



WILLIAM CULLEN M.D.

Drawn from an original picture by G. Kneller & Engr'd by R. Smith.

FIRST LINES
OF THE
PRACTICE OF PHYSIC,

BY
WILLIAM CULLEN, M.D.

Late Professor of the Practice of Physic in the University of Edinburgh;
First Physician to his Majesty for Scotland;
Fellow of the Royal College of Physicians of Edinburgh,
of the Royal Societies of London, of Edinburgh,
&c. &c. &c.

A NEW EDITION,
IN TWO VOLUMES.

WITH
SUPPLEMENTARY NOTES,
INCLUDING THE MORE RECENT IMPROVEMENTS IN THE
PRACTICE OF MEDICINE,
BY PETER REID.

VOLUME I.

EDINBURGH:
PRINTED FOR REID & SCOTT, OPPOSITE THE COLLEGE;
AND FOR J. WALLIS, NO. 46. PATER-NOSTER-ROW, LONDON:
By Munde & Son, Edinburgh.

1802.

Henry A. Wilbur - Dec 20

CONTENTS.

	Page
INTRODUCTION, - - -	31

PART I.

OF PYREXIÆ, or Febrile Diseases, - -	34
--------------------------------------	----

BOOK I.

OF FEVERS, - - -	35
CHAP. I.—Of the Phenomena of Fevers, -	ib.
II.—Of the Proximate Cause of Fever, -	47
III.—Of the Difference of Fevers, and its Causes, -	64
IV.—Of the Remote Causes of Fever, -	75
V.—Of the Prognosis of Fevers, -	93
VI.—Of the Method of Cure in Fevers, -	106
Sect. I.—Of the Cure in Continued Fevers, -	ib.
II.—Of the Cure of Intermittent Fevers, -	158

BOOK II.

OF INFLAMMATIONS, or Phlegmasiæ, - -	167
CHAP. I.—Of Inflammation in general, -	ib.
Sect. I.—Of the Phenomena of Inflammation, -	ib.
II.—Of the Proximate Cause of Inflammation, -	169
III.—Of the Terminations of Inflammation, - - -	177
IV.—Of the Remote Causes of Inflammation, - - -	187
V.—Of the Cure of Inflammation, -	188

Wf 452

CONTENTS.

CHAP. II.—Of Inflammation, more strictly Cutaneous,	Page 194
III.—Of Ophthalmia, or Inflammation of the Eye,	198
IV.—Of Phrensy, or Phrenitis,	206
V.—Of the Quinsy, or Cynanche,	209
Sect. I.—Of the Cynanche Tonfillarıs,	210
II.—Of the Cynanche Maligna,	213
III.—Of the Cynanche Trachealis,	219
IV.—Of the Cynanche Pharyngæa,	224
V.—Of the Cynanche Parotidæa,	225
VI.—Of Pneumonic Inflammation,	227
VII.—Of Peripneumonia Notha, or Bastard Peripneumony,	250
VIII.—Of the Gastritis, or Inflammation of the Stomach,	256
IX.—Of the Enteritis, or Inflammation of the Intestines,	266
X.—Of the Hepatitis, or Inflammation of the Liver,	268
XI.—Of the Nephritis, or Inflammation of the Kidneys,	275
XII.—Of the Rheumatism,	277
XIII.—Of the Toothach, or Odontalgia,	294
XIV.—Of the Gout,	302

BOOK III.

OF EXANTHEMATA, or Eruptive Fevers,	343
CHAP. I.—Of the Small-Pox,	345
II.—Of the Chicken-Pox,	373
III.—Of the Measles,	381
IV.—Of the Scarlet Fever,	388
V.—Of the Plague,	396
Sect. I.—Of the Phenomena of the Plague,	ib.
II.—Of the Prevention of the Plague,	399
III.—Of the Cure of the Plague,	405

CONTENTS.

CHAP. VI.—Of Erysipelas, or St. Anthony's Fire,	Page 409
VII.—Of the Miliary Fever,	416
VIII.—Of the remaining Exanthemata:—Urticaria, Pemphigus, and Aphtha,	425

BOOK IV.

OF HEMORRHAGIES,	428
CHAP. I.—Of Hemorrhagy in general,	ib.
Sect. I.—Of the Phenomena of Hemorrhagy,	430
II.—Of the Proximate Cause of Hemorrhagy,	431
III.—Of the Remote Causes of Hemorrhagy,	449
IV.—Of the Cure of Hemorrhagy,	451
II.—Of the Epistaxis, or Hemorrhagy of the Nose,	463
III.—Of the Hemoptysis, or Hemorrhagy from the Lungs,	472
Sect. I.—Of the Phenomena and Causes of Hemoptysis,	ib.
II.—Of the Cure of Hemoptysis,	479
IV.—Of the Phthisis Pulmonalis, or Consumption of the Lungs,	482
Sect. I.—Of the Phenomena and Causes of the Phthisis Pulmonalis,	ib.
II.—Of the Cure of Phthisis,	509
V.—Of the Hemorrhoids, or of the Hemorrhoidal Swelling and Flux,	525
Sect. I.—Of the Phenomena and Causes of the Hemorrhoids,	ib.
II.—Of the Cure of Hemorrhoidal Affections,	536

P R E F A C E

BY

THE EDITOR.

THE almost unrivalled celebrity of Dr. CULLEN, and the high estimation which his Practice of Medicine has universally acquired, render it quite unnecessary to expatiate on his merits. His practical remarks are almost converted into medical axioms; and even error itself was, for a time, respected under the venerable sanction of his name. To him we are indebted for first arranging the scattered and insulated subjects of practical medicine, into a system at once luminous, profound, simple, and connected, and which every where exhibits the stamp of a vigorous generalising mind; where an un-

common talent for observation, united with the most ample experience, give such an authority to his conclusions, that, in what regards the treatment of diseases, to depart from the opinion of Cullen, is considered such a schism from the **established creed** of medical men, as can only be justified by the most decisive evidence.

If Dr. Cullen has failed any where, it is where no man has yet been successful, in his attempts to theorise; attempts which it seems to be the fate of almost every medical man of genius to make, and in which the frequent failure has afforded more than an honest triumph to those who never fall, because they never venture to rise, and who are not unfrequently deterred, rather by the imbecillity than the comprehension of their minds, from following a like course. Indeed, there seems something so irresistibly fascinating in prescribing from a plausible theory, in being able to point out the na-

ture of proximate causes, and grasp a system by one daring effort of intellect, that we have as little reason to wonder at the many strange theories that have been broached, as at the tenacity with which the most absurd of them has been maintained; nor is it easy to determine, whether he who follows the blind routine of empiricism, or he whose practice is shaken by the crude conceptions of every school-boy theorist, is more to be pitied. There is, however, a middle way between the creeping round of mere matter of fact men, and the airy fancies of those who soar infinitely beyond the regions of sober sense and sound judgment. "The one should remember, that without mechanical performances, refined speculation is an empty dream; and the other, that without theoretical reasoning, dexterity is little more than a brute instinct*."

* Rambler.

In the following notes, I have endeavoured to give a clear view of the more important discoveries which have been made in the practice of medicine since the time that Dr. Cullen wrote ; and I hope that I have been enabled to supply all the more recent and useful information on this subject, which indeed is by no means so extensive as might have been expected, from the rapid progress which the sciences most intimately connected with medicine have made of late years,

Since Dr. Cullen's work appeared, new systems have been advanced by men distinguished by their genius and learning, which, in many points, have enlarged our knowledge of the animal economy ; but, to enter into these speculations, is perfectly foreign to the object of the following Notes, which are intended to be principally of a practical nature.

The definitions of diseases taken from

Dr. Cullen's Nosology, must be useful to the Student who wishes to retain in his mind the more prominent and characteristic symptoms of each disease.

The Formulæ are intended to accommodate the more general directions to practice, and to prevent that embarrassment which is often so troublesome to those who have not been much habituated to prescription.

P R E F A C E
TO THE LAST EDITION

BEFORE THE AUTHOR'S DEATH.

To deliver a System of the Doctrines and Rules proper for directing the Practice of Physic, is an undertaking that appears to me to be attended with great difficulty; and, after an experience of more than forty years in that practice, as well as after much reading and reflection, it was with great diffidence that I ever entered upon such a work. It was, however, what seemed to be my duty as a Professor that induced me to make the attempt, and I was engaged in it by the same sentiments that the illustrious Dr. Boerhaave has expressed in the following passage of the Preface to his Institutions: "Simul enim docendo
"admotus eram fensi, propriorum cogitatorum explicati-
"one docentem plus proficere, quam si opus ab alio con-
"scriptum interpretari fuscipit. Sua quippe optime intel-
"ligit, fua cuique præ cæteris placent, unde clarior fere
"doctrina, atque animata plerumque fequitur oratio. Qui
"vero fensa alterius exponit, infelicius fæpenumero eadem
"aflequitur; quumque fuo quifque fensu abundat, multa
"refutanda frequenter invenit, unde gravem fruſtra labo-
"rem aggravat, minusque incitata diſtione utitur." It is well known that a Text-book is not only extremely uſeful but neceſſary to Students who are to hear Lectures; and from the ſame conſiderations that moved Dr. Boerhaave, I

also wished to have one for myself; while at the same time, from some peculiar circumstances in my situation, I had some additional inducements to undertake such a work.

Before I was established as a Professor of the Practice of Physic in this University, I had been employed in giving Clinical Lectures in the Royal Infirmary, and upon that occasion had delivered what, in my own opinion, seemed most just with regard to both the nature and the cure of the diseases of which I had occasion to treat; but I soon found that my doctrines were taken notice of as new and peculiar to myself, and were accordingly severely criticised by those who, having long before been trained up in the system of Boerhaave, had continued to think that that system neither required any change, nor admitted of any amendment. I found at the same time, that my doctrines were frequently criticised by persons who either had not been informed of them correctly, or who seemed not to understand them fully; and therefore as soon as I was employed to teach a more complete System of the Practice of Physic, I judged it necessary to publish a Text-book, not only for the benefit of my hearers, but that I might also have an opportunity of obtaining the opinion of the Public more at large, and thereby be enabled either to vindicate my doctrines, or be taught to correct them. These were the motives for my attempting the Volumes I formerly published; and now, from many years experience of their utility to my hearers, as well as from the favourable reception they have met with from the Public, I am induced to give a new edition of this Work, not only, as I hope, more correct in many parts, but also more complete and comprehensive in its general extent.

At the first publication of this Work, it was intended chiefly for the use of those Gentlemen who attended my Lectures, although even then, for the reasons I have mentioned, it was rendered more full than Text-books commonly are; and in the repeated editions I have since had occasion to give, I have been constantly endeavouring to render it more full and comprehensive. In these respects, I hope the present edition will appear to be rendered more fit for general use, and better calculated to afford satisfaction to all those who think they may still receive any instruction from reading on this subject.

While I thus deliver my Work in its now more improved state, with the hopes that it may be of use to others as well as to those who hear my Lectures, I must at the same time observe, that it presents a system which is in many respects new, and therefore I apprehend it to be not only proper, but necessary, that I should explain here upon what grounds and from what considerations this has been attempted.

In the first place, I apprehend that in every branch of science with respect to which new facts are daily acquired, and these consequently giving occasion to new reflections, which correct the principles formerly adopted, it is necessary from time to time to reform and renew the whole system, with all the additions and amendments which it has received and is then capable of. That at present this is requisite with regard to the Science of Medicine, will I believe readily occur to every person who at all thinks for himself, and is acquainted with the Systems which have hitherto prevailed. While therefore I attempt this, I think it may be allowable, and upon this occasion even proper, that I should offer some remarks on the principal Systems of Medicine which have of late prevailed

in Europe, and that I should take notice of the present state of Physic as it is influenced by these. Such remarks I hope may be of some use to those who attempt to improve their knowledge by the reading of books.

Whether the Practice of Physic should admit of reasoning, or be entirely rested upon experience, has long been and may still be a matter of dispute. I shall not however at present enter upon the discussion of this, because I can venture to assert, that at almost all times the practice has been, and still is with every person, founded more or less upon certain principles established by reasoning; and therefore, in attempting to offer some view of the present state of Physic, I must give an account of those systems of the principles of the science which have lately prevailed, or may be supposed still to prevail in Europe.

When, after many ages of darkness, which had destroyed almost the whole of ancient literature, learning was again restored in the fifteenth century; so, from causes which are well known, it was the system of Galen alone that the Physicians of those days became acquainted with; and during the course of the sixteenth century, the study of Physicians was almost solely employed in explaining and confirming that system. Early indeed in the sixteenth century, the noted Paracelsus had laid the foundation of a Chemical System, which was in direct opposition to that of Galen, and by the efficacy of the medicines employed by Paracelsus and his followers, their system came to be received by many; but the systematic Physicians continued to be chiefly Galenists, and kept possession of the Schools till the middle of the seventeenth century. It is not however necessary here to enter into any further detail respecting the fate of those two opposite sects, for the only circumstance concerning them, which I would wish at pre-

sent to point out, is, that, in the writings of both, the explanations they severally attempted to give of the phenomena of health or sickness turned very entirely upon the state of the fluids of the body.

Such was the state of the science of Physic till about the middle of the seventeenth century, when the circulation of the blood came to be generally known and admitted, and when this, together with the discovery of the receptacle of the chyle and of the thoracic duct, finally exploded the Galenic system. About the same period, a considerable revolution had taken place in the system of Natural Philosophy. In the course of the seventeenth century, Galileo had introduced mathematical reasoning, and Lord Bacon having proposed the method of induction, had thereby excited a disposition to observe facts, and to make experiments. These new modes of philosophising, it might be supposed, would soon have had some influence on the state of medicine, but the progress of this was slow. The knowledge of the Circulation did indeed necessarily lead to the consideration, as well as to a clearer view of the Organic System in animal bodies, which again led to the application of the mechanical philosophy towards explaining the phenomena of the animal economy; and it was applied accordingly, and continued, till very lately, to be the fashionable mode of reasoning on the subject. Such reasoning indeed must still in several respects continue to be applied; but it would be easy to show, that it neither could nor ever can be applied to any great extent in explaining the animal economy, and we must therefore look for other circumstances which had a greater share in modelling the System of Physic.

With this view it may be remarked, that till the period just now mentioned, every physician, whether Galenist or

Chemist, had been so much accustomed to consider the state and condition of the fluids both as the cause of disease and as the foundation for explaining the operation of medicines, that what we may term an HUMORAL PATHOLOGY still continued to make a great part of every system. In these circumstances, it was soon perceived that chemistry promised a much better explanation than the Galenic or Aristotelian philosophy had done; and therefore, while the latter was entirely laid aside, a chemical reasoning was every-where received. Lord Bacon, with his usual sagacity, had early observed that chemistry promised a great number of facts, and he thereby gave it credit; whilst the Corpuscularian philosophy, restored by Gassendi, readily united with the reasonings of the Chemists; and the philosophy of Des Cartes readily united with both. From all these circumstances, an Humoral, and chiefly a Chemical Pathology, came to prevail very much till the end of the last century, and has indeed continued to have a great share in our systems down to the present time.

It is proper now, however, to observe, that about the beginning of the present century, when every part of science came to be on a more improved and correct footing, there appeared in the writings of STAHL, of HOFFMAN, and of BOERHAAVE, three new, and considerably different Systems of Physic, which have ever since had a great share in directing the practice of it. In order, therefore, to give a nearer view of the present state of Physic, I shall offer some remarks upon these different systems; endeavouring to point out the advantages as well as the disadvantages of each, and how far they still prevail, or, according to my judgment, deserve to do so.

I shall begin with considering that of Dr. Stahl, which

I think appeared first, and for a long time after was the prevailing system in Germany.

The chief and leading principle of this system is, that the rational soul of man governs the whole economy of his body. At all times Physicians have observed, that the animal economy has in itself a power or condition, by which, in many instances, it resists the injuries which threaten it, and by which it also, on many occasions, corrects or removes the disorders induced, or arising in it. This power Physicians very anciently attributed, under a vague idea, to an agent in the system, which they called NATURE; and the language of a *vis conservatrix et medicatrix nature*, has continued in the schools of medicine from the most ancient times to the present.

Dr. Stahl has explicitly founded his system on the supposition, that the power of nature, so much talked of, is entirely in the rational soul. He supposes, that upon many occasions the soul acts independently of the state of the body, and that without any physical necessity arising from that state, the soul, purely in consequence of its intelligence, perceiving the tendency of noxious powers threatening, or of disorders any ways arising in the system, immediately excites such motions in the body as are suited to obviate the hurtful or pernicious consequences which might otherwise take place. Many of my readers may think it was hardly necessary for me to take notice of a system founded upon so fanciful a hypothesis; but there is often so much seeming appearance of intelligence and design in the operations of the animal economy, that many eminent persons, as Perrault in France, Nichols and Mead in England, Porterfield and Simson in Scotland, and Gaubius in Holland, have very much countenanced the same opinion, and it is therefore certainly entitled to some regard. It is

not however necessary for me here to enter into any refutation of it. Dr. Hoffman has done this fully, in his *Commentarius de differentia inter Hoffmanni doctrinam medico-mechanicam et G. E. Stahl's medico-organicam*; and both Boerhaave and Haller, though no favourers of materialism, have maintained a doctrine very opposite to that of Stahl.

In my Physiology I have offered some arguments against the same; and I shall only add now, that whoever considers what has been said by Dr. Nichols in his *Oratio de Anima Medica*, and by Dr. Gaubius in some parts of his Pathology, must perceive, that the admitting of such a capricious government of the animal economy, as these authors in some instances suppose, would at once lead us to reject all the physical and mechanical reasoning we might employ concerning the human body. Dr. Stahl himself seems to have been aware of this; and therefore, in his Preface to Juncker's *Conspectus Therapæie Specialis*, has acknowledged, that his general principle was not at all necessary; which is in effect saying, that it is not compatible with any system of principles that ought to govern our practice. Upon this footing, I might have at once rejected the Stahlian principle; but it is even dangerous to bring any such principle into view: for, after all Dr. Stahl had said in the passage just now referred to, I find, that, in the whole of their practice, both he and his followers have been very much governed by their general principle. Trusting much to the constant attention and wisdom of nature, they have proposed the *Art of curing by expectation*; have therefore, for the most part, proposed only very inert and frivolous remedies; have zealously opposed the use of some of the most efficacious, such as opium and the Peruvian bark; and are extremely reserved in the use of general remedies, such as bleeding, vomiting, &c.

Although these remarks, upon a system which may now be considered as exploded or neglected, may seem superfluous, I have been willing to give these strictures on the Stahlian system, that I might carry my remarks a little farther, and take this opportunity of observing, that in whatever manner we may explain what have been called the operations of nature, it appears to me that the general doctrine of *Nature curing diseases*, the so much vaunted *Hippocratic* method of curing, has often had a very baneful influence on the practice of physic, as either leading physicians into, or continuing them in a weak and feeble practice, and at the same time superseding or discouraging all the attempts of art. Dr. Huxham has properly observed, that even in the hands of Sydenham it had this effect. Although it may sometimes avoid the mischiefs of bold and rash practitioners, yet it certainly produces that caution and timidity which have ever opposed the introduction of new and efficacious remedies. The opposition to chemical medicines in the sixteenth and seventeenth centuries, and the noted condemnation of Antimony by the Medical Faculty of Paris, are to be attributed chiefly to those prejudices, which the physicians of France did not entirely get the better of for near a hundred years after. We may take notice of the reserve it produced in Boerhaave, with respect to the use of the Peruvian Bark. We have had lately published, under the title of *Constitutiones Epidemica*, notes of the particular practice of the late Baron Van Swieten; upon which the editor very properly observes, That the use of the bark, in intermitting fevers, appears very rarely in that practice; and we know very well where Van Swieten learned that reserve.

I might go farther, and show how much the attention to the *Autocrateia*, allowed of, in one shape or other, by every

fect, has corrupted the practice among all physicians, from Hippocrates to Stahl. It must however be sufficiently obvious, and I shall conclude the subject with observing, that although the *vis medicatrix nature* must unavoidably be received as a fact, yet, wherever it is admitted, it throws an obscurity upon our system; and it is only where the impotence of our art is very manifest and considerable, that we ought to admit of it in practice.

To finish our remarks upon the Stahlian System, I shall shortly observe, that it did not depend entirely upon the *Autocrateia*, but also supposed a state of the body and diseases that admitted of remedies, which, under the power and direction of the soul, acted upon the organization and matter of the body, so as to cure its diseases. Upon this footing, the Stahlian pathology turned entirely upon Plethora and Cacochymy. It was with respect to the former that they especially applied their doctrine of the *Autocrateia* in a very fanatical manner; and, with respect to the latter, they have been involved in a humoral pathology as much as the systematic physicians who had gone before them, and with a theory so incorrect, as not to merit now the smallest attention. After all, I ought not to dismiss the consideration of the Stahlian system, without remarking, that as the followers of this system were very intent upon observing the method of nature, so they were very attentive in observing the phenomena of diseases, and have given us in their writings many facts not to be found elsewhere.

While the doctrines of Stahl were prevailing in the university of Halle, Dr. Hoffman, a professor in the same university, proposed a system that was very different. He received into his system a great deal of the mechanical, Cartesian, and chemical doctrines of the systems which had

appeared before: but, with respect to these, it is of no consequence to observe in what manner he modified the doctrines of his predecessors, as his improvements in these respects were no ways considerable, and no part of them now remain; and the real value of his works, beyond what I am just now going to mention, rests entirely on the many facts they contain. The merit of Dr. Hoffman and of his works is, that he made, or rather suggested an addition to the system, which highly deserves our attention. Of this I cannot give a clearer account than by giving it in the author's own words. In his *Medicina Rationalis Systematica*, Tom. III. § 1. chap. 4. he has given his *Genealogia morborum ex turbato solidorum et fluidorum mechanismo*; and in the 47th and last paragraph of this chapter, he sums up his doctrine in the following words: "Ex hisce autem omnibus uberius hactenus excussis, per quam dilucide apparere arbitror, quod solus SPASMUS et simplex ATONIA, æquabilem, liberum, ac proportionatum sanguinis omnifque generis fluidorum motum, quibus excretionum successus et integritas functionum animi et corporis proxime nititur, turbando ac pervertendo, universam vitalem œconomiam subruant ac destruant; atque hinc universa pathologia longe rectius atque facilius EX VITIO MOTUUM MICROCOSMICORUM IN SOLIDIS, quam EX VARIIS AFFECTIONIBUS VITIOSORUM HUMORUM, deduci atque explicari possit, adeoque omnis generis ægitudines interinæ, ad PRETERNATURALES GENERIS NERVOSE AFFECTIONES sint referendæ. Etenim læsis quocunque modo, vel nervis per corpus discurrentibus, vel membranosis quibuscvis nervosis partibus, illico motuum anomalix, modo leviores, modo graviores subsequuntur. Deinde attempta observatio docet, motus quovis morbosos principaliter sedem figere et tyrannidem exercere in nervosis cor-

" poris partibus, cujus generis præter omnes canales, qui
 " systaltico et diastaltico motu pollentes, contentos succos
 " tradunt, univcrsum nimirum intestinorum et ventriculi
 " ab œsophago ad anum canalem, totum systema vasorum
 " arterioforum, ductuum biliariorum, salivalium, urinario-
 " rum et subcutaneorum, sunt quoque membranæ nerveo-
 " musculares cerebri et medullæ spinalis, præsertim hæc,
 " quæ dura mater vocatur, organis sensorii obductæ, nec
 " non tunicæ iliæ ac ligamenta, quæ ossa cingunt artusque
 " firmant. Nam nullus dolor, nulla inflammatio, nullus
 " spasmus, nulla motus et sensus impotentia, nulla febris
 " aut humoris illius excretio, accidit, in qua non hæ par-
 " tes patiantur. Porro etiam omnes, quæ morbos gignunt
 " causæ, operationem suam potissimum perficiunt in par-
 " tes motu et sensu præditas, et canales ex his coagmen-
 " tatos, eorum motum, et cum hoc fluidorum cursum, per-
 " vertendo; ita tamen, ut sicuti variæ indolis sunt, sic
 " etiam varie in nerveas partes agant, iisdemque noxam
 " affricent. Demum omnia quoque eximie virtutis medi-
 " camenta, non tam in partes fluidas, earum crasin ac in-
 " temperiem corrigendo, quam potius in solidas et nervo-
 " sas, earundem motus alterando ac moderando, suam
 " edunt operationem: de quibus tamen omnibus, in vul-
 " gari usque eo recepta morborum doctrina, altum est si-
 " lentium."

It is true that Dr. Willis had laid a foundation for this doctrine in his *Pathologia Cerebri et Nervorum*; and Baglivi had proposed a system of this kind in his *Specimen de fibra metrici et morbosa*. But, in these writers, it was either not extensively applied to diseases, or, was still so involved in many physiological errors, that they had attracted little attention; and Dr. Hoffman was the first who gave any tolerably simple and clear system on the subject, or pointed

out any extensive application of it to the explanation of diseases.

There can be no sort of doubt that the phenomena of the animal economy in health and in sickness, can only be explained by considering the state and affections of the primary moving powers in it. It is to me surprising that physicians were so long of perceiving this, and I think we are therefore particularly indebted to Dr. Hoffman for putting us into the proper train of investigation; and it every day appears that physicians perceive the necessity of entering more and more into this inquiry. It was this, I think, which engaged Dr. Kaaw Boerhaave to publish his work, intitled *Impetum faciens*; as well as Dr. Gaubius to give the Pathology of the *Solidum vivum*. Even the Baron Van Swieten has upon the same view thought it necessary, in at least one particular, to make a very considerable change in the doctrine of his master, as he has done in his Commentary upon the 755th Aphorism. Dr. Haller has advanced this part of science very much by his experiments on irritability and sensibility. In these, and in many other instances, particularly in the writings of Mr. Barthez of Montpellier, of some progress in the study of the affections of the Nervous System, we must perceive how much we are indebted to Dr. Hoffman for his so properly beginning it. The subject, however, is difficult: the laws of the Nervous System, in the various circumstances of the animal economy, are by no means ascertained; and, from want of attention and observation, with the view to a system on this subject, the business appears to many as an inexplicable mystery. There is no wonder, therefore, that on such a difficult subject, Dr. Hoffman's system was imperfect and incorrect, and has had less influence on the writings and practice of physicians since his time than

might have been expected. He himself has not applied his fundamental doctrine so extensively as he might have done; and he has every where intermixed an Humoral Pathology as incorrect and hypothetical as any other. Though he differed from his colleague Dr. Stahl in the fundamental doctrines of his system, it is but too evident that he was very much infected with the Stahlian doctrines of Plethora and Cacochymy, as may be observed throughout the whole course of his work; and particularly in his chapter *De morborum generatione ex nimia sanguinis quantitate et humorum impuritate*.

But it is needless for me to dwell any longer upon the system of Hoffman; and I am next to offer some remarks on the System of Dr. Boerhaave, the cotemporary of both the other Systematics, and who, over all Europe, and especially in this part of the world, gained higher reputation than either of the others.

Dr. Boerhaave was a man of general erudition, and, in applying to medicine, he had carefully studied the auxiliary branches of Anatomy, Chemistry, and Botany, so that he excelled in each. In forming a System of Physic, he seems to have studied diligently all the several writings of both ancient and modern physicians; and, without prejudice in favour of any former systems, he endeavoured to be a candid and genuine eclectic. Possessed of an excellent systematic genius, he gave a system superior to any that had ever before appeared. As in the great extent, and seemingly perfect consistency of system, he appeared to improve and refine upon every thing that had before been offered; and as in his Lectures he explained his doctrines with great clearness and elegance, he soon acquired a very high reputation, and his system was more generally received than any former had been since the time of Galen.

Whoever will consider the merits of Dr. Boerhaave, and can compare his system with that of former writers, must acknowledge that he was very justly esteemed, and gave a system which was at that time deservedly valued.

But, in the progress of an inquisitive and industrious age, it was not to be expected that any system should last so long as Boerhaave's has done. The elaborate Commentary of Van Swieten on Boerhaave's system of practice, has been only finished a few years ago; and though this Commentator has added many facts, and made some corrections, he has not, except in the particular mentioned above, made any improvement in the general system. It is even surprising that Boerhaave himself, though he lived near forty years after he had first formed his system, had hardly in all that time made any corrections of it or additions to it. The following is the most remarkable: in Aphorism 755, the words *forte et nervosi, tam cerebri quam cerebelli cordi destinati inertia*, did not appear in any edition before the fourth; and what a difference of system this points at, every physician must perceive.

When I first applied to the study of Physic, I learned only the system of Boerhaave; and even when I came to take a Professor's chair in this University, I found that system here in its entire and full force; and as I believe it still subsists in credit elsewhere, and that no other system of reputation has been yet offered to the world, I think it necessary for me to point out particularly the imperfections and deficiencies of the Boerhaavian system, in order to show the propriety and necessity of attempting a new one.

To execute this however so fully as I might, would lead me into a detail that can hardly be admitted of here; and I hope it is not necessary, as, I think, that every intelligent person, who has acquired any tolerable knowledge of the

present state of our science, must, in many instances, perceive its imperfections. I shall therefore touch only upon the great lines of this system; and from the remarks I am to offer, trust that both the mistakes and deficiencies which run through the whole of his works will appear.

Dr. Boerhaave's treatise of the diseases of the simple solid, has the appearance of being very clear and consistent, and was certainly considered by him as a fundamental doctrine; but, in my apprehension, it is neither correct nor extensively applicable. Not to mention the useless, and perhaps erroneous notion of the composition of earth and gluten, nor his mistake respecting the structure of compound membranes, nor his inattention to the state of the cellular texture, all of them circumstances which render his doctrine imperfect, I shall insist only upon the whole being very little applicable to the explaining the phenomena of health or sickness. The laxity or rigidity of the simple solid, does indeed take place at the different periods of life, and may perhaps, upon other occasions, occur as the cause of disease: but I presume that the state of the simple solid is, upon few occasions, either changeable or actually changed; and that in ninety-nine cases of an hundred, the phenomena attributed to such a change do truly depend on the state of the *solidum vivum*; a circumstance which Dr. Boerhaave has hardly taken notice of in any part of his works. How much this shows the deficiency and imperfection of his system, I need not explain. The learned work of Dr. Caubius, above referred to, as well as many other treatises of late authors, point out sufficiently the defects and imperfections of Boerhaave on this subject.

After Dr. Boerhaave has considered the diseases of the solids, he, in the next place, attempts to explain the more simple diseases of the fluids; and there, indeed, he delivers

a more correct doctrine of acid and alkali than had been given before: but, after all, he has done it very imperfectly. We have indeed, since his time, acquired more knowledge upon the subject of digestion; and so much as to know that a great deal more is yet necessary, to enable us to understand in what manner the animal fluids are formed from the aliments taken in. And although Dr. Boerhaave has fallen into no considerable error with respect to a morbid acidity in the stomach, he could not possibly be complete upon that subject; and his notion of the effects of acidity in the mass of blood seems to have been entirely mistaken, and is indeed not consistent with what he himself has delivered elsewhere.

His doctrine of alkali is somewhat better founded, but is probably carried too far; and the state of alkalescency and putrefaction, as well as all the other changes which can take place in the condition of animal fluids, are particulars yet involved in great obscurity, and are therefore still subjects of dispute.

There is another particular, in which Boerhaave's doctrine concerning the fluids, appears to me imperfect and unsatisfactory, and that is, in his doctrine of *Glutinoso spontaneo*. The causes which he has assigned for it are by no means probable, and the actual existence of it is seldom to be proved. Some of the proofs adduced for the existence of the *phlegma calidum*, are manifestly founded on a mistake with respect to what has been called the inflammatory crust, (see Van Swieten's Commentary, page 96); and the many examples given by Boerhaave of a *glutinosum* appearing in the human body, (*Aph.* 75.) are all of them nothing more than instances of collections or concretions found, out of the course of the circulation.