ἀνθρώπων καὶ τοὺς τρόπους. ὅκου μὲν γὰρ ἡ γῆ πίειρα καὶ μαλθακὴ καὶ ἔνυδρος, καὶ τὰ ὕδατα κάρτα μετέωρα, ὥστε θερμὰ εἶναι τοῦ θέρεος καὶ τοῦ χειμῶνος ψυχρά, καὶ τῶν ὡρέων καλῶς κεῖται, ἐνταῦθα καὶ οἱ ἄνθρωποι σαρκώδεές εἰσι καὶ ἄναρθροι καὶ ὑγροὶ καὶ ἀταλαίπωροι καὶ τὴν ψυχὴν κακοὶ ὡς ἐπὶ τὸ πολύ. τό τε ῥᾴθυμον καὶ τὸ ὑπνηρὸν ἔνεστιν ἐν αὐτοῖς ἰδεῖν· ἔς τε τὰς τέχνας παχέες καὶ οὐ λεπτοὶ οὐδ' ὀξέες. ὅκου δ' ἐστὶν ἡ χώρη ψιλή τε καὶ ἄνυδρος [1] καὶ τρηχεῖα καὶ ὑπὸ τοῦ χειμῶνος πιεζομένη καὶ ὑπὸ τοῦ ἡλίου κεκαυμένη, ἐνταῦθα δὲ σκληρούς τε καὶ ἰσχνοὺς καὶ διηρθρωμένους καὶ ἐντόνους καὶ δασέας ἴδοις.[2] τό τε ἐργατικὸν ἐνεὸν [3] ἐν τῇ φύσει τῇ τοιαύτῃ καὶ τὸ ἄγρυπνον, τά τε ἤθεα καὶ τὰς ὀργὰς αὐθάδεας καὶ ἰδιογνώμονας, τοῦ τε ἀγρίου μᾶλλον μετέχοντας ἢ τοῦ ἡμέρου, ἔς τε τὰς τέχνας ὀξυτέρους τε καὶ συνετωτέρους καὶ τὰ πολέμια ἀμείνους εὑρήσεις· καὶ τἄλλα τὰ ἐν τῇ γῇ φυόμενα πάντα ἀκόλουθα ἐόντα τῇ γῇ. αἱ μὲν ἐναντιώταται φύσιές τε καὶ ἰδέαι ἔχουσιν οὕτως. ἀπὸ δὲ τούτων τεκμαιρόμενος τὰ λοιπὰ ἐνθυμεῖσθαι, καὶ οὐχ ἁμαρτήσῃ.

These are the most important factors that create differences in men's constitutions; next come the land in which a man is reared, and the water. For in general you will find assimilated to the nature of the land both the physique and the characteristics of the inhabitants. For where the land is rich, soft, and well-watered, and the water is very near the surface, so as to be hot in summer and cold in winter, and if the situation be favourable as regards the seasons, there the inhabitants are fleshy, ill-articulated, moist, lazy, and generally cowardly in character. Slackness and sleepiness can be observed in them, and as far as the arts are concerned they are thick-witted, and neither subtle nor sharp. But where the land is bare, waterless, rough, oppressed by winter's storms and burnt by the sun, there you will see men who are hard, lean, well-articulated, well-braced, and hairy; such natures will be found energetic, vigilant, stubborn and independent in character and in temper, wild rather than tame, of more than average sharpness and intelligence in the arts, and in war of more than average courage. The things also that grow in the earth all assimilate themselves to the earth. Such are the most sharply contrasted natures and physiques. Take these observations as a standard when drawing all other conclusions, and you will make no mistake.

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[1] ἄνυδρος Ermerins from *inaquosa* of 7027 : ἀνώχυρος MSS.
[2] ὑδοις b, omitted by most MSS.: ὑδοις ἂν Coray.
[3] Before ἐνεὸν all MSS. except Jβ add ὀξύ.

EPIDEMICS I AND III

INTRODUCTION

THESE two books manifestly form one work, and that the most remarkable product of Greek science.

Pretensions to literary form it has none, yet no Greek writer, with the possible exception of Thucydides, has used language with better effect. Often ungrammatical, sometimes a series of disconnected words, the narrative is always to the point, and always conveys the impression that the writer's sole object is to express observed facts in the fittest and shortest way.

The composition shows violent dislocations. There come first two "constitutions," [1] then two short paragraphs on the duty of the physician and on certain symptoms respectively, then another constitution, then a few paragraphs on fevers, then fourteen clinical histories. The third book begins with twelve more histories, which are followed by a fourth constitution, at the end of which is another disconnected paragraph, and the book closes with sixteen histories.

Dislocations due to the ancient methods of copying manuscripts are common enough in classical authors, but startling changes like the above are not such as

[1] "Constitution" is the traditional translation of *κατάστασις*, climatic conditions of such a marked type as to give a distinguishing character to a period of time. The word is also used of diseases, and so on, to denote a fixed type prevalent at any particular time.

can be ascribed to the vagaries or the carelessness of scribes. Combined with the broken grammar they seem to point to the work having never been prepared for publication. The writer probably jotted down his remarks as a series of notes in an order which happened to suggest itself, and never went on to edit them. Several of the shorter "interpolations" would have been in a modern book footnotes or appendices.

This theory is supported by the fact that a very great number of the histories have no connection at all with the constitutions. The first three constitutions refer to Thasos; the place of the fourth is unnamed. The medical cases belong to Thasos, Larisa, Abdera, Cyzicus, and Meliboea, while many others have no locality attached to them. The nature, too, of the diseases bears no great likeness to those of the constitutions. They are all "acute," some exhibit abnormal symptoms and some are ordinary cases of remittent malaria. They illustrate *Prognostic* far better than they do the constitutions. "What do symptoms portend?" is the subject of *Prognostic*, and the clinical histories give the *data* from which many of its generalizations may well have been framed. On the whole, it is probable that *Epidemics* was never published by its author.

The subject matter of the *Epidemics*, including the five books universally attributed to authors other than Hippocrates, namely, II and IV, V, VI, VII, present several interesting problems. For the present I will confine myself to I and III.

What are the diseases described in the *Epidemics*? This question has interested physicians for centuries,

and each medical reader will enjoy the task of diagnosing them for himself. Several cases are difficult, but the section on Hippocratic diseases in the General Introduction should enable even a layman to identify many. Perhaps the most fascinating problem is whether the constitution in Book III refers to the plague year of Thucydides II.

Another interesting point is the *clientèle* of the writer and the scenes of his practice.[1] The latter have already been referred to; the names of the patients, and their position in life, are worth a moment's consideration.[2] None of the clinical histories has a date, but most give the name and address of the sick person. Occasionally the name is given without the address, or the address is given without the name. In a few instances at the end of Book III the town is named but neither the patient nor his address is specified. In two cases (I, case 12, and III, case 4, of second series) name, address and locality are all omitted. The patients are sometimes householders, sometimes members of their families, sometimes slaves. Several seem to have been lodgers.[3]

The variety in the descriptions of patients seems to show that the writer attached no importance to them, but simply wrote in his note-book enough to

[1] It is worth noticing that Greek physicians, like the Sophists, often passed from city to city, staying a longer or shorter period according to the demand for their services. It was for such *περιοδευταί* that *Airs Waters Places* was written, to enable them to know what diseases were likely to occur in a city they had never visited before.

[2] See Littré, VIII. vii–xxix, where Meineke is considered.

[3] See on these points Littré, X. pp. xxix–xxxii, where Rossignol's views are given and criticised. There seem to have been large boarding-houses in some places.

enable him to identify a patient for himself. In fact he rarely appears to be writing for a public; in the clinical histories especially one feels that the only object is private information.

If the clinical histories are rough notes of this character it becomes plain why they vary in fulness of detail. The plan generally adopted is to give a daily bulletin, or at least to notice the critical days, but if the patient was not visited every day and the attendants did not report anything striking, gaps would occur such as we actually do find. An editor writing for a public would either have made these gaps less obvious or else have explained them.

But the most striking feature of this work is its devotion to truth. The constitutions are strictly limited to descriptions of the weather which preceded or accompanied certain epidemics; the clinical histories are confined to the march of diseases to a favourable or a fatal issue. Nothing irrelevant is mentioned; everything relevant is included.

Of the forty-two cases, twenty-five end in death, very nearly 60 per cent. The writer's aim is not to show how to cure —treatment is very rarely mentioned —but to discover the sequences of symptoms, to set down the successes and failures of Nature in her efforts to expel the disease. The physician is acting, not *qua* physician but *qua* scientist; he has laid aside the part of healer to be for a time a spectator looking down on the arena, exercising that θεωρία which a Greek held to be the highest human activity.

MSS. and Editions

The chief MSS. for *Epidemics I.* are A and V, and for *Epidemics III.*, V and D, supplemented for

both books by the interesting commentaries of Galen.

Editions were common in the sixteenth, seventeenth, and eighteenth centuries,[1] but none are of outstanding merit. There is an English translation of no merit by Samuel Farr (London, 1780), and the books are included in Adams' first volume.

[1] See Littré, II. 593–596.

Additional Notes

1. The word ὀξύς, "acute," "sharp," is applied to fever, and to such diseases (pleurisy, pneumonia, remittent malaria, etc., *Regimen in Acute Diseases*, v) as are accompanied by high fever. The Hippocratic doctrines of crisis, coction, etc., apply chiefly to acute diseases, but not to them only, as the common cold (*Ancient Medicine*, xviii) shows coction.

2. The preposition παρά, meaning "at the house of," seems to be used indifferently with acc., gen., or dat. There are probably differences, but I cannot detect them.

ΕΠΙΔΗΜΙΩΝ Α

κατάστασις πρώτη

I. Ἐν Θάσῳ φθινοπώρου περὶ ἰσημερίην καὶ ὑπὸ πληϊάδα ὕδατα πολλά, συνεχέα μαλθακῶς, ἐν νοτίοις. χειμὼν νότιος, σμικρὰ βόρεια, αὐχμοί· τὸ σύνολον ἔς γε χειμῶνα οἷον ἔαρ γίνεται. ἔαρ δὲ νότιον ψυχεινόν, σμικρὰ ὕσματα. θέρος ὡς ἐπὶ τὸ πολὺ ἐπινέφελον. ἀνυδρίαι. ἐτησίαι ὀλίγα, σμικρά, διεσπασμένως ἔπνευσαν.

Γενομένης δὲ τῆς ἀγωγῆς ὅλης ἐπὶ τὰ νότια καὶ μετ' αὐχμῶν, πρωὶ μὲν τοῦ ἦρος ἐκ τῆς πρόσθεν καταστάσιος ὑπεναντίης καὶ βορείου γενομένης[1] ὀλίγοις ἐγίνοντο καῦσοι καὶ τούτοισι πάνυ εὐσταθέες, καὶ ὀλίγοις ἡμορράγει οὐδ' ἀπέθνησκον ἐκ τούτων. ἐπάρματα δὲ παρὰ τὰ ὦτα πολλοῖσιν ἑτερόρροπα καὶ ἐξ ἀμφοτέρων, τοῖσι πλείστοισιν ἀπύροισιν ὀρθοστάδην· ἔστι δὲ οἳ καὶ σμικρὰ ἐπεθερμαίνοντο. κατέσβη πᾶσιν ἀσινέως οὐδ' ἐξεπύησεν οὐδενὶ ὥσπερ τὰ ἐξ ἄλλων προφασίων. ἦν δὲ ὁ τρόπος αὐτῶν χαῦνα, μεγάλα, κεχυμένα, οὐ μετὰ φλεγμονῆς, ἀνώδυνα· πᾶσιν ἀσήμως

[1] I believe that the words ἐκ . . . γενομένης should be transposed and placed after αὐχμῶν. "The whole year was southerly, after a period which was the opposite."

[1] ὑπὸ in expressions denoting time seems in Hippocrates to mean "about" or "during." The period is roughly from September 21 to November 8.

EPIDEMICS I

First Constitution

I. In Thasos during autumn, about the time of the equinox to near the setting of the Pleiades,[1] there were many rains, gently continuous, with southerly winds. Winter southerly,[2] north winds light, droughts; on the whole, the winter was like a spring. Spring southerly and chilly; slight showers. Summer in general cloudy. No rain. Etesian winds few, light and irregular.

The whole weather proved southerly, with droughts, but early in the spring, as the previous constitution had proved the opposite and northerly, a few patients suffered from ardent fevers, and these very mild, causing hemorrhage in few cases and no deaths. Many had swellings beside one ear, or both ears, in most cases unattended with fever,[3] so that confinement to bed was unnecessary. In some cases there was slight heat, but in all the swellings subsided without causing harm; in no case was there suppuration such as attends swellings of other origin. This was the character of them:—flabby, big, spreading, with neither inflammation nor pain; in every case they

[1] That is, the winds were generally from the south, and such north winds as blew were light.

[2] Or, punctuating after ὦτα and πλείστοισιν, "There were swellings beside the ears, in many cases on one side, but in most on both." The epidemic was obviously mumps.

ἠφανίσθη. ἐγίνετο δὲ ταῦτα μειρακίοισι, νέοισιν, ἀκμάζουσι, καὶ τούτων τοῖσι περὶ παλαίστρην καὶ γυμνάσια πλείστοισι· γυναιξὶ δὲ ὀλίγῃσιν ἐγίνετο. πολλοῖσι δὲ βῆχες ξηραὶ βήσσουσι καὶ οὐδὲν ἀνάγουσιν· φωναὶ βραγχώδεες. οὐ μετὰ πολύ, τοῖσι δὲ καὶ μετὰ χρόνον, φλεγμοναὶ μετ' ὀδύνης ἐς ὄρχιν ἐτερόρροποι, τοῖσι δὲ ἐς ἀμφοτέρους. πυρετοὶ τοῖσι μέν, τοῖσι δ' οὔ. ἐπιπόνως ταῦτα τοῖσι πλείστοισι. τὰ δ' ἄλλα ὅσα κατ' ἰητρεῖον
29 ἀνόσως διῆγον.

II. Πρωὶ δὲ τοῦ θέρεος ἀρξάμενοι διὰ θέρεος καὶ κατὰ χειμῶνα πολλοὶ τῶν ἤδη πολὺν χρόνον ὑποφερομένων φθινώδεες κατεκλίνησαν, ἐπεὶ καὶ τοῖς ἐνδοιαστῶς ἔχουσι πολλοῖσιν ἐβεβαίωσε τότε. ἔστι δ' οἷσιν ἤρξατο πρῶτον τότε, οἷσιν ἔρρεπεν ἡ φύσις ἐπὶ τὸ φθινῶδες. ἀπέθανον δὲ πολλοὶ καὶ πλεῖστοι τούτων, καὶ τῶν κατακλινέντων οὐκ οἶδα εἴ τις οὐδ' εἰ μέτριον χρόνον περιεγένετο. ἀπέθνῃσκον δὲ ὀξυτέρως ἢ ὡς
10 εἴθισται διάγειν τὰ τοιαῦτα· ὡς τά γε ἄλλα καὶ μακρότερα καὶ ἐν πυρετοῖσιν ἐόντα εὐφόρως ἤνεγκαν καὶ οὐκ ἀπέθνῃσκον, περὶ ὧν γεγράψεται. μοῦνον γὰρ καὶ μέγιστον τῶν γενομένων νοσημάτων τοὺς πολλοὺς τὸ φθινῶδες ἔκτεινεν.

Ην δὲ τοῖς πλείστοισιν αὐτῶν τὰ παθήματα τοιάδε· φρικώδεες πυρετοί, συνεχέες, ὀξέες, τὸ μὲν ὅλον οὐ διαλείποντες· ὁ δὲ τρόπος ἡμιτριταῖος· μίαν κουφότεροι, τῇ ἑτέρῃ παροξυνόμενοι, καὶ τὸ ὅλον ἐπὶ τὸ ὀξύτερον ἐπιδιδόντες. ἱδρῶτες

[1] That is, with no symptoms indicative of a crisis.

[2] That is, nobody was ill enough to make a visit to the physician's surgery (*ἰητρεῖον*) necessary.

disappeared without a sign.[1] The sufferers were youths, young men, and men in their prime, usually those who frequented the wrestling school and gymnasia. Few women were attacked. Many had dry coughs which brought up nothing when they coughed, but their voices were hoarse. Soon after, though in some cases after some time, painful inflammations occurred either in one testicle or in both, sometimes accompanied with fever, in other cases not. Usually they caused much suffering. In other respects the people had no ailments requiring medical assistance.[2]

II. Beginning early in the summer, throughout the summer and in winter many of those who had been ailing a long time took to their beds in a state of consumption, while many also who had hitherto been doubtful sufferers at this time showed undoubted symptoms. Some showed the symptoms now for the first time; these were those whose constitution inclined to be consumptive. Many, in fact most of these, died; of those who took to their beds I do not know one who survived even for a short time. Death came more promptly than is usual in consumption, and yet the other complaints, which will be described presently, though longer and attended with fever, were easily supported and did not prove fatal. For consumption was the worst of the diseases that occurred, and alone was responsible for the great mortality.

In the majority of cases the symptoms were these. Fever with shivering, continuous, acute, not completely intermitting, but of the semitertian type; remitting during one day they were exacerbated on the next, becoming on the whole more acute. Sweats

αἰεί, οὐ δι' ὅλου· ψύξις ἀκρέων πολλὴ καὶ μόγις ἀναθερμαινόμενα. κοιλίαι ταραχώδεες χολώδεσιν, ὀλίγοις, ἀκρήτοισι, λεπτοῖσι, δακνώδεσι· πυκνὰ ἀνίσταντο. οὖρα ἢ λεπτὰ καὶ ἄχρω καὶ ἄπεπτα καὶ ὀλίγα ἢ πάχος ἔχοντα καὶ σμικρὴν ὑπόστασιν, οὐ καλῶς καθιστάμενα, ἀλλ' ὠμῇ τινι καὶ ἀκαίρῳ ὑποστάσει. ἔβησσον δὲ σμικρά, πυκνά, πέπονα, κατ' ὀλίγα μόγις ἀνάγοντες. οἷσι δὲ τὰ βιαιότατα συμπίπτοι, οὐδ' ἐς ὀλίγον πεπασμὸν ἦει, ἀλλὰ διετέλεον ὠμὰ πτύοντες. φάρυγγες δὲ τοῖσι πλείστοισι τούτων ἐξ ἀρχῆς καὶ διὰ τέλεος ἐπώδυνοι· εἶχον ἔρευθος μετὰ φλεγμονῆς· ῥεύματα σμικρά, λεπτά, δριμέα· ταχὺ τηκόμενοι καὶ κακούμενοι, ἀπόσιτοι πάντων γευμάτων διὰ τέλεος, ἄδιψοι· καὶ παράληροι πολλοὶ περὶ θάνατον. περὶ μὲν τὰ φθινώδεα ταῦτα.

III. Κατὰ δὲ θέρος ἤδη καὶ φθινόπωρον πυρετοὶ πολλοὶ συνεχέες οὐ βιαίως, μακρὰ δὲ νοσέουσιν οὐδὲ περὶ τὰ ἄλλα δυσφόρως διάγουσιν ἐγένοντο· κοιλίαι τε γὰρ[1] τοῖσι πλείστοισι πάνυ εὐφόρως καὶ οὐδὲν ἄξιον λόγου προσέβλαπτον. οὖρά τε τοῖσι πλείστοισιν εὔχρω μὲν καὶ καθαρά, λεπτὰ δὲ καὶ μετὰ χρόνον περὶ κρίσιν πεπαινόμενα. βηχώδεες οὐ λίην. οὐδὲ τὰ βησσόμενα δυσκόλως· οὐδ' ἀπόσιτοι, ἀλλὰ καὶ διδόναι πάνυ ἐνεδέχετο. τὸ μὲν ὅλον ὑπενόσεον,[2] οὐ τὸν φθινώδεα τρόπον

[1] γὰρ most MSS.: ταραχώδεες V.

[2] After ὑπενόσεον the MSS. have οἱ φθίνοντες, which Kühlewein deletes.

were continual, but not all over the body. Severe chill in the extremities, which with difficulty recovered their warmth. Bowels disordered, with bilious, scanty, unmixed, thin, smarting stools, causing the patient to get up often. Urine either thin, colourless,[1] unconcocted and scanty, or thick and with a slight deposit, not settling favourably, but with a crude and unfavourable deposit. The patients frequently coughed up small, concocted sputa, brought up little by little with difficulty. Those exhibiting the symptoms in their most violent form showed no concoction at all, but continued spitting crude sputa. In the majority of these cases the throat was throughout painful from the beginning, being red and inflamed. Fluxes slight, thin, pungent. Patients quickly wasted away and grew worse, being throughout averse to all food and experiencing no thirst. Delirium in many cases as death approached. Such were the symptoms of the consumption.

III. But when summer came, and during autumn occurred many continuous but not violent fevers, which attacked persons who were long ailing without suffering distress in any other particular manner; for the bowels were in most cases quite easy, and hurt to no appreciable extent. Urine in most cases of good colour and clear, but thin, and after a time near the crisis it grew concocted. Coughing was slight, and caused no distress. No lack of appetite; in fact it was quite possible even to give food. In general the patients did not sicken, as did the consumptives,

[1] Throughout *Epidemics* ἄχρως may mean, not merely "without colour," but "of bad colour." It certainly has this meaning in *Airs Waters Places*, VII, l. ii. See p. 85.

πυρετοῖσι φρικώδεσι, σμικρὰ ὑφιδροῦντες, ἄλλοτε ἀλλοίως παροξυνόμενοι πεπλανημένως.[1] ἔκρινε τούτων οἷσι τὰ βραχύτατα γίνοιτο περὶ εἰκοστήν, τοῖσι δὲ πλείστοισι περὶ τεσσαρακοστήν, πολλοῖσι δὲ περὶ τὰς ὀγδοήκοντα. ἔστι δ' οἷσιν οὐδ' οὕτως, ἀλλὰ πεπλανημένως καὶ ἀκρίτως ἐξέλιπον· τούτων δὲ τοῖσι πλείστοισιν οὐ πολὺν διαλιπόντες χρόνον ὑπέστρεψαν οἱ πυρετοὶ πάλιν, ἐκ δὲ τῶν ὑποστροφέων ἐν τῇσιν αὐτῇσι περιόδοισιν ἐκρί-
20 νοντο· πολλοῖσι δὲ αὐτῶν ἀνήγαγον, ὥστε καὶ ὑπὸ χειμῶνα νοσεῖν.

Ἐκ πάντων δὲ τῶν ὑπογεγραμμένων ἐν τῇ καταστάσει ταύτῃ μούνοισι τοῖσι φθινώδεσι θανατώδεα συνέπεσεν· ἐπεὶ τοῖσί γε ἄλλοισι πᾶσιν εὐφόρως, καὶ θανατώδεες ἐν τοῖσιν ἄλλοισι
26 πυρετοῖσιν οὐκ ἐγένοντο.

κατάστασις δευτέρη

IV. Ἐν Θάσῳ πρωὶ τοῦ φθινοπώρου χειμῶνες οὐ κατὰ καιρόν, ἀλλ' ἐξαίφνης ἐν βορείοισι καὶ νοτίοισι πολλοῖς ὑγροὶ καὶ προεκρηγυύμενοι. ταῦτα δὴ ἐγένετο τοιαῦτα μέχρι πληϊάδος δύσιος καὶ ὑπὸ πληϊάδα. χειμὼν δὲ βόρειος· ὕδατα πολλά, λάβρα, μεγάλα, χιόνες· μειξαίθρια τὰ πλεῖστα. ταῦτα δὲ ἐγένετο μὲν πάντα, οὐ λίην δὲ ἀκαίρως τὰ τῶν ψυχέων. ἤδη δὲ μεθ' ἡλίου τροπὰς χειμερινὰς καὶ ἡνίκα ζέφυρος πιεῖν
10 ἄρχεται, ὀπισθοχειμῶνες μεγάλοι, βόρεια πολλά, χιὼν καὶ ὕδατα πολλὰ συνεχέως, οὐρανὸς λαι-

[1] After πεπλανημένως the MSS. have τὸ μὲν ὅλον οὐκ ἐκλείποντες, παροξυνόμενοι δὲ τριταιοφυέα τρόπον, which Kühlewein thinks an interpolation from Chapter VII.

with shivering fevers, but with slight sweats, the paroxysms being variable and irregular.[1] The earliest crisis was about the twentieth day; in most cases the crisis was about the fortieth day, though in many it was about the eightieth. In some cases the illness did not end in this way, but in an irregular manner without a crisis. In the majority of these cases the fevers relapsed after a brief interval, and after the relapse a crisis occurred at the end of the same periods as before. The disease in many of these instances was so protracted that it even lasted during the winter.

Out of all those described in this constitution only the consumptives showed a high mortality-rate; for all the other patients bore up well, and the other fevers did not prove fatal.

Second Constitution

IV. In Thasos early in autumn occurred unseasonable wintry storms, suddenly with many north and south winds bursting out into rains. These conditions continued until the setting of the Pleiades and during their season. Winter was northerly; many violent and abundant rains; snows; generally there were fine intervals. With all this, however, the cold weather was not exceptionally unseasonable. But immediately after the winter solstice, when the west wind usually begins to blow, there was a return of severe wintry weather, much north wind, snow and

[1] The words omitted by Kühlewein mean "not intermitting altogether, but with exacerbations after the manner of tertians."

λαπώδης καὶ ἐπινέφελος. ταῦτα δὲ συνέτεινε καὶ οὐκ ἀνίει μέχρι ἰσημερίης. ἔαρ δὲ ψυχρόν, βόρειον, ὑδατῶδες, ἐπινέφελον. θέρος οὐ λίην καυματῶδες ἐγένετο· ἐτησίαι συνεχέες ἔπνευσαν. ταχὺ δὲ περὶ ἀρκτοῦρον ἐν βορείοισι πολλὰ
17 πάλιν ὕδατα.

V. Γενομένου δὲ τοῦ ἔτεος ὅλου ὑγροῦ καὶ ψυχροῦ καὶ βορείου κατὰ χειμῶνα μὲν ὑγιηρῶς εἶχον τὰ πλεῖστα, πρωὶ δὲ τοῦ ἦρος πολλοί τινες καὶ οἱ πλεῖστοι διῆγον ἐπινόσως. ἤρξαντο μὲν οὖν τὸ πρῶτον ὀφθαλμίαι ῥοώδεες, ὀδυνώδεες, ὑγραὶ ἀπέπτως· σμικρὰ λημία δυσκόλως πολλοῖσιν ἐκρηγνύμενα· τοῖσι πλείστοισιν ὑπέστρεφον· ἀπέλιπον ὀψὲ πρὸς τὸ φθινόπωρον. κατὰ δὲ θέρος καὶ φθινόπωρον δυσεντεριώδεες καὶ
10 τεινεσμοὶ καὶ λειεντεριώδεες. καὶ διάρροιαι χολώδεες, πολλοῖσι λεπτοῖσιν, ὠμοῖσι καὶ δακνώδεσιν, ἔστι δ' οἷσι καὶ ὑδατώδεες. πολλοῖσι δὲ καὶ περίρροιαι μετὰ πόνου χολώδεες, ὑδατώδεες, ξυσματώδεες, πυώδεες, στραγγουριώδεες· οὐ νεφριτικά, ἀλλὰ τούτοισιν ἀντ' ἄλλων ἄλλα. ἔμετοι φλεγματώδεες, χολώδεες καὶ σιτίων ἀπέπτων ἀναγωγαί. ἱδρῶτες· πᾶσι πάντοθεν πολὺς πλάδος. ἐγίνετο δὲ ταῦτα πολλοῖσιν ὀρθοστάδην ἀπύροισι, πολλοῖσι δὲ πυρετοί, περὶ
20 ὧν γεγράψεται. ἐν οἷσι δὲ ὑπεφαίνετο πάντα τὰ ὑπογεγραμμένα, μετὰ πόνου φθινώδεες. ἤδη δὲ φθινοπώρου καὶ ὑπὸ χειμῶνα πυρετοὶ συνεχέες— καί τισιν αὐτῶν ὀλίγοισι καυσώδεες—ἡμερινοί, νυκτερινοί, ἡμιτριταῖοι, τριταῖοι ἀκριβέες, τεταρταῖοι, πλάνητες. ἕκαστοι δὲ τῶν ὑπογεγραμ-
26 μένων πυρετῶν πολλοῖσιν ἐγίνοντο.

copious rains continuously, sky stormy and clouded. These conditions lasted on, and did not remit before the equinox. Spring cold, northerly, wet, cloudy. Summer did not turn out excessively hot, the Etesian winds blowing continuously. But soon after, near the rising of Arcturus, there was much rain again, with northerly winds.

V. The whole year having been wet, cold and northerly, in the winter the public health in most respects was good, but in early spring many, in fact most, suffered illnesses. Now there began at first inflammations of the eyes, marked by rheum, pain, and unconcocted discharges. Small gummy sores, in many cases causing distress when they broke out; the great majority relapsed, and ceased late on the approach of autumn. In summer and autumn dysenteric diseases, tenesmus and lientery; bilious diarrhœa, with copious, thin, crude, smarting stools; in some cases it was also watery. In many cases there were also painful, bilious defluxions, watery, full of thin particles, purulent and causing strangury. No kidney trouble, but their various symptoms succeeded in various orders. Vomitings of phlegm, bile, and undigested food. Sweats; in all cases much moisture over all the body. These complaints in many cases were unattended with fever, and the sufferers were not confined to bed; but in many others there was fever, as I am going to describe. Those who showed all the symptoms mentioned above were consumptives who suffered pain. When autumn came, and during winter, continuous fevers —in some few cases ardent —day fevers, night fevers, semitertians, exact tertians, quartans, irregular fevers. Each of the fevers mentioned found many victims.

VI. Οἱ μὲν οὖν καῦσοι ἐλαχίστοισί τε ἐγένοντο καὶ ἥκιστα τῶν καμνόντων οὗτοι ἐπόνησαν. οὔτε γὰρ ἡμορράγει, εἰ μὴ πάνυ σμικρὰ καὶ ὀλίγοισιν, οὔτε οἱ παράληροι. τά τε ἄλλα πάντ' εὐφόρως. ἔκρινε τούτοισι πάνυ εὐτάκτως, τοῖσι πλείστοισι σὺν τῇσι διαλειπούσῃσιν ἐν ἑπτακαίδεκα ἡμέρῃσιν οὐδὲ ἀποθανόντα οὐδένα οἶδα τότε καύσῳ οὐδὲ φρενιτικὰ τότε γενόμενα. οἱ δὲ τριταῖοι πλείους μὲν τῶν καύσων καὶ ἐπιπονώτεροι· εὐτάκτως δὲ τούτοισι πᾶσιν ἀπὸ τῆς πρώτης λήψιος τέσσαρας περιόδους· ἐν ἑπτὰ δὲ τελέως ἔκριναν οὐδ' ὑπέστρεψαν οὐδενὶ τούτων. οἱ δὲ τεταρταῖοι πολλοῖσι μὲν ἐξ ἀρχῆς ἐν τάξει τεταρταίου ἤρξαντο, ἔστι δὲ οἷς οὐκ ὀλίγοισιν ἐξ ἄλλων πυρετῶν καὶ νοσημάτων ἀποστάσει τεταρταῖοι ἐγένοντο· μακρὰ δὲ καὶ ὡς εἴθισται τούτοισι καὶ ἔτι μακρότερα συνέπιπτεν. ἀμφημερινοὶ δὲ καὶ νυκτερινοὶ καὶ πλάνητες πολλοῖσι πολλοὶ καὶ πολὺν χρόνον παρέμενον ὀρθοστάδην τε καὶ κατακειμένοισι. τοῖσι πλείστοισι τούτων ὑπὸ πληϊάδα καὶ μέχρι χειμῶνος οἱ πυρετοὶ παρείποντο. σπασμοὶ δὲ πολλοῖσι, μᾶλλον δὲ παιδίοις, ἐξ ἀρχῆς καὶ ὑπεπύρεσσον, καὶ ἐπὶ πυρετοῖσιν ἐγίνοντο σπασμοί· χρόνια μὲν τοῖσι πλείστοισι τούτων, ἀβλαβέα δέ, εἰ μὴ τοῖσι καὶ ἐκ τῶν ἄλλων πάντων ὀλεθρίως ἔχουσιν.

VII. Οἱ δὲ δὴ συνεχέες μὲν τὸ ὅλον καὶ οὐδὲν ἐκλείποντες, παροξυνόμενοι δὲ πᾶσι τριταιοφυέα

VI. Now the ardent fevers attacked the fewest persons, and these were less distressed than any of the other sick. There was no bleeding from the nose, except very slight discharges in a few cases, and no delirium. All the other symptoms were slight. The crises of these diseases were quite regular, generally in seventeen days, counting the days of intermission, and I know of no ardent fever proving fatal at this time, nor of any phrenitis. The tertians were more numerous than the ardent fevers and more painful. But all these had four regular periods from the first onset, had complete crises in seven, and in no case relapsed. But the quartans, while in many instances they began at first with quartan periodicity, yet in not a few they became quartan by an abscession from other fevers or illnesses.[1] They were protracted, as quartans usually are, or even more protracted than usual. Many fell victims to quotidians, night fevers, or irregular fevers, and were ill for a long time, either in bed or walking about. In most of these cases the fevers continued during the season of the Pleiades or even until winter. In many patients, especially children, there were convulsions and slight feverishness from the beginning; sometimes, too, convulsions supervened upon fevers. Mostly these illnesses were protracted, but not dangerous, except for those who from all other causes were predisposed to die.

VII. But those fevers which were altogether continuous and never intermitted at all, but in all cases

[1] There are often mixed infections in malaria. If the quartan be one of these, being the longest it outlasts the others. So the disease appears to have turned into a quartan.

τρόπον, μίαν ὑποκουφίζοντες καὶ μίαν παροξυνόμενοι, πάντων βιαιότατοι τῶν τότε γενομένων καὶ μακρότατοι καὶ μετὰ πόνων μεγίστων γενόμενοι· πρηέως ἀρχόμενοι, τὸ δ' ὅλον ἐπιδιδόντες αἰεὶ καὶ παροξυνόμενοι καὶ ἀνάγοντες ἐπὶ τὸ κάκιον· σμικρὰ διακουφίζοντες καὶ ταχὺ πάλιν ἐξ ἐπισχέσιος βιαιοτέρως παροξυνόμενοι, ἐν κρισί-
10 μοις ὡς ἐπὶ τὸ πολὺ κακούμενοι. ῥίγεα δὲ πᾶσι μὲν ἀτάκτως καὶ πεπλανημένως ἐγίνετο, ἐλάχιστα δὲ καὶ ἥκιστα τούτοισιν, ἀλλ' ἐπὶ τῶν ἄλλων πυρετῶν μέζω. ἰδρῶτες πολλοί, τούτοισι δὲ ἐλάχιστοι, κουφίζοντες οὐδέν, ἀλλ' ὑπεναντίον βλάβας φερόντες. ψύξις δὲ πολλὴ τούτοισιν ἀκρέων καὶ μόγις ἀναθερμαινόμενα. ἄγρυπνοι τὸ σύνολον καὶ μάλιστα οὗτοι καὶ πάλιν κωματώδεες. κοιλίαι δὲ πᾶσι μὲν ταραχώδεες καὶ κακαί, πολὺ δὲ τούτοισι κάκισται. οὖρα δὲ τοῖσι πλείστοισι
20 τούτων ἢ λεπτὰ καὶ ὠμὰ καὶ ἄχρω καὶ μετὰ χρόνον σμικρὰ πεπαινόμενα κρισίμως ἢ πάχος μὲν ἔχοντα, θολερὰ δὲ καὶ οὐδὲν καθιστάμενα, οὐδ' ὑφιστάμενα, ἢ σμικρὰ καὶ κακὰ καὶ ὠμὰ τὰ ὑφιστάμενα· κάκιστα δὲ ταῦτα πάντων. βῆχες δὲ παρείποντο μὲν τοῖς πυρετοῖσι, γράψαι δὲ οὐκ ἔχω βλάβην οὐδ' ὠφελείην γενομένην διὰ βηχὸς
27 τότε.

VIII. Χρόνια μὲν οὖν καὶ δυσχερέα καὶ πάνυ ἀτάκτως καὶ πεπλανημένως καὶ ἀκρίτως τὰ πλεῖστα τούτων διετέλει γινόμενα καὶ τοῖσι πάνυ

grew worse after the manner of semitertians, with remission during one day followed by exacerbation during the next, were the most severe of all the fevers which occurred at this time, the longest and the most painful. Beginning mildly, and on the whole increasing always, with exacerbation, and growing worse, they had slight remissions followed quickly after an abatement by more violent exacerbations, generally becoming worse on the critical days. All patients had irregular rigors that followed no fixed law, most rarely and least in the semitertians,[1] but more violent in the other fevers. Copious sweats, least copious in the semitertians; they brought no relief, but on the contrary caused harm. These patients suffered great chill in the extremities, which grew warm again with difficulty. Generally there was sleeplessness, especially with the semitertians, followed afterwards by coma. In all the bowels were disordered and in a bad state, but in the semitertians they were far the worst. In most of them urine either (*a*) thin, crude, colourless, after a time becoming slightly concocted with signs of crisis, or (*b*) thick enough but turbid, in no way settling or forming sediment, or (*c*) with small, bad, crude sediments, these being the worst of all. Coughs attended the fevers, but I cannot say that either harm or good resulted from the coughing on this occasion.

VIII. Now the greatest number of these symptoms continued to be protracted, troublesome, very disordered, very irregular, and without any critical signs, both in the case of those who came very near death

[1] I take the pronoun οὗτος throughout this chapter to refer to the remittent semitertian, or to sufferers from it.

ὀλεθρίως ἔχουσι καὶ τοῖσι μή. εἰ γάρ τινας αὐτῶν καὶ διαλίποι σμικρά, ταχὺ πάλιν ὑπέστρεφεν. ἔστι δ' οἷσιν ἔκρινεν αὐτῶν ὀλίγοισιν, οἷσι τὰ βραχύτατα γένοιτο, περὶ ὀγδοηκοστὴν ἐοῦσι, καὶ τούτων ἐνίοις ὑπέστρεφεν, ὥστε κατὰ χειμῶνα τοὺς πλείστους αὐτῶν ἔτι νοσεῖν. τοῖσι δὲ πλείστοισιν ἀκρίτως ἐξέλειπεν. ὁμοίως δὲ ταῦτα συνέπιπτεν τοῖς περιγινομένοισιν καὶ τοῖσιν οὔ. πολλῆς δέ τινος γινομένης ἀκρισίης καὶ ποικιλίης ἐπὶ τῶν νοσημάτων καὶ μεγίστου μὲν σημείου καὶ κακίστου διὰ τέλεος παρεπομένου τοῖσι πλείστοισιν ἀποσίτοις εἶναι πάντων γευμάτων, μάλιστα δὲ τούτων, οἷσι καὶ τἄλλα ὀλεθρίως ἔχοι, διψώδεες οὐ λίην ἀκαίρως ἦσαν ἐπὶ τοῖσι πυρετοῖσι τούτοισι. γενομένων δὲ χρόνων μακρῶν καὶ πόνων πολλῶν καὶ κακῆς συντήξιος, ἐπὶ τούτοισιν ἀποστάσιες ἐγίνοντο ἢ μέζους, ὥστε ὑποφέρειν μὴ δύνασθαι, ἢ μείους, ὥστε μηδὲν ὠφελεῖν, ἀλλὰ ταχὺ παλινδρομεῖν καὶ συνεπείγειν ἐπὶ τὸ κάκιον.

IX. Ἦν δὲ τούτοισι τὰ γινόμενα δυσεντεριώδεα καὶ τεινεσμοί, καὶ λειεντερικοὶ[1] καὶ ῥοώδεες. ἔστι δ' οἷσι καὶ ὕδρωπες μετὰ τούτων καὶ ἄνευ τούτων. ὅ τι δὲ παραγένοιτο τούτων βιαίως ταχὺ συνήρει, ἢ πάλιν ἐπὶ τὸ μηδὲν ὠφελεῖν. ἐξανθήματα σμικρὰ καὶ οὐκ ἀξίως τῆς περιβολῆς τῶν νοσημάτων καὶ ταχὺ πάλιν ἀφανιζόμενα ἢ παρὰ τὰ ὦτα οἰδήματα μωλυόμενα[2] καὶ οὐδὲν

[1] If this be the true reading, and not λειεντερίαι, it cannot possibly be an adjective in agreement with τεινεσμοί, which would give an absurd sense. It must agree with some such word as οἱ νοσέοντες.

and in the case of those who did not. For even if some patients enjoyed slight intermissions, there followed a quick relapse. A few of them experienced a crisis, the earliest being about the eightieth day, some of the latter having a relapse, so that most of them were still ill in the winter. The greatest number had no crisis before the disease terminated. These symptoms occurred in those who recovered just as much as in those who did not. The illnesses showed a marked absence of crisis and a great variety; the most striking and the worst symptom, which throughout attended the great majority, was a complete loss of appetite, especially in those whose general condition exhibited fatal signs, but in these fevers they did not suffer much from unseasonable thirst. After long intervals, with many pains and with pernicious wasting, there supervened abscessions either too severe to be endured, or too slight to be beneficial, so that there was a speedy return of the original symptoms, and an aggravation of the mischief.[1]

IX. The symptoms from which these patients suffered were dysenteries and tenesmus, lienteries also and fluxes. Some had dropsies also, either with or without these. Whenever any of these attacked violently they were quickly fatal, or, if mild, they did no good. Slight eruptions, which did not match the extent of the diseases and quickly disappeared again, or swellings by the ears that grew smaller[2] and

[1] That is, the abscessions did not carry off the morbid humours, which spread again throughout the system.

[2] μολυνόμενα would mean "remained crude."

[2] μωλυόμενα Foes: μὴ λυόμενα A: μολυνόμενα V.

ἀποσημαίνοντα, ἔστι δ' οἷς ἐς ἄρθρα, μάλιστα δὲ
10 κατὰ ἰσχίον, ὀλίγοισι κρισίμως ἀπολείποντα καὶ
ταχὺ πάλιν ἐπικρατεύμενα ἐπὶ τὴν ἐξ ἀρχῆς
12 ἕξιν.

Χ. Ἔθνῃσκον δ' ἐκ πάντων μέν, πλεῖστοι δ' ἐκ τούτων, καὶ τούτων παιδία, ὅσα ἀπὸ γάλακτος ἤδη, καὶ πρεσβύτερα, ὀκταετέα καὶ δεκαετέα, καὶ ὅσα πρὸ ἥβης. ἐγίνετο δὲ τούτοισι ταῦτα οὐκ ἄνευ τῶν πρώτων γεγραμμένων, τὰ δὲ πρῶτα πολλοῖσιν ἄνευ τούτων. μοῦνον δὲ χρηστὸν καὶ μέγιστον τῶν γενομένων σημείων καὶ πλείστους ἐρρύσατο τῶν ἐόντων ἐπὶ τοῖσι μεγίστοισι κινδύνοισιν, οἷσιν ἐπὶ τὸ στραγγουριῶδες ἐτράπετο καὶ
10 ἐς τοῦτο ἀποστάσιες ἐγίνοντο. συνέπιπτε δὲ καὶ τὸ στραγγουριῶδες τῇσιν ἡλικίῃσιν ταύτῃσιν γίνεσθαι μάλιστα. ἐγίνετο δὲ καὶ τῶν ἄλλων πολλοῖσιν ὀρθοστάδην καὶ ἐπὶ τῶν νοσημάτων. ταχὺ δὲ καὶ μεγάλη τις ἡ μεταβολὴ τούτοισι πάντων ἐγίνετο. κοιλίαι τε γάρ, καὶ εἰ τύχοιεν ἐφυγραινόμεναι κακοήθεα τρόπον, ταχὺ συνίσταντο, γεύμασίν τε πᾶσιν ἡδέως εἶχον, οἵ τε πυρετοὶ πρηέες μετὰ ταῦτα. χρόνια δὲ καὶ τούτοισι τὰ περὶ τὴν στραγγουρίην καὶ ἐπιπόνως.
20 οὖρα δὲ τούτοισιν ἤει πολλὰ παχέα καὶ ποικίλα καὶ ἐρυθρά, μειξόπυα μετ' ὀδύνης. περιεγένοντο δὲ πάντες οὗτοι, καὶ οὐδένα τούτων οἶδα ἀπο-
23 θανόντα.

ΧΙ. Ὅσα διὰ κινδύνων, πεπασμοὺς τῶν ἀπιόντων πάντας πάντοθεν ἐπικαίρους ἢ καλὰς καὶ κρισίμους ἀποστάσιας σκοπεῖσθαι. πεπασμοὶ ταχυτῆτα κρίσιος καὶ ἀσφάλειαν ὑγιείης σημαί-

signified nothing, in some cases appearing at the joints, especially the hip-joint, in few instances leaving with signs of crisis, when they quickly re-established themselves in their original state.

X. From all the diseases some died, but the greatest number from these fevers,[1] especially children—those just weaned, older children of eight or ten years, and those approaching puberty. These victims never suffered from the latter symptoms without the first I have described above, but often the first without the latter. The only good sign, the most striking that occurred, which saved very many of those who were in the greatest danger, was when there was a change to strangury, into which abscessions took place. The strangury, too, came mostly to patients of the ages mentioned, though it did happen to many of the others, either without their taking to bed or when they were ill. Rapid and great was the complete change that occurred in their case. For the bowels, even if they were perniciously loose, quickly recovered; their appetite for everything returned, and hereafter the fever abated. But the strangury, even in these cases, was long and painful. Their urine was copious, thick, varied, red, mixed with pus, and passed with pain. But they all survived, and I know of none of these that died.

XI. In all dangerous cases you should be on the watch for all favourable coctions of the evacuations from all parts, or for fair and critical abscessions. Coctions signify nearness of crisis and sure recovery

[1] It is not clear to what πάντων and τούτων refer. Probably πάντων refers to all the semitertians, and τούτων to the special type of them described in Chapter IX.

νουσιν, ὠμὰ δὲ καὶ ἄπεπτα καὶ ἐς κακὰς ἀποστάσιας τρεπόμενα ἀκρισίας ἢ πόνους ἢ χρόνους ἢ θανάτους ἢ τῶν αὐτῶν ὑποστροφάς. ὅ τι δὲ τούτων ἔσται μάλιστα, σκεπτέον ἐξ ἄλλων. λέγειν τὰ προγενόμενα, γινώσκειν τὰ παρεόντα, προλέγειν τὰ ἐσόμενα· μελετᾶν ταῦτα. ἀσκεῖν περὶ τὰ νοσήματα δύο, ὠφελεῖν ἢ μὴ βλάπτειν. ἡ τέχνη διὰ τριῶν, τὸ νόσημα καὶ ὁ νοσέων καὶ ὁ ἰητρός· ὁ ἰητρὸς ὑπηρέτης τῆς τέχνης· ὑπεναντιοῦσθαι τῷ νοσήματι τὸν νοσέοντα μετὰ τοῦ ἰητροῦ.

XII. Τὰ περὶ κεφαλὴν καὶ τράχηλον ἀλγήματα καὶ βάρεα μετ' ὀδύνης ἄνευ πυρετῶν καὶ ἐν πυρετοῖσι· φρενιτικοῖσι μὲν σπασμοί, καὶ ἰώδεα ἐπανεμεῦσιν, ἔνιοι ταχυθάνατοι τούτων. ἐν καύσοισι δὲ καὶ τοῖς ἄλλοις πυρετοῖς, οἷσι μὲν τραχήλου πόνος καὶ κροτάφων βάρος καὶ σκοτώδεα περὶ τὰς ὄψιας καὶ ὑποχονδρίου σύντασις οὐ μετ' ὀδύνης γίνεται, τούτοισιν αἱμορραγεῖ διὰ ῥινῶν· οἷσι δὲ βάρεα μὲν ὅλης τῆς κεφαλῆς, καρδιωγμοὶ δὲ καὶ ἀσώδεές εἰσιν, ἐπανεμέουσιν χολώδεα καὶ φλεγματώδεα. τὸ πολὺ δὲ παιδίοισιν ἐν τοῖσι τοιούτοισιν οἱ σπασμοὶ μάλιστα, γυναιξὶ δὲ καὶ ταῦτα καὶ ἀπὸ ὑστερέων πόνοι, πρεσβυτέροισι δὲ καὶ ὅσοις ἤδη τὸ θερμὸν κρατεῖται, παραπληγικὰ ἢ μανικὰ ἢ στερήσιες ὀφθαλμῶν.

κατάστασις τρίτη

XIII. Ἐν Θάσῳ πρὸ ἀρκτούρου ὀλίγον καὶ ἐπ' ἀρκτούρου ὕδατα πολλὰ μεγάλα ἐν βορείοις. περὶ δὲ ἰσημερίην καὶ μέχρι πληϊάδος νότια

of health, but crude and unconcocted evacuations, which change into bad abscessions, denote absence of crisis, pain, prolonged illness, death, or a return of the same symptoms. But it is by a consideration of other signs that one must decide which of these results will be most likely. Declare the past, diagnose the present, foretell the future; practise these acts. As to diseases, make a habit of two things—to help, or at least to do no harm. The art has three factors, the disease, the patient, the physician. The physician is the servant of the art. The patient must co-operate with the physician in combating the disease.

XII. Pains about the head and neck, and heaviness combined with pain, occur both without and with fever. Sufferers from phrenitis have convulsions, and eject verdigris-coloured vomit; some die very quickly. But in ardent and the other fevers, those with pain in the neck, heaviness of the temples, dimness of sight, and painless tension of the hypochondrium, bleed from the nose; those with a general heaviness of the head, cardialgia, and nausea, vomit afterwards bile and phlegm. Children for the most part in such cases suffer chiefly from the convulsions. Women have both these symptoms and pains in the womb. Older people, and those whose natural heat is failing, have paralysis or raving or blindness.

Third Constitution

XIII. In Thasos a little before and at the season of Arcturus many violent rains with northerly winds. About the equinox until the setting of the Pleiades

ὕσματα ὀλίγα. χειμὼν βόρειος, αὐχμοί, ψύχεα, πνεύματα μεγάλα, χιόνες. περὶ δὲ ἰσημερίην χειμῶνες μέγιστοι. ἔαρ βόρειον, αὐχμοί, ὕσματα ὀλίγα, ψύχεα. περὶ δὲ ἡλίου τροπὰς θερινὰς ὕδατα ὀλίγα, μεγάλα ψύχεα μέχρι κυνὸς ἐπλησίασε.[1] μετὰ δὲ κύνα μέχρι ἀρκτούρου θέρος θερμόν· καύματα μεγάλα καὶ οὐκ ἐκ προσαγωγῆς, ἀλλὰ συνεχέα καὶ βίαια· ὕδωρ οὐκ ἐγένετο· ἐτησίαι ἔπνευσαν. περὶ ἀρκτοῦρον ὕσματα νότια μέχρι ἰσημερίης.

XIV. Ἐν τῇ καταστάσει ταύτῃ κατὰ χειμῶνα μὲν ἤρξαντο παραπληγίαι καὶ πολλοῖσιν ἐγίνοντο, καὶ τινὲς αὐτῶν ἔθνησκον διὰ ταχέων· καὶ γὰρ ἄλλως τὸ νόσημα ἐπίδημον ἦν· τὰ δὲ ἄλλα διετέλεον ἄνοσοι. πρωὶ δὲ τοῦ ἦρος ἤρξαντο καῦσοι καὶ διετέλεον μέχρι ἰσημερίης καὶ πρὸς τὸ θέρος. ὅσοι μὲν οὖν ἦρος καὶ θέρεος ἀρξαμένου αὐτίκα νοσεῖν ἤρξαντο, οἱ πλεῖστοι διεσῴζοντο, ὀλίγοι δέ τινες ἔθνησκον. ἤδη δὲ τοῦ φθινοπώρου καὶ τῶν ὑσμάτων γενομένων θανατώδεες ἦσαν καὶ πλείους ἀπωλλυντο.

Ἦν δὲ τὰ παθήματα τῶν καύσων, οἷσι μὲν καλῶς καὶ δαψιλέως ἐκ ῥινῶν αἱμορραγήσαι,[2] διὰ τούτου μάλιστα σῴζεσθαι, καὶ οὐδένα οἶδα, εἰ καλῶς αἱμορραγήσαι,[3] ἐν τῇ καταστάσει ταύτῃ ἀποθανόντα. Φιλίσκῳ γὰρ καὶ Ἐπαμείνονι καὶ Σιληνῷ τεταρταίῳ καὶ πεμπταίῳ σμικρὸν ἀπὸ ῥινῶν ἔσταξεν· ἀπέθανον. οἱ μὲν οὖν πλεῖστοι τῶν νοσησάντων περὶ κρίσιν ἐπερρίγουν καὶ

[1] I suspect the MSS. reading, as ὕδατα and ψύχεα can scarcely be the subjects of ἐπλησίασε. I think that ἐπλησίασε

slight, southerly rains. Winter northerly, droughts, cold periods, violent winds, snow. About the equinox very severe storms. Spring northerly, droughts, slight rains, periods of cold. About the summer solstice slight showers, periods of great cold until near the Dog Star. After the Dog Star, until Arcturus, hot summer. Great heat, not intermittent but continuous and severe. No rain fell. The Etesian winds blew. About Arcturus southerly rains until the equinox.

XIV. In this constitution during winter began paralyses which attacked many, a few of whom quickly died. In fact, the disease was generally epidemic. In other respects the public health continued good. Early in spring began ardent fevers which continued until the equinox and on to summer. Now those who began to be ill at once, in spring or the beginning of summer, in most cases got well, though a few died; but when autumn and the rains came the cases were dangerous, and more died.

As to the peculiarities of the ardent fevers, the most likely patients to survive were those who had a proper and copious bleeding from the nose, in fact I do not know of a single case in this constitution that proved fatal when a proper bleeding occurred, For Philiscus and Epaminon and Silenus, who died, had only a slight epistaxis on the fourth and fifth days. Now the majority of the patients had rigors near the

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either is part of a gloss, or has replaced a verb meaning "persisted."

[2] αἱμορραγήσαι Kühlewein: αἱμορραγῆσαι A V.

[3] αἱμορραγήσαι Kühlewein: αἱμορραγῆσαι A: αἱμορραγήσει V.

μάλιστα οἷσι μὴ αἱμορραγήσαι.[1] ἐπερρίγουν δὲ † καὶ † [2] οὗτοι καὶ ἐφίδρουν.

XV. Ἔστι δὲ οἷσιν ἴκτεροι ἑκταίοις, ἀλλὰ τούτοις ἢ κατὰ κύστιν κάθαρσις ἢ κοιλίη ἐκταραχθεῖσα ὠφέλει ἢ δαψιλὴς αἱμορραγίη, οἷον Ἡρακλείδῃ, ὃς κατέκειτο παρὰ Ἀριστοκύδει. καίτοι τούτῳ καὶ ἐκ ῥινῶν ἡμορράγησε καὶ ἡ κοιλίη ἐπεταράχθη, καὶ κατὰ κύστιν ἐκαθήρατο· ἐκρίθη εἰκοσταῖος· οὐχ οἷον ὁ Φαναγόρεω οἰκέτης, ᾧ οὐδὲν τούτων ἐγένετο· ἀπέθανεν. ἡμορράγει δὲ τοῖσι πλείστοισι, μάλιστα δὲ μειρακίοισι καὶ ἀκμάζουσι, καὶ ἔθνησκον πλεῖστοι τούτων, οἷσι μὴ αἱμορραγήσαι.[3] πρεσβυτέροισι δὲ ἐς ἰκτέρους ἢ κοιλίαι ταραχώδεες, οἷον Βίωνι τῷ παρὰ Σιληνὸν κατακειμένῳ. ἐπεδήμησαν δὲ καὶ δυσεντερίαι κατὰ θέρος, καί τισι καὶ τῶν διανοησάντων, οἷσι καὶ αἱμορραγίαι ἐγένοντο, ἐς δυσεντεριώδεα ἐτελεύτησεν, οἷον τῷ Ἐράτωνος παιδὶ καὶ Μύλλῳ πολλῆς αἱμορραγίης γενομένης ἐς δυσεντεριώδεα κατέστη· περιεγένοντο.

Πολὺς μὲν οὖν μάλιστα οὗτος ὁ χυμὸς ἐπέπόλασεν, ἐπεὶ καὶ οἷσι περὶ κρίσιν οὐχ ἡμορράγησεν, ἀλλὰ παρὰ τὰ ὦτα ἐπαναστάντα ἠφανίσθη—τούτων δὲ ἀφανισθέντων παρὰ τὸν κενεῶνα βάρος τὸν ἀριστερὸν καὶ ἐς ἄκρον ἰσχίον —ἀλγήματος μετὰ κρίσιν γενομένου καὶ οὔρων λεπτῶν διεξιόντων, αἱμορραγεῖν σμικρὰ ἤρξατο περὶ τετάρτην καὶ εἰκοστήν, καὶ ἐγένοντο ἐς

[1] αἱμορραγήσαι Kühlewein : αἱμορραγῆσαι A : αἱμορραγήσει V.

[2] καὶ before οὗτοι is contrary to the sense. One MS. (D) omits it. Galen read οἱ αὐτοὶ for καὶ οὗτοι. The omission of καὶ is the simplest remedy.

crisis, especially such as had no epistaxis, but these had sweats also as well as rigors.

XV. Some had jaundice on the sixth day, but these were benefited by either a purging through the bladder or a disturbance of the bowels or a copious hemorrhage, as was the case with Heraclides, who lay sick at the house of Aristocydes. This patient, however, who had a crisis on the twentieth day, not only bled from the nose, but also experienced disturbance of the bowels and a purging through the bladder. Far otherwise was it with the servant of Phanagoras, who had none of these symptoms, and died. But the great majority had hemorrhage, especially youths and those in the prime of life, and of these the great majority who had no hemorrhage died. Older people had jaundice or disordered bowels, for example Bion, who lay sick at the house of Silenus. Dysenteries also were general in summer, and some too of those who had fallen ill, and also suffered from hemorrhage, finally had dysentery; for example, the slave of Erato and Myllus, after copious hemorrhage, lapsed into dysentery. They recovered.

This humour,[1] then, especially was in great abundance, since even those who had no hemorrhage near the crisis, but swellings by the ears which disappeared—and after their disappearance there was a heaviness along the left flank up to the extremity of the hip—after the crisis had pain and passed thin urine, and then began to suffer slight hemorrhage about the twenty-fourth day, and

[1] That is, blood.

[3] αἱμορραγήσαι Kühlewein: αἱμορραγῆσαι AV: ἡμορράγησεν A^4.

αἱμορραγίην ἀποστάσιες· Ἀντιφῶντι Κριτοβούλου ἀπεπαύσατο καὶ ἐκρίθη τελέως περὶ
29 τεσσαρακοστήν.

XVI. Γυναῖκες δὲ ἐνόσησαν μὲν πολλαί, ἐλάσσους δὲ ἢ ἄνδρες καὶ ἔθνῃσκον ἧσσον. ἐδυστόκεον δὲ αἱ πλεῖσται καὶ μετὰ τοὺς τόκους ἐπενόσεον, καὶ ἔθνῃσκον αὗται μάλιστα, οἷον ἡ Τελεβούλου θυγάτηρ ἀπέθανεν ἑκταίη ἐκ τόκου. τῇσι μὲν οὖν πλείστῃσιν ἐν τοῖσι πυρετοῖσι γυναικεῖα ἐπεφαίνετο καὶ παρθένοισι πολλῇσι τότε πρῶτον ἐγένετο· ἔστι δ' ἧσιν ἡμορράγησεν ἐκ ῥινῶν· [1] ἔστι δ' ὅτε καὶ ἐκ ῥινῶν καὶ τὰ γυναικεῖα τῇσιν
10 αὐτῇσιν ἐπεφαίνετο, οἷον τῇ Δαιθάρσεος θυγατρὶ παρθένῳ ἐπεφάνη τότε πρῶτον καὶ ἐκ ῥινῶν λάβρον ἐρρύη, καὶ οὐδεμίαν οἶδα ἀποθανοῦσαν, ἧσι τούτων τι καλῶς γένοιτο. ἧσι δὲ συνεκύρησεν ἐν γαστρὶ ἐχούσῃσι νοσῆσαι, πᾶσαι ἀπέφθειραν,
15 ἃς καὶ ἐγὼ οἶδα.

XVII. Οὖρα δὲ τοῖσι πλείστοισιν εὔχρω μέν, λεπτὰ δὲ καὶ ὑποστάσιας ὀλίγας ἔχοντα, κοιλίαι δὲ ταραχώδεες τοῖσι πλείστοισι διαχωρήμασι λεπτοῖσι καὶ χολώδεσι. πολλοῖσι δὲ τῶν ἄλλων κεκριμένων ἐς δυσεντερίας ἐτελεύτα, οἷον Ξενοφάνει καὶ Κριτίᾳ. οὖρα δὲ ὑδατώδεα πολλὰ καθαρὰ καὶ λεπτὰ καὶ μετὰ κρίσιν καὶ ὑποστάσιος καλῆς γενομένης καὶ τῶν ἄλλων καλῶς κεκριμένων ἀναμνήσομαι οἷσιν ἐγένετο· Βίωνι, ὃς
10 κατέκειτο παρὰ Σιληνόν, Κράτιδι [2] τῇ παρὰ Ξενοφάνεος, Ἀρέτωνος παιδί, Μνησιστράτου γυναικί. μετὰ δὲ δυσεντεριώδεες ἐγένοντο οὗτοι πάντες.

Περὶ δὲ ἀρκτοῦρον ἐνδεκαταίοισι πολλοῖσιν

abscessions into hemorrhage occurred. In the case of Antipho, son of Critobulus, the illness ceased and came to a complete crisis about the fortieth day.

XVI. Though many women fell ill, they were fewer than the men and less frequently died. But the great majority had difficult childbirth, and after giving birth they would fall ill, and these especially died, as did the daughter of Telebulus on the sixth day after delivery. Now menstruation appeared during the fevers in most cases, and with many maidens it occurred then for the first time. Some bled from the nose. Sometimes both epistaxis and menstruation appeared together; for example, the maiden daughter of Daitharses had her first menstruation during fever and also a violent discharge from the nose. I know of no woman who died if any of these symptoms showed themselves properly, but all to my knowledge had abortions if they chanced to fall ill when with child.

XVII. Urine in most cases was of good colour, but thin and with slight sediments, and the bowels of most were disordered with thin, bilious excretions. Many after a crisis of the other symptoms ended with dysentery, as did Xenophanes and Critias. I will mention cases in which was passed copious, watery, clear and thin urine, even after a crisis in other respects favourable, and a favourable sediment: Bion, who lay sick at the house of Silenus, Cratis, who lodged with Xenophanes, the slave of Areto, and the wife of Mnesistratus. Afterwards all these suffered from dysentery.

About the season of Arcturus many had crisis on

[1] MSS. place ἔστι δ' ἦσιν . . . ῥινῶν after ἐπεφαίνετο. The words were first transposed by Ermerins.

[2] Κράτιδι Meineke: Κρατίῃ V: Κρατιαίτῃ A.

ἔκρινε καὶ τούτοισιν οὐδ' αἱ κατὰ λόγον γινόμεναι
ὑποστροφαὶ ὑπέστρεφον· ἦσαν δὲ καὶ κωματώδεες
περὶ τὸν χρόνον τοῦτον, πλείω δὲ παιδία, καὶ
18 ἔθνησκον ἥκιστα οὗτοι πάντων.

XVIII. Περὶ δὲ ἰσημερίην καὶ μέχρι πληϊάδος
καὶ ὑπὸ χειμῶνα παρείποντο μὲν οἱ καῦσοι,
ἀτὰρ καὶ οἱ φρενιτικοὶ τηνικαῦτα πλεῖστοι
ἐγένοντο καὶ ἔθνησκον τούτων οἱ πλεῖστοι.
ἐγένοντο δὲ καὶ κατὰ θέρος ὀλίγοι. τοῖσι μὲν
οὖν καυσώδεσιν ἀρχομένοισιν ἐπεσήμαινεν, οἷσι
τὰ ὀλέθρια συνέπιπτεν· αὐτίκα γὰρ ἀρχομένοισι
πυρετὸς ὀξύς, σμικρὰ ἐπερρίγουν, ἄγρυπνοι,[1]
διψώδεες, ἀσώδεες, σμικρὰ ἐφίδρουν περὶ μέτωπον
10 καὶ κληῖδας, οὐδεὶς δι' ὅλου, πολλὰ παρέλεγον,
φόβοι, δυσθυμίαι, ἄκρεα περίψυχρα, πόδες ἄκροι,
μᾶλλον δὲ τὰ περὶ χεῖρας· οἱ παροξυσμοὶ ἐν
ἀρτίῃσι· τοῖσι δὲ πλείστοισιν τεταρταίοισιν οἱ
πόνοι μέγιστοι καὶ ἱδρὼς ἐπὶ πλεῖστον ὑπόψυχρος
καὶ ἄκρεα οὐκ ἔτι ἀνεθερμαίνοντο, ἀλλὰ πελιδνὰ
καὶ ψυχρά, οὐδ' ἐδίψων ἔτι ἐπὶ τούτοισιν· οὖρα
τούτοις ὀλίγα, μέλανα, λεπτὰ καὶ κοιλίαι ἐφί-
σταντο· οὐδ' ἠμορράγησεν ἐκ ῥινῶν οὐδενί, οἷσι
ταῦτα συμπίπτοι, ἀλλ' ἢ σμικρὰ ἔσταξεν· οὐδ' ἐς
20 ὑποστροφὴν οὐδενὶ τούτων ἦλθεν, ἀλλ' ἑκταῖοι
ἀπέθνησκον σὺν ἱδρῶτι. τοῖσι δὲ φρενιτικοῖσι
συνέπιπτε μὲν καὶ τὰ ὑπογεγραμμένα πάντα,
ἔκρινε δὲ τούτοισιν ὡς ἐπὶ τὸ πολὺ ἑνδεκαταίοισιν·
ἔστι δ' οἷσι καὶ εἰκοσταίοισι, οἷσιν οὐκ εὐθὺς[2]
ἐξ ἀρχῆς ἡ φρενῖτις ἤρξατο ἢ[3] περὶ τρίτην
ἢ τετάρτην ἡμέρην, ἀλλὰ μετρίως ἔχουσιν ἐν τῷ

[1] After ἄγρυπνοι Galen adds ἀδήμονες.

the eleventh day, and these did not suffer even the normal relapses. There were also comatose fevers about this time, usually in children, and of all patients these showed the lowest mortality.

XVIII. About the equinox up to the setting of the Pleiades, and during winter, although the ardent fevers continued, yet cases of phrenitis were most frequent at this time, and most of them were fatal. In summer, too, a few cases had occurred. Now the sufferers from ardent fever, when fatal symptoms attended, showed signs at the beginning. For right from the beginning there was acute fever with slight rigors, sleeplessness, thirst, nausea, slight sweats about the forehead and collar-bones, but in no case general, much delirium, fears, depression, very cold extremities, toes and hands, especially the latter. The exacerbations on the even days; but in most cases the pains were greatest on the fourth day, with sweat for the most part chilly, while the extremities could not now be warmed again, remaining livid and cold; and in these cases the thirst ceased. Their urine was scanty, black, thin, with constipation of the bowels. Nor was there hemorrhage from the nose in any case when these symptoms occurred, but only slight epistaxis. None of these cases suffered relapse, but they died on the sixth day, with sweating. The cases of phrenitis had all the above symptoms, but the crises generally occurred on the eleventh day. Some had their crises on the twentieth day, namely those in whom the phrenitis did not begin at first, or began about the third or fourth day, but

[2] *οὐκ εὐθὺς* Kühlewein: *εὐθὺς οὐκ* most MSS.: *οἷσιν . . . . . μετέπεσεν* omitted by A V.

[3] *ἢ* added by Kühlewein.

πρώτῳ χρόνῳ περὶ τὴν ἑβδόμην ἐς ὀξύτητα τὸ
28 νόσημα μετέπεσεν.

XIX. Πλῆθος μὲν οὖν τῶν νοσημάτων ἐγένετο. ἐκ δὲ τῶν καμνόντων ἀπέθνῃσκον μάλιστα μειράκια, νέοι, ἀκμάζοντες, λεῖοι, ὑπολευκόχρωτες, ἰθύτριχες, μελανότριχες, μελανόφθαλμοι, οἱ εἰκῇ καὶ ἐπὶ τὸ ῥᾴθυμον βεβιωκότες, ἰσχνόφωνοι, τρηχύφωνοι, τραυλοί, ὀργίλοι. καὶ γυναῖκες πλεῖσται ἐκ τούτου τοῦ εἴδεος ἀπέθνῃσκον. ἐν δὲ ταύτῃ τῇ καταστάσει ἐπὶ σημείων μάλιστα τεσσάρων διεσῴζοντο· οἷσι γὰρ ἢ διὰ ῥινῶν καλῶς αἱμορ-
10 ραγήσαι[1] ἢ κατὰ κύστιν οὖρα πολλὰ καὶ πολλὴν καὶ καλὴν ὑπόστασιν ἔχοντα ἔλθοι ἢ κατὰ κοιλίην ταραχώδεα χολώδεσιν ἐπικαίρως, ἢ δυσεντερικοὶ γενοίατο. πολλοῖσι δὲ συνέπιπτε μὴ ἐφ' ἑνὸς κρίνεσθαι τῶν ὑπογεγραμμένων σημείων, ἀλλὰ διεξιέναι διὰ πάντων τοῖσι πλείστοισι καὶ δοκεῖν μὲν ἔχειν ὀχληροτέρως· διεσῴζοντο δὲ πάντες, οἷσι ταῦτα συμπίπτοι. γυναιξὶ δὲ καὶ παρθένοισι συνέπιπτε μὲν καὶ τὰ ὑπογεγραμμένα σημεῖα πάντα, ᾗσι δὲ ἢ τούτων τι καλῶς γένοιτο ἢ τὰ
20 γυναικεῖα δαψιλέως ἐπιφανείη, διὰ τούτων ἐσῴζοντο καὶ ἔκρινε, καὶ οὐδεμίαν οἶδα ἀπολομένην, ᾗσι τούτων τι καλῶς γένοιτο. Φίλωνος γὰρ θυγάτηρ,[2] ἐκ ῥινῶν λάβρον ἐρρύη, ἑβδομαίη ἐοῦσα ἐδείπνησεν ἀκαιροτέρως· ἀπέθανεν.

Οἷσιν ἐν πυρετοῖσιν ὀξέσι, μᾶλλον δὲ καυσώδεσιν, ἀέκουσιν δάκρυα παραρρεῖ, τούτοισιν ἀπὸ ῥινῶν αἱμορραγίην προσδέχεσθαι, ἣν καὶ τἄλλα

[1] αἱμορραγήσαι Kühlewein: αἱμορραγῆσαι V: ἡμορράγησεν A, with εν *in litura*.

though these fared tolerably at the beginning, yet the disease assumed an acute form about the seventh day.

XIX. Now the number of illnesses was great. And of the patients there died chiefly striplings, young people, people in their prime, the smooth, the fair-skinned, the straight-haired, the black-haired, the black-eyed, those who had lived recklessly and carelessly, the thin-voiced, the rough-voiced, the lispers, the passionate. Women too died in very great numbers who were of this kind. In this constitution there were four symptoms especially which denoted recovery:—a proper hemorrhage through the nostrils; copious discharges by the bladder of urine with much sediment of a proper character; disordered bowels with bilious evacuations at the right time; the appearance of dysenteric characteristics. The crisis in many cases did not come with one only of the symptoms described above, but in most cases all symptoms were experienced, and the patients appeared to be more distressed; but all with these symptoms got well. Women and maidens experienced all the above symptoms, but besides, whenever any took place properly, and whenever copious menstruation supervened, there was a crisis therefrom which resulted in recovery; in fact I know of no woman who died when any of these symptoms took place properly. For the daughter of Philo, who died, though she had violent epistaxis, dined rather unseasonably on the seventh day.

In acute fevers, more especially in ardent fevers, when involuntary weeping occurs, epistaxis is to be

[1] After θυγάτηρ Kühlewein adds ♀.

ὀλεθρίως μὴ ἔχωσιν, ἐπεὶ τοῖσί γε φλαύρως ἔχουσιν οὐχ αἱμορραγίην, ἀλλὰ θάνατον σημαίνει.[1]

XX. Τὰ παρὰ τὰ ὦτα ἐν πυρετοῖσιν ἐπαιρόμενα μετ' ὀδύνης ἔστιν οἷσιν ἐκλείποντος τοῦ πυρετοῦ κρισίμως οὔτε καθίστατο οὔτε ἐξεπύει· τούτοισι διάρροιαι χολωδέων ἢ δυσεντερίη ἢ παχέων οὔρων ὑπόστασις γενομένη ἔλυσεν, οἷον Ἑρμίππῳ τῷ Κλαζομενίῳ. τὰ δὲ περὶ τὰς κρίσιας, ἐξ ὧν καὶ διεγινώσκομεν, ἢ ὅμοια ἢ ἀνόμοια, οἷον οἱ δύο ἀδελφεοί, οἳ ἤρξαντο ὁμοῦ τὴν αὐτὴν ὥρην· κατέκειντο παρὰ τὸ θέρετρον Ἐπιγένεος.[2] τούτων τῷ πρεσβυτέρῳ ἔκρινεν ἑκταίῳ, τῷ δὲ νεωτέρῳ ἑβδομαίῳ. ὑπέστρεψεν ἀμφοτέροισιν ὁμοῦ τὴν αὐτὴν ὥρην καὶ διέλιπεν ἡμέρας πέντε. ἐκ δὲ τῆς ὑποστροφῆς ἐκρίθη ἀμφοτέροισιν ὁμοῦ τὸ σύμπαν ἑπτακαιδεκαταίοισιν. ἔκρινε δὲ τοῖσι πλείστοισιν ἑκταίοις. διέλειπεν ἕξ· ἐκ δὲ τῶν ὑποστροφέων ἔκρινε πεμπταίοις. οἷσι δ' ἔκρινεν ἑβδομαίοισι, διέλειπεν ἑπτά· ἐκ δὲ τῆς ὑποστροφῆς ἔκρινε τριταίοις. οἷσι δ' ἔκρινεν ἑβδομαίοισι, διαλείποντα τρεῖς ἔκρινεν ἑβδομαίοις. οἷσι δ' ἔκρινεν ἑκταίοισι, διαλείποντα ἓξ ἐλάμβανε τρισίν, διέλειπε μίαν, μίαν ἐλάμβανεν· ἔκρινεν, οἷον Εὐάγοντι τῷ Δαιθάρσεος. οἷσι δ' ἔκρινεν ἑκταίοισι, διέλειπεν ἑπτά, ἐκ δὲ τῆς ὑποστροφῆς ἔκρινε τετάρτῃ, οἷον τῇ Ἀγλαΐδου θυγατρί. οἱ μὲν οὖν πλεῖστοι τῶν νοσησάντων ἐν τῇ καταστάσει ταύτῃ τούτῳ τῷ τρόπῳ διενόσησαν, καὶ

[1] Ermerins would omit οἷσιν to σημαίνει.
[2] After Ἐπιγένεος the MSS. add ἀδελφεοί.

expected it the patient have no fatal symptoms besides; for when he is in a bad way such weeping portends not hemorrhage but death.

XX. The painful swellings by the ears in fevers in some cases neither subsided nor suppurated when the fever ceased with a crisis. They were cured by bilious diarrhœa, or dysentery, or a sediment of thick urine such as closed the illness of Hermippus of Clazomenæ. The circumstances of the crises, from which too I formed my judgments, were either similar or dissimilar; for example, the two brothers, who fell sick together at the same time, and lay ill near the bungalow of Epigenes. The elder of these had a crisis on the sixth day, the younger on the seventh. Both suffered a relapse together at the same time with an intermission of five days. After the relapse both had a complete crisis together on the seventeenth day. But the great majority had a crisis on the sixth day, with an intermission of six days followed by a crisis on the fifth day after the relapse. Those who had a crisis on the seventh day had an intermission of seven days, with a crisis on the third day after the relapse. Others with a crisis on the seventh had an intermission of three days, with a crisis on the seventh day after the relapse. Some who had a crisis on the sixth day had an intermission of six and a relapse of three, an intermission of one and a relapse of one, followed by a crisis; for example, Euagon the son of Daitharses. Others with a crisis on the sixth had an intermission of seven days, and after the relapse a crisis on the fourth; for example, the daughter of Aglaïdas. Now most of those who fell ill in this constitution went through their illness in this manner, and none of

οὐδένα οἶδα τῶν περιγενομένων, ᾧτινι οὐχ ὑπέστρεψαν αἱ κατὰ λόγον ὑποστροφαὶ γενόμεναι, καὶ διεσῴζοντο πάντες, οὓς κἀγὼ οἶδα, οἷσιν αἱ ὑποστροφαὶ διὰ τοῦ εἴδεος τούτου γενοίατο. οὐδὲ τῶν διανοσησάντων διὰ τούτου τοῦ τρόπου οὐδενὶ οἶδα ὑποστροφὴν γενομένην πάλιν.

XXI. Ἔθνησκον δὲ τοῖσι νοσήμασι τούτοις οἱ πλεῖστοι ἑκταῖοι, οἷον Ἐπαμεινώνδας καὶ Σιληνὸς καὶ Φιλίσκος ὁ Ἀνταγόρεω. οἷσι δὲ τὰ παρὰ τὰ ὦτα γενοίατο, ἔκρινε μὲν εἰκοσταίοισι, κατέσβη δὲ πᾶσι καὶ οὐκ ἐξεπύησεν, ἀλλ' ἐπὶ κύστιν ἐτράπετο. Κρατιστώνακτι, ὃς παρ' Ἡρακλεῖ ᾤκει, καὶ Σκύμνου τοῦ γναφέως θεραπαίνῃ ἐξεπύησεν· ἀπέθανον· οἷσι δ' ἔκρινεν ἑβδομαίοισι, διέλειπεν ἐννέα, ὑπέστρεφεν, ἔκρινεν ἐκ τῆς ὑποστροφῆς τεταρταίοισι —[1] Παντακλεῖ, ὃς ᾤκει παρὰ Διονύσιον —. οἷσι δ' ἔκρινεν ἑβδομαίοισιν, διέλειπεν ἕξ· ὑποστροφή· ἐκ δὲ τῆς ὑποστροφῆς ἔκρινεν ἑβδομαίοισι —[1] Φανοκρίτῳ, ὃς κατέκειτο παρὰ Γνάθωνι τῷ γναφεῖ.

XXII. Ὑπὸ δὲ χειμῶνα περὶ ἡλίου τροπὰς χειμερινὰς καὶ μέχρι ἰσημερίης παρέμενον μὲν καὶ οἱ καῦσοι καὶ τὰ φρενιτικά, καὶ ἔθνησκον πολλοί· αἱ μέντοι κρίσιες μετέπεσον, καὶ ἔκρινε τοῖσι πλείστοισιν ἐξ ἀρχῆς πεμπταίοισι, διέλειπε τέσσαρας, ὑπέστρεφεν, ἐκ δὲ τῆς ὑποστροφῆς ἔκρινε πεμπταίοισι, τὸ σύμπαν τεσσαρεσκαιδεκαταίοις. ἔκρινε δὲ παιδίοισιν οὕτω τοῖσι πλείστοισιν, ἀτὰρ καὶ πρεσβυτέροισιν. ἔστι δὲ

[1] Here some editors would add οἷον.

those who recovered, so far as I know, failed to suffer the relapses which were normal in these cases, but all, so far as I know, recovered if their relapses took place after this fashion. Further, I know of none who suffered a fresh relapse after going through the illness in the manner described above.

XXI. In these diseases most died on the sixth day, as did Epaminondas, Silenus and Philiscus the son of Antagoras. Those who had the swellings by the ears had a crisis on the twentieth day, but these subsided in all cases without suppuration, being diverted to the bladder. There were two cases of suppuration, both fatal, Cratistonax, who lived near the temple of Heracles, and the serving-maid of Scymnus the fuller. When there was a crisis on the seventh day, with an intermission of nine days followed by a relapse, there was a second crisis on the fourth day after the relapse—in the case of Pantacles, for example, who lived by the temple of Dionysus. When there was a crisis on the seventh day, with an intermission of six days followed by a relapse, there was a second crisis on the seventh day after the relapse—in the case of Phanocritus, for example, who lay sick at the house of Gnathon the fuller.

XXII. During winter, near the time of the winter solstice, and continuing until the equinox, the ardent fevers and the phrenitis still caused many deaths, but their crises changed. Most cases had a crisis on the fifth day from the outset, then intermitted four days, relapsed, had a crisis on the fifth day after the relapse, that is, after thirteen days altogether. Mostly children experienced crises thus, but older people did so too. Some had a crisis

οἷσιν ἔκρινεν ἐνδεκαταίοις, ὑποστροφὴ τεσσαρεσ-
καιδεκαταίοις, ἔκρινε τελέως εἰκοστῇ. εἰ δέ τινες
ἐπερρίγουν περὶ τὴν εἰκοστήν, τούτοισιν ἔκρινε
τεσσαρακοσταίοις. ἐπερρίγουν δ' οἱ πλεῖστοι
περὶ κρίσιν τὴν ἐξ ἀρχῆς· οἱ δ' ἐπιρριγώσαντες
ἐξ ἀρχῆς περὶ κρίσιν, καὶ ἐν τῇσιν ὑποστροφῇσιν
ἅμα κρίσει. ἐρρίγουν δ' ἐλάχιστοι μὲν τοῦ ἤρος,
θέρεος πλείους, φθινοπώρου ἔτι πλείους, ὑπὸ δὲ
χειμῶνα πολὺ πλεῖστοι. αἱ δὲ αἱμορραγίαι
19 ὑπέληγον.

XXIII. Τὰ δὲ περὶ τὰ νοσήματα, ἐξ ὧν
διεγινώσκομεν, μαθόντες ἐκ τῆς κοινῆς φύσιος
ἁπάντων καὶ τῆς ἰδίης ἑκάστου, ἐκ τοῦ νοσήματος,
ἐκ τοῦ νοσέοντος, ἐκ τῶν προσφερομένων, ἐκ τοῦ
προσφέροντος — ἐπὶ τὸ ῥᾷον γὰρ καὶ χαλεπώτερον
ἐκ τούτων —, ἐκ τῆς καταστάσιος ὅλης καὶ κατὰ
μέρεα τῶν οὐρανίων καὶ χώρης ἑκάστης, ἐκ τοῦ
ἔθεος, ἐκ τῆς διαίτης, ἐκ τῶν ἐπιτηδευμάτων, ἐκ
τῆς ἡλικίης ἑκάστου, λόγοισι, τρόποισι, σιγῇ, δια-
10 νοήμασιν, ὕπνοισιν, οὐχ ὕπνοισιν, ἐνυπνίοισι,
οἵοισι καὶ ὅτε, τιλμοῖσι, κνησμοῖσι, δάκρυσιν,
ἐκ τῶν παροξυσμῶν, διαχωρήμασιν, οὔροισιν,
πτυάλοισιν, ἐμέτοισι, καὶ ὅσαι ἐξ οἵων ἐς οἷα
διαδοχαὶ νοσημάτων καὶ ἀποστάσιες ἐπὶ τὸ
ὀλέθριον καὶ κρίσιμον, ἱδρώς, ῥῖγος, ψύξις, βήξ,
πταρμοί, λυγμοί, πνεύματα, ἐρεύξιες, φῦσαι,
σιγῶσαι, ψοφώδεες, αἱμορραγίαι, αἱμορροΐδες. ἐκ
18 τούτων καὶ ὅσα διὰ τούτων σκεπτέον.

XXIV. Πυρετοὶ οἱ μὲν συνεχέες, οἱ δ' ἡμέρην
ἔχουσι, νύκτα διαλείπουσι, νύκτα ἔχουσιν, ἡμέρην
διαλείπουσιν· ἡμιτριταῖοι, τριταῖοι, τεταρταῖοι,

on the eleventh day, a relapse on the fourteenth, and a complete crisis on the twentieth. But if rigor came on about the twentieth day the crisis came on the fortieth. Most had rigors near the first crisis, and those who had rigors at first near the crisis, had rigors again in the relapses at the time of the crisis. Fewest experienced rigors in the spring, more in summer, more still in autumn, but by far the most during winter. But the hemorrhages tended to cease.

XXIII. The following were the circumstances attending the diseases, from which I framed my judgments, learning from the common nature of all and the particular nature of the individual, from the disease, the patient, the regimen prescribed and the prescriber—for these make a diagnosis more favourable or less; from the constitution, both as a whole and with respect to the parts, of the weather and of each region; from the custom, mode of life, practices and ages of each patient; from talk, manner, silence, thoughts, sleep or absence of sleep, the nature and time of dreams, pluckings, scratchings, tears; from the exacerbations, stools, urine, sputa, vomit, the antecedents and consequents of each member in the successions of diseases, and the abscessions to a fatal issue or a crisis, sweat, rigor, chill, cough, sneezes, hiccoughs, breathing, belchings, flatulence, silent or noisy, hemorrhages, and hemorrhoids. From these things must we consider what their consequents also will be.

XXIV. Some fevers are continuous, some have an access during the day and an intermission during the night, or an access during the night and an intermission during the day; there are semitertians,

πεμπταῖοι, ἑβδομαῖοι, ἑναταῖοι. εἰσὶ δὲ ὀξύταται μὲν καὶ μέγισται καὶ χαλεπώταται νοῦσοι καὶ θανατωδέσταται ἐν τῷ συνεχεῖ πυρετῷ. ἀσφαλέστατος δὲ πάντων καὶ ῥᾳϊστος καὶ μακρότατος πάντων ὁ τεταρταῖος· οὐ γὰρ μοῦνον αὐτὸς ἐφ' ἑωυτοῦ τοιοῦτός ἐστιν, ἀλλὰ καὶ νοσημάτων ἑτέρων μεγάλων ῥύεται. ἐν δὲ τῷ ἡμιτριταίῳ καλεομένῳ συμπίπτει μὲν καὶ ὀξέα νοσήματα γίνεσθαι, καὶ ἔστι τῶν λοιπῶν οὗτος θανατωδέστατος· ἀτὰρ καὶ φθινώδεες καὶ ὅσοι ἄλλα μακρότερα νοσήματα νοσέουσιν, ἐπὶ τούτῳ μάλιστα νοσέουσι. νυκτερινὸς οὐ λίην θανατώδης, μακρὸς δέ. ἡμερινὸς μακρότερος· ἔστι δ' οἷσι ῥέπει καὶ ἐπὶ τὸ φθινῶδες. ἑβδομαῖος μακρός, οὐ θανατώδης. ἑναταῖος ἔτι μακρότερος, οὐ θανατώδης. τριταῖος ἀκριβὴς ταχυκρίσιμος καὶ οὐ θανατώδης. ὁ δὲ πεμπταῖος πάντων μὲν κάκιστος· καὶ γὰρ πρὸ φθίσιος καὶ ἤδη φθίνουσιν ἐπιγινόμενος κτείνει.

XXV. Εἰσὶ δὲ τρόποι καὶ καταστάσιες καὶ παροξυσμοὶ τούτων ἑκάστου τῶν πυρετῶν. αὐτίκα γὰρ συνεχὴς ἔστιν οἷσιν ἀρχόμενος ἀνθεῖ καὶ ἀκμάζει μάλιστα καὶ ἀνάγει ἐπὶ τὸ χαλεπώτατον, περὶ δὲ κρίσιν καὶ ἅμα κρίσει λεπτύνεται· ἔστι δ' οἷσιν ἄρχεται μαλακῶς καὶ ὑποβρύχια, ἐπαναδιδοῖ δὲ καὶ παροξύνεται καθ' ἡμέρην ἑκάστην, περὶ δὲ κρίσιν [1] ἅλις ἐξέλαμψεν· ἔστι δ' οἷσιν ἀρχόμενος πρηέως ἐπιδιδοῖ καὶ παροξύνεται καὶ μέχρι τινὸς ἀκμάσας πάλιν ὑφίησι μέχρι κρίσιος καὶ περὶ κρίσιν. συμπίπτει δὲ ταῦτα γίνεσθαι ἐπὶ παντὸς πυρετοῦ καὶ νοσήματος. δεῖ δὲ καὶ τὰ διαιτήματα σκοπεύμενον ἐκ τούτων

tertians, quartans, quintans, septans, nonans. The most acute diseases, the most severe, difficult and fatal, belong to the continuous fevers. The least fatal and least difficult of all, but the longest of all, is the quartan. Not only is it such in itself, but it also ends other, and serious, diseases. In the fever called semitertian, which is more fatal than any other, there occur also acute diseases, while it especially precedes the illness of consumptives, and of those who suffer from other and longer diseases. The nocturnal is not very fatal, but it is long. The diurnal is longer still, and to some it also brings a tendency to consumption. The septan is long but not fatal. The nonan is longer still but not fatal. The exact tertian has a speedy crisis and is not fatal. But the quintan is the worst of all. For if it comes on before consumption or during consumption the patient dies.

XXV. Each of these fevers has its modes, its constitutions and its exacerbations. For example, a continuous fever in some cases from the beginning is high and at its worst, leading up to the most severe stage, but about and at the crisis it moderates. In other cases it begins gently and in a suppressed manner, but rises and is exacerbated each day, bursting out violently near the crisis. In some cases it begins mildly, but increases and is exacerbated, reaching its height after a time; then it declines again until the crisis or near the crisis. These characteristics may show themselves in any fever and in any disease. It is necessary also to consider the patient's mode of life and to take it

[1] After κρίσιν V adds καὶ ἅμα κρίσει.

προσφέρειν. πολλὰ δὲ καὶ ἄλλα ἐπίκαιρα σημεῖα τούτοις ἐστὶν ἠδελφισμένα, περὶ ὧν τὰ μέν που γέγραπται, τὰ δὲ καὶ γεγράψεται. πρὸς ἃ δεῖ διαλογιζόμενον δοκιμάζειν καὶ σκοπεῖσθαι, τίνι τούτων ὀξὺ καὶ θανατῶδες ἢ περιεστικὸν καὶ τίνι μακρὸν καὶ θανατῶδες ἢ περιεστικὸν καὶ τίνι προσαρτέον ἢ οὗ καὶ πότε καὶ πόσον καὶ τί τὸ προσφερόμενον ἔσται.

XXVI. Τὰ δὲ παροξυνόμενα ἐν ἀρτίῃσι κρίνεται ἐν ἀρτίῃσιν· ὧν δὲ οἱ παροξυσμοὶ ἐν περισσῇσι, κρίνεται ἐν περισσῇσιν. ἔστι δὲ πρώτη περίοδος τῶν ἐν τῇσιν ἀρτίῃσι κρινόντων τετάρτη, ἕκτη, ὀγδόη, δεκάτη, τεσσαρεσκαιδεκάτη, εἰκοστή, τετάρτη καὶ εἰκοστή, τριακοστή, τεσσαρακοστή, ἑξηκοστή, ὀγδοηκοστή, εἰκοστὴ καὶ ἑκατοστή· τῶν δ' ἐν τῇσι περισσῇσι κρινόντων περίοδος πρώτη, τρίτη, πέμπτη, ἑβδόμη, ἐνάτη, ἑνδεκάτη, ἑπτακαιδεκάτη, εἰκοστὴ πρώτη, εἰκοστὴ ἑβδόμη, τριακοστὴ πρώτη. εἰδέναι δὲ χρὴ ἔτι, ἢν ἄλλως κριθῇ ἔξω τῶν ὑπογεγραμμένων, ἐσομένας ὑποστροφάς· γένοιτο δὲ ἂν καὶ ὀλέθρια. δεῖ δὴ προσέχειν τὸν νόον καὶ εἰδέναι ἐν τοῖσι χρόνοισι τούτοισι τὰς κρίσιας ἐσομένας ἐπὶ σωτηρίην ἢ ὄλεθρον ἢ ῥοπὰς ἐπὶ τὸ ἄμεινον ἢ τὸ χεῖρον. πλάνητες δὲ πυρετοὶ καὶ τεταρταῖοι καὶ πεμπταῖοι καὶ ἑβδομαῖοι καὶ ἐναταῖοι, ἐν ᾗσι περιόδοισι κρίνονται, σκεπτέον.

into account when prescribing. Many other important symptoms there are which are akin to these, some of which I have described, while others I shall describe later. These must be duly weighed when considering and deciding who is suffering from one of these diseases in an acute, fatal form, or whether the patient may recover; who has a chronic, fatal illness, or one from which he may recover; who is to be prescribed for or not, what the prescription is to be, the quantity to be given and the time to give it.

XXVI. When the exacerbations are on even days, the crises are on even days. But the diseases exacerbated on odd days have their crises on odd days. The first period of diseases with crises on the even days is the fourth day, then the sixth, eighth, tenth, fourteenth, twentieth, twenty-fourth, thirtieth, fortieth, sixtieth, eightieth, hundred and twentieth. Of those with a crisis on the odd days the first period is the third, then the fifth, seventh, ninth, eleventh, seventeenth, twenty-first, twenty-seventh, thirty-first. Further, one must know that, if the crises be on other days than the above, there will be relapses, and there may also be a fatal issue. So one must be attentive and know that at these times there will be the crises resulting in recovery, or death, or a tendency for better or worse. One must also consider in what periods the crises occur of irregular fevers, of quartans, of quintans, of septans and of nonans.

ἄρρωστοι τεσσαρεσκαίδεκα

α'. Φιλίσκος ᾤκει παρὰ τὸ τεῖχος· κατεκλίνη, τῇ πρώτῃ πυρετὸς ὀξύς, ἵδρωσεν, ἐς νύκτα ἐπιπόνως· δευτέρῃ πάντα παρωξύνθη, ὀψὲ δὲ ἀπὸ κλυσματίου καλῶς διῆλθε· νύκτα δι' ἡσυχίης. τρίτῃ πρωὶ καὶ μέχρι μέσου ἡμέρης ἔδοξε γενέσθαι ἄπυρος, πρὸς δείλην δὲ πυρετὸς ὀξὺς μετὰ ἱδρῶτος, διψώδης, γλῶσσα ἐπεξηραίνετο, μέλανα οὔρησε· νύκτα δυσφόρως, οὐκ ἐκοιμήθη, πάντα παρέκρουσε. τετάρτῃ πάντα παρωξύνθη, οὖρα μέλανα· νύκτα εὐφορωτέρην, οὖρα εὐχροώτερα. πέμπτῃ περὶ μέσον ἡμέρης σμικρὸν ἀπὸ ῥινῶν ἔσταξεν ἄκρητον· οὖρα δὲ ποικίλα, ἔχοντα ἐναιωρήματα στρογγύλα, γονοειδέα, διεσπασμένα, οὐχ ἱδρύετο· προσθεμένῳ δὲ βάλανον φυσώδεα σμικρὰ διῆλθε. νύκτα ἐπιπόνως, ὕπνοι σμικροί, λόγοι, λῆρος, ἄκρεα πάντοθεν ψυχρὰ καὶ οὐκέτι ἀναθερμαινόμενα, οὔρησε μέλανα, ἐκοιμήθη σμικρὰ πρὸς ἡμέρην, ἄφωνος, ἵδρωσε ψυχρῷ, ἄκρεα πελιδνά. περὶ δὲ μέσον ἡμέρης ἐκταῖος ἀπέθανεν. τούτῳ πνεῦμα διὰ τέλεος, ὥσπερ ἀνακαλεομένῳ, ἀραιὸν μέγα· σπλὴν ἐπήρθη περιφερεῖ κυρτώματι, ἱδρῶτες ψυχροὶ διὰ τέλεος. οἱ παροξυσμοὶ ἐν ἀρτίῃσιν.

β'. Σιληνὸς ᾤκει ἐπὶ τοῦ πλαταμῶνος πλησίον τῶν Εὐαλκίδεω. ἐκ κόπων καὶ πότων καὶ

[1] The patient seemed to forget the necessity of breathing, and then to remember it and to breathe consciously.

FOURTEEN CASES

CASE I

Philiscus lived by the wall. He took to his bed with acute fever on the first day and sweating; night uncomfortable.

Second day. General exacerbation, later a small clyster moved the bowels well. A restful night.

Third day. Early and until mid-day he appeared to have lost the fever; but towards evening acute fever with sweating; thirst; dry tongue; black urine. An uncomfortable night, without sleep; completely out of his mind.

Fourth day. All symptoms exacerbated; black urine; a more comfortable night, and urine of a better colour.

Fifth day. About mid-day slight epistaxis of unmixed blood. Urine varied, with scattered, round particles suspended in it, resembling semen; they did not settle. On the application of a suppository the patient passed, with flatulence, scanty excreta. A distressing night, snatches of sleep, irrational talk; extremities everywhere cold, and would not get warm again; black urine; snatches of sleep towards dawn; speechless; cold sweat; extremities livid. About mid-day on the sixth day the patient died. The breathing throughout, as though he were recollecting to do it,[1] was rare and large. Spleen raised in a round swelling; cold sweats all the time. The exacerbations on even days.

CASE II

Silenus lived on Broadway near the place of Eualcidas. After over-exertion, drinking, and exer-

γυμνασιων ἀκαίρων πῦρ ἔλαβεν. ἤρξατο δὲ πονεῖν κατ' ὀσφῦν· καὶ κεφαλῆς βάρος καὶ τραχήλου σύντασις. ἀπὸ δὲ κοιλίης τῇ πρώτῃ χολώδεα, ἄκρητα, ἔπαφρα, κατακορέα πολλὰ διῆλθεν· οὖρα μέλανα, μέλαιναν ὑπόστασιν ἔχοντα, διψώδης, γλῶσσα ἐπίξηρος, νυκτὸς οὐδὲν ἐκοιμήθη. δευτέρῃ πυρετὸς ὀξύς, διαχωρήματα πλείω, λεπτότερα, ἔπαφρα, οὖρα μέλανα, νύκτα δυσφόρως, σμικρὰ παρέκρουσε. τρίτῃ πάντα παρωξύνθη· ὑποχονδρίου σύντασις ἐξ ἀμφοτέρων παραμήκης πρὸς ὀμφαλόν, ὑπολάπαρος· διαχωρήματα λεπτά, ὑπομέλανα, οὖρα θολερά, ὑπομέλανα, νυκτὸς οὐδὲν ἐκοιμήθη, λόγοι πολλοί, γέλως, ᾠδή, κατέχειν οὐκ ἠδύνατο. τετάρτῃ διὰ τῶν αὐτῶν. πέμπτῃ διαχωρήματα ἄκρητα, χολώδεα, λεῖα, λιπαρά, οὖρα λεπτά, διαφανέα· σμικρὰ κατενόει. ἕκτῃ περὶ κεφαλὴν σμικρὰ ἐφίδρωσεν, ἄκρεα ψυχρά, πελιδνά, πολὺς βλησταισμός, ἀπὸ κοιλίης οὐδὲν διῆλθεν, οὖρα ἐπέστη, πυρετὸς ὀξύς. ἑβδόμῃ ἄφωνος, ἄκρεα οὐκέτι ἀνεθερμαίνετο, οὔρησεν οὐδέν. ὀγδόῃ ἵδρωσεν δι' ὅλου ψυχρῷ· ἐξανθήματα μετὰ ἱδρῶτος ἐρυθρά, στρογγύλα, σμικρὰ οἷον ἴονθοι, παρέμενεν, οὐ καθίστατο· ἀπὸ δὲ κοιλίης ἐρεθισμῷ σμικρῷ

[1] The word *ὑπολάπαρος* is often applied to *σύντασις* or *ἔντασις* of the hypochondria. Galen (see Littré on *Epidemics* III, Case II, Vol. III, p. 34) says that it means "without bulk," or "without swelling." This is possible if the word is etymologically connected with *λαπάζω*. The translators are not very precise. Littré has "sans beaucoup de rénitence," "sans tumeur," "sans gonflement," "sans grand gonflement;" Adams has "empty," "loose," "softish." In *Epidemics* I, Case XII, occurs the phrase *φλεγμονὴ ὑπολά-*

cises at the wrong time he was attacked by fever. He began by having pains in the loins, with heaviness in the head and tightness of the neck. From the bowels on the first day there passed copious discharges of bilious matter, unmixed, frothy, and highly coloured. Urine black, with a black sediment; thirst; tongue dry; no sleep at night.

Second day. Acute fever, stools more copious, thinner, frothy; urine black; uncomfortable night; slightly out of his mind.

Third day. General exacerbation; oblong tightness[1] of the hypochondrium, soft underneath, extending on both sides to the navel; stools thin, blackish; urine turbid, blackish; no sleep at night; much rambling, laughter, singing; no power of restraining himself.

Fourth day. Same symptoms.

Fifth day. Stools unmixed, bilious, smooth, greasy; urine thin, transparent; lucid intervals.

Sixth day. Slight sweats about the head; extremities cold and livid; much tossing; nothing passed from the bowels; urine suppressed; acute fever.

Seventh day. Speechless; extremities would no longer get warm; no urine.

Eighth day. Cold sweat all over; red spots with sweat, round, small like acne, which persisted without subsiding. From the bowels with slight stimulus

[1] παρος ἐκ τοῦ ἔσω μέρεος, from which it seems that the prefix ὑπο- means "underneath," not "rather." "Empty underneath" seems the primary meaning, and suggests a tightness, or inflammation, with nothing hard and bulky immediately beneath the surface to cause the tightness or inflammation. Perhaps the word also suggests the tenderness often found in the hypochondria of malaria patients.

κοπρανα λεπτά, οἷα ἄπεπτα, πολλὰ διῄει μετὰ πόνου· οὖρει μετ' ὀδύνης δακνώδεα· ἄκρεα σμικρὰ ἀνεθερμαίνετο, ὕπνοι λεπτοί, κωματώδης, ἄφωνος, οὖρα λεπτὰ διαφανέα. ἐνάτῃ διὰ τῶν αὐτῶν. δεκάτῃ ποτὰ οὐκ ἐδέχετο, κωματώδης, ὕπνοι λεπτοί· ἀπὸ δὲ κοιλίης ὅμοια, οὔρησεν ἀθρόον ὑπόπαχυ· κειμένῳ ὑπόστασις κριμνώδης λευκή, ἄκρεα πάλιν ψυχρά. ἑνδεκάτῃ ἀπέθανεν. ἐξ ἀρχῆς τούτῳ καὶ διὰ τέλεος πνεῦμα ἀραιόν, μέγα. ὑποχονδρίου παλμὸς συνεχής, ἡλικίη ὡς περὶ ἔτεα εἴκοσιν.

γ'. Ἡροφῶντι πυρετὸς ὀξύς, ἀπὸ κοιλίης ὀλίγα, τεινεσμώδεα κατ' ἀρχάς, μετὰ δὲ λεπτὰ διῄει χολώδεα, ὑπόσυχνα· ὕπνοι οὐκ ἐνῆσαν, οὖρα μέλανα λεπτά. πέμπτῃ πρωὶ κώφωσις, παρωξύνθη πάντα, σπλὴν ἐπήρθη, ὑποχονδρίου σύντασις, ἀπὸ κοιλίης ὀλίγα διῆλθε μέλανα, παρεφρόνησεν. ἕκτῃ ἐλήρει, ἐς νύκτα ἱδρώς, ψύξις, παράληρος παρέμενεν. ἑβδόμῃ περιέψυκτο, διψώδης, παρέκρουσε. νύκτα κατενόει, κατεκοιμήθη. ὀγδόῃ ἐπύρεσσεν, σπλὴν ἐμειοῦτο, κατενόει πάντα, ἤλγησεν τὸ πρῶτον κατὰ βουβῶνα, σπληνὸς κατ' ἴξιν, ἔπειτα δὲ πόνοι ἐς ἀμφοτέρας κνήμας. νύκτα εὐφόρως, οὖρα εὐχροώτερα, ὑπόστασιν εἶχε σμικρήν. ἐνάτῃ ἵδρωσεν,

[1] I take λεπτός here to mean "thinner than usual, than might have been expected," a meaning it has once or twice in the Hippocratic *Corpus*. It might also mean "consisting of small pieces." See on *Epidemics* III, Case II (first series).

there came a copious discharge of solid stools, thin,[1] as it were unconcocted, painful. Urine painful and irritating. Extremities grow a little warmer; fitful sleep; coma; speechlessness; thin, transparent urine.

Ninth day. Same symptoms.

Tenth day. Took no drink; coma; fitful sleep. Discharges from the bowels similar; had a copious discharge of thickish urine, which on standing left a farinaceous, white deposit; extremities again cold.

Eleventh day. Death.

From the beginning the breath in this case was throughout rare and large. Continuous throbbing of the hypochondrium; age about twenty years.

CASE III

Herophon had acute fever; scanty stools with tenesmus at the beginning, afterwards becoming thin, bilious and fairly frequent. No sleep; urine black and thin.

Fifth day. Deafness early in the day; general exacerbation; spleen swollen; tension of the hypochondrium; scanty black stools; delirium.

Sixth day. Wandering talk; at night sweat and chill; the wandering persisted.

Seventh Day. Chill all over; thirst; out of his mind. During the night he was rational, and slept.

Eighth day. Fever; spleen lessened; quite rational; pain at first in the groin, on the side of the spleen; then the pains extended to both legs. Night comfortable; urine of a better colour, with a slight deposit.

Ninth day. Sweat, crisis, intermission.

ἐκρίθη, διέλιπεν. πέμπτῃ ὑπέστρεψεν. αὐτίκα δὲ σπλὴν ἐπήρθη, πυρετὸς ὀξύς, κώφωσις πάλιν· μετὰ δὲ τὴν ὑποστροφὴν τρίτῃ σπλὴν ἐμειοῦτο, κώφωσις ἧσσον, σκέλεα ἐπωδύνως· νύκτα ἴδρωσεν. ἐκρίθη περὶ ἑπτακαιδεκάτην· οὐδὲ παρέκρουσεν ἐν τῇ ὑποστροφῇ.

δ'. Ἐν Θάσῳ Φιλίνου γυναῖκα θυγατέρα τεκοῦσαν κατὰ φύσιν καθάρσιος γενομένης καὶ τὰ ἄλλα κούφως διάγουσαν, τεσσαρεσκαιδεκαταίην ἐοῦσαν μετὰ τὸν τόκον, πῦρ ἔλαβε μετὰ ῥίγεος· ἤλγει δὲ ἀρχομένη καρδίην καὶ ὑποχόνδριον δεξιόν· γυναικείων πόνοι· κάθαρσις ἐπαύσατο. προσθεμένῃ δὲ ταῦτα μὲν ἐκουφίσθη, κεφαλῆς δὲ καὶ τραχήλου καὶ ὀσφύος πόνοι παρέμενον, ὕπνοι οὐκ ἐνῆσαν, ἄκρεα ψυχρά, διψώδης, κοιλίη συνεκαύθη, σμικρὰ διῄει, οὖρα λεπτά, ἄχρω κατ' ἀρχάς. ἑκταίη ἐς νύκτα παρέκρουσε πολλὰ καὶ πάλιν κατενύει. ἑβδόμῃ διψώδης, διαχωρήματα ὀλίγα χολώδεα κατακορέα. ὀγδόῃ ἐπερρίγωσεν, πυρετὸς ὀξύς, σπασμοὶ πολλοὶ μετὰ πόνου, πολλὰ παρέλεγεν· ἐξανίστατο βάλανον προσθεμένη· πολλὰ διῆλθε μετὰ περιρρόου χολώδεος· ὕπνοι οὐκ ἐνῆσαν. ἐνάτῃ σπασμοί. δεκάτῃ σμικρὰ κατενύει. ἑνδεκάτῃ ἐκοιμήθη, πάντων ἀνεμνήσθη, ταχὺ δὲ πάλιν παρέκρουσεν·

On the fifth day after the crisis the patient relapsed. Immediately the spleen swelled; acute fever; return of deafness. On the third day after the relapse the spleen grew less and the deafness diminished, but there was pain in the legs. During the night he sweated. The crisis was about the seventeenth day. There was no delirium during the relapse.

CASE IV

In Thasos the wife of Philinus gave birth to a daughter. The lochial discharge was normal, and the mother was doing well when on the fourteenth day after delivery she was seized with fever attended with rigor. At first she suffered in the stomach and the right hypochondrium. Pains in the genital organs. The discharge ceased. By a pessary these troubles were eased, but pains persisted in the head, neck and loins. No sleep; extremities cold; thirst; bowels burnt; scanty stools; urine thin, and at first colourless.

Sixth day. Much delirium at night, followed by recovery of reason.

Seventh day. Thirst; stools scanty, bilious, highly coloured.

Eighth day. Rigor; acute fever; many painful convulsions; much delirium. The application of a suppository made her keep going to stool, and there were copious motions with a bilious flux. No sleep.

Ninth day. Convulsions.

Tenth day. Lucid intervals.

Eleventh day. Slept; complete recovery of her memory, followed quickly by renewed delirium.

οὖρει δὲ μετὰ σπασμῶν ἀθρόον πολὺ ὀλιγάκις ἀναμιμνῃσκόντων παχὺ λευκόν, οἷον γίνεται ἐκ τῶν καθισταμένων, ὅταν ἀναταραχθῇ· κείμενον πολὺν χρόνον οὐ καθίστατο· χρῶμα καὶ πάχος ἴκελον οἷον γίνεται ὑποζυγίου. τοιαῦτα οὖρει, οἷα κἀγὼ εἶδον. περὶ τεσσαρεσκαιδεκάτην ἐούσῃ παλμὸς δι' ὅλου τοῦ σώματος, λόγοι πολλοί, σμικρὰ κατενόει· διὰ ταχέων δὲ πάλιν παρέκρουσεν. περὶ δὲ ἑπτακαιδεκάτην ἐοῦσα ἄφωνος. εἰκοστῇ ἀπέθανε.

ε'. Ἐπικράτεος γυναῖκα, ἣ κατέκειτο παρὰ ἀρχηγέτην, περὶ τόκον ἤδη ἐοῦσαν ῥῖγος ἔλαβεν ἰσχυρῶς, οὐκ ἐθερμάνθη, ὡς ἔλεγον, καὶ τῇ ὑστεραίῃ τὰ αὐτά. τρίτῃ δ' ἔτεκεν θυγατέρα καὶ τἆλλα πάντα κατὰ λόγον ἦλθε. δευτεραίην μετὰ τὸν τόκον ἔλαβε πυρετὸς ὀξύς, καρδίης πόνος καὶ γυναικείων. προσθεμένῃ δὲ ταῦτα μὲν ἐκουφίσθη, κεφαλῆς δὲ καὶ τραχήλου καὶ ὀσφύος πόνος· ὕπνοι οὐκ ἐνῆσαν· ἀπὸ δὲ κοιλίης ὀλίγα χολώδεα λεπτὰ διῄει ἄκρητα· οὖρα λεπτὰ ὑπομέλανα. ἀφ' ἧς δὲ ἔλαβε τὸ πῦρ, ἐς νύκτα ἑκταίῃ παρέκρουσεν. ἑβδομαίῃ πάντα παρωξύνθη, ἄγρυπνος, παρέκρουσεν, διψώδης, διαχωρήματα χολώδεα κατακορέα. ὀγδόῃ ἐπερρίγωσεν καὶ ἐκοιμήθη πλείω. ἐνάτῃ διὰ τῶν αὐτῶν. δεκάτῃ

[1] *I. e.* near the statue of the founder of the city, or near the temple of the god who presided over the founding of the city.

A copious passing of urine with convulsions—her attendants seldom reminding her—which was white and thick, like urine with a sediment and then shaken; it stood for a long time without forming a sediment; colour and consistency like that of the urine of cattle. Such was the nature of the urine that I myself saw.

About the fourteenth day there were twitchings over all the body; much wandering, with lucid intervals followed quickly by renewed delirium. About the seventeenth day she became speechless.

Twentieth day. Death.

CASE V

The wife of Epicrates, who lay sick near the founder,[1] when near her delivery was seized with severe rigor without, it was said, becoming warm, and the same symptoms occurred on the following day. On the third day she gave birth to a daughter, and the delivery was in every respect normal. On the second day after the delivery she was seized with acute fever, pain at the stomach and in the genitals. A pessary relieved these symptoms, but there was pain in the head, neck and loins. No sleep. From the bowels passed scanty stools, bilious, thin and unmixed. Urine thin and blackish. Delirium on the night of the sixth day from the day the fever began.

Seventh day. All symptoms exacerbated; sleeplessness; delirium; thirst; bilious, highly-coloured stools.

Eighth day. Rigor; more sleep.

Ninth day. The same symptoms.

σκέλεα ἐπιπόνως ἤλγει, καρδίης πάλιν ὀδύνη, καρηβαρίη, οὐ παρέκρουεν, ἐκοιμᾶτο μᾶλλον, κοιλίη ἐπέστη. ἐνδεκάτῃ οὔρησεν εὐχροώτερα συχνὴν ὑπόστασιν ἔχοντα· διῆγε κουφότερον. τεσσαρεσκαιδεκάτῃ ἐπερρίγωσεν, πυρετὸς ὀξύς. πεντεκαιδεκάτῃ ἤμεσε χολώδεα ξανθὰ ὑπόσυχνα, ἴδρωσεν ἄπυρος, ἐς νύκτα δὲ πυρετὸς ὀξύς, οὖρα πάχος ἔχοντα, ὑπόστασις λευκή. ἐκκαιδεκάτῃ παρωξύνθη· νύκτα δυσφόρως· οὐχ ὕπνωσεν· παρέκρουσεν. ὀκτωκαιδεκάτῃ διψώδης, γλῶσσα ἐπεκαύθη, οὐχ ὕπνωσεν, παρέκρουσε πολλά, σκέλεα ἐπωδύνως εἶχεν. περὶ δὲ εἰκοστὴν πρωὶ σμικρὰ ἐπερρίγωσεν, κωματώδης, δι' ἡσυχίης ὕπνωσεν, ἤμεσε χολώδεα ὀλίγα μέλανα, ἐς νύκτα κώφωσις. περὶ δὲ πρώτην καὶ εἰκοστὴν πλευροῦ ἀριστεροῦ βάρος δι' ὅλου μετ' ὀδύνης, σμικρὰ ὑπέβησσεν. οὖρα δὲ πάχος ἔχοντα, θολερά, ὑπέρυθρα· κείμενα οὐ καθίστατο· τὰ δ' ἄλλα κουφοτέρως· οὐκ ἄπυρος. αὕτη[1] ἐξ ἀρχῆς φάρυγγα ἐπώδυνος· ἔρευθος· κίων ἀνεσπασμένος· ῥεῦμα δριμύ, δακνώδες, ἁλμυρώδες διὰ τέλεος παρέμενεν. περὶ δὲ εἰκοστὴν ἑβδόμην ἄπυρος, οὔροισιν ὑπόστασις, πλευρὸν ὑπήλγει. περὶ δὲ πρώτην καὶ τριακοστὴν πῦρ ἔλαβεν, κοιλίη χολώδεσιν ἐπεταράχθη. τεσσαρακοστῇ ἤμεσεν ὀλίγα χολώδεα. ἐκρίθη τελέως ἄπυρος ὀγδηκοστῇ.

ς'. Κλεανακτίδην, ὃς κατέκειτο ἐπάνω τοῦ Ἡρακλείου, πῦρ ἔλαβε πεπλανημένως· ἤλγει δὲ

[1] For αὕτη Littré reads αὖθις (with a colon) and deletes the stop at ἄπυρος.

Tenth day. Severe pains in the legs; pain again at the stomach; heaviness in the head; no delirium; more sleep; constipation.

Eleventh day. Urine of better colour, with a thick deposit; was easier.

Fourteenth day. Rigor; acute fever.

Fifteenth day. Vomited fairly frequently bilious, yellow vomit; sweated without fever; at night, however, acute fever; urine thick, with a white sediment.

Sixteenth day. Exacerbation; an uncomfortable night; no sleep; delirium.

Eighteenth day. Thirst; tongue parched; no sleep; much delirium; pain in the legs.

About the twentieth day. Slight rigors in the early morning; coma; quiet sleep; scanty, bilious, black vomits; deafness at night.

About the twenty-first day. Heaviness all over the left side, with pain; slight coughing; urine thick, turbid, reddish, no sediment on standing. In other respects easier; no fever. From the beginning she had pain in the throat; redness; uvula drawn back; throughout there persisted an acrid flux, smarting, and salt.

About the twenty-seventh day. No fever; sediment in urine; some pain in the side.

About the thirty-first day. Attacked by fever; bowels disordered and bilious.

Fortieth day. Scanty, bilious vomits.

Eightieth day. Complete crisis with cessation of fever.

CASE VI

Cleanactides, who lay sick above the temple of Heracles, was seized by an irregular fever. He had

κεφαλὴν ἐξ ἀρχῆς καὶ πλευρὸν ἀριστερόν, καὶ τῶν ἄλλων πόνοι κοπιώδεα τρόπον· οἱ πυρετοὶ παροξυνόμενοι ἄλλοτ' ἀλλοίως, ἀτάκτως· ἱδρῶτες ὅτε μέν, ὅτε δ' οὔ· τὰ μὲν πλεῖστα ἐπεσήμαινον οἱ παροξυσμοὶ ἐν κρισίμοις μάλιστα. περὶ δὲ εἰκοστὴν τετάρτην χεῖρας ἄκρας ἐπόνησεν,[1] ἤμεσε χολώδεα ξανθά, ὑπόσυχνα, μετ' ὀλίγον δὲ ἰώδεα· πάντων ἐκουφίσθη. περὶ δὲ τριακοστὴν ἐόντι ἤρξατο ἀπὸ ῥινῶν αἱμορραγεῖν ἐξ ἀμφοτέρων καὶ ταῦτα πεπλανημένως κατ' ὀλίγον μέχρι κρίσιος· οὐκ ἀπόσιτος οὐδὲ διψώδης παρὰ πάντα τὸν χρόνον οὐδ' ἄγρυπνος· οὖρα δὲ λεπτά, οὐκ ἄχρω. περὶ δὲ τεσσαρακοστὴν ἐὼν οὔρησεν ὑπέρυθρα ὑπόστασιν πολλὴν ἐρυθρὴν ἔχοντα· ἐκουφίσθη. μετὰ δὲ ποικίλως τὰ τῶν οὔρων· ὅτε μὲν ὑπόστασιν εἶχεν, ὅτε δ' οὔ. ἑξηκοστῇ οὔροισιν ὑπόστασις πολλὴ καὶ λευκὴ καὶ λείη, συνέδωκε πάντα, πυρετοὶ διελιπον, οὖρα δὲ πάλιν λεπτὰ μέν, εὔχρω δέ. ἑβδομηκοστῇ πυρετός, διέλειπεν[2] ἡμέρας δέκα. ὀγδοηκοστῇ ἐρρίγωσε, πυρετὸς ὀξὺς ἔλαβεν· ἵδρωσεν πολλῷ· οὔροισιν ὑπόστασις ἐρυθρή, λείη. τελέως ἐκρίθη.

ζ'. Μέτωνα πῦρ ἔλαβεν, ὀσφύος βάρος ἐπώδυνον. δευτέρῃ ὕδωρ πιόντι ὑπόσυχνον ἀπὸ κοιλίης καλῶς διῆλθε. τρίτῃ κεφαλῆς βάρος, διαχωρήματα λεπτά, χολώδεα, ὑπέρυθρα. τετάρτῃ

[1] For ἐπόνησεν V has ἐψύχετο.
[2] For διέλειπεν V has διέλιπεν.

at the beginning pains in the head and the left side, and in the other parts pains like those caused by fatigue. The exacerbations of the fever were varied and irregular; sometimes there were sweats, sometimes there were not. Generally the exacerbations manifested themselves most on the critical days.

About the twenty-fourth day. Pain in the hands; bilious, yellow vomits, fairly frequent, becoming after a while like verdigris; general relief.

About the thirtieth day. Epistaxis from both nostrils began, and continued, irregular and slight, until the crisis. All the time he suffered no thirst, nor lack of appetite or sleep. Urine thin, and not colourless.

About the fortieth day. Urine reddish, and with an abundant, red deposit. Was eased. Afterwards the urine varied, sometimes having, sometimes not having, a sediment.

Sixtieth day. Urine had an abundant sediment, white and smooth; general improvement; fever intermitted; urine again thin but of good colour.

Seventieth day. Fever, which intermitted for ten days.

Eightieth day. Rigor; attacked by acute fever; much sweat; in the urine a red, smooth sediment. A complete crisis.

CASE VII

Meton was seized with fever, and painful heaviness in the loins.

Second day. After a fairly copious draught of water had his bowels well moved.

Third day. Heaviness in the head; stools thin, bilious, rather red.

πάντα παρωξύνθη, ἐρρύη ἀπὸ δεξιοῦ δὶς κατ' ὀλίγον. νύκτα δυσφόρως, διαχωρήματα ὅμοια τῇ τρίτῃ, οὖρα ὑπομέλανα· εἶχεν ἐναιώρημα ὑπόμελαν ἐόν, διεσπασμένον· οὐχ ἱδρύετο. πέμπτῃ ἐρρύη λάβρον ἐξ ἀριστεροῦ ἄκρητον, ἵδρωσεν, ἐκρίθη. μετὰ κρίσιν ἄγρυπνος, παρέλεγεν, οὖρα λεπτὰ ὑπομέλανα. λουτροῖσιν ἐχρήσατο κατὰ κεφαλῆς, ἐκοιμήθη, κατενόει. τούτῳ οὐχ ὑπέστρεψεν, ἀλλ' ἡμορράγει πολλάκις μετὰ κρίσιν.

ἡ. Ἐρασῖνος ᾤκει παρὰ Βοώτεω χαράδρην. πῦρ ἔλαβεν μετὰ δεῖπνον, νύκτα ταραχώδης. ἡμέρην τὴν πρώτην δι' ἡσυχίης, νύκτα ἐπιπόνως. δευτέρῃ πάντα παρωξύνθη, ἐς νύκτα παρέκρουσε. τρίτῃ ἐπιπόνως, πολλὰ παρέκρουσε. τετάρτῃ δυσφορώτατα· ἐς δὲ τὴν νύκτα οὐδὲν ἐκοιμήθη· ἐνύπνια καὶ λογισμοί·[1] ἔπειτα χείρω, μεγάλα καὶ ἐπίκαιρα, φόβος, δυσφορίη. πέμπτῃ πρωὶ κατήρτητο· κατενόει πάντα· πολὺ δὲ πρὸ μέσου ἡμέρης ἐξεμάνη, κατέχειν οὐκ ἠδύνατο, ἄκρεα ψυχρὰ ὑποπέλια, οὖρα ἐπέστη·[2] ἀπέθανε περὶ ἡλίου δυσμάς. τούτῳ πυρετοὶ διὰ τέλεος σὺν ἱδρῶτι, ὑποχόνδρια μετέωρα, σύντασις μετ' ὀδύνης· οὖρα μέλανα ἔχοντα ἐναιωρήματα στρογγύλα· οὐχ ἱδρύετο· ἀπὸ δὲ κοιλίης κόπρανα διῄει· δίψα

[1] For λογισμοί Kühlewein suggests λόγοι πολλοί. The meaning must be delirium, and there is no instance of λογισμοί in this sense.

[2] ἐπέστη D: ὑπέστη A: ἀπέστη V.

Fourth day. General exacerbation; slight epistaxis twice from the right nostril. An uncomfortable night; stools as on the third day; urine rather black; had a rather black cloud floating in it, spread out, which did not settle.

Fifth day. Violent epistaxis of unmixed blood from the left nostril; sweat; crisis. After the crisis sleeplessness; wandering; urine thin and rather black. His head was bathed; sleep; reason restored. The patient suffered no relapse, but after the crisis bled several times from the nose.

CASE VIII

Erasinus lived by the gully of Boötes. Was seized with fever after supper; a troubled night.

First day. Quiet, but the night was painful.

Second day. General exacerbation; delirium at night.

Third day. Pain and much delirium.

Fourth day. Very uncomfortable; no sleep at night; dreams and wandering. Then worse symptoms, of a striking and significant character; fear and discomfort.

Fifth day. Early in the morning was composed, and in complete possession of his senses. But long before mid-day was madly delirious; could not restrain himself; extremities cold and rather livid; urine suppressed; died about sunset.

In this patient the fever was throughout accompanied by sweat; the hypochondria were swollen, distended and painful. Urine black, with round, suspended particles which did not settle. There were solid discharges from the bowels. Thirst

διὰ τέλεος οὐ λίην· σπασμοὶ πολλοὶ σὺν ἱδρῶτι περὶ θάνατον.

θ'. Κρίτωνι ἐν Θάσῳ ποδὸς ὀδύνη ἤρξατο ἰσχυρὴ ἀπὸ δακτύλου τοῦ μεγάλου ὀρθοστάδην περιιόντι. κατεκλίνη αὐθημερόν, φρικώδης, ἀσώδης, σμικρὰ ὑποθερμαινόμενος, ἐς νύκτα παρεφρόνησεν. δευτέρῃ οἴδημα δι' ὅλου τοῦ ποδὸς καὶ περὶ σφυρὸν ὑπέρυθρον μετὰ συντάσιος, φλυκταινίδια μέλανα, πυρετὸς ὀξύς, ἐξεμάνη· ἀπὸ δὲ κοιλίης ἄκρητα, χολώδεα, ὑπόσυχνα. ἀπέθανεν ἀπὸ τῆς ἀρχῆς δευτεραίος.

ι'. Τὸν Κλαζομένιον, ὃς κατέκειτο παρὰ τὸ Φρυνιχίδεω φρέαρ, πῦρ ἔλαβε. ἤλγει δὲ κεφαλήν, τράχηλον, ὀσφῦν ἐξ ἀρχῆς, αὐτίκα δὲ κώφωσις· ὕπνοι οὐκ ἐνῆσαν, πυρετὸς ὀξὺς ἔλαβεν, ὑποχόνδριον ἐπῆρτο μετ' ὄγκου οὐ λίην, σύντασις, γλῶσσα ξηρή. τετάρτῃ ἐς νύκτα παρεφρόνει. πέμπτῃ ἐπιπόνως. ἕκτῃ πάντα παρωξύνθη. περὶ δὲ ἑνδεκάτην σμικρὰ συνέδωκεν. ἀπὸ δὲ κοιλίης ἀπ' ἀρχῆς καὶ μέχρι τεσσαρεσκαιδεκάτης λεπτά, πολλά, ὑδατόχολα[1] διῄει· εὐφόρως τὰ περὶ διαχώρησιν διῆγεν. ἔπειτα κοιλίη ἐπέστη. οὖρα διὰ τέλεος λεπτὰ μέν, εὔχρω δέ· καὶ πολὺ εἶχεν ἐναιώρημα ὑποδιεσπασμένον· οὐχ ἱδρύετο. περὶ δὲ ἕκτην καὶ δεκάτην οὔρησεν ὀλίγῳ παχύτερα· εἶχε σμικρὴν ὑπόστασιν· ἐκούφισεν ὀλίγῳ·

[1] ὑδατόχολα most MSS.: ὑδατόχροα V.

throughout not very great. Many convulsions with sweating about the time of death.

CASE IX

Crito, in Thasos, while walking about, was seized with a violent pain in the great toe. He took to bed the same day with shivering and nausea; regained a little warmth; at night was delirious.

Second day. Swelling of the whole foot, which was rather red about the ankle, and distended; black blisters; acute fever; mad delirium. Alvine discharges unmixed, bilious and rather frequent. He died on the second day from the commencement.

CASE X

The man of Clazomenae, who lay sick by the well of Phrynichides, was seized with fever. Pain at the beginning in head, neck and loins, followed immediately by deafness. No sleep; seized with acute fever; hypochondrium swollen, but not very much; distension; tongue dry.

Fourth day. Delirium at night.

Fifth day. Painful.

Sixth day. All symptoms exacerbated.

About the eleventh day slight improvement. From the beginning to the fourteenth day there were from the bowels thin discharges, copious, of a watery biliousness; they were well supported by the patient. Then the bowels were constipated. Urine throughout thin, but of good colour. It had much cloud spread through it, which did not settle in a sediment. About the sixteenth day the urine was a little thicker, and had a slight sediment.

κατενόει μᾶλλον. ἑπτακαιδεκάτῃ πάλιν λεπτά, παρὰ δὲ τὰ ὦτα ἀμφότερα ἐπήρθη σὺν ὀδύνῃ· ὕπνοι οὐκ ἐνῆσαν, παρελήρει, σκέλεα ἐπωδύνως εἶχεν. εἰκοστῇ ἄπυρος ἐκρίθη, οὐχ ἵδρωσε, πάντα κατενόει. περὶ δὲ εἰκοστὴν ἑβδόμην ἰσχίου ὀδύνη δεξιοῦ ἰσχυρῶς· διὰ ταχέων ἐπαύσατο. τὰ δὲ παρὰ τὰ ὦτα οὔτε καθίστατο οὔτε ἐξεπύει, ἤλγει δέ. περὶ πρώτην καὶ τριηκοστὴν διάρροια πολλοῖσιν ὑδατώδεσιν μετὰ δυσεντεριωδέων· οὖρα παχέα οὔρει· κατέστη τὰ παρὰ τὰ ὦτα. τεσσαρακοστῇ ὀφθαλμὸν δεξιὸν ἤλγει, ἀμβλύτερον ἑώρα· κατέστη.

ια΄. Τὴν Δρομεάδεω γυναῖκα θυγατέρα τεκοῦσαν καὶ τῶν ἄλλων πάντων γενομένων κατὰ λόγον δευτεραίην ἐοῦσαν ῥῖγος ἔλαβεν· πυρετὸς ὀξύς. ἤρξατο δὲ πονεῖν τῇ πρώτῃ περὶ ὑποχόνδριον· ἀσώδης, φρικώδης, ἀλύουσα καὶ τὰς ἐχομένας οὐχ ὕπνωσε. πνεῦμα ἀραιόν, μέγα, αὐτίκα ἀνεσπασμένον. δευτέρῃ ἀφ' ἧς ἐρρίγωσεν, ἀπὸ κοιλίης καλῶς κόπρανα διῆλθεν· οὖρα παχέα, λευκά, θολερά, οἷα γίνεται ἐκ τῶν καθισταμένων, ὅταν ἀναταραχθῇ κείμενα χρόνον πολύν· οὐ καθίστατο. νύκτα οὐκ ἐκοιμήθη. τρίτῃ περὶ μέσον ἡμέρης ἐπερρίγωσε, πυρετὸς ὀξύς, οὖρα ὅμοια, ὑποχονδρίου πόνος, ἀσώδης, νύκτα δυσφόρως, οὐκ ἐκοιμήθη· ἵδρωσε δι' ὅλου ψυχρῷ, ταχὺ δὲ πάλιν ἀνεθερμάνθη. τετάρτῃ περὶ ὑπο-

[1] As we might say, "with a catch in it."

The patient became a little easier, and was more rational.

Seventeenth day. Urine thin again; painful swellings by both ears. No sleep; wandering; pain in the legs.

Twentieth day. A crisis left the patient free from fever; no sweating; quite rational. About the twenty-seventh day violent pain in the right hip, which quickly ceased. The swellings by the ears neither subsided nor suppurated, but continued painful. About the thirty-first day diarrhœa with copious, watery discharges and signs of dysentery. Urine thick; the swellings by the ears subsided.

Fortieth day. Pain in the right eye; sight rather impaired; recovery.

CASE XI

The wife of Dromeades, after giving birth to a daughter, when everything had gone normally, on the second day was seized with rigor; acute fever. On the first day she began to feel pain in the region of the hypochondrium; nausea; shivering; restless; and on the following days did not sleep. Respiration rare, large, interrupted at once as by an inspiration.[1]

Second day from rigor. Healthy action of the bowels. Urine thick, white, turbid, like urine which has settled, stood a long time, and then been stirred up. It did not settle. No sleep at night.

Third day. At about mid-day rigor; acute fever; urine similar; pain in the hypochondrium; nausea; an uncomfortable night without sleep; a cold sweat all over the body, but the patient quickly recovered heat.

χόνδριον σμικρὰ ἐκουφίσθη, κεφαλῆς δὲ βάρος μετ' ὀδύνης· ὑπεκαρώθη· σμικρὰ ἀπὸ ῥινῶν ἔσταξε· γλῶσσα ἐπίξηρος· διψώδης· οὖρα σμικρὰ λεπτὰ ἐλαιώδεα· σμικρὰ ἐκοιμήθη. πέμπτῃ διψώδης, ἀσώδης, οὖρα ὅμοια, ἀπὸ κοιλίης οὐδέν, περὶ δὲ μέσον ἡμέρης πολλὰ παρέκρουσε καὶ πάλιν ταχὺ σμικρὰ κατενόει· ἀνισταμένη ὑπεκαρώθη, ψύξις σμικρά, νυκτὸς ἐκοιμήθη, παρέκρουσεν. ἕκτῃ πρωὶ ἐπερρίγωσεν, ταχὺ διεθερμάνθη, ἵδρωσε δι' ὅλου· ἄκρεα ψυχρά, παρέκρουσεν, πνεῦμα μέγα, ἀραιόν· μετ' ὀλίγον σπασμοὶ ἀπὸ κεφαλῆς ἤρξαντο, ταχὺ ἀπέθανεν.

ιβ'. Ἄνθρωπος θερμαινόμενος ἐδείπνησεν καὶ ἔπιε πλέον. ἤμεσε πάντα νυκτός, πυρετὸς ὀξύς, ὑποχονδρίου δεξιοῦ πόνος, φλεγμονὴ ὑπολάπαρος ἐκ τοῦ ἔσω μέρεος, νύκτα δυσφόρως· οὖρα δὲ κατ' ἀρχὰς πάχος ἔχοντα, ἐρυθρά· κείμενα οὐ καθίστατο· γλῶσσα ἐπίξηρος, οὐ λίην διψώδης. τετάρτῃ πυρετὸς ὀξύς, πόνοι πάντων. πέμπτῃ οὔρησε λεῖον ἐλαιῶδες πολύ· πυρετὸς ὀξύς. ἕκτῃ δείλης πολλὰ παρέκρουσεν. οὐδὲ νύκτα ἐκοιμήθη. ἑβδόμῃ πάντα παρωξύνθη· οὖρα ὅμοια, λόγοι πολλοί, κατέχειν οὐκ ἠδύνατο· ἀπὸ δὲ κοιλίης ἐρεθισμῷ ὑγρὰ ταραχώδεα διῆλθεν μετὰ ἐλμίγγων. νύκτα ἐπιπόνως, πρωὶ δ' ἐρρίγωσε. πυρετὸς ὀξύς. ἵδρωσε θερμῷ, ἄπυρος ἔδοξε γενέσθαι· οὐ

[1] See note, p. 188.

Fourth day. Slight relief of the pains about the hypochondrium; painful heaviness of the head; somewhat comatose; slight epistaxis; tongue dry; thirst; scanty urine, thin and oily; snatches of sleep.

Fifth day. Thirst; nausea; urine similar; no movement of the bowels; about mid-day much delirium, followed quickly by lucid intervals; rose, but grew somewhat comatose; slight chilliness; slept at night; was delirious.

Sixth day. In the morning had a rigor; quickly recovered heat; sweated all over; extremities cold; was delirious; respiration large and rare. After a while convulsions began from the head, quickly followed by death.

CASE XII

A man dined when hot and drank too much. During the night he vomited everything; acute fever; pain in the right hypochondrium; inflammation, soft underneath, from the inner part[1]; an uncomfortable night; urine at the first thick and red; on standing it did not settle; tongue dry; no great thirst.

Fourth day. Acute fever; pains all over.

Fifth day. Passed much smooth, oily urine; acute fever.

Sixth day. In the afternoon much delirium. No sleep at night.

Seventh day. General exacerbation; urine similar; much rambling; could not restrain himself; on stimulation the bowels passed watery, disturbed discharges, with worms. An uncomfortable night, with rigor in the morning. Acute fever. Hot sweat, and the patient seemed to lose his fever;

πολὺ ἐκοιμήθη, ἐξ ὕπνου ψύξις· πτυαλισμός. δείλης πολλὰ παρέκρουσε, μετ' ὀλίγον δὲ ἤμεσε μέλανα, ὀλίγα, χολώδεα. ἐνάτῃ ψύξις, παρελήρει πολλά, οὐχ ὕπνωσεν. δεκάτῃ σκέλεα ἐπωδύνως, πάντα παρωξύνθη, παρελήρει. ἐνδεκάτῃ ἀπέθανεν.

ιγ'. Γυναῖκα, ἣ κατέκειτο ἐν ἀκτῇ, τρίμηνον πρὸς ἑωυτῇ ἔχουσαν πῦρ ἔλαβεν· αὐτίκα δὲ ἤρξατο πονεῖν ὀσφῦν. τρίτῃ πόνος τραχήλου καὶ κεφαλῆς καὶ[1] κατὰ κληῖδα[2] δεξιήν· διὰ ταχέων δὲ γλῶσσα ἠφώνει, δεξιὴ χεὶρ παρελύθη μετὰ σπασμοῦ παραπληγικὸν τρόπον, παρελήρει πάντα. νύκτα δυσφόρως, οὐκ ἐκοιμήθη, κοιλίη ἐπεταράχθη χολώδεσιν ἀκρήτοισιν ὀλίγοισιν. τετάρτῃ γλῶσσα ἀσαφὴς ἦν, ἐλύθη, σπασμοί· πόνοι τῶν αὐτῶν παρέμενον, κατὰ ὑποχόνδριον ἔπαρμα σὺν ὀδύνῃ, οὐκ ἐκοιμᾶτο, παρέκρουσε πάντα, κοιλίη ταραχώδης, οὖρα λεπτά, οὐκ εὔχρω. πέμπτῃ πυρετὸς ὀξύς, ὑποχονδρίου πόνος, παρέκρουε πάντα, διαχωρήματα χολώδεα. ἐς νύκτα ἵδρωσεν, ἄπυρος. ἕκτῃ κατενόει, πάντα ἐκουφίσθη, περὶ δὲ κληῖδα ἀριστερὴν πόνος παρέμενε· διψώδης, οὖρα λεπτά, οὐκ ἐκοιμήθη. ἑβδόμῃ τρόμος, ὑπεκαρώθη, σμικρὰ παρέκρουσεν, ἀλγήματα κατὰ κληῖδα καὶ βραχίονα ἀριστερὸν παρέμενε, τὰ δ' ἄλλα διεκούφισεν, πάντα κατενόει.

[1] καὶ added by Blass.

[2] After κληῖδα the MSS. add χεῖρα. It is deleted by Kühlewein.

little sleep, followed by chilliness; expectoration. In the evening much delirium, and shortly afterwards he vomited black, scanty, bilious vomits.

Ninth day. Chill; much wandering; no sleep.

Tenth day. Legs painful; general exacerbation; wandering.

Eleventh day. Death.

CASE XIII

A woman lying sick by the shore, who was three months gone with child, was seized with fever, and immediately began to feel pains in the loins.

Third day. Pain in the neck and in the head, and in the region of the right collar-bone. Quickly she lost her power of speech, the right arm was paralyzed, with a convulsion, after the manner of a stroke; completely delirious. An uncomfortable night, without sleep; bowels disordered with bilious, unmixed, scanty stools.

Fourth day. Her speech was recovered, but was indistinct; convulsions; pains of the same parts remained; painful swelling in the hypochondrium; no sleep; utter delirium; bowels disordered; urine thin, and not of good colour.

Fifth day. Acute fever; pain in the hypochondrium; utter delirium; bilious stools. At night sweated; was without fever.

Sixth day. Rational; general relief, but pain remained about the left collar-bone; thirst; urine thin; no sleep.

Seventh day. Trembling; some coma; slight delirium; pains in the region of the collar-bone and left upper arm remained; other symptoms

τρεῖς διέλιπεν ἄπυρος. ἐνδεκάτῃ ὑπέστρεψεν, ἐπερ-
330 ρίγωσεν, πῦρ ἔλαβεν. περὶ δὲ τεσσαρεσκαιδεκάτην ἤμεσε χολώδεα ξανθὰ ὑπόσυχνα, ἵδρωσεν· ἄπυρος ἐκρίθη.

ιδ'. Μελιδίῃ, ἣ κατέκειτο παρὰ Ἥρης ἱρόν, ἤρξατο κεφαλῆς καὶ τραχήλου καὶ στήθεος πόνος ἰσχυρός· αὐτίκα δὲ πυρετὸς ὀξὺς ἔλαβεν· γυναικεῖα δὲ σμικρὰ ἐπεφαίνετο· πόνοι τούτων πάντων συνεχέες. ἕκτῃ κωματώδης, ἀσώδης, φρικώδης, ἐρύθημα ἐπὶ γνάθων, σμικρὰ παρέκρουσεν. ἑβδόμῃ ἵδρωσε, πυρετὸς διέλιπεν, οἱ πόνοι παρέμενον,
340 ὑπέστρεψεν, ὕπνοι σμικροί· οὖρα διὰ τέλεος εὔχρω μέν, λεπτὰ δέ· διαχωρήματα λεπτά, χολώδεα, δακνώδεα, ὀλίγα, μέλανα, δυσώδεα διῆλθεν, οὔροις ὑπόστασις λευκή, λείη· ἵδρωσεν.
344 ἐκρίθη τελέως ἑνδεκάτῃ.

relieved; quite rational. For three days there was an intermission of fever.

Eleventh day. Relapse; rigor; attack of fever. But about the fourteenth day the patient vomited bilious, yellow matter fairly frequently; sweated; a crisis took off the fever.

CASE XIV

Melidia, who lay sick by the temple of Hera, began to suffer violent pain in the head, neck and chest. Immediately she was attacked by acute fever, and there followed a slight menstrual flow. There were continuous pains in all these parts.

Sixth day. Coma; nausea; shivering; flushed cheeks; slight delirium.

Seventh day. Sweat; intermittence of fever; the pains persisted; relapse; snatches of sleep; urine throughout of good colour but thin; stools thin, bilious, irritating, scanty, black and of bad odour; sediment in the urine white and smooth; sweating.

Eleventh day. Perfect crisis.

EPIDEMICS III

THE CHARACTERS

Some MSS., the most important being V, have certain characters at the end of the medical histories in Book III of the *Epidemics*. These characters were known to Galen, who wrote, or contemplated writing, a treatise about them. There is no doubt, therefore, that they are ancient; Galen indeed in his commentary tells us that his predecessors had been much exercised over them. Zeuxis, he says, had written a history of them in which they were traced back to Mnemon, who either added them to a manuscript in the Library at Alexandria or else brought to the Library a copy with the characters inserted.

These characters are of no real value for the interpretation of the text, but they bear witness to the interest taken in the "medical histories" from very early times. Somebody or other invented a shorthand script in order to summarize these histories, or rather the main teaching of them. For some reason they were only applied to the histories of the third book, and Galen says that the older manuscripts of his time had no characters inserted until the seventh case (woman with angina).

Galen gives the following explanation of the characters:—

Ἡγεῖται μὲν οὖν, ὡς ἔφην, ἁπάντων τὸ τὴν διάμετρον γραμμὴν ἔχον Π, σημαῖνον ἀεὶ τὸ πιθανόν. τελευταῖον δ'

ἤτοι τὸ Υ γράμμα φαίνεται γεγραμμένον ἢ τὸ Θ, τὸ μὲν ὑγείαν, τὸ δὲ θάνατον σημαῖνον. ἔμπροσθεν δ' αὐτῶν ὁ τῶν ἡμερῶν ἀριθμός, ἐν αἷς ἐνόσησεν ἢ ἀπέθανεν ὁ κάμνων. οἱ δὲ ἐν τῷ μεταξὺ τούτων χαρακτῆρες ἅπαντες μέν εἰσι διὰ τῶν γραμμάτων, ἃ σημαίνει τὰ στοιχεῖα τῆς φωνῆς, πλὴν τοῦ κάτωθεν ἀπεστιγμένου δέλτα. τίνα δὲ διάνοιαν ἕκαστος αὐτῶν ἔχει, δηλώσω. μεμνημένων οὖν ἡμῶν, ὅτι τὰ πρὸ τοῦ τελευταίου τῶν χαρακτήρων, ὑφ' οὗ θάνατον ἢ ὑγείαν ἔφαμεν δηλοῦσθαι, γεγραμμένα τὸν ἀριθμὸν τῶν ἡμερῶν σημαίνει, περὶ τῶν ἄλλων, ὅσα μεταξὺ τούτων τε καὶ τῆς ἀρχῆς γέγραπται, ποιήσομαι τὸν λόγον. τὸ μὲν Α δηλοῖ ἀποφθοράν, ἀπώλειαν, τὸ δὲ Γ γονοειδὲς οὖρον, τὸ δ' ἀπεστιγμέιον, οἷάπερ ἔστιν ἃ κάτωθεν ἔχει,[1] τρόπῳ τοιῷδε γεγραμμένον Δ διαχωρούμενα δι' ἱδρώτων καὶ διάρροιαν καὶ διαφόρησιν[2] καὶ συνελόντι φάναι κένωσιν ἡντιναοῦν σημαίνειν βούλονται, τὸ δὲ Ε ἐποχήν, ἕδραν, τὸ δὲ Ζ ζήτημα, τὸ δὲ Θ θάνατον, ὡς προείρηται, τὸ δὲ Ι ἱδρῶτα, τὸ δὲ Κ κρίσιν ἢ κοιλιακὴν διάθεσιν, τὸ δὲ Μ μανίαν ἢ μήτραν, τὸ δὲ Ν νεότητα καὶ νέκρωσιν, τὸ δὲ Ξ ξανθὴν χολὴν καὶ ξένον τι καὶ σπάνιον καὶ ξυσμὸν καὶ ξηρότητα, τὸ δὲ Ο ὀδύνας ἢ οὖρον—ἔνιοι δέ φασιν, ὅταν ἐπικείμενον ἄνωθεν ἔχῃ τὸ Υ, τότε σημαίνειν τὸ οὖρον αὐτό, γραφόμενον ὡς εἰώθασι τὸ οὕτως γράφειν—, τὸ δὲ Π πλῆθος ἢ πτύελον ἢ πυρὸν[3] ἢ πυρετὸν ἢ πνεύμονος πάθος, τὸ [Π] δ' ἐν αὐτῷ μέσον ἔχον τὸ Ι, καθότι προείρηται, τὸ πιθανὸν δηλοῖ, τὸ δὲ Ρ ῥῦσιν ἢ ῥῖγος, τὸ δὲ Φ φρενῖτιν ἢ φθίσιν, τὸ δὲ Σ σπασμὸν ἢ στομάχου κάκωσιν ἢ στόματος, τὸ δὲ Τ τόκον, τὸ δὲ Υ ὑγείαν ἢ ὑποχόνδριον, τὸ δὲ Χ χολὴν ἢ χολῶδες, τὸ δὲ Ψ ψύξιν, τὸ δὲ Ω ὠμότητα.

Kühn XVII, A 611–613.

[1] This sentence is evidently corrupt.
[2] Littré would read διαχώρησιν.
[3] Littré would read πυρρόν.

Now the first character, as I said, is always the letter Π with the intersecting line, meaning in all cases "probable." At the end we see written either Υ or Θ, meaning "recovery" and "death" respectively. Before them is the number of the days at the end of which the patient recovered or died. The characters in the middle are in all cases (except the delta with a mark below it) the letters indicating the elements of the word.[1] I will now state the meaning of each. Remember that the last character was said to signify recovery or death, and the last but one the number of the days, and I will now give a list of the others written between the number and the beginning. A signifies "miscarriage," "destruction"; Γ "urine like semen"; the letter with the mark underneath,[2] written thus Δ̲, means "evacuations by sweats," "diarrhoea" and "perspiration,"[3] and in general any evacuation; E "retention," "seat"; Z "object of search"; Θ "death," as I said before; I "sweat"; K "crisis" or "condition of the bowels"; M "madness" or "womb"; N "youth" or "mortification"; Ξ "yellow bile," "something strange and rare," "irritation," "dryness"; O "pains" or "urine," though some say it means urine only when it has the Υ placed above, written as the word οὗτως is generally written; Π means "abundance," "sputum," "wheat,"[4] "fever,"

[1] That is, each middle character except one is a letter of the alphabet, and that letter is significant, being the initial of a word, or of several alternative words.

[2] The text is probably mutilated, but the general meaning is clear.

[3] Surely this is wrong. Littré's suggestion ("stools") may possibly be correct.

[4] This again can surely not be correct. Littré's emendation is unconvincing.

"affection of the lung"; with a vertical stroke in the centre it means as I said "probable"; P means "flux," "rigor"; Φ "phrenitis" or "consumption"; Σ "convulsion" or "morbid condition of oesophagus or mouth"; T "delivery"; Y "recovery of health" or "hypochondrium"; X "bile" or "bilious"; Ψ "chill"; Ω "crudity."

For more information about the characters see Littré, III. pp. 28–33, and various notes at the end of the cases, and also Ilberg in Kühlewein's edition, p. 245.

As might have been expected, there is considerable doubt as to the right readings of these characters. Thus in V the characters at the end of Case 1 (first series) are:—

ΠΙΖΣΜΟΝ

where the first character is obviously another form of Galen's Π. Ilberg emends to:—

ΠΖCΜΟΝ⟨Υ⟩

Galen reads:—

ΠΠΟΥΜΥ

i. e. *πιθανόν.*
πλῆθος.
οὖρα.
τεσσαράκοντα.
ὑγίεια.

"It is probable that abundance of urine caused recovery in forty days."

Galen's reading makes it necessary to take the words of the text, *μετὰ δὲ κρίσιν, τεσσαράκοντα*

ἡμέρῃσιν ὕστερον, in the unnatural sense of "after the crisis, forty days from the beginning of the illness." So Littré and Adams, but the Greek scarcely allows it.

It appears certain that there were varieties of this shorthand, and that Galen's account deals with one only.

ΕΠΙΔΗΜΙΩΝ Γ

Ι. α'. Πυθίωνι, ὃς ᾤκει παρὰ Γῆς ἱρόν, ἤρξατο τρόμος ἀπὸ χειρῶν· τῇ πρώτῃ πυρετὸς ὀξύς· λῆρος. δευτέρῃ πάντα παρωξύνθη. τρίτῃ τὰ αὐτά. τετάρτῃ ἀπὸ κοιλίης ὀλίγα, ἄκρητα, χολώδεα διῆλθε. πέμπτῃ πάντα παρωξύνθη· ὕπνοι λεπτοί· κοιλίη ἔστη. ἕκτῃ πτύαλα ποικίλα, ὑπέρυθρα. ἑβδόμῃ στόμα παρειρύσθη. ὀγδόῃ πάντα παρωξύνθη, τρόμοι παρέμενον· οὖρα δὲ κατ' ἀρχὰς μὲν καὶ μέχρι τῆς ὀγδόης λεπτά, ἄχρω· ἐναιώρημα εἶχον ἐπινέφελον. δεκάτῃ ἵδρωσε, πτύαλα ὑποπέπονα, ἐκρίθη· οὖρα ὑπόλεπτα περὶ κρίσιν. μετὰ δὲ κρίσιν, τεσσαράκοντα ἡμέρῃσιν ὕστερον, ἐμπύημα περὶ ἕδρην, καὶ στραγγουριώδης ἐγένετο ἀπόστασις.[1]

β'. Ἑρμοκράτην, ὃς κατέκειτο παρὰ τὸ καινὸν τεῖχος, πῦρ ἔλαβεν. ἤρξατο δὲ ἀλγεῖν κεφαλήν, ὀσφῦν· ὑποχονδρίου ἔντασις λαπαρῶς· γλῶσσα

[1] V has here ΠΙΖΣΜΟΝ.

[1] The third book of the *Epidemics* has always been regarded as a continuation of the first book. Even a casual glance will convince any reader that the two books are really one work. The Paris manuscript called A, which breaks off after the opening words of *Epidemics* III, nevertheless joins these words without interruption to the end of the first book.

EPIDEMICS III[1]

Case I

Pythion, who lived by the temple of Earth, was seized with trembling which began in the hands.

First day. Acute fever; wandering.

Second day. General exacerbation.

Third day. Same symptoms.

Fourth day. Stools scanty, uncompounded and bilious.

Fifth day. General exacerbation; fitful sleep; constipation.

Sixth day. Varied, reddish sputa.

Seventh day. Mouth drawn awry.

Eighth day. General exacerbation; tremblings persisted; urine from the beginning to the eighth day thin, colourless, with a cloudy substance floating in it.

Tenth day. Sweat; sputa somewhat concocted; crisis; urine somewhat thin about the time of the crisis. After the crisis, forty days subsequent to it, abscess in the seat, and an abscession through strangury.

Case II

Hermocrates, who lay sick by the new wall, was seized with fever. He began to feel pain in the head and loins; tension of the hypochondrium with-

δὲ ἀρχομενῳ ἐπεκαύθη· κώφωσις αὐτίκα· ὕπνοι οὐκ ἐνῆσαν· διψώδης οὐ λίην· οὖρα παχέα, ἐρυθρά, κείμενα οὐ καθίστατο· ἀπὸ δὲ κοιλίης οὐκ ὀλίγα συγκεκαυμένα διῄει. πέμπτῃ οὔρησε λεπτά, εἶχεν ἐναιώρημα, οὐχ ἵδρυτο,[1] ἐς νύκτα παρέκρουσεν. ἕ τῃ ἰκτεριώδης, πάντα παρωξύνθη, οὐ κατενόει. ἑβδόμῃ δυσφόρως, οὖρα λεπτά, ὅμοια. τὰς ἑπομένας παραπλησίως. περὶ δὲ ἐνδεκάτην ἐόντι πάντα ἔδοξε κουφισθῆναι· κῶμα ἤρξατο, οὔρει παχύτερα, ὑπέρυθρα, κάτω λεπτά· οὐ καθίστατο· ἠσυχῇ κατενόει. τεσσαρεσκαιδεκάτῃ ἄπυρος, οὐχ ἵδρωσεν, ἐκοιμήθη, κατενόει πάντα, οὖρα παραπλήσια. περὶ δὲ ἑπτακαιδεκάτην ἐόντι ὑπέστρεψεν, ἐθερμάνθη. τὰς ἑπομένας πυρετὸς ὀξύς, οὖρα λεπτά, παρέκρουσεν.[2] πάλιν δὲ εἰκοστῇ ἐκρίθη, ἄπυρος, οὐχ ἵδρωσεν. ἀπόσιτος παρὰ πάντα τὸν χρόνον, κατενόει πάντα,[3] διαλέγεσθαι οὐκ ἠδύνατο, γλῶσσα ἐπίξηρος, οὐκ ἐδίψη· κατεκοιμᾶτο σμικρά, κωματώδης. περὶ δὲ εἰκοστὴν καὶ τετάρτην ἐπεθερμάνθη, κοιλίη ὑγρὴ πολλοῖσι λεπτοῖσι. καὶ τὰς ἑπομένας πυρετὸς ὀξύς, γλῶσσα συνεκαύθη. ἑβδόμῃ καὶ εἰκοστῇ ἀπέθανε. τούτῳ κώφωσις διὰ τέλεος παρέμενεν, οὖρα παχέα καὶ ἐρυθρά, οὐ καθιστάμενα, ἢ λεπτὰ κα᾽ ἄχρω καὶ ἐναιώρημα ἔχοντα· γεύεσθαι δὲ οὐκ ἠδύνατο.[4]

[1] ἵδρυτο MSS.: *ἱδρύετο* Kühlewein.
[2] V omits *παρέκρουσεν*.
[3] V omits *πάντα*: Littré restores from Galen.
[4] V has here ΠΙ·Ε·Ζ·ΑΓ·ΙΔ·ΙΖ·ΚΔ·ΚΖ·Θ.

[1] But see note on p. 188.
[2] Galen says that the meaning of λεπτὰ is here "small,"

out swelling[1]; tongue at the beginning parched; deafness at once; no sleep; no great thirst; urine thick, red, with no sediment on standing; stools not scanty, and burnt.

Fifth day. Urine thin, with particles floating in it, without sediment; at night delirium.

Sixth day. Jaundice; general exacerbation; not rational.

Seventh day. Discomfort; urine thin, and as before. The following days similar. About the eleventh day there seemed to be general relief; coma began; urine thicker, reddish, thin[2] at the bottom, without sediment; by degrees grew more rational.

Fourteenth day. No fever; no sweat; sleep; reason quite recovered; urine as before.

About the seventeenth day there was a relapse, and the patient grew hot. On the following days there was acute fever; urine thin; delirium.

Twentieth day. A fresh crisis; no fever; no sweat. All the time the patient had no appetite; was perfectly collected but could not talk; tongue dry; no thirst; snatches of sleep; coma. About the twenty-fourth day he grew hot; bowels loose with copious, thin discharges. On the following days acute fever; tongue parched.

Twenty-seventh day. Death.

In this case deafness persisted throughout; urine thick, red, without settling, or thin, colourless, with substances floating in it. The patient had no power to take food.

[1] *i. e.* he thinks that there were small particles at the bottom. Such is not the meaning of the word in Hippocrates when applied to urine.

γ'. Ὁ κατακείμενος ἐν τῷ Δελεάρκεος[1] κήπῳ κεφαλῆς βάρος καὶ κρόταφον δεξιὸν ἐπώδυνον εἶχε χρόνον πολύν. μετὰ δὲ προφάσιος πῦρ ἔλαβε, κατεκλίθη. δευτέρῃ ἐξ ἀριστεροῦ ὀλίγον ἄκρητον ἐρρύη· ἀπὸ δὲ κοιλίης κόπρανα καλῶς διῆλθεν, οὖρα λεπτὰ ποικίλα, ἐναιωρήματα ἔχοντα κατὰ σμικρὰ οἷον κρίμνα, γονοειδέα. τρίτῃ πυρετὸς ὀξύς, διαχωρήματα μέλανα, λεπτά, ἔπαφρα, ὑπόστασις πελιδνὴ διαχωρήμασιν, ὑπεκαροῦτο, ἐδυσφόρει περὶ τὰς ἀναστάσιας, οὔροις ὑπόστασις πελιδνή, ὑπόγλισχρος. τετάρτῃ ἤμεσε χολώδεα ξανθὰ ὀλίγα, διαλιπὼν ὀλίγον ἰώδεα, ἐξ ἀριστεροῦ ὀλίγον ἄκρητον ἐρρύη, διαχωρήματα ὅμοια, οὖρα ὅμοια, ἐφίδρωσε περὶ κεφαλὴν καὶ κληῖδας, σπλὴν ἐπήρθη, μηροῦ ὀδύνη κατ' ἴξιν, ὑποχονδρίου δεξιοῦ σύντασις ὑπολάπαρος, νυκτὸς οὐκ ἐκοιμήθη, παρέκρουσε σμικρά. πέμπτῃ διαχωρήματα πλείω, μέλανα, ἔπαφρα, ὑπόστασις μέλαινα διαχωρήμασι, νύκτα οὐχ ὕπνωσε, παρέκρουσεν. ἕκτῃ διαχωρήματα μέλανα, λιπαρά, γλίσχρα, δυσώδεα, ὕπνωσε, κατενόει μᾶλλον. ἑβδόμῃ γλῶσσα ἐπίξηρος, διψώδης, οὐκ ἐκοιμήθη, παρέκρουσεν, οὖρα λεπτά, οὐκ εὔχρω. ὀγδόῃ διαχωρήματα μέλανα ὀλίγα, συνεστηκότα, ὕπνωσε, κατενόει, διψώδης οὐ λίην. ἐνάτῃ ἐπερρίγωσε, πυρετὸς ὀξύς, ἵδρωσε, ψύξις, παρέκρουσε, δεξιῷ ἴλλαινε, γλῶσσα ἐπίξηρος, διψώδης, ἄγρυπνος.

[1] Δελεάρκεος Meineke from Galen : δεάλδεος V : other MSS. have δεόλκους or διάλκους.

CASE III

The man lying sick in the garden of Delearces had for a long time heaviness in the head and pain in the right temple. From some exciting cause he was seized with fever, and took to his bed.

Second day. Slight flow of unmixed blood from the left nostril. The bowels were well moved; urine thin and varied, with particles in small groups, like barley-meal or semen, floating in it.

Third day. Acute fever; stools black, thin, frothy, with a livid sediment in them; slight stupor; getting up caused distress; in the urine a livid, rather viscous sediment.

Fourth day. Vomited scanty, bilious, yellow vomits, and after a short interval, verdigris-coloured ones; slight flow of unmixed blood from the left nostril; stools unaltered and urine unaltered; sweat about the head and collar-bones; spleen enlarged; pain in the direction of the thigh; tension, soft underneath, of the right hypochondrium;[1] no sleep at night; slight delirium.

Fifth day. Stools more copious, black, frothy; a black sediment in the stools; no sleep at night; delirium.

Sixth day. Stools black, oily, viscid, foul-smelling; slept; was more rational.

Seventh day. Tongue dry; thirsty; no sleep; delirium; urine thin, not of a good colour.

Eighth day. Stools black, scanty, compact; sleep; was collected; not very thirsty.

Ninth day. Rigor, acute fever; sweat; chill; delirium; squinting of the right eye; tongue dry; thirsty; sleepless.

[1] See note, p. 188.

δεκάτῃ περὶ τὰ αὐτά. ἐνδεκάτῃ κατενόει πάντα, ἄπυρος, ὑπνωσεν, οὖρα λεπτὰ περὶ κρίσιν. δύο διέλιπεν ἄπυρος, ὑπέστρεψεν τεσσαρεσκαιδεκάτῃ, αὐτίκα δὲ νύκτα οὐκ ἐκοιμήθη, πάντα παρέκρουσεν. πεντεκαιδεκάτῃ οὖρον θολερόν, οἷον ἐκ τῶν καθεστηκότων γίνεται, ὅταν ἀναταραχθῇ, πυρετὸς ὀξύς, πάντα παρέκρουσεν, οὐκ ἐκοιμήθη, γούνατα καὶ κνήμας ἐπώδυνα εἶχεν· ἀπὸ δὲ κοιλίης βάλανον προσθεμένῳ μέλανα κόπρανα διῆλθεν. ἑξκαιδεκάτῃ οὖρα λεπτά, εἶχεν ἐναιώρημα ἐπινέφελον, παρέκρουσεν. ἑπτακαιδεκάτῃ πρωΐ ἄκρεα ψυχρά, περιεστέλλετο, πυρετὸς ὀξύς, ἵδρωσε δι' ὅλου, ἐκουφίσθη, κατενόει μᾶλλον, οὐκ ἄπυρος, διψώδης, ἤμεσε χολώδεα, ξανθά, ὀλίγα, ἀπὸ δὲ κοιλίης κόπρανα διῆλθε, μετ' ὀλίγον δὲ μέλανα, ὀλίγα, λεπτά· οὖρα λεπτά, οὐκ εὔχρω. ὀκτωκαιδεκάτῃ οὐ κατενόει, κωματώδης. ἐννεακαιδεκάτῃ διὰ τῶν αὐτῶν. εἰκοστῇ ὕπνωσε, κατενόει πάντα, ἵδρωσεν, ἄπυρος, οὐκ ἐδίψη, οὖρα δὲ λεπτά. εἰκοστῇ πρώτῃ σμικρὰ παρέκρουσεν, ὑπεδίψη, ὑποχονδρίου πόνος καὶ περὶ ὀμφαλὸν παλμὸς διὰ τέλεος. εἰκοστῇ τετάρτῃ οὔροισιν ὑπόστασις, κατενόει πάντα. εἰκοστῇ ἑβδόμῃ ἰσχίου δεξιοῦ ὀδύνη, τὰ δ' ἄλλα ἔσχεν ἐπιεικέστατα, οὔροισιν ὑπόστασις. περὶ δὲ εἰκοστὴν ἑνάτην ὀφθαλμοῦ

Tenth day. Symptoms about the same.

Eleventh day. Quite rational; no fever; slept; urine thin about the time of the crisis.

The patient remained free from fever for two days, relapsed on the fourteenth day, and immediately had no sleep at night and was completely delirious.

Fifteenth day. Urine muddy, like that which has been stirred up after settling; acute fever; completely delirious; no sleep; pain in knees and legs. On the application of a suppository, black, solid motions were passed.

Sixteenth day. Urine thin, with a cloudy substance floating in it; delirium.

Seventeenth day. Extremities cold in the early morning; would wrap himself up; acute fever; sweated all over; was relieved; more rational; some fever; thirst; vomited bilious matters, yellow and scanty; solid motions from the bowels; after a while they became black, scanty and thin; urine thin, and not of a good colour.

Eighteenth day. Was not rational; comatose.

Nineteenth day. The same symptoms.

Twentieth day. Slept; completely rational; sweated; no fever; no thirst; urine thin.

Twenty-first day. Slightly delirious; rather thirsty; pain in the hypochondrium and throbbing about the navel continuously.

Twenty-fourth day. Sediment in urine; completely rational.

Twenty-seventh day. Pain in the right hip, but in other respects very comfortable; sediment in the urine.

About the twenty-ninth day pain in the right eye; urine thin.

δεξιοῦ ὀδύνη, οὖρα λεπτά. τεσσαρακοστῇ διεχώρησε φλεγματώδεα, λευκά, ὑπόσυχνα, ἵδρωσε πολλῷ δι' ὅλου, τελέως ἐκρίθη.[1]

δ'. Ἐν Θάσῳ Φιλιστῆς[2] κεφαλὴν ἐπόνει χρόνον πολὺν καί ποτε καὶ ὑποκαρωθεὶς κατεκλίθη· ἐκ δὲ πότων πυρετῶν συνεχέων γενομένων ὁ πόνος παρωξύνθη. νυκτὸς ἐπεθερμάνθη τὸ πρῶτον. τῇ πρώτῃ ἤμεσε χολώδεα, ὀλίγα, ξανθὰ τὸ πρῶτον, μετὰ δὲ ταῦτα ἰώδεα πλείω, ἀπὸ δὲ κοιλίης κόπρανα διῆλθε· νύκτα δυσφόρως. δευτέρῃ κώφωσις, πυρετὸς ὀξύς, ὑποχόνδριον δεξιὸν συνετάθη, ἔρρεπεν ἐς τὰ ἔσω· οὖρα λεπτά, διαφανέα, εἶχεν ἐναιώρημα γονοειδές, σμικρόν· ἐξεμάνη περὶ μέσον ἡμέρης. τρίτῃ δυσφόρως. τετάρτῃ σπασμοί, παρωξύνθη. πέμπτῃ πρωὶ ἀπέθανεν.[3]

ε'. Χαιρίωνα, ὃς κατέκειτο παρὰ †Δημαινέτῳ,†[4] ἐκ πότου πῦρ ἔλαβεν. αὐτίκα δὲ κεφαλῆς βάρος ἐπώδυνον, οὐκ ἐκοιμᾶτο, κοιλίη ταραχώδης λεπτοῖσιν, ὑποχολώδεσι. τρίτῃ πυρετὸς ὀξύς, κεφαλῆς τρόμος, μάλιστα δὲ χείλεος τοῦ κάτω· μετ' ὀλίγον δὲ ῥῖγος, σπασμοί, πάντα παρέκρουσε, νύκτα δυσφόρως. τετάρτῃ δι' ἡσυχίης, σμικρὰ ἐκοιμήθη,

[1] V has here ΠΙΚΔΟΔΜΥ.
[2] *Φιλιστῆς* Blass: *φιλίστης* MSS.
[3] V has here ΠΙΦΔΕΘΚΚ.
[4] *Δηλίαν* V: *Δημαινέτῳ* Littré and some MSS.

[1] The variants indicate corruption. Can *Δηλίαν* be "Delian goddess" or "Delias"? The form is not Ionic.

Fortieth day. Passed motions full of phlegm, white and rather frequent; copious sweat all over; a perfect crisis.

CASE IV

Philistes in Thasos had for a long time pain in the head, and at last fell into a state of stupor and took to his bed. Heavy drinking having caused continuous fevers the pain grew worse. At night he grew hot at the first.

First day. Vomited bilious matters, scanty, at first yellow, afterwards increasing and of the colour of verdigris; solid motions from the bowels; an uncomfortable night.

Second day. Deafness; acute fever; tension of the right hypochondrium, which fell inwards. Urine thin, transparent, with a small quantity of substance, like semen, floating in it. About mid-day became raving.

Third day. Uncomfortable.

Fourth day. Convulsions; exacerbation.

Fifth day. Died early in the morning.

CASE V

Chaerion, who lay sick in the house of Demaenetus,[1] was seized with fever after drinking. At once there was painful heaviness of the head; no sleep; bowels disturbed with thin, rather bilious stools.

Third day. Acute fever, trembling of the head, particularly of the lower lip; after a while rigor, convulsions, complete delirium; an uncomfortable night.

Fourth day. Quiet; snatches of sleep; wandering.

παρέλεγε. πέμπτῃ ἐπιπόνως, πάντα παρωξύνθη, λῆρος, νύκτα δυσφόρως, οὐκ ἐκοιμήθη. ἕκτῃ διὰ τῶν αὐτῶν. ἑβδόμῃ ἐπερρίγωσε, πυρετὸς ὀξύς, ἵδρωσε δι' ὅλου, ἐκρίθη. τούτῳ διὰ τέλεος ἀπὸ κοιλίης διαχωρήματα χολώδεα, ὀλίγα, ἄκρητα· οὖρα λεπτά, οὐκ[1] εὔχρω, ἐναιώρημα ἐπινέφελον ἔχοντα. περὶ ὀγδόην οὔρησεν εὐχροώτερα, ἔχοντα ὑπόστασιν λευκὴν ὀλίγην, κατενόει, ἄπυρος· διέλιπεν. ἐνάτῃ ὑπέστρεψε. περὶ δὲ τεσσαρεσκαιδεκάτην πυρετὸς ὀξύς. ἐκκαιδεκάτῃ ἤμεσε χολώδεα, ξανθά, ὑπόσυχνα. ἑπτακαιδεκάτῃ ἐπερρίγωσε, πυρετὸς ὀξύς, ἵδρωσεν, ἄπυρος ἐκρίθη. οὖρα μετὰ ὑποστροφὴν καὶ κρίσιν εὔχρω, ὑπόστασιν ἔχοντα, οὐδὲ παρέκρουσεν ἐν τῇ ὑποστροφῇ. ὀκτωκαιδεκάτῃ ἐθερμαίνετο σμικρά, ὑπεδίψη, οὖρα λεπτά, ἐναιώρημα ἐπινέφελον, σμικρὰ παρέκρουσεν. ἐννεακαιδεκάτῃ ἄπυρος, τράχηλον ἐπωδύνως εἶχεν, οὔροισιν ὑπόστασις. τελέως ἐκρίθη εἰκοστῇ.[2]

ς'. Τὴν Εὐρυάνακτος θυγατέρα, παρθένον, πῦρ ἔλαβεν. ἦν δὲ ἄδιψος διὰ τέλεος· γεύματα οὐ προσεδέχετο. ἀπὸ δὲ κοιλίης σμικρὰ διῄει, οὖρα λεπτά, ὀλίγα, οὐκ εὔχρω. ἀρχομένου δὲ τοῦ πυρετοῦ περὶ ἕδρην ἐπόνει. ἑκταίη δὲ ἐοῦσα

[1] *οὐκ* restored by Littré and Ermerins.
[2] V has here ΠΙ · ΧΠΔΟΥΚΥ.

Fifth day. Pain; general exacerbation; irrational talk; uncomfortable night; no sleep.

Sixth day. The same symptoms.

Seventh day. Rigor; acute fever; sweating all over; crisis.

This patient's stools were throughout bilious, scanty and uncompounded. Urine thin, not of a good colour, with a cloudy substance floating in it. About the eighth day the urine had a better colour, with a slight, white sediment; quite rational and no fever; an intermission.

Ninth day. Relapse.

About the fourteenth day acute fever.

Sixteenth day. Vomited bilious, yellow matters rather frequently.

Seventeenth day. Rigor; acute fever; sweating; crisis ended the fever.

Urine after relapse and crisis of a good colour, with a sediment; no delirium during the relapse.

Eighteenth day. Slight heat; rather thirsty; urine thin, with cloudy substance floating in it; slight delirium.

Nineteenth day. No fever; pain in the neck; sediment in urine.

Twentieth day. Complete crisis.

CASE VI

The maiden daughter of Euryanax was seized with fever. Throughout the illness she suffered no thirst and had no inclination for food. Slight alvine discharges; urine thin, scanty, and not of a good colour. At the beginning of the fever suffered pain in the seat. On the sixth day did not sweat, being

ἄπυρος οὐχ ἵδρωσεν· ἐκρίθη. τὸ δὲ περὶ τὴν ἕδρην σμικρὰ ἐξεπύησεν, ἐρράγη ἅμα κρίσει. μετὰ δὲ κρίσιν ἑβδομαίη ἐοῦσα ἐρρίγωσε, σμικρὰ ἐπεθερμάνθη, ἵδρωσεν.[1] ὕστερον δὲ ἄκρεα ψυχρὰ αἰεί. περὶ δὲ δεκάτην μετὰ τὸν ἱδρῶτα τὸν γενόμενον παρέκρουσε καὶ πάλιν ταχὺ κατενόει· ἔλεγον δὲ γευσαμένην βότρυος.[2] διαλιποῦσα δὲ δωδεκάτῃ πάλιν πολλὰ παρελήρει, κοιλίη ἐπεταράχθη χολώδεσιν, ἀκρήτοισιν, ὀλίγοισι, λεπτοῖσι, δακνώδεσι, πυκνὰ ἀνίστατο. ἀφ' ἧς δὲ παρέκρουσε τὸ ὕστερον, ἀπέθανε ἑβδόμῃ. αὕτη ἀρχομένου τοῦ νοσήματος ἤλγει φάρυγγα, καὶ διὰ τέλεος ἔρευθος εἶχε, γαργαρεὼν ἀνεσπασμένος. ῥεύματα πολλά, σμικρά, δριμέα. ἔβησσε πέπονα, οὐδὲν ἀνῆγεν[3]· ἀπόσιτος πάντων παρὰ πάντα τὸν χρόνον οὐδ' ἐπεθύμησεν οὐδενός. ἄδιψος, οὐδ' ἔπινεν οὐδὲν ἄξιον λόγου. σιγῶσα, οὐδὲν διελέγετο. δυσθυμίη, ἀνελπίστως ἑωυτῆς εἶχεν. ἦν δέ τι καὶ συγγενικὸν φθινῶδες.[4]

ζ'. Ἡ κυναγχικὴ ἡ παρὰ[5] Ἀριστίωνος, ἣ πρῶτον[6] ἤρξατο ἀσαφὴς φωνή. γλῶσσα ἐρυθρή, ἐπεξηράνθη. τῇ πρώτῃ φρικώδης, ἐπεθερμάνθη.

[1] After ἵδρωσεν most MSS. have μετὰ δὲ κρίσιν ὀγδοαίη ἐοῦσα ἐρριγωσεν οὐ πολλά: V omits.

[2] After βότρυος most MSS. have ταῦτα παθεῖν: V and R^{r1} omit.

[3] Galen read πέπον δ' οὐδὲν ἀνῆγεν.

[4] V has here ΠΙΕΑΠΑΣΦ.

[5] The MSS. after παρὰ have τά, which is omitted by Kühlewein.

[6] After πρῶτον most MSS. add ἀπὸ γλώσσης: V omits.

without fever; a crisis. The sore near the seat suppurated slightly, and burst at the crisis. After the crisis, on the seventh day, she had a rigor; grew slightly hot; sweated. Afterwards the extremities always cold. About the tenth day, after the sweating that occurred, she grew delirious, but was soon rational again. They said that the trouble was due to eating grapes. After an intermission, on the twelfth day she again wandered a great deal; the bowels were disturbed, with bilious, uncompounded, scanty, thin, irritating stools, which frequently made her get up. She died the seventh day from the second attack of delirium. This patient at the beginning of the illness had pain in the throat, which was red throughout. The uvula was drawn back. Many fluxes,[1] scanty and acrid. She had a cough with signs of coction, but brought up nothing.[2] No appetite for any food the whole time, nor did she desire anything. No thirst, and she drank nothing worth mentioning. She was silent, and did not converse at all. Depression, the patient despairing of herself. There was also some inherited tendency to consumption.

CASE VII

The woman suffering from angina who lay sick in the house of Aristion began her complaint with indistinctness of speech. Tongue red, and grew parched.

First day. Shivered, and grew hot.

[1] Here ῥεύματα πολλὰ must mean "many fluxes," but in *Epidemics* III. iv. it means "copious fluxes."

[2] Or, with Galen's reading, "she had a cough, but brought up no concocted sputum."

τρίτῃ ῥῖγος, πυρετὸς ὀξύς, οἴδημα ὑπέρυθρον, σκληρὸν τραχήλου καὶ ἐπὶ στῆθος ἐξ ἀμφοτέρων, ἄκρεα ψυχρά, πελιδνά, πνεῦμα μετέωρον, ποτὸν διὰ ῥινῶν, καταπίνειν οὐκ ἠδύνατο, διαχωρήματα καὶ οὖρα ἐπέστη. τετάρτῃ πάντα παρωξύνθη. πέμπτῃ ἀπέθανε.[1]

η'. Τὸ μειράκιον, ὃ κατέκειτο ἐπὶ ψευδέων ἀγορῇ, πῦρ ἔλαβεν ἐκ κόπων καὶ πόνων καὶ δρόμων παρὰ τὸ ἔθος. τῇ πρώτῃ κοιλίη ταραχώδης χολώδεσι, λεπτοῖσι, πολλοῖσιν, οὖρα λεπτά, ὑπομέλανα, οὐχ ὕπνωσε, διψώδης. δευτέρῃ πάντα παρωξύνθη, διαχωρήματα πλείω, ἀκαιρότερα. οὐχ ὕπνωσε, τὰ τῆς γνώμης ταραχώδεα, σμικρὰ ὑφίδρωσε. τρίτῃ δυσφόρως, διψώδης, ἀσώδης, πολὺς βληστρισμός, ἀπορίη, παρέκρουσεν, ἄκρεα πελιδνὰ καὶ ψυχρά, ὑποχονδρίου ἔντασις ὑπολάπαρος ἐξ ἀμφοτέρων. τετάρτῃ οὐχ ὕπνωσεν· ἐπὶ τὸ χεῖρον. ἑβδόμῃ ἀπέθανεν, ἡλικίην περὶ ἔτεα εἴκοσιν.[2]

θ'. Ἡ παρὰ Τεισαμενοῦ γυνὴ κατέκειτο, ᾗ τὰ εἰλεώδεα δυσφόρως ὥρμησεν. ἔμετοι πολλοί, ποτὸν κατέχειν οὐκ ἠδύνατο. πόνοι περὶ ὑποχόνδρια. καὶ ἐν τοῖσι κάτω κατὰ κοιλίην οἱ πόνοι. στρόφοι συνεχέες. οὐ διψώδης. ἐπεθερμαίνετο, ἄκρεα ψυχρὰ διὰ τέλεος. ἀσώδης,

[1] V has here ΠΙΤΔΕΗΘΙ.
[2] V has here ΠΙΖΤΘ.

[1] The ancient commentators did not know the meaning of this word when applied to respiration, and a modern can only guess.
[2] See note, p. 188.

Third day. Rigor; acute fever; a reddish, hard swelling in the neck, extending to the breast on either side; extremities cold and livid, breathing elevated;[1] drink returned through the nostrils—she could not swallow—stools and urine ceased.

Fourth day. General exacerbation.

Fifth day. Death.

CASE VIII

The youth who lay sick by the Liars' Market was seized with fever after unaccustomed fatigue, toil and running.

First day. Bowels disturbed with bilious, thin, copious stools; urine thin and blackish; no sleep; thirst.

Second day. General exacerbation; stools more copious and more unfavourable. No sleep; mind disordered; slight sweating.

Third day. Uncomfortable; thirst; nausea; much tossing; distress; delirium; extremities livid and cold; tension, soft underneath, of the hypochondrium[2] on both sides.

Fourth day. No sleep; grew worse.

Seventh day. Died, being about twenty years old.

CASE IX

The woman who lodged with Tisamenus was in bed with a troublesome attack of inflammation of the upper bowel. Copious vomits; could not retain her drink. Pains in the region of the hypochondria. The pains were also lower, in the region of the bowels. Constant tormina. No thirst. She grew hot, though the extremities were cold all the time.

ἄγρυπνος. οὖρα ὀλίγα, λεπτά. διαχωρήματα ὠμά, λεπτὰ, ὀλίγα. ὠφελεῖν οὐκέτι ἠδύνατο, ἀπέθανεν.[1]

ι'. Γυναῖκα ἐξ ἀποφθορῆς νηπίου τῶν περὶ Παντιμίδην τῇ πρώτῃ πῦρ ἔλαβε. γλῶσσα ἐπίξηρος, διψώδης, ἀσώδης, ἄγρυπνος. κοιλίη ταραχώδης λεπτοῖσι, πολλοῖσιν, ὠμοῖσι. δευτέρῃ ἐπερρίγωσε, πυρετὸς ὀξύς, ἀπὸ κοιλίης πολλά, οὐχ ὕπνωσε. τρίτῃ μείζους οἱ πόνοι. τετάρτῃ παρέκρουσεν· ἑβδόμῃ ἀπέθανε. κοιλίη διὰ παντὸς ὑγρὴ διαχωρήμασι πολλοῖσι, λεπτοῖσιν, ὠμοῖσιν· οὖρα ὀλίγα λεπτά.[2]

ια'. Ἑτέρην ἐξ ἀποφθορῆς περὶ πεντάμηνον, Ἱκέτεω γυναῖκα, πῦρ ἔλαβεν. ἀρχομένη κωματώδης ἦν, καὶ πάλιν ἄγρυπνος, ὀσφύος ὀδύνη, κεφαλῆς βάρος. δευτέρῃ κοιλίη ἐπεταράχθη ὀλίγοισι, λεπτοῖσιν, ἀκρήτοισι τὸ πρῶτον. τρίτῃ πλείω, χείρω· νυκτὸς οὐδὲν ἐκοιμήθη. τετάρτῃ παρέκρουσε, φόβοι, δυσθυμίαι. δεξιῷ ἴλλαινε, ἵδρωσε περι κεφαλὴν ὀλίγῳ ψυχρῷ, ἄκρεα ψυχρά· πέμπτῃ πάντα παρωξύνθη, πολλὰ παρέλεγε καὶ πάλιν ταχὺ κατενόει· ἄδιψος, ἄγρυπνος, κοιλίη

[1] V has here ΠΙΡΕΘ.

[2] V has here ΠΙΘΑΤΑ. *καῦσος* occurs in the MSS. before the characters, and similar identifications are given at the end of other histories. Galen rejected them, and he is followed by modern editors. Such identifications are alien from the spirit of the *Epidemics*.

Nausea; sleeplessness. Urine scanty and thin. Excreta crude, thin and scanty. It was no longer possible to do her any good, and she died.

CASE X

A woman who was one of the house of Pantimides after a miscarriage was seized with fever on the first day. Tongue dry; thirst; nausea; sleeplessness. Bowels disordered, with thin, copious and crude stools.

Second day. Rigor; acute fever; copious stools; no sleep.

Third day. The pains greater.

Fourth day. Delirium.

Seventh day. Death.

The bowels were throughout loose, with copious, thin, crude stools. Urine scanty and thin.

CASE XI

Another woman, after a miscarriage about the fifth month, the wife of Hicetas, was seized with fever. At the beginning she had alternations of coma and sleeplessness; pain in the loins; heaviness in the head.

Second day. Bowels disordered with scanty, thin stools, which at first were uncompounded.

Third day. Stools more copious and worse; no sleep at night.

Fourth day. Delirium; fears; depression. Squinting of the right eye; slight cold sweat about the head; extremities cold.

Fifth day. General exacerbation; much wandering, with rapid recovery of reason; no thirst; no

πολλοῖσιν ἀκαίροισι διὰ τέλεος· οὖρα ὀλίγα, λεπτά, ὑπομέλανα· ἄκρεα ψυχρά, ὑποπέλιδνα. ἕκτῃ διὰ τῶν αὐτῶν. ἑβδόμῃ ἀπέθανε.[1]

ιβ'. Γυναῖκα, ἥτις κατέκειτο ἐπὶ ψευδέων ἀγορῇ, τεκοῦσαν τότε πρῶτον ἐπιπόνως ἄρσεν πῦρ ἔλαβεν. αὐτίκα ἀρχομένη διψώδης, ἀσώδης, καρδίην ὑπήλγει, γλῶσσα ἐπίξηρος, κοιλίη ἐπεταράχθη λεπτοῖσιν ὀλίγοισιν, οὐχ ὕπνωσε. δευτέρῃ σμικρὰ ἐπερρίγωσε, πυρετὸς ὀξύς, σμικρὰ περὶ κεφαλὴν ἵδρωσε ψυχρῷ. τρίτῃ ἐπιπόνως· ἀπὸ κοιλίης ὠμά, λεπτὰ πολλὰ διῄει. τετάρτῃ ἐπερρίγωσε, πάντα παρωξύνθη· ἄγρυπνος. πέμπτῃ ἐπιπόνως. ἕκτῃ διὰ τῶν αὐτῶν· ἀπὸ κοιλίης ἦλθε ὑγρὰ πολλά. ἑβδόμῃ ἐπερρίγωσε,[2] πυρετὸς ὀξύς, δίψα, πολὺς βληστρισμός, περὶ δείλην ἵδρωσε δι' ὅλου ψυχρῷ, ψύξις, ἄκρεα ψυχρά, οὐκέτι ἀνεθερμαίνετο· καὶ πάλιν ἐς νύκτα ἐπερρίγωσεν, ἄκρεα οὐκ ἀνεθερμαίνετο, οὐχ ὕπνωσε, σμικρὰ παρέκρουσε, καὶ πάλιν ταχὺ κατενόει. ὀγδόῃ περὶ μέσον ἡμέρης ἀνεθερμάνθη, διψώδης, κωματώδης, ἀσώδης, ἤμεσε χολώδεα σμικρὰ ὑπόξανθα. νύκτα δυσφόρως, οὐκ ἐκοιμήθη, οὔρησε πολὺ ἀθρόον οὐκ εἰδυῖα. ἐνάτῃ συνέδωκε

[1] V has here ΠΙΘΔΑΖΘ. Before the characters most MSS. have φρενιτιαία: φρενῖτις Galen.

[2] After ἐπερρίγωσε Galen adds γλῶσσα ξηρή.

sleep; stools copious and unfavourable throughout; urine scanty, thin and blackish; extremities cold and rather livid.

Sixth day. Same symptoms.

Seventh day. Death.

CASE XII

A woman who lay sick by the Liars' Market, after giving birth in a first and painful delivery to a male child, was seized with fever. From the very first there was thirst, nausea, slight pain at the stomach, dry tongue, bowels disordered with thin and scanty discharges, no sleep.

Second day. Slight rigor; acute fever; slight, cold sweating around the head.

Third day. In pain; crude, thin, copious discharges from the bowels.

Fourth day. Rigor; general exacerbation; sleepless.

Fifth day. In pain.

Sixth day. The same symptoms; copious, fluid discharges from the bowels.

Seventh day. Rigor; acute fever; thirst; much tossing; towards evening cold sweat all over; chill; extremities cold, and would not be warmed. At night she again had a rigor; the extremities would not be warmed; no sleep; slight delirium, but quickly was rational again.

Eighth day. About mid-day recovered her heat; thirst; coma; nausea; vomited bilious, scanty, yellowish matters. An uncomfortable night; no sleep; unconsciously passed a copious discharge of urine.

πάντα, κωματώδης. πρὸς δείλην σμικρὰ ἐπερρίγωσεν, ἤμεσε σμικρὰ χολώδεα. δεκάτῃ ῥῖγος, πυρετὸς παρωξύνθη, οὐχ ὕπνωσεν οὐδέν· πρωὶ οὖρησε πολὺ ὑπόστασιν οὐκ ἔχον, ἄκρεα ἀνεθερμάνθη. ἐνδεκάτῃ ἤμεσε χολώδεα, ἰώδεα. ἐπερρίγωσεν οὐ μετὰ πολύ, καὶ πάλιν ἄκρεα ψυχρά, ἐς δείλην ἱδρώς, ῥῖγος, ἤμεσε πολλά, νύκτα ἐπιπόνως. δωδεκάτῃ ἤμεσε πολλὰ μέλανα δυσώδεα, λυγμὸς πολύς, δίψος ἐπιπόνως. τρισκαιδεκάτῃ μέλανα, δυσώδεα πολλὰ ἤμεσε, ῥῖγος· περὶ δὲ μέσον ἡμέρης ἄφωνος. τεσσαρεσκαιδεκάτῃ αἷμα διὰ ῥινῶν· ἀπέθανε. ταύτῃ διὰ τέλεος κοιλίη ὑγρή· φρικώδης· ἡλικίη περὶ ἔτεα ἑπτακαίδεκα.[1]

κατάστασις

II. Ἔτος νότιον ἔπομβρον· ἄπνοια διὰ τέλεος· αὐχμῶν δὲ γενομένων τοὺς ὑπόπροσθεν χρόνους[2] ἐν νοτίοισι περὶ ἀρκτοῦρον ὕδατα πολλά. φθινόπωρον σκιῶδες, ἐπινέφελον, ὑδάτων πλήθεα. χειμὼν νότιος, ὑγρός, μαλθακὸς μετὰ ἡλίου τροπάς· ὕστερον πολλῷ, πλησίον ἰσημερίης, ὀπισθοχειμῶνες, καὶ ἤδη περὶ ἰσημερίην βόρεια, χιονώδεα, οὐ πολὺν χρόνον. ἦρ πάλιν νότιον, ἄπνοον· ὕδατα πολλὰ διὰ τέλεος μέχρι κυνός. θέρος αἴθριον, θερμόν, πνίγεα μεγάλα· ἐτησίαι

[1] V has here ΠΙΔΔΙΔΟΔΙΘ.

[2] After χρόνους the MSS. have ἐπ' ἐνιαυτόν. Littré queried the phrase and Ermerins deleted it.

Ninth day. General abatement of the symptoms; coma. Towards evening slight rigor; vomited scanty, bilious matters.

Tenth day. Rigor; exacerbation of the fever; no sleep whatsoever. In the early morning a copious discharge of urine without sediment; extremities were warmed.

Eleventh day. Vomited bilious matters, of the colour of verdigris. A rigor shortly afterwards, and the extremities became cold again; in the evening sweat, rigor and copious vomiting; a painful night.

Twelfth day. Vomited copious, black, fetid matters; much hiccoughing; painful thirst.

Thirteenth day. Vomited black, fetid, copious matters; rigor. About mid-day lost her speech.

Fourteenth day. Epistaxis; death.

The bowels of this patient were throughout loose, and there were shivering fits. Age about seventeen.

CONSTITUTION

II. The year was southerly and rainy, with no winds throughout. About the rising of Arcturus, while during the immediately preceding period droughts had prevailed, there were now heavy rains, with southerly winds. Autumn dark and cloudy, with abundance of rain. The winter southerly, humid, and mild after the solstice. Long after the solstice, near the equinox, wintry weather returned, and at the actual equinoctial period there were northerly winds with snow, but not for long. The spring southerly again, with no winds; many rains throughout until the Dog Star. The summer was clear and warm, with waves of stifling heat. The

σμικρὰ διεσπασμένως ἔπνευσαν· πάλιν δὲ περὶ ἀρκτοῦρον ἐν βορείοισιν ὕδατα πολλά.

Γενομένου δὲ τοῦ ἔτεος νοτίου καὶ ὑγροῦ καὶ μαλθακοῦ κατὰ μὲν χειμῶνα διῆγον ὑγιηρῶς πλὴν τῶν φθινωδέων, περὶ ὧν γεγράψεται.

III. Πρωὶ δὲ τοῦ ἦρος ἅμα τοῖσι γενομένοισι ψύχεσιν ἐρυσιπέλατα πολλά, τοῖσι μὲν μετὰ προφάσιος, τοῖσι δ' οὔ, κακοήθεα· πολλοὺς ἔκτεινε, πολλοὶ φάρυγγας ἐπόνησαν· φωναὶ κακούμεναι, καῦσοι, φρενιτικοί, στόματα ἀφθώδεα, αἰδοίοισι φύματα, ὀφθαλμίαι, ἄνθρακες, κοιλίαι ταραχώδεες, ἀπόσιτοι, διψώδεες οἱ μέν, οἱ δ' οὔ, οὖρα ταραχώδεα, πολλά, κακά, κωματώδεες ἐπὶ πολὺ καὶ πάλιν ἄγρυπνοι, ἀκρισίαι πολλαί, δύσκριτα, ὕδρωπες, φθινώδεες πολλοί. τὰ μὲν ἐπιδημήσαντα νοσήματα ταῦτα. ἑκάστου δὲ τῶν ὑπογεγραμμένων εἰδέων ἦσαν οἱ κάμνοντες καὶ ἔθνησκον πολλοί. συνέπιπτε δ' ἐφ' ἑκάστοισι τούτων ὧδε.

IV. Πολλοῖσι μὲν τὸ ἐρυσίπελας μετὰ προφάσιος ἐπὶ τοῖσι τυχοῦσι καὶ πάνυ ἐπὶ σμικροῖσι τρωματίοις ἐφ' ὅλῳ τῷ σώματι, μάλιστα δὲ τοῖσι περὶ ἑξήκοντα ἔτεα καὶ[1] περὶ κεφαλήν, εἰ καὶ σμικρὸν ἀμεληθείη. πολλοῖσι δὲ καὶ ἐν θεραπείῃ ἐοῦσι[2] μεγάλαι φλεγμοναὶ ἐγίνοντο, καὶ τὸ ἐρυσίπελας πολὺ ταχὺ πάντοθεν ἐπενέμετο. τοῖσι μὲν οὖν πλείστοισιν αὐτῶν ἀποστάσιες ἐς ἐμπυήματα συνέπιπτον· σαρκῶν καὶ νεύρων καὶ

[1] καὶ omitted by MSS., added by Littré from Galen.
[2] Littré puts a comma at ἀμεληθείη and a colon at ἐοῦσι.

[1] Or, "forms."
[2] With Littré's punctuation the meaning is, "however

Etesian winds were faint and intermittent. But, on the other hand, near the rising of Arcturus there were heavy rains with northerly winds.

The year having proved southerly, wet and mild, in the winter the general health was good except for the consumptives, who will be described in due course.

III. Early in the spring, at the same time as the cold snaps which occurred, were many malignant cases[1] of erysipelas, some from a known exciting cause and some not. Many died, and many suffered pain in the throat. Voices impaired; ardent fevers; phrenitis; aphthae in the mouth; tumours in the private parts; inflammations of the eyes; carbuncles; disordered bowels; loss of appetite; thirst in some cases, though not in all; urine disordered, copious, bad; long coma alternating with sleeplessness; absence of crisis in many cases, and obscure crises; dropsies; many consumptives. Such were the diseases epidemic. There were patients suffering from each of the above types, and fatal cases were many. The symptoms in each type were as follow.

IV. Many were attacked by the erysipelas all over the body when the exciting cause was a trivial accident or a very small wound; especially when the patients were about sixty years old and the wound was in the head, however little the neglect might have been. Many even while undergoing treatment suffered from severe inflammations,[2] and the erysipelas would quickly spread widely in all directions. Most of the patients experienced abscessions ending in suppurations. Flesh, sinews and bones

slight the neglect, and even when a patient was actually undergoing treatment. There were severe inflammations," etc.

ὀστέων ἐκπτώσιες μεγάλαι. ἦν δὲ καὶ τὸ ῥεῦμα τὸ συνιστάμενον οὐ πύῳ ἴκελον, ἀλλὰ σηπεδών τις ἄλλη καὶ ῥεῦμα πολὺ καὶ ποικίλον. οἷσι μὲν οὖν περὶ κεφαλὴν τούτων τι συμπίπτοι γίνεσθαι, μάδησίς τε ὅλης τῆς κεφαλῆς ἐγίνετο καὶ τοῦ γενείου καὶ ὀστέων ψιλώματα καὶ ἐκπτώσιες καὶ πολλὰ ῥεύματα. ἐν πυρετοῖσί τε ταῦτα καὶ ἄνευ πυρετῶν. ἦν δὲ ταῦτα φοβερώτερα ἢ κακίω. οἷσι γὰρ ἐς ἐμπύημα ἢ τινα τοιοῦτον ἀφίκοιτο πεπασμόν,[1] οἱ πλεῖστοι τούτων ἐσῴζοντο. οἷσι δ' ἡ μὲν φλεγμονὴ καὶ τὸ ἐρυσίπελας ἀπέλθοι, τοιαύτην δὲ ἀπόστασιν μηδεμίαν ποιήσαιτο, τούτων ἀπώλλυντο πολλοί. ὁμοίως δὲ καὶ εἴ πῃ ἄλλῃ τοῦ σώματος πλανηθείη, συνέπιπτε ταῦτα. πολλοῖσι μὲν γὰρ βραχίων καὶ πῆχυς ὅλος περιερρύη. οἷσι δ' ἐπὶ τὰ πλευρά, ταῦτα ἐκακοῦτο ἢ τῶν ἔμπροσθέν τι ἢ τῶν ὄπισθεν. οἷσι δ' ὅλος ὁ μηρὸς ἢ τὰ περὶ κνήμην ἀπεψιλοῦτο καὶ ποὺς ὅλος. ἦν δὲ πάντων χαλεπώτατα τῶν τοιούτων, ὅτε περὶ ἕβην καὶ αἰδοῖα γενοίατο. τὰ μὲν περὶ ἕλκεα καὶ μετὰ προφάσιος τοιαῦτα. πολλοῖσι δὲ ἐν πυρετοῖσι καὶ πρὸ πυρετοῦ καὶ ἐπὶ πυρετοῖσι συνέπιπτεν. ἦν δὲ καὶ τούτων, ὅσα μὲν ἀπόστασιν ποιήσαιτο διὰ τοῦ ἐκπυῆσαι ἢ κατὰ κοιλίην ταραχή τις ἐπίκαιρος ἢ χρηστῶν οὔρων διάδοσις γένοιτο, διὰ τούτων λελύσθαι, οἷσι δὲ μηδὲν τούτων συμπίπτοι, ἀσήμως δὲ ἀφανιζομένων, θανατώδεα γίνεσθαι. πολὺ μὲν οὖν πλείστοισι συνέπιπτε τὰ περὶ τὸ ἐρυσίπελας τοῦ ἦρος. παρείπετο δὲ καὶ διὰ τοῦ θέρεος καὶ ὑπὸ φθινόπωρον.

fell away in large quantities. The flux which formed was not like pus, but was a different sort of putrefaction with a copious and varied flux. If any of these symptoms occurred in the head, there was loss of hair from all the head and from the chin; the bones were bared and fell away, and there were copious fluxes. Fever was sometimes present and sometimes absent. These symptoms were terrifying rather than dangerous. For whenever they resulted in suppuration or some similar coction the cases usually recovered. But whenever the inflammation and the erysipelas disappeared without producing any such abscession, there were many deaths. The course of the disease was the same to whatever part of the body it spread. Many lost the arm and the entire forearm. If the malady settled in the sides there was rotting either before or behind. In some cases the entire thigh was bared, or the shin and the entire foot. But the most dangerous of all such cases were when the pubes and genital organs were attacked. Such were the sores which sprang from an exciting cause. In many cases, however, sores occurred in fevers, before a fever, or supervening on fevers. In some of these also, when an abscession took place through suppuration, or when a seasonable disturbance of the bowels occurred or a passing of favourable urine, this gave rise to a solution; but when none of these events happened, and the symptoms disappeared without a sign, death resulted. It was in the spring that by far the greater number of cases of erysipelas occurred, but they continued throughout the summer and during autumn.

[1] So V and most MSS.: ὁ τῶν τοιούτων ἀφίκοιτο πεπασμὸς most editions.

V. Πολλὴ δὲ ταραχή τισι καὶ τὰ περὶ φάρυγγα φύματα, καὶ φλεγμοναὶ γλώσσης, καὶ τὰ παρ' ὀδόντας ἀποστήματα. φωναί τε πολλοῖσιν ἐπεσήμαινον κακούμεναι καὶ κατίλλουσαι,[1] πρῶτον μὲν τοῖσι φθινώδεσιν ἀρχομένοισιν, ἀτὰρ καὶ τοῖσι καυσώδεσι καὶ τοῖσι φρενιτικοῖσιν.

VI. Ἤρξαντο μὲν οὖν οἱ καῦσοι καὶ τὰ φρενιτικὰ πρωὶ τοῦ ἦρος μετὰ τὰ γενόμενα ψύχεα, καὶ πλεῖστοι τηνικαῦτα διενόσησαν· ὀξέα δὲ τούτοισι καὶ θανατώδεα συνέπιπτεν. ἦν δὲ ἡ κατάστασις τῶν γενομένων καύσων ὧδε· ἀρχόμενοι κωματώδεες, ἀσώδεες, φρικώδεες, πυρετὸς ὀξύς,[2] οὐ διψώδεες λίην, οὐ παράληροι, ἀπὸ ῥινῶν ἔσταξε σμικρόν. οἱ παροξυσμοὶ τοῖσι πλείστοισιν ἐν ἀρτίῃσι, περὶ δὲ τοὺς παροξυσμοὺς λήθη καὶ ἄφεσις καὶ ἀφωνίη. ἄκρεά τε τούτοισιν αἰεὶ μὲν ψυχρότερα ποδῶν καὶ χειρῶν, πολὺ δὲ περὶ τοὺς παροξυσμοὺς μάλιστα· πάλιν τε βραδέως καὶ οὐ καλῶς ἀνεθερμαίνοντο καὶ πάλιν κατενόεον καὶ διελέγοντο. κατεῖχε δὲ ἢ τὸ κῶμα συνεχές, οὐχ ὑπνώδες, ἢ μετὰ πόνων ἄγρυπνοι. κοιλίαι ταραχώδεες τοῖσι πλείστοισι τούτων, διαχωρήμασιν ὠμοῖσι, λεπτοῖσι, πολλοῖσιν· οὖρά τε πολλὰ λεπτὰ κρίσιμον οὐδὲ χρηστὸν οὐδὲν ἔχοντα· οὐδὲ ἄλλο κρίσιμον οὐδὲν τοῖσιν οὕτως ἔχουσιν ἐφαίνετο· οὔτε γὰρ ἡμορράγει καλῶς

[1] κατίλλουσαι Freind and Kühlewein: κατειλοῦσαι V: κατείλλουσαι Erotian. For other variants see Littré.

[2] Before ὀξύς Galen (VII 651) followed by Littré has οὐκ.

V. Much trouble was caused to some patients by the tumours in the throat, inflammations of the tongue and the abscesses about the teeth. Many had the symptom of impaired and muffled [1] voice, at first at the beginning of the cases of consumption, but also in the ardent fevers and in phrenitis.

VI. Now the ardent fevers and phrenitis began early in the spring after the cold snaps which occurred, and very many fell sick at that time. These suffered acute and fatal symptoms. The constitution of the ardent fevers that occurred was as follows. At the beginning coma, nausea, shivering, acute fever, no great thirst, no delirium, slight epistaxis. The exacerbations in most cases on even days, and about the time of the exacerbations there was loss of memory with prostration and speechlessness. The feet and hands of these patients were always colder than usual, most especially about the times of exacerbation. Slowly and in no healthy manner they recovered their heat, becoming rational again and conversing. Either the coma held them continuously without sleep, or they were wakeful and in pain. Bowels disordered in the majority of these cases, with crude, thin, copious stools. Urine copious, thin, with no critical or favourable sign, nor did any other critical sign appear in these patients. For there occurred neither favourable hemorrhage

[1] The word so rendered has puzzled the commentators from very early times. See the full discussion of Littré *ad loc.* The ancients interpreted either "cooped up" or "altered," "faussée" (Littré). See Erotian *sub voce* φωναὶ κατείλλουσαι. I think that H. used a strange word metaphorically on purpose to describe a strange alteration in the voice, which was as it were "imprisoned" or (to borrow a motoring expression) "silenced."

οὔτε τις ἄλλη τῶν εἰθισμένων ἀπόστασις ἐγένετο κρίσιμος. ἔθνῃσκόν τε ἕκαστος ὡς τύχοι, πεπλανημένως τὰ πολλά, περὶ τὰς κρίσιας, ἐκ πολλοῦ δέ τινες ἄφωνοι, ἱδρῶντες πολλοί. τοῖσι μὲν ὀλεθρίως ἔχουσι συνέπιπτε ταῦτα· παραπλήσια δὲ καὶ τοῖσι φρενιτικοῖσιν. ἄδιψοι δὲ πάνυ οὗτοι ἦσαν, οὐδ' ἐξεμάνη τῶν φρενιτικῶν οὐδείς, ὥσπερ ἐπ' ἄλλοισιν, ἀλλ' ἄλλῃ τινὶ καταφορῇ νωθρῇ
29 καρηβαρέες[1] ἀπώλλυντο.

VII. Ἦσαν δὲ καὶ ἄλλοι πυρετοί, περὶ ὧν γεγράψεται. στόματα πολλοῖσιν ἀφθώδεα, ἑλκώδεα. ῥεύματα περὶ αἰδοῖα πολλά, ἑλκώματα, φύματα ἔξωθεν, ἔσωθεν· τὰ περὶ βουβῶνας. ὀφθαλμίαι ὑγραί, μακροχρόνιοι μετὰ πόνων. ἐπιφύσιες βλεφάρων ἔξωθεν, ἔσωθεν, πολλῶν φθείρουντα τὰς ὄψιας, ἃ σῦκα ἐπονομάζουσιν. ἐφύετο δὲ καὶ ἐπὶ τῶν ἄλλων ἑλκέων πολλὰ καὶ ἐν αἰδοίοισιν. ἄνθρακες πολλοὶ κατὰ θέρος καὶ ἄλλα, ἃ σὴψ καλεῖται.
10 ἐκθύματα μεγάλα. ἕρπητες πολλοῖσι μεγάλοι.

VIII. Τὰ δὲ κατὰ κοιλίην πολλοῖσι πολλὰ καὶ βλαβερὰ συνέβαινε. πρῶτον μὲν τεινεσμοὶ πολλοῖσιν ἐπιπόνως, πλείστοισι δὲ παιδίοισι, καὶ πᾶσιν[2] ὅσα[3] πρὸ ἥβης, καὶ ἀπώλλυντο τὰ πλεῖστα τούτων. λειεντερικοὶ πολλοί. δυσεντεριώδεες, οὐδ' οὗτοι λίην ἐπιπόνως. τὰ δὲ χολώδεα καὶ λιπαρὰ καὶ λεπτὰ καὶ ὑδατώδεα· πολλοῖσι

[1] So Galen (XVI 579) καταφορῇ κακῇ νωθρῇ βαρέως MSS.
[2] πᾶσιν D and Galen: παισὶν V.
[3] ὅσα MSS.: ὅσοι most editions.

[1] Possibly "frequent," "common." So Littré. This is one of the most doubtful cases of those difficult words in a medical context, πολύς and ὀλίγος in the plural. See General Introduction, p. lxi.

nor any other of the usual critical abscessions. The manner of their dying varied with the individual; it was usually irregular, at the crises, but in some cases after long loss of speech and in many with sweating. These were the symptoms attending the fatal cases of ardent fever, and the cases of phrenitis were similar. These suffered from no thirst at all, and no case showed the mad delirium that attacked others, but they passed away overpowered by a dull oppression of stupor.

VII. There were other fevers also, which I shall describe in due course. Many had aphthae and sores in the mouth. Fluxes about the genitals were copious[1]; sores, tumours external and internal; the swellings which appear in the groin.[2] Watery inflammations of the eyes, chronic and painful. Growths on the eyelids, external and internal, in many cases destroying the sight, which are called "figs." There were also often growths on other sores, particularly in the genitals. Many carbuncles in the summer, and other affections called "rot." Large pustules. Many had large tetters.

VIII. The bowel troubles in many cases turned out many and harmful. In the first place many were attacked by painful tenesmus, mostly children —all in fact who were approaching puberty—and most of these died. Many lienteries. Cases of dysentery, but they too[3] were not very painful. Stools bilious, greasy, thin and watery. In many

[2] A curious phrase. I suspect that τὰ hides a corruption of the text.

[3] *I. e.* as Galen suggests in his commentary, they were like the lienteries in not causing much pain. Lientery is not particularly painful.

μὲν αὐτὸ τὸ νόσημα ἐς τοῦτο κατέσκηψεν ἄνευ τε πυρετῶν καὶ ἐν πυρετοῖσι. μετὰ πόνων στρόφοι καὶ ἀνειλήσιες κακοήθεες. διέξοδοί τε τῶν πολλῶν ἐνόντων[1] τε καὶ ἐπισχόντων. τὰ δὲ διεξιόντα πόνους οὐ λύοντα τοῖσί τε προσφερομένοισι δυσκόλως ὑπακούοντα· καὶ γὰρ αἱ καθάρσιες τοὺς πλείστους προσέβλαπτον. τῶν δὲ οὕτως ἐχόντων πολλοὶ μὲν ὀξέως ἀπώλλυντο, ἔστι δ' οἷσι καὶ μακρότερα διῆγεν. ὡς δ' ἐν κεφαλαίῳ εἰρῆσθαι, πάντες, καὶ οἱ τὰ μακρὰ νοσέοντες καὶ οἱ τὰ ὀξέα, ἐκ τῶν κατὰ κοιλίην ἀπέθνησκον μάλιστα. πάντας γὰρ κοιλίη συναπήνεγκεν.

IX. Ἀπόσιτοι δ' ἐγένοντο πάντες μὲν καὶ ἐπὶ πᾶσι τοῖσι προγεγραμμένοισιν, ὡς ἐγὼ οὐδὲ πώποτε ἐνέτυχον, πολὺ δὲ μάλιστα οὗτοι καὶ[2] ἐκ τούτων καὶ ἐκ τῶν ἄλλων δὲ οἳ καὶ ὀλεθρίως

[1] ἐνόντων MSS. But should we not expect ἐνεόντων? I suggest μενόντων. Cf. my suggestion on p. 320.
[2] After καὶ MSS. have οἱ. Blass omitted.

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[1] Littré in a long and obscure note argues that only ἄνευ πυρετῶν and not ἐν πυρετοῖσι can belong to the preceding phrase, apparently because it is illogical to say that fever was present when the disease consisted merely of unhealthy stools. But the writer does not wish to exclude fever; he merely wishes to exclude from this class of patient tenesmus, lientery and dysentery. The commentary of Galen, πολλοῖς δέ φησιν αὐτὸ τοῦτο γενέσθαι τὸ νόσημα, τουτέστι τὸ διαχωρεῖν τὰ τοιαῦτα· καὶ γὰρ καὶ χωρὶς πυρετῶν ἐνίοις τοῦτο γενέσθαι φησί, does not, as Littré supposes, support his contention. The phrase καὶ χωρὶς πυρετῶν ἐνίοις τοῦτο γενέσθαι φησὶ implies καὶ ἐν πυρετοῖς τοῦτο ἐγένετο.

[2] It is hard to separate διέξοδοι from τῶν πολλῶν, yet the sense seems to require it. The next sentence states that these evacuations caused no relief, evidently because they

cases this condition of the bowels constituted the disease itself, fever being sometimes absent and sometimes present.[1] Painful tormina and malignant colic. There were evacuations, though the bulk of the contents remained behind.[2] The evacuations did not take away the pains, and yielded with difficulty to the remedies administered. Purgings, in fact, did harm in most cases. Of those in this condition many died rapidly, though a few held out longer. In brief, all patients, whether the disease was prolonged or acute, died chiefly from the bowel complaints. For the bowels carried all off together.[3]

IX. Loss of appetite, to a degree that I never met before, attended all the cases described above, but most especially the last, and of them, and of the others also, especially such as were fatally stricken.[4]

did not clear the trouble from the bowel. Now if *διέξοδοι* be taken with *τῶν πολλῶν*, the only possible translation is "evacuations of the many contents which were retained there," implying complete evacuation. Galen's comment (Kühn XVII, Part I, p. 708) bears out the former interpretation: *τὰς δὲ διεξόδους, τουτέστι τὰς κενώσεις, αὐτοῖς συμβῆναι, πολλῶν ἐνόντων καὶ ἐπισχόντων . . . . . καὶ διὰ τοῦτο μηδὲ τοὺς πόνους λύειν τὰ διεξιόντα. πῶς γὰρ οἷόν τε λύειν αὐτά, πολλῶν ἔτι τῶν ἐπεχομένων ὄντων;* It should be noticed that *ἐπισχόντων* is probably from *ἐπίσχω* (Galen's *ἐπεχομένων*) and not from *ἐπέχω*, although I cannot find a parallel for intransitive *ἐπίσχω* in this sense.

[3] The writer has not expressed himself clearly in this chapter, which seems to be the roughest of rough notes. The last two sentences apparently mean:—

(*a*) It was always the bowel complaints which caused most deaths. This was natural, since (*b*) all attacked by bowel complaints died.

[4] The emendation of Blass permits the translator of this passage to harmonize both sense and grammar. Before it was impossible to do so.

ἔχοιεν. διψώδεες οἱ μέν, οἱ δ' οὔ· τῶν ἐν πυρετοῖσι καὶ τοῖσιν ἄλλοισιν οὐδεὶς ἀκαίρως, ἀλλ'
7 ἦν κατὰ ποτὸν διαιτᾶν ὡς ἤθελες.

X. Οὖρα δὲ πολλὰ μὲν τὰ διεξιόντα ἦν, οὐκ ἐκ τῶν προσφερομένων ποτῶν, ἀλλὰ πολλὸν ὑπερβάλλοντα. πολλὴ δέ τις καὶ τῶν οὔρων κακότης ἦν τῶν ἀπιόντων. οὔτε γὰρ πάχος οὔτε πεπασμοὺς οὔτε καθάρσιας χρηστὰς εἶχεν.[1] ἐσήμαινεν δὲ τοῖσι πλείστοισι σύντηξιν καὶ ταραχὴν καὶ
7 πόνους καὶ ἀκρισίας.

XI. Κωματώδεες δὲ μάλιστα οἱ φρενιτικοὶ καὶ οἱ καυσώδεες ἦσαν, ἀτὰρ καὶ ἐπὶ τοῖς ἄλλοισι νοσήμασι πᾶσι τοῖσι μεγίστοισιν, ὅ τι μετὰ πυρετοῦ γίνοιτο. διὰ παντὸς δὲ τοῖσι πλείστοισιν ἢ βαρὺ κῶμα παρείπετο ἢ μικροὺς καὶ
6 λεπτοὺς ὕπνους κοιμᾶσθαι.

XII. Πολλὰ δὲ καὶ ἄλλα πυρετῶν ἐπεδήμησεν εἴδεα, τριταίων, τεταρταίων, νυκτερινῶν, συνεχέων, μακρῶν, πεπλανημένων, ἀσωδέων, ἀκαταστάτων. ἅπαντες δὲ οὗτοι μετὰ πολλῆς ἐγίνοντο ταραχῆς· κοιλίαι τε γὰρ τοῖσι πλείστοισιν ταραχώδεες, φρικώδεες. ἱδρῶτες οὐ κρίσιμοι, καὶ τὰ τῶν οὔρων ὡς ὑπογέγραπται. μακρὰ δὲ τοῖσι πλείστοισι τούτων· οὐδὲ γὰρ αἱ γινόμεναι τούτοισιν ἀποστάσιες ἔκρινον ὥσπερ ἐπὶ τοῖσιν
10 ἄλλοισι. δύσκριτα μὲν οὖν πᾶσι πάντα ἐγίνετο καὶ ἀκρισίαι καὶ χρόνια, πολὺ δὲ μάλιστα τούτοις.

[1] After εἶχεν MSS. have ἐπὶ πολλοῖσι γὰρ αἱ κατὰ κύστιν καθάρσιες χρησταὶ γενομέναι ἀγαθόν. Deleted as an explanatory note by Ermerins.

[1] Probably "disordered bowels," a common meaning of ταραχή in the *Corpus*.

Thirst afflicted some, but not others; of the fever patients, as well as of the other cases, none were unseasonably affected, but as far as drink was concerned you could diet them as you pleased.

X. The urine that was passed was copious, not in proportion to, but far exceeding, the drink administered. Yet the urine too that was passed showed a great malignancy. For it had neither the proper consistency, nor coction, nor cleansing powers; it signified for most patients wasting, trouble,[1] pains, and absence of crisis.

XI. Coma attended mostly the phrenitis and ardent fevers, without excluding, however, all the other diseases of the most severe sort that were accompanied by fever. Most patients throughout either were sunk in heavy coma or slept only in fitful snatches.

XII. Many other forms also of fever were epidemic: — tertians, quartans, night fevers, fevers continuous, protracted, irregular, fevers attended with nausea, fevers of no definite character. All these cases suffered severely from trouble.[2] For the bowels in most cases were disordered, with shivering fits. Sweats portended no crisis, and the character of the urine was as I have described. Most of these cases were protracted, for the abscessions too which took place did not prove critical as in other cases; nay rather, in all cases all symptoms marked obscurity of crisis,[3] or absence of crisis, or protraction of the disease, but most especially in the patients last described. A few

[2] See the preceding note.

[3] For δύσκριτον see Foes' *Oeconomia*, *sub voce*. It means that it was hard to see when a crisis took place, or that the crisis was not a marked one.

ἔκρινε δὲ τούτων ὀλίγοισι περὶ ὀγδοηκοστήν. τοῖσι δὲ πλείστοισιν ἐξέλειπεν ὡς ἔτυχεν. ἔθνῃσκον δὲ τούτων ὀλίγοι ὑπὸ ὕδρωπος ὀρθοστάδην. πολλοῖσι δὲ καὶ ἐπὶ τοῖσιν ἄλλοισι νοσήμασιν οἰδήματα παρώχλει, πολὺ δὲ μάλιστα τοῖσι
17 φθινώδεσι.

XIII. Μέγιστον δὲ καὶ χαλεπώτατον καὶ πλείστους ἔκτεινε τὸ φθινῶδες. πολλοὶ γάρ τινες ἀρξάμενοι κατὰ χειμῶνα πολλοὶ μὲν κατεκλίθησαν, οἱ δὲ αὐτῶν ὀρθοστάδην ὑπεφέροντο· πρωὶ δὲ τοῦ ἦρος ἔθνῃσκον οἱ πλεῖστοι τῶν κατακλιθέντων· τῶν δὲ ἄλλων ἐξέλιπον μὲν αἱ βῆχες οὐδενί, ὑφίεσαν δὲ κατὰ θέρος. ὑπὸ δὲ τὸ φθινόπωρον κατεκλίθησαν πάντες καὶ πολλοὶ ἔθνῃσκον. μακρὰ δὲ τούτων οἱ πλεῖστοι
10 διενόσεον. ἤρξατο μὲν οὖν τοῖσι πλείστοισι τούτων ἐξαίφνης ἐκ τούτων κακοῦσθαι· φρικώδεες πυκνά. πολλάκις πυρετοὶ συνεχέες, ὀξέες· ἱδρῶτες ἄκαιροι πολλοί, ψυχροὶ διὰ τέλεος· πολλὴ ψύξις, καὶ μόγις πάλιν ἀναθερμαινόμενοι· κοιλίαι ποικίλως ἐφιστάμεναι καὶ πάλιν ταχὺ καθυγραινόμεναι, περὶ δὲ τελευτὴν πᾶσι βιαίως καθυγραινόμεναι·[1] καὶ τῶν περὶ πνεύμονα πάντων διάδοσις κάτω· πλῆθος οὔρων οὐ χρηστῶν· συντήξιες κακαί. αἱ δὲ βῆχες ἐνῆσαν μὲν διὰ
20 τέλεος πολλαὶ καὶ πολλὰ ἀνάγουσαι πέπονα καὶ ὑγρά, μετὰ πόνων δὲ οὐ λίην· ἀλλ' εἰ καὶ ἐπόνεον, πάνυ πρηέως πᾶσιν ἡ κάθαρσις τῶν ἀπὸ πνεύμονος ἐγίνετο. φάρυγγες οὐ λίην δακνώδεες, οὐδὲ ἁλμυρίδες οὐδὲν ἠνώχλεον· τὰ μέντοι

[1] From περὶ to καθυγραινόμεναι omitted by all MSS. except H (in margin).

of these had a crisis about the eightieth day; with most recovery followed no rule. A few of them died of dropsy, without taking to their bed; many sufferers from the other diseases too were troubled with swellings, most particularly the consumptives.

XIII. The severest and most troublesome disease, as well as the most fatal, was the consumption. Many cases began in the winter, and of these several took to their bed, though some went about ailing without doing so. Early in the spring most of those who had gone to bed died, while none of the others lost their cough, though it became easier in the summer. During autumn all took to bed and many died. Most of these were ill for a long time. Now most of these began suddenly to grow worse, showing the following symptoms:—frequent shivering; often continuous and acute fever; unseasonable, copious,[1] cold sweats throughout; great chill with difficult recovery of heat; bowels variously constipated, then quickly relaxing, and violently relaxing in all cases near the end; the humours about the lungs spread downwards; abundance of unfavourable urine; malignant wasting. The coughs throughout were frequent, bringing up copious,[1] concocted and liquid sputa, but without much pain; but even if there was pain, in all cases the purging from the lungs took place very mildly. The throat did not smart very much, nor did salt humours cause any distress at all. The fluxes, however, viscid, white,

[1] I am often doubtful as to the meaning of πολλοὶ in instances like these; does it refer to quantity or frequency? In these two examples either meaning would give excellent sense. See General Introduction, p. lxi.

γλίσχρα καὶ λευκὰ καὶ ὑγρὰ καὶ ἀφρώδεα πολλὰ ἀπὸ κεφαλῆς ᾔει. πολὺ δὲ μέγιστον κακὸν παρείπετο καὶ τούτοισι καὶ τοῖσιν ἄλλοισι τὰ περὶ τὴν ἀποσιτίην, καθάπερ ὑπογέγραπται· οὐδὲ γὰρ πότων μετὰ τροφῆς ἡδέως εἶχον, ἀλλὰ
30 πάνυ διῆγον ἀδίψως· βάρος σώματος· κωματώδεες· τοῖσι πλείστοισιν αὐτῶν οἴδημα, καὶ ἐς ὕδρωπα περιίσταντο· φρικώδεες, παράληροι περὶ
33 θάνατον.

XIV. Εἶδος δὲ τῶν φθινωδέων ἦν τὸ λεῖον, τὸ ὑπόλευκον, τὸ φακῶδες,[1] τὸ ὑπέρυθρον, τὸ χαροπόν, λευκοφλεγματίαι, πτερυγώδεες· καὶ γυναῖκες οὕτω. τὸ μελαγχολικὸν καὶ ὕφαιμον· οἱ καῦσοι καὶ τὰ φρενιτικὰ καὶ τὰ δυσεντεριώδεα τούτων ἥπτετο. τεινεσμοὶ νέοισι φλεγματώδεσιν· αἱ μακραὶ διάρροιαι καὶ τὰ δριμέα διαχωρήματα
8 καὶ λιπαρὰ πικροχόλοισιν.

XV. Ἦν δὲ πᾶσι τοῖς ὑπογεγραμμένοις χαλεπώτατον μὲν τὸ ἔαρ καὶ πλείστους ἀπέκτεινε, τὸ δὲ θέρος ῥῇϊστον, καὶ ἐλάχιστοι ἀπώλλυντο. τοῦ δὲ φθινοπώρου καὶ ὑπὸ πληϊάδα πάλιν ἔθνησκον, οἱ πολλοὶ τεταρταῖοι. [2]δοκεῖ δέ μοι προσωφελῆσαι κατὰ λόγον τὸ γενόμενον θέρος. τὰς γὰρ θερινὰς νούσους χειμὼν ἐπιγενόμενος λύει, καὶ τὰς χειμερινὰς θέρος ἐπιγενόμενον μεθίστησι.

[1] φακῶδες most MSS.: ταραχῶδες R′: φλεγματῶδες Galen.
[2] From δοκεῖ δέ μοι to the end of the κατάστασις appears in the MSS. not here but at the end of the book. Most editors have transposed the passage to this place.

[1] It seems impossible to decide whether the adjective χαροπός refers here to the brightness of the eyes or to their colour (blue or grey).

moist, frothy, which came from the head, were abundant. But by far the worst symptom that attended both these cases and the others was the distaste for food, as has been mentioned. They had no relish either for drink with nourishment, but they remained entirely without thirst. Heaviness in the body. Coma. In most of them there was swelling, which developed into dropsy. Shivering fits and delirium near death.

XIV. The physical characteristics of the consumptives were:—skin smooth, whitish, lentil-coloured, reddish; bright eyes;[1] a leucophlegmatic[2] condition; shoulder-blades projecting like wings. Women too so.[3] As to those with a melancholic[2] or a rather sanguine[2] complexion, they were attacked by ardent fevers, phrenitis and dysenteric troubles. Tenesmus affected young, phlegmatic[2] people; the chronic diarrhoea and acrid, greasy stools affected persons of a bilious[2] temperament.

XV. In all the cases described spring was the worst enemy, and caused the most deaths; summer was the most favourable season, in which fewest died. In autumn and during the season of the Pleiades, on the other hand, there were again deaths, usually on the fourth day. And it seems to me natural that the coming on of summer should have been helpful. For the coming on of winter resolves the diseases of summer, and the coming on of summer removes those of winter. And yet in

[2] See General Introduction, p. xlvi–li, on the humours. "Bitter bile" was the same as that sometimes called "yellow."

[3] This brief phrase seems to mean that the same characteristics marked consumptive women as consumptive men.

καίτοι αὐτό γε ἐπὶ ἑαυτοῦ τὸ γενόμενον θέρος οὐκ
10 εὐσταθὲς ἐγένετο· καὶ γὰρ ἐξαίφνης θερμὸν
καὶ νότιον καὶ ἄπνοον· ἀλλ' ὅμως πρὸς τὴν
12 ἄλλην κατάστασιν μεταλλάξαν ὠφέλησε.

XVI. Μέγα δὲ μέρος ἡγεῦμαι τῆς τέχνης εἶναι τὸ δύνασθαι σκοπεῖν καὶ περὶ τῶν γεγραμμένων ὀρθῶς. ὁ γὰρ γνοὺς καὶ χρεώμενος τούτοις οὐκ ἄν μοι δοκεῖ μέγα σφάλλεσθαι ἐν τῇ τέχνῃ. δεῖ δὲ καταμανθάνειν τὴν κατάστασιν τῶν ὡρέων ἀκριβῶς ἑκάστην[1] καὶ τὸ νόσημα, ἀγαθὸν ὅ τι κοινὸν ἐν τῇ καταστάσει ἢ ἐν τῇ νούσῳ, κακὸν ὅ τι κοινὸν ἐν τῇ καταστάσει ἢ ἐν τῇ νούσῳ, μακρὸν ὅ τι νόσημα καὶ θανάσιμον, μακρὸν ὅ
10 τι καὶ περιεστικόν, ὀξὺ ὅ τι θανάσιμον, ὀξὺ ὅ τι περιεστικόν· τάξιν τῶν κρισίμων ἐκ τούτων σκοπεῖσθαι καὶ προλέγειν ἐκ τούτων εὐπορεῖται. εἰδότι περὶ τούτων ἔστιν εἰδέναι οὓς καὶ ὅτε καὶ
14 ὡς δεῖ διαιτᾶν.

Ἑκκαίδεκα ἄρρωστοι

XVII. α'. Ἐν Θάσῳ τὸν Πάριον, ὃς κατέκειτο ὑπὲρ Ἀρτεμισίου, πυρετὸς ἔλαβεν ὀξύς, κατ' ἀρχὰς συνεχής, καυσώδης· δίψος· ἀρχόμενος κωματώδης καὶ πάλιν ἄγρυπνος· κοιλίη ταραχώδης ἐν ἀρχῇσιν, οὖρα λεπτά. ἔκτῃ οὔρησεν ἐλαιώδες, παρέκρουσεν. ἑβδόμῃ παρωξύνθη πάντα, οὐδὲν

[1] One MS. reads ἑκάστης, perhaps rightly.

[1] "Of a good constitution."

[2] This chapter does not fit in with the context, and occurs

itself the summer in question was not healthful;[1] in fact it was suddenly hot, southerly, and calm. But nevertheless the change from the other constitution proved beneficial.

XVI. The power, too, to study correctly what has been written I consider to be an important part of the art of medicine. The man who has learnt these things and uses them will not, I think, make great mistakes in the art. And it is necessary to learn accurately each constitution of the seasons as well as the disease; what common element in the constitution or in the disease is good, and what common element in the constitution or in the disease is bad; what malady is protracted and fatal, what is protracted and likely to end in recovery; what acute illness is fatal, what acute illness is likely to end in recovery. With this knowledge it is easy to examine the order of the critical days, and to prognosticate therefrom. One who has knowledge of these matters can know whom he ought to treat, as well as the time and method of treatment.[2]

SIXTEEN CASES

CASE I

XVII. In Thasos the Parian who lay sick beyond the temple of Artemis was seized with acute fever, which at the beginning was continuous and ardent. Thirst. At the beginning coma followed by sleeplessness. Bowels disordered at the beginning; urine thin.

Sixth day. Oily urine; delirium.

Seventh day. General exacerbation; no sleep;

again at the beginning of the book περὶ κρισίμων. Ermerins brackets it.

ἐκοιμήθη, ἀλλὰ οὖρά τε ὅμοια καὶ τὰ τῆς γνώμης ταραχώδεα· ἀπὸ δὲ κοιλίης χολώδεα, λιπαρὰ διῆλθεν. ὀγδόῃ σμικρὸν ἀπὸ ῥινῶν ἔσταξεν, ἤμεσεν ἰώδεα ὀλίγα, σμικρὰ ἐκοιμήθη. ἐνάτῃ διὰ τῶν αὐτῶν. δεκάτῃ πάντα συνέδωκεν. ἑνδεκάτῃ ἵδρωσε δι' ὅλου· περιέψυξε, ταχὺ δὲ πάλιν ἀνεθερμάνθη. τεσσαρεσκαιδεκάτῃ [1] πυρετὸς ὀξύς, διαχωρήματα χολώδεα, λεπτά, πολλά, οὔροισιν ἐναιώρημα, παρέκρουσεν. ἐπτακαιδεκάτῃ ἐπιπόνως· οὔτε γὰρ ὕπνοι, ὅ τε πυρετὸς ἐπέτεινεν. εἰκοστῇ ἵδρωσε δι' ὅλου· ἄπυρος,[2] διαχωρήματα χολώδεα, ἀπόσιτος, κωματώδης· εἰκοστῇ τετάρτῃ ὑπέστρεψε. τριηκοστῇ τετάρτῃ ἄπυρος, κοιλίη οὐ συνίστατο, καὶ πάλιν ἀνεθερμάνθη. τεσσαρακοστῇ ἄπυρος, κοιλίη συνέστη χρόνον οὐ πολύν, ἀπόσιτος, σμικρὰ πάλιν ἐπύρεξε καὶ διὰ παντὸς πεπλανημένως· ἄπυρος τὰ μέν, τὰ δ' οὔ· εἰ γάρ τι διαλίποι καὶ διακουφίσαι, ταχὺ πάλιν ὑπέστρεφε. σιταρίοισί τε ὀλίγοισι [3] καὶ φαύλοισι προσεχρῆτο. ὕπνοι κακοί, περὶ τὰς ὑποστροφὰς παρέκρουσεν. οὖρα πάχος μὲν ἔχοντα οὔρει τηνικαῦτα, ταραχώδεα δὲ καὶ πονηρά. καὶ τὰ κατὰ κοιλίην συνιστάμενα καὶ πάλιν διαλυόμενα. πυρέτια συνεχέα. διαχωρήματα λεπτά, πολλά. ἐν εἴκοσι καὶ ἑκατὸν ἔθανε. τούτῳ κοιλίη συνεχέως ἀπὸ τῆς πρώτης ὑγρὴ χολώδεσιν, ὑγροῖσι πολλοῖσιν ἦν ἡ συν-

[1] *τεσσαρεσκαιδεκάτῃ* Littré from Galen (VII 649): *τρισκαιδεκάτῃ* V. (It is the 14th day which is important as a critical day.)

[2] *ἄπυρος* Littré from Galen: *ἄγρυπνος* V.

[3] *ὀλίγοισι* Kühlewein: *πολλοῖσι* MSS.

urine similar and mind disordered; stools bilious and fatty.

Eighth day. Slight epistaxis; vomited scanty matters of the colour of verdigris; snatches of sleep.

Ninth day. Same symptoms.

Tenth day. General improvement.

Eleventh day. Sweated all over; grew chilly, but quickly recovered heat.

Fourteenth day. Acute fever; stools bilious, thin, copious; substance floating in urine; delirium.

Seventeenth day. In pain; no sleep, while the fever grew worse.

Twentieth day. Sweated all over; no fever; stools bilious; aversion to food; coma.

Twenty-fourth day. Relapse.

Thirty-fourth day. No fever; no constipation; recovered heat.

Fortieth day. No fever; bowels constipated for a short time; aversion to food; became slightly feverish again, throughout irregularly, the fever being sometimes absent, sometimes present; for if the fever intermitted and was alleviated there was a relapse soon afterwards. He took little bits of food, and that of an unsuitable sort. Sleep bad; delirium at the relapses. Urine at these times had consistency, but was troubled and bad. Bowels constipated, but afterwards relaxed. Continuous slight fevers. Stools thin and copious.

Hundred and twentieth day. Death.

In this case the bowels continuously from the first day loose with bilious, loose, copious stools, or

ισταμένη ζέουσι καὶ ἀπέπτοισιν· οὖρα διὰ τέλεος κακά· κωματώδης τὰ πλεῖστα, μετὰ πόνων ἄγρυπνος, ἀπόσιτος συνεχέως.[1] [2]

β'. Ἐν Θάσῳ τὴν κατακειμένην παρὰ τὸ ψυχρὸν ὕδωρ ἐκ τόκου θυγατέρα τεκοῦσαν καθάρσιος οὐ γενομένης πυρετὸς ὀξὺς φρικώδης τριταίην ἔλαβεν. ἐκ χρόνου δὲ πολλοῦ πρὸ τοῦ τόκου πυρετώδης ἦν, κατακλινής, ἀπόσιτος. μετὰ δὲ τὸ γενόμενον ῥῖγος συνεχέες, ὀξέες, φρικώδεες οἱ πυρετοί. ὀγδόῃ πολλὰ παρέκρουσε καὶ τὰς ἐχομένας καὶ ταχὺ πάλιν κατενόει· κοιλίη ταραχώδης πολλοῖσι λεπτοῖσιν, ὑδατοχόλοις· ἄδιψος. ἐνδεκάτῃ κατενόει, κωματώδης δ' ἦν· οὖρα πολλὰ λεπτὰ καὶ μέλανα, ἄγρυπνος. εἰκοστῇ σμικρὰ περιέψυξε καὶ ταχὺ πάλιν ἀνεθερμάνθη, σμικρὰ παρέλεγεν, ἄγρυπνος· τὰ κατὰ κοιλίην ἐπὶ τῶν αὐτῶν· οὖρα ὑδατώδεα πολλά. εἰκοστῇ ἑβδόμῃ ἄπυρος, κοιλίη συνέστη, οὐ πολλῷ δὲ χρόνῳ ὕστερον ἰσχίου δεξιοῦ ὀδύνη ἰσχυρὴ χρόνον πολύν· πυρετοὶ πάλιν παρείποντο· οὖρα ὑδατώδεα. τεσσαρακοστῇ τὰ μὲν περὶ τὸ ἰσχίον ἐπεκούφισε, βῆχες δὲ συνεχέες ὑγραὶ πολλαί, κοιλίη συνέστη, ἀπόσιτος· οὖρα ἐπὶ τῶν αὐτῶν. οἱ δὲ πυρετοὶ τὸ μὲν ὅλον οὐκ ἐκλείποντες, πεπλανημένως δὲ

[1] After *συνεχέως* the MSS. have *καῦσος*.
[2] V has here ΠΙΤΦΑΥΡΚΘ.

[1] Lit. "seething" or "boiling." The reference is possibly not so much to heat as to the steaming, frothy nature of the stools.

constipated with hot,[1] undigested stools. Urine throughout bad; mostly comatose; painful sleeplessness;[2] continued aversion to food.

CASE II

In Thasos the woman who lay sick by the Cold Water, on the third day after giving birth to a daughter without lochial discharge, was seized with acute fever accompanied by shivering. For a long time before her delivery she had suffered from fever, being confined to bed and averse to food. After the rigor that took place, the fevers were continuous, acute, and attended with shivering.

Eighth and following days. Much delirium, quickly followed by recovery of reason; bowels disturbed with copious, thin, watery and bilious stools; no thirst.

Eleventh day. Was rational, but comatose. Urine copious, thin and black; no sleep.

Twentieth day. Slight chills,[3] but heat quickly recovered; slight wandering; no sleep; bowels the same; urine watery and copious.

Twenty-seventh day. No fever; bowels constipated; not long afterwards severe pain in the right hip for a long time. Fevers again attended; urine watery.

Fortieth day. Pain in the hip relieved; continuous coughing, with watery, copious sputa; bowels constipated; aversion to food; urine the same. The fevers, without entirely intermitting, were exacer-

[2] The meaning apparently is that the patient was generally in a state of coma; if not comatose, he was in pain and could not sleep.

[3] This sentence shows that περί in περιψύχω means not "very," but "all over." The phrase may mean "slight chilliness."

παροξυνόμενοι, τὰ μέν, τὰ δ' οὔ. ἐξηκοστῇ αἱ μὲν βῆχες ἀσήμως ἐξέλιπον· οὔτε γάρ τις πτυάλων πεπασμὸς ἐγένετο οὔτε ἄλλη τῶν εἰθισμένων ἀπόστασις· σιηγὼν δὲ ἡ ἐκ τῶν ἐπὶ δεξιὰ κατεσπάσθη· κωματώδης· παρέλεγε καὶ ταχὺ πάλιν κατενόει· πρὸς δὲ τὰ γεύματα ἀπονενοημένως εἶχεν· σιηγὼν μὲν ἐπανῆκε, κοιλίη δὲ χολώδεα σμικρὰ διέδωκεν, ἐπύρεξεν ὀξυτέρως, φρικώδης· καὶ τὰς ἐχομένας ἄφωνος καὶ πάλιν διελέγετο.[1] ὀγδοηκοστῇ ἀπέθανε. ταύτῃ τὰ τῶν οὔρων διὰ τέλεος ἦν μέλανα καὶ λεπτὰ καὶ ὑδατώδεα. κῶμα παρείπετο, ἀπόσιτος, ἄθυμος, ἄγρυπνος, ὀργαί, δυσφορίαι, τὰ περὶ τὴν γνώμην μελαγχολικά.[2]

γ'. Ἐν Θάσῳ Πυθίωνα, ὃς κατέκειτο ὑπεράνω τοῦ Ἡρακλείου, ἐκ πόνων καὶ κόπων καὶ διαίτης γενομένης ἀμελέος ῥῖγος μέγα καὶ πυρετὸς ὀξὺς ἔλαβε. γλῶσσα ἐπίξηρος, διψώδης, χολώδης, οὐχ ὕπνωσεν, οὖρα ὑπομέλανα, ἐναιώρημα μετέωρον, οὐχ ἵδρυτο.[3] δευτέρῃ περὶ μέσον ἡμέρης ψύξις ἀκρέων, τὰ περὶ χεῖρας καὶ κεφαλὴν μᾶλλον, ἄναυδος, ἄφωνος, βραχύπνοος ἐπὶ πολὺν χρόνον, ἀνεθερμάνθη, δίψα, νύκτα δι' ἡσυχίης, ἵδρωσε περὶ κεφαλὴν σμικρά. τρίτῃ ἡμέρην δι' ἡσυχίης, ὀψὲ δὲ περὶ ἡλίου δυσμὰς ὑπεψύχθη σμικρά, ἄση, ταραχή, νυκτὸς ἐπιπόνως, οὐδὲν ὕπνωσεν, ἀπὸ δὲ κοιλίης σμικρὰ συνεστηκότα κόπρανα διῆλθε. τετάρτῃ πρωὶ δι' ἡσυχίης, περὶ δὲ μέσον ἡμέρης πάντα παρωξύνθη, ψύξις,

[1] Before διελέγετο the MSS. except V have κατενόει καί.
[2] V has here ΠΙΔ ΛΕΓΘ.
[3] ἵδρυτο MSS.: ἱδρύετο Kühlewein.

[1] For "melancholy" see General Introduction, p. lviii.

bated irregularly, sometimes increasing and sometimes not doing so.

Sixtieth day. The coughing ceased without any critical sign; there was no coction of the sputa, nor any of the usual abscessions; jaw on the right side convulsed; comatose; wandering, but reason quickly recovered; desperately averse to food; jaw relaxed; passed small, bilious stools; fever grew more acute, with shivering. On the succeeding days she lost power of speech, but would afterwards converse.

Eightieth day. Death.

The urine of this patient was throughout black, thin and watery. Coma was present, aversion to food, despondency, sleeplessness, irritability, restlessness, the mind being affected by melancholy.[1]

CASE III

In Thasos Pythion, who lay sick above the shrine of Heracles, after labour, fatigue and careless living, was seized by violent rigor and acute fever. Tongue dry; thirst; bilious; no sleep; urine rather black, with a substance suspended in it, which formed no sediment.

Second day. About mid-day chill in the extremities, especially in the hands and head; could not speak or utter a sound; respiration short for a long time; recovered warmth; thirst; a quiet night; slight sweats about the head.

Third day. A quiet day, but later, about sunset, grew rather chilly; nausea; distress;[2] painful night without sleep; small, solid stools were passed.

Fourth day. Early morning peaceful, but about mid-day all symptoms were exacerbated; chill;

[2] Probably bowel trouble. See p. 250.

ἄναυδος, ἄφωνος, ἐπὶ τὸ χεῖρον, ἀνεθερμάνθη μετὰ χρόνον, οὔρησε μέλανα ἐναιώρημα ἔχοντα, νύκτα δι' ἡσυχίης, ἐκοιμήθη· πέμπτῃ ἔδοξε κουφίσαι, κατὰ δὲ κοιλίην βάρος μετὰ πόνου, διψώδης, νύκτα ἐπιπόνως. ἕκτῃ πρωὶ μὲν δι' ἡσυχίης, δείλης δὲ οἱ πόνοι μέζους, παρωξύνθη, ἀπὸ δὲ κοιλίης ὀψὲ κλυσματίῳ καλῶς διῆλθε, νυκτὸς ἐκοιμήθη. ἑβδόμῃ ἡμέρῃ ἀσώδης, ὑπεδυσφόρει, οὔρησεν ἐλαιώδες, νυκτὸς ταραχὴ πολλή, παρέλεγεν, οὐδὲν ἐκοιμήθη. ὀγδόῃ πρωὶ μὲν ἐκοιμήθη σμικρά, ταχὺ δὲ ψύξις, ἀφωνίη, λεπτὸν πνεῦμα καὶ μινυθώδες, ὀψὲ δὲ πάλιν ἀνεθερμάνθη, παρέκρουσεν, ἤδη δὲ πρὸς ἡμέρην σμικρὰ ἐκουφίσθη, διαχωρήματα ἄκρητα, σμικρὰ, χολώδεα. ἐνάτῃ κωματώδης, ἀσώδης, ὅτε διεγείροιτο· οὐ λίην διψώδης· περὶ δὲ ἡλίου δυσμὰς ἐδυσφόρει, παρέλεγε, νύκτα κακήν. δεκάτῃ πρωὶ ἄφωνος, πολλὴ ψύξις, πυρετὸς ὀξύς, πολὺς ἱδρώς, ἔθανεν. ἐν ἀρτίῃσιν οἱ πόνοι τούτῳ.[1]

δ'. Ὁ φρενιτικὸς τῇ πρώτῃ κατακλιθεὶς ἥμεσεν ἰώδεα πολλά, λεπτά, πυρετὸς φρικώδης πολύς, ἱδρὼς συνεχὴς δι' ὅλου, κεφαλῆς καὶ τραχήλου βάρος μετ' ὀδύνης, οὖρα λεπτά, ἐναιωρήματα σμικρά, διεσπασμένα, οὐχ ἵδρυτο. ἀπὸ δὲ κοιλίης ἐξεκόπρισεν ἀθρόα[2] πολλὰ, παρέκρουσεν,

[1] V has here ΠΙΤΙΠΑΘ.

[2] Littré punctuates ἀθρόα· πολλὰ παρέκρουσεν.

[1] Probably bowel trouble. See p. 250.

speechless and voiceless; grew worse; recovered warmth after a time; black urine with a substance floating in it; night peaceful; slept.

Fifth day. Seemed to be relieved, but there was heaviness in the bowels with pain; thirst; painful night.

Sixth day. Early morning peaceful; towards evening the pains were greater; exacerbation; but later a little clyster caused a good movement of the bowels. Slept at night.

Seventh day. Nausea; rather uneasy; urine oily; much distress[1] at night; wandering; no sleep at all.

Eighth day. Early in the morning snatches of sleep; but quickly there was chill; loss of speech; respiration thin and weak; in the evening he recovered warmth again; was delirious; towards morning slightly better; stools uncompounded, small, bilious.

Ninth day. Comatose; nausea whenever he woke up. Not over-thirsty. About sunset was uncomfortable; wandered; a bad night.

Tenth day. In the early morning was speechless; great chill; acute fever; much sweat; death.

In this case the pains on even days.

CASE IV

The patient suffering from phrenitis on the first day that he took to bed vomited copiously thin vomits of the colour of verdigris; much fever with shivering; continuous sweating all over; painful heaviness of head and neck; urine thin, with small, scattered substances floating in it, which did not settle. Copious excreta at a single evacuation; delirium; no sleep.

οὐδὲν ὕπνωσε. δευτέρῃ πρωὶ ἄφωνος, πυρετὸς ὀξύς, ἵδρωσεν, οὐ διέλιπε, παλμοὶ δι' ὅλου τοῦ σώματος, νυκτὸς σπασμοί. τρίτῃ πάντα παρωξύνθη. τετάρτῃ ἔθανεν.[1]

ε'. Ἐν Λαρίσῃ φαλακρὸς μηρὸν δεξιὸν ἐπόνησεν ἐξαίφνης· τῶν δὲ προσφερομένων οὐδὲν ὠφέλει. τῇ πρώτῃ πυρετὸς ὀξύς, καυσώδης, ἀτρεμέως εἶχεν, οἱ δὲ πόνοι παρείποντο. δευτέρῃ τοῦ μηροῦ μὲν ὑφίεσαν οἱ πόνοι, ὁ δὲ πυρετὸς ἐπέτεινεν, ὑπεδυσφόρει, οὐκ ἐκοιμᾶτο, ἄκρεα ψυχρά, οὔρων πλῆθος διῄει οὐ χρηστῶν. τρίτῃ τοῦ μηροῦ μὲν ὁ πόνος ἐπαύσατο, παρακοπὴ δὲ τῆς γνώμης καὶ ταραχὴ καὶ πολὺς βληστρισμός. τετάρτῃ περὶ μέσον ἡμέρης ἔθανεν.[2]

ς'. Ἐν Ἀβδήροισι Περικλέα πυρετὸς ἔλαβεν ὀξύς, συνεχὴς μετὰ πονου, πολλὴ δίψα, ἄση, ποτὸν κατέχειν οὐκ ἠδύνατο· ἦν δὲ ὑπόσπληνός τε καὶ καρηβαρικός. τῇ πρώτῃ ἡμορράγησεν ἐξ ἀριστεροῦ· πολὺς μέντοι ὁ πυρετὸς ἐπέτεινεν· οὔρησε πολὺ θολερόν, λευκόν· κείμενον οὐ καθίστατο. δευτέρῃ πάντα παρωξύνθη· τὰ μέντοι οὖρα παχέα μὲν ἦν, ἱδρυμένα δὲ μᾶλλον· καὶ τὰ περὶ τὴν ἄσην ἐκούφισεν, ἐκοιμήθη. τρίτῃ πυρετὸς ἐμαλάχθη, οὔρων πλῆθος, πέπονα, πολλὴν ὑπόστασιν ἔχοντα, νύκτα δι' ἡσυχίης. τετάρτῃ

[1] V has here ΠΙΡC Θ.
[2] V has here ΠΙΤΔΘΠΙΑΒΓΔΘ.

[1] Probably trouble in the bowels.

Second day. In the early morning speechless; acute fever; sweating; no intermission; throbbing all over the body; convulsions at night.

Third day. General exacerbation.

Fourth day. Death.

CASE V

In Larisa a bald man suddenly experienced pain in the right thigh. No remedy did any good.

First day. Acute fever of the ardent type; the patient was quiet, but the pains persisted.

Second day. The pains in the thigh subsided, but the fever grew worse; the patient was rather uncomfortable and did not sleep; extremities cold; copious and unfavourable urine was passed.

Third day. The pain in the thigh ceased, but there was derangement of the intellect, with distress[1] and much tossing.

Fourth day. Death about mid-day.

CASE VI

In Abdera Pericles was seized with acute fever, continuous and painful; much thirst; nausea; could not retain what he drank. There was slight enlargement of the spleen and heaviness in the head.

First day. Epistaxis from the left nostril; the fever, however, increased greatly. Copious urine, turbid and white. On standing it did not settle.

Second day. General exacerbation; the urine, however, had consistency, but there was some sediment; the nausea was relieved and the patient slept.

Third day. The fever went down; abundance of urine, with concocted and copious sediment; a quiet night.

περὶ μέσον ἡμέρης ἵδρωσε πολλῷ θερμῷ δι' ὅλου, ἄπυρος, ἐκρίθη, οὐχ ὑπέστρεψεν.[1]

ζ'. Ἐν Ἀβδήροισι τὴν παρθένον, ἣ κατέκειτο ἐπὶ τῆς ἰρῆς ὁδοῦ, πυρετὸς καυσώδης ἔλαβεν· ἦν δὲ διψώδης καὶ ἄγρυπνος. κατέβη δὲ τὰ γυναικεῖα πρῶτον αὐτῇ. ἔκτῃ ἄση πολλή, ἔρευθος, φρικώδης, ἀλύουσα. ἑβδόμῃ διὰ τῶν αὐτῶν, οὖρα λεπτὰ μέν, εὔχρω δέ, τὰ περὶ τὴν κοιλίην οὐκ ἠνώχλει. ὀγδόῃ κώφωσις, πυρετὸς ὀξύς, ἄγρυπνος, ἀσώδης, φρικώδης, κατενόει, οὖρα ὅμοια. ἐνάτῃ διὰ τῶν αὐτῶν· καὶ τὰς ἑπομένας οὕτως· ἡ κώφωσις παρέμενε. τεσσαρεσκαιδεκάτῃ τὰ τῆς γνώμης ταραχώδεα, ὁ πυρετὸς συνέδωκεν. ἑπτακαιδεκάτῃ διὰ ῥινῶν ἐρρύη πολύ, ἡ κώφωσις σμικρὰ συνέδωκε. καὶ τὰς ἑπομένας ἄση, κωφότης· ἐνῆν καὶ παράληρος. εἰκοστῇ ποδῶν ὀδύνη· κωφότης, παράληρος ἀπέλιπεν, ἡμορράγησε σμικρὰ διὰ ῥινῶν, ἵδρωσεν, ἄπυρος. εἰκοστῇ τετάρτῃ ὁ πυρετὸς ὑπέστρεψε, κώφωσις πάλιν, ποδῶν ὀδύνη παρέμεινεν, παρακοπή. εἰκοστῇ ἑβδόμῃ ἵδρωσε πολλῷ, ἄπυρος, ἡ κώφωσις ἐξέλιπεν, ἡ τῶν ποδῶν ὑπέμενεν ὀδύνη, τὰ δ' ἄλλα τελέως ἐκρίθη.[2]

η'. Ἐν Ἀβδήροισιν Ἀναξίωνα, ὃς κατέκειτο παρὰ τὰς Θρηϊκίας πύλας, πυρετὸς ὀξὺς ἔλαβε·

[1] V has here ΠΙΔΙΑΥΠΑΘΙΙΒΑΥ.
[2] V has here ΠΙΟΚΖΥ.

Fourth day. About mid-day a hot, violent sweating all over; no fever; crisis; no relapse.

CASE VII

In Abdera the maiden who lay sick by the Sacred Way was seized with a fever of the ardent type. She was thirsty and sleepless. Menstruation occurred for the first time.

Sixth day. Much nausea; redness; shivering; restlessness.

Seventh day. Same symptoms. Urine thin but of good colour; no trouble in the bowels.

Eighth day. Deafness; acute fever; sleeplessness; nausea; shivering; was rational; urine similar.

Ninth day Same symptoms, and also on the following days. The deafness persisted.

Fourteenth day. Reason disturbed; the fever subsided.

Seventeenth day. Copious epistaxis; the deafness improved a little. On the following days nausea and deafness, while there was also delirium.

Twentieth day. Pain in the feet; deafness; the delirium ceased; slight epistaxis; sweating; no fever.

Twenty-fourth day. The fever returned, with the deafness; pain in the feet persisted; delirium.

Twenty-seventh day. Copious sweating; no fever; the deafness ceased; the pain in the feet remained, but in other respects there was a perfect crisis.

CASE VIII

In Abdera Anaxion, who lay sick by the Thracian gate, was seized with acute fever. Continuous pain

πλευροῦ δεξιοῦ ὀδύνη συνεχής, ἔβησσε ξηρά, οὐδ' ἔπτυε τὰς πρώτας· διψώδης, ἄγρυπνος, οὖρα δὲ εὔχρω πολλὰ λεπτά. ἕκτῃ παράληρος· πρὸς δὲ τὰ θερμάσματα οὐδὲν ἐνεδίδου. ἑβδόμῃ ἐπιπόνως· ὁ γὰρ πυρετὸς ἐπέτεινεν, οἵ τε πόνοι οὐ συνεδίδοσαν, αἵ τε βῆχες ἠνώχλεον, δύσπνοός τε ἦν. ὀγδόῃ ἀγκῶνα ἔταμον· ἐρρύη πολλὸν οἷον δεῖ· συνέδωκαν μὲν οἱ πόνοι, αἱ μέντοι βῆχες αἱ ξηραὶ παρείποντο. ἐνδεκάτῃ συνέδωκαν οἱ πυρετοί, σμικρὰ περὶ κεφαλὴν ἵδρωσεν, αἵ τε[1] βῆχες καὶ τὰ ἀπὸ πνεύμονος ὑγρότερα. ἑπτακαιδεκάτῃ ἤρξατο σμικρὰ πέπονα πτύειν· ἐκουφίσθη. εἰκοστῇ ἵδρωσεν, ἄπυρος, μετὰ δὲ κρίσιν[2] διψώδης τε ἦν καὶ τῶν ἀπὸ πνεύμονος οὐ χρηστὰ αἱ καθάρσιες. εἰκοστῇ ἑβδόμῃ ὁ πυρετὸς ὑπέστρεψεν, ἔβησσεν, ἀνῆγε πέπονα πολλά, οὔροισιν ὑπόστασις πολλὴ λευκή, ἄδιψος ἐγένετο, εὔπνοος. τριηκοστῇ τετάρτῃ ἵδρωσε δι' ὅλου, ἄπυρος, ἐκρίθη πάντα.[3]

θ'. Ἐν Ἀβδήροισιν Ἡρόπυθος κεφαλὴν ὀρθοστάδην ἐπιπόνως εἶχεν, οὐ πολλῷ δὲ χρόνῳ

[1] αἵ τε Littré: ἔτι MSS.

[2] After κρίσιν the MSS. have ἐκουφίσθη. Omitted by Littré.

[3] V has here ΠΙΠΔΛΔΤ.

[1] I am conscious of a slight change in diction and method in this part of the *Epidemics*. I mention four points :—

(1) The frequent use of πυρετὸς in the plural, which is unusual when it simply means "feverishness" (Cases VIII, IX, XII, XIII).

(2) καταβαίνω is used of evacuations (Cases VII, IX οὖρα . . . κατέβαινεν, XII).

in the right side; a dry cough, with no sputa on the first days. Thirst; sleeplessness; urine of good colour, copious and thin.

Sixth day. Delirium; warm applications gave no relief.

Seventh day. In pain, for the fever grew worse and the pains were not relieved, while the coughing was troublesome and there was difficulty in breathing.

Eighth day. I bled him in the arm. There was an abundant, proper flow of blood; the pains were relieved, although the dry coughing persisted.

Eleventh day. The fever went down; slight sweating about the head; the coughing and the sputa more moist.

Seventeenth day. Began to expectorate small, concocted sputa; was relieved.

Twentieth day. Sweated and was free from fever; after a crisis was thirsty, and the cleansings from the lungs were not favourable.

Twenty-seventh day. The fever returned; coughing, with copious, concocted sputa; copious, white sediment in urine; thirst and difficulty in breathing disappeared.

Thirty-fourth day. Sweated all over; no fever; general crisis.[1]

CASE IX

In Abdera Heropythus had pain in the head without taking to bed, but shortly afterwards was

(3) Treatment is mentioned (Case VIII, *θερμάσματα*, and *ἀγκῶνα ἔταμον*, where note the personal touch).

(4) *ἱδρύνομαι* used of recovery of reason, = *κατανοῶ* (Case XV). The change is marked enough to lead one to suppose that these histories were composed at a different period in the writer's life.

ὕστερον κατεκλίθη. ὤκει πλησίον τῆς ἄνω ἀγωγῆς.[1] πυρετὸς ἔλαβε καυσώδης, ὀξύς· ἔμετοι τὸ κατ' ἀρχὰς πολλῶν χολωδέων, διψώδης, πολλὴ δυσφορίη, οὖρα λεπτὰ μέλανα, ἐναιώρημα μετέωρον ὁτὲ μέν, ὁτὲ δ' οὔ· νύκτα ἐπιπόνως, πυρετὸς ἄλλοτε ἀλλοίως παροξυνόμενος, τὰ πλεῖστα ἀτάκτως. περὶ δὲ τεσσαρεσκαιδεκάτην κώφωσις, οἱ πυρετοὶ ἐπέτεινον,[2] οὖρα διὰ τῶν αὐτῶν. εἰκοστῇ πολλὰ παρέκρουσε καὶ τὰς ἑπομένας. τεσσαρακοστῇ διὰ ῥινῶν ᾑμορράγησε πολὺ καὶ κατενόει μᾶλλον· ἡ κώφωσις ἐνῆν μέν, ἧσσον δέ· οἱ πυρετοὶ συνέδωκαν. ᾑμορράγει τὰς ἑπομένας πυκνὰ κατ' ὀλίγον. περὶ δὲ ἑξηκοστὴν αἱ μὲν αἱμορραγίαι ἀπεπαύσαντο, ἰσχίου δὲ δεξιοῦ ὀδύνη ἰσχυρὴ καὶ οἱ πυρετοὶ ἐπέτεινον. οὐ πολλῷ δὲ χρόνῳ ὕστερον πόνοι τῶν κάτω πάντων· συνέπιπτε δὲ ἢ τοὺς πυρετοὺς εἶναι μέζους καὶ τὴν κώφωσιν πολλὴν ἢ ταῦτα μὲν ὑφιέναι καὶ κουφίζειν, τῶν δὲ κάτω περὶ ἰσχία μέζους εἶναι τοὺς πόνους. ἤδη δὲ περὶ ὀγδοηκοστὴν συνέδωκε μὲν πάντα, ἐξέλιπε δὲ οὐδέν· οὖρά τε γὰρ εὔχρω καὶ πλείους ὑποστάσιας ἔχοντα κατέβαινεν, οἱ παράληροί τε μείους ἦσαν. περὶ δὲ ἑκατοστὴν κοιλίη πολλοῖσι χολώδεσιν ἐπεταράχθη, καὶ ἦει χρόνον οὐκ ὀλίγον πολλὰ τοιαῦτα, καὶ πάλιν δυσεντεριώδεα μετὰ πόνου, τῶν δὲ ἄλλων ῥαστώνη. τὸ δὲ σύνολον οἵ τε πυρετοὶ ἐξέλιπον καὶ ἡ κώφωσις ἐπαύσατο. ἐν ἑκατοστῇ εἰκοστῇ τελέως ἐκρίθη.[3]

[1] ἀγωγῆς MSS.: ἀγορῆς Blass.

[2] ἐπέτεινον Ermerins: ἐξέτεινον MSS. (Perhaps rightly; the diction in this part of *Epidemics III.* is sometimes unusual.)

[3] V has here ΠΙΧΔΡΚΥ. After ἐκρίθη the MSS. have καῦσος.

compelled to do so. He lived close to the Upper Road.[1] An acute, ardent fever seized him. Vomited at the beginning copious, bilious matters; thirst; great discomfort; urine thin and black, sometimes with, sometimes without, substances suspended in it. Painful night, with fever rising now in this way, now in that, but for the most part irregularly. About the fourteenth day, deafness; the fever grew worse; urine the same.

Twentieth day. Much delirium, also on the following days.

Fortieth day. Copious epistaxis; more rational; some deafness, but less than before; the fever went down. Frequent, but slight, epistaxis on the following days. About the sixtieth day the bleedings from the nose ceased, but there was violent pain in the right hip and the fever increased. Not long afterwards, pains in all the lower parts. It happened that either the fever was higher and the deafness great, or else, though these symptoms were relieved and less severe, yet the pains in the lower parts about the hips grew worse. But from about the eightieth day all the symptoms were relieved without any disappearing. The urine that was passed was of good colour and had greater deposits, while the delirious mutterings were less. About the hundredth day the bowels were disordered with copious, bilious stools, and copious evacuations of this nature were passed for a long time. Then followed painful symptoms of dysentery, with relief of the other symptoms. In brief, the fever disappeared and the deafness ceased.

Hundred and twentieth day. Complete crisis.

[1] With Blass' reading, "Upper Market-place."

ι'. Ἐν Ἀβδήροισι Νικόδημον ἐξ ἀφροδισίων καὶ πότων πῦρ ἔλαβεν. ἀρχόμενος δὲ ἦν ἀσώδης καὶ καρδιαλγικός, διψώδης, γλῶσσα ἐπεκαύθη, οὖρα λεπτὰ μέλανα. δευτέρῃ ὁ πυρετὸς παρωξύνθη, φρικώδης, ἀσώδης, οὐδὲν ἐκοιμήθη, ἤμεσε χολώδεα ξανθά, οὖρα ὅμοια, νύκτα δι' ἡσυχίης, ὕπνωσε. τρίτῃ ὑφῆκε πάντα, ῥᾳστώνη· περὶ δὲ ἡλίου δυσμὰς πάλιν ὑπεδυσφόρει, νύκτα ἐπιπόνως. τετάρτῃ ῥῖγος, πυρετὸς πολύς, πόνοι πάντων, οὖρα λεπτά, ἐναιώρημα· νύκτα πάλιν δι' ἡσυχίης. πέμπτῃ ἐνῆν μὲν πάντα, ῥᾳστώνη δὲ ἦν. ἕκτῃ τῶν αὐτῶν πόνοι πάντων, οὔροισιν ἐναιώρημα, παρέκρουσε πολλά. ἑβδόμῃ ῥᾳστώνη ὀγδόῃ τὰ ἄλλα[1] συνέδωκε πάντα. δεκάτῃ καὶ τὰς ἑπομένας ἐνῆσαν μὲν οἱ πόνοι, ἧσσον δὲ πάντες· οἱ δὲ παροξυσμοὶ καὶ οἱ πόνοι τούτῳ διὰ τέλεος ἐν ἀρτίῃσιν ἦσαν μᾶλλον. εἰκοστῇ οὔρησε λευκόν, πάχος εἶχε, κείμενον οὐ καθίστατο ἴδρωσε πολλῷ, ἔδοξεν ἄπυρος γενέσθαι, δείλης δὲ πάλιν ἐθερμάνθη, καὶ τῶν αὐτῶν πόνοι, φρίκη δίψα, σμικρὰ παρέκρουσεν. εἰκοστῇ τετάρτῃ οὔρησε πολὺ λευκόν, πολλὴν ὑπόστασιν ἔχον ἴδρωσε πολλῷ θερμῷ δι' ὅλου, ἄπυρος ἐκρίθη.[2]

[1] ὀγδόῃ τὰ ἄλλα most MSS.: ὀγδόῃ τὰ δ' ἄλλα V. I suggest that a μέν-clause has fallen out after ὀγδόῃ.

[2] V has here ΠΙΧΔΙΚΑΥ.

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[1] What other symptoms? It is clear that some symptoms are excepted, but there is no hint what these are. As V has τὰ δ' ἄλλα, "but all the other symptoms were relieved,"

CASE X

In Abdera Nicodemus after venery and drunkenness was seized with fever. At the beginning he had nausea and cardialgia; thirst; tongue parched; urine thin and black.

Second day. The fever increased; shivering; nausea; no sleep; bilious, yellow vomits; urine the same; a quiet night; sleep.

Third day. All symptoms less severe; relief. But about sunset he was again somewhat uncomfortable; painful night.

Fourth day. Rigor; much fever; pains everywhere; urine thin, with floating substance in it; the night, on the other hand, was quiet.

Fifth day. All symptoms present, but relieved.

Sixth day. Same pains everywhere; substance floating in urine; much delirium.

Seventh day. Relief.

Eighth day. All the other [1] symptoms less severe.

Tenth day and following days. The pains were present, but all less severe. The exacerbations and the pains in the case of this patient tended throughout to occur on the even days.

Twentieth day. Urine white, having consistency; no sediment on standing. Copious sweating; seemed to lose his fever, but towards evening grew hot again, with pains in the same parts; shivering; thirst; slight delirium.

Twenty-fourth day. Much white urine, with much sediment. Hot sweating all over; the fever passed away in a crisis.

believe that after ὀγδόῃ has fallen out a phrase containing the symptoms which were not relieved.

ια'. Ἐν Θάσῳ γυνὴ δυσάνιος ἐκ λύπης μετὰ προφάσιος ὀρθοστάδην ἐγένετο ἄγρυπνός τε καὶ ἀπόσιτος καὶ διψώδης ἦν καὶ ἀσώδης. ᾧκει δὲ πλησίον τῶν Πυλάδου ἐπὶ τοῦ λείου. τῇ πρώτῃ ἀρχομένης νυκτὸς φόβοι, λόγοι πολλοί, δυσθυμίη, πυρέτιον λεπτόν. πρωὶ σπασμοὶ πολλοί· ὅτε δὲ διαλίποιεν οἱ σπασμοὶ οἱ πολλοί, παρέλεγεν, ᾐσχρομύθει· πολλοὶ πόνοι, μεγάλοι, συνεχέες. δευτέρῃ διὰ τῶν αὐτῶν, οὐδὲν ἐκοιμᾶτο, πυρετὸς ὀξύτερος. τρίτῃ οἱ μὲν σπασμοὶ ἀπέλιπον, κῶμα δὲ καὶ καταφορὴ καὶ πάλιν ἔγερσις· ἀνήϊσσε, κατέχειν οὐκ ἠδύνατο, παρέλεγε πολλά, πυρετὸς ὀξύς, ἐς νύκτα δὲ ταύτην ἵδρωσε πολλῷ θερμῷ δι' ὅλου· ἄπυρος, ὕπνωσε, πάντα κατενόει, ἐκρίθη. περὶ δὲ τρίτην ἡμέρην οὖρα μέλανα λεπτά, ἐναιώρημα δὲ ἐπὶ πολὺ στρογγύλον, οὐχ ἱδρύετο, περὶ δὲ κρίσιν γυναικεῖα πολλὰ κατέβη.[1]

ιβ'. Ἐν Λαρίσῃ παρθένον πυρετὸς ἔλαβε καυσώδης, ὀξύς· ἄγρυπνος, διψώδης, γλῶσσα λιγνυώδης, ξηρή· οὖρα εὔχρω μέν, λεπτὰ δέ. δευτέρῃ ἐπιπόνως, οὐχ ὕπνωσε. τρίτῃ πολλὰ διῆλθεν ἀπὸ κοιλίης ὑδατόχλοα, καὶ τὰς ἑπομένας ᾖει τοιαῦτα εὐφόρως. τετάρτῃ οὔρησε λεπτὸν

[1] V has here ΠΙΠΙΛΕΓΤ.

CASE XI

In Thasos a woman of gloomy temperament, after a grief with a reason for it, without taking to bed lost sleep and appetite, and suffered thirst and nausea. She lived near the place of Pylades on the plain.

First day. As night began there were fears, much rambling, depression and slight feverishness. Early in the morning frequent convulsions; whenever these frequent convulsions intermitted, she wandered and uttered obscenities; many pains, severe and continuous.

Second day. Same symptoms; no sleep; fever more acute.

Third day. The convulsions ceased, but were succeeded by coma and oppression, followed in turn by wakefulness. She would jump up; could not restrain herself; wandered a great deal; fever acute; on this night a copious, hot sweating all over; no fever; slept, was perfectly rational, and had a crisis. About the third day urine black and thin, with particles mostly round floating in it, which did not settle. Near the crisis copious menstruation.

CASE XII

In Larisa a maiden was seized with an acute fever of the ardent type. Sleeplessness; thirst; tongue sooty and parched; urine of good colour, but thin.

Second day. In pain; no sleep.

Third day. Copious stools, watery and of a yellowish green; similar stools on the following days, passed without distress.

Fourth day. Scanty, thin urine, with a substance

ὀλίγον, εἶχεν ἐναιώρημα μετέωρον, οὐχ ἱδρύετο, παρέκρουσεν ἐς νύκτα. ἔκτῃ διὰ ῥινῶν λάβρον ἐρρύη πολύ· φρίξασα ἵδρωσε πολλῷ θερμῷ δι' ὅλου· ἄπυρος· ἐκρίθη. ἐν δὲ τοῖσι πυρετοῖσι καὶ ἤδη κεκριμένων γυναικεῖα κατέβη πρῶτον τότε· παρθένος γὰρ ἦν. ἦν δὲ διὰ παντὸς ἀσώδης, φρικώδης, ἔρευθος προσώπου, ὀμμάτων ὀδύνη· καρηβαρική. ταύτῃ οὐχ ὑπέστρεψεν, ἀλλ' ἐκρίθη. οἱ πόνοι ἐν ἀρτίῃσιν.

ιγ'. Ἀπολλώνιος ἐν Ἀβδήροισιν ὀρθοστάδην ὑπεφέρετο χρόνον πολύν. ἦν δὲ μεγαλόσπλαγχνος, καὶ περὶ ἧπαρ συνήθης ὀδύνη χρόνον πολὺν παρείπετο, καὶ δὴ τότε καὶ ἰκτερώδης ἐγένετο, φυσώδης, χροιῆς τῆς ὑπολεύκου. φαγὼν δὲ καὶ πιὼν ἀκαιρότερον βόειον ἐθερμάνθη σμικρὰ τὸ πρῶτον, κατεκλίθη. γάλαξι δὲ χρησάμενος ἐφθοῖσι καὶ ὠμοῖσι πολλοῖσιν, αἰγείοισι καὶ μηλείοισι, καὶ διαίτῃ κακῇ πάντων, βλάβαι μεγάλαι· οἵ τε γὰρ πυρετοὶ παρωξύνθησαν, κοιλίη τε τῶν προσενεχθέντων οὐδὲν διέδωκεν ἄξιον λόγου, οὖρά τε λεπτὰ καὶ ὀλίγα διῄει· ὕπνοι οὐκ ἐνῆσαν· ἐμφύσημα κακόν, πολὺ δίψος, κωματώδης, ὑποχονδρίου δεξιοῦ ἔπαρμα σὺν ὀδύνῃ, ἄκρεα πάντοθεν ὑπόψυχρα, σμικρὰ παρέλεγε, λήθη πάντων ὅ τι λέγοι, παρεφέρετο. περὶ δὲ τεσσα-

[1] φαγὼν according to this translation has no expressed object. Furthermore, βόειον is more naturally "beef." As the words stand the above version is the natural one, but I suspect that either βόειον should be transposed to between δὲ and καί, or else it is used ἀπὸ κοινοῦ and zeugmatically with both φαγὼν and πιών, "after eating beef and drinking cow's milk." So Littré and, apparently, from his translation, Calvus.

suspended in it which did not settle; delirium at night.

Sixth day. Violent and abundant epistaxis; after a shivering fit followed a hot, copious sweating all over; no fever; a crisis. In the fever and after the crisis menstruation for the first time, for she was a young maiden. Throughout she suffered nausea and shivering; redness of the face; pain in the eyes; heaviness in the head. In this case there was no relapse, but a definite crisis. The pains on the even days.

CASE XIII

Apollonius in Abdera was ailing for a long time without being confined to bed. He had a swollen abdomen, and a continual pain in the region of the liver had been present for a long time; moreover, he became during this period jaundiced and flatulent; his complexion was whitish. After dining and drinking unseasonably cow's milk[1] he at first grew rather hot; he took to his bed. Having drunk copiously of milk, boiled and raw, both goat's and sheep's, and adopting a thoroughly bad regimen,[2] he suffered much therefrom. For there were exacerbations of the fever; the bowels passed practically nothing of the food taken; the urine was thin and scanty. No sleep. Grievous distension; much thirst; coma; painful swelling of the right hypochondrium; extremities all round rather cold; slight delirious mutterings; forgetfulness of everything he said; he was not himself. About the

[2] Or, changing the comma at *πάντων* to *κακῇ*, "adopting a bad regimen, he suffered great harm in every way."

ρεσκαιδεκάτην, [1] ἀφ' ἧς κατεκλίθη, ῥιγώσας ἐπεθερμάνθη· ἐξεμάνη· βοή, ταραχή, λόγοι πολλοί, καὶ πάλιν ἵδρυσις, καὶ τὸ κῶμα τηνικαῦτα προσῆλθε. μετὰ δὲ ταῦτα κοιλίη ταραχώδης πολλοῖσι χολώδεσιν, ἀκρήτοισιν, ὠμοῖσιν· οὖρα μέλανα, σμικρά, λεπτά· πολλὴ δυσφορίη· τὰ τῶν διαχωρημάτων ποικίλως· ἡ γὰρ μέλανα καὶ σμικρὰ καὶ ἰώδεα ἢ λιπαρὰ καὶ ὠμὰ καὶ δακνώδεα· κατὰ δὲ χρόνους ἐδόκει καὶ γαλακτώδεα διδόναι. περὶ δὲ εἰκοστὴν τετάρτην διὰ παρηγορίης· τὰ μὲν ἄλλα ἐπὶ τῶν αὐτῶν, σμικρὰ δὲ κατενόησεν· ἐξ οὗ δὲ κατεκλίθη, οὐδενὸς ἐμνήσθη· πάλιν δὲ ταχὺ παρενόει, ὥρμητο πάντα ἐπὶ τὸ χεῖρον. περὶ δὲ τριηκοστὴν πυρετὸς ὀξύς, διαχωρήματα πολλὰ λεπτά, παράληρος, ἄκρεα ψυχρά, ἄφωνος. τριηκοστῇ τετάρτῃ ἔθανε. τούτῳ διὰ τέλεος, ἐξ οὗ καὶ ἐγὼ οἶδα, κοιλίη ταραχώδης, οὖρα λεπτὰ μέλανα, κωματώδης, ἄγρυπνος, ἄκρεα ψυχρά, παράληρος διὰ τέλεος.[2]

ιδ'. Ἐν Κυζίκῳ γυναικὶ θυγατέρας τεκούσῃ διδύμας καὶ δυστοκησάσῃ καὶ οὐ πάνυ καθαρθείσῃ τῇ πρώτῃ πυρετὸς φρικώδης ὀξύς, κεφαλῆς καὶ τραχήλου βάρος μετ' ὀδύνης· ἄγρυπνος ἐξ ἀρχῆς, σιγῶσα δὲ καὶ σκυθρωπὴ καὶ οὐ πειθομένη· οὖρα λεπτὰ καὶ ἄχρω· διψώδης, ἀσώδης τὸ πολύ, κοιλίη πεπλανημένως ταραχώδης καὶ πάλιν συνισταμένη. ἕκτῃ ἐς νύκτα πολλὰ παρέλεγε,

[1] So Reinhold. MSS. have ἀφ' ἧς ῥιγώσας ἀπεθερμάνθη καὶ κατεκλίθη ἐξεμάνη.

[2] MSS. after τέλεος have φρενιτικός.

[1] Here perhaps not bowel trouble.

fourteenth day from his taking to bed, after a rigor, he grew hot; wildly delirious; shouting, distress,[1] much rambling, followed by calm; the coma came on at this time. Afterwards the bowels were disordered with copious stools, bilious, uncompounded and crude; urine black, scanty and thin. Great discomfort. The evacuations showed varying symptoms; they were either black, scanty and verdigris-coloured, or else greasy, crude and smarting; at times they seemed actually to be like milk. About the twenty-fourth day comfortable; in other respects the same, but he had lucid intervals. He remembered nothing since he took to bed. But he quickly was again delirious, and all symptoms took a sharp turn for the worse. About the thirtieth day acute fever; copious, thin stools; wandering; cold extremities; speechlessness.

Thirty-fourth day. Death.

This patient throughout, from the time I had knowledge of the case, suffered from disordered bowels; urine thin and black; coma; sleeplessness; extremities cold; delirious throughout.

CASE XIV

In Cyzicus a woman gave birth with difficult labour to twin daughters, and the lochial discharge was far from good.

First day. Acute fever with shivering; painful heaviness of head and neck. Sleepless from the first, but silent, sulky and refractory. Urine thin and of no colour; thirsty; nausea generally; bowels irregularly disturbed with constipation following.

Sixth day. Much wandering at night; no sleep.

οὐδὲν ἐκοιμήθη. περὶ δὲ ἑνδεκάτην ἐοῦσα ἐξεμάνη καὶ πάλιν κατενόει· οὖρα μέλανα, λεπτὰ καὶ πάλιν διαλείποντα ἐλαιώδεα· κοιλίη πολλοῖσι, λεπτοῖσι, ταραχώδεσι. τεσσαρεσκαιδεκάτῃ σπασμοὶ πολλοί, ἄκρεα ψυχρά, οὐδὲν ἔτι κατενόει, οὖρα ἐπέστη. ἐξκαιδεκάτῃ ἄφωνος· ἑπτακαιδεκάτῃ ἀπέθανε.[1]

ιε΄. Ἐν Θάσῳ Δελεάρκεος[2] γυναῖκα, ἣ κατέκειτο ἐπὶ τοῦ λείου, πυρετὸς φρικώδης, ὀξὺς ἐκ
320 λύπης ἔλαβεν. ἐξ ἀρχῆς δὲ περιεστέλλετο καὶ διὰ τέλεος αἰεὶ σιγῶσα ἐψηλάφα, ἔτιλλεν, ἔγλυφεν, ἐτριχολόγει, δάκρυα καὶ πάλιν γέλως, οὐκ ἐκοιμᾶτο· ἀπὸ κοιλίης ἐρεθισμῷ[3] οὐδὲν διῄει· σμικρὰ ὑπομιμνῃσκόντων ἔπινεν· οὖρα λεπτὰ σμικρά· πυρετοὶ πρὸς χεῖρα λεπτοί· ἀκρέων ψύξις. ἐνάτῃ πολλὰ παρέλεγε καὶ πάλιν ἱδρύνθη· σιγῶσα. τεσσαρεσκαιδεκάτῃ πνεῦμα ἀραιόν, μέγα διὰ χρόνου καὶ πάλιν βραχύπνοος. ἑπτακαιδεκάτῃ ἀπὸ κοιλίης ἐρεθισμῷ ταραχώδεα, ἔπειτα
330 δὲ αὐτὰ τὰ ποτὰ διῄει, οὐδὲν συνίστατο· ἀναισθήτως εἶχε πάντων· δέρματος περίτασις καρφαλέου. εἰκοστῇ λόγοι πολλοὶ καὶ πάλιν ἱδρύνθη· ἄφωνος, βραχύπνοος. εἰκοστῇ πρώτῃ ἀπέθανε. ταύτῃ διὰ τέλεος πνεῦμα ἀραιόν, μέγα· ἀναι-

[1] V has here ΠΙΜΓΙΖΘ. MSS. after ἀπέθανε have φρενῖτις.

[2] Δελεάρκεος. See p. 222.

[3] ἐρεθισμῷ Ermerins: ἐρεθισμὸς MSS. and Galen: ἐρεθισμοὶ editors.

[1] I take this, in spite of Galen, to mean "with extra long intervals between each breath." The phrase is rather careless but scarcely tautological. "At intervals" or "after a long interval" are possible meanings, but inconsistent with διὰ τέλεος later on.

About the eleventh day she went out of her mind and then was rational again; urine black, thin, and then, after an interval, oily; copious, thin, disordered stools.

Fourteenth day. Many convulsions; extremities cold; no further recovery of reason; urine suppressed.

Sixteenth day. Speechless.

Seventeenth day. Death.

CASE XV

In Thasos the wife of Delearces, who lay sick on the plain, was seized after a grief with an acute fever with shivering. From the beginning she would wrap herself up, and throughout, without speaking a word, she would fumble, pluck, scratch, pick hairs, weep and then laugh, but she did not sleep; though stimulated, the bowels passed nothing. She drank a little when the attendants suggested it. Urine thin and scanty; fever slight to the touch; coldness of the extremities.

Ninth day. Much wandering followed by return of reason; silent.

Fourteenth day. Respiration rare and large with long intervals,[1] becoming afterwards short.

Seventeenth day. Bowels under a stimulus passed disordered matters, then her very drink passed unchanged; nothing coagulated. The patient noticed nothing; the skin tense and dry.

Twentieth day. Much rambling followed by recovery of reason; speechless; respiration short.

Twenty-first day. Death.

The respiration of this patient throughout was

σθήτως πάντων εἶχεν· αἰεὶ περιεστέλλετο· ἢ λόγοι πολλοὶ ἢ σιγῶσα διὰ τέλεος.[1]

ις'. Ἐν Μελιβοίῃ νεηνίσκος ἐκ πότων καὶ ἀφροδισίων πολλῶν πολὺν χρόνον θερμανθεὶς κατεκλίθη· φρικώδης δὲ καὶ ἀσώδης ἦν καὶ
340 ἄγρυπνος καὶ ἄδιψος. ἀπὸ δὲ κοιλίης τῇ πρώτῃ πολλὰ κόπρανα διῆλθε σὺν περιρρόῳ πολλῷ, καὶ τὰς ἐπομένας ὑδατόχλοα πολλὰ διῄει· οὖρα λεπτά, ὀλίγα, ἄχρω· πνεῦμα ἀραιόν, μέγα διὰ χρόνου· ὑποχονδρίου ἔντασις ὑπολάπαρος, παραμήκης ἐξ ἀμφοτέρων· καρδίης παλμὸς διὰ τέλεος συνεχής· οὔρησεν ἐλαιώδες. δεκάτῃ[2] παρέκρουσεν ἀτρεμέως, ἦν δὲ[3] κόσμιός τε καὶ σιγῶν· δέρμα καρφαλέον καὶ περιτεταμένον· διαχωρήματα ἢ πολλὰ καὶ λεπτὰ ἢ χολώδεα, λιπαρά. τεσσαρεσ-

[1] After τέλεος MSS. have φρενῖτις.

[2] δεκάτῃ omitted by extant MSS., but was in two MSS. known to Foes It is in Galen.

[3] ἦν δὲ Littré from Galen: omitted by MSS.

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[1] In many ways this case, though one of the most picturesque, is also one of the most carelessly written. Galen points out that διὰ χρόνου is ambiguous, and that its possible meanings are inconsistent with the rest of the description. How can the respiration be ἀραιόν throughout, when on both the fourteenth and the twentieth days the patient was βραχύπνοος? It is strange that the writer specifies the fourteenth day as the day when the respiration was rare and large, seeing that it had these characteristics throughout. A similar remark applies to ἀναισθήτως εἶχε πάντων of the seventeenth day. Further, αἰεὶ σιγῶσα of the second sentence becomes strangely ἢ λόγοι πολλοὶ ἢ σιγῶσα

rare and large; took no notice of anything; she constantly wrapped herself up; either much rambling or silence throughout.[1]

CASE XVI

In Meliboea a youth took to his bed after being for a long time heated by drunkenness and sexual indulgence. He had shivering fits, nausea, sleeplessness, but no thirst.

First day. Copious, solid stools passed in abundance of fluid, and on the following days the excreta were copious, watery and of a greenish yellow. Urine thin, scanty and of no colour; respiration rare and large with long intervals; tension, soft underneath, of the hypochondrium,[2] extending out to either side; continual throbbing throughout of the epigastrium;[3] urine oily.

Tenth day. Delirious but quiet, for he was orderly and silent;[4] skin dry and tense; stools either copious and thin or bilious and greasy.

διὰ τέλεος in the last. I conclude that this medical history was hastily written and never revised. A slight revision could easily have cleared away the inconsistencies, which are, as Galen seems to have seen, more apparent than real.

[2] See note, p. 188.

[3] So Littré, following Galen. Perhaps, however, it means "heart," *i. e.* there was violent palpitation.

[4] Said by Galen, followed by Littré (who reads ἥσυχος for σιγῶν), to refer to the character of the young man when well, which interpretation to modern minds is rather inconsistent with the first sentence. They would paraphrase, "the delirium was really serious, but appeared slight because the patient was naturally self-controlled and calm." I take the meaning to be that though delirious he remained quiet and comparatively silent.

καιδεκάτῃ πάντα παρωξύνθη, παρέκρουσεν,[1] πολλὰ παρέλεγεν. εἰκοστῇ ἐξεμάνη, πολὺς βληστρισμός, οὐδὲν οὔρει, σμικρὰ ποτὰ κατείχετο. εἰκοστῇ τετάρτῃ ἀπέθανε.[2]

by V.

[2] After ἀπέθανε MSS. have φρενῖτις.

Fourteenth day. General exacerbation; delirious with much wandering talk.

Twentieth day. Wildly out of his mind; much tossing; urine suppressed; slight quantities of drink were retained.

Twenty-fourth day. Death.

THE OATH

THE OATH

Of all the Hippocratic writings the *Oath*, in spite of its shortness, is perhaps the most interesting to the general reader and also to the modern medical man. Whatever its origin, it is a landmark in the ethics of medicine.

Yet its exact relationship to the history of medicine is unknown, and apparently, in our present state of knowledge, unknowable. The student must, at every stage of the inquiry, confess his ignorance. What is the date of the *Oath*? Is it mutilated or interpolated? Who took the oath, all practitioners or only those belonging to a guild? What binding force had it beyond its moral sanction? Above all, was it ever a reality or merely a "counsel of perfection"? To all these questions the honest inquirer can only say that for certain he knows nothing.

Such being the case it is most important to realize clearly what actually is known. In the first place, the *Oath* was admitted to be genuinely Hippocratic by Erotian.

As to internal evidence, the *Oath*, besides binding all who take it to certain moral rules of practice, makes them also promise to act in a certain manner towards co-practitioners.

The taker of the oath—

(1) Will treat the children of his teacher as though they were his brothers;

(2) Will "share his livelihood" with his teacher, and, in case of necessity, relieve his financial distress;

(3) Will teach his teacher's children "without fee or indenture";

(4) Will give full instruction to his own children, to those of his teacher, to students who have taken the oath and signed the indenture, and to no others.

We cannot be sure what this indenture (*συγγραφή*) was. The word occurs again in the very first sentence, "*I* will carry out this oath and this indenture." One might suppose from these two occurrences of *συγγραφή* that they both refer to the same document, and that the document is what we call the *Oath*. If this view be taken, our present document must be a composite piece, consisting of both oath and indenture, and that it is the second component that the students paying no fee are excused from signing, for nobody would suppose that these had not to take the oath to uphold a high moral standard.

It must be confessed that to separate *συγγραφή* from *ὅρκος* would not be difficult, as the former would include merely those articles which concerned master and pupil, *i. e.* the latter's promise of financial aid to his teacher and of instruction to his teacher's children.

The difficulty in this view is that the vague promises *βίου κοινώσεσθαι, καὶ χρεῶν χρηίζοντι μετάδοσιν ποιήσεσθαι,* do not read like a legal *συγγραφή*, such as is implied in the words *ἄνευ μισθοῦ καὶ συγγραφῆς*. They are not definite enough, and there is no mention of a specific *μισθός*. Indeed, such clauses

could never be enforced; if they could have been, and if a physician had one or two rich pupils, his financial position would have been enviable. A share in the livelihood of rich men, relief when in need of money, free education for children—these advantages would make it superfluous, not to say unjust, to require any μισθός in addition.

It may well be that the συγγραφή of ἄνευ μισθοῦ καὶ συγγραφῆς was a private agreement between teacher and taught, quite distinct from the present document, in which case συγγραφὴν τήνδε will refer either to such an agreement appended to the *Oath*, or more probably to the *Oath* itself, which might be called a συγγραφή in the wider and vaguer sense of that term, though it is not precise enough for the legal indenture.

Some scholars regard the *Oath* as the test required by the Asclepiad Guild. The document, however, does not contain a single word which supports this contention. It binds the student to his master and his master's family, not to a guild or corporation. But if the Hippocratic oath ever was a real force in the history of medicine, it must have had the united support of the most influential physicians. Whether this union was that of something approximating to a guild we cannot say.

The *Oath* contains a sentence which has long proved a stumbling-block. It is:—οὐ τεμέω δὲ οὐδὲ μὴν λιθιῶντας, ἐκχωρήσω δὲ ἐργάτῃσιν ἀνδράσι πρήξιος τῆσδε. If these words are the genuine reading, they can only mean that the taker of the oath promises not to operate even for stone, but to leave operations for such as are craftsmen therein. It has seemed an insuperable difficulty that nowhere in the Hippo-

cratic collection is it implied that the physician must not operate, nor is any mention made of ἐργάται ἄνδρες who made a profession of operating. On the contrary, as Littré points out in his introduction to the *Oath*, the Hippocratic writers appear to perform operations without fear or scruple. Gomperz, in a note to the first volume of *Greek Thinkers*, suggests that the words hide a reference to castration. A glance at Littré's introduction shows that the suggestion is by no means new, and a belief in its truth underlies Reinhold's unhappy emendation to οὐδὲ μὴ ἐν ἡλικίῃ ἐόντας. A reference to castration would clear away the difficulty that a promise not to operate is out of place between two promises to abstain from moral offences, for castration was always an abomination to a Greek. But to leave the abominable thing to the ἐργάται is condoning a felony or worse, and, moreover, the qualification is quite uncalled for. The whole tone of the *Oath* would require "I will not castrate" without qualification.

One might be tempted to say that the promise not to operate was intended to hold only during the noviciate of the learner were there anything in the text to support this view. But although the oath would have been stultified if it had not been taken at the beginning of the medical course,[1] there is nothing in the text implying that any of its clauses were only temporarily binding. So the historian is

[1] Of course an ancient physician did not graduate in the modern sense of the term. The distinction between a qualified practitioner and one unqualified was not a well-defined line. A man was an ἰητρός as soon as he had learnt enough to be of any use at all.

forced back upon the view that the clause, even if not strictly speaking an interpolation, applied only to a section of the medical world, or only to a particular period, when it was considered degrading to a master physician to operate with his own hands, and the correct course was to leave the use of the knife to inferior assistants acting under instruction.

Knowing as little as we do, it is perhaps permissible to use the constructive imagination to frame an hypothesis which in broad outline at least is not inconsistent with the *data* before us.

From the *Protagoras* we learn that Hippocrates himself was ready to train physicians for a fee, and there is no reason to suppose that the practice was unusual. Some sort of bond between teacher and taught would naturally be drawn up, and a set form of words would evolve itself embodying those clauses which had as their object the maintenance of medical probity and honour. These might well contain promises to the teacher couched in extravagant language if taken literally, but which were intended to be interpreted in the spirit rather than in the letter.[1] Such may have been the nucleus of the Hippocratic *Oath*, and a copy would not unnaturally be found in the library of the medical school at Cos. But there is nothing in the evidence to lead us to suppose that a stereotyped form was universal, or that clauses were not added or taken away at various places and at various times. One writer in the *Corpus*, the author of the work *Nature of the Child*, unblushingly violates the spirit, if not the letter, of the *Oath* by attempting to produce abortion in a

[1] Compare modern interpretations of marriage vows.

singular and disgusting manner.[1] So some physicians did not feel bound by all the clauses, and some may not have felt bound by any. We may suppose, however, that no respectable physician would act contrary to most of the *Oath*, even if he were ignorant of its existence. The clause forbidding operative surgery may be an addition of late but uncertain date.[2]

But the interest of the *Oath* does not lie in its baffling problems. These may never be solved, but the little document is nevertheless a priceless possession. Here we have committed to writing those noble rules, loyal obedience to which has raised the calling of a physician to be the highest of all the professions. The writer, like other Hippocratics, uses to describe the profession a word which, in Greek philosophy, and especially in Plato, has a rather derogatory meaning. Medicine is "my art" (τέχνη) in the *Oath*; elsewhere, with glorious arrogance, it is "the art." "The art is long; life is short," says the first *Aphorism*. Many years later, the writer of *Precepts* declared that "where the love of man is, there is the love of the art." That medicine is an art (the thesis of *The Art*), a difficult art, and one inseparable from the highest morality and the love of humanity, is the great lesson to us of the Hippocratic writings. The true physician is *vir bonus sanandi peritus*.

The chief MSS. containing the *Oath* are V and M.

[1] § 13, Littré, vii. 490.

[2] It is possible that the degradation of surgery did not take place until Christian times (see Galen x. 454, 455), and the sentence of the *Oath* may well be very late indeed. The μὴν in οὐδὲ μὴν λιθιῶντας will strike scholars as strange.

The chief editions are—

Serment d'Hippocrate précédé d'une notice sur les serments en médecine. J. R. Duval. Paris, 1818.

Hippocrate: Le Serment, etc. Ch. V. Daremberg. Paris, 1843.

See also—

Super locum Hippocratis in Iureiurando maxime vexatum meditationes. Fr. Boerner, Lips. 1751.

ΟΡΚΟΣ

Ὄμνυμι Ἀπόλλωνα ἰητρὸν καὶ Ἀσκληπιὸν καὶ Ὑγείαν καὶ Πανάκειαν καὶ θεοὺς πάντας τε καὶ πάσας, ἵστορας ποιεύμενος, ἐπιτελέα ποιήσειν κατὰ δύναμιν καὶ κρίσιν ἐμὴν ὅρκον τόνδε καὶ συγγραφὴν τήνδε· ἡγήσεσθαι μὲν τὸν διδάξαντά με τὴν τέχνην ταύτην ἴσα γενέτῃσιν ἐμοῖς, καὶ βίου κοινώσεσθαι, καὶ χρεῶν χοηΐζοντι μετάδοσιν ποιήσεσθαι, καὶ γένος τὸ ἐξ αὐτοῦ ἀδελφοῖς ἴσον ἐπικρινεῖν ἄρρεσι, καὶ διδάξειν τὴν τέχνην ταύτην, ἢν χρηΐζωσι μανθάνειν, ἄνευ μισθοῦ καὶ συγγραφῆς, παραγγελίης τε καὶ ἀκροήσιος καὶ τῆς λοίπης ἁπάσης μαθήσιος μετάδοσιν ποιήσεσθαι υἱοῖς τε ἐμοῖς καὶ τοῖς τοῦ ἐμὲ διδάξαντος, καὶ μαθητῇσι συγγεγραμμένοις τε καὶ ὡρκισμένοις νόμῳ ἰητρικῷ, ἄλλῳ δὲ οὐδενί. διαιτήμασί τε χρήσομαι ἐπ' ὠφελείῃ καμνόντων κατὰ δύναμιν καὶ κρίσιν ἐμήν, ἐπὶ δηλήσει δὲ καὶ ἀδικίῃ εἴρξειν. οὐ δώσω δὲ οὐδὲ φάρμακον οὐδενὶ αἰτηθεὶς θανάσιμον, οὐδὲ ὑφηγήσομαι συμβουλίην τοιήνδε· ὁμοίως δὲ οὐδὲ γυναικὶ πεσσὸν φθόριον δώσω. ἁγνῶς δὲ καὶ ὁσίως διατηρήσω βίον τὸν ἐμὸν καὶ τέχνην τὴν ἐμήν. οὐ τεμέω δὲ οὐδὲ μὴν λιθιῶντας,[1] ἐκχωρήσω δὲ ἐργάτῃσιν

[1] Littré suggests αἰτέοντας, Reinhold οὐδὲ μὴ ἐν ἡλικίῃ ἐόντας.

OATH

I SWEAR by Apollo Physician, by Asclepius, by Health, by Panacea and by all the gods and goddesses, making them my witnesses, that I will carry out, according to my ability and judgment, this oath and this indenture. To hold my teacher in this art equal to my own parents; to make him partner in my livelihood; when he is in need of money to share mine with him; to consider his family as my own brothers, and to teach them this art, if they want to learn it, without fee or indenture; to impart precept,[1] oral instruction, and all other instruction[2] to my own sons, the sons of my teacher, and to indentured pupils who have taken the physician's oath, but to nobody else. I will use treatment to help the sick according to my ability and judgment, but never with a view to injury and wrong-doing. Neither will I administer a poison to anybody when asked to do so, nor will I suggest such a course. Similarly I will not give to a woman a pessary to cause abortion. But I will keep pure and holy both my life and my art. I will not use the knife, not even, verily, on sufferers from stone, but I will give place to such as are craftsmen

[1] Apparently the written rules of the art, examples of which are to be found in several Hippocratic treatises. These books were not published in the strict sense of the word, but copies would be circulated among the members of the "physicians' union."

[2] Probably, in modern English, "instruction, written, oral and practical."

ἀνδράσι πρήξιος τῆσδε. ἐς οἰκίας δὲ ὁκόσας ἂν ἐσίω, ἐσελεύσομαι ἐπ' ὠφελείῃ καμνόντων, ἐκτὸς ἐὼν πάσης ἀδικίης ἑκουσίης καὶ φθορίης, τῆς τε ἄλλης καὶ ἀφροδισίων ἔργων ἐπί τε γυναικείων σωμάτων καὶ ἀνδρῴων, ἐλευθέρων τε καὶ δούλων. ἃ δ' ἂν ἐν θεραπείῃ ἢ ἴδω ἢ ἀκούσω, ἢ καὶ ἄνευ θεραπείης κατὰ βίον ἀνθρώπων, ἃ μὴ χρή ποτε ἐκλαλεῖσθαι ἔξω, σιγήσομαι, ἄρρητα ἡγεύμενος εἶναι τὰ τοιαῦτα. ὅρκον μὲν οὖν μοι τόνδε ἐπιτελέα ποιέοντι, καὶ μὴ συγχέοντι, εἴη ἐπαύρασθαι καὶ βίου καὶ τέχνης δοξαζομένῳ παρὰ πᾶσιν ἀνθρώποις ἐς τὸν αἰεὶ χρόνον· παραβαίνοντι δὲ καὶ ἐπιορκέοντι, τἀναντία τούτων.

therein. Into whatsoever houses I enter, I will enter to help the sick, and I will abstain from all intentional wrong-doing and harm, especially from abusing the bodies of man or woman, bond or free. And whatsoever I shall see or hear in the course of my profession, as well as outside my profession in my intercourse with men,[1] if it be what should not be published abroad, I will never divulge, holding such things to be holy secrets. Now if I carry out this oath, and break it not, may I gain for ever reputation among all men for my life and for my art; but if I transgress it and forswear myself, may the opposite befall me.

[1] This remarkable addition is worthy of a passing notice. The physician must not gossip, no matter how or where the subject-matter for gossip may have been acquired; whether it be in practice or in private life makes no difference.

PRECEPTS

INTRODUCTION

It is with considerable misgiving that I have included this work as a kind of appendix to the first volume of the Hippocratic collection. In the first place there is not yet available the material necessary for a really satisfactory restoration of the text. Furthermore, the editors have generally neglected it. Littré reserved it for his ninth and last volume of text and translation, and by the time he reached it even his untiring energy was beginning to flag; his edition is hasty, erratic and in places unintelligible. Ermerins gives over the task in despair, and leaves whole chapters untranslated.

In spite of all these things I have determined to include *Precepts,* because it illustrates so well the characteristics of many parts of the Hippocratic collection, and the problems that face both editors and translators. It forms also a complete contrast to the nucleus of Hippocratic writings composing the rest of the first volume.

(1) Like *Humours* and *Nutriment,* it is obscure to a degree.

(2) It is, like so many Hippocratic works, a *cento.* Beginning and end are quite unconnected with the main portion of the book, and the main portion itself is a series of rather disconnected remarks.

(3) It has, like *Ancient Medicine, Nutriment, Nature of Man, Airs, Regimen I.*, a close relationship to philosophy.
(4) It shows, I think conclusively, the wide period covered by the Hippocratic collection.

No reader can fail to notice that, short as it is, the work is a *cento* with three main divisions.

(1) Chapters I and II defend the principle that medicine must be based upon observed fact and not on any plausible but fallacious hypothesis (ἐκ πιθανῆς ἀναπλάσιος λόγου). The writer uses language remarkably similar to that attributed to Epicurus by Diogenes Laertius. I must quote two passages from the latter.

> (*a*) καὶ γὰρ καὶ ἐπίνοιαι πᾶσαι ἀπὸ τῶν αἰσθήσεων γεγόνασι κατά τε περίπτωσιν καὶ ἀναλογίαν καὶ ὁμοιότητα καὶ σύνθεσιν, συμβαλλομένου τι καὶ τοῦ λογισμοῦ. . . . τὴν δὲ πρόληψιν λέγουσιν οἱονεὶ κατάληψιν, ἢ δόξαν ὀρθήν, ἢ ἔννοιαν, ἢ καθολικὴν νόησιν ἐναποκειμένην, τοῦτ' ἐστι μνήμην τοῦ πολλάκις ἔξωθεν φανέντος.
>
> D. L., X. 20, 21, §§ 32, 33.

> (*b*) ἀλλὰ μὴν ὑπολῃπτέον καὶ τὴν τῶν ἀνθρώπων φύσιν πολλὰ καὶ παντοῖα ὑπὸ τῶν αὐτὴν περιεστώτων πραγμάτων διδαχθῆναί τε καὶ ἀναγκασθῆναι· τὸν δὲ λογισμὸν τὰ ὑπὸ ταύτης παρεγγυηθέντα καὶ ὕστερον ἐπακριβοῦν.
>
> D. L., X. 24, § 75.

There are also several occurrences of the Epicurean word ἐναργής. The similarities are far too close to be accidental.

(2) Chapters III–XIII contain remarks on medical etiquette, fees, patients' whims, quacks, consultants, lecturing to large audiences, late learners. These remarks are sometimes connected, but follow no plan.
(3) Chapter XIV contains a few disconnected remarks on illnesses and invalids.

So the work as a whole shows no signs of a prearranged plan. It is disjointed and formless. As far as subject-matter is concerned, the three parts distinguished above ought to be classed under separate branches of medicine :—

(1) This belongs to the theory of medicine, or rather to the theory of science generally.
(2) This belongs on the whole to etiquette (εὐσχημοσύνη).
(3) This consists merely of a few disconnected hints. Littré justly says of it (IX. 248) : "J'y vois donc une de ces intercalations que les copistes se permettaient quelquefois à la fin d'un traité, soit, comme dit Galien, pour grossir le volume, soit pour placer quelque fragment qu'on ne savait où mettre, et qui, autrement, s'en allait perdu."

Yet it is remarkable that there is a certain style common to all three parts which points to the conclusion that the compiler, whoever he was, was no mere "paste-and-scissors" man, but an author who stamped his characteristics even on his borrowings. This style is marked by a studied aphoristic brevity combined with a genius for choosing out-of-the-way terms and expressions. It so happens that in addition the author appears to have been an imperfect

Greek scholar. It is indeed hard to believe that he was writing his mother tongue.

I am ready to admit that a more perfect recension of the MSS. will prove that certain of these vagaries are merely errors of the copyists, but when considered together they are too numerous and too strange to be explained in this way. A few examples only shall be chosen.

Chapter I. ἦν τὰ ἐπίχειρα ἐκομίζοντο.

„ II. μὴ εἴη ἐπαύρασθαι, "perhaps it is impossible to gain" (see *Oath*, p. 300, l. 33).

„ IV. παραινέσιος δ' ἂν καὶ τοῦτο ἐπιδεηθείη τῆς θεωρίης.
νούσου γὰρ ταχυτὴς καιρὸν μὴ διδοῦσα κ.τ.λ.

„ VI. ἦν δὲ καιρὸς εἴη.
ἡσθημένοι τὸ πάθος μὴ ἐὸν ἐν ἀσφαλείῃ.

„ VII. μὴ ἐγκεχειμικότες, "because they have not entrusted."
δεόμενοι τὴν ὑγιεινὴν διάθεσιν.

„ VIII. ἐπινέμησιν κέχρηνται [an emendation of Coray].
ὃ ἂν ἐρέω.

„ IX. σὺν τῇ οὐσίῃ = τῆς οὐσίης.
οὐ διαμαρτήσει (3rd person singular).

„ XIII. ὅποι ἂν καὶ ἐπιστατήσαιμι.

Notice in particular that μή is ousting οὐ. This is a sure sign of late date.

Words and expressions that occur only in late Greek, or are used in a strange sense, are fairly common, and there appear to be a few ἅπαξ λεγόμενα.

Chapter I. καταφορή = deducing.
προπαθής.
„ II. περὶ ταῦτα γίγνεσθαι = to be occupied with.
„ IV. προμύσσειν.
„ V. ἡδελφισμένος.
„ VI. εὐδοκίη.
„ VII. ἐκ ποδός.
καταχλιδὰν.
διαντλίζεσθαι.
„ VIII. κατασιλλαίνω.
„ IX. μινύθημα.
„ X. εὐχαρίη (if this reading be correct), or εὐχαριστίη.
„ XII. ἱστοριευμένην.
ματαιοκοπίη.
„ XIII. φιλαλυστής.
διαζηλεύομαι.
„ XIV. συμπάθησις.
συμπάθεια.
ὑποπαραίτησις (if this reading be correct).

The aphoristic style, which appears to have been popular among medical writers (*Coan Prenotions, Prorrhetic I., Aphorisms, Nutriment*) tended to become oracular and obscure. The writer of *Precepts* seems to have gone out of his way to wrap up his meaning in unusual diction, which is often almost unintelligible. He is fond of allusive, metaphorical language, which savours sometimes of the lyric poets.

In spite of his weaknesses as an author, and they are many, he is a man of sound common sense. I would note in particular his insisting upon reasoning

from accurately observed facts only, and upon the necessity of not worrying the patient about fees, and his pungent criticisms of quacks, their dupes, and all "late-learners."

There is something about the style which is reminiscent of Latin, particularly παραινέσιος τοῦτο in Chapter IV, meaning "this piece of advice," and perhaps the future in Chapter V with imperatival sense.[1] The perfect tense too is commonly used for the aorist. One would be tempted to regard the author as a Roman who wrote in Greek an essay, compiled from Epicurean literature and fairly sound medical sources, were it not for two scholia, one discovered by Daremberg and the other in the MS. Vaticanus gr. 277. The latter quotes a great part of Erotian's explanation of φλεδονώδεα as a comment upon *Precepts* VII., where our MSS. now have φθογγώδεα or φθεγγώδεα. In other words, the treatise appears to have been known to Erotian, or to the authorities used by Erotian, as an Hippocratic work. Daremberg[2] discovered in a Vatican MS. a gloss from which it appears that Galen commented on *Precepts*, and that Archigenes (a physician of the early second century A.D.) and Chrysippus the Stoic commented on the distinction between καιρός and χρόνος with which *Precepts* opens.

Even if we allow full weight to this evidence of

[1] Since I wrote the above my attention has been called to στενῶν ἐνδοσιν in Chapter VII. The word στενῶν looks like *angustiarum*.

[2] See *Notices et extraits des manuscrits médicaux grecs, latins et français des principales bibliothèques de l'Europe*, pp. 200–203.

early authorship, we need conclude no more than that Chrysippus knew the originals from which the compilation was made—indeed he must have been well acquainted with the Epicurean original of Chapters I and II. There is nothing in the evidence to prevent our taking *Precepts* to be a *cento* from good sources made by a late writer not perfectly familiar with Greek. Somehow it became incorporated in a collection of Hippocratic writings, probably a little-known one, as none of the ancient "lists" of Hippocratic works includes *Precepts*. There was no generally accepted canon, and a work of unknown or uncertain authorship might easily find its way into the Hippocratic collection in one or other of the great libraries.

Although linguistic difficulties obscure the details, the reader will be interested in the picture of medical practice in antiquity. The "late-learner" covering up his mistakes in a flood of medical jargon will suggest the doctors of Molière. The public lectures, with quotations from poetry, are the exact counterpart of modern advertisements of patent medicines.

MSS. AND EDITIONS.

Precepts is found in several of the Paris manuscripts and in M.[1] There have been so far as I know no separate editions and no translations into English.

[1] There is no good *apparatus criticus*. I have tried to infer from Littré's "vulgate" and Ermerins' text what is the reading of the majority of the manuscripts, and it is generally this reading which I denote by "MSS." Only more careful examination of the actual manuscripts can show how far I am justified in so doing.

ΠΑΡΑΓΓΕΛΙΑΙ

I. Χρόνος ἐστὶν ἐν ᾧ καιρός, καὶ καιρὸς ἐν ᾧ χρόνος οὐ πολύς· ἄκεσις χρόνῳ, ἔστι δὲ ἡνίκα καὶ καιρῷ. δεῖ γε μὴν ταῦτα εἰδότα μὴ λογισμῷ πρότερον πιθανῷ προσέχοντα ἰητρεύειν, ἀλλὰ τριβῇ μετὰ λόγου. ὁ γὰρ λογισμὸς μνήμη τίς ἐστι συνθετικὴ τῶν μετ' αἰσθήσιος ληφθέντων. ἐφαντασιώθη γὰρ ἐναργέως ἡ αἴσθησις προπαθὴς καὶ ἀναπομπὸς ἐοῦσα ἐς διάνοιαν τῶν ὑποκειμένων, ἡ δὲ παραδεξαμένη πολλάκις, οἷς ὅτε ὁκοίως[1] τηρήσασα, καὶ ἐς ἑωυτὴν καταθεμένη, ἐμνημόνευσεν. συγκαταινέω μὲν οὖν καὶ τὸν λογισμόν, ἥπερ ἐκ περιπτώσιος ποιῆται τὴν ἀρχήν, καὶ τὴν καταφορὴν ἐκ τῶν φαινομένων μεθοδεύῃ. ἐκ γὰρ τῶν ἐναργέως ἐπιτελεομένων ἣν τὴν ἀρχὴν ποιήσηται ὁ λογισμός, ἐν διανοίης δυνάμει ὑπάρχων εὑρίσκεται, παραδεχομένης αὐτῆς ἕκαστα παρ' ἄλλων. ὑπολῃπτέον οὖν τὴν φύσιν ὑπὸ τῶν πολλῶν καὶ παντοίων πρηγμάτων κινηθῆναί τε καὶ διδαχθῆναι, βίης ὑπεούσης· ἡ δὲ διάνοια παρ' αὐτῆς λαβοῦσα, ὡς προεῖπον, ὕστερον ἐς ἀληθείην ἤγαγεν. εἰ δὲ μὴ ἐξ ἐναργέος

[1] Ermerins would delete πολλάκις . . . ὁκοίως.

[1] The definition shows that in this passage λογισμός is a generalisation, like the πρόληψις of Epicurus, whose language is borrowed. But whereas π. ὁλήψις corresponds to a general *term* (*e. g.* "man"), λογισμός here seems to mean a general

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I. TIME is that wherein there is opportunity, and opportunity is that wherein there is no great time. Healing is a matter of time, but it is sometimes also a matter of opportunity. However, knowing this, one must attend in medical practice not primarily to plausible theories,[1] but to experience combined with reason. For a theory is a composite memory of things apprehended with sense-perception. For the sense-perception, coming first in experience and conveying to the intellect the things subjected to it, is clearly imaged, and the intellect, receiving these things many times, noting the occasion, the time and the manner, stores them up in itself and remembers. Now I approve of theorising also if it lays its foundation in incident, and deduces its conclusions in accordance with phenomena. For if theorising lays its foundation in clear fact, it is found to exist in the domain of intellect, which itself receives from other sources each of its impressions. So we must conceive of our nature as being stirred and instructed under compulsion by the great variety of things; and the intellect, as I have said, taking over from nature the impressions, leads us afterwards into truth. But if it

proposition (*e. g.* "man is mortal"). Later on it means the use of λογισμοί in making συλλογισμοί, that is, deduction. "Theory" and "theorising" are the nearest equivalents I can think of.

ἐφόδου, ἐκ δὲ πιθανῆς ἀναπλάσιος λόγου, πολλάκις βαρείην καὶ ἀνιηρὴν ἐπήνεγκε διάθεσιν. οὗτοι δὲ ἀνοδίην χειρίζουσι. τί γὰρ ἂν ἦν κακόν, ἦν[1] τὰ ἐπίχειρα ἐκομίζοντο οἱ τὰ τῆς ἰητρικῆς ἔργα κακῶς δημιουργέοντες; νῦν δὲ τοῖς ἀναιτίοις ἐοῦσι τῶν καμνόντων, ὁκόσοις οὐχ ἱκανὴ ἐφαίνετο ἐοῦσα τοῦ νοσεῖν βίη, εἰ μὴ συνέλθοι τῇ τοῦ ἰητροῦ ἀπειρίῃ. περὶ μὲν οὖν τούτων ἄλις ἔστω διειλεγμένα.

II. Τῶν δ' ὡς λόγου μόνου συμπεραινομένων μὴ εἴῃ[2] ἐπαύρασθαι, τῶν δὲ ὡς ἔργου ἐνδείξιος· σφαλερὴ γὰρ καὶ εὔπταιστος ἡ μετ' ἀδολεσχίης ἰσχύρισις. διὸ καὶ καθόλου δεῖ ἔχεσθαι τῶν γινομένων, καὶ περὶ ταῦτα μὴ ἐλαχίστως γίνεσθαι, ἢν μέλλῃ ἕξειν ῥηϊδίην καὶ ἀναμάρτητον ἕξιν ἣν δὴ ἰητρικὴν προσαγορεύομεν. κάρτα γὰρ μεγάλην ὠφελίην περιποιήσει τοῖς γε νοσέουσι καὶ τοῖς τούτων δημιουργοῖς. μὴ ὀκνεῖν δὲ παρὰ ἰδιωτέων ἱστορεῖν, ἤν τι δοκῇ συνοίσειν ἐς καιρὸν θεραπείης. οὕτω γὰρ δοκέω τὴν σύμπασαν τέχνην ἀναδειχθῆναι, διὰ τὸ ἐξ ἑκάστου τι[3] τοῦ τέλους τηρηθῆναι καὶ ἐς ταὐτὸ συναλισθῆναι. προσέχειν οὖν δεῖ τῇ περιπτώσει τῇ ὡς ἐπὶ τὸ πολύ, καὶ μετ' ὠφελίης καὶ ἠρεμαιότητος μᾶλλον ἢ ἐπαγγελίης καὶ ἀπολογίης τῆς μετ' ἀπρηξίης.[4]

[1] So apparently the MSS. and editions except Ermerins, who emends to εἰ. I retain it (doubtfully) as a mistake due to ignorance.

[2] See p. 308.

[3] τοῦ MSS.: τι another hand in M. I have inserted τι and kept τοῦ because of the sense. There is one τέλος, but many observations contribute to the completion of it.

[4] μετὰ πρήξιος MSS.: μετ' ἀπρήξιος another hand in M: μετὰ πρήξιας Littré: μετ' ἀπρηξίης is my conjecture. I find

begins, not from a clear impression, but from a plausible fiction,[1] it often induces a grievous and troublesome condition. All who so act are lost in a blind alley. Now no harm would be done if bad practitioners received their due wages. But as it is their innocent patients suffer, for whom the violence of their disorder did not appear sufficient without the addition of their physician's inexperience. I must now pass on to another subject.

II. But conclusions which are merely verbal cannot bear fruit, only those do which are based on demonstrated fact. For affirmation and talk are deceptive and treacherous. Wherefore one must hold fast to facts in generalisations also,[2] and occupy oneself with facts persistently, if one is to acquire that ready and infallible habit which we call "the art of medicine." For so to do will bestow a very great advantage upon sick folk and medical practitioners. Do not hesitate to inquire of laymen, if thereby there seems likely to result any improvement in treatment. For so I think the whole art has been set forth, by observing some part of the final end in each of many particulars, and then combining all into a single whole. So one must pay attention to generalities in incidents, with help and quietness rather than with professions and the excuses that accompany ill-success.

[1] *I. e.*, if the general statement from which we deduce conclusions be a plausible but untrue hypothesis. Conclusions drawn from such hypotheses lead to nowhere.

[2] Or, possibly, "even from beginning to end."

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that I have been anticipated by Ermerins, who also reads *μετ' ἀπρηξίης*.

III. Χρήσιμος δὲ καὶ ποικίλος τῶν προσφερομένων τῷ νοσέοντι καὶ ὁ προορισμός, ὅτι[1] μόνον τι προσενεχθὲν ὠφελήσει· οὐ γὰρ ἰσχυρίσιος δεῖ· πάντα γὰρ τὰ πάθη διὰ πολλὰς περιστάσιας καὶ μεταβολὰς μονῇ τινι προσκαθίζει.

IV. Παραινέσιος δ' ἂν καὶ τοῦτο ἐπιδεηθείη τῆς θεωρίης· συμβάλλει γάρ τι τῷ σύμπαντι·[2] εἰ γὰρ ἄρξαιο περὶ μισθαρίων τῷ μὲν ἀλγέοντι τοιαύτην διανόησιν ἐμποιήσεις τὴν ὅτι[3] ἀπολιπὼν αὐτὸν πορεύσει μὴ συνθέμενος, ἢ[4] ὅτι ἀμελήσεις καὶ οὐχ ὑποθήσει[5] τινὰ τῷ παρεόντι. ἐπιμελεῖσθαι οὖν οὐ[6] δεῖ περὶ στάσιος μισθοῦ· ἄχρηστον γὰρ ἡγεύμεθα ἐνθύμησιν ὀχλεομένῳ τὴν τοιαύτην, πολὺ δὲ μᾶλλον ἐν ὀξεῖ νοσήματι· νούσου γὰρ ταχυτὴς καιρὸν μὴ διδοῦσα ἐς ἀναστροφὴν οὐκ ἐποτρύνει τὸν καλῶς ἰητρεύοντα ζητεῖν τὸ λυσιτελές, ἔχεσθαι δὲ δόξης μᾶλλον. κρέσσον οὖν σῳζομένοις ὀνειδίζειν ἢ ὀλεθρίως ἔχοντας προμύσσειν.[7]

V. Καί τοι ἔνιοι νοσέοντες ἀξιοῦσι[8] τὸ ξενοπρεπὲς καὶ τὸ ἄδηλον[9] προκρίνοντες, ἄξιοι μὲν ἀμελείης, οὐ μέντοι γε κολάσιος. διὸ τούτοις ἀντιτάξει εἰκότως μεταβολῆς ἐπὶ σάλου πορευο-

[1] Ermerins here inserts *οὐ*.

[2] In the MSS. this sentence occurs after *μισθαρίων*. It was transposed by Coray.

[3] Here the MSS. have *οὐκ*, which is omitted by Coray, Littré and Ermerins.

[4] *ἢ* Littré: *καὶ* MSS.

[5] *ὑποθήσεις* MSS.: Coray emended to the middle.

[6] The negative is added by Littré

[7] *προμύσσειν* MSS.: *προσνύσσειν* Coray: *προσμύσσειν* Ermerins.

[8] *ἀξιοῦσι* MSS.: *ἀλλάσσουσι* Littré.

[9] *εὔδηλον* MSS.: *ἄδηλον* Littré.

III. Early determination of the patient's treatment—since only what has actually been administered will benefit; emphatic assertion is of no use—is beneficial but complicated. For it is through many turns and changes that all diseases settle into some sort of permanence.[1]

IV. This piece of advice also will need our consideration, as it contributes somewhat to the whole. For should you begin by discussing fees, you will suggest to the patient either that you will go away and leave him if no agreement be reached, or that you will neglect him and not prescribe any immediate treatment. So one must not be anxious about fixing a fee. For I consider such a worry to be harmful to a troubled patient, particularly if the disease be acute. For the quickness of the disease, offering no opportunity for turning back,[2] spurs on the good physician not to seek his profit but rather to lay hold on reputation. Therefore it is better to reproach a patient you have saved than to extort money from[3] those who are at death's door.

V. And yet some patients ask for what is out of the way and doubtful, through prejudice, deserving indeed to be disregarded, but not to be punished. Wherefore you must reasonably oppose them, as they are embarked upon a stormy sea of change.

[1] Because changes and turns are common in the early stages, to fix the proper treatment early is a complicated matter.

[2] *I. e.* from missed opportunities that have passed away while haggling over fees. It is possible that *ἀναστροφή* has here the sense of *ἀναστρέφειν καρίδαν* in Thucydides II. 49, "to upset." An acute disease is not the time to upset a patient with financial worries.

[3] Or, if Coray's emendation be adopted, "to tease."

μένοις. τίς γάρ, ὦ πρὸς Διός, ἠδελφισμένος ἰητρὸς ἰητρεύει τοσαύτῃ[1] ἀτεραμνίῃ ὥστε ἐν ἀρχῇ ἀνακρίνοντα[2] πᾶν[3] πάθος μὴ οὐχ[4] ὑποθέσθαι τινὰ συμφέροντα ἐς θεραπείην, ἀποθεραπεῦσαί τε τὸν νοσέοντα καὶ μὴ παριδεῖν τὴν ἐπικαρπίην, ἄνευ[5] τῆς ἐπισκευαζούσης ἐς μάθησιν ἐπιθυμίης;

VI. Παρακελεύομαι δὲ μὴ λίην ἀπανθρωπίην ἐσάγειν, ἀλλ' ἀποβλέπειν ἔς τε περιουσίην καὶ οὐσίην· ὁτὲ δὲ προῖκα, ἀναφέρων μνήμην εὐχαριστίης προτέρην[6] ἢ παρεοῦσαν εὐδοκίην.[7] ἦν[8] δὲ καιρὸς εἴη χορηγίης ξένῳ τε ἐόντι καὶ ἀπορέοντι, μάλιστα ἐπαρκεῖν τοῖς τοιούτοις· ἦν γὰρ παρῇ φιλανθρωπίη, πάρεστι καὶ φιλοτεχνίη. ἔνιοι γὰρ νοσέοντες ᾐσθημένοι τὸ περὶ ἑωυτοὺς πάθος μὴ ἐὸν ἐν ἀσφαλείῃ, καὶ τῇ τοῦ ἰητροῦ ἐπιεικείῃ εὐδοκέουσι,[9] μεταλλάσσοντες ἐς ὑγιείην. εὖ δ' ἔχει νοσεόντων μὲν ἐπιστατεῖν, ἕνεκεν ὑγιείης, ὑγιαινόντων δὲ φροντίζειν, ἕνεκεν ἀνοσίης· φροντίζειν καὶ ἑωυτῶν[10] ἕνεκεν εὐσχημοσύνης.

VII. Οἱ μὲν οὖν ἐόντες ἐν βυθῷ ἀτεχνίης τῶν προλελεγμένων οὐκ ἂν αἰσθάνοιντο. καὶ γὰρ οὗτοι ἀνίητροι ἐόντες ἐλέγχοιντ' ἂν[11] ἐκ ποδὸς ὑψεύ-

[1] τοσαύτῃ my conjecture: πίστει ἢ MSS.: πιστεύοι Ermerins: πεισθείῃ Littré (with ἰητρεύειν).

[2] ἀνακρίνοντα Littré: ἀνακρίναντα Ermerins: ἀνακρινέοντας vulgate.

[3] Ermerins inserts τό.

[4] μὴ οὐχ M: μὴ most MSS.: δεῖ many early commentators. The position of the negative is abnormal, and the reading is uncertain.

[5] So Ermerins: τῆς ἐπικαρπίης μὴ ἄνευ MSS. Most editors punctuate at παριδεῖν. But then τῆς ἐπικαρπίης depends on nothing.

[6] προτέρην MSS.: πρότερον Ermerins.

[7] εὐδοκίην M: εὐδοκιμίην most MSS.

For, in heaven's name, who that is a brotherly[1] physician practises with such hardness of heart as not at the beginning to conduct a preliminary examination of every illness[2] and prescribe what will help towards a cure, to heal the patient and not to overlook the reward, to say nothing of the desire that makes a man ready to learn?

VI. I urge you not to be too unkind, but to consider carefully your patient's superabundance or means. Sometimes give your services for nothing, calling to mind a previous benefaction or present satisfaction.[3] And if there be an opportunity of serving one who is a stranger in financial straits, give full assistance to all such. For where there is love of man, there is also love of the art. For some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of the physician. And it is well to superintend the sick to make them well, to care for the healthy to keep them well, but also to care for one's own self, so as to observe what is seemly.

VII. Now those who are buried in deep ignorance of the art cannot appreciate what has been said. In fact such men will be shown up as ignorant of

[1] The word so translated is fairly common in the *Corpus* in the sense of "related." Here it evidently means "a loyal member of the family of physicians."

[2] With Ermerins' reading, "all the illness."

[3] Or, with *εὐδοκιμίην*, "your present reputation."

[8] *ἦν* MSS.: *εἰ* Ermerins. But see Chapter I, p. 314, note 1.

[9] MSS. *εὐδοκιμέουσι*. Littré suggests *εὐδοκέουσι* but reads *εὐδοκέοντες* and *μεταλλάσσονται*.

[10] *ἑωιτῶν* Ermerins: *ὑγιαινόντων* MSS.

[11] *ἐλέγχοιντ' ἂν* Ermerins: *ἔλεγχοι* MSS.: *ἐλέγχῃ* Littré.

μενοι, τύχης γε μὴν δεόμενοι. ὑπὸ γάρ τινων εὐπόρων, καὶ στενῶν ἔνδοσιν ἀναλαμβανόντων, ἑκατέρῃ ἐπὴν ἐπιτύχωσι,[1] εὐδοκιμέουσι, καὶ διαπιπτόντων ἐπὶ τὸ χεῖρον καταχλιδεῦσι, καταμεμεληκότες τὰ τῆς τέχνης ἀνυπεύθυνα, ἐφ' οἷς ἂν ἰητρὸς ἀγαθὸς ἀκμάζοι ὁμότεχνος καλεόμενος. ὁ δὲ τὰς ἀκέσιας ἀναμαρτήτους ῥηϊδίως ἐπιτελέων οὐδὲν ἂν τούτων παραβαίη σπάνει[2] τοῦ δύνασθαι· οὐ γὰρ ἄπιστός ἐστιν ὡς ἐν ἀδικίῃ. πρὸς γὰρ θεραπείην οὐ γίνονται σκοπέοντες διάθεσιν φλεβονώδεα,[3] φυλασσόμενοι ἑτέρων ἰητρῶν ἐπεσαγωγήν, ἐνόντες[4] ἐν μισοπονηρίῃ βοηθήσιος.[5] οἵ τε νοσέοντες ἀνιώμενοι[6] νήχονται ἐπὶ ἑκατέρῃ μοχθηρίῃ μὴ ἐγκεχειρικότες ἑωυτοὺς ἕως τέλεος τῇ ἐν τῇ τέχνῃ πλείονι θεραπείῃ· ἄνεσις γὰρ νούσου τινὸς κάμνοντι παρέχει μεγάλην ἀλεωρήν· διὸ δεόμενοι τὴν ὑγιεινὴν διάθεσιν οὐκ ἐθέλουσι τὴν αὐτὴν χρῆσιν αἰεὶ προσδέχεσθαι, ὁμονοέοντες ἰητροῦ ποικιλίῃ.[7] † πολυτελείης † γὰρ ἀπορέουσιν

[1] So Ermerins. Most MSS. have ἀναλαμβάνονται or ἀναλαμβάνοντες, ἑκάτεροι ἐπὶ τεύχεσι and εὐδοκιμέοντες.

[2] σπάνι (*sic*) Ermerins: οὐ παντὶ σπάνει most MSS.: ὃ παντὶ σπάνει M (dittography): οὐ πάντῃ σπάνει Littré.

[3] So apparently some ancient commentators. See Erotian *fr.* 7 Nachmanson. φθεγγώδεα or φθογγώδεα MSS.: φθινώδεα Littré: φονώδεα Ermerins.

[4] ἐνόντες M, Littré: αἰνοῦντες most MSS. I suggest μένοντες, as we should have expected ἐνεόντες. See p. 248.

[5] αἰνέοντες μισοπονηρίην βοηθήσιος Ermerins.

[6] ἀνιώμενοι MSS.: ἀνιέμενοι Littré after Matthiae.

[7] So Ermerins: ὁμοιοῦντες ἰητροῦ ποικιλίῃ vulgate: μὴ νοέοντες ἰητροῦ ποικιλίην: Littré.

[1] He is trusted, and so can do as he likes. Therefore want of power to influence a patient never compels him to transgress the medical code.

medicine, suddenly exalted yet needing good luck. For should wealthy men gain some remission of their trouble, these quacks win reputation through a double good fortune, and if a relapse occurs they stand upon their dignity, having neglected the irreproachable methods of the art, wherewith a good physician, a "brother of the art" as he is called, would be at his best. But he who accomplishes his cures easily without making a mistake would transgress none of these methods through want of power;[1] for he is not distrusted on the ground of wickedness. For quacks do not attempt treatment when they see an alarming[2] condition, and avoid calling in other physicians, because they wickedly hate help. And the patients in their pain drift on a sea of twofold wretchedness for not having intrusted themselves to the end to the fuller treatment that is given by the art. For a remission of a disease affords a sick man much relief. Wherefore wanting a healthy condition they do not wish always to submit to the same treatment, therein being in accord with a physician's versatility.[3] For the patients

[2] It is quite uncertain whether φλεβονώδεα is the correct reading, and equally uncertain what it means if it be correct. Erotian's note recognises two ancient readings, φλεδονώδεα, explained as τὰ μετὰ φλυαρίας καὶ πνευματώδους ταραχῆς ἐκκρινόμενα, and φλεβονώδεα, explained as τὰ μετ' ἀλγήματος οἰδήματα. But the general meaning must be "serious," "alarming."

[3] The reader must suspect that in the words ἰητροῦ ποικιλίη is concealed an allusion to frequent changes of the medical attendant. "Changing their doctor every day." The version in the text means that the patients frequently change their minds as do quacks, or as doctors must be ready to change their treatment at a moment's notice.

οἱ νοσέοντες,[1] κακοτροπίῃ προσκυνέοντες[2] καὶ ἀχαριστέοντες συντυχεῖν. δυνατοὶ ἐόντες εὐπορεῖν, διαντλίζονται[3] περὶ μισθαρίων, ἀτρεκέως ἐθέλοντες ὑγιέες εἶναι εἵνεκεν . . . . . ἐργασίης τόκων ἢ γεωργίης, ἀφροντιστέοντες περὶ[4] αὐτῶν
28 λαμβάνειν.

VIII. Περὶ σημασίης τοιαύτης ἅλις ἔστω· ἄνεσις γὰρ καὶ ἐπίτασις νοσέοντος ἐπινέμησιν ἰητρικὴν κέχρηνται.[5] οὐκ ἀσχήμων[6] δέ, οὐδ' ἥν τις ἰητρὸς στενοχωρέων τῷ παρεόντι[7] ἐπί τινι νοσέοντι καὶ ἐπισκοτεόμενος τῇ ἀπειρίῃ κελεύῃ καὶ ἑτέρους ἐσάγειν, εἵνεκα τοῦ ἐκ κοινολογίης ἱστορῆσαι τὰ περὶ τὸν νοσέοντα, καὶ συνεργοὺς γενέσθαι ἐς εὐπορίην βοηθήσιος. ἐν γὰρ κακο-
παθείης παρεδρίῃ ἐπιτείνοντος τοῦ πάθεος, δι'
10 ἀπορίην τὰ πλεῖστα ἐκκλίνουσι τῷ παρέοντι·[7] θαρρητέον[8] οὖν ἐν καιρῷ τοιούτῳ· οὐδέποτε γὰρ ἐγὼ τὸ τοιοῦτο ὁριεῦμαι, ὅτι ἡ τέχνη κέκριται

[1] So apparently all MSS.: πολυτελεῖς γὰρ ἀπορέουσιν ἐόντες Littré. Perhaps πολυτελείῃ should be read.

[2] προσκυνεῦντες MSS.: προσκυρεῦντες Littré. I suggest that οὐκ has fallen out after καί.

[3] διαντλίζονται (apparently) MSS.: διισχυρίζονται Cornarius: διαλογίζονται Ermerins.

[4] περί MSS.: μὴ ὑπὲρ Littré.

[5] κέκτηνται MSS.: κέχρηνται Coray.

[6] ἀσχήμων MSS.: ἄσχημον Littré.

[7] τῷ παρέοντι omitted by Ermerins.

[8] θαρρητέον MSS.: μὴ θαρρητέον (*sic*) Martinus quoted by Foes. Perhaps οὐ θαρρητέον.

[1] These patients ἀπορέουσιν, and so can scarcely be the same as the εὔποροι of the earlier part of the chapter. Perhaps οὐκ should be read before ἀχαριστέοντες, and the sense would then be, "they become poor by showing gratitude to quacks, when they might be well off by employing qualified men."

are in need through heavy expenditure, worshipping incompetence and showing no gratitude when they meet it;[1] when they have the power to be well off, they exhaust themselves about fees, really wishing to be well for the sake of managing their investments or farms, yet without a thought in these matters to receive anything.[2]

VIII. So much for such recommendations. For remission and aggravation of a disease require respectively less or more medical assistance. A physician does not violate etiquette even if, being in difficulties on occasion over a patient and in the dark through inexperience, he should urge the calling in of others, in order to learn by consultation the truth about the case, and in order that there may be fellow-workers to afford abundant help. For when a diseased condition is stubborn and the evil grows, in the perplexity of the moment most things go wrong. So on such occasions one must be bold.[3] For never will I lay it down that the art has been

[2] The greater part of this chapter is hopeless. There seems to be no connexion between the quack doctors of the first part and the wayward patients of the latter part. I suspect that an incongruous passage has been inserted here by some compiler, just as chapter fourteen was so inserted. Perhaps there are gaps in the text, the filling up of which would clear away the difficulty. Probably there is one after *εἵνεκεν*. If the latter part be not an interpolation, the general meaning seems to be that when patients grow worse under quack treatment, they change their doctor and hire another quack. So they both grow worse and lose money. They really want to get well to look after their business, but do not think of the right way to return to work again, *i. e.* of employing a qualified medical man.

[3] Or (reading *οὐ*) "on such occasions one must not be self-confident."

περὶ τούτου. μηδέποτε φιλονεικεῖν προσκυρέοντας ἑωυτοῖσι καὶ[1] κατασιλλαίνειν·[2] ὃ γὰρ ἂν[3] μεθ' ὅρκου ἐρέω, οὐδέποτε ἰητροῦ λογισμὸς φθονήσειεν ἂν ἑτέρῳ· ἀκιδνὸς[4] γὰρ ἂν φανείη· ἀλλὰ μᾶλλον οἱ ἀγχιστεύοντες ἀγοραίης ἐργασίης πρήσσουσι ταῦτα εὐμαρέως. καίτοι γε οὐδὲ ψευδέως κατα-
19 νενόηται· πάσῃ γὰρ εὐπορίῃ ἀπορίη ἔνεστι.

IX. Μετὰ τούτων δὲ πάντων μέγα ἂν τεκμήριον φανείη σὺν[5] τῇ οὐσίῃ τῆς τέχνης, εἴ τις καλῶς ἰητρεύων προσαγορεύσιος τοιαύτης μὴ ἀποσταίη, κελεύων τοῖσι νοσέουσι μηδὲν ὀχλεῖσθαι κατὰ διάνοιαν ἐν τῷ σπεύδειν ἀφικέσθαι ἐς καιρὸν σωτηρίης· ἡγεύμεθα γὰρ ἃ χρὴ ἐς τὴν[6] ὑγιείην. καὶ προστασσόμενός γε[7] οὐ διαμαρτήσει· αὐτοὶ μὲν γὰρ οἱ νοσέοντες διὰ τὴν ἀλγεινὴν διάθεσιν ἀπαυδέοντες ἑωυτούς τε . . .[8] μεταλλάσσουσι
10 τῆς ζωῆς· ὁ δ' ἐγκεχειρισμένος τὸν νοσέοντα, ἢν ἀποδείξῃ τὰ τῆς τέχνης ἐξευρήματα, σῴζων οὐκ[9] ἀλλοιῶν φύσιν, ἀποίσει τὴν παρεοῦσαν <ἀθυμίην>[10] ἢ τὴν παραυτίκα ἀπιστίην. ἡ γὰρ τοῦ ἀνθρώπου εὐεξίη φύσις τίς ἐστι φύσει περιπεποιημένη κίνησιν οὐκ ἀλλοτρίην, ἀλλὰ λίην γε[11]

[1] καὶ omitted in MSS.: inserted first by Littré, who also reads ἀλλήλοισι instead of ἑωυτοῖσι.

[2] κατασιλλαίνειν MSS. : κᾶτα σιλλαίνειν Ermerins.

[3] This ἂν is very strange with ἐρέω. Perhaps it is a repetition of the preceding two letters. But see p. 308. See also additional note, p. 332.

[4] One MS. has ἀσθενής.

[5] σὺν MSS. : omitted by Ermerins. See p. 308.

[6] ἃ χρὴ ἐς τὴν Littré : ἀχρηστίην MSS.

[7] So most MSS.: προστάσσων μὲν Ermerins.

[8] Littré, supposing that a participle is wanted, adds ἀπορρίπτοντες.

condemned in this matter.[1] Physicians who meet in consultation must never quarrel, or jeer at one another. For I will assert upon oath, a physician's reasoning should never be jealous of another. To be so will be a sign of weakness. Those who act thus lightly are rather those connected with the business of the market-place. Yet it is no mistaken idea to call in a consultant. For in all abundance there is lack.[2]

IX. With all these things it will appear strong evidence for the reality of the art if a physician, while skilfully treating the patient, does not refrain from exhortations not to worry in mind in the eagerness to reach the hour of recovery. For we physicians take the lead in what is necessary for health. And if he be under orders the patient will not go far astray. For left to themselves patients sink through their painful condition, give up the struggle and depart this life. But he who has taken the sick man in hand, if he display the discoveries of the art, preserving nature, not trying to alter it, will sweep away the present depression or the distrust of the moment. For the healthy condition of a human being is a nature that has naturally attained a movement, not alien but perfectly adapted, having

[1] *I. e.* that because a consultant is necessary the fault lies with the art of medicine.

[2] No matter how much help you have you can never have enough.

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[9] *οὐκ* MSS : *ἢ* Martinus in Foes.

[10] *ἐπικαρπίην* vulgate : *πικρίην* Littré. The true reading is probably a word with the meaning of *ἀθυμία*.

[11] *λίην γε* Littré : *λίην τε* MSS. : *ἰδίην* Ermerins.

εὐαρμοστεῦσαν, πνεύματί τε καὶ θερμασίῃ καὶ χυμῶν κατεργασίῃ, πάντη τε καὶ πάσῃ διαίτῃ καὶ τοῖσι σύμπασι δεδημιουργημένη, ἢν μή τι ἐκ γενετῆς ἢ ἀπ' ἀρχῆς ἔλλειμα ᾖ· ἢν δὲ γένηταί τι, ἐξιτήλου ἐόντος, πειρᾶσθαι ἐξομοιοῦν τῇ ὑποκειμένῃ· παρὰ γὰρ φύσιν τὸ μινύθημα καὶ διὰ χρόνου.

X. Φευκτέη δὲ καὶ θρύψις[1] ἐπικρατίδων διὰ προσκύρησιν ἀκέσιος, ὁδμή τε περίεργος· διὰ γὰρ ἱκανὴν ἀσυνηθείην[2] διαβολὴν κεκτήσει,[3] διὰ δὲ ὀλίγην, εὐσχημοσύνην· ἐν γὰρ μέρει πόνος ὀλίγος, ἐν πᾶσι ἱκανός. εὐχαρίην[4] δὲ οὐ περιαιρέω· ἀξίη γὰρ ἰητρικῆς προστασίης.

XI. Προσθέσιος δὲ δι' ὀργάνων καὶ σημαντικῶν ἐπιδείξιος, καὶ τῶν τοιουτοτρόπων μνήμην παρεῖναι.

XII. Ἦν δὲ καὶ εἵνεκεν ὁμίλου θέλῃς ἀκρόασιν ποιήσασθαι, οὐκ ἀγακλεῶς ἐπιθυμεῖς, μὴ μέντοι γε μετὰ μαρτυρίης ποιητικῆς· ἀδυναμίην γὰρ ἐμφαίνει φιλοπονίης·[5] ἀπαρνέομαι γὰρ ἐς χρῆσιν ἑτέρην φιλοπονίην μετὰ πόνου ἱστοριευμένην,[6] διὸ ἐν ἑωυτῇ μούνῃ αἵρεσιν ἔχουσαν[7] χαρίεσσαν· περιποιήσει γὰρ κηφῆνος μετὰ παραπομπῆς ματαιοκοπίην.[8]

[1] *θρύψις* conjecture of Triller : *τρίψις* vulgate.

[2] *ἀξυνεσίην* MSS. : *ξεινοσύνην* or *ξενίην* Triller : *ἀσυνηθείην* Kühn and Littré.

[3] *κεκτήσει* my emendation : *κέκτησαι* Littré, without comment.

[4] *εὐχαρίην* M : *εὐχαριστίην* other MSS. (apparently) and Littré. The dictionaries do not recognise *εὐχαρία*.

[5] *φιλοπονίης* MSS. : *φιλοπονίη* Littré.

produced it by means of breath, warmth and coction of humours, in every way, by complete regimen and by everything combined, unless there be some congenital or early deficiency. Should there be such a thing in a patient who is wasting, try to assimilate to the fundamental nature.[1] For the wasting, even of long standing, is unnatural.

X. You must also avoid adopting, in order to gain a patient,[2] luxurious headgear and elaborate perfume. For excess of strangeness will win you ill-repute, but a little will be considered in good taste, just as pain in one part is a trifle, while in every part it is serious. Yet I do not forbid your trying to please, for it is not unworthy of a physician's dignity.

XI. Bear in mind the employment of instruments and the pointing out of significant symptoms, and so forth.

XII. And if for the sake of a crowded audience you do wish to hold a lecture, your ambition is no laudable one, and at least avoid all citations from the poets, for to quote them argues feeble industry. For I forbid in medical practice an industry not pertinent to the art, and laboriously far-fetched,[3] and which therefore has in itself alone an attractive grace. For you will achieve the empty toil of a drone and a drone's spoils.[4]

[1] *I. e.* try to bring the patient back to his normal condition.
[2] Apparently, in order to increase your practice by fastidiousness in the matter of dress. But the expression is very strange, and should mean, "in order to effect a cure."
[3] See p. 308 [4] See p. 308.

[6] I suspect the form of this word, to which I can find no parallel. The meaning is that of *ἱστορῶ*.
[7] *ἔχουσαν* Littré : *ἐοῦσαν* MSS.
[8] So Littré after Weigel : MSS. apparently *ἑτοιμοκοπίην*.

XIII. Εὐκτέη δὲ καὶ διάθεσις ἐκτὸς ἐοῦσα ὀψιμαθίης· παρεόντων μὲν οὐδὲν ἐπιτελεῖ· ἀπεόντων δὲ μνήμη ἀνεκτή. γίνεται τοίνυν πάμμαχος ἀτυχίη, μετὰ λύμης[1] νεαρῆς, ἀφροντιστεῦσα εὐπρεπίης, ὁρισμοῖς τε καὶ ἐπαγγελίησιν, ὅρκοις τε παμμεγέθεσιν θεῶν εἵνεκεν, ἰητροῦ προστατέοντος νούσου, ἀναγνώσιος συνεχείης καταχήσιός τε ἰδιωτέων φιλαλυστέων λόγους ἐκ μεταφορῆς διαζηλευομένων,[2] καὶ πρὶν ἢ νούσῳ καταπορέωσιν ἠθροισμένων.[3] τῶν μὲν οὖν τοιούτων ὅποι ἂν καὶ ἐπιστατήσαιμι, οὐκ ἂν ἐπὶ θεραπείης συλλόγου αἰτήσαιμι ἂν θαρσαλέως βοηθείην·[4] ἱστορίης γὰρ εὐσχήμονος σύνεσις ἐν τούτοις διεσπασμένη.[5] τούτων οὖν δι' ἀνάγκην ἀσυνέτων ἐόντων, παρακελεύομαι χρησίμην εἶναι τὴν τρίβην, μεθυστέρησιν[6] δογμάτων ἱστορίης. τίς γὰρ ἐπιθυμεῖ δογμάτων μὲν πολυσχιδίην ἀτρεκέως ἐθέλων[7] ἱστορεῖν, μετὰ δὲ[8] χειροτριβίης ἀτρεμεότητα ;[9] διὸ παραινέω τούτοις λέγουσι μὲν προσέχειν, ποιέουσι δὲ ἐγκόπτειν.[10]

XIV. Συνεσταλμένης διαίτης μὴ μακρὴν

[1] λύμης Littré : λυμίης M : λοιμίης most MSS.

[2] διαζηλευομένων Zwinger : διαζηλευόμενον MSS. : διαζηλευομένου Littré.

[3] καταπορέω ξυνηθροισμένοι most MSS., the second hand of M having ξυνηθροισμένων : καταπορέωσιν ἠθροισμένοι Littré. The text is a combination of Littré's emendation and the reading of M.

[4] βοηθείην my emendation (anticipated by Foes) : βοηθεῖν Littré : βούσθην MSS.

[5] διεσπασμένη Ermerins : διεσπαρμένη MSS. : διεφθαρμένη Littré.

[6] μέθ' ὑστέρησιν MSS. : μὴ τὴν τήρησιν Littré. The dictionaries do not recognise μεθυστέρησις, but the present work is full of strange words.

XIII. A condition too is desirable free from the late-learner's faults. For his state accomplishes nothing that is immediate, and its remembrance of what is not before the eyes is but tolerable. So there arises a quarrelsome inefficiency, with headstrong outrage, that has no thought for what is seemly, while definitions, professions, oaths, great as far as the gods invoked are concerned,[1] come from the physician in charge of the disease, bewildered laymen being lost in admiration of flowery language spoken in continuous reading and instruction, crowding together even before they are troubled by a disease.[2] Wherever I may be in charge of a case, with no confidence should I call in such men to help as consultants. For in them comprehension of seemly learning is far to seek. Seeing then that they cannot but be unintelligent, I urge that experience is useful, the learning of opinions coming far after. For who is desirous and ambitious of learning truly subtle diversities of opinion, to the neglect of calm and practised skill? Wherefore I advise you to listen to their words but to oppose their acts.

XIV. When regimen has been restricted you must

[1] That is, the oaths frantically appeal to all the great gods.

[2] The construction and translation are uncertain. I believe that *ὁρισμοῖς* and the other datives are a Roman's efforts at rendering into Greek "ablatives of attendant circumstances," but *ἐκ μεταφορῆς* is puzzling, and can hardly be taken with *λόγους*. Perhaps it is a Latinism. Cf. "pastor ab Amphryso."

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[7] *ἐθέλων* Ermerins : *ἐθέλειν* MSS.

[8] *μετὰ δὲ* my emendation : *μήτε* most MSS : *μετὰ* M : *μή γε* Littré.

[9] *ἀτρεμεότητα* my emendation : *ἀτρεμεότητι* most MSS. : *ἀτρεμεώτατον* K.

[10] *ἐγκόπτειν* MSS. : *ἐγκύπτειν* Mack and Ermerins.

† ἐγχειρεῖν † τοῦ κάμνοντος χρονίην ἐπιθυμίην·[1] ἀνίστησι καὶ συγχωρίη ἐν χρονίῃ νούσῳ, ἢν τις προσέχῃ τυφλῷ τὸ δέον. ὡς μέγας φόβος φυλακτέος, καὶ χαρᾶς δεινότης. ἠέρος αἰφνιδίη ταραχὴ φυλακτέη.[2] ἀκμὴ ἡλικίης πάντα ἔχει χαρίεντα, ἀπόληξις δὲ τοὐναντίον. ἀσαφίη δὲ γλώσσης γίνεται ἢ διὰ πάθος, ἢ διὰ τὰ ὦτα, ἢ[3] πρὶν τὰ[4] πρότερα ἐξαγγεῖλαι ἕτερα ἐπιλαλεῖν, ἢ πρὶν τὸ διανενοημένον εἰπεῖν ἕτερα ἐπιδιανοεῖσθαι· τοῦτο[5] μὲν οὖν[6] ἄνευ πάθους ὁρατοῦ λελεγμένου μάλιστα συμβαίνει φιλοτεχνοῦσιν, ἡλικίης,[7] σμικροῦ ἐόντος τοῦ ὑποκειμένου, δύναμις ἐνίοτε παμπολλή. νούσου ἀταξίη[8] μῆκος σημαίνει· κρίσις δὲ ἀπόλυσις νούσου. σμικρὴ αἰτίη ἄκεσις γίνεται,[9] ἢν μή τι περὶ τόπον καίριον πάθῃ. διότι συμπάθησις ὑπὸ λύπης ἐοῦσα ὀχλεῖ, ἐξ ἑτέρου συμπαθείης τινὲς

[1] The reading and punctuation of this passage are hopeless. The vulgate joins the end of XIII with the beginning of XIV, and punctuates at *ἀνίστησι, νούσῳ* and *φυλακτέος*. *ἐγχειρεῖν* can scarcely be correct.

[2] So Littré: *καὶ χάριν* (*χάρα* second hand in M) *δι' ἧς ἐνότης ἀέρος* (or *ἠέρος*) *αἰφνιδίῃ ταραχῇ φυλακτέη* most MSS.

[3] *ἢ* added by Ermerins.

[4] *τὰ* Ermerins: *τε* MSS.

[5] *τοῦτο* Ermerins: *τὸ* MSS.

[6] *οὖν* second hand in M.

[7] *ἡλικίης* Littré: *ἡλικίη* vulgate.

[8] *ἀταξίη* Littré: *ἀταραξίη* MSS. Perhaps the scribe unconsciously wrote an Epicurean word. See p. 306.

[9] So second hand in M: *ἄκεσι* many MSS.: *λύεται* Littré and apparently M.

not suppress for long a long-standing desire of the patient.[1] In a chronic disease indulgence too helps to set a man on his feet again, if one pay the necessary attention to one who is blind.[2] As great fear is to be guarded against, so is excessive joy. A sudden disturbance of the air is also to be guarded against.[3] The prime of life has everything lovely, the decline has the opposite. Incoherence of speech comes from an affection, or from the ears, or from the speaker's talking of something fresh before he has uttered what was in his mind before, or from his thinking of fresh things before he has expressed what was in his thoughts before. Now this is a thing that happens without any "visible affection" so-called, mostly to those who are in love with their art. The power of youth, when the matter is trifling,[4] is sometimes supremely great. Irregularity in a disease signifies that it will be a long one. A crisis is the riddance of a disease. A slight cause turns into a cure unless the affection be in a vital part. Because[5] fellow-feeling at grief causes distress, some are distressed through the fellow-feeling

[1] Too strict a regimen may do harm by the patient's using up his strength in conquering his appetites. Some such verb as κατέχειν must be substituted for ἐγχειρεῖν.

[2] *I. e.* the patient does not know what is good for him.

[3] *I. e.* either (*a*) a draught or (*b*) a sudden change in the weather.

[4] Possibly, "when the patient is not a big man." ὑποκείμενον, can mean "patient" in later Greek.

[5] Possibly, "for the same reason that."

ὀχλεῦνται. καταύδησις λυπεῖ. φιλοπονίης κρα-
20 ταιῆς ὑποπαραίτησις.[1] † ἀλυώδης †[2] τόπος
21 ὀνησιφόρος.

[1] The text is here uncertain. Littré has φιλοπονίης κρατερῆς ὕπυ, παραίνεσις, ἀλέα, ᾠδή, τόπος ὀνησιφόρος, "pour l'excès de travail, encouragement, chaleur du soleil, chant, lieu salutaire," a not very plausible restoration, and could only mean "excess of diligence causes advice, etc."

[2] Foes apparently translated ἀλσώδης, perhaps rightly.

Additional Note.

Chapter VIII, ll. 14-16, p. 324: ὁ γὰρ . . . ἑτέρῳ. I should like to suggest (although I am not confident enough to print it in the text) that the right reading is :—

οὐδέποτε ἰητρὸς λογισμὸν φθονήσειεν ἄν.

"a physician will never grudge giving his reasoned opinion."

Such a reading fits in very well with the next sentence but one. It is only in the world of business that each man is for himself.

of another. Loud talking is painful. Overwork calls for gentle dissuasion.[1] A wooded[2] district benefits.

[1] ὑποπαραίτησις is not found in the dictionaries, but may be correct.

[2] ἀλυώδης is unmeaning, and I translate as though ἀλσώδης were in the text.

NUTRIMENT

INTRODUCTION

THE treatise *Nutriment* is unique. It deals with an interesting subject in an unusual manner, and, in spite of the limitations of Greek physiology, many valuable and interesting views are set forth.

Heraclitus held that matter is, like a stream, in a state of continuous change. His system contained other hypotheses,[1] but this was the most fruitful, and the one which commended itself most to his followers and to his successors.

A later Heraclitean, whether a professional doctor or not is uncertain, applied the theory of perpetual change to the assimilation of food by a living organism, and *Nutriment* is the result. He has copied the aphoristic[2] style and manner of his master, as well as the obscurity, with considerable success, and whole paragraphs might well be genuine fragments of Heraclitus.

The author's idea of digestion is far from easy to follow.

Apparently nutritive food is supposed to be dissolved in moisture, and thus to be carried to every part of the body, assimilating itself to bone, flesh, and so

[1] Some perhaps (*e. g.* the union of opposites) being more fundamental.

[2] It is interesting to note that the aphoristic style, which is a great aid to memory, came into vogue at a time when text-books first became necessary. It has its modern analogue in the "crammer's" analysis.

on, as it comes into contact with them. Air (breath) also is regarded as food, passing through the arteries from the heart, while the blood passes through the veins from the liver. But the function of blood is not understood; blood is, like milk, "what is left over" (πλεονασμός) when nourishment has taken place. Neither is the function of the heart understood, and its relation to the lungs is never mentioned.

The aspect of nutrition which appeals most to the writer is the combination of unity and multiplicity which it exhibits. Food is one; yet it has the power of becoming many things. Similarly the animal organism is one, with many parts vitally connected with the whole, so that they act in complete sympathy with it and with one another.

Food, says the writer, has "power" (δύναμις), and so has the body. This "power" seems to be the sum total of its properties, although these are not yet regarded as abstractions. It is one and many; one in its essence, many in its manifestations. But "power" in its various forms is manifested only in relationship to other things; it is not independent, being latent until called into action by a suitable environment. In modern language, the author feels that qualities are relations. Wine is good (or bad) in certain circumstances; so is milk and all other foods. All things are good or bad πρός τι (Chapters XIX and XLIV).

This theory of δύναμις with its insistence upon relativity helps in assigning a date to the document. A similar account of δύναμις is given in *Ancient Medicine,* the date of which is approximately 420 B.C. The theory of relativity, implied in the doctrine of

Heraclitus, was fully developed in one direction by Protagoras, who regarded knowledge as conditioned by (*i. e.* relative to) the percipient being. In *Nutriment* relativity is made to apply, not merely to the knowledge of properties, but to the properties themselves. Such an extension of the doctrine would probably be made somewhat later than the time of Protagoras, and we may with some confidence suppose that the author wrote about 400 B.C.

The first chapter of *Nutriment* distinguishes γένος from εἶδος after the Aristotelian manner. A similar distinction occurs in the *Parmenides* of Plato, and it need not prevent us from assigning a date as early as the end of the fifth century B.C.

In Chapter XLVIII mention is made of pulses, supposed to be the first occasion of such mention in Greek literature.[1] This fact, again, is no argument against an early date. The reference is quite general, and amounts to no more than the knowledge, to be found in several places in the Hippocratic *Corpus*,[2] that violent pulsations (of the temples and so forth) are characteristic of certain acute diseases.

It should be noticed that the doctrine of δύναμις described above is inconsistent with a post-Aristotelian date. Aristotle's doctrine is obviously a development of it, and it is clear how the earlier doctrine prepares the way for the later.

The Heraclitean love of anthithesis results in

[1] See Sir Clifford Allbutt, *Greek Medicine in Rome*, Chapter XIII, for the ancient doctrines about pulses. It is most remarkable that before about 340 B.C. their great importance was not realised.

[2] See Littré's index, *s.v. battements.*

many purely verbal contrasts, which render more obscure the natural obscurities of this little tract. Indeed the reader is often forced to the conclusion that the writer wished so to express himself that more than one interpretation might legitimately be put upon his words. In my paraphrase I have tried to give the most obvious meaning, although I have often felt that other meanings are almost equally possible.[1]

Nutriment is more important as a philosophical than as a medical document. The teaching of Heraclitus did not die out with his death; he had followers who emended and developed his theories, and one of these wrote *Nutriment* to bring a branch of physiology into the domain of philosophy. The tract is a striking proof of the difficulty of uniting philosophy and science, and of pursuing the latter on the methods of the former. Incidentally one may notice that it belongs to the period of eclecticism and reaction which followed the development of atomism.[2]

Nutriment was accepted as a genuine work of Hippocrates by Erotian, and a mutilated commentary on it passes under the name of Galen. Aulus Gellius (III. xvi), quotes it as a work of Hippocrates. There was another tradition in antiquity, referred to in two Paris MSS., that *Nutriment* was the work of Thessalus or of Herophilus. It is easy to understand how some found a difficulty in ascribing to the

[1] I wish to point out that Chapters I, III, V and VI are up to the present unsolved mysteries. Incidentally, I should like to mention that Chapter I shows that the history of the word *εἶδος* is not so simple as Professor A. E. Taylor makes out in *Varia Socratica*.

[2] See Burnet, *Early Greek Philosophy*, Chapter X.

author of *Epidemics* such a dissimilar book; indeed it is likely that the chief reason for assigning it to Hippocrates was its superficial likeness to *Aphorisms*.

MSS. AND EDITIONS.

The chief MSS. are A and M. *Nutriment* was edited several times in the sixteenth century, and interesting remarks on it are to be found in the following:

J. Bernays, *Heraklitische Briefe.*

A. Patin, *Quellenstudien zu Heraklit.*

See also Mewaldt in *Hermes,* xliv. 121, and, for Heracliteanism in the *Corpus,* C. Fredrich, *Hippokratische Untersuchungen.*

ΠΕΡΙ ΤΡΟΦΗΣ

I. Τροφὴ καὶ τροφῆς εἶδος μία καὶ πολλαί· μία μὲν ἡ γένος ἕν, εἶδος δὲ ὑγρότητι καὶ ξηρότητι· καὶ ἐν τούτοις ἰδέαι καὶ πόσον ἐστὶ καὶ ἕς τινα καὶ ἐς τοσαῦτα.

II. Αὔξει δὲ καὶ ῥώννυσι καὶ σαρκοῖ καὶ ὁμοιοῖ καὶ ἀνομοιοῖ τὰ ἐν ἑκάστοις κατὰ φύσιν τὴν ἑκάστου καὶ τὴν ἐξ ἀρχῆς δύναμιν.

III. Ὁμοιοῖ δὲ ἐς δύναμιν, ὅταν κρατήσῃ ἡ ἐπεισιοῦσα, καὶ ὅταν ἐπικρατῆται ἡ προϋπάρχουσα.[1]

IV. Γίγνεται δὲ καὶ ἐξίτηλος, ὁτὲ μὲν ἡ προτέρη ἐν χρόνῳ ἀπολυθεῖσα ἢ ἐπιπροστεθεῖσα, ὁτὲ δὲ ἡ ὑστέρη ἐν χρόνῳ ἀπολυθεῖσα ἢ ἐπιπροστεθεῖσα.

[1] This is practically the reading of A, the spelling only being emended. Littré has ὁμοιοῖ δὲ ἐς (φύσιν καὶ) δύναμιν, ὁκόταν κρατέῃ μὲν ἡ ἐπεισιοῦσα, ἐπικρατέῃ δὲ ἡ προϋπάρχουσα. The explanation of Galen scarcely helps matters: ἡ μεν οὖν φύσις ὁμοιοῖ, ὅταν κρατέῃ καὶ πέττῃ τὴν τροφὴν τὴν ἐπεισιοῦσαν· καὶ δύναμις ἡ προϋπάρχουσα ἐπικρατέει καὶ κατεργάζεται καὶ ἀλλοιοῖ καὶ ὁμοιοῖ καὶ τὸ τέλος τρέφει. It makes ἡ ἐπεισιοῦσα the object of κρατέῃ; our texts make it the subject.

(i) Nutriment is generically one, but it has many varieties, which differ according to the amount of moisture in them. These varieties have forms of their own and differ, the differences depending on quantity, the parts to be nourished and the number of parts to be nourished.

(ii) It produces increase, strength, flesh, similarity, dissimilarity, among the several parts of the body, according to

NUTRIMENT

I. NUTRIMENT and form of nutriment, one and many. One, inasmuch as its kind is one; form varies with moistness or dryness. These foods too have their forms[1] and quantities; they are for certain things, and for a certain number of things.

II. It increases, strengthens, clothes with flesh, makes like, makes unlike, what is in the several parts, according to the nature of each part and its original power.

III. It makes into the likeness of a power, when the nutriment that comes in has the mastery, and when that is mastered which was there to begin with.

IV. It also loses its qualities: sometimes the earlier nutriment, when in time it has been liberated or added, sometimes the later, when in time it has been liberated or added.

[1] Or "figures."

(*a*) the nature of each part and (*b*) the power it had to begin with.

(iii) It assimilates into this power when the new nutriment has the mastery and the substance already in the part is overcome. (In this case, apparently, the part changes or decays.)

(iv) Nutriment, in both the stages of nutrition, the earlier and the later, may lose its power to nourish, either because it is evacuated or because it is incorporated.

V. Ἀμαυροῖ δὲ ἑκατέρας ἐν χρόνῳ καὶ μετὰ χρόνον ἡ ἔξωθεν συνεχὴς ἐπεισκριθεῖσα καὶ ἐπὶ πολλὸν χρόνον στερεμνίως πᾶσι τοῖς μέλεσι διαπλεκεῖσα.

VI. Καὶ τὴν μὲν ἰδίην ἰδέην ἐξέβλαστησε· <μεταβάλλει τε τὴν ἀρχαίην καὶ καταφέρεται· τρέφει δὲ πεττομένη·> τὴν δὲ προτέρην <ἰδέην ἐξαλλάσσει> ἔστιν ὅτε καὶ τὰς προτέρας ἐξημαύρωσεν.[1]

VII. Δύναμις δὲ τροφῆς ἀφικνεῖται καὶ ἐς ὀστέον καὶ πάντα τὰ μέρεα αὐτοῦ, καὶ ἐς νεῦρον καὶ ἐς φλέβα καὶ ἐς ἀρτηρίην καὶ ἐς μῦν καὶ ἐς ὑμένα καὶ σάρκα καὶ πιμελὴν καὶ αἷμα καὶ φλέγμα καὶ μυελὸν καὶ ἐγκέφαλον καὶ νωτιαῖον καὶ τὰ ἐντοσθίδια καὶ πάντα τὰ μέρεα αὐτῶν, καὶ δὴ καὶ ἐς θερμασίην καὶ πνεῦμα καὶ ὑγρασίην.

VIII. Τροφὴ δὲ τὸ τρέφον, τροφὴ δὲ τὸ οἷον, τροφὴ δὲ τὸ μέλλον.

IX. Ἀρχὴ δὲ πάντων μία καὶ τελευτὴ πάντων μία, καὶ ἡ αὐτὴ τελευτὴ καὶ ἀρχή.

[1] The parts within brackets are omitted in MSS. but restored by Littré from Galen. It is far from certain that this restoration is right, as the inserted clauses read like glosses and break the thread of the thought. Littré too has ἀρχαίαν and ἐξαλλάττει.

(v) Nutriment in both stages cannot hold out long against nutriment which has firmly established itself in all the limbs by constant reinforcement from without, *i. e.* after middle-age nutrition gradually fails. Another possible explanation is that there is a contrast between permanent tissues and temporary fuel, which is the source of heat and energy.

V. Both are weakened in time and after a time by the nutriment from without which has continuously entered in, and for a long time firmly has interwoven itself with all the limbs.

VI. And it sends forth shoots of its own proper form. It changes the old form and descends; it nourishes as it is digested. Sometimes it alters the earlier form, and completely obscures the former ones.

VII. Power of nutriment reaches to bone and to all the parts of bone, to sinew, to vein, to artery, to muscle, to membrane, to flesh, fat, blood, phlegm, marrow, brain, spinal marrow, the intestines and all their parts; it reaches also to heat, breath, and moisture.

VIII. Nutriment is that which is nourishing; nutriment is that which is fit to nourish; nutriment is that which is about to nourish.

IX. The beginning of all things is one and the end of all things is one, and the end and beginning are the same.

(vi) Fat in nutriment produces fat in the various parts, and so on. As nutriment descends it changes its form, and nourishes as digestion goes on. Sometimes nutriment changes the form or forms that were before it, *e. g.* excess of moisture in nutriment might diminish the dryness in any part. The meaning of this chapter is very doubtful.

(vii) Nutriment pervades the whole system.

(viii) It is used in three senses, representing three stages in the process of assimilation.

(ix) Yet strictly speaking there are no separate stages. Nourishing is a continuous process; the end of nourishment is the beginning of *e. g.* flesh or bone.

X. Καὶ ὅσα κατὰ μέρος ἐν τροφῇ καλῶς καὶ κακῶς διοικεῖται, καλῶς μὲν ὅσα προείρηται, 3 κακῶς δὲ ὅσα τούτοις τὴν ἐναντίην ἔχει τάξιν.

XI. Χυλοὶ ποικίλοι καὶ χρώμασι καὶ δυνάμεσι καὶ ἐς βλαβὴν καὶ ἐς ὠφελίην, καὶ οὔτε βλάπτειν οὔτε ὠφελεῖν, καὶ πλήθει καὶ ὑπερβολῇ καὶ 4 ἐλλείψει καὶ διαπλοκῇ ὧν μέν, ὧν δὲ οὔ.

XII. Καὶ πάντων ἐς θερμασίην βλάπτει καὶ ὠφελεῖ, ἐς ψύξιν βλάπτει καὶ ὠφελεῖ, ἐς δύναμιν 3 βλάπτει καὶ ὠφελεῖ.

XIII. Δυνάμιος δὲ ποικίλαι φύσιες.

XIV. Χυμοὶ φθείροντες καὶ ὅλον καὶ μέρος καὶ ἔξωθεν καὶ ἔνδοθεν, αὐτόματοι οὐκ αὐτόματοι, ἡμῖν μὲν αὐτόματοι αἰτίῃ δὲ οὐκ αὐτόματοι. αἰτίης δὲ τὰ μὲν δῆλα τὰ δὲ ἄδηλα, καὶ τὰ μὲν 5 δυνατὰ τὰ δὲ ἀδύνατα.

XV. Φύσις ἐξαρκεῖ πάντα πᾶσι.

XVI. Ἐς δὲ ταύτην, ἔξωθεν μὲν κατάπλασμα, κατάχρισμα, ἄλειμμα, γυμνότης ὅλου καὶ μέρεος καὶ σκέπη ὅλου καὶ μέρεος, θερμασίη καὶ ψύξις κατὰ τὸν αὐτὸν λόγον, καὶ στύψις καὶ ἕλκωσις καὶ δηγμὸς καὶ λίπασμα· ἔνδοθεν δὲ τινά τε τῶν εἰρημένων, καὶ ἐπὶ τούτοις αἰτίη ἄδηλος καὶ μέρει 7 καὶ ὅλῳ, τινί τε καὶ οὔ τινι.

(x) What has been said of the whole body applies also to individual parts.

(xi) The health of the body depends upon the combination of its various juices.

(xii) Nutriment affects the temperature of the body, for well or ill, as well as the body's power.

(xiii) A power has many different natures as its factors, *i. e.* it is the sum total of a thing's properties.

(xiv) Diseases, local or general, depend upon the humours.

X. And all the particular details in nourishment are managed well or ill; well if as aforesaid, ill if ordered in the opposite way to these.

XI. Juices varied in colours and in powers, to harm or to help, or neither to harm nor to help, varied in amount, excess or defect, in combination of some but not of others.

XII. And to the warming of all it harms or helps, to the cooling it harms or helps, to the power it harms or helps.

XIII. Of power varied natures.

XIV. Humours corrupting whole, part, from without, from within, spontaneous, not spontaneous; spontaneous for us, not spontaneous for the cause. Of the cause, part is clear, part is obscure, part is within our power and part is not.

XV. Nature is sufficient in all for all.

XVI. To deal with nature from without: plaster, anointing, salve, uncovering of whole or part, covering of whole or part, warming or cooling similarly, astriction, ulceration, biting,[1] grease; from within: some of the aforesaid, and in addition an obscure cause in part or whole, in some cases but not in all.

[1] Apparently, such things as a mustard plaster.

They have a definite cause, but as far as we are concerned they are spontaneous. As to this cause, part is known, part is unknown; partly we can prevent disease, partly we cannot.

(xv) Nature is powerful enough to be supreme in both physiological and pathological processes.

(xvi) There are various ways of assisting Nature in her efforts to expel disease.

XVII. Ἀποκρίσιες κατὰ φύσιν, κοιλίης, οὔρων, ἱδρῶτος, πτυάλου, μύξης, ὑστέρης, καθ' αἱμορροϊδα, θύμον, λέπρην, φῦμα, καρκίνωμα, ἐκ ῥινῶν, ἐκ πλεύμονος, ἐκ κοιλίης, ἐξ ἕδρης, ἐκ καυλοῦ, κατὰ φύσιν καὶ παρὰ φύσιν. αἱ διακρίσιες τούτων ἄλλοισι πρὸς ἄλλον λόγον ἄλλοτε καὶ ἀλλοίως. μία φύσις ἐστὶ ταῦτα πάντα καὶ οὐ μία· πολλαὶ φύσιές εἰσι ταῦτα πάντα καὶ μία.

XVIII. Φαρμακείη ἄνω καὶ κάτω, οὔτε ἄνω οὔτε κάτω.

XIX. Ἐν τροφῇ φαρμακείη ἄριστον, ἐν τροφῇ φαρμακείη φλαῦρον, φλαῦρον καὶ ἄριστον πρός τι.

XX. Ἕλκος, ἐσχάρη, αἷμα, πύον, ἰχώρ, λέπρη, πίτυρον, ἄχωρ, λειχήν, ἀλφός, ἔφηλις, ὁτὲ μὲν βλάπτει, ὁτὲ δὲ ὠφελεῖ, ὁτὲ δὲ οὔτε βλάπτει οὔτε ὠφελεῖ.

XXI. Τροφὴ οὐ τροφή, ἢν μὴ δύνηται· μὴ τροφὴ τροφή, ἢν οἷόν τε ᾖ τρέφεσθαι. οὔνομα τροφή, ἔργον δὲ οὐχί· ἔργον τροφή, οὔνομα δὲ οὐχί.[1]

XXII. Ἐς τρίχας καὶ ἐς ὄνυχας καὶ ἐς τὴν ἐσχάτην ἐπιφανείην ἔνδοθεν ἀφικνεῖται· ἔξωθεν τροφὴ ἐκ τῆς ἐσχάτης ἐπιφανείης ἐνδοτάτω ἀφικνεῖται.

[1] The text is Littré's, being a combination of A and the vulgate.

(xvii) The various secretions from the various parts of the body.

(xviii) Purging may be carried out by purges in the ordinary sense, by emetics, or by any other means of expulsion from the body.

XVII. Secretions in accordance with nature, by the bowels, urine, sweat, sputum, mucus, womb, through hemorrhoid, wart, leprosy, tumour, carcinoma, from nostrils, lungs, bowels, seat, penis, in accordance with nature or contrary to nature. The peculiar differences in these things depend on differences in the individual, on times and on methods. All these things are one nature and not one. All these things are many natures and one nature.

XVIII. Purging upward or downward, neither upward nor downward.

XIX. In nutriment purging excellent, in nutriment purging bad; bad or excellent according to circumstances.

XX. Ulceration, burn-scab, blood, pus, lymph, leprosy, scurf, dandruff, scurvy, white leprosy, freckles, sometimes harm and sometimes help, and sometimes neither harm nor help.

XXI. Nutriment not nutriment if it have not its power. Not nutriment nutriment if it can nourish. Nutriment in name, not in deed; nutriment in deed, not in name.

XXII. It travels from within to hair, nails, and to the extreme surface; from without nutriment travels from the extreme surface to the innermost parts.

(xix) The value of purging depends upon circumstances.

(xx) The extraordinary means of evacuating morbid humours (abscessions) may do good, harm, or neither.

(xxi) The only test of nutriment is power of nourishing.

(xxii) There is a circulation of nutriment from within outwards and *vice versa*.

XXIII. Σύρροια μία, σύμπνοια μία, συμπαθέα πάντα. κατὰ μὲν οὐλομελίην πάντα, κατὰ μέρος δὲ τὰ ἐν ἑκάστῳ μέρει μέρεα πρὸς τὸ ἔργον.

XXIV. Ἀρχὴ μεγάλη ἐς ἔσχατον μέρος ἀφικνεῖται· ἐξ ἐσχάτου μέρεος ἐς ἀρχὴν μεγάλην ἀφικνεῖται· μία φύσις εἶναι καὶ μὴ εἶναι.

XXV. Νούσων δὲ διαφοραὶ ἐν τροφῇ, ἐν πνεύματι, ἐν θερμασίῃ, ἐν αἵματι, ἐν φλέγματι, ἐν χολῇ, ἐν χυμοῖσιν, ἐν σαρκί, ἐν πιμελῇ, ἐν φλεβί, ἐν ἀρτηρίῃ, ἐν νεύρῳ, μυί, ὑμένι, ὀστέῳ, ἐγκεφάλῳ, νωτιαίῳ μυελῷ, στόματι, γλώσσῃ, στομάχῳ, κοιλίῃ, ἐντέροισι, φρεσί, περιτοναίῳ, ἥπατι, σπληνί, νεφροῖς, κύστει, μήτρῃ, δέρματι. ταῦτα πάντα καὶ καθ' ἓν καὶ κατὰ μέρος. μέγεθος αὐτῶν μέγα καὶ οὐ μέγα.

XXVI. Τεκμήρια, γαργαλισμός, ὀδύνη, ῥῆξις, γνώμη,[1] ἱδρώς, οὔρων ὑπόστασις, ἡσυχίη, ῥιπτασμός, ὄψιος στάσιες, φαντασίαι, ἴκτερος, λυγμοί, ἐπιληψίη, αἷμα ὁλοσχερές,[2] ὕπνος, καὶ ἐκ τούτων καὶ τῶν ἄλλων τῶν κατὰ φύσιν, καὶ ὅσα ἄλλα τοιουτότροπα ἐς βλάβην καὶ ἐς ὠφελίην ὁρμᾷ· πόνοι ὅλου καὶ μέρεος μεγέθους σημεῖα, τοῦ μὲν ἐς τὸ μᾶλλον, τοῦ δὲ ἐς τὸ ἧσσον, καὶ ἀπ' ἀμφοτέρων ἐς τὸ μᾶλλον καὶ ἀπ' ἀμφοτέρων ἐς τὸ ἧσσον.

[1] A reads *γνώμης*, which must be taken with *ῥῆξις*—an unusual phrase for delirium.

[2] *ὁλοσχερές*: E has *ὁλοσχερής*, which must be taken with *ὕπνος*, "unbroken sleep."

(xxiii) All parts of the body are in sympathy ; the body is an organism.

(xxiv) The various forms of nutriment when in the body

XXIII. Conflux one, conspiration one, all things in sympathy; all the parts as forming a whole, and severally the parts in each part, with reference to the work.

XXIV. The great beginning travels to the extreme part; from the extreme part there is travelling to the great beginning. One nature to be and not to be.

XXV. Differences of diseases depend on nutriment, on breath, on heat, on blood, on phlegm, on bile, on humours, on flesh, on fat, on vein, on artery, on sinew, muscle, membrane, bone, brain, spinal marrow, mouth, tongue, oesophagus, stomach, bowels, midriff, peritoneum, liver, spleen, kidneys, bladder, womb, skin. All these things both as a whole and severally. Their greatness great and not great.

XXVI. Signs: tickling, ache, rupture, mind, sweat, sediment in urine, rest, tossing, condition[1] of the eyes, imaginations, jaundice, hiccoughs, epilepsy, blood entire, sleep, from both these and all other things in accordance with nature, and everything else of a similar nature that tends to harm or help. Pains of the whole or of a part, indications of severity: of the one, greater severity, of the other, less, and from both come signs of greater severity, and from both come signs of less.

[1] Or, "staring."

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are merely stages in the process of perpetual change. Being and not-being are one and the same.

(xxv) Differences in diseases depend upon the various constituents and parts of the body, whether the disease is general or local. The importance of organs in this respect is not proportional to their size.

(xxvi) Where the physician is to look for symptoms.

XXVII. Γλυκύ οὐ γλυκύ, γλυκὺ ἐς δύναμιν οἷον ὕδωρ, γλυκὺ ἐς γεῦσιν οἷον μέλι· σημεῖα ἑκατέρων, ἕλκεα, ὀφθαλμοὶ καὶ γεύσιες, καὶ ἐν τούτοις τὸ μᾶλλον καὶ τὸ ἧσσον· γλυκὺ ἐς τὴν ὄψιν καὶ ἐν χρώμασι καὶ ἐν ἄλλῃσι μίξεσι, γλυκὺ
6 μᾶλλον καὶ ἧττον.

XXVIII. Ἀραιότης σώματος ἐς διαπνοίην οἷς πλέον ἀφαιρεῖται ὑγιεινόν· πυκνότης σώματος ἐς διαπνοίην οἷς ἔλασσον ἀφαιρεῖται νοσηλόν· οἱ διαπνεόμενοι καλῶς ἀσθενέστεροι καὶ ὑγιεινότεροι καὶ εὐανάσφαλτοι, οἱ διαπνεόμενοι κακῶς πρὶν ἢ νοσεῖν ἰσχυρότεροι, νοσήσαντες δὲ δυσανά-
7 σφαλτοι· ταῦτα δὲ καὶ ὅλῳ καὶ μέρει.

XXIX. Πλεύμων ἐναντίην σώματος τροφὴν
2 ἕλκει, τὰ δ' ἄλλα πάντα τὴν αὐτήν.

XXX. Ἀρχὴ τροφῆς πνεύματος, ῥῖνες, στόμα, βρόγχος, πλεύμων, καὶ ἡ ἄλλη διαπνοίη· ἀρχὴ τροφῆς καὶ ὑγρῆς καὶ ξηρῆς, στόμα, στόμαχος, κοιλίη. ἡ δὲ ἀρχαιοτέρη τροφὴ διὰ τοῦ ἐπι-
5 γαστρίου, ἢ ὁ[1] ὀμφαλός.

XXXI. Ῥίζωσις φλεβῶν ἦπαρ, ῥίζωσις ἀρτηριῶν καρδίη· ἐκ τούτων ἀποπλανᾶται ἐς πάντα
3 αἷμα καὶ πνεῦμα, καὶ θερμασίη διὰ τούτων φοιτᾷ.

[1] Most MSS. read ὀμφαλός: A prefixes ἡ, and Littré alters to ἦ. Ermerins adds ὁ, as in the text.

(xxvii) Sweetness is relative, whether it be the potentially sweet, like water, or that which is sweet to taste, like honey. Either kind of sweetness can be tested by the effects of a substance on sores, the eyes, and the sense of taste, which can also distinguish degrees. Sweetness, in varying degrees, can appeal to the sense of sight, being aroused by colours and other beautiful combination .

XXVII. Sweet, not sweet; sweet in power, like water, sweet to the taste, like honey. Signs of either are sores, eyes and tastings, which can also distinguish degrees. Sweet to sight, in colours and in combinations generally, sweet to a greater or less degree.

XXVIII. Porousness of a body for transpiration healthy for those from whom more is taken; denseness of body for transpiration unhealthy for those from whom less is taken. Those who transpire freely are weaker, healthier, and recover easily; those who transpire hardly are stronger before they are sick, but on falling sick they make difficult recovery. These for both whole and part.

XXIX. The lungs draw a nourishment which is the opposite of that of the body, all other parts draw the same.

XXX. Beginning of nutriment of breath, nostrils, mouth, throat, lungs, and the transpiratory system generally. Beginning of nutriment, both wet and dry, mouth, oesophagus, stomach. The more ancient nutriment, through the epigastrium, where the navel is.

XXXI. Root of veins, liver; root of arteries, heart. Out of these travel to all parts blood and breath, and heat passes through them.

(xxviii) The effects upon health of the porousness of the body.

(xxix) The lungs only are fed by air.

(xxx) The doors by which breath and other food enter the body.

(xxxi) The veins, starting from the liver, carry blood and heat; the arteries, starting from the heart, carry breath and heat.

XXXII. Δύναμις μία καὶ οὐ μία, ᾗ πάντα ταῦτα καὶ τὰ ἑτεροῖα διοικεῖται, ἡ μὲν ἐς ζωὴν ὅλου καὶ μέρεος, ἡ δὲ ἐς αἴσθησιν ὅλου καὶ
4 μέρεος.[1]

XXXIII. Γάλα τροφή, οἷς γάλα τροφὴ κατὰ φύσιν, ἄλλοισι δὲ οὐχί, ἄλλοισι δὲ οἶνος τροφή, καὶ ἄλλοισιν οὐχί, καὶ σάρκες καὶ ἄλλαι ἰδέαι τροφῆς πολλαί, καὶ κατὰ χώρην καὶ κατ'
5 ἐθισμόν.[2]

XXXIV. Τρέφεται δὲ τὰ μὲν ἐς αὔξησιν καὶ ἐς τὸ εἶναι, τὰ δὲ ἐς τὸ εἶναι μοῦνον, οἷον γέροντες, τὰ δὲ πρὸς τούτῳ[3] καὶ ἐς ῥώμην. διάθεσις ἀθλητικὴ οὐ φύσει· ἕξις ὑγιεινὴ κρείσσων ἐν
5 πᾶσιν.

XXXV. Μέγα τὸ πόσον εὐστόχως ἐς δύναμιν
2 συναρμοσθέν.

XXXVI. Γάλα καὶ αἷμα τροφῆς πλεονασμός.

XXXVII. Περίοδοι ἐς πολλὰ σύμφωνοι, ἐς ἔμβρυον ἐς τὴν τούτου τροφήν. αὗτις δ' ἄνω
3 ῥέπει ἐς γάλα καὶ ἐς τροφὴν βρέφεος.

XXXVIII. Ζωοῦται τὰ μὴ ζῷα, ζωοῦται τὰ
2 ζῷα, ζωοῦται τὰ μέρεα τῶν ζώων.

[1] ἡ to μέρεος omitted by A, probably because of μέρεος preceding.

[2] κατ' before ἐθισμόν added by Ermerins. The text of this chapter is mainly Littré's, the MSS. showing some confusion in the arrangement of the words.

[3] πρὸς τούτων MSS.: πρὸς τούτῳ Ermerins.

(xxxii) The power of life is one; but there are many powers of sensation—the power of feeling generally and the powers of the sense organs.

(xxxiii) Foods do, or do not, nourish according to the differences between individuals, their habits, and their homes.

XXXII. Power one, and not one, by which all these things and those of a different sort are managed; one for the life of whole and part, not one for the sensation of whole and part.

XXXIII. Milk nutriment, for those to whom milk is a natural nutriment, but for others it is not. For some wine is nutriment, for others not. So with meats and the other many forms of nutriment, the differences being due to place and habit.

XXXIV. Nourishment is sometimes into growth and being, sometimes into being only, as is the case with old men; sometimes in addition it is into strength. The condition of the athlete is not natural. A healthy state is superior in all.

XXXV. It is a great thing successfully to adapt quantity to power.

XXXVI. Milk and blood are what is left over from nutriment.

XXXVII. Periods generally harmonise for the embryo and its nutriment; and again nutriment tends upwards to milk and the nourishment of the baby.

XXXVIII. Inanimates get life, animates get life, the parts of animates get life.

(xxxiv) Nutriment may give (*a*) being (*b*) increase (*c*) strength. The condition of an athlete is unnatural, but a healthy habit of body (constitution ?) is in every way superior.

(xxxv) It is important to harmonise amount of food with power of digestion.

(xxxvi) What is left over after nourishment is complete forms milk or blood.

(xxxvii) At the proper season, a mother forms nutriment for (*a*) embryo (*b*) child.

(xxxviii) Life is something which can come to inanimate matter, to animals, or to the limbs of animals. It is, in fact, a force which can invade *any* matter.

XXXIX. Φύσιες πάντων ἀδίδακτοι.

XL. Αἷμα ἀλλότριον ὠφέλιμον, αἷμα ἴδιον ὠφέλιμον, αἷμα ἀλλότριον βλαβερόν, αἷμα ἴδιον βλαβερόν, χυμοὶ ἴδιοι βλαβεροί, χυμοὶ ἀλλότριοι βλαβεροί, χυμοὶ ἀλλότριοι συμφέροντες, χυμοὶ ἴδιοι συμφέροντες, τὸ σύμφωνον διάφωνον, τὸ διάφωνον σύμφωνον, γάλα ἀλλότριον ἀστεῖον, γάλα ἴδιον φλαῦρον, γάλα ἀλλότριον βλαβερόν,
8 γάλα ἴδιον ὠφέλιμον.

XLI. Σιτίον νέοις ἀκροσαπές, γέρουσιν ἐς τέλος
2 μεταβεβλημένον, ἀκμάζουσιν ἀμετάβλητον.

XLII. Ἐς τύπωσιν λε' ἠέλιοι, ἐς κίνησιν ο', ἐς τελειότητα σι'· ἄλλοι, ἐς ἰδέην με', ἐς κίνησιν ς', ἐς ἔξοδον σο'· ἄλλοι, ν' ἐς ἰδέην, ἐς πρῶτον ἅλμα ρ', ἐς τελειότητα τ'. ἐς διάκρισιν μ', ἐς μετάβασιν π', ἐς ἔκπτωσιν σμ'. οὐκ ἔστι καὶ ἔστι. γίνεται δὲ ἐν τούτοις καὶ πλείω καὶ ἐλάσσω, καὶ καθ' ὅλον καὶ κατὰ μέρος, οὐ πολλὸν δὲ καὶ
8 πλείω πλείω καὶ ἐλάσσω ἐλάσσω.[1]

[1] The MS. A mentions only three cases, as does Galen. Littré, however, gives the fourth case (that of the tenth-month child) from the other MSS. and the reference in Aulus Gellius III. xvi. The last two lines appear in various forms in the MSS. The text is that of Aulus Gellius.

(xxxix) The natures of various things act instinctively. Or, if *πάντων* depends upon *ἀδίδακτοι*, "are instinctive in every way."

(xl) The effects of a mother's humours upon embryo, and of mother's or nurse's milk upon child, vary according to circumstances.

XXXIX. The natures of all are untaught.

XL. Blood of another is useful, one's own blood is useful; blood of another is harmful, one's own blood is harmful; one's own humours are harmful, humours of another are harmful; humours of another are beneficial, one's own humours are beneficial; the harmonious is unharmonious, the unharmonious is harmonious; another's milk is good, one's own milk is bad; another's milk is harmful, one's own milk is useful.

XLI. Food for the young partly digested, for the old completely changed, for adults unchanged.

XLII. For formation, thirty-five days; for movement, seventy days; for completion, two hundred and ten days. Others, for form, forty-five days; for motion, ninety days; for delivery, two hundred and seventy days. Others, fifty for form; for the first leap, one hundred; for completion, three hundred days. For distinction of limbs, forty; for shifting, eighty; for detachment, two hundred and forty days. It is not and is. There are found therein both more and less, in respect of both the whole and the parts, but the more is not much more, and the less not much less.

(xli) How far food should be prepared for digestion in the case of (*a*) the young (*b*) the old (*c*) the middle-aged.

(xlii) The periods between conception, formation, movement and birth. The embryo is and is not. The periods may vary slightly.

XLIII. Ὀστέων τροφὴ ἐκ κατήξιος, ῥινὶ δὶς πέντε, γνάθῳ καὶ κληῖδι καὶ πλευρῇσι διπλάσιαι, πήχει τριπλάσιαι, κνήμῃ καὶ βραχίονι τετραπλάσιαι, μηρῷ πενταπλάσιαι, καὶ εἴ τι ἐν τούτοις δύναται πλέον ἢ ἔλασσον.

XLIV. Αἷμα ὑγρὸν καὶ αἷμα στερεόν. αἷμα ὑγρὸν ἀστεῖον, αἷμα ὑγρὸν φλαῦρον· αἷμα στερεὸν ἀστεῖον, αἷμα στερεὸν φλαυρόν· πρός τι πάντα φλαῦρα καὶ πάντα ἀστεῖα.

XLV. Ὁδὸς ἄνω κάτω.

XLVI. Δύναμις τροφῆς κρέσσων ἢ ὄγκος, ὄγκος τροφῆς κρέσσων ἢ δύναμις, καὶ ἐν ὑγροῖς καὶ ἐν ξηροῖς.

XLVII. Ἀφαιρεῖ καὶ προστίθησιν οὐ τωὐτό, τῷ μὲν ἀφαιρεῖ, τῷ δὲ προστίθησι τωὐτό.[1]

XLVIII. Φλεβῶν διασφύξιες καὶ ἀναπνοὴ πλεύμονος καθ' ἡλικίην, καὶ σύμφωνα καὶ διάφωνα, καὶ νούσου καὶ ὑγιείης σημεῖα, καὶ ὑγιείης μᾶλλον ἢ νούσου καὶ νούσου μᾶλλον ἢ ὑγιείης· τροφὴ γὰρ καὶ πνεῦμα.

XLIX. Ὑγρὴ τροφὴ εὐμετάβλητος μᾶλλον ἢ ξηρή· ξηρὴ τροφὴ εὐμετάβλητος μᾶλλον ἢ ὑγρή· ἡ δυσαλλοίωτος δυσεξανάλωτος, ἡ εὐπρόσθετος εὐεξανάλωτος.

[1] A omits τῷ μὲν . . . τωὐτό.

(xliii) The periods which elapse before a bone unites.

(xliv) Good and bad are relative terms; even liquid and solid blood are good or bad according to circumstances.

(xlv) The alimentary canal is like the "road up and down" of Heraclitus.

XLIII. Nutriment of bones after breaking; for the nostril, twice five; for jaw, collar-bone and ribs, twice this; for the fore-arm, thrice; for the leg and upper-arm, four times; for the thigh, five times; there may be, however, in these a little more or less.

XLIV. Blood is liquid and blood is solid. Liquid blood is good, liquid blood is bad. Solid blood is good, solid blood is bad. All things are good or bad relatively.

XLV. The way up, down.

XLVI. Power of nutriment superior to mass; mass of nutriment superior to power; both in moist things and in dry.

XLVII. It takes away and adds not the same thing; it takes away from one, and adds to another, the same thing.

XLVIII. Pulsations of veins and breathing of the lungs according to age, harmonious and unharmonious, signs of disease and of health, and of health more than of disease, and of disease more than of health. For breath too is nutriment.

XLIX. Liquid nutriment more easily changed than solid; solid nutriment more easily changed than liquid. That which is hardly altered is hard of digestion, and that which is easily added is easy of digestion.

(xlvi) The power of nutriment is not in proportion to its bulk.

(xlvii) What is taken from food and added to bodily parts is not the same thing, as the form changes in the process; yet it is in a sense the same matter.

(xlviii) Varieties of pulse and of respiration are signs of health and disease, particularly of the latter.

(xlix) Solid or liquid foods are more or less digestible according to circumstances.

L. Καὶ ὁκόσοι ταχείης προσθέσιος δέονται, ὑγρὸν ἴημα ἐς ἀνάληψιν δυνάμιος κράτιστον· ὁκόσοι δὲ ἔτι ταχυτέρης, δι' ὀσφρήσιος. ὁκόσοι δὲ βραδυτέρης προσθέσιος δέονται, στερεὴ τροφή.

LI. Μῦες στερεώτεροι δυσέκτηκτοι <μᾶλλον[1]> τῶν ἄλλων, παρὲξ ὀστέου καὶ νεύρου· δυσμετάβλητα τὰ γεγυμνασμένα, κατὰ γένος αὐτὰ ἑωυτῶν ἰσχυρότερα ἐόντα, διὰ τοῦτο αὐτὰ ἑωυτῶν δυστηκτότερα.

LII. Πύον τὸ ἐκ σαρκός· πυῶδες τὸ ἐξ αἵματος καὶ ἐξ ἄλλης ὑγρασίης· πύον τροφὴ ἕλκεος· πυῶδες τροφὴ φλεβός, ἀρτηρίης.

LIII. Μυελὸς τροφὴ ὀστέου, διὰ τοῦτο ἐπιπωροῦται.

LIV. Δύναμις πάντα αὔξει καὶ τρέφει καὶ βλαστάνει.

LV. Ὑγρασίη τροφῆς ὄχημα.

[1] μᾶλλον added by Littré.

(l) The more dissolved nutriment is the quicker it acts.

(li) The more solid or the more exercised a part of the body is, the less quickly it changes.

L. And for such as need a quick reinforcement, a liquid remedy is best for recovery of power; for such as need a quicker, a remedy through smell; for those who need a slower reinforcement, solid nutriment.

LI. Muscles being more solid waste less easily than other parts, save bone and sinew. Parts that have been exercised resist change, being according to their kind stronger than they otherwise would have been, and therefore less liable to waste.

LII. Pus comes from flesh; pus-like lymph comes from blood and moisture generally. Pus is nutriment for a sore; lymph is nutriment for vein and artery.

LIII. Marrow nutriment of bone, and through this a callus forms.

LIV. Power gives to all things increase, nourishment and birth.

LV. Moisture the vehicle of nutriment.

(lii) The difference between pus and lymph.
(liii) Marrow nourishes bone.
(liv) Birth, growth and nourishment are always due to the power of nutriment.
(lv) Nutriment is carried through the body by moisture.

POSTSCRIPT

The present volume is intended to be typical of the whole Hippocratic *Corpus;* in it are included works belonging to the chief classes of which the collection is composed. Some are books of a severely scientific character, others are tracts in which medicine and philosophy are either blended or rigidly separated.

In the next volume I hope to translate *Prognostic*, *Regimen in Acute Diseases*, scientific treatises of the strictest type, *The Art*, a demonstration by a sophist of the value of medicine, *Epilepsy*, an attack on superstition, *The Law*, a slight tract similar to *The Oath*, and *Decorum*, a treatise similar to *Precepts*. There will also be essays on the Cnidian school of medicine and on the treatises supposed to be pre-Hippocratic, which will also, if possible, be translated.

In the interval between the publication of the two volumes I hope to form an independent opinion as to the mutual relationship of the chief MSS. At present I have nothing to add to the views of Ilberg and Kühlewein as given in the Introduction to the Teubner edition.

I must add that in *Philologus* LXXVIII. 88–130 (1922) J. F. Bensel discusses the tract *de medico* (*Physician*) and connects it with *Precepts* and *Decorum*. It is hard to see where the connection lies, but I must reserve the question for Vol. II.

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