

ΠΕΡΙ ΦΥΣΩΝ

- I. Εἰσὶ τινες τῶν τεχνέων, αἱ τοῖσι μὲν κεκτημένοις εἰσὶν ἐπίπονοι, τοῖσι δὲ χρεωμένοις ὀνήσιται,¹ καὶ τοῖσι μὲν δημότησι κοινὸν ἀγαθόν, τοῖσι δὲ μεταχειριζομένοις σφας λυπηραί. τῶν δὲ τοιούτων ἐστὶ τεχνέων ἣν οἱ Ἕλληνες καλέουσιν ἱητρικὴν· ὁ μὲν γὰρ ἱητρὸς ὀρῇ τε δεινὰ, θιγγάνει τε ἀηδέων, ἐπ' ἀλλοτρίῃσί τε συμφορῇσιν ἰδίας καρποῦται λύπας· οἱ δὲ νοσέοντες ἀποτρέπονται διὰ τὴν τέχνην τῶν μεγίστων κακῶν, νούσων, 10 λύπης, πόνων, θανάτου· πᾶσι γὰρ τούτοις ἄντικρυς ἱητρικὴ εὐρίσκεται ἀκεστορίς.² ταύτης δὲ τῆς τέχνης τὰ μὲν φλαῦρα χαλεπὸν γινῶναι, τὰ δὲ σπουδαῖα ῥηίδιον· καὶ τὰ μὲν φλαῦρα τοῖσιν ἱητροῖσι μούνοις ἔστιν εἰδέναι, καὶ οὐ τοῖσι δημότησιν· οὐ γὰρ σώματος, ἀλλὰ γνώμης ἐστὶν ἔργα. ὅσα μὲν γὰρ χειρουργῆσαι χρή, συνεθίστῃναι δεῖ· τὸ γὰρ ἔθος τῇσι χερσὶ κύλλιστον διδασκάλιον γίνεται· περὶ δὲ τῶν ἀφανεστίων καὶ χαλεπωτάτων νοσημάτων δόξῃ μᾶλλον ἢ 20 τέχνη κρίνεται· διαφέρει δὲ ἐν αὐτοῖσι πλείστον ἢ πείρη τῆς ἀπειρίας. ἐν δὲ δὴ τι τῶν τοιούτων ἐστὶ τόδε, τί ποτε τὸ αἰτιόν ἐστι τῶν νούσων, καὶ τίς ἀρχὴ καὶ πηγὴ γίνεται τῶν ἐν τῷ σώματι

¹ ὀνήσιται Nelson : ὠφέλιμοι A : ὀνήστοι or ὀνηισταὶ other MSS.

² ἄντικρυς . . . ἀκεστορίς most MSS. : ἀνθέστηκεν ἢ ἡτρικὴ Nelson.

BREATHS¹

1. THERE are some arts which to those that possess them are painful, but to those that use them are helpful, a common good to laymen, but to those that practise them grievous. Of such arts there is one which the Greeks call medicine. For the medical man sees terrible sights, touches unpleasant things, and the misfortunes of others bring a harvest of sorrows that are peculiarly his; but the sick by means of the art rid themselves of the worst of evils, disease, suffering, pain and death. For medicine proves for all these evils a manifest cure. And of this art the weak points are difficult to apprehend, while the strong points are more easy; the weak points laymen cannot know, but only those skilled in medicine, as they are matters of the understanding and not of the body. For whenever surgical treatment is called for, training by habituation is necessary, for habit proves the best teacher of the hands; but to judge of the most obscure and difficult diseases is more a matter of opinion than of art, and therein there is the greatest possible difference between experience and inexperience. Now of these obscure matters one is the cause of diseases, what the beginning and source is whence come

¹ This word is a very inadequate rendering of $\phi\hat{\nu}\sigma\alpha$, which means, according to the definition in Chapter III, air in the body, as opposed to air outside it.

παθῶν ; εἰ γάρ τις εἰδείη τὴν αἰτίην τοῦ νοσή-
 ματος, οἷός τ' ἂν εἴη τὰ συμφέροντα προσφερίν
 τῷ σώματι.¹ αὕτη γὰρ ἡ ἱητρικὴ μάλιστα κατὰ
 φύσιν ἐστίν. αὐτίκα γὰρ λιμὸς νοῦσός ἐστιν· ὁ
 γὰρ ἂν λυπῇ τὸν ἄνθρωπον, τοῦτο καλεῖται
 νοῦσος· τί οὖν λιμοῦ φάρμακον ; ὁ παύει λιμόν·
 30 τοῦτο δ' ἐστὶ βρώσις· τούτῳ ἄρα ἐκεῖνο ἱητέον.
 αὐτὶς αὖ δίψαν ἔπαυσε πόσις· πάλιν αὖ πλησ-
 μονὴν ἱῆται κένωσις· κένωσιν δὲ πλησμονή·
 πόρον δὲ ἀποινίη.² ἐνὶ δὲ συντόμῳ λόγῳ, τὰ
 ἐναντία τῶν ἐναντίων ἐστὶν ἰήματα· ἱητρικὴ γάρ
 ἐστὶν ἀφαίρεσις καὶ πρόσθεσις, ἀφαίρεσις μὲν
 τῶν πλεοναζόντων, πρόσθεσις δὲ τῶν ἐλλειπόν-
 των· ὁ δὲ τοῦτ' ἄριστα ποιέων ἄριστος ἱητρός·
 ὁ δὲ τούτου πλείστον ἀπολειφθεὶς πλείστον
 ἀπελείφθη καὶ τῆς τέχνης. ταῦτα μὲν οὖν ἐν
 40 παρέργῳ τοῦ λόγου τοῦ μέλλοντος εἴρηται.

II. Τῶν δὲ δὴ νοῦσων ἀπασέων ὁ μὲν τρόπος
 ὡντός, ὁ δὲ τόπος διαφέρει· δοκεῖ μὲν οὖν οὐδὲν
 εἰσικέναι τὰ νοσήματα ἀλλήλοισι διὰ τὴν ἀλλοιό-
 τητα³ τῶν τύπων, ἔστι δὲ μία πασέων νοῦσων
 καὶ ἰδέη καὶ αἰτία. ταύτην δὲ ἥτις ἐστὶ διὰ τοῦ
 6 μέλλοντος λόγου φράσαι πειρήσομαι.

III. Τὰ σώματα καὶ τὰ τῶν ἄλλων ζώων καὶ
 τὰ τῶν ἀνθρώπων ὑπὸ τρισσῶν τροφῶν τρέ-
 φεται· τῇσι δὲ τροφῇσι τάδε ὀνόματά ἐστιν, σιτία
 ποτά, πνεῦμα. πνεῦμα δὲ τὸ μὲν ἐν τοῖσι σώμασι
 φύσα καλεῖται, τὸ δὲ ἔξω τῶν σωμάτων ὁ ἀήρ.

¹ After σώματι most MSS. have ἐκ τῶν ἐναντίων ἐπιστά-
 μειος τὰ νοσήματα, M however reading τῷ νοσήματι—a
 reading adopted by Nelson. ἰστάμενος τῷ νοσήματι is the
 reading of a. Littré changes νοσήματα to βοηθήματα. I
 believe the phrase to be a gloss. It is omitted by A.

affections of the body. For knowledge of the cause of a disease will enable one to administer to the body what things are advantageous. Indeed this sort of medicine is quite natural. For example, hunger is a disease, as everything is called a disease which makes a man suffer. What then is the remedy for hunger? That which makes hunger to cease. This is eating; so that by eating must hunger be cured. Again, drink stays thirst; and again repletion is cured by depletion, depletion by repletion, fatigue by rest. To sum up in a single sentence, opposites are cures for opposites. Medicine in fact is subtraction and addition, subtraction of what is in excess, addition of what is wanting. He who performs these acts best is the best physician; he who is farthest removed therefrom is also farthest removed from the art. These remarks I have made incidentally in passing to the discourse that is to come.

II. Now of all diseases the fashion is the same, but the seat varies. So while diseases are thought to be entirely unlike one another, owing to the difference in their seat, in reality all have one essence¹ and cause. What this cause is I shall try to declare in the discourse that follows.

III. Now bodies, of men and of animals generally, are nourished by three kinds of nourishment, and the names thereof are solid food, drink, and wind. Wind in bodies is called breath, outside bodies it is

¹ ἰδέη has the meaning of οὐσία here, as εἶδος has in περὶ τέχνης. See the discussion in Taylor's *Varia Socratica*.

² After ἀπορίη M has ἀπορίην δὲ πόρος.

³ After ἀλλοιότητα many MSS. have καὶ ἀιμοιότητα.

- οὗτος δὲ μέγιστος ἐν τοῖσι πᾶσι τῶν πάντων δυνά-
 στης ἐστίν· ἄξιον δὲ αὐτοῦ θεήσασθαι τὴν δύναμιν.
 ἄνεμος γὰρ ἐστὶν ἡέρος ρεῦμα καὶ χεῦμα· ὅταν
 οὖν πολὺς ἀἷρ ἰσχυρὸν ρεῦμα ποιήσῃ, τὰ τε
 10 δένδρα ἀνασπαστὰ πρόρριζα γίνεται διὰ τὴν
 βίην τοῦ πνεύματος, τό τε πέλαγος κυμαίνεται,
 ὀλκάδες τε ἄπειροι τῷ¹ μεγέθει διαρριπτεῦνται.
 τοιαύτην μὲν οὖν ἐν τούτοις ἔχει δύναμιν· ἀλλὰ
 μὴν ἐστὶ γε τῇ μὲν ὄψει ἀφανής, τῷ δὲ λογισμῷ
 φανερός· τί γὰρ ἄνευ τούτου γένοιτ' ἂν ; ἢ τίνος
 οὗτος ἄπεστιν ; ἢ τίνι οὐ συμπάρεστιν ; ἅπαν
 γὰρ τὸ μεταξὺ γῆς τε καὶ οὐρανοῦ πνεύματος
 ἔμπλεόν ἐστιν. τοῦτο καὶ χειμῶνος καὶ θέρεος
 αἴτιον, ἐν μὲν τῷ χειμῶνι πυκνὸν καὶ ψυχρὸν
 20 γινόμενον, ἐν δὲ τῷ θέρει πρὸν καὶ γαληνόν.
 ἀλλὰ μὴν ἡλίου τε καὶ σελήνης καὶ ἄστρων ὁδὸς
 διὰ τοῦ πνεύματός ἐστιν· τῷ γὰρ πυρὶ τὸ πνεῦμα
 τροφή· πῦρ δὲ ἡέρος στερηθὲν οὐκ ἂν δύναίτο
 ζῆν· ὥστε καὶ τὸν τοῦ ἡλίου βίον ἀένναον ὁ ἀἷρ
 λεπτὸς ἐὼν παρέχεται. ἀλλὰ μὴν ὅτι καὶ τὸ
 πέλαγος μετέχει πνεύματος, φανερόν· οὐ γὰρ ἂν
 ποτε τὰ πλωτὰ ζῶα ζῆν ἠδύνατο, μὴ μετέχοντα
 πνεύματος· μετέχου δ' ἂν πῶς ἂν ἄλλως ἄλλ' ἢ
 τοῦ ὕδατος ἔλκοντα τὸν ἡέρα ; ἀλλὰ μὴν καὶ ἡ
 30 γῆ τούτου βάθρον, οὗτός τε γῆς ὄχημα, κενεόν τε
 31 οὐδέν ἐστιν τούτου.

IV. Διότι μὲν οὖν ἐν τοῖς ὅλοις² ὁ ἀἷρ ἔρρωται,
 εἴρηται· τοῖς δ' αὖ θνητοῖσιν οὗτος αἴτιος τοῦ τε
 βίου, καὶ τῶν νούσων τοῖσι νοσέουσιν· τοσαύτη δὲ

¹ ἄπειροι τῷ M ; ἀπείρατοι A ; ἀπείραντοι Diels ; ἄπλετοι
 Nelson after Danielsson.

called air. It is the most powerful of all and in all, and it is worth while examining its power. A breeze is a flowing and a current of air. When therefore much air flows violently, trees are torn up by the roots through the force of the wind, the sea swells into waves, and vessels of vast bulk are tossed about. Such then is the power that it has in these things, but it is invisible to sight, though visible to reason. For what can take place without it? In what is it not present? What does it not accompany? For everything between earth and heaven is full of wind. Wind is the cause of both winter and summer, becoming in winter thick and cold, and in summer gentle and calm. Nay, the progress of sun, moon, and stars is because of wind; for wind is food for fire, and without air fire could not live. Wherefore, too, air being thin causes the life of the sun to be eternal. Nay, it is clear that the sea, too, partakes of wind, for swimming creatures would not be able to live did they not partake of wind.¹ Now how could they partake except by inhaling the air of the water? In fact the earth too is a base for air, and air is a vehicle of the earth,² and there is nothing that is empty of air.

IV. How air, then, is strong in the case of wholes³ has been said; and for mortals too this is the cause of life, and the cause of disease in the sick. So

¹ This is one of the ancient guesses that modern science has shown to be correct.

² Cf. Euripides *Trachiniae* 884: ὃ γῆς ὕχημα καὶ πλὴ γῆς ἔχων ἔδραν.

³ *I.e.*, in the case of the sea and of the earth, etc., as wholes.

² τοῖς ὅλοις Nelson (after Schneider): τοῖς ὁδοῖς A: τοῖσιν ἀλλοιοσιν M (so Littré).

τυγχάνει ἢ χρειή πᾶσι τοῖς σώμασι τοῦ πνεύματος ἐοῦσα, ὥστε τῶν μὲν ἄλλων ἀπάντων ἀποσχόμενος ὠνθρωπος καὶ σιτίων καὶ ποτῶν δύναιτ' ἂν ἡμέρας καὶ δύο καὶ τρεῖς καὶ πλέονας διάγειν· εἰ δέ τις ἀπολάβοι τὰς τοῦ πνεύματος ἐς τὸ σῶμα ἐσόδους,¹ ἐν βραχεὶ μέρει ἡμέρης
 10 ἀπόλοιτ' ἂν, ὡς μεγίστης τῆς χρειῆς ἐούσης τῷ σώματι τοῦ πνεύματος. ἔτι τοίνυν τὰ μὲν ἄλλα πάντα διαλείπουσιν οἱ ἄνθρωποι πρήσσοντες. ὁ γὰρ βίος μεταβολέων πλέως· τοῦτο δὲ μῦνον αἰεὶ διατελέουσιν ἅπαντα τὰ θνητὰ ζῶα πρήσ-
 15 σοντα, τοτὲ μὲν ἐκπνέοντα, τοτὲ δὲ ἀναπνέοντα.²

V. Ὅτι μὲν οὖν μεγάλη κοινωνίη ἅπασι τοῖσι ζώοισι τοῦ ἡέρος ἐστίν, εἴρηται· μετὰ τοῦτο τοίνυν ῥητέον, ὡς οὐκ ἄλλοθὲν ποθεν εἰκὸς ἐστι γίνεσθαι τὰς ἀρρωστίας ἢ ἐντεῦθεν.³ περὶ μὲν οὖν ὅλου τοῦ πρήγματος ἀρκεῖ μοι ταῦτα· μετὰ δὲ ταῦτα πρὸς αὐτὰ τὰ ἔργα τῷ αὐτῷ λόγῳ πορευθεὶς ἐπιδείξω τὰ νοσήματα τούτου⁴ ἕκγονα
 8 πάντα ἐόντα.

VI. Πρῶτον δὲ ἀπὸ τοῦ κοινοτάτου νοσήματος ἄρξομαι, πυρετοῦ· τοῦτο γὰρ τὸ νόσημα πᾶσιν ἐφεδρεῖται τοῖσιν ἄλλοισιν νοσήμασι.⁵ ἔστι δὲ δισσὰ ἔθνεα πυρετῶν, ὡς ταύτῃ διελθεῖν· ὁ μὲν κοινὸς ἅπασι καλεόμενος λοιμός· ὁ δὲ διὰ πονηρὴν δίαιταν⁶ ἰδίῃ τοῖσι πονηρῶς διαιτεομένοισι γινόμενος· ἀμφοτέρων δὲ τούτων ὁ ἀήρ αἴτιος. ὁ μὲν

¹ ἐσόδους Nelson : ἐξόδους A : διεξόδους most MSS.

² ἐκπνέοντα καὶ ἀναπνέοντα Nelson : ἐνπνέοντα καὶ ἀναπνέοντα A : ἐμπνέοντα καὶ ἐκπνέοντα M.

³ After ἐντεῦθεν the MSS. have (with unimportant variations) ὅταν τοῦτο πλέον ἢ ἔλασσον ἢ ἀθρούτερον γένηται ἢ μεμιασμένον νοσηροῖσι μιάσμασιν ἐς τὸ σῶμα ἐσέλθῃ. Nelson brackets πλέον ἢ ἔλασσον and γένηται.

great is the need of wind for all bodies that while a man can be deprived of everything else, both food and drink, for two, three, or more days, and live, yet if the wind passages into the body be cut off he will die in a brief part of a day, showing that the greatest need for a body is wind. Moreover, all other activities of a man are intermittent, for life is full of changes; but breathing is continuous for all mortal creatures, inspiration and expiration being alternate.

V. Now I have said that all animals participate largely in air. So after this I must say that it is likely that maladies occur from this source and from no other. On the subject as a whole I have said sufficient; after this I will by the same reasoning proceed to facts and show that diseases are all the offspring of air.

VI. I will begin in the first place with the most common disease, fever, for this disease is associated with all other diseases. To proceed on these lines,¹ there are two kinds of fevers; one is epidemic, called pestilence, the other is sporadic, attacking those who follow a bad regimen. Both of these fevers, however, are caused by air. Now epidemic fever

¹ It is uncertain whether ταύτη refers to the first sentence or to the one to which ὡς ταύτη διελθεῖν is appended. The translation implies the first interpretation; if the other be correct the whole sentence will be: "There are two kinds of fevers, if I may be allowed to classify them thus."

⁴ After τούτου M has ἀπόγονά τε καί.

⁵ After νοσήμασι the MSS. except A have μάλιστα δὲ φλεγμονῇ· δηλοῖ δὲ τὰ γινόμενα προσκόμματα· ἅμα γὰρ τῇ φλεγμονῇ εὐθὺς βουβῶν καὶ πυρετὸς ἐπεται. The Paris MS. K omits δηλοῖ το φλεγμονῇ.

⁶ Nelson deletes διὰ πονηρὴν δίαιταν, perhaps rightly.

- οὖν κοινὸς πυρετὸς διὰ τοῦτο τοιοῦτός¹ ἐστίν,
 ὅτι τὸ πνεῦμα τῷτὸ πάντες ἔλκουσιν· ὁμοίου
 10 δὲ ὁμοίως τοῦ πνεύματος τῷ σώματι μιχθέντος,
 ὅμοιοι καὶ οἱ πυρετοὶ γίνονται. ἀλλ' ἴσως φήσῃ
 τις· τί οὖν οὐχ ἅπασι τοῖσι ζώοισι, ἀλλ' ἔθνει
 τινὲ αὐτῶν ἐπιπίπτουσιν αἱ τοιαῦται νοῦσοι ; ὅτι
 διαφέρει, φαίην ἄν, καὶ σῶμα σώματος, καὶ ἀήρ
 ἡέρος, καὶ φύσις φύσιος, καὶ τροφή τροφῆς· οὐ
 γὰρ πᾶσι τοῖσιν ἔθνεσι τῶν ζώων ταῦτά οὐτ'
 εὐάρμοστα οὐτ' ἀνάρμοστά ἐστίν, ἀλλ' ἕτερα
 ἑτέροισι σύμφορα, καὶ ἕτερα ἑτέροις ἀσύμφορα·
 ὅταν μὲν οὖν ὁ ἀήρ τοιούτοις χρωσθῇ μιάσμασιν,
 20 ἢ τῇ ἀνθρωπείῃ φύσει πολέμιά ἐστίν, ἀνθρωποὶ
 τότε νοσέουσιν· ὅταν δὲ ἑτέρῳ τινὶ ἔθνει ζώων
 22 ἀνάρμοστος ὁ ἀήρ γένηται, κεῖνα τότε νοσέουσιν.

- VII. Αἱ μὲν νυν δημόσιαι τῶν νοῦσων εἴρηνται,²
 καὶ οἷσι καὶ ἀφ' ὅτεν γίνονται· τὸν δὲ δὴ διὰ πονη-
 ρὴν δίαιταν γινόμενον πυρετὸν διέξιμι. πονηρὴ
 δὲ ἐστίν ἢ τοιήδε δίαιτα, τοῦτο μὲν ὅταν τις
 πλέονας τροφὰς ὑγρὰς ἢ ξηρὰς διδῶ τῷ σώματι
 ἢ τὸ σῶμα δύναται φέρειν, καὶ πόνον μηδένα
 τῷ πλήθει τῶν τροφῶν ἀντιτιθῇ, τοῦτο δ' ὅταν
 ποικίλας καὶ ἀνομοίους ἀλλήλησιν ἐσπέμπῃ
 τροφάς· τὰ γὰρ ἀνόμοια στασιάζει, καὶ τὰ μὲν
 10 θᾶσσον, τὰ δὲ σχολαίτερον πέσσειται. μετὰ δὲ
 πολλῶν σιτίων ἀνάγκη καὶ πολὺ πνεῦμα ἐσιέναι·
 μετὰ πάντων γὰρ τῶν ἐσθιομένων τε καὶ πινομέ-
 νων ἀπέρχεται πνεῦμα ἐς τὸ σῶμα ἢ πλεόν ἢ
 ἔλασσον. φανερόν δ' ἐστὶν τῷδε· ἐρυγαὶ γὰρ

¹ τοιοῦτός MSS. : δὴ αὐτός Nelson.

² After εἴρηνται the MSS. except A have καὶ ὅτι καὶ ὅπως.

has this characteristic because all men inhale the same wind; when a similar wind has mingled with all bodies in a similar way, the fevers too prove similar. But perhaps someone will say, "Why then do such diseases attack, not all animals, but only one species of them?" I would reply that it is because one body differs from another, one air from another, one nature from another and one nutriment from another. For all species of animals do not find the same things either well or ill-adapted to themselves, but some things are beneficial to some things and other things to others, and the same is true of things harmful. So whenever the air has been infected with such pollutions as are hostile to the human race, then men fall sick, but when the air has become ill-adapted to some other species of animals, then these fall sick.

VII. Of epidemic diseases I have already spoken, as well as of the victims and of the cause thereof; I must now go on to describe the fever caused by bad regimen. By bad regimen I mean, firstly, the giving of more food, moist or dry, to the body than the body can bear, without counteracting the bulky food by exercise; and, secondly, the taking of foods that are varied and dissimilar. For dissimilar foods disagree,¹ and some are digested quickly and some more slowly. Now along with much food much wind too must enter, for everything that is eaten or drunk is accompanied into the body by wind, either in greater quantity or in less. This is shown by the following fact. After food and drink most

¹ The meaning of *στάσις* in the medical writers is generally "stagnation," "stopping," and *στασιάζει* possibly means here "stagnate," "do not digest."

- γίνονται μετὰ τὰ σιτία καὶ τὰ ποτὰ τοῖσι πλείστοισιν· ἀνατρέχει γὰρ ὁ κατακλεισθεὶς ἀήρ, ὁπότεν ἀναρρήξῃ τὰς πομφόλυγας, ἐν ἣσι κρύπτεται. ὅταν οὖν τὸ σῶμα πληρωθὲν τροφῆς¹ πλησθῇ, καὶ πνεύματος ἐπίπλεον γίνεται, τῶν
- 20 σιτίων χρονιζομένων· χρονίζεται δὲ τὰ σιτία διὰ τὸ πλῆθος οὐ δυνάμενα διελθεῖν· ἐμφραχθείσης δὲ τῆς κάτω κοιλίης, ἐς ὅλον τὸ σῶμα διέδραμον αἱ φύσαι· προσπεσοῦσαι δὲ πρὸς τὰ ἐναιμότατα τοῦ σώματος ἔψυξαν· τούτων δὲ τῶν τόπων ψυχθέντων, ὅπου αἱ ῥίζαι καὶ αἱ πηγαὶ τοῦ αἵματός εἰσι, διὰ παντὸς τοῦ σώματος² φρίκη διῆλθεν· ἅπαντος δὲ τοῦ αἵματος³ ψυχθέντος,
- 28 ἅπαν τὸ σῶμα φρίσσει.

- VIII. Διὰ τοῦτο μὲν νυν αἱ φρίκαι γίνονται πρὸ τῶν πυρετῶν· ὅπως δ' αὖ ὁρμήσωσιν αἱ φύσαι πλήθει καὶ ψυχρότητι, τοιοῦτον γίνεται τὸ ῥίγος, ἀπὸ μὲν πλεόνων καὶ ψυχροτέρων ἰσχυρότερον, ἀπὸ δὲ ἐλασσόνων καὶ ἥσσον ψυχρῶν ἥσσον ἰσχυρόν. ἐν δὲ τῇσι φρίκησι καὶ οἱ τρόμοι τοῦ σώματος κατὰ τόδε γίνονται. τὸ αἷμα φοβεύμενον τὴν παρεοῦσαν φρίκην συντρέχει καὶ διαίσσει διὰ παντὸς τοῦ σώματος ἐς τὰ
- 10 θερμότατα⁴ αὐτοῦ. καθαλλομένου δὲ τοῦ αἵματος ἐκ τῶν ἀκρωτηρίων τοῦ σώματος ἐς τὰ σπλάγχνα, τρέμουσιν· τὰ μὲν γὰρ τοῦ σώματος γίνεται πολὺ αἷμα, τὰ δ' ἄναιμα· τὰ μὲν οὖν ἄναιμα διὰ τὴν ψύξιν οὐκ ἀτρεμέουσιν, ἀλλὰ σφάλλονται, τὸ γὰρ θερμὸν ἐξ αὐτῶν ἐκκλείοιπε· τὰ δὲ

¹ πληρωθὲν τροφῆς A : σιτίων M, followed by Nelson.

² σώματος AM : αἵματος Nelson, from one of Foes' variants.

³ αἷματος A : σώματος M.

people suffer from belching, because the enclosed air rushes upwards when it has broken the bubbles in which it is concealed. When therefore the body is filled full of food, it becomes full of wind too, if the foods remain a long time; and they do remain a long time because owing to their bulk they cannot pass on. The lower belly being thus obstructed, the breaths spread through all the body, and striking the parts of the body that are most full of blood they chill them. These parts being chilled, where are the roots and springs of the blood, a shiver passes through all the body,¹ for when all the blood has been chilled all the body shivers.

VIII. Now this is the reason why shivering occurs before fevers. The character, however, of the rigor depends upon the volume and coldness of the breaths that burst out; from copious and colder breaths come more violent rigor, from less copious and less cold, less violent rigor. The tremors of the body in shivers are caused as follows. The blood, through fear of the shivers that are present, runs together and dashes throughout the body to the warmest parts of it. As the blood leaps from the extremities of the body to the viscera, the sick man shakes. The reason is that some parts of the body become over-full, but others depleted, of blood. Now the depleted parts cannot be still, but shake, because of their being chilled; for the heat has left them. But the over-filled parts tremble

¹ If we give δὲ the not uncommon sense of "for" we can keep the reading of the MSS. Otherwise we must with Nelson read αἵματος for σώματος.

² After θερμώτατα most MSS. have αὐται μὲν οὖν ἄλλαι (αἱ ἄλλαι H). Reinhold conjectured αὐτοῦ μὲν οὖν ἑάλη.

- πολύαιμα διὰ τὸ πλῆθος τοῦ αἵματος τρεμουν· οὐ γὰρ δύναται πολὺ γενόμενον ἀτρεμίζειν. χασμῶνται δὲ πρὸ τῶν πυρετῶν, ὅτι πολὺς ἀὴρ ἀθροισθεὶς, ἀθρόως ἄνω διεξιὼν, ἐξεμόχλευσε καὶ
- 20 διέστησε τὸ στόμα· ταύτῃ γὰρ εὐδιέξοδος ἐστίν· ὥσπερ γὰρ ἀπὸ τῶν λεβήτων ἀτμός ἀνέρχεται πολὺς ἐψομένου τοῦ ὕδατος, οὕτω καὶ τοῦ σώματος θερμαινομένου διαίσσει διὰ τοῦ στόματος ὁ ἀὴρ συνεστραμμένος καὶ βίῃ φερόμενος. τὰ τε ἄρθρα διαλύεται πρὸ τῶν πυρετῶν· χλιαινόμενα γὰρ τὰ νεῦρα δίσταται.¹ ὅταν δὲ δὴ συναλισθῇ τὸ πλεῖστον τοῦ αἵματος, ἀναθερμαίνεται πάλιν ὁ ἀὴρ ὁ ψύξας τὸ αἷμα, κρατηθεὶς ὑπὸ τῆς θερμῆς· διίπυρος δὲ καὶ ἄνυδρος² γενόμενος
- 30 ὅλω τῷ σώματι τὴν θερμασίην ἐναιργάσατο. συνεργὸν δὲ αὐτῷ τὸ αἷμά ἐστιν· τήκεται γὰρ χλιαινόμενον³ καὶ γίνεται ἐξ αὐτοῦ πνεῦμα· τοῦ δὲ πνεύματος προσπίπτοντος πρὸς τοὺς πόρους τοῦ σώματος ἰδρὼς γίνεται· τὸ γὰρ πνεῦμα συνιστάμενον ὕδωρ χεῖται, καὶ διὰ τῶν πόρων διελθὼν ἔξω περαιούται⁴ τὸν αὐτὸν τρόπον ὥνπερ ἀπὸ τῶν ἐψομένων ὑδάτων ἀτμός ἐπανιών, ἣν ἔχῃ στερέωμα πρὸς ὃ τι χρὴ προσπίπτειν, παχύνεται καὶ πυκνοῦται, καὶ σταγόνες ἀπο-
- 40 πίπτουσιν ἀπὸ τῶν πωμάτων,⁵ οἷς ἂν ὁ ἀτμός

¹ Nelson brackets *τά τε ἄρθρα . . . δίσταται*.

² *ἀνυδρὸς* AM : *μύδρος* many MSS. : *ἀλυκρὸς* Nelson : *ἄνυδρος* my conjecture.

³ *χλιαινόμενον* A : *πυρούμενον* M.

⁴ *ἔξω περαιούται* MSS. : *ἐξυδαροῦται* Nelson.

⁵ *πωμάτων* A corrected to *πωμάτων* : *σωμάτων* M.

because of the quantity of blood; having become great it cannot keep still. Gapes precede fevers because much air gathers together, and, passing upwards in a mass, unbolts the mouth and forces it open, as through it there is an easy passage. For just as copious steam rises from pots when the water boils, even so, as the body grows hot, the air rushes through the mouth compressed and violently carried along. The joints too relax before fevers, because the sinews stretch when they grow warm. But when the greater part of the blood has been massed together, the air that cooled the blood becomes warm again, being overcome by the heat; and when it has become fiery and waterless,¹ it imparts its heat to the whole body. Herein it is aided by the blood, which melts² as it grows warm, and wind arises out of it; as the wind strikes the channels of the body, sweat is formed. For the wind when it condenses flows as water, and going through the channels passes on to the surface, just as steam rising from boiling water, should it meet a solid object that it must strike, thickens and condenses, and drops fall away from the lids on

¹ The text is most uncertain. Neither ἀμυδρός ("faint") nor μύδρος ("mass of molten metal") gives a possible sense, and Nelson's ἀλυκρός is only a weak repetition of διάπυρος. If ἀνοδρος be the original reading (cold air becomes misty, see below), it would easily turn into ἀμυδρός, which would in its turn become μύδρος, a scribe perceiving that ἀμυδρός makes no sense, and knowing that διάπυρος and μύδρος often occur together.

² I am uncertain whether τήκεται means "evaporates" or "becomes thinner."

προσπίπτῃ. πόνοι δὲ κεφαλῆς ἅμα τῷ πυρετῷ γίνονται διὰ τόδε· στενοχωρίῃ τῇσι διεξόδοισιν ἐν τῇ κεφαλῇ γίνεται τοῦ αἵματος· πέπληνται γὰρ αἱ φλέβες ἡέρος, πλησθεῖσαι δὲ καὶ πρησθεῖσαι τὸν πόνον ποιέουσιν τῇ κεφαλῇ· βίῃ γὰρ τὸ αἷμα βιαζόμενον διὰ στενῶν ὁδῶν θερμὸν ἐὼν οὐ δύναται περαιούσθαι ταχέως· πολλὰ γὰρ ἐμποδὼν αὐτῷ κωλύματα καὶ ἐμφράγματα· διὸ δὴ καὶ
 19 οἱ σφυγμοὶ γίνονται περὶ τοὺς κροτάφους.

IX. Οἱ μὲν οὖν πυρετοὶ διὰ ταῦτα γίνονται καὶ τὰ μετὰ τῶν πυρετῶν ἀλγήματα καὶ νοσήματα· τῶν δὲ ἄλλων ἁρρωστημάτων, ὅσοι μὲν εἰλεοί, ἢ ἀνειλήματα, ὅτι ἀποστηρίγματα φύσεων ἐστί, πᾶσιν ἡγεῦμαι φανερὸν εἶναι.¹ πάντων γὰρ τῶν τοιούτων ἱητρικὴ τοῦ πνεύματος ἀπαρύσαι. τοῦτο γὰρ ὅταν προσπέσῃ πρὸς τόπους ἀπαθείας² καὶ ἀήθειας,³ ὥσπερ τόξευμα ἐγκείμενον διαδύνει διὰ τῆς σαρκός· προσπίπτει
 10 δὲ τοτὲ μὲν πρὸς τὰ ὑποχόνδρια, τοτὲ δὲ πρὸς τὰς λαπάρας, τοτὲ δὲ ἐς ἀμφότερα· διὸ δὴ καὶ θερμαίνοντες ἔξωθεν πυριήμασι πειρέονται μαλθάσσειν τὸν πόνον· ἀραιούμενον γὰρ ὑπὸ τῆς θερμασίης τοῦ πυριήματος διέρχεται τὸ πνεῦμα τοῦ σώματος, ὥστε παῦλάν τινα γενέσθαι
 16 τῶν πόνων.

X. Ἴσως ἂν τις εἴποι· πῶς οὖν καὶ τὰ ρεύματα γίνεται διὰ τὰς φύσας; ἢ τίνα τρόπον τῶν

¹ ὅτι ἀποστηρίγματα φύσεων ἐστί, πᾶσιν ἡγεῦμαι φανερὸν εἶναι. So Nelson, slightly changing the reading of A, which has ἢ before, and ὅτι after, ἀποστηρίγματα.

² ἀπαθείας A: ἀπαλούς M.

³ After ἀήθειας many MSS. read καὶ ἀθίκτους.

which the steam strikes. Headache with fever arises in the following manner. The blood passages in the head become narrowed. The veins in fact are filled with air, and when full and inflated cause the headache; for the hot blood, forcibly forced through the narrow passages, cannot traverse them quickly because of the many hindrances and barriers in the way. This too is the reason why pulsations occur about the temples.

IX. This then is the way fevers are caused, and the pains and illnesses that accompany fever. As to other maladies, ileus and tormina for example, it is obvious, I think, to everybody that they are settlements of breaths, for the medical treatment for such disorders is to draw off some of the wind. For when it strikes against places that are not usually attacked by it, it pierces the flesh like an arrow forcing its way. Sometimes it strikes against the hypochondria, sometimes against the flanks, sometimes against both. It is for this reason that attendants try to soothe the pain by applying hot fomentations to the skin. For by the heat of the fomentation the wind is rarefied and passes through the body, thus affording some relief of the pains.¹

X. Perhaps it may be objected: "How then do breaths cause fluxes, and in what way is wind the

¹ The first part of this chapter presents a mass of variant readings in the MSS. See Littré VI. 104, and Nelson, p. 20. It seems impossible to fix the text with any certainty, the variants indicating that the true reading has been lost, and that its place has been taken by glosses and guesses. For example, where A has *τοιούτων ιητρική τοῦ πνεύματος ἀπαρύσαι* (surely an impossible use of *ιητρική*), M has *τοιούτων μία ιητρική τοῦ πνεύματος ἢ διόδευσις*, and other MSS. *τοιούτων αἰτία τοῦ πνεύματος ἢ διόδευσις*

- αίμορραγιῶν τῶν περὶ τὰ στέρνα τοῦτ' αἰτιόν
 ἔστιν; οἶμαι δὲ καὶ ταῦτα δηλώσειν διὰ τοῦτο
 γινόμενα. ὅταν αἱ περὶ τὴν κεφαλὴν φλέβες
 γεμισθῶσιν ἡέρος, πρῶτον μὲν ἡ κεφαλὴ
 βαρύνεται τῶν φυσέων ἐγκειμένων· ἔπειτα
 εἰλείται τὸ αἷμα, οὐ διαχεῖν δυναμένων¹ διὰ
 τὴν στενότητα τῶν ὁδῶν· τὸ δὲ λεπτότατον τοῦ
 10 αἵματος διὰ τῶν φλεβῶν ἐκθλίβεται· τοῦτο δὲ
 τὸ ὑγρὸν ὅταν ἀθροισθῇ πολὺ, ρεῖ δι' ἄλλων
 πόρων· ὅπῃ δ' ἂν ἀθρόον ἀφίκηται τοῦ σώματος,
 ἐνταῦθα συνίσταται νοῦσος· ἦν μὲν οὖν ἐπὶ τὴν
 ὄψιν ἔλθῃ, ταύτῃ ὁ πόρος· ἦν δὲ ἐς τὰς ἀκοάς,
 ἐνταῦθ' ἡ νοῦσος·² ἦν δὲ ἐς τὰ στέρνα, βράγχος
 καλεῖται. τὸ γὰρ φλέγμα δριμέσι χυμοῖσι
 μεμιγμένον, ὅπῃ ἂν προσπέσῃ ἐς ἀήθεις τόπους,
 ἐλκοῖ· τῇ δὲ φάρυγγι ἀπαλῇ εὐσῇ ρεῦμα
 προσπίπτον τριχύτητας ἐμποιεῖ· τὸ γὰρ πνεῦμα
 20 τὸ διὰ τῆς φάρυγγος διαπνεέμενον ἐς τὰ στέρνα
 βαδίζει,³ καὶ πάλιν ἔξεισι διὰ τῆς ὁδοῦ ταύτης·
 ὅταν οὖν ἀπαντήσῃ τῷ ρεύματι τὸ πνεῦμα⁴
 κάτωθεν ἰὸν κάτω ἰόντι, βῆξ ἐπιγίνεται, καὶ
 ἀναρρίπτεται ἄνω τὸ φλέγμα· τούτων δὲ τοιούτων
 ἐόντων φάρυγξ ἐλκοῦται καὶ τριχύνεται καὶ
 θερμαίνεται καὶ ἔλκει τὸ ἐκ τῆς κεφαλῆς ὑγρὸν
 θερμὸν εὐῶσα· ἡ δὲ κεφαλὴ παρὰ τοῦ ἄλλου
 σώματος λαμβάνουσα τῇ φάρυγγι διδοῖ. ὅταν

¹ Nelson reads οὐ διαχωρεῖν δυνάμενον, perhaps rightly.

² After νοῦσος most MSS read ἦν δὲ ἐς τὰς ῥίνας, κόρυζα γίνεται.

³ βαδίζει M: πορεύεται A.

⁴ The reading in the text is that of Littré. A has ὅταν οὖν ἀπαντήσῃ τὸ ρεῦμα τῷ πνεύματι κ.τ.λ. M has ὅταν δὲ

cause of chest hemorrhages?" I think I can show that these too are caused by this agent. When the veins about the head are loaded with air, at first the head becomes heavy through the breaths that press against it. Then the blood is compressed, the passages being unable, on account of their narrowness, to pour it through.¹ The thinnest part of the blood is pressed out through the veins, and when a great accumulation of this liquid has been formed, it flows through other channels. Any part of the body it reaches in a mass becomes the seat of a disease. If it go to the eyes, the pain is there; if it be to the ears, the disease is there. If it go to the chest, it is called sore throat; for phlegm, mixed with acrid humours, produces sores wherever it strikes an unusual spot, and the throat, being soft, is roughened when a flux strikes it. For the wind that is breathed in through the throat passes² into the chest, and comes out again through this passage. So when the ascending wind meets the descending flux, a cough comes on, and the phlegm is thrown upwards. This being so the throat becomes sore, rough and hot, and being hot draws the moisture from the head, which passes on to the throat the moisture it receives from the rest of the body.

¹ I keep the text of A, but with no great confidence. As it stands, ὁδῶν must be taken with δυναμένων, though this gives a strange sense to διαχεῖν. Can it be said that αἱ ὁδοὶ διαχέουσι τὸ αἷμα? Nelson's emendation (οὐ διαχωρεῖν δυνάμενον) is possibly right. I had myself thought of οὐ διαρρεῖν δυνάμενον.

² I have kept the reading of M, because *Breaths* is full of startling metaphors.

ξυμβάλη τῷ πνεύματι τὸ ρεῦμα κάτωθεν τῷ κατιόντι. Other MSS. read κάτωθεν τῷ ἀνιόντι.

οὖν ἐθισθῇ τὸ ρεῦμα ταύτῃ ρεῖν καὶ χαραδρωθέω-
 30 σιν οἱ πόροι, διαδιδοῖ ἤδη καὶ ἐς τὰ στέρνα·
 δριμὺν δὲ ἔον τὸ φλέγμα προσπίπτον τε τῇ σαρκὶ
 ἔλκοι καὶ ἀναρρηγνύει τὰς φλέβας. ὅταν δὲ
 ἐκχυθῇ τὸ αἷμα, χρονιζόμενον καὶ σηπόμενον
 γίνεται πῦον· οὔτε γὰρ ἄνω δύναται ἀνελθεῖν
 οὔτε κάτω ὑπελθεῖν· ἄνω μὲν γὰρ οὐκ εὐπορος ἡ
 πορείη πρὸς ἄναντες ὑγρῷ χρήματι πορεύεσθαι,
 κάτω δὲ κωλύει ὁ φραγμὸς τῶν φρενῶν. διὰ τί
 δὲ δῆποτε τὸ ρεῦμα ἀναρρήγνυται τὸ μὲν αὐτό-
 ματον, τὸ δὲ διὰ πόνους; αὐτόματον μὲν οὖν,
 40 ὅταν αὐτόματος ὁ ἀῆρ ἐλθὼν ἐς τὰς φλέβας
 στενοχωρίην ποιήσῃ τῇσι τοῦ αἵματος διεξόδοισι·
 τότε γὰρ πιεζεύμενον τὸ αἷμα πολὺ γενόμενον
 ἀναρρηγνύει τοὺς πόρους, ἢ ἂν μάλιστα βρίσῃ·
 ὅσοι δὲ διὰ πόνων πλήθος ἡμορράγησαν, καὶ
 τούτοις οἱ πόνοι πνεύματος ἐνέπλησαν τὰς
 φλέβας· ἀνάγκη γὰρ τὸν πονέοντα τόπον
 κατέχειν τὸ πνεῦμα. τὰ δὲ ἄλλα τοῖς εἰρημένοις
 48 ὅμοια γίνεται.

XI. Τὰ δὲ ῥήγματα πάντα γίνεται διὰ τόδε·
 ὅταν ὑπὸ βίης διαστέωσιν αἱ σάρκες ἀπ' ἀλλήλων,
 ἐς δὲ τὴν διάστασιν ὑποδράμῃ πνεῦμα, τοῦτο τὸν
 4 πόνον παρέχει.

XII. Ἦν δὲ διὰ τῶν σαρκῶν αἱ φύσαι
 διεξιούσαι τοὺς πόρους τοῦ σώματος ἀραιοὺς
 ποιέωσιν, ἔπηται δὲ τῇσι φύσῃσιν ὑγρασίῃ, ἥς¹
 τὴν ὁδὸν ὁ ἀῆρ ὑπειργάσατο, διαβρόχου δὲ
 γενομένου τοῦ σώματος, ὑπεκτῇκονται μὲν αἱ

¹ The MSS here present hopeless varieties of readings.
 For ἔπηται δὲ A has ἐν δὲ and M ἔπεται δὲ. After ὑγρασίῃ

When therefore the flux has grown used to flowing by this route, and the passages have become channelled, it now spreads even to the chest. Being acrid the phlegm ulcerates the flesh when it strikes it, and bursts open the veins. The extravasated blood rots in course of time and becomes pus, as it can neither ascend nor get away downwards. For a fluid thing cannot easily ascend upwards, and the diaphragm is a barrier to its descent. Why ever then is it that the flux bursts upwards, either spontaneously or through pains? Well, there is a spontaneous flux whenever the air spontaneously enters the veins and makes the channels narrow for the passage of the blood; for on such occasions the blood is compressed because of its volume, and bursts open the passages wherever the pressure is greatest. Whenever excessive pains cause hemorrhage, in these cases also it is wind with which the pains have filled the veins, seeing that any part in pain must retain the wind. Other cases are like those that I have already described.

XI. Lacerations in all cases occur for the following reason. Whenever flesh is violently severed from flesh, and wind slips into the gap, the pain is thereby produced.

XII. If the breaths by passing through the flesh dilate the passages of the body, and these breaths are followed by moisture, the way for which is prepared by the air, then, when the body has become sodden, the flesh melts away and swellings

we find $\tau\eta\sigma\iota$ (A), $\tau\omicron\iota\sigma\iota$ (A²), $\eta\tau\iota\varsigma$ (M). Nelson conjectures $\acute{\epsilon}\nu$ $\delta\epsilon$ $\tau\eta\sigma\iota$ $\phi\acute{\upsilon}\sigma\eta\sigma\iota$ $\acute{\upsilon}\gamma\rho\alpha\sigma\acute{\iota}\eta$ η , $\tau\eta\varsigma$ $\tau\eta\nu$ $\acute{\omicron}\delta\delta\acute{\omicron}\nu$ κ.τ.λ., but surely $\tau\eta\varsigma$ is impossible.

- σάρκες, οἰδήματα δὲ ἐς τὰς κινήμας καταβαίνειν
καλεῖται δὲ τὸ τοιοῦτον νόσημα ὕδρωψ.¹ μέγιστον
δὲ σημεῖον ὅτι φῦσαι τοῦ νοσήματός εἰσιν αἷται,
τόδε ἐστίν· ἤδη τινὲς ὀλεθρίως ἔχοντες ἐκλύσθη-
σαν² καὶ ἐκενώθησαν τοῦ ὕδατος· παραυτίκα
μὲν οὖν τὸ ἐξελθὼν ἐκ τῆς κοιλίης ὕδωρ πολὺν
φαίνεται, χρονίζόμενον δὲ ἔλασσον γίνεται. δῆλον
οὖν,³ ὅτι παραυτίκα μὲν τὸ ὕδωρ ἡέρος πλήρες
ἐστίν· ὁ δὲ ἀήρ ὄγκον παρέχει μέγαν· ἀπιόντος
δὲ τοῦ πνεύματος ὑπολείπεται τὸ ὕδωρ αὐτό· διὸ
δὴ φαίνεται μὲν ἔλασσον, ἐστὶν δὲ ἴσον. ἄλλο δὲ
αὐτῶν τόδε σημεῖον· κενωθείσης γὰρ παντελῶς
τῆς κοιλίης, οὐδ' ἐν τρισὶν ἡμέρησιν ὕστερον
πάλιν πλήρεις γίνονται.⁴ τί οὖν ἐστὶ τὸ πληρῶ-
σαν ἄλλ' ἢ πνεῦμα; τί γὰρ ἂν οὕτως ἄλλο
ταχέως ἐξεπλήρωσεν; οὐ γὰρ δῆπου ποτόν γε
τοσοῦτον ἐσήλθεν ἐς τὸ σῶμα· καὶ μὴν οὐδὲ
σάρκες ὑπάρχουσιν ἔτι αἱ τηξόμεναι· λείπεται
γὰρ ὀστέα καὶ νεῦρα καὶ ῥινός,⁵ ἀφ' ὧν οὐδενὸς
οὐδεμὴ δύναιτ' ἂν αὐξήσεις ὕδατος εἶναι.

XIII. Τοῦ μὲν οὖν τοῦ ὕδρωπος εἴρηται τὸ
αἷτιον· αἱ δὲ ἀποπληξίαι γίνονται διὰ τὰς φύσας·
ὅταν γὰρ αὗται διαδύνουσαι⁶ ἐμφυσήσωσι τὰς
σάρκας, ἀναίσθητα ταῦτα γίνεται τοῦ σώματος·
ἣν μὲν οὖν ἐν ὅλῳ τῷ σώματι πολλαὶ φύσαι

¹ As A reads *καταβαίνει*, Nelson conjectures *ὑπεκτῆκωνται* and *καταβαίνει*, and changes δὲ after *καλεῖται* to δῆ.

² A later hand in A has *ἤγουν ἠντλήθησαν* (an intelligent gloss), and a note says that there was another reading *ἐκλύθησαν*, which Littré adopts.

³ For *δῆλον οὖν* many MSS. have *διὰ τί οὖν γίγνεται καὶ τοῦτο δῆλον*.

⁴ Nelson has *πλήρης γίνεται* from the *γίνεται* of M.

descend to the legs. A disease of this kind is called dropsy. The strongest evidence that breaths cause the disease is the following. Patients already at death's door in some cases are pumped¹ dry of the water. Now the water appears to come copiously from the cavity at first, becoming less plentiful after a time. Now it is plain that at first the water is full of air, and the air makes it of great bulk. But as the wind goes away the water is left by itself, and so it appears to be less, though the quantity is really equal. These patients furnish another proof, in that when the cavity has been completely emptied, not even three days elapse before they are full again. What then filled them except air? What else could fill them up so quickly? Not drink; for surely so much does not enter the body. Not flesh either; as there does not remain flesh to be dissolved. In fact only bones, sinews and skin are left, from none of which could come any increase of water.

XIII. The cause of dropsy then has been set forth; apoplexy, too, is caused by breaths. For when they pass through the flesh and puff it up, the parts of the body affected lose the power of feeling. So if copious breaths rush through the whole body,

¹ An unique use of κλύζω, which accounts for the variant ἐκαύθησαν. I translate the aorists throughout as gnomic, and do not confine their meaning to past instances only.

⁵ ῥιός A: ῖves other MSS. Nelson says Erotian also, but ῖves occurs in *Places in Man* (Littré vi. 284). We must not assume that Erotian read ῖves here.

⁶ αὗται διαδύνουσαι A: αἱ φύσαι ψυχραὶ οὖσαι καὶ πολλαὶ διαδύνουσι καὶ other MSS. (with slight variations).

διατρέχωσιν, ὅλος ὠνθρωπος ἀπόπληκτος γίνεται. ἣν δὲ ἐν μέρει τινί, τοῦτο τὸ μέρος· καὶ ἣν μὲν ἀπέλθωσιν αὐται, παύεται ἡ νοῦσος· ἣν δὲ

9 παραμείνωσι, παραμένει.¹

XIV. Δοκεῖ δέ μοι καὶ τὴν ἱερὴν καλεομένην νοῦσον τοῦτο εἶναι τὸ παρεχόμενον· οἷσι δὲ λόγοις ἐμαυτὸν ἔπεισα, τοῖς αὐτοῖσι τούτοις καὶ τοὺς ἀκούοντας πείθειν πειρήσομαι. ἡγεῦμαι δὲ οὐδὲν ἔμπροσθεν οὐδενὶ εἶναι μᾶλλον τῶν ἐν τῷ σώματι συμβαλλόμενον ἐς φρόνησιν ἢ τὸ αἷμα.² τοῦτο δὲ ὅταν μὲν ἐν τῷ καθεστῶτι μένῃ, μένει καὶ ἡ φρόνησις· ἑτεροιοιούμενον³ δὲ τοῦ αἵματος μεταπίπτει καὶ ἡ φρόνησις. ὅτι δὲ ταῦτα οὕτως
10 ἔχει, πολλὰ τὰ μαρτυρέοντα· πρῶτον μὲν, ὅπερ ἅπασι ζώοις κοινόν ἐστιν, ὁ ὕπνος, οὗτος μαρτυρεῖ τοῖς εἰρημένοισιν· ὅταν γὰρ ἐπέλθῃ τῷ σώματι,⁴ τὸ αἷμα ψύχεται, φύσει γὰρ ὁ ὕπνος πέφυκεν ψύχειν· ψυχθέντι δὲ τῷ αἵματι νωθρότεραι γίνονται αἱ διέξοδοι. δῆλον δὲ· ῥέπει τὰ σώματα καὶ βαρύνεται (πάντα γὰρ τὰ βαρέα πέφυκεν ἐς βυσσὸν φέρεσθαι), καὶ τὰ ὄμματα συγκλείεται, καὶ ἡ φρόνησις ἀλλοιοῦται, δόξαι δὲ ἕτεραί τινες ἐνδιατρίβουσιν, αἱ δὲ ἐνύπνια καλέονται. πάλιν
20 ἐν τῇσι μέθῃσι πλέονος ἐξαίφνης γενομένου τοῦ

¹ After παραμένει M and several other MSS. read ὅτι δὲ ταῦτα οὕτως ἔχει, χασμώνται συνεχῶς.

² ἡγεῦμαι οὐδὲν . . . αἷμα· Nelson. Littré has ἡγεῦμαι δὲ ἔμπροσθεν μηδὲν εἶναι κ.τ.λ. Ermerins transposes ἔμπροσθεν to before ἐμαυτὸν (above). Reinhold has ἔμπρ. μηδενὶ εἶναι μηδὲν ἀλλὰ τῶν . . . ἀλλ' ἢ τὸ αἷμα. The MSS. show a variety of readings, A having the same as the printed text, except that for συμβαλλόμενον (Littré's emendation) it has (with M) ξυμβαλομένων.

the whole patient is affected with apoplexy. If the breaths reach only a part, only that part is affected. If the breaths go away, the disease comes to an end; if they remain, the disease too remains.

XIV. To the same cause I attribute also the disease called sacred. I will try to persuade my hearers¹ by the same arguments as persuaded myself. Now I hold that no constituent of the body in anyone contributes more to intelligence than does blood.² So long as the blood remains in its normal condition, intelligence too remains normal; but when the blood alters, the intelligence also changes. There are many testimonies that this is the case. In the first place sleep, which is common to all the animals, witnesses to the truth of my words. When sleep comes upon the body the blood is chilled, as it is of the nature of sleep to cause chill. When the blood is chilled its passages become more sluggish. This is evident; the body grows heavy and sinks (all heavy things naturally fall downwards); the eyes close; the intelligence alters, and certain other fancies linger, which are called dreams. Again, in cases of drunkenness, when the blood has increased in

¹ This word (ἀκούοντας) seems to imply that περὶ φύσων was originally a lecture or ἐπίδειξις.

² I have followed A and Nelson only because I have nothing better to propose. Although the general meaning is clear, the text is intolerably harsh, both in grammar and in order. If I may hazard a conjecture, the manuscript tradition represents a conflation of simpler readings, one of which worked with ἐμπροσθεν and the other with μᾶλλον.

³ ἐτεροιοιούμενου A: ἐξαλλάσσοντος M.

⁴ After σώματι many MSS. have ὁ ὕπνιος τότε.

αἵματος μεταπίπτουσιν αἱ ψυχαὶ καὶ τὰ ἐν
τῇσι ψυχῇσι φρονήματα, καὶ γίνονται τῶν μὲν
παρεόντων κακῶν ἐπιλήσμονες, τῶν δὲ μελλόντων
ἀγαθῶν εὐέλπιδες. ἔχοιμι δ' ἂν πολλὰ τοιαῦτα
εἰπεῖν, ἐν οἷσιν αἱ τοῦ αἵματος ἐξαλλαγαὶ τὴν
φρόνησιν ἐξαλλάσσουν. ἦν μὲν οὖν παντελῶς
ἅπαν ἀναταραχθῇ τὸ αἷμα, παντελῶς ἡ φρόνησις
ἐξαπόλλυται· τὰ γὰρ μαθήματα καὶ τὰ ἀναγνω-
ρίσματα ἐθίσματά ἐστιν· ὅταν οὖν ἐκ τοῦ
30 εἰωθότος ἔθεος μεταστέωμεν, ἀπόλλυται ἡμῖν ἡ
φρόνησις. φημὶ δὲ τὴν ἱερὴν νοῦσον ὧδε γίνεσθαι·
ὅταν πνεῦμα πολὺ κατὰ πᾶν τὸ σῶμα παντὶ τῷ
αἵματι μιχθῇ, πολλὰ ἐμφράγματα γίνεται
πολλαχῇ κατὰ τὰς φλέβας· ἐπειδὴν οὖν ἐς τὰς
παχείας καὶ πολυαίμους φλέβας πολὺς ἀὴρ
βρίσῃ, βρίσας δὲ μείνῃ, κωλύεται τὸ αἷμα
διξιέναι· τῇ μὲν οὖν ἐνέστηκε, τῇ δὲ ἰωθρῶς
διξέρχεται, τῇ δὲ θᾶσσον· ἀνομοίης δὲ τῆς
πορείης τῷ αἵματι διὰ τοῦ σώματος γενομένης,
40 παντοῖαι αἱ ἀνομοιότητες· πᾶν γὰρ τὸ σῶμα
πανταχόθεν ἔλκεται καὶ τετίνακται τὰ μέρη
τοῦ σώματος ὑπηρετέοντα τῷ ταραχῶ καὶ θορύβῳ
τοῦ αἵματος, διαστροφαί τε παντοῖαι παντοίως
γίνονται· κατὰ δὲ τοῦτον τὸν καιρὸν ἀναίσθητοι
πάντων εἰσίν, κωφοί τε τῶν λεγομένων τυφλοί
τε τῶν γινομένων, ἀνάλγητοί τε πρὸς τοὺς πόνους·
οὕτως ὁ ἀὴρ ταραχθεὶς ἀνετάραξε τὸ αἷμα καὶ
ἐμήνεν. ἀφροὶ δὲ διὰ τοῦ στόματος ἀνατρέχουσιν
εἰκότως· διὰ γὰρ τῶν φλεβῶν διαδύνων ὁ ἀὴρ,
50 ἀνέρχεται μὲν αὐτός, ἀνάγει δὲ μεθ' ἐωυτοῦ τὸ
λεπτότατον τοῦ αἵματος· τὸ δὲ ὑγρὸν τῷ ἡέρι
μιγνύμενον λευκαίνεται· διὰ λεπτῶν γὰρ ὑμένων

quantity, the soul and the thoughts in the soul change; the ills of the present are forgotten, but there is confidence that the future will be happy. I could mention many other examples of an alteration in the blood producing an alteration of the intelligence. So if all the blood experience a thorough disturbance, the intelligence is thoroughly destroyed. For learnings and recognitions are matters of habit. So whenever we depart from our wonted habit our intelligence perishes. I hold that the sacred disease is caused in the following way. When much wind has combined throughout the body with all the blood, many barriers arise in many places in the veins. Whenever therefore much air weighs, and continues to weigh, upon the thick, blood-filled veins, the blood is prevented from passing on. So in one place it stops, in another it passes sluggishly, in another more quickly. The progress of the blood through the body proving irregular, all kinds of irregularities occur. The whole body is torn in all directions; the parts of the body are shaken in obedience to the troubling and disturbance of the blood; distortions of every kind occur in every manner. At this time the patients are unconscious of everything—deaf to what is spoken, blind to what is happening, and insensible to pain. So greatly does a disturbance of the air disturb and pollute the blood. Foam naturally rises through the mouth. For the air, passing through the veins, itself rises and brings up with it the thinnest part of the blood. The moisture, mixing with the air, becomes white, for the air being pure is

καθαρὸς ἔων ὁ ἀὴρ διαφαίνεται· διὸ δὴ λευκοὶ φαίνονται παντελῶς οἱ ἀφροί. πότε οὖν παύσονται τῆς νούσου καὶ τοῦ παρεόντος χειμῶνος οἱ ὑπὸ τούτου τοῦ νοσήματος ἀλίσκόμενοι;¹ ὁπότεν γυμνασθὲν ὑπὸ τῶν πόνων τὸ σῶμα θερμήνη τὸ αἷμα· τὸ δὲ διαθερμανθὲν ἐθέρμηνε τὰς φύσας, αὗται δὲ διαθερμανθεῖσαι διαφέρονται καὶ
 60 διαλύουσι τὴν σύστασιν τοῦ αἵματος, αἱ μὲν συνεξελθοῦσαι μετὰ τοῦ πνεύματος, αἱ δὲ μετὰ τοῦ φλέγματος· ἀποζέσαντος δὲ τοῦ ἀφροῦ καὶ καταστάντος τοῦ αἵματος καὶ γαλήνης ἐν τῷ
 64 σώματι γενομένης πέπαυται τὸ νόσημα.

XV. Φαίνονται τοίνυν αἱ φύσαι διὰ πάντων τῶν νοσημάτων μάλιστα πολυπραγμονέουσai· τὰ δ' ἄλλα πάντα συναίτια καὶ μεταίτια· τοῦτο δὴ τὸ αἷτιον τῶν νούσων ἐπιδέδεικται μοι. ὑπεσχόμην δὲ τῶν νούσων τὸ αἷτιον φράσειν, ἐπέδειξα δὲ τὸ πνεῦμα καὶ ἐν τοῖς ὅλοις² πρήγμασι δυναστεῦον καὶ ἐν τοῖσι σώμασι τῶν ζώων· ἡγαγον δὲ τὸν λόγον ἐπὶ τὰ γνῶριμα τῶν ἀρρωστημάτων, ἐν οἷς ἀληθὴς ἡ ὑπόθεσις ἐφάνη·
 10 εἰ γὰρ περὶ πάντων τῶν ἀρρωστημάτων λέγοιμι, μακρότερος μὲν ὁ λόγος ἂν γένοιτο, ἀτρεκέστερος
 12 δὲ οὐδαμῶς, οὐδὲ πιστότερος.

¹ After ἀλίσκόμενοι M adds ἐγὼ φράσω.

² ὅλοις A: ἄλλοισι M. Cf. p. 231.

seen through thin membranes. For this reason the foam appears completely white. When then will the victims of this disease rid themselves of their disorder and the storm that attends it? When the body exercised by its exertions has warmed the blood, and the blood thoroughly warmed has warmed the breaths, and these thoroughly warmed are dispersed, breaking up the congestion of the blood, some going out along with the respiration, others with the phlegm. The disease finally ends when the foam has frothed itself away, the blood has re-established itself, and calm has arisen in the body.

XV. So breaths are seen to be the most active agents during all diseases; all other things are but secondary and subordinate causes. This then as the cause of diseases I have now expounded. I promised to declare the cause of diseases, and I have set forth how wind is lord, not only in things as wholes, but also in the bodies of animals. I have led my discourse on to familiar maladies in which the hypothesis has shown itself correct. If indeed I were to speak of all maladies, my discourse, while being longer, would not be in the least more true or more convincing.