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AN INTRODUCTION

TO

MEDICAL LITERATURE,

INCLUDING

A SYSTEM

OF

PRACTICAL NOSOLOGY.

INTENDED AS A GUIDE TO STUDENTS, AND AN ASSISTANT TO PRACTITIONERS.

TOGETHER WITH DETACHED ESSAYS,

ON THE STUDY OF PHYSIC,
ON CLASSIFICATION,
ON CHEMICAL AFFINITIES,
ON ANIMAL CHEMISTRY,
ON THE BLOOD,
ON THE MEDICAL EFFECTS OF CLIMATES,
ON THE CIRCULATION,
AND
ON PALPITATION.

BY THOMAS YOUNG, M.D. F.R. & L.S.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS,
AND PHYSICIAN TO ST. GEORGE'S HOSPITAL.

THE SECOND EDITION, CONTINUED AND CORRECTED.

LONDON:

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1823.

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TOMES

TO THE

GOVERNORS

OF ST. GEORGE's HOSPITAL

THIS WORK IS DEDICATED

BY THEIR MUCH OBLIGED

AND VERY OBEDIENT SERVANT

THE AUTHOR.

PREFACE.

In a science so complicated and obscure as that of Physic, the want of some direction for the assistance of a student has been the more felt, as the difficulty of the execution of such a work has been greater. Some of the most respectable names have indeed appeared on the title pages of books, which profess to afford such assistance: but the state of medical knowledge is so much altered since the days of Boerhaave and Haller, that the courses of study, recommended by them, can certainly not be pursued at present without great loss of time. In no department of human knowledge is the work of literary discrimination more necessary than in physic; in none is it more difficult, and in none has it been more neglected, at least in this country. Perfection indeed, in a work of this kind, is absolutely unattainable; we can only attempt to point out a sufficient number of good books;

but where so many thousands have been written, even on single diseases, we can never be positively certain that, among the still greater number which must necessarily be left unnoticed, there may not be many equal, or even superior, to those which have been recommended.

The nonexistence of any work in the English language, resembling that which is now offered to the public, while the subject is of the most undeniable importance, must be admitted as an apology for its appearing with many imperfections, which, although they might have been, and may yet be diminished, by a greater portion of labour and attention, are still in some degree obviously inseparable from the nature of the undertaking.

About twelve years ago, I had conceived, and was preparing to pursue, the design of executing a detailed and general work on the actual state of the practice of physic: my plan was interrupted by the delivery and subsequent publication of a course of lectures on natural philosophy; after this, however, it was so far resumed, as became necessary for the preparation

of a short course of lectures on the elements of the medical sciences, which was read, for two successive years, at the Middlesex Hospital. The classifications, which are here attempted, were the result of the consideration necessarily required, in such a general discussion of the different departments of the subject. When I commenced the undertaking, I was disposed to acquiesce in the nosological arrangement of Dr. Cullen, as being the most generally approved and employed in this country: but upon proceeding further in the task, I found it replete with such irregularities and inconsistencies, as appeared to me to afford insuperable objections to its adoption, and I could not help being persuaded, that nothing short of the eminent talents of the author, as a teacher and a writer, could have induced the medical public to tolerate the substitution of such a classification, for the less objectionable ones which had preceded it. I will not say with Ploucquet, that Cullen "has done little or nothing for the improvement of nosology:" but in my opinion, his merit in this department of science is confined to the curtailment of some of the redundancies of Sauvages, and to the correct description and distinction of a certain number of

species of diseases: his genera, his orders, and his classes, are lamentably deficient in the essential qualities of a logical and systematical method. Of this nothing can be a stronger proof than the numerous list of diseases, which, from the defective constitution of his classes, he has been obliged to insert in an appendix, having no place in the system to which they could with propriety be referred: an imperfection which not only implies a want of a clear view of the relations of the diseases immediately concerned, but a radical error in the fundamental divisions of the whole subject, which cannot have been established on natural grounds, while any part of it is thrown out of the general order, as if it had no connexion with the remainder. The inconsistencies of the specific with the generic, and of the generic with the classical, characters of Dr. Cullen's Nosology, are so obvious and so numerous, as easily to be observed even by a superficial reader.

It is true that we must not expect the same rigid accuracy in medicine, that may be obtained in some of the departments of natural history, since in fact many of the distinctions,

which are required in a nosological system, are rather established for the sake of practical convenience, than strongly and immutably characterized by nature: but the more nearly we approach to this accuracy, the more shall we be likely to diminish the number of imperfections, and to leave at last such only, as unavoidably arise out of the nature of the subject.

As an illustration of the path which ought to be followed in such cases, I have thought it right to make some extracts from a work, which contains the most correct and elegant principles of systematical arrangement, the Philosophia Botanica of Linné: and I have been the more disposed to bring forwards the Linnaean precepts on this occasion, as they have been too little observed by many later labourers in those departments of science, which had been so much improved by their influence, in the hands and under the auspices of their illustrious author. Notwithstanding the irregularities which embarrass the classification of diseases, I have, in general, been able to accommodate the nosological arrangement, which I have ventured to propose, to the strictest

rules of the Linnæan philosophy. It happens very frequently, even in botany, that one species requires to be pointed out, in the synoptic view, as often or always entitled to be arranged in a different class or order from that, under which it is most naturally placed with others of the same genus: a similar reference is very often required in nosology; nor can the most judicious arrangement ever be complete without it. There are indeed many cases in which it appears to be simply a matter of discretion to determine, which of a connected train of symptoms should be considered as characterizing the disease: in such cases the insertion of references of this kind, under the respective heads, affords the only possible solution of the difficulty.

In denominating this arrangement a system of practical nosology, the term practical has not been employed as an idle epithet, or as a lure to attract the attention of those who are averse to mere speculation, but as implying that all the definitions of diseases, which are introduced, are supposed to be applicable, and to be capable of being ascertained, during the life of the patient, and during the continuance of

the disease: in contradistinction to anatomical nosology, on the one side, and on the other to mere metaphysical or theoretical distinctions, and to enumerations of symptoms accidentally connected, or of causes, capable of endless variation and combination.

Of Dr. Cullen's classes, I have been able to retain only two without much deviation from their general character, the Neuroses, to which I have given the more appropriate denomination Paraneurismi, or Nervous diseases, and the Pyrexiae, which nearly correspond to my Parhaemasiae, or Sanguine diseases, an appellation under which I have included an order of inflammations and haemorrhages without fever. The Cachexiae of Cullen appear to me to be incapable of a correct definition, and the Locales to be wholly undistinguishable, by any sufficient criterion, from general diseases. Most of the genera contained in these classes, I have distributed among the Secretory and Structural diseases, which I have entitled Pareccrises and Paramorphiae; a few others, together with the greater number of surgical, and all obstetrical diseases, constitute my fifth class, Ectopiae,

comprehending Mechanical or other affections, independent of any morbid derangement of the vital powers; a class separated by a very natural distinction from all the rest. In the arrangement of the Materia medica, I have endeavoured to avoid the use of terms destitute of distinct and definable meaning; but I am by no means confident, that further investigations of the properties of medicines may not hereafter lead to a simpler and better classification.

The collection of literary information, and of references to various authors, is a step which ought always to be preliminary to the execution of a detailed treatise on any department of science; it was therefore a necessary part of the design which I have already mentioned. Having completed this collection, as far as I have thought it necessary, I have been principally induced to lay it separately before the public, by the approbation which has been bestowed on the second volume of my Lectures on Natural Philosophy, consisting principally of a similar methodical catalogue of the literature of all the subjects, which had been

explained, in an elementary manner, in the first volume. How far I may hereafter prosecute the original design of publishing an extensive work on the practice of physic in general, must be determined by many circumstances which I cannot at present foresee.

It is true, that the industry of Ploucquet has furnished the medical practitioner with a most comprehensive and inestimable index of the contents of almost every medical work of importance that has ever been published. But, in the first place, the work is scarcely to be had in this country, and not without a considerable expense in any other: in the second place, it is alphabetical, leaving him who consults it always in uncertainty, whether he may not have failed of obtaining a considerable part of the information which it contains, for want of knowing under what appellation he ought to look for it: and thirdly, from the mere multiplicity of matter, it is wholly useless as a guide to a student, or to any one who wishes to extend his researches beyond a particular disease. That the selection which I have made has always been the best possible, I have not

the presumption to imagine: on the contrary, I have laid down certain rules with respect to the works most particularly quoted, which, though they appear on the whole to be advantageous, have occasioned the apparently unnecessary introduction of several insignificant articles; and without doubt many others of greater importance have been omitted; but these may probably be supplied without difficulty, by pursuing the subject in the authors to whom references have actually been made. I have not wished in general to go much further back than half a century for authorities respecting detached subjects: for example, I have only made a point of quoting the Philosophical transactions since the year 1750, when they were first published by the authority of the Royal Society: but the Edinburgh Medical essays, and other similar collections, I have uniformly employed from the commencement of their publication. The Edinburgh Medical commentaries and Journal, I have preferred to other works of a similar nature, as forming a longer and more complete series, and as being in general somewhat more select. It may perhaps be thought that an undue preference has

sometimes been given to periodical works of this kind, which too often consist of the undigested observations of inexperienced practitioners; but they are on the other hand more generally exempt from the effects of the merciless accumulation of irrelevant matter, which professed authors of books are not uncommonly tempted to introduce; and it would have been as invidious as difficult to assign to each individual contributor to these works his precise share of merit.

I have inserted no books but such as I conceive to be necessary to a complete medical library: those which are of the most established importance are distinguished by an asterisc: and those which every student ought to think himself obliged to peruse, in the course of his regular studies, by capital letters. Perhaps both of these distinctions ought to have been somewhat more liberally bestowed; but it is extremely difficult to lay down exact rules for a course of study, which may require to be materially varied, according to the opportunities and abilities of the individual. I have also distinguished another class of books and papers, by printing the names of their authors

in Italics; these I consider as extremely deserving of attention, although not absolutely indispensable to every medical student: it must however be observed, that this distinction has often been conferred rather with regard to the general character of the work containing the passage or essay quoted, or to the care which has been taken in ascertaining the identity of the disease, than to the individual merit of the matter contained in the papers quoted. The principal contractions employed in the references, as well as the synonyms of Cullen, Sauvages, and some others, will be found in their respective places in the index.

The subjects of the detached essays, which have been inserted, are so necessarily connected with the pursuits of every medical man, that they cannot be considered as misplaced, in a work introductory to medical studies. Their narrow limits, though they wholly exclude the idea of a complete exhaustion of their respective subjects, afford however a pledge, that they are not encumbered with superfluous matter: and perhaps the advantage of the reader has been more consulted in them, than the literary reputation of the author. The insertion

of the doses of medicines, and of the elective attractions of chemical substances, may be of no inconsiderable utility to young practitioners; and the less learned among the profession will not be wholly ungrateful for the care that has been taken, to assist their pronunciation, by a correct accentuation of all the technical terms, which occur in any department of the medical sciences.

Welbeck Street,
1 *Feb.* 1813.

T. Y.

ADVERTISEMENT

TO THE SECOND EDITION.

The whole impression of the first edition of this work having been sold for several years, and a bookseller having liberally offered to take upon himself the responsability of a republication, I have thought it due to the interest of the medical student and practitioner, to bring down to the present time the references to all works strictly medical, which come within the limits of the original plan: but with respect to the chemical department, as well as to the detached essays, I have left them nearly unaltered, except the substitution of some different numbers for the weights of the combining atoms, which, at the suggestion of a relation of the publisher, I have copied from the last edition of Dr. Thomson's chemistry. A Croonian lecture on the circulation

of the blood, which had formerly appeared in the Philosophical Transactions, is now added to the detached essays here inserted; and it is followed by a paper on Palpitation, from the Medical Transactions of the Royal College of Physicians, which has appeared to me to be of considerable importance in assisting the diagnosis of dropsy of the chest. For some explanation of the grounds of my decision in certain questionable cases, I beg leave, in addition to what I have stated in my preface, to refer to a Letter, which is reprinted at the end of this volume, from the Medical and Physical Journal.

1 *June*, 1823.

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I.

PRELIMINARY ESSAY

ON

THE STUDY OF PHYSIC.

WHATEVER may be the accidental irregularities inseparable from the operation of moral causes, it must necessarily be assumed as a general truth, without which all earthly motives for exertion would be annihilated, that every man's chance of success in his profession will be in some measure proportionate to his merits and his talents. In what degree fortuitous circumstances may be capable of influencing the regularity of the connexion, or the accuracy of the proportion, it is unnecessary and impossible to determine with certainty; but we may safely venture to assume, as an axiom, which it would be a mischievous folly to deny, that in the lottery of physic, as in all other lotteries, the chance of a man who holds ten tickets must be decidedly better than that of one who is possessed but of five; nor would the truth of this axiom be invalidated by a thousand instances of a superiority of success accidentally united with inferiority of

pretensions. However inadequate the possession of superior talents alone may be to insure the confidence of the public, it must be a mistaken opinion, although it has been asserted by persons of no ordinary observation, that a man of great abilities is morally incapable of being a good physician; and that even the most acute powers of mind would, in the practice of physic, become so effectually blunted by constant intercourse with nurses and invalids, as to lose all their original advantages. Dr. Radcliffe, who might have been esteemed a competent judge, told Dr. Mead, as a great secret, that the true way to succeed in physic was to use every body ill: but Dr. Mead used nobody ill, and succeeded better than Dr. Radcliffe. It is well to be familiarised to such paradoxes as these, in order to be prepared for the lesser contradictions and mortifications which will sometimes occur to the most fortunate practitioners. In fact there is no study more difficult than that of physic: it exceeds, as a science, the comprehension of the human mind: and those who blunder onwards, without attempting to understand what they see, are often very nearly on a level with those, who depend too much on imperfect generalisations, applied to facts, which can scarcely be subjected to any well marked analogy. Hence it may happen, that talents and labour may become useless for want of a proper direction: although, if they had been confined to the simple track of patient and detached observation, which alone is within the scope of the more humble practitioner, they must at least have ascertained each fact with more care and greater precision than the mere empiric, and in all probability must have made some combinations of experience, which would have been beneficial to mankind and honourable to themselves. To assist in furnishing the student with a sufficient direction, for

cultivating any particular department of his profession, in the most advantageous manner, is the principal object of this work.

Although it has been very justly observed, that no man has ever been truly great, without possessing a certain degree of enthusiasm, which has carried him beyond the direct and immediate pursuit of the ultimate object of his labours; it is still necessary to avoid with caution the common error of mistaking the means for the end, and directing too great a portion of the attention to the introductory departments of literature or of science. A person determined to obtain every accomplishment, which can be pointed out as subservient to the medical profession, and resolving to study every book which has been recommended with this view, might take up the select catalogue of medical works, published by Dr. Rothe, who professes to mention no book which he does not consider as good and useful; and, beginning with languages, might spend the first ten years of his studies without getting much further than the "Chinese," and twenty more before he came to those of the "Bohemians," and "gipsies"; to say nothing of the "logical, metaphysical, moral, political, statistical, technological, agricultural, mathematical, geographical, chronological, genealogical, heraldic, diplomatic, numismatic, and historical" works which are to follow, before he enters on chemistry and anatomy.

There is indeed a perpetual and interminable contention between the advocates of the grand principle of the division of labour, which facilitates every operation by allowing its continual repetition, and the admirers of the more compre-

hensive grasp of a powerful mind, which can embrace the relations of all the various parts of the whole subject, and can illustrate and improve the science, by a comparison of its different departments, and by the new lights which they throw on each other: and the question extends to all other professions, and to the general education which is necessary to those who engage in them. Its solution must however depend, in great measure, on the nature of the acquirement which is proposed to be obtained. A mathematician may arrive at the highest possible degree of eminence in the different modes of calculation, without requiring any assistance from an accurate knowledge of different languages; a linguist may be completely master of all subjects of grammar and criticism, without the slightest acquaintance with geometry: and there are other branches of study, so confined within themselves, and so capable of accurate deduction and precise definition, as to be completely independent of all others, and to require the exercise of clear apprehension and correct memory only for their pursuit. Other departments however defy all attempts to subject them to any didactic method, and require the exercise of a peculiar address, a judgment, or a taste, which can only be formed by indirect means: a composer of music, for example, would make himself ridiculous, if he attempted to put in practice the visionary proposition of Kircher, who states it as a problem, to be solved like those of the elements of Euclid, "the nature of an affection or passion of the mind being given, it is required to delineate it correctly in a musical composition." And it appears that physic is one of those departments, in which there is frequent necessity for the exercise of an incommunicable faculty of judgment, and a sagacity, which may be called transcendental, as extending beyond the

simple combination of all that can be taught by precept. Nor is there any other mode of cultivating these powers, than by pursuing a much more extensive range of elementary study, than appears, to a common and superficial observer, to be in any way connected with the immediate objects of the profession. As a further illustration of these observations, I shall here translate the first chapter of the elegant little essay of Professor Vogel on the study of physic, which contains some remarks that claim the most serious attention from every judicious student.

" 1. Perhaps there is no science, which requires so penetrating an intellect, so much talent and genius, so much force of mind, so much acuteness and memory, as the science of medicine. For the full attainment of its proper and ultimate object, it requires also indispensably the possession of stability of judgment, rapidity of decision, and immoveable firmness and presence of mind ; readiness of recollection, coolness, flexibility of temper, elegance and obsequiousness of manners, and a profound knowledge of mankind, and of the secret recesses of the human heart.

" 2. Learning alone, and knowledge, however extensively accumulated, of medicine and of other subjects connected with it, are not sufficient for forming a great physician : the high character of a perfect master of the art must be the result of a combination of a multiplicity of qualifications, which must partly be natural, and partly acquired and improved by laborious cultivation. However rare such a perfect union may be, no person should dare to enter the temple of Hygiea, who is not distinguished by very evident marks of a capability of acquiring it, and who is not possessed of

that genius, without which all possible knowledge is insufficient to make a genuine and complete physician. "A man "can be neither a philosopher nor a physician," says Herz, "by imitation or by rules, but by native genius alone." The inestimable advantage of a naturally acute judgment and delicate discrimination is no where more striking, as Freind has remarked, than in the profession of physic.

"3. Of all this the most convincing proofs will immediately occur to us. Medicine not only comprehends so very extensive a range of knowledge, but its truths are often so profound and so much concealed from a cursory inspection, so intricate, so much disguised, distorted and obscured by a multitude of delicate and invisible causes, that nothing less than the all commanding eye of the most enlightened understanding, than the all penetrating and all searching power of genius, can possibly recognise that which is hidden in darkness, can follow that which is remote into the last traces that it imprints, can distinguish certainty from opinion and probability, can separate the essential from the accidental, and finally can analyse and develope every subject of investigation so completely, as to leave no further doubt respecting any of its properties, which are cognisable by human means.

"4. Nor does any art, except that of war, require so much intrepidity, courage, and promptness in judging and in acting, as the art of physic. How often does the life of a patient depend on the decision of a moment! This precious moment, the timid physician, who is discomposed, and stupefied, and confused, by the unexpected appearance of danger, by unforeseen circumstances of doubtful import,

and accidental occurrences of various kinds, or by the behaviour and personal character of the patient, suffers to pass away wholly or partially unemployed; since in this frame of mind, he is incapable of seeing, and judging, and determining correctly; and his impaired powers of reason can find no fixed point, on which they may rest, so as to act with their due effect.

"5. It becomes also on many accounts absolutely necessary, that he should lay a restraint on his passions, his inclinations and his feelings, which are so often and so variously excited; and that he should support with patience the most disagreeable sensations, whenever the good of the patient requires it; that he should completely forget himself, when the situation and circumstances of the patient call for sacrifices, which are of importance for his tranquillity and his recovery; and that even the most untoward and disgusting conduct of the patient, whatever difficulties, and contradictions, and impediments may occur, should not prevent his applying the whole force of his intellect, and the entire powers of his invention, to the investigation and consideration of all the symptoms of the disease, and to the conducting and combining the means of recovery, in the best possible manner, with the cool wisdom of a mind perfectly at its ease.

"6. There is scarcely any literary profession which requires the manners and behaviour to be so decorous, so polished, so obsequious, so courteous, so gentle, so obliging, so cautious, and yet so manly and in every respect dignified, as must be expected of a physician. His mind must therefore be highly cultivated by a good education, and by knowledge

of mankind and of the world. Without this knowledge, he will be subject to err at every step that he takes, and will be in perpetual danger of injuring and disgracing the profession which he follows. Without this, he will every where find impediments insuperable to all his learning: all his information will be useless, obscured, disputed, or misunderstood, if he raises prejudices and excites disgust, by an unfriendly, obstinate, inflexible, ungraceful, inconsiderate, stiff, coarse, or bashful behaviour: and his embarrassment will perpetually disturb the free operation of his faculties, and impede the application of his knowledge. It is the physician's duty, to take every man, who entrusts himself to his care, as he is, with all his failings, and to treat him in such a manner, as to obtain his confidence, and to fulfil his wishes. Men of all classes and ranks in life, of all dispositions, capacities, characters, and opinions; in every imaginable situation, of every age, constitution, and temper, have equal claims to his assistance and his attention. He must know how to give every one his due; and wherever his profession calls him, how to adapt his conduct to the circumstances in which he finds himself. The wisdom, the selfdenial, the grace, the dignity, the decency, the noble frankness and openness of heart, the accommodating disposition and agreeable manners, which are required of him, can only be obtained by means of a good education, united with opportunities of becoming acquainted with the world, and habits of intercourse with society. It is extremely to be lamented, that young men of the best families, who must be supposed to have the advantage of the most refined education, seldom devote themselves to the study of physic. To this remark, Great Britain affords some exceptions; but, as far as I know, they are scarcely to be found in any other country.

" 7. Those persons therefore must never expect to acquire what is absolutely necessary for the practice of physic, much less to distinguish themselves by superior excellence, who are as deficient in the qualities of the mind which have been mentioned, as in moral cultivation and polished education, and who consequently have not learned, and have not been accustomed, to accommodate themselves to the world and to individuals, to subdue their passions when it is required of them, to bear the burdens of their employment without repining, and to think and to act uninfluenced by conceit, by caprice, and by senseless prejudices. Such persons as these, if, in spite of their deficiencies, they will still persist in the pursuit of physic, can only become, for want of talent, shortsighted, stupid, spiritless, superficial, useless and dangerous practitioners; and for want of good sense, and cultivation, affected, stiff, rough, quarrelsome, vainglorious, empty, presumptuous, proud and mean members of society; who can at best succeed with the lowest ranks of the populace only; who will necessarily expose to ridicule themselves and their profession, and who must perpetually shock the feelings of every refined and well educated man. It cannot be expected that all the most desirable qualities should be found at once in perfection in the character of every young physician. By habit, and by daily occurrences, which call forth its powers, the mind must gradually assume the wished for stamp. But without all previous disposition, and without all preparation, such an object is absolutely unattainable.

" 8. Since the practice of physic is unavoidably connected with so many circumstances which must greatly agitate a weak, delicate, and sensitive frame of body, and make the individual incapable of properly fulfilling all his duties, it

becomes also highly desirable that those, who devote themselves to this profession, should possess a strong constitution, and an uninterrupted state of good health; and that those, who are obliged to make great sacrifices for the preservation of their own health, should choose for themselves some other employment, rather than the care of the health of others. It is especially necessary that the organs of sense and respiration should be in their utmost perfection; and every physician should take the greatest possible care to preserve and to strengthen them: the nerves should be firm and strong; not insensible, but not capable of being thrown into tumultuous agitation upon every slight irritation, and thus so liable to interrupt perpetually the cheerfulness of mind which is so highly desirable and so absolutely necessary to the physician. Disturbances by night, fatiguing journeys, infectious diseases, numerous anxieties, and exhausting exertions, together with the sudden alterations of temperature which are frequently unavoidable, certainly require the possession of a strong constitution, and a state of health capable of opposing a firm resistance to all causes of disease.

" 9. Finally, the study of physic requires also a certain degree of affluence, since on account of the high price of books, apparatus and instruments, of the fees of various kinds required in the pursuit of instruction, and the expense of travelling in foreign countries, which is so necessary to a physician, it cannot be undertaken without the possession of ample funds. Nor can a young practitioner, who has just finished his studies, expect, for a considerable time, to derive so much emolument from his profession, as to enable him to live without assistance from his private fortune. It is therefore idle to attempt to facilitate the study of medicine to

those who are in extremely narrow circumstances. In France the most indigent often devote themselves to physic: hence arises in that country the abundance of medical men, void of all education, who do so little honour to their profession. For a similar reason it is rather to be deprecated than desired, that the expense of living at a university should be extremely lowered, especially if it is at the same time the native place of the student; and I fully agree with Tissot, that if it were practicable to prevent it, no person ought to be allowed to study physic in his native city. At the same time it cannot be denied that these general remarks may require particular exceptions, where distinguished genius, or other favourable circumstances, entitle an individual to be exempted from their operation."

Such being the general outline of the character, which the medical student must hold up to himself, as the object of his pursuit, it remains to suggest some hints respecting the steps, by which he is the most likely to succeed in its attainment. The appropriation of the earliest period of life belongs rather to the subject of general than professional education: but it is not so much a matter of indifference as is sometimes supposed, at what age the work of literary instruction is to commence. In my opinion, the earlier the rudiments of learning are acquired, the better: there is no danger that a child's health should suffer from moderate application at any age. The study of languages, or rather of the authors who are universally read in the usual modes of learning languages, appears to be, for many reasons, the best employment for the years of childhood, together with the exercise of the memory in learning by heart and rehearsing, especially poetry; and such pursuits may be continued with advant-

age, whether at home, or at a private or public school, with the addition of arithmetical and mathematical learning, until the time of going to a university, which, if a boy has been diligent, need not be later than sixteen. At nineteen or twenty then, we may suppose the study of physic to commence, and that five or six years are to be allotted to its completion; the previous time having been spent in acquiring a sufficient proficiency in the Latin, Greek, French, Italian, and German languages, in mathematics and natural philosophy, and perhaps the elements of botany and chemistry, besides drawing and some other similar accomplishments. There will be time enough after this for physic; and if the student has been placed at a university where no physic at all is to be learned, he will have no occasion to complain that his time has been mispent. Indeed a metropolis must possess advantages for the study of physic, and disadvantages for many other studies: hence it seems a natural consequence that a university ought not to be the principal school of physic in any country. The example of Edinburgh must be allowed to prove that such a combination is not altogether impracticable; but it will not readily be granted by the inhabitants of South Britain, that we do not possess in our universities a greater fund of abstract science, and in our metropolis more favourable opportunities for the acquisition of medical knowledge, than are any where to be found in Scotland, or perhaps in the rest of Europe.

Probably however the first year of medical study cannot be better spent than in an attendance of the lectures which are delivered in Edinburgh: they are in general more elementary there than elsewhere; and a person, wholly unacquainted with the subject, will find no difficulty in readily

comprehending them. It is true that, on account of the excellence of the clinical and practical lectures, it has been more usual to visit Edinburgh at a period later than even the second year; but to me the acknowledged superiority of these lectures did not appear a compensation for the loss of time in attending others, which could only be repetitions of what had before occurred in the two first years spent in London. The choice of lectures must naturally depend on the previous acquirements and abilities of the student: but there is no danger of his attending too many in the beginning: since he will at first have little occasion to read, or to employ any more of his time with reference to his pursuits; and he need not be afraid of filling up as many of his hours with lectures, as his powers of attention enable him to undertake.

The practice of taking notes from lectures is of clear and decided utility: and every student ought to make it a point to keep correct and complete notes of one course of lectures, on each department of medical science. But it will seldom be advisable to take notes of a first course, where two of the same kind are to be attended; in order that the mind may, in the first instance, be wholly devoted to following and comprehending the lecturer. The use of short hand I consider as every way to be reprobated: it converts the writer into a mere machine: it employs him in copying words, instead of digesting and compressing thoughts; and unless he has two or three more hours to bestow on the same subject after the lecture, which very few lectures are worth, his manuscript remains in a form almost as inconvenient for reference, as if it were written in an unknown language. I have never yet heard a lecture, which I found it difficult to follow, as mi-

nutely as I desired, by notes written in a common legible hand, moderately abbreviated: and having so written them, I have generally thought them more useful to myself, than a perfect transcript of the words of the professor. In a foreign country, the habit of taking notes becomes an excellent study, for the attainment of a facility of writing the language: at first one feels the necessity of taking notes in one's own language, for want of a readiness in the foreign idiom; but by degrees one acquires a facility of writing in that of the lecturer. Not that I should much recommend the attendance of medical lectures in any other country, in preference to the variety which may be found in our own. The modest Dr. Rothe indeed asserts, that "the Germans have left all other nations far behind them in almost every department of physic:" but Professor Vogel thinks otherwise, and I cannot forbear to introduce here a second extract from the work which I have already quoted.

"The concise, energetic, and philosophical language of the English becomes every day more and more indispensable to the physician: he must not therefore omit to study it with particular attention. The greatest masters of the art have lived and still live in England, and have usually written, and continue to write, in their own language.—There are also among the English as well as the French authors, not immediately medical, a great number that may be read, with equal pleasure and advantage, by a physician who is desirous of forming and refining his taste, of elevating his mind above what is common place and insipid, and of enriching and embellishing it with food of the noblest nature. The works of British genius especially are so full of great and lofty, and heart elevating, and acute and subtile thoughts and represen-

tations, founded on the most profound knowledge of man and of the world, that scarcely any other language is capable of affording the student so rich a harvest of valuable productions, and of bestowing on the mind so much force, and life, and penetration." P. 25.

But whatever may be the merit of the German physic, it exists as a written system, and may be learned from books exactly as it is delivered from the professorial chairs. In practical anatomy the great cities of the continent have some advantages even over London: but these advantages are of such a nature, as to affect the purse of the student more materially than the progress of his studies. At the same time it cannot be questioned that the hospitals of Paris, and especially of Vienna, may afford, at a proper period, much that is highly worthy of a young physician's observation.

After a first winter spent in Edinburgh, and a summer employed in botany, chemistry, and other preliminary studies, with the interposition of such occasional relaxation as the necessary travelling may easily be made to afford, the next winter ought to be devoted to practical anatomy in London: and this study, together with that of physiology, will occupy very properly the student's whole time. As the spring advances, he must become a pupil of an hospital, which must continue to be his principal and daily object at every subsequent period, while practical lectures on physic, surgery, midwifery, and the materia medica, should be attended with diligence, whatever branch of the profession he has chosen for his particular occupation: for however necessary it may be to separate the different departments of practice, no part of the elementary or preliminary studies

should be wholly neglected by a student of any description. A physician ought not to hold himself excused from patient and minute dissection, nor should a surgeon be satisfied without a competent knowledge of the learned languages. Mr. Parkinson would have even apothecaries educated at a university: but it is too probable that they might, under such circumstances, form habits and connexions less calculated to make them pursue their appropriate employments with diligence, than if they adhered more closely to the established modes of education.

If it were necessary to assign the age at which each of the studies, which have been mentioned, ought in general to commence, we might prescribe for the preliminary education a form somewhat resembling this,

At 2, 3, or 4,	Reading and reciting English.
6	Latin. Writing.
8	Arithmetic.
10	Greek.
12	French.
14	Italian. Geometry.
16	German. Mathematics.
17	Natural Philosophy. Drawing.
18	Chemistry. Botany.

The studies more strictly medical will be distributed nearly in this manner.

First year.	Anatomy. Theory of Medicine. (Clinical Lectures.) Continuation of Chemistry and Botany. Mineralogy.
Second	Practical Anatomy. Physiology. Hospital. Practice of Physic.
Third	Comparative Anatomy. Surgery. Midwifery. Materia Medica. Clinical Lectures.

If lectures were perfectly composed and delivered, and perfectly remembered, they would supersede the necessity of books of any kind: and on the other hand, a well selected course of reading would be very little inferior to oral instruction, except with regard to the inspection of preparations, and the practice of dissection and operations. But in a pursuit so extensive as that of medicine, it is necessary to employ each of these modes of study with almost as much diligence, as if we depended entirely on it for information; and it becomes desirable, that a course of reading should be pointed out, which may either be adopted collaterally with the attendance of lectures, or subsequently to it, or in both ways. Thus it will be highly proper to read some elementary chemical work, before any chemical lectures are attended; and during dissection, some of the best books of anatomy should be employed, for comparing the descriptions with the actual appearances: and a similar mode should be adopted with respect to other departments.

The principal course of practical reading will however more properly follow the completion of the established plan of elementary study; beginning with any department which may be chosen for an academical discussion or dissertation: and after graduation, in the many years which must elapse without much active employment, continuing the pursuit, by comparing the notes of lectures with the best authors in each department, and reducing the memorandums which have been made in reading, into a uniform system with those notes.

Nor will there, in all probability, be any want of time for so extensive an undertaking: a sensible writer on medical

education asserts, that he has literally "known a physician above fifty years of age objected to for his youth." In provincial situations, the want of competition will frequently lead to a much earlier practice; but in a metropolis, it is indispensably necessary, that a physician should be prepared, whatever his abilities may be, to pass at least ten years after his first establishment without the slightest emolument from his profession; and he may think himself singularly fortunate if, at the expiration of this period, he is enabled to derive a competent subsistence from it. In the mean time he must have sufficient resolution to resist the many allurements which will present themselves, to divert him from the exclusive pursuit of the profession which he has chosen, unless he should find them so powerful, as to induce him in any degree to sacrifice his views in physic to other considerations. The public is inclined to think, and not without something like reason, that the abilities of different individuals are pretty nearly equal; and that if any one has acquired distinguished excellence in a particular department of study, he must have bestowed so much the less time and attention on other departments: of course if he excelled in more than one line out of his profession, the natural inference would be so much the stronger: and whether this may be fair or not, it is at least fair that direct evidence should be produced or imagined, of a devotion to medical pursuits, before medical confidence can reasonably be expected.

Hence it becomes obviously desirable to a young physician to obtain some public appointment, which may ensure him a certain degree of practice, and which may proclaim to the world that he cannot be wholly inexperienced. An army physician has often a considerable advantage, in acquiring

both experience and emolument, at a time when he might otherwise be unemployed: but his experience is sometimes less appreciated in civil life, and in a different climate, than he has naturally been induced to expect it should be. The appointment of a physician to an hospital has so generally been considered as a very eligible introduction to practice, that it is scarcely necessary to mention it, except with a view to express a caution against overrating its advantages. A physician of the highest eminence has been heard to declare, that he could never trace a single patient to his immediate connexion with a well known hospital, which subsisted for many years; and to give it as his opinion, that little less was to be learned by a diligent attendance of an hospital as a pupil, than by being employed as a physician to it. It appears to me that the most material benefit to be derived from such an appointment, with regard to the extension of private practice, depends on the notoriety, that the physician must be unavoidably in the habit of prescribing continually, for a multiplicity of patients, in all manner of diseases: but it is certain that many have possessed this advantage for a number of years, without obtaining that benefit in any material degree. At the same time few, if any, have ever risen to eminence without it, unless they had some other very ostensible means of forming and supporting a general connexion in a medical capacity.

Mr. Edgeworth, in his Essays on professional education, is very much disposed to deny the precarious tenure of medical fame, and, in opposition to the opinion of one of the best judges of life and of morals that the last century produced, very strenuously asserts, that "all the world is competent to decide on this one simple, essential point,

whether a physician's patients die or recover under his care." But in the first place, it is obviously impossible, that the public should obtain any extensive or accurate knowledge whatever of the history or event of any great variety of cases, that occur even to a physician already eminent; and in the second place, if such a detail were before the public, it would often surpass the utmost sagacity of the best informed medical men themselves to determine, how far the event of each case was unavoidable, and how far it depended on the treatment.

This uncertainty may be illustrated by the example of the very candid Dr. Brown, who has lately examined, with great apparent accuracy, the records of a public institution, conducted by men of the highest celebrity in their profession, and has thought himself under the disagreeable necessity of inferring from them, that the course of fever is nearly, if not fully, as tedious and as severe, when treated by the best established remedies, as when wholly left to nature. Happily however for the credit of physic, this conclusion appears, upon proper consideration and calculation, to be completely unwarranted by the registers from which he has deduced it. In fact the results of about 300 cases of fever, admitted into the infimary in question, may be very simply stated in this manner. The mean duration of the whole disease was 12 days: the mean time of admission was between the 6th and 7th day; but the mean duration of those cases, which were admitted at the commencement of the disease, was somewhat less than 9 days. Hence it may be inferred, not only that the duration was shortened at least 3 days by the early employment of medical agents; but also that this difference was the effect of a difference of only $3\frac{1}{2}$ days in

the time of the whole treatment: since the remedies were employed for 9 days in the one instance, and for $5\frac{1}{2}$ in the other: consequently, that if these $5\frac{1}{2}$ days had been suffered to elapse without medical treatment, the whole period of the disease would have been lengthened 4 or 5 days by the omission, at least if we adopt the simplest supposition respecting the proportion of the cause and effect; and that the natural duration of the disease, thus determined, would have been about 16 days, instead of 12: so that the means employed must be allowed to have a claim to the merit of reducing the duration of the fever from about 16 days to 9; without taking into account the different proportion of fatal cases, which is not the immediate object of our author's investigation.

I have thought it necessary to enter into this examination of the facts advanced by Dr. Brown, which have hitherto been generally considered as authorising the inferences that he has drawn from them, because the discussion appeared to be essential to the conclusion of an essay like the present: since if it were true that the medical science of the most celebrated professors could effect so little, under circumstances so favourable, as he has supposed, the public would have scarcely any motive left for encouraging a pursuit so fruitless, nor an individual for devoting himself with zeal and enthusiasm to the attainment of knowledge, where nothing further than doubt and difficulty could reasonably be anticipated. It is our duty not to depreciate the advantages of which we are actually in possession; and while we use our utmost exertions for the improvement of our profession, and for the interests of humanity, we must not omit to assign their proper value to the few steps, which the labours of ages have in reality

enabled us to advance, with security and with confidence. At the same time it is obvious that the necessity of such a discussion is sufficient to prove the fallacy of the argument, deduced by Mr. Edgeworth from the supposed facility of judging by the event, and to show how incumbent it is on every medical man, to be able to console himself, in the consciousness of his own rectitude, under the misconstructions and disappointments, to which he will unavoidably be liable, even without any very obvious want of candour on the part of his patients or of the public.

II.

APHORISMS

RELATING TO

CLASSIFICATION

EXTRACTED PRINCIPALLY FROM

THE PHILOSOPHIA BOTANICA OF LINNE'.

CHAPTER VI. *Of generic characters.*

§. 151. The foundation of methodical science consists of two parts, arrangement and nomenclature.

152. Arrangement is either theoretical, relating to classes, orders, and genera, or practical, relating to species and varieties.

153. Arrangement or method is either synoptical or systematic.

154. A synopsis depends on arbitrary divisions, proceeding in pairs at each step, and is not admissible in botany, except as a key or index.

155. A system proceeds in its arrangement by five steps; classes, orders, genera, species, and varieties.

A synopsis in 5 steps extends only to 32 varieties; a system may comprehend 100 000, if each division contains 10 members.

156. System is the Ariadnean thread, without which all is confusion.

157. Species in natural history are supposed to have been originally created distinct.

158. Varieties may be as numerous as the individuals which have been produced.

[It is however only such varieties, as are in some measure hereditary, that require to be particularly noticed.]

159. Genera are determined in botany from the agreement of the parts of fructification.

160. Classes are deduced from the regular agreement of many genera, in the parts which characterize them.

161. An order is a subdivision of a class, intended for convenience.

162. Species and genera depend on nature: varieties often on cultivation: classes and orders on a combination of nature and art.

[In Dr. Cullen's opinion, species alone are established by nature; the constitution of genera is an invention of the human mind, which must necessarily be imperfect untill all existing species are known. Synops. proleg. p. xi. Indeed in nosology, the constitution of genera must commonly be in some measure arbitrary. I have endeavoured to arrange them upon the principle of the greatest utility, uniting such species of diseases, as are most conveniently considered together, with respect to their nature and to their cure.]

163. Habit is a general agreement in growth and appearance.

168. Habit is to be silently consulted in forming genera, but must not and cannot be described.

To prefer habit to the more regular characters is folly. 209.

169. No positive rules can be laid down respecting identity of genus.

Thus some species may be monopetalous, or monospermous, others of the same genus polypetalous or polyspermous.

170. Few genera are without some cases of accidental deviation.

171. Each genus is commonly characterized by some decided singularity of form.

172—3. Genera thus marked must be kept distinct or united accordingly.

174. The more constant the mark in different species, the better distinction it affords.

175. Different parts are the most constant in different genera; but scarcely any part is ever wholly invariable.

186. A generic character is the definition of a genus, and may be of three kinds, factitious, essential, or natural.

187. An essential character affords a singular and appropriate criterion of the genus.

Its excellence depends on its brevity.

188. A factitious character distinguishes the genus only from others of the same artificial order.

189. A natural character contains every thing remarkable that is found in all the species of the genus.

It may often require alteration when new species are discovered.

190. A factitious character is a substitute for an essential one, which is always the best when it can be obtained. A natural character is a work of great labour, but, when completed, it is the basis of all systems, the guardian of genera, and is applicable to every correct and practicable mode of arrangement.

193. No character can be infallible unless it has been compared with all the species of the genus.

198. A generic character must not contain comparisons, except with things perfectly well known.

199..201. The character must be expressed in select, accurate, distinct, and compendious terms, sufficient in number, but not superfluous.

A proper and correct use of terms has preserved anatomy, mathematics, and chemistry from barbarism: the want of it has been highly pernicious to medicine.

202. The character must remain invariable in every possible system that can be adopted.

With this precaution, the introduction of a new system is no misfortune.

203. A genus may consist of a single species, although it more usually contains several species.

204. What is established respecting the characters of genera must be understood, with some latitude, of those of classes.

205. Classes are more arbitrary than genera, orders than either.

206. The more naturally classes are established the better.

207. Great difficulty arises from the excessive length or number of classes and orders.

Boerhaave's 33 classes are too numerous; Knaut's 8 too few.

208. Genera which are allied to each other ought to stand together.

[It is a problem, partly depending on mathematical considerations, to determine how a given number of things may be divided and described in the most compendious manner possible. We may estimate the degree of conciseness by the number of words required, whether substantives or adjectives, supposing the characters such as to allow the distribution to be varied at pleasure, and to admit of the shortest possible description. Thus the subdivision of 100 species by bisection only, in the manner here termed synoptic, would require in the whole 7 substantives and twice as many adjectives, for the distinction of the whole, that is, 21 words; thus, *A a b*, (50); *B c d*, (25); *C e f*, (13); *D g h*, (7); *E i k*, (4): *F l m*, (2); *G n o*, (1); at least in the common course of technical language, although some of the substantives might often be spared. A subdivision by trisection would require 18 words; thus, *A a b c*, (34); *B d e f*, (12); *C g h i*, (4); *D k l*, (4): *E m n*, (1); by quadrisection also 18; by quinquesection 17; and any greater number of divisions than this at each step would require a greater number of words to be employed; thus 6 would require 18, and 7, 20 words. So that the greatest conciseness is here obtained by three steps, $5 \times 5 \times 4$. The calculation might easily be generalised if it were necessary, but it will be sufficient to extend it to the supposition of 1000 species, which might be the most compendiously expressed by five repeated quadrisections; if however the arrangement were restricted to 4 steps instead of 5, the number of divisions in each must become about 6; and the restriction would only require the introduction of two additional terms or characters, making 27 instead of 25. Such a limitation to four degrees of regular subdivision has been found the most convenient for practical purposes, even when the number of things to be arranged is much greater; for instance in the 20 000 species belonging to the vegetable kingdom. In this case the most compendious arrangement

would be to have about 12 divisions at each step. But it must be remembered that we have been proceeding on the supposition of characters variable at pleasure, so as to be accommodated to the convenience of classification: while in reality such an accommodation is only practicable in a very moderate degree; since we are often bound to follow a method much less regular, wherever there are any traces of a natural arrangement, capable of affording facility and stability to our system.]

CHAPTER VII. *Of names.*

§. 218. He who establishes a new genus is bound also to give it a name.

[This must be my apology, for the introduction of a greater number of new words, than I should have wished to employ without such a necessity.]

219. A generic name must be decided on before a specific one is formed.

220. No man in his senses would employ a generic name destitute of etymological meaning.

Barbarous words are considered as destitute of meaning.

[This canon, though perfectly consistent with classical elegance, and though of great utility for the assistance of the memory, is disapproved by some good judges, as leading to imaginary hypotheses respecting the nature of the thing named: for myself, I see no great danger from such misconceptions, and I am therefore disposed to adhere to the Linnean rule.

Thus the term myringa, arbitrarily given by Sennert to the membrane of the tympanum, is deservedly forgotten.]

221. Generic names, consisting of two entire and separate words, are prohibited.

222. Generic names, consisting of two Latin words united together, are scarcely to be tolerated.

Such compounds of Greek origin, on the contrary, are elegant.

[Et nova factaque nuper habebunt verba fidem si Graeco fonte cadent, parce detorta.]

223. Generic names of hybrid origin, for instance partly Greek and partly Latin, are to be rejected.

224, 225. Generic names including other generic names are unworthy of a scientific nomenclature.

226. Generic names ending in oides are prohibited.

227. Generic names, derived from others by the addition of a syllable, are disapproved.

228. Generic names very nearly resembling each other are likely to cause confusion.

[For instance, Synochus and Synocha. In fact words formed for one language should be capable of being translated into another, so as to retain their sense, independently of any termination, which must be peculiar to a single language, or to others most nearly related to it.]

229. Generic names not derived from Greek or Latin are forbidden [220].

Some barbarous words, approaching in their forms to classical ones, are however allowed.

230. Generic names, which have been common to the different kingdoms of nature, are to be confined to one sense.

231. Generic names common to natural history and anatomy, pathology, therapeutics, or the arts, are to be avoided.

[Thus lichen must not be a genus of diseases: and I have been obliged to change the name spiloma into spilosis, having found that the botanists had taken possession of this also.]

232. Generic names contradicting the properties of some of the species are bad.

233. Generic names must not be identified with those of natural classes or orders.

234. Diminutives and derivatives of a similar nature are allowable as generic names.

[The diminutives of other generic names are however scarcely admissible.]

235. Adjectives are inferior to substantives as generic names.

239. Generic names, which have been already employed, are to be preferred, where it can be done without inconvenience.

[Sometimes however it is better to employ a new term than to alter materially the application of an old one.]

240. Such generic names, as express an essential character or habit are the best.

242. An ancient name should be employed for a genus long established.

243—245. A good name once established ought not to be changed, even for a better or more ancient one.

246. If a genus is to be divided, the old name must remain attached to the most common species.

247. Generic names are to be written in Latin letters, the Greek letters being expressed according to the established custom.

Αι, ae; ει, i, or e; η, e, or a, when final; ο, o, or u, in terminations; ου, u; οι, oe; ω, o; θ, th; φ, ph; χ, ch; κ, c; γχ, nch; γγ, ng; ', h.

[Α, a; β, b; γ, g; γκ, nc; δ, d; ε, e; ζ, z; ι, i; λ, l; μ, m; ν, n; ξ, x; π, p; ρ, r; σ, s; τ, t; υ, y; ψ, ps. Thus, Os hyoides, not uoides, as in Baillie's engr. 26. Sauvages has been extremely irregular in this respect.]

248. The sounds of generic names are to be softened as much as possible.

249. Long and harsh names are to be avoided.

Names should scarcely exceed 12 letters.

250. Terms of art ought not to be employed for generic names.

251. Names of classes and orders are to be governed by the same rules as those of genera.

The name is to be single, not unmeaning, hybrid, barbarous, equivocal, inapposite, personal, too long, nor harsh.

253. Names of classes and orders should include their characteristic marks.

[Dr. Cullen professes to have followed the precepts of Linné respecting denominations, as far as he has found it practicable.]

CHAPTER VIII. *Of specific differences.*

§ 256. A perfect name includes a generic and a specific name.

All solid learning in natural history, agriculture, and medicine, depends on the knowledge of species.

257. A legitimate specific name or character distinguishes the species from all others of the same genus. Trivial names, often called specific names, are subjected to no very accurate rules.

All specific characters, which distinguish the species from others, not of the same genus, are superfluous and bad.

Trivial names are only limited to a single word.

[Substantives have an advantage over adjectives, as being more convenient, when brevity is required; for instance, aphis *acetosae*, sphinx *filipendulae*. Dr. Bostock is mistaken in thinking that the principles of nomenclature, adopted by naturalists, entirely prohibit the use of single names on all occasions; and with this opinion most of his objections to the London pharmacopœia fall to the ground. It would be convenient if every disease, which requires to be distinguished in a popular work, or an official report, could be designated by a single appellation either generic or specific: but this cannot always be effected; nor is it always done in natural history.]

259. Specific characters must be taken from circumstances not subject to vary.

260. Magnitude affords no specific distinction.

[Thus the degree of putrescency scarcely affords a sufficient distinction between nervous and putrid fever.]

261. Comparisons with other genera are to be excluded from specific characters.

262. Comparisons with other species of the same genus are bad.

283. Care must be taken to exclude varieties from the rank of species.

284. Each species must bear the name of the genus.

285. The specific name must always follow the generic.

The idea of the genus must occur first to the mind.

[But this observation can only apply to the Latin language: and in chemical names, it appears to be of little consequence how the component parts of a salt are presented to the mind: nor is it easy to say whether the term potassae sulfas implies that the sulfates, or the salts of potass, are to be considered as forming one genus.]

286. A specific name without the generic is like a bell without a clapper.

287. The specific name must not be united to the generic as a termination.

288. A genuine specific character is either synoptic or essential.

289. A synoptic specific character distinguishes the species of the genus by successive subdivisions into two portions.

In large genera such subdivisions are often indispensable.

290. An essential specific character exhibits a single distinction, appropriate to one species only.

291. The shorter a specific character can be made, the better, provided that it be sufficient.

The number of words admitted in a specific character ought never to exceed twelve: some limit must be laid down, and this number appears to be sufficient. Supposing a substantive and an adjective to be required for each subdivision of the genus into two collateral parts only, as in a synoptic character, which is the most unfavourable supposition, we may distinguish 100 species of the same genus by "12" words, thus, *A a*, 50; *B b*, 25; *C c*, 13; *D d*, 7; *E e*, 4; *F f*, 2; *G g*, 1.

[In fact, however, 14 words are here supposed; but it can seldom happen either that the species of a genus are so numerous, or the subdivision so little diversified. Thus we might easily find cases in which two substantives, with ten different adjectives applied to each, might abundantly distinguish 100 species, employing only four words at a time; and experience shows that twelve words are almost universally sufficient.]

For want of this conciseness, all the old specific characters, which exhibit descriptions instead of distinctions, are to be held in abhorrence.

[Thus "Podagra *atonica*, cum ventriculi vel alius partis internae atonia, et vel sine expectata aut solita artuum inflammatione, vel cum doloribus artuum lenibus tantum et fagacibus, et cum dyspepsia vel aliis atoniae symptomatis, subito saepe alternantibus." Dr. Cullen professes to have less apprehension of too many words than of too few: a principle which is highly proper as applied to a detailed description, but not to a specific character. If 12 words were thought too few for the specific characters of diseases, we might allow of 15 or even 20; but for 30 there can be no possible occasion. Dr. Willan's valuable work on cutaneous diseases loses much of its utility from the total omission of regular specific characters.]

292. Specific characters must contain only such words as are necessary for distinguishing the species from others of the same genus.

293. When a genus contains only one species, a specific character is superfluous.

[There may however be cases in which a character, pointed out as likely to be essential, by a person well acquainted with the species, may be useful in distinguishing it from others subsequently discovered.]

294. When a new species of a genus is discovered, the characters of all the other species must be accommodated to it, if they become inadequate.

295. The words forming a specific character are not to be compounds resembling generic names, nor purely Greek, but Latin; and the more simple they are, the better.

Belleval gives, as specific characters, Chondrilla μικρομηλινοπολύκαυλος, Glycyrrhiza μακροῤῥιζοπολυσχιδὴς, Hieracium μακροστενόφυλλον.

[The trivial names of Ploucquet's Nosology are somewhat similar, "hydrocatarrhophicus," "meranaestheticus," "spondylexarthreticus;" such words as these are inconvenient from their mere length.]

296. The specific character ought not to be embellished by the flowers of rhetoric, but natural and faithful.

297. The specific character admits neither comparatives nor superlatives.

298. The specific character must be expressed in positive terms, not negative.

Privatives are often unavoidable, although in some measure objectionable. Indivisum, inerme, enerve, avenium, acaulis are allowable; non papposum, non asperum, non bifidum, bad.

[Cullen observes that distinctions deduced from the absence of symptoms are not good, but sometimes unavoidable. Synops. proleg. p. xxxvi.]

299. Resemblances, if ever employed for specific characters, must be striking and well known.

As the ear, the finger, or the eye.

301. Adjectives must immediately follow their substantives.

303. Conjunctive particles are to be excluded from specific characters, except where they are necessary to the sense.

304. Successive adjectives are not to be separated by commas.

We use a comma for separating the parts which are mentioned, a colon for a subdivision of any part: thus, Bauhinia inermis, *foliis* cordatis semibifidis: *laciniis* acuminatoovatis erectodehiscentibus.

305. A specific character must never contain a parenthesis, whether distinguished or not by the appropriate mark.

A parenthesis is bad, as implying a defect of order.

CHAPTER IX. *Of varieties.*

§. 306. To the generic name and specific character the distinction of a variety may be added, where it exists.

The knowledge of the varieties of plants is more important for domestic and culinary purposes, than for the advancement of natural history.

307. The generic name, the specific character, and the marks of varieties, are to be printed in different types.

As Convallaria scapo nudo: *corolla plena.*

310. Very slight variations are to be disregarded.

315. The specific character must agree with all the varieties, as far as is practicable.

317. It is often as difficult and as important to reduce varieties to their proper species, as species to their proper genus.

[The same disease, existing in a different part, may sometimes constitute a different species; but when the part differs neither in its structure nor its functions, it can only afford the distinction of a variety. Cull. syn. proleg. p. xxvi. For example, inflammatory fevers, with different local affections, require to be considered as separate species; but simple inflammations of different parts merely as varieties. Dr. Willan appears to have arranged a great number of mere varieties as distinct species. In Ploucquet's Nosology, the species and subspecies, varieties and subvarieties, depending on places, causes, or combinations, are multiplied without mercy: even Cusson, so much praised by Sauvages and Cullen, seems not wholly to have avoided a similar error, which is very likely to happen to those who confine themselves to a small part only of the whole system.]

CHAPTER X. *Of synonyms.*

§. 319. Among the synonyms enumerated, the most approved name is to be set down first.

320. Authors who have employed the same synonyms are to be quoted together.

They may be arranged either in the direct or the inverse order of time. Linné generally adopts the inverse order.

321. Each synonym is to begin a new line.

[The Linnean synonyms, including the specific characters, require a larger space than the usual citations of medical or other authors.]

322. Synonyms must be accompanied by the names of the authors, and the pages of the works in which they are to be found.

The author's own name may be omitted, in references to former works; those of other authors are to begin with capitals, but the works quoted are to be indicated by single words, beginning with small letters, as Tournef. paris. 381.

323. The name of the first discoverer should be noted, in order to assist in the history of the science.

[The references to ancient authors have generally been omitted by Cullen, on account of the inutility as well a

of the difficulty of ascertaining the identity of the diseases. Ploucquet has in some measure supplied the deficiency, if such it can be called. It appears to me, says Cullen, that either a weak and superstitious veneration of antiquity, or a certain ostentation of learning, has much overrated the writings of the ancients relating to the history of diseases. It cannot be denied that we sometimes find in their works the characters of diseases correctly delineated, but every thing of this kind which really occurs, however highly valued by the moderns, would have given us no substantial information, and would probably have escaped wholly unobserved, if it had not been confirmed by later observation. Synops. proleg. p. xii.

With respect to the peculiar precautions to be observed in the distinction of diseases, Dr. Cullen lays down three general rules. Synops. proleg. p. xxxii.

1. He has always chosen external and sensible marks, neglecting, or rather rejecting, all conjectures respecting the internal state of the body: and of the sensible characters, he has preferred those which may be observed by the physician, to those which the patient alone can determine.

2. He has endeavoured to fix on such symptoms as are present throughout the disease, although this is not always strictly practicable: even the cause must sometimes be considered: and the succession of symptoms, as in intermittent fevers: but the duration must not be admitted as a distinction.

[A botanist learns to distinguish plants by their flowers, which are not always present: but when he is become a master of the science, he can ascertain the most important species from any one of their parts, and at any period of their growth. In the classification of diseases, we are at liberty to choose any of the train of causes and effects for determining the character, as may be most convenient for the general purposes of the system, provided that they be sufficiently constant: having made this election, we have no further concern with the causes passed by, unless they happen to be

of importance to the treatment; except in a detailed description of the disease, from which nothing must be excluded.]

3. He has endeavoured to employ, in the characters of diseases, as many of the symptoms as are absolutely necessary for determining them, and no more; thinking it however a greater fault to be deficient than redundant.

Symptoms of other diseases, such as Carphologia, Pandiculatio, Rigor, Sternutatio, Oscedo, Singultus, Stertor, Anxietas, Lassitudo, Stupor, Pruritus, Algor and Ardor, considered as genera by Sauvages and others, are omitted by Cullen as never existing independently. Many of the Vitia he has thought too trifling for insertion; others of no importance in practice, as being incurable: and some diseases he has found it impossible to introduce into his classification; a confession which is amply sufficient to show its inadequacy to the purposes of science.]

III.

AN INTRODUCTION TO MEDICAL LITERATURE, INCLUDING A SYSTEM OF PRACTICAL NOSOLOGY.

MEDICAL LITERATURE *IN GENERAL.*

Linden de scriptis medicis. 8. Amst. 1662. Mercklini Lindenius renovatus. 4. Nur. 1686. An alphabetical enumeration, with biographical notes.

Conringii introductio, cum pr. Fr. Hofmanni. 4. Halle, 1726.

Douglas Bibliographiae anatomicae specimen. Ed. 2. 8. Leyd. 1734. From Hippocrates to Harvey, with biography.

* *Boerhaave* Methodus studii medici, ab Haller. 2 v. 4. Amst. 1751.

Haller Bibliotheca anatomica. 2 v. 4. Zurich, 1774. To 1700.

Haller Bibliotheca chirurgica. 2 v. 4. Berne, 1774-5. Not complete. Creutzenstein Bibliotheca chirurgica. 2 v. 4. Vienn. 1781. Haller's work transposed into the order of the subjects.

Haller Bibliotheca medicinae practicae. 4 v. 4. Basle, 1776-88. To 1707.

Weigels grundriss der chemie. 2 v. 8. Greifsw. 1777. A classical work with respect to the literature of many of the physical sciences.

Webers entwurf einer medicinisch practischen bibliothek. 8. Dess. 1784. "Praises too much, especially new things." Rothe.

Daniel Bibliothek für staatsarzneykunde. 8. Erl. 1788. "A good beginning." R.

Blumenbachii introductio in historiam medicinae literariam. 8. Gott. 1788. "In chronological order, containing all the ancients, and the best of the moderns, with biographical notes, and occasional criticisms." R.

Usteri Repertorium der medicinischen literatur. 8. Zurich and Leipz. 1790. "Enumerates all the works which have appeared in the respective years, with abstracts from the Journals, and often original remarks: a most important and valuable treasure of literature." R.

Allgemeines repertorium der literatur. 4. Weimar and Jen. 1793...The medical part separate. "No person, who wishes to deserve the character of a truly learned man, ought to be without this work." R.

Murray Enumeratio librorum praecipuorum medici argumenti; ab Halem. 8. Amst. 1792. "Too much of anatomy and botany: the books ill chosen." R.

Mezgers skizze einer literär geschichte der medicin. 8. Königsb. 1792-6. "Follows Blumenbach, but is more full, and better calculated for reading." R.

Kühnii bibliotheca medica, vol. 1. 8. Leipz. 1794. A copious catalogue.

Schweikhard Catalogus dissertationum ad artem obstetriciam spectantium. 8. Frankf. 1795. "From 1515 to 1792, enumerating 1198 dissertations." R.

Schweikhard Catalogus dissertationum ad medicinam forensem spectantium. 8. Frankf. 1796. "Accurate and complete." R.

Rothe Kunst sich eine bibliothek zu sammeln. 8. Leipz. 1798.

Rothe Noth und Hülfstafel.

Rothe Handbuch für die medicinische literatur. 8. Leipz. 1799. A work which has been of considerable utility in the compilation of this catalogue: but encumbered with much superfluous matter, and inconveniently arranged: sometimes also highly capricious in its criticisms.

Dörings repertorium der disputationes seit 1781 bis 1800.

* Ploucquet Literatura medica digesta. Ed. 2. 4 v. 4. Tub. 1810. "Old and new, good and bad, so mixed as to be of very little use." Rothe. "A work equalled by none which

any other science can boast." Hufeland. And yet unfortunately a work which is of less value than a similar work would be to any other science, since there is no science in which selection is so important and so difficult as in medicine. It is, for instance, of much more utility to have ten of the best remedies pointed out for a given disease, than a hundred of the best, without further discrimination.

Burdach Literatur der heilwissenschaft. 8. Gotha. 1810-1.

Ersch Literatur der medicin. 8. Amst. 1812.

Catalogue of the Library of the Medical and Chirurgical Society. 8. Lond. 1816.

Medical Intelligencer. 8. Lond. 1818...

† Haller El. Phys. Sauvages Nosol. meth. Burserii Inst. Vogel Handb. Selle pyret. Fabr. Bibl. Gr.

CRITICAL JOURNALS.

* Monthly review. 8. Lond. 1749...

Commentarii de rebus in scientia naturali et medicina gestis. 8. Leipz. 1750...

Richter Chirurgische bibliothek. 8. Gott. 1771..." Rich in important articles." Rothe.

Blumenbach Medicinische bibliothek. 8. Gott. 1783-95. "The reviews often more valuable than the works reviewed: contains also original essays." R.

Hartenkeil und Mezler Medicinisch chirurgische zeitung. 8. Salzb. 1790. "An excellent medical newspaper and journal." R.

Medical and chirurgical review. 12 v. 8. Lond. 1794..1806. A useful work, but latterly too theoretical.

Kausch Geist und kritik der medicinischen zeitschriften Deutschlands. 8. Leipz. 1798.

London medical review. 8. Lond. 1808-12. Respectable, but occasionally too severe.

Annual medical review. 8. Lond. 1809-11.

(Vogel, Murray, Tode, Schlegel, Sprengel, Kortum und Schäffer, Hunczovsky und Schmid, Hopf, Rahn.)

† Many periodical collections of original essays.

HISTORICAL WORKS.

Leclerc Histoire de la médecine. 8. Genev. 1696. 4. Amst. 1723. "Full and candid." Haller. To Galen's time.

Freind's history of physic. 2 v. 8. Lond. 1725-6. From Galen to 1600.

Dutens Origine des découvertes. 2 v. 8. Par. 1766.

Portal Histoire de l'anatomie et de la chirurgie. 6 v. 8. Par. 1770-3.

Dujardin et Peyrilhe Histoire de la chirurgie. 2 v. 4. Par. 1774-80.

Hebenstreit Palaeologia therapiae a Grunero. 8. Har. 1779.

Black's history of medicine and surgery. 8. Lond. 1782. German, by Scherf, 8. Lemg. 1789. "Prolix in ancient history, meagre in the middle ages, superficial in later times, and in the most modern completely uninformed." Rothe.

W. Hunter's introductory lectures. 4. Lond. 1784.

Ackermanni institutiones historiae medicinae. 8. Nur. 1792. "The best abridgement." R.

Ackermann in Fabr. Bibl. Gr. Harlesii. Hamb. 1791. Vol. 2. Art. Hippocrates.

* *Sprengels* versuch einer pragmatischen geschichte der arzneykunde. 4 v. 8. Halle. 1792. Ed. 2. 5 v. 1800-3. "Infinitely important and valuable." R. French. 7 v. 8. Par. 1815. Abridgement by the Author. 1804.

Stucker et Weber sanitatis humanae ex facie medicinae practicae commutatae schematismus. 8. Rostock, 1793.

Hecker Allgemeine geschichte der natur und arzneykunde. 8. Leipz. 1793... Enumerates 352 works on the history of medicine.

Beyträge zur geschichte der medicin. 8. Halle. 1794....

Ferris on the establishment of physic in England. 8. 1795.

Ackermanni opuscula. 8. Nur. 1797.

R. Walker's memoirs of medicine. 8. 1799.

Heberden on the increase and decrease of diseases. 4. Lond. 1804.

Woolcombe on the frequency of diseases. 8. Plym. 1808.
Remarks on medical science in Germany. Ed. med. journ. IV. 69.
Millar's disquisitions. 8. Ed. 1811; Ed. med. journ. VIII. 90.
Sprengel on the recent progress of medicine. Ed. med. journ. XII. 385. XIII. 1, 137: Embden 455; in Russia.

MEDICAL BIOGRAPHY.

Moehsens de medicis equestri dignitate ornatis. 4. Nur. 1767.
Boerhaaves leben. 8. Freyb. 1748.
Zimmerman Leben des Herrn von Hallers. 8. Zur. Hallers tagebuch. 8. Bern.
Baldinger Leben G. van Swieten. 4. Jen. 1772.
Character of Aesculapius. M. Med. Soc. Lond. I. 1.
Lettsom's memoirs of Dubourg. M. Med. Soc. Lond. I. 476.
Aikin's biographical memoirs of medicine. 8. 1780.
Eloy Dictonnaire Historique. 5 v. 8vo.
Hutchinson's biographia medica. 2 v. 8. Lond. 1799.
Amusing, but deficient in literary information.
(Kestner, Borner und Baldinger.)

STUDY OF PHYSIC.

* Gregory on the duties and qualifications of a physician. 12. Edinb. 1805.
Tissot Essai sur les études de medicine. 12. German, by Huber. 8. Bale. 1785.
* Vogels kurze anleitung zum gründlichen studium der arzneiwissenschaft. 8. Stend. 1791.
Ploucquet Der artz. 8. Tüb. 1797.
Parkinson's hospital pupil. 12. Lond. 1800.
On a minute knowledge of anatomy. Ed. med. journ. V. 66.
Edgeworth on professional education. 4. Lond. 1809. 8. 1812.
Somewhat chimerical. See some excellent observations on this work in the Quarterly Review, n. 11. The reviewer, however, seems to rate mathematical learning too low.

Strang's letters to a student of medicine. 8. Lond. 1812. Sensible advice, well written; particularly addressed to surgeons in the navy.

Cross on the medical schools of Paris. 8. Lond. 1815.

Roux Voyage à Londres. 8. Par. 1815.

Maygriero Guide de l'étudiant. Ed. 2. Par. 1819.

(Wachtel, Heister, Gorter, Gruner, Kemme, Selle, Herz, Delius, Uden, Stark, Senft, Wedekind, Hildebrandt, Kletten, Osterhausen, Voitus, Mursinna.)

† See Profession of physic.

PROFESSION OF PHYSIC, *GENERALLY AND PHILOSOPHICALLY* CONSIDERED.

Feyjoo on the uncertainties in physic. 8. Lond. 1751.

Gruner Gedanken von der arzneywissenschaft. 8. Bresl. 1772.

Weikard Der philosophische artz. 8. Frankf. 1775. 2 v. 1798.

Zimmermann über die erfahrung. 8. Zur. 1794. Zimmermann on experience, by Hopson. 8. Lond. 1782; Lond. med. journ. IV. 9.

Fordyce on improving the evidence of medicine. Trans. soc. med. ch. kn. I. 243.

Mezler über den einfluss der heilkunst auf die theologie. 2 v. 8. Ulm, 1794.

Garn über vorurtheile. 8 Wittenb. 1795.

Cabanis sur les révolutions de la médecine. 8 Par. 1804; Ed. med. journ. II. 206. C. on the revolutions of medical science, by Henderson. 8. Lond. 1806; Ed. med. journ. III. 241. Seems to be very declamatory.

Remarks on certainty in medical science. Ed. med. journ. I. 425.

* *Blanc's* Elements of medical logic. 8. Lond. 1819.

(Nose's essays.)

IN RELATION TO CONDUCT.

A discourse on the interest of the patient. 12 Lond. 1669.
Finke exercitationes; de medicina populari. Rinteln, 1785.
Wedekind über das betragen des arztes. 8. Maynz, 1789.
Henning von den pflichten der kranken gegen die ärzte. 8 Leipz. 1791.
Stieglitz über das zusammenseyn der ärzte am krankenbette. 8. Hanov. 1798.
Percival's medical ethics. 8. Lond. 1800. Rather sensible than striking or profound.
Hints to young practitioners. Ed. med. journ. V. 335.

WITH REGARD TO PUBLIC INSTITUTIONS.

Gideon Harvey's conclave of physicians. 12. Lond. 1686.
Apothecaries vindicated. 8. Lond. 1724.
Berends über den unterricht vor dem krankenbette. 8. Berl. 1789.
Plan of a constitution for the medical system in France, by Vicq. d'Azyr. Soc. R. Med. 1777-8. Dunc. med. comm. XVII. 175.
Good's history of medicine, relating to apothecaries and druggists. Ed. 2. 12. Lond. 1796.
Jugler über die vereinigung der medicin und der chirurgie. 8. Erf. 1799. Ed. med. journ. III. 106.
Reils pepinieren. 8. Hall. 1804. Ed. med. journ. II. 472.
Senex on medical reform. Ed. med. journ. II. 437.
Beddoes's letter to Banks on the state of medicine. 8. Lond. 1808. Ed. med. journ. IV. 378.
Harrison on the improvement of medical science. 8. Lond. 1810. Ed. med. journ. VI. 487.
(Wedekind, Mederer, Muthwehr und Kausch.)

COLLECTIONS
RELATING TO MEDICAL SUBJECTS.

* Philosophical transactions. 4. Lond. 1665. Abridged by Hutton, Shaw, and Pearson. 4. Lond. 1803. Mihles's medical essays from the Phil. tr. 2 v. 8. Lond. 1745. An interesting selection, in order of time. Index to the medical papers. 4. Lond. 1814.

Histoire et mémoires de l'Académie Royale des sciences, depuis 1666. 4. Par. Rozier Table des articles jusqu'en 1770. 4 v. 4. Par. 1775. Southwell's medical essays from the Ac. Par. 4 v. 8. Lond. 1764. From 1699 to 1750; a work now too obsolete to be studied, and too incomplete to be quoted. Wood's cases from the Ac. Par. Vol. I. 8. Lond. 1776. Without order or arrangement.

Ephemerides Naturae curiosorum. 4. Frankf. 1684...Acta Academiae Caesareae. 4. Nuremb.

Acta medicorum Berolinensium. 8. Berl. 1722-31.

* Medical essays and observations by a society in Edinburgh. 5 v. in 6. 8. Ed. 1733-44. * Essays and observations physical and literary. 3 v. 8. Ed. 1754-71. Transactions of the Royal Society of Edinburgh. 4. Ed. 1786...Contains but few medical articles. Lewis's abridgement of the Ed. med. essays. 2 v. 8. Lond. 1746.

*Mémoires de l'Académie Royale de chirurgie. 4. Par. 1742... Recueil de pièces qui ont concouru pour le prix de l'Acad. R. de chir. 5 v. 4. Par. 1770.

Mémoires de l'Academie Royale de Berlin. 4. Berl. 1746...

Haller Disputationes selectae anatomicae. 7 v. 4. Gott. 1764-52. Chirurgicae. 5 v. 4. Laus. 1755-6. Ad morborum historiam et curam pertinentes. 7 v. Laus. 1757; Abridged in German by Crell. 9 v. 8. Helmstadt and Berl. 1779-85.

* Recueil périodique d'observations de médecine, de chirurgie, et de pharmacie, par Vandermonde. 8. Par. 1754... Journal de médecine. 8. Par. 1759-95. Recueil périodique de la société de santé de Paris. 1796...

* Medical observations and inquiries. 6 v. 8. Lond. 1757-84.

* Medical transactions, by the Royal College of Physicians. 6 v. 8. Lond. 1768-1820.

Sandifort Thesaurus dissertationum. 3 v. Rotterd. 1768-78.

* Medical commentaries, by Duncan and others. 20 v. 8. Ed. 1773-95. Duncan's annals of medicine. 8 v. 8. Ed. 1797–1805. Edinburgh medical and surgical journal. 8. Ed. 1805...

Journal de physique. 4. Par. 1773...

Societatis medicae Havniensis collectanea. 2 v. 8. Copenh. 1774-5; Med. comm. Ed. IV. 413, VI. 247. Acta. 2 v. 8. Cop. 1777-9; Lond. med. journ. I. 377. Acta regiae societatis Havniensis. 8. Copenh. 1783...

Baldingers magazin, neues magazin, medicinisches journal. 8. Leipz. 1775.. "Inestimable and indispensably necessary to every physician." Vogel.

* Histoire et mémoires de la société royale de médecine. 6 v. 4. Par. 1776-85. I. H; Lond. med. journ. III. 149, IV. 38...Gruners sammlung. 8. Halle, 1784. An abstract.

Smellie thesaurus medicus. 4 v. 8. Ed. 1778-85. Novus thesaurus medicus. Ed.

Sammlung auserlesener abhandlungen für ärzte. 8. Leipz. 1778...Für wundärtze. 8. Leipz. 1778...

Crells chemisches journal.

* Simmons's London medical journal. 11 v. 8. 1781-90. Medical facts and observations, 8 v. 8. 1791...1800.

Encyclopédie méthodique. 4. Par. 1782...

Gehlens chemische annalen. Vienn.

* Medical communications. 2 v. 8. Lond. 1784-90.

Memoirs of the society of Manchester. 8. 1785...

Weitz Bibliothek der wichtigsten practischen ärzte des 17 jahrhunderts, grösstentheils in kernhaften auszügen. 8. Leipz. 1785.

Frank Delectus. 12 v. 8. Pav. 1785-92.

* Memoirs of the Medical Society of London. 6 v. 8. Lond. 1787...1805. Transactions. 8. Lond. 1811.

Transactions of the Royal Irish Academy. 4. Dubl. 1787...

* Annales de chimie. 8. Par. 1789...

Desault Journal de chirurgie. 8. Par. 1791...

Kochs auszug aus den Auserlesenen abhandlungen. 5 v. 8. Leipz. 1791-5

Journal der erfindungen in der natur und arzneywissenschaft. 8. Goth. 1792..." Contains many valuable remarks on fashionable absurdities." Rothe.

Museum der heilkunde. 8. Zur. 1792...

Mémoires de l'Institut de France. 4. Par. 1798...

* Bulletin de la Société Philomathique. 4. Par.

* Transactions of a society for the improvement of medical and chirurgical knowledge. 3 v. 8. Lond. 1793...1812.

Transactions of the college of physicians at Philadelphia. 8. Phil. 1793. Dunc. med. comm. XIX. 134.

* Hufelands journal der practischen arzneykunde und wundarzneykunst. 4 v. 8. Jen. 1795-8. Journal der practischen heilkunde. 8. Jen. 1799...Dunc. ann. 1799. 274. Loders chirurgisches journal. 8. Jen. 1799...

*Medical records and researches. 8. Lond. 1798.

Mémoires de la société medicale d'émulation. 8. Par. 1798. Dunc. ann. 1799. 96.

Medical and physical journal. Lond. 1799...

Memorie della società medica di emulazione di Genova. I. 8. Gen. 1801. Ed. med. journ. I. 106.

Bulletin de l'école de médecine. I. 8. Par. 1805. Ed. med. journ. I. 376.

* Medicochirurgical transactions. 8. Lond. 1809...Ed. med. journ. VI. 492.

Medical Repository. Lond. 1814...

(Commentarii Lipsienses, Michaelis, Thom, Müller und Hoffmann, Jansen und Jonas, Arneman.)

COLLECTIONS OF THE WORKS OF SINGLE AUTHORS.

Including miscellaneous essays.

* Hippocrates Gr. L. Foesii. f. Genev. 1657. Hippocratis Coacae praenotiones Dureti. f. Genev. 1665. Hippocratis de morbi popularibus liber 1 et 3, a Freind. 4. Lond. 1717. Clifton's Hippocrates on air, epidemics and prognostics. 8. Lond. 1734. Hippocrates contractus, a Burnet. 12. Lond. 1743. Riollay's doctrines of Hippocrates. 8. Lond. 1783; Lond. med. journ. VI. 86. Sprengel Apologie des Hippocrates. 2 v. 8. Leipz. 1789. The study of Hippocrates seems to have superseded the observation of nature in physic, even more than that of Aristotle did in philosophy. His aphorisms, his books on diseases, and on internal affections, besides the endemics, are the most esteemed. There is an elegiac and a lyric translation of the aphorisms into Latin verse.

*Aretaeus Gr. L. a Wigan. f. Oxf. 1423.

Galeni opera, 5 v. f. Bale, 1538. * Hippocrates et Galenus, Gr. L. Charterii. 13 v. f. Par. 1679. Galeni epitome a Lacuna. f. Bale, 1551. Galeni epitome. 12. Leyd. 1553. Galen's most esteemed works are those on the parts of the human body, on the method of healing, on local affections, and on the composition of medicines, besides the commentaries on Hippocrates.

Oribasii compendium, Lat. 12. Ven. 1554.

Aëtius Lat. f. Bale, 1535.

* Celsus a Krause. 8. Leipz. 1766. Preferred by Rothe to Targa's edition. Greive's Celsus. 8. London. 1756.

* Caelius Aurelianus ab Almeloveen. Amst. 4. 1722.

Rhazes Lat. f. Bale, 1544. The Arabian Galen. Rhazes de variolis Ar. L. a Channing. 8. Lond. 1766.

(A complete medical library ought to contain all the Greek, Latin, and Arabian Physicians. Theophrastus, Diosco-

rides, Nicander, Rufus, Alexander Aphrodisiensis, Palladius, Al. Trallian, Theophilus, Paulus Aegineta, Nonnus, Synesius, Actuarius, Xenocrates, Erotianus, Anonymus et Hypatus, Cassius, Moschion, Sethus, Demetrius, Chirurgici veteres; Scribonius, Plinius, Serenus, Prisciianus, Rhemnius; Jo. Serapionis, Haly Abbatis, Avicenna, Avenzoar, Averrhoes, Mesue, Albucasis, Moyses: but their works are individually so little interesting to a student, that it is unnecessary to enumerate the editions.)

Mediolani Schola Salernitana, ab Ackermann. 8. Stend. 1790.

Paracelsi opera. 11 v. 4. Frankf. 1603.

Eustachii opuscula. 8. Leyd. 1707.

Horstii opera. 2 v. 4. Goud. 1661.

Foresti opera. 6 v. f. Rouen.

N. Pisonis opera, Boerhaavii. 8. Leipz. 1766.

Mercurialis opuscula aurea. f. Ven. 1644.

Ballonii opera. 4. v. 4. Par. 1643. Ven. 1734.

Prosper Alpinus, Boerhaavii et Gaubii. 4. Leyd. 1733. "The father of symptomatology." Weber.

Riolani opera. f. Par. 1610.

Fabricii Hildani opera. f. Frankf. 1646.

Sennerti opera. 6 v. f. Lyons. 1676. His Practice was long considered as the best general treatise.

* Harveii opera. 4. Lond. 1766.

Sanctorii Sanctorii opera. 4. Ven. 1660.

Poterii opera, Fr. Hofmanni. 4. Frankf. 1698.

Riverii opera, f. Genev. 1728. Said to have stolen too much from Sennert.

Bartholini acta Hafniensia. 5 v. 4. Copenh. 1673...

Willis opera. 2 v. f. Ven. 1720.

*Mortoni opera. 4. Genev. 1696. "Still decidedly valuable." R.

*Sydenhami opera. 8. Leyd. 1726. 2 v. 4. Gen. 1757. Cullen says, that Sydenham is almost the first who has given accurate descriptions of diseases. Currie observes, that though he affected not to theorize, he was a theorist in every page of his works. "Si morbi cujuslibet historiam diligenter perspectam haberem, par malo remedium nun-

quam non scirem adferre." A favourite passage with nosologists: vanity of vanities!

Malpighii opera. 2 v. Leyd. 1687. Opera posthuma. 4. Amst. 1698.

Ramazzini opera. 4. Genev. 1717. Appears on the whole to be solid and useful.

Graaf opera. 8. Lyons. 1678.

Bellini opera. 4. Pis. 1759.

Ettmulleri opera. f. Frankf. 1708.

Lancisii opera. 2 v. 4. Genev. 1718. 4 v. 4. Rom. 1745.

*Fr. Hofmanni opera. 11 v. f. Genev. 1740-53. Büchneri fundamenta. 8. Hall. 1746. An abstract of Hofmann, especially of his medicina rationalis et systematica.

*Baglivii opera. 4. Lyons. 1733.

Boerhaavii opera. 4. Ven. 1757. "Incomplete." R. Opuscula. 4. Hag. 1738.

Mead's medical works. 8. Lond. 1762. "His monita very valuable." R.

Friend opera omnia. f. Lond. 1733.

*Morgagni opera. 4 v. 4. Pad. 1719. Opuscula. f. Ven. 1763.

Albini academica annotationes. 8 v. 4. Leyd. 1758...

*Huxhami opera, a Reichel. 3 v. 8. Leipz. 1764. "The observations on epidemics the best." R. Huxham's tracts, from the Phil. trans. 8 Plym. 1789.

Whytt's works. 4. Ed. 1768.

Tissoti opuscula. 8. Zell. 1769.

Werlhofi opera a Wichmann. 3 v. 4. Hanov. 1775-6. "Extremely acute." Rothe. Extolled by Beddoes.

Sauvages Chefs d'oeuvres. 2 v. 12. 1770.

*W. Hunter's medical commentaries. 4. Lond. 1777.

Haen operum epitome. 8. Vienn. 1778. Opuscula. 2 v. 8. Vienn. 1795.

Sandifort observationes. 4. Leyd. 1777. Fasc. 3. Dunc. med. comm. VII. 135.

Gredings vermischte schriften. 8. Altenb. 1781. Especially on mania.

Else's works, by Vaux. 8 Lond. 1782. Lond. med. journ. III. 38C.

Selle Beyträge. 3 v. 8. Berl. 1782. Neue beyträge. 3 v. 8.

Fothergill's works, by Lettsom. 3 v. 8. Lond. 1783. 4. Lond. 1784.

Oeuvres de Pouteau. 8. Par. 1783. Lond. med. journ. IV. 349. Principally surgical.

Moore's medical sketches. 8. Lond. 1786.

Keck Abhandlungen. 2. v. 8. Berl. 1787-9. "Principally extracts." R.

Linnaei amoenitates academicae, Schreberi. 10 v. 8. Erlang. 1787.

Stark's works by Smyth. 4. Lond. 1788. Dunc. med. comm. XIII. 144.

Percival's essays. 2 v. 8. Lond. 1790. Med. comm. Ed. I. 264. Percival's works. 4 v. 8. London. "1807." Ed. med. journ. IV. 85.

Pott's works, by Earle. 3 v. 8. Lond. 1790.

Beddoes's medical works. Germ. 2 v. 8. Leipz. 1794-6. "A blind adherent of the new chemists, and of Brown." Rothe. Contributions. 8. 1799.

Hufelands gemeinnützige aufsätze. 8. Leipz. 1794. "Models of popular essays." R.

Rush's medical inquiries. 5 v. 8. Philad. 1794...

Oeuvres chirurgicales de Desault, par Bichat. 8. Par. 1798.

Davy's researches. 8. Lond. 1800. Dunc. ann. 1800. 227.

Brown's works. 3 v. 8. Lond. 1804. Ed. med. journ. I. 357.

Oeuvres de Vicq d'azyr. 6 v. 8. 1 v. 4. Par. 1806. Ed. med. journ. IV. 437.

Baker Opuscula medica. 8. Lond. 1814.

Medical tracts, by Sir George Baker, collected by his son, 8. Lond. 1818.

GENERAL WORKS,

And single works of a miscellaneous nature.

Gorraei definitiones medicae. f. Par. 1578.

Hofmanni fundamenta medicinae. 8. Hall. 1703.

Boerhaave institutio medica. 8. Vienn. 1775.

Haen praelectiones. 8. Vienn. 1780.

Herz Grundriss aller medicinischen wissenschaften. 8. Berl. 1782.

Platneri institutio chirurgiae rationalis, a Krause. 8. Leipz. 1783. Germ. 2 v. 8. Leipz. 1786.

Selle studium physicomedicum. 8. Berl. 1787.

Brunonis elementa medicinae. 8. Ed. By Beddoes. 2 v. 8. Lond. 1795. Girtanner Darstellung des Brownschen systems. 2 v. 8. Gott. 1797-8. "How will our successors be amazed at the noise which Brown has made! See a valuable critique, Journ. der erfind. V.. VII." Rothe.

Carminati hygieine, therapeutice, et materia medica. 3 v. 8. Pav. 1791-3. Leipz. 1792.

Darwin's zoonomia. 2 v. 4. Lond. 1794-6. 4 v. 8. Lond. 1801. Brown on Darwin's zoonomia. 8. Edinb. Dunc. ann. 1798. 229. "The author has been long known as an original thinker and a poet; but he has not fulfilled the expectations which were formed of this work: it contains many important practical observations, and many new and valuable ideas: but the whole is very deficient in method and order." Rothe. "Could the cases in which others failed and Darwin invented adequate resources, be collected, I have reason to believe that they would make as valuable a volume as any one which we possess." Beddoes on fever; giving for instances digitalis in consumption, splints for weak hands. bandages for old sores, and the circular swing: all of which will however not easily be admitted as "adequate" resources. In proof of the truth of Rothe's remarks on the

great deficiency of Darwin's arrangement, it is sufficient to observe his mode of dispersing fevers and their symptoms throughout the whole of his classes. In Class 1, *Order* 1, Genus 1, stands Febris irritativa; in Genus 2, Calor Febrilis; *Order* 2, Febris inirritativa; Class 2, *Order* 1, Genus 2, Febris sensitiva irritata; Genus 3, Febris sensitiva inirritata; Genus 6, Febris sensitiva; Genus 7, Delirium febrile; Class 3, Tremor febrilis; Class 4, Febris irritativa and inirritativa again. This seems to be employing a language which no art can translate into any other that has been adopted by mankind.

Larrey Expédition en Egypte. 8. Par. 1804. Ed. Med. journ. II. 213.

Franks reise. 2 v. 8. Vienn. 1804-5. Ed. med. journ. III. 326.

Birkholz Cicero medicus. 8. Leipz. 1806. Ed. med. journ. III. 345.

Edinburgh medical dictionary. 2 v. 4. Ed. 1807.

Young's syllabus of a course of lectures on the elements of the medical sciences. 8. Lond. 1809.

*Parr's London medical dictionary. 4. Lond. 1810. Probably the best general work; although the alphabetical arrangement much diminishes its value to a student.

Dictionaire des sciences medicales. 12 v. 8. Par. 1812..Ed. Med. journ. IX. 346.

(Rübel, Sue, Lavoisien, Burdin, Louis, Blancard, Reuss, Rahn, Reyher, Schraud, Hooper's dict. and dial. Turton, Roberton.)

CHEMISTRY.

THEORETICAL CHEMISTRY IN GENERAL.

Literature.) Weigels grundriss. *Scherers grundzüge der neuern chemischen theorie. 8. Jen. 1795.

*Cavendish. Ph. tr. 1766. 141.

*Priestley on air. 3 v. 8. Lond. 1790.

*Watson's chemical essays. 5 v. 12. Lond. 1800.

*Lavoisier Elémens de chimie. 8. Par. 1793.

**Grens* grundriss der chemie. 2 v. 8 .Halle, 1796-7. "Indispensable." Rothe.

Henry's epitome of chemistry. 8. Lond. 1806.

*Thomson's system of chemistry. 5 v. 8. Ed. 1810. 6th ed. 4 v. 1820. A compilation so copious and accurate as to supersede the necessity of a very large collection of works on this department of medical science; although some want of uniformity has arisen from the repeated additions which have been incorporated with the work.

Thomson's elements of chemistry. 8. Ed. 1810.

**Murray's* chemistry. 4 v. 8. Ed. 1806.

*Aikin's dictionary of chemistry. 2 v. 4. Lond. 1808.

Nicholson's dictionary, by Ure. 8. Lond. 1821.

(Mayow, Scheele, Crell, Hermbstadt, Girtanner, Schurer, Jacquin, Hildebrandt, Kirwan, Richter, Morveau, Laplace, Monge, Berthollet, Fourcroy, Hassenfratz, Adet, Remmler, Crawford, Pictet, Mayer, Hindenburg, Eimbke, Van Mons, Sage, Pearson, Giobert, Deimann, Troostwyk, Trommsdorff, Milner, Achard, Ilsemann, Luyart, Westrumb, Wurzer, Vauquelin, Seguin, Lefevre, Hauch, Hebenstreit, Nahuys, Fordyce, Cornette, Hasse, Arezula, Proust, Austin, Thouret, Gibbes, Sennébier and Humboldt, are also mentioned by Scherer as the authors of important essays).

(Valentinus, Boyle, Hooke, Stahl, Pott, Boerhaave, Macquer, Rouelle, Erxleben, Bergmann, Black, Irvine, Wiegleb, Göttling, Brugnatelli, Hagen, Gmelin, Tennant, Wollaston, Hatchett, Chenevix, Howard, Marcet.)

*†Annales de Chimie.

†Animal chemistry. See secretion.

FUNDAMENTAL DOCTRINES.

Cleghorn de igne. 8. Ed. 1779 ; Smellie thes. IV. 108.

Paterson de evaporatione. 8. Ed. 1783 ; Smellie thes. IV. 404.

Richters stoechiometrie. 8. Bresl. 1792-4.

Chenevix on chemical nomenclature. 12. Lond. 1802.

Young's course of lectures on natural philosophy. 2 v. 4. Lond. 1807. Probably contains as much of natural philosophy as is absolutely necessary for a medical student : and with respect to the fundamental doctrines of chemistry, enters into an examination of the constitution of matter, of the phenomena of heat, and of electrochemical science.

Fourcroy's chemical philosophy. 1807.

Berthollet's chemical statics, by Lambert. 2 v. 8. Lond.

Dalton's chemical philosophy. 8. Manch. 1808.

*Sir H. Davy's elements of chemical philosophy. vol. 1. 8. Lond. 1812.

ELECTROCHEMICAL SCIENCE.

See Nat. Phil. II. 426...435.

Wilkinson's elements of galvanism. 2 v. 8. 1803.

Ritters electrische system der körper. Leipz. 1805.

Walther vom galvanischen technizismus.

Davy's Bakerian lectures. Ph. tr. 1807...

PROPERTIES OF PARTICULAR SUBSTANCES.

Classification.

CLASS I. ELEMENTS.

Simple Substances.

ORDER I. EMPYREAL.

Negatively electrical, and supporting combustion with substances positively electrical.

	Specific gravity.	Weight combining.	
1. Ox'ygen	.00138 W. 16 Hydr. When fixed, about 2 W.	[8]	Colourless.
?. "Chlorine" Davy.	.00302 W, 36 H.	[36]	Green.
[?. Fluorine.		23]	
[?. Iodine.	.01047 W, 125 H.	125]	

ORDER II. METALLIC.

Positively electrical; having, when coherent, a high degree of lustre and opacity.

(With their oxyds, or combinations with oxygen.)

2. Hydrogen	Sp. gr. .00009 W, Wt. comb. 1 Water. Wt. comb. [9.] H.		Unknown in a state of cohesion Hydrets, as sulfurets, not "hydrates."
3. Nítrogen, or Azote	.00117 W, 14 H	[14]	Unknown in a state of cohesion
4. Potas'sium	.85 W	[40]	
5. Sódium	.94	[24]	
6. Barit'ium or Bárium, about	4.?	[70]	
7. Chrómium	5.9	[28]	
8. Tellúrium	6.1	[32]	("74." D.)
9. Uránium	6.5	[125]	

10. An'timony,	Sp. gr. 6.7	Wt. comb.	[45]
11. Man'ganese	6.9		[28]
12. Zinc	7.1		[34]
13. Tin	7.4		[59]
14. Molybdaénum	7.5		[48]
15. Iron	7.6		[28]
16. Cóbalt	7.8—		[26]
17. Copper	7.8	Reddish	[64]
18. Ar'senic	8.3		[38]
19. Nickel	8.9		[26]
20. Bismuth	9.8		[71]
21. Silver	10.8		[110]
22. Lead	11.3		[104]
23. Rhódium	11.4?		[120]
24. Palládium	11.8		[56]
25. Mercury	13.6		[200]
26. Tungsten	17.4		[96]
27. Gold	19.3		[199]
28. Platína (In Latin, Plat'inum)	21.5		[181]
29. Irid'ium.			[48]
30. Os'mium.			
(31). Titánium.			[144]
(32). Colum'bium.			[144]
(33). Cérium			[46]
(34). Strontíum			[44]
(35). Cal'cium			[20]
(36). Magnésium			[12]
(37). Glycin'ium			[18]
(38). It'rium			[32]
(39). Alumin'ium			[9]
(40). Zircónium			[37?]
(41). Sili'cium, [or Sil'icon]			[8]

ORDER III. PYROPHORIC.

Positively electrical; combustible with oxygen: void of metallic lustre.

42. Carbon. Wt. comb. [6]. Black. "Carbureted hydrogen," or stagnal gas, sp. gr. 8 H, contains I Carbon, 6, and II hydrogen, 2, making 8; it affords its volume of carbonic acid. "Supercarbureted hydrogen," or olefient gas, sp. gr. 13 H, contains I carbon, I hydrogen, making 7, and affords twice its volume of carbonic acid.

43. Borácium, or Boron — Wt. comb. [7] Grey.

44. Fluátium? or Fluórium. [See Fluorine.]

45. Phos'phorus — [12] Combustible at common temperatures.

46. Sulfur — [16] Yellow, incombustible at common temperatures.

ORDER IV. INDETERMINATE.

47? Muriátium? The supposed basis imagined to unite with oxygen, and form muriatic acid. [See Chlorine.]

CLASS II. ALKALIS.

Positively electrical: capable of making vegetable blues green, reds blue, and yellows brown.

They may be distinguished by their elective attractions.

ORDER I. SIMPLE.

1. Pot'ass — Wt. comb. [48]

2. Sóda — [32]

3. Baríta. Must be written with an *i* if accented baríta, which is the most correct, the stone being called barites: the termination *a* distinguishing the pure earth. — Wt. comb. [78]

4. Strontía [52]
5. Lime [28]
6. Magnésia Black, Ed. ess. phys. and lit. II. 157. Separate. 8. Ed 1782.
Henry, Lond. med. tr. II. 226. [20]

ORDER II. COMPOUND.

7. Ammónia, Sp. gr. 8 H [17]

CLASS III. OXYDS.

Combinations of simple bodies with oxygen, incapable of immediately changing vegetable colours; not strongly electrical.

ORDER I. SIMPLE.

When the bases are little known, called earths: to be distinguished by their elective attractions.

1. Alumina. Wt. comb. [17]
2. Glyc'ina. See aphorisms on classification. §. 247. [18]
3. It'ria. No Latin word begin with *y*. [40]
4. Zircónia [45?]
5. Sil'ica [16]

ORDER II. BINARY.

Oxyds of hydrogen and carbon.

		Form	Perfect solvent	Imperfect solvent	Precipitant
6	E'ther	Boils at 100°	Alcohol	Water	
7	Alcohol	Boils at 175°	Water		Subc. pot.

	Form	Perfect solvent	Imperfect solvent	Precipitant
8. Cam'phor Camphor with an acid. Retz. Act. med. Havn. Dunc. med. comm. XIV. 68. With resins, Percival M. Med. soc. Lond. II. 54; Chamberlayne, 316.	Crystalline, volatile	Alc.	Water,	dissolves one 1000th
9. Spiritóleum, Essence	Liquid, volatile	Alc.		Water
10. Res'in ? Guaiacum. Brande. Phil. tran. 1806. 89.	Solid, fixed	Alc.		Water
11. Wax	Granular	Eth. Oil.	Alc.	Water
12. Adipocére	Lamellar	Ether	Hot Alc.	Water
13. Oil Oil with mucilage. French and Fothergill. Med. obs. and inq. I. 4. 12.		Alkalis with A. or W.		
14? Mucóleum? Davy's El. 308.	Semifluid		Water	
15. Aspar'agin?	Crystalline, taste cooling	Water		
16. Sugar	Crystalline, sweet	Wat. Alc.		
	[Wt. comb. 28 H. Prout. 81 Th.]			
17. Mellas'sa	Deliquescent, sw.	Wat. Alc.		
18. Sar'cocoll?	Gummy, sweetish	Wat. Alc.		
19. Glaciáta. Jelly	Gelatinous	Hot Wat.		
20. Starch	Shining powder	Hot Wat.		Galls
21. In'ulin?	Powder	Hot Wat.		Cold

ORDER III. TERNARY.

Oxyds of hydrogen, carbon, and nitrogen.

A. OF VEGETABLE ORIGIN.

	Form	Perfect solvent	Imperfect solvent	Precipitant
22. Gum	Horny	Water	Alcohol.	
23. Tragacan'thin	Horny	Water		Acids
24. Extrac'tin	Amorphous	Wat. Alc.		Mur. tin not gelatin.
25. Pícrin	Crystalline? Bitter	Wat. Alc.		Nitr. silv.
26. Cinchónin	Subastringent	Wat. Alc.		Galls; prec. sol. in alc.
27. Narcótin	Crystalline		Wat Alc.	
28. A'cor or A'co-rin	Acrid; volatile with Wat. or Alc.	Wat. Alc.		
29. Indigo	Blue powder	Sulf. ac.		
30. Pyrocol'la. Gluten	Ductile		Water	Galls
31. Caoutchoúc	Elastic	Ether		
32. Birdlime	Viscous		Alc.	
33. Cork	Sp. gr. $\frac{1}{3}$: giving suberic acid		Wat. Alc.	
34. Wood	Fibrous		Weak Alk.	

B. OF ANIMAL ORIGIN.

35. Gelat'ina. Gelatin	Horny or gelatinous	Wat.		Galls
36. Albúmen	Coagulable at 160°	Wat.		Oxymur. of mercury
37. Fíbrin	Fibrous or coagulating	Weak alk.		Nitric acid

	Form	Perfect solvent	Imperfect solvent	Precipitant
38. Múcus	Diffusible in water		Wat.	Acetate of lead; not galls
39. Uréa	Crystalline	Hot. Wat.		Metallic nitrates

[Wt. comb. 3.75 oxyg. ab. 56 H. Prout.]

40. Enchólia	Resinous, bitter	Alkalis	Water	

CLASS IV. COMPOSITIONS.

Combinations of alkalis or simple oxyds with compound oxyds.

1. Soap	Soluble in water.
2. Plaster. May be called Amur'ca, to avoid ambiguity.	Insoluble in water, solid.
3. Elaeox'yd.	Insoluble in water, fluid.

CLASS V. ACIDS.

Negatively electrical; capable of changing vegetable greens to blues, and blues to reds, or of counteracting the powers of alkalis to produce opposite changes; taste more or less acid.

To be distinguished by their elective attractions.

(With their combinations.)

ORDER I. SIMPLE ACIDS.

1. Sulfúric	Wt. comb.	[40] if dry.
		[49] Sp. gr. 1.85
		[58] Sp. gr. 1.78
2. Sul'furous, Sp. gr. 30 H		[32]
3. Phospho'ric		[28]
4. Phos'phorous		[20]
5. Carbon'ic		[22]

Emmet de acido aereo. 8.
Ed. 1784; Smellie Thes. IV. 464.

6. Nítric	Wt. comb.	[54] if dry.
		[63] Sp. gr. 1.55
		[72] Sp. gr. 1.42
7. Nítrous		[46]
8. Muriat'ic or Hydrochlóric		[37]
9. Oxymuriat'ic. See Empyreal substances.		
10. Hyperoxymuriat'ic or Chlóric		[76]
11. Fluor'ic		[24]
[Hydriod'ic		[126]
12. Borac'ic		[23]
13. Chrómic		[52]
14. Molyb'dic		[72]
(Molyb'dous)		[64]
15. Arsen'ic		[62]
16. Arsénious		[54]
17. Tun'gstic		[120]
18. Colum'bic		[152]

ORDER II. BINARY ACIDS.

19. Acet'ic	Wt. comb.	[51]
20. For'mic		[37]
21. Oxal'ic		[36]
22. Mellit'ic.		[49?]
23. Tartar'ic		[67]
24. Cítric		[59]
25. Málic		
26. Múcic		
27. Sebac'ic?		
28. Benzoic		[120]
29. Succin'ic		[50]
30? Moroxyl'ic?		
31. Camphor'ic		
32. Suber'ic.		
33? Lac'cic?		

ORDER III. TERNARY ACIDS.

34. U'ric. [Wt. comb. 6.375 Ox. 94 Hydr. Prout. 45? Th.]
35? Rosac'ic?
36. Am'nic.

CLASS VI. SEMIACIDS.

Substances which take place of some acids in combining with oxyds and alkalis, but either do not form permanent compounds with them, or are incapable of altering vegetable blues.

1. Prússic or Hydrocyan'ic	Making a bright blue with iron. Wt. comb. [27]
2. Gal'lic	Making a dark grey with iron. Wt. comb. [63]
3. Tan'nic	Making a leathery compound with gelatin. W. c. [71]
4. Hydrothéic, or sulfurated hydrogen, ὑδροθειϊκόν.	Blackening the compound of lead. Weight comb. [17]

CLASS VII. SALTS.

Combinations of acids with alkalis or oxyds.

ORDER I. OF SIMPLE ACIDS.

Sul'fates with Subsul'fates and supersul'fates, as varieties, Sulfites, Phos'phates, Phos'phites, Car'bonates, Nítrates, Nítrites, Múriates, Oxymúriates? Hyperoxymúriates, Flúates, Hydriódates, Bórates, Chrómates, Molyb'dates, Arséniates, Ar'senites, Tun'gstates, Colum'bates.

ORDER II. OF BINARY ACIDS.

Acétates, For'mates, Ox'alates, Méllates? Tártrates, Cítrates, Málates, Múcates, Benzóates, Suc'cinates, Morox'ylates? Cam'phorates, Súberates, Lac'cates?

ORDER III. OF TERNARY ACIDS.

U'rates, Rósates? Am'nates.

CLASS VIII. SEMISALTS.

Combinations of semiacids with alkalis or oxyds.

Prússiates, Gal'lates, Tan'nates with Gallotan'nates, Hydrothéates.

ELECTIVE ATTRACTION.

Kier de attractione chemica. 8. Ed. 1778; Smellie Thes. IV. 27.

Kirwan Phil. Trans. 1781. 7. 1782. 179. 1788. 15. Ir. trans. IV. 3. VII. 163.

In alcohol. Elliot. Ph. tr. 1786. 155.

Young. Phil. trans. 1809. 148.

Tables of affinity. See Chemical tables.

PRACTICAL CHEMISTRY AND PHARMACY.

Pharmacopoeia Bateana. 12. Lond. 1691.

Quincy's dispensatory, by Hooper. 8. London.

Baumé Elémens de pharmacie. 8. Par. 1773.

Gruneri via formulas conscribendi. 8. Halle. 1778.

Nicolai Recepte und curarten. 3 v. 8. Augsb. 1782. 1788-94.

Gaubius de methodo concinnandi formulas. 1. Bale, 1782.

Dossie Laboratorium, von Wiegleb. 8. Alt. 1783.

D. Monro's medical and pharmaceutical chemistry, 4 v. 8. Lond. 1788-90.

Grens grundriss der pharmacie und arzneymittellehre. 2 v. Halle, 1790.

Tode Das receptschreiben. 8. Leipz. 1792.

Bœhmer technologia vegetabilis. 4. Wittenb. 1792.

Gmelins grundriss der pharmacie. 8. Gott. 1792.

Trommsdorffs journal der pharmacie. 8. Leipz. 1793...

Pharmacopoea Austriacocastrensis. 8. Vienn. 1795. Digested by a committee from 41 essays, 6 of which had been rewarded by prizes.

Hagen Lehrbuch der apothekerkunst. 2 v. 8. Ed. 5. Königsb. 1797. "Every physician should have this work." Rothe.

Kirwan on the analysis of mineral waters. 8. Lond. 1799.

Trommsdorffs chemische probierkunst. 8. Erf. 1801.

Bouillon Lagrange Manuel du pharmacien. 8. Par. 1803. Cours d'étude pharmaceutique, 4 v. 8. "Comprehensive, but complicated."

Swediaur pharmacopoeia universalis. 2 v. 18. Par. 1803.

Pharmacopoeia Edinburgensis. 12. Ed. 1805. Ed. med. journ. I. 486.

Bostock on pharmaceutical nomenclature. 8. Liv. 1807. Ed. med. journ. IV. 372; VII. 367.

Chaptal Chimie appliquée aux arts. 4 v. 8. Par. 1807.

* Pharmacopoeia Londinensis. 4. 18. Lond. 1809. Ed. med. journ. VI. 216. *Powell's* translation, with notes. 8. Ed. 2. Lond. 1809. Young in London Review, n. 4. Phillips, 8. Lond. 1811; Ed. med. journ. VIII. 368. Has pointed out some inaccuracies, but is in general much too severe. *Editio altera*, and Powell Ed. 3. 8. Lond. 1815. Phillips on the editio altera. 8. Lond. 1816. Phillips on the apothecaries' company; Ed. med. journ. IX. 67.

Duncan's Edinburgh dispensatory. 8. Ed. 1810.

Wilson Pharmacopoeia chirurgica. 1811. Ed. med. journ. IX. 488.

* Klaproth et Woulff Dictionnaire de chimie, par Lagrange et Vogel. 4 v. 8. Par. 1811. Contains an immense store of chemical facts.

(Pfingsten, Hermbstädt, Göttling, Piderit, Piepenbring, Fiedler, Plenck, Wallbaum, Mellin, Schlereth, Reuss, Triller, Dollfuss.)

APPARATUS.

Weights. Milligan. Ed. med. journ. XVI. 186; doses of the ancients; supposes them generally $\frac{1}{4}$ of the nominal magnitude. Measures. Vessels. Furnaces. Fuel. Baths. Lutes. Trituration; On bellmetal mortars. Dunc. med. comm. VII. 303. Levigation. Elutriation. Exsiccation. Filtration. Evaporation. Crystallization. Distillation. Sublimation.

PREPARATIONS.

Acids. Metals and their salts; On James's powder. Chenevix, Phil. trans. 1801. 375. Alkalis and their salts; Nooth's apparatus. Ph. tr. 1775. 59. Earths and their salts. Sulfurs and sulfurets. Vegetable substances: Oils; Essences or distilled oils; Distilled waters; Infusions; Decoctions; Mucilages; Extracts; *Barry*, Medicoch. tr. X. 231; in vacuo. Mixtures; Spirits; Tinctures; Ethereal liquids; Wines; Vinegars; Honeys; Syrups; Confections; Powders; Pills; Cataplasms. Animal substances: Plasters; Cerates; Ointments; Liniments.

ANATOMY.

Literature.) Portal hist. de l'anat. Haller bibl. anat. Sömmering de corp. hum. fabr.

DESCRIPTIVE ANATOMY.

Vesalii epitome f. Bale, 1542. Vesalius de corporis humani fabrica. f. Bas. 1555. With wooden cuts. "* *" Haller. Levelings erklärung von Vesal. f. Ingolst. 1786.

Faloppii observationes anatomicae. 8. Ven. 1561. "* * " Haller.

*Eustachii opuscula. 4. Ven. 1564. 8. Leyd. 1707. "**" Hall. Eustachii tabulae anatomicae posth. f. Rom. 1711. Cum Albini commentario. f. Leyd. 1761. "* *" Haller. "The best plates extant, except of the absorbents." Rothe.

Columbus de re anatomica. 8. Frankf. 1590.

Varolii anatomia. 8. Frankf. 1591.

Bidloo Anatomia. f. Amst. 1685. Cowper. f. Oxf. 1697.

* Morgagni adversaria anatomica. 3 v. 4. Bologn. 1706-17.

Heisteri compendium. 8. Vienn. 1770.

Cheselden's anatomy. 8. Lond. 1713. Germ. by Wolff. 8. Gott. 1790.

* Winslow Exposition anatomique du corps humain. 4. 12. Par. 1732. "* *" Hall.

* Haller de partium corporis humani fabrica et functionibus. 8 v. 4. Laus. 1757...8 v. 8. Bern. 1777, or Elementa physiologiae. 8 v. 4. Laus. 1777-8. Auctarium. 4. Leipz.

1780. Laus. 1782. "A man who stands next to Leibnitz." Blumenbach.

Lieutaud Anatomie historique et pratique, par Portal. 2 v. 12. Par. 1776.

Walteri observationes anatomicae. f. Berl. 1775.

Sabatier Traité complet d'anatomie. 3 v. 8. Par. 1781.

Mayers anatomische kupfertafeln. 6 v. 4. Berl. 1783-94.

Loders anatomisches handbuch. Vol. 1. 8. Jen. 1788.

Hildebrandts lehrbuch der anatomie. 4 v. 8. Brunsw. 1789-92.

Loder Tabulae anatomicae. f. Weim. 1794...

* Sömmering vom baue des menschlichen körpers. 5 v. 8. Frankf. 1791...Soemmering de corporis humani fabrica, a Clossio. 8. Frankf. 1794..."A most excellent and philosophical work, indispensably necessary to every medical man." Rothe.

Wiedemanns handbuch der anatomie. 8. Brunsw. 1796.

J. and C. Bell's anatomy. 4 v. 8. Ed. 1797..1804.

Hooper's anatomist's vade mecum. 8. Lond.

* Bichat Anatomie générale. 4 v. 8. Par.

* *Bichat* Anatomie descriptive. 5 v. 8. Par. 1801.

Hooper's anatomical plates, 2 parts. 12. Lond. 1803. Considering the diminutive size, very well executed.

Barclay's anatomical nomenclature. 8. Ed. 1803. Dunc. ann. 1803. 83.

Fyfe's anatomy. 3 v. 4. Ed. 1806.

Anatomical examinations. 2 v. 8. Lond. 1807.

† Comparative anatomy. See Physiology.

(Riolanus, Malpighi, Ruysch, Prochaska, Leber, Sandifort, Neubauer, Wrisberg, J. Hunter, Metzger, Schreger, Isenflamm, Vicq d'Azyr, Ludwig, Kulmus, Kühn.)

OSTEOLOGY.

Including Chondrology. The history of bones and cartilages. Bones are inflexible substances: cartilages differ from bones in the absence of the earthy part.

* Albinus de ossibus. 8. Leyd. 1726. "Admirably written." Rothe. Albini icones ossium foetus. 4. Leyd. 1737. "Still unequalled." R. Tabulae sceleti et musculorum. f. Leyd. 1747. Ossium. Leyd. 1753. "* *" Haller. "Perfect."

Sömmering. Albinus de sceleto. 4. Leyd. 1761. "The most complete and accurate description existing." Rothe. Albini annot. academ.

* Cheselden Osteographia. f. Lond. 1733. Unjustly depreciated in Douglas's remarks. 8. Lond. 1735. Reduced. 12. Lond. 1811.

Monro on the bones and nerves. 12. Ed. 1741. Traité d'ostéologie, par Sue. f. Par. 1795.

Blumenbach Geschichte der knochen. 8. Gott. 1786. Illustrated by comparative anatomy.

Walter von trocknen knochen. 8. Berl. 1789.

* *Boyer* on the bones.

Mitchell's engravings. Edinb. 1820. Ed. med. journ. XVI. 262. (Loschge.)

STRUCTURE OF BONE AND CARTILAGE.

FORMS OF BONES.

See Physiology.

APPENDAGES OF BONES.

JOINTS.

LIGAMENTS.

Weitbrecht Syndesmologia. 4. Petersb. 1742.

Caldani Icones anatomicae. 2 v. f. Ven. 1801.

Liston on the crural arch. 4. Edinb. 1822.

PARTICULAR BONES.

OF THE HEAD.

Spix Cephalogenesis. fol. Munich. 1815. Ed. med. journ. XVI. 262.

Cránium.) Geheral form. Blumenbach Collectio craniorum. 4. Gott. 1790... Fron'tal bone. Paríetal bones. Occip'ital bone. Ossa triquétra. Monro Ed. med. ess. V. 220. Tem'poral bones: Auric'ular bones: Hammer, Anvil, Lenticular bone, Stirrup, Sphénoid bone. Ethmoid bone.

Face.) Násal bones. Upper max'illary bones. Lac'rymal bones. Málar bones. Pal'ate bones. Lower tur'binated bones. Vómer. Lower jaw. Teeth. J. Hunter on the teeth. 4. Lond. 1771. 1803. Med. comm. Ed. VI. 180. Hirsch Practische bemerkungen. 8. Jen. 1796.

Lingual bone. Larynx.

OF THE TRUNK.

Spine. Os sácrum. Os coccy'gis. Thorax: Ribs; Sternum. Gemmil on supernumerary ribs and vertebrae. Ed. med. ess. V. 336. Pelvis: Ossa ilii; Ossa ischii; Ossa pubis; Acetabulum; Ligaments.

OF THE UPPER EXTREMITY.

Clavicle. Scap'ula, Húmerus. Ulna, Rádius. Wrist: Scáphoid bone; Lunar bone; Cúneiform bone, Pis'iform bone; Os trapézium; Os trapezoídes seu pyramidále; Os magnum; Os un'ciforme. Hand: Metacar'pal bones; Thumb; Fingers.

OF THE LOWER EXTREMITY.

Fémur. Tib'ia. Fib'ula. Patel'la. Knee. Társus: Astrag'alus; Os cálcis; Os scaphoídes; Os cúneiforme internum; medium; externum; Os cuboídes. Foot: Metatar'sal bones; Toes; Ossa sesamoidéa.

MYOLOGY.

The history of Muscles. Muscles are manifestly fibrous organs, capable of active contraction.

* Albini historia musculorum. 4. Leyd. 1734 "* * *" Hall. Ab Hartenkeil, 4. Frankf. 1784. "The best and completest description." Rothe. Albini tabulae musculorum f. Leyd. 1740. "* * *" Hall.

Walther Myologisches handbuch. 8. Berl. 1777.

Barth Anfangsgründe der muskellehre. f. Vienn. 1786

STRUCTURE OF MUSCLES.

See Physiology.

FORMS OF MUSCLES.

See Physiology.

APPENDAGES OF MUSCLES.

Monro on the bursae mucosae. f. Lond. 1788.
Koch de bursis mucosis. 4. Leipz. 1789.
Gerlach de bursis mucosis in capite et collo. 4. Wittenb. 1793.

PARTICULAR MUSCLES.

OF THE HEAD.

External and anterior.) Occip'ital. Frontal. Corrugátor supercil'ii. Orbiculáris palpebrárum. Levátor pal'pebrae. Rectus supérior oc'uli. Rectus intérior. Rectus extérior. Rectus inférior. Oblíquus supérior. Oblíquus inferior. Levátor auric'ulae. Retrahen'tes. Antérior. Hel'icis major. Hel'icis minor. Trag'icus. Antitrag'icus. Transver'sus auric'ulae. Compres'sor nárium; This muscle sometimes turns out the ala. Depres'sor álae nási. Levátor labionasális; The name Levátor labii superioris alaeque nasi is too long. Nasális lábii superióris. Orbiculáris oris. Zygomat'icus minor. Zygomat'icus major. Levátor an'guli oris. Buccinátor. Depres'sor an'guli oris; or Trianguláris. Quadrátus menti; or Depres'sor lábii inferióris. Levátor menti; or Levátor lábii inferióris próprius. Sublinguális; arising below the eyetooth. Latis'simus colli; or Platys'ma myoides.

Internal.) Of the ear: Exter'nus mal'lei; or Laxátor tym'pani major; Inter'nus mal'lei, or Ten'sor tym'pani; Supérior mal'lei, or Laxátor tym'pani minor; Stapédius; The actions of these muscles have not been sufficiently investigated. Of the lower jaw: Temporális; Masséter; Pterygoidéus externus; Pterygoidéus inter'nus; Digas'tricus;

Stylohyoidéus; Geníohyoidéus; Mylohyoidéus. Of the tongue: Linguae fibrae longitudináles, transver'sae, verticáles; Linguális; Styloglos'sus: Hyoglos'sus; Myloglos'sus. Home on the tongue. Phil. trans. 1803. 205. Of the fauces: Levátor paláti; Circumflex'us palati; Palátopharyngaéus, or Constric'tor faúcium postérior, major, more properly U'ranopharyngaéus (Aph. 223); Constric'tor faúcium antérior, minor, Constric'tor isthmi faúcium, rather U'ranoglos'sus; Az'ygus úvulae; Sty'lopharyngaéus; Salpin'gopharyngaéus; Constric'tor pharyn'gis supérior; médius; inférior: Céphalopharyngaéus? See also muscles of the trunk.

Inferior, chiefly in the neck.) Of the head and chest; Sternoclídomastoidéus. Of the larynx: Thyr'eohyoidéus; Thyr'eoepiglot'ticus major; minor; Thyr'eoarytaen'oidéus major; minor; Arytaen'oidéus obliquus; Arytaen'oidéus transver'sus, az'ygus; Crícoarytaen'oidéus postícus; laterális; Crícothyr'eoidéus; Ster'nohy'oidéus; O'mohy'oidéus; Ster'nothyr'eoidéus.

Posterior.) See the muscles of the back.

OF THE TRUNK.

In the order of dissection.

Of the back.) Trapézius. Latis'simus dórsi. Rhomboídes. Levátor scap'ulae. Serratus magnus. Serrátus supérior postícus. Serrátus inférior postícus. Splénius cápitis. Splénius colli. Sácrolumbáris. Longis'simus dor'si. Cervicális descen'dens. Spinális dor'si. Semispinális dor'si, or Transver'sospinális dor'si. Transversális cervícis. Trachélomastoidéus. Complex'us. Semispinális cervícis. Oblíquus inférior cap'itis. Oblíquus supérior cap'itis. Rectus cap'itis postícus major; minor. Multif'idus spínae. Interspináles. Intertransversáles. Levatóres costárum. Quadrátus lumbórum. Longus colli. Rectus major cap'itis antícus. Rectus minor cap'itis antícus. Rectus cap'itis laterális. Scalénus postérior; médius; antérior.

Of the chest.) Pectorális major; minor. Intercostáles ex-

terni; interni. Infracostáles. Sternocostáles. Monro. Ed. ess. phys. and lit. I. 447. Subclávius.

Of the abdomen.) Oblíquus externus; internus. Transversus. Rectus. Pyramidális. Diaphragm. Psoas magnus; minor. Ilíacus internus.

Of the pelvis.) See Splanchnology. (Cremas'ter. Accelerátor urínae. Sphinc'ter vagínae; Erec'tor pénis. Erec'tor clitor'idis f. Ascen'dens perinaéi, or Transver'sus perinaéi alter. Transver'sus perinaéi. Depres'sor uréthrae femin'eae. Wilson on two muscles surrounding the membranous part of the urethra, Medicoch. tr. I. 175. Sphin'cter áni exter'nus; inter'nus. Is'chiococcygaéus. Sácrococcygaéus postícus, or Híerococcygaéus? Curvátor coccy'gis próprius. Vesicális púbis. Uretéricus. C. Bell. Medicoch. tr. III. 171.)

OF THE UPPER EXTREMITY.

Scapular.) Del'toid. Supraspinátus. Infraspinátus. Teres minor. Téres major. Subscapuláris. Cor'acobrachiaéus. Bíceps flex'or cúbiti. Tríceps bráchii.

Brachial and cubital.) Brachiaéus inter'nus. Anconaéus. Pronátor rádii téres. Radiális inter'nus, or Flex'or car'pi radiális. Palmáris longus. Ulnáris inter'nus. Flex'or digitórum sublímis. Flex'or digitórum profun'dus: lumbricáles. Flex'or longus pol'licis; Pronátor rádii quadrátus. Supinátor rádii lon'gus. Radiális exter'nus lon'gior; brévior. Exten'sor digitórum commúnis. Ulnaris exter'nus. Supinátor rádii brévis. Exten'sor prími internódii pol'licis; Exten'sor médii internódii; Exten'sor ul'timi internódii. Exten'sor in'dicis.

Of the hand.) Abduc'tor pol'licis; Oppónens; Flex'or brévis; Adduc'tor. Palmáris brévis. Abduc'tor min'imi dig'iti; Flex'or brévis; Flex'or metacar'pius. Interos'sei inter'ni 4; externi 3. Abduc'tor in'dicis.

OF THE LOWER EXTREMITY.

Arising from the pelvis.) (Psóas, Ilíacus.) Glutaéus max'imus; médius; min'imus. Pyrifor'mis. Obturátor inter'nus. Gemel'lus supérior; inférior. Obturátor exter'nus. Quadrátus fem'oris. Ten'sor vagínae fem'oris. Sartórius. Rec'tus crúris. Vastus exter'nus. Crurális. Vas'tus inter'nus. Pectinális. Adduc'tor lon'gus fem'oris; Adduc'tor brévis; Adduc'tor magnus. Grac'ilis. Bíceps crúris. Semitendinósus. Semimembranósus.

Of the leg.) Posterior: Gastrocnémius; Plantáris; Soleáris; Poplitális; Flex'or lon'gus digitórum pedis: Massa car'nea Sy'lvii, or Accessórius flexóris longi, Lumbricáles; Tibiális postícus; Flex'or lon'gus pol'licis pédis. Antérior: Tibiális antícus; Exten'sor pol'licis pédis; Exten'sor longus digitórum pédis; Peronaéus ter'tius; brévis; lon'gus.

Of the foot.) Exten'sor brévis digitórum pédis; Flex'or brévis digitórum; Abduc'tor pol'licis, Flex'or brevis, Adduc'tor. Transver'sus pédis. Abduc'tor min'imi dig'iti pédis; Flex'or. Interos'sei inferióres 2 or 3; exter'ni 4.

SPLANCHNOLOGY.

The history of the viscera. Viscera are circumscribed bodies, principally vascular.

Malpighi viscerum anatomia. 12. Lond. 1669.
Warton glandularum descriptio. 12. Amst. 1669.
Garengeot Splanchnologie. 2 v. 12. Par. 1742.
Baillie on a transposition of the viscera. Phil. trans. 1788. 350.
Ludwig icones cavitatum thoracis et abdominis. f. Leipz. 1789.
Sandifort tabulae viscerum. f. Leyd. 1801. Ed. med. journ. III. 469.

GLANDS ABOUT THE HEAD AND NECK.

Warton glandularum descriptio.
Nuck adenographia. 8. Leyd. 1691.

Pitúitary gland? Lac'rymal; Parótid; Submaxillary, Sublin'gual; Thyr'eoid gland. Female breast. Kölpin de structura mammarum. 4. Berl. 1765.

VISCERA OF THE THORAX.

Thorax in general. Lungs. Monro on the contiguity of the lungs and pleura. Ed. ess. phys. and lit. II. 276. Thymus.

VISCERA OF THE ABDOMEN.

Abdómen in general. Alimentary canal. Fauces. Watt's anatomicochirurgical views. f. Lond. 1809. Stomach. Glissonius de ventriculo et intestinis. 1677. Home Phil. trans. 1807. Cardia. Great extremity. Greater curvature. Lesser curvature. Pylórus; Valve. Coats; Peritoneal; Muscular; Internal. Yelloly, Medicoch. tr. IV. 371; vascularity. Intestines. Lieberkühn de tunica villosa intestinorum. 4. Leyd. 1745. 1765. "* *" Haller. A Sheldon. 4. Lond. 1782. Monro. Ed. med. ess. IV. 65, 76. Duodénum. Jejúnum. An unusual stricture. Baillie's engr. 81. Valvulae conniventes. Il'eum. Caécum: Valve; Appendix vermiformis. Colon: Head; Transverse arch; Sig'moid flexure; Bands. Rectum. Mesogas'trium, Omentum, Mes'entery, Mesocólon, Appendic'ulae epiplóicae. Liver. Glissonii anatomia hepatis. 12. Lond. 1654: somewhat tedious. Lobes. Lob'ulus, 'ακρότατος λοβὸς of Nicander. Great fissure. Transverse fissure, or Portae. Fos'sa cys'tica. Ligaments: Broad or suspensory; Round, ductus venósus; Transverse. Structure: Pori biliárii. Gall bladder. Ductus communis choledochus. Pancreas. Brunner de pancreate. 8. Amst. 1682. "* *" Haller. Spleen: Capsule; Structure. Malpighi. Home. Phil. trans. 1808. Kidney. Schumlanzky de structua

renum. 4. Strasb. 1782. Dr. J. Hunter on a double kidney on one side. Lond. Med. tr. III. 250. Proper capsule; Cortical substance; Tubular substance; Pelvis; Uréter, See Muscles. Renal capsule: Cavity.

VISCERA OF THE PELVIS.

Graaf opera. 8. Lyons. 1678.

Bladder.) Peritonaeal covering; Muscular fibres; Internal membrane.

Male organs.) Martin on the seminal vessels. Ed. med. ess. V. 227. Monro on the spermatic veseels and scrotum. Ed. med. ess. V. 249. Ed. ess. phys. and lit. I. 396. Scrotum. Testis. A. Monro de testibus. 8. Ed. 1755. Smellie Thes. II. 317. Tubuli. Rete. Tunica albugin'ea. Tunica vaginális. Epidid'ymis. Vas def'erens. Vesic'ulae seminales. Prostate gland. Home on a small lobe of the prostate. Phil. trans. 1806. 195. "Known to Lieutaud and Morgagni." Ed. med. journ. III. 96. Cowper's glands. Uréthra. Shaw. Medicoch. tr. X. 339. Home and Bauer on the urethra. Phil. trans. 1820. 183. Corpus spongiósum. Cor'pora cavernósa.

Female organs.) Walter über die geburtstheile des weiblichen geschlechts. 4. Berl. 1776. Lábia. Clit'oris. Nymphae. Hy'men. Tolberg de varietate hymenum. 4. Hall. 1791. Carun'culae myrtifor'mes. Vagína. U'terus. C. Bell. Medico tr. IV. 335; muscular fibres: Os; Cervix; Fundus; Tubae; Cor'pora fimbriáta. Ovária. Baillie on a change in the ovarium. Phil. trans. 1789. 71. Hair and teeth.

† See Myology.

DERMATOLOGY.

The history of membranes. Substances laminated, soft, and generally transparent.

Bichat Traité des membranes. 8. Par. 1800. Chiefly included in his Anatomie générale.

Cellular Membrane. Serous membrane. Mucous membrane: Synovial membrane, See Osteology. Skin. Albinus de colore Aethiopum. 4. Amst. 1738. Cutis; Rete mucosum; Cuticle.

ANGIOLOGY.

The history of vessels, containing fluids.

*Albinus de colore Aethiopum et de vasis intestinorum.

*Halleri icones anatomicae. 8 v. f. Gott. 1747-56.

Mayer Beschreibung der blutgefässe. 8. Berl. 1777.

Walters angiologisches handbuch. 8. Berl. 1789. "Differs from Haller in the hand." Rothe.

Kirtland's coloured plates of the bloodvessels. Lond. 1804.

HEART.

Lower de corde. 8. Lond. 1669.

Back de corde. 12. Rotterd. 1671.

*Senac du coeur, par Portal. 2 v. 4. Par. 1778.

Percival de corde. 8. Edinb. 1780.

Wolff Nov. Act. Acad. Petr. pass.

Pericardium. Baillie on the want of a pericardium. Tr. soc. med. chir. kn. I. 91. Form. Wilson on an unusual formation of the heart. Phil. trans. 1798. 346; A single auricle and ventricle, without observable disease. A. Burns on diseases of the heart. 8. Ed. 1809. Ed. med. journ. V. 340. Right auricle; Tubercle of Lower; Valve of Eustachius; Appendix; Fossa ovalis; Tricuspidate valve. Right ventricle; Car'neae colum'nae; Foram'ina Thebésii; Sig'moid valves; Corpus sesamoidéum Aran'tii. Left Auricle: Mitral valve. Left ventricle.

ARTERIES.

A. Murray descriptio arteriarum in tabulas redacta. 8. Leipz. 1794. "Differs from Haller in the foot." Rothe. Eng. by Lawrence. 8. Lond. 1801.

Barclay on the arteries. Edin. 1812; Ed. med. journ. VIII. 464.

C. Bell's engravings of the arteries. 4. Lond. 1801.

TABULAR ENUMERATION OF THE ARTERIES.

Pul'monary artery.
Aor'ta.
Cor'onary arteries.
Clidocarot'id, "Innominata."
Right carot'id.
External carot'id.
Superior thyreoidéal.
Lingual, or Ranine.
External max'illary.
Submen'tal.
Coronary of the lips.
Ascending pharyngéal.
Occip'ital.
Posterior of the ear.
Tránsverse facial.
Tem'poral.
(Trans'verse facial, sometimes).
Frontal.
Paríetal.
Occipítal branch.
Internal max'illary.
Medial of the dura mater.
Inferior max'illary.
Deep seated tem'poral branches.
Alvéolar.
In'fraor'bital.
Upper pal'atine.
Upper pharyngéal.
Sphenopal'atine, or Nasal.
Internal carot'id.
Ophthal'mic.
Three branches.
Right subclavian, ax'illary, brachial.
Ver-

Ver'tebral, bas'ilary.
Inter'nal mam'mary.
Cervical, (or cer'vical).
  Anterior branch.
  Posterior.
Superior intercos'tal trunk.
Inferior thyr'eoid.
Suprascap'ular.
External mam'mary, sup. and inf.
Infrascap'ular.
Posterior cir'cumflex.
Anterior ci'cumflex.
Deep seated of the shoulder,
  superior and inferior.
Anastom'ic.
Ulnar.
  Ulnar recurrent.
  Anterior interosseous.
  Posterior.
  Superficial palmar arch.
  Deep seated ulnar.
Radial.
  Radial recurrent.
  Superficial of the palm.
  Deep seated palmar arch.

Left carot'id.
Left subclávian.
Intercostals.
Bronchial pair.
Inferior bronchial.
Oesophagéal, from 3 to 6.
Phren'ic pair.
Coéliac.
  Cor'onary of the stomach.
  Hepat'ic.
    Py-

Pylor'ic.
Right gas'troepiplóic.
Duodénal.
Cystic.
Two hepat'ic branches.
Splen'ic.
Pancreat'ic.
Left gas'troepiplóic.
Vása brévia.
Splen'ic branches.
Superior mesenter'ic.
Mesenter'ic branches.
Right col'ic.
Ileocol'ic.
Cap'sular pair.
Emul'gent pair.
(Right capsular, often).
Spermat'ic pair.
Inferior mesenter'ic.
Left col'ic.
Intestínal branches, (or intes'tinal).
Internal haemorrhóidal.
Lumbar pairs.
Sácral.
Il'iac trunks.
Internal il'iac.
Lesser iliac, or iliolum'bar.
(Obturatorial, sometimes).
Glutéal.
Sciat'ic.
Pudícal.
External haemorrhóidal.
(Middle haemorrhóidal, sometimes.)
Perinaéal.
Verétral, or virgal.
Ur-

Uréthral.
Dorsal.
Cav'ernous.
Obturatórial.
Hypogas'tric, or umbilical.
Vesical.
(U'terine.)
Middle haemorrhóidal.
External iliac, femoral, poplitéal.
Epigas'tric.
(Obturatorial, sometimes.)
Cir'cumflex of the ilium.
External pudical branches.
Deep seated of the thigh.
Circumflex, intern. and ext.
Artic'ular branches.
Anterior tibial.
(Fibular, sometimes ?)
Recur'rent.
Malléolar branches.
Tar'sal and metatar'sal br.
Posterior tib'ial.
Fib'ular.
Anterior fibular.
Nutrient of the tib'ia.
External plantar.
Plantar arch.
Internal plantar.

VEINS.

Superior cava
Az'ygus.
Right intercos'tal branches.
Left lower intercos'tals.
Right internal mam'mary.
Sub-

Subclávians, Ax'illaries.
Exter'nal júgular.
Frontal.
An'gular of the eye.
Tem'poral.
Auric'ular.
Lin'gual.
Occip'ital.
Suprahúmeral.
Internal júgular.
Lat'eral sinuses.
Supérior longitúdinal sinus.
Tor'cular.
Occip'ital sinus.
Petrósal sinuses.
Cav'ernous sinus.
Cir'cular sinus.
Ver'tebral.
Cephal'ic, Rádial.
Cephal'ic median.
Cephalic of the thumb.
Basil'ic, Ulnar.
Basil'ic médian.
Common médian.
Deep seated of the arm.
Left subclávian, also
L. internal mam'mary.
L. superior intercostals.

Inferior cava.

Phrenic pair.
Hepatic branches.
Ramifications in the liver, forming again the vena portarum.
Cystic.
Pylor'ic.
Duodénal.
Right

Right gastric.
Superior mesenter'ic.
Splenic.
Coronary of the stomach. Home on valves in the vas breve. Phil. trans. 1821. 25.
Pancreatic branches.
Left gas'troepiplóic.
Inferior mesenter'ic, or mesaráic.
Emulgents.
Iliac trunks.
Internal iliac.
External iliac, Femoral, Poplitéal.
Greater saphéna.
Lesser saphéna.

ABSORBENTS.

Bartholinus de lacteis thoracis. 12. Lond. 1652.
Ruysch de valvulis lymphaticorum vasorum et observationes anatomicae. 8. Amst. 1665. " ** " Haller.
Mekel de vasis lymphaticis glandulisque conglobatis. 4. Berl. 1757. " ** " Haller.
Hewson on the blood, and on the lymphatic system, 3 v. 8. Lond. 1777.
Winterbottom de vasis absorbentibus. 8. Ed. 1781; Smellie Thes. IV. 292.
Sheldon's description of the lacteals. 4. Lond. 1784. Lond. med. journ. V. 157.
Haas de cutis et intestinorum absorbentibus. f. Leipz. 1786.
Cruikshank's anatomy of the absorbents. 4. Lond. 1787.
Mascagni. f. Sienn. 1787. *Cruikshank und Mascagni von Ludwig. 3 v. 4. Leipz. 1789-94. With literary additions and other improvements.
(Hahn.)

Thoracic duct.
Absorbents of the head.
From glands of the neck.

From glands behind the mastoid process.
From glands near the zygoma.
Absorbents of the upper extremity, Axillary trunk.
Basilic vessels, from the internal condyl.
Receptaculum chyli, or lacteal sac.
Lumbar plexus.
Inguinal plexus.
Absorbents of the pelvis. Watson. Ph. tr. 1769. 392.
Absorbents of the lower extremity.
From glands in the ham.
More deep seated.
Right trunk of the absorbents.
Abs. of the right arm.
Abs. of the right side of the head.
(Abs. of the lungs, sometimes).

NEUROLOGY.

The history of nerves, or chords connected with the brain.

Vieussens neurographia. f. Leyd. 1685.
Monro on the bones.
Monro on the nervous system. f. Ed. 1783. Lond. med. journ. IV. 113.
*Walter tabulae nervorum thoracis et abdominis, f. Berl. 1783. "A perfect masterpiece." Rothe. Reduced. 4. Lond. 1804.
Scarpa de nervorum gangliis. 2 v. 8. Pav. 1785.
Fischeri descriptio nervorum inferiorum. f. Leipz. 1791.
Behrends.. cor nervis carere. 4. Mayence, 1792.
A. Murray tabulae nervorum. 4. Ups. 1793.
Schmidt de nervis lumbalibus et plexu brachiali. 4. Vienn. 1794.
Ludwig scriptores neurologici minores selecti. 4 v. 8. Leipz. 1794-5.
Scarpa tabulae neurologicae. f. Pav. 1794.
Andersch de nervis aliquibus. 8. Königsb. 1797.

C. Bell's engravings of the nerves. 4. Lond. 1803.
Home's microscopical observations on the brain and nerves. Phil. trans. 1821. 25.
(Günther, Roland, Martin.)

BRAIN.

Steno de cerebri anatome. 12. Leyd. 1671.
Mayer vom gehirn. 4. Berl. 1779.
Nihell de cerebro. 8. Ed. 1780. Smellie Thes. IV. 199.
*Vicq d'Azyr's plates of the brain.
Monro on the brain. 4. Ed. Dunc. ann. 1797. 63.
C. Bell's engravings of the brain. 4. Lond. 1802.
Bischoff, Hufeland, und Walter über die Gallsche lehre. Berl. 1805. Ed. med. journ. II. 354.
Rosenmuller on Gall's discoveries. Ed. med. journ. II. 320.
Report to the Institute on Gall's discoveries. Ed. med. journ. V. 36.
Pettigrew's engravings of the brain and of the cavity containing it. Lond. 1809.

SITUATION AND SUPPORT.

Dura mater.) Paisley on a dura mater ossified. Ed. med. ess. II. 310. No morbid symptoms. Sinuses. Falx. Carlisle on the want of a falx. Tr. soc. med. ch. kn. I. 212. Tentorium: Torcular. Folds between the lobes.

Pia mater.

Arachnoid coat.

PARTS.

Cerebrum.) Substance. Convolutions and furrows. Hemispheres. Corpus callósum. Sectio ovális. Septum lucidum. Lateral ventricles: Dig'ital cavities. Fornix. Hippocampus major, minor; Corpus fimbriátum; Lyra. Corpora striata. Taénia semicirculáris. Thal'ami op'tici. Anterior com'missure. Third ventricle. Infundib'ulum. Pitúitary gland.

Plexus choroidéus and vena magna. Pin'eal gland: crura. Posterior com'missure. Passage to the fourth ventricle. Tuber'cula quadrigem'ina, or nates and testes.

Cerebellum.) Substance: Arbor vitae. Fourth ventricle: Cal'amus scriptórius; Valve of Vieussens; Vermiform appendages.

Base of the brain.) Soemmering de basi encephali. 4. Gott. 1778. Lobes of the cerebrum. Crura cerebri. Crura cerebelli. Pons Varólii. Mam'illary processes, or Corpora albican'tia. Medulla oblongáta. Corpora py'ramidália. Corpora ovália. Spinal marrow: Cavity, Morgagni adv. vi. n. 14. iv. n. 1; de sed. caus. ep. 5. n. 19.

CEREBRAL NERVES, AND THEIR ORGANS.

1. *OLFACTORY NERVES.*

NOSE.

Scarpa de organo olfactus. 4. Pav. 1789.
Scarpa de auditu et olfactu.

Nostrils.) Bones, See Osteology. Schneiderian membrane.

2. *OPTIC NERVES.*

Sömmering on the decussation of the optic nerves. Lond. med. journ. V. 289.

EYE.

Camper de quibusdam oculi partibus. 4. Leyd. 1746.
Walter über die blutadern des auges. 4. Berl. 1778.
*Zinn de oculo, a Wrisberg. 4. Gott. 1780.
Rosenmüller partium externarum oculi descriptio. 4. Leipz. 1797.
*Sömmering Abbildungen des menschlichen auges. f. Frankf. 1801. Ed. med. journ. I. 222.

(Plempius, Briggs, Sawry.)

Opaque parts.) Sclerot'ica. Choroidéa: Proces'sus ciliáres; U'vea; Pupil. Ret'ina? Reil Archiv, II. 468. Dunc. Ann. 1797. 19. Home on Sömmering's orifice. Phil. trans. 1798. 332.

Transparent parts.) Conjunctíva. Cor'nea. Aqueous humour. Crystalline lens. Vitreous humour. (Retina?)

Jacob on a membrane in the eye. Phil. trans. 1819. 300.

The crystalline lens, κρυσταλλοειδὲς or φακοειδὲς ὑγρὸν, was sometimes called χάλαζα κρυσταλλοειδὴς, as appears from the testimony of a spurious work found in the Arabic translations of Galen, on the anatomy of living animals. Crystallinus humor, qui grando glacialis ab Aristotele appellatur. Sp. 48. Ed. Ven. 1565. This observation confirms the reading and construction of Sophocles's Oedipus tyrannus, v. 1278, which I suggested in Dalzel's analecta; ἀλλ' ὁμοῦ μέλας Ὄμβρος χαλάζης αἵματός τ' ἐτέγγετο: the dark drops of blood flowed, mixed with the humours of the eye.

Appendages.) See Physiology. Eyebrows. Eyelids: Tarsi; Glands; Eyelashes. Pal'pebra tertia. Caruncle. (Lacrymal gland.) Lacrymal pores; ducts; and sac.

3. *MOTO'RES OC'ULI.*

Branch to the lenticular ganglion.

4. *TROCHLEA'RII.*

5. *TRIGEM'INI.*

Meckel de nervo quinti paris. 4. Gott. 1748. "* * *" Haller. Wrisberg de quinto pare nervorum. 4. Gott. 1777.

Ophthal'mic.
  Frontal.
  Nasal.
    Branch to the sac.
  Lacrymal.
  Lentic'ular ganglion.
Superior maxillary.
  Sphe-

Sphenomax'illary branch.
Sphenopal'atine ganglion.
Nasal branch.
Vidian nerve, to the 7th and 6th.
Pal'atine branch.
Trunk.
Posterior branch.
Exterior branch.
Dental trunk.
Infraor'bital trunk.
Inferior max'illary.
Gus'tatory. Tongue.
Chorda tympani.
Mandib'ular.
Mental.

6. *ABDUCTORII.*

Descending branch.

7. *AUDITORY.*

Hard portion. Soft portion.

EAR.

Valsalva de aure. 4. Utr. 1707.
Duverney de l'ouie. 12. Leyd. 1731.
Cassebohm de aure interna. 4. Hall. 1730-5. " * * " Haller.
Cotunni de aquaeductibus auris. 4. Napl. 1760.
* Scarpa de auditu et olfactu. f. Pav. 1789.
Saunders on the ear. f. Lond. 1806.
*Sömmering Abbildungen des hörorganes. f. Frankf. 1806.
External ear. Meatus. Membrana tympani, " Myringa," Sennert. See Aph. 220. Ossicles. Vestibule, Cochlea, See osteol ogy.

8. *PAR VAGUM.*

Glossopharyngéal.
Principal trunk.
Branch-

Branches to the cervical ganglion.
Branch to the glos'sopharyngéal.
Phar'yngéal.
Lar'yngéal.
Branches to the car'diac plexus.
Recurrent.
Pulmonary plexus.
Oesophagéal plexus.
Cor'onary plexus of the stomach.
Accessórius.

9. *MOTORES LINGUAE.*

Descending of the ninth.

10. *SUBOCCIPITAL.*

SPINAL NERVES.

Ganglions
First cervical nerves
Second
Third
  Phren'ic
    Hepatic branch
Ax'illary plexus
  Scap'ular nerve
  Three thorac'ic branches
  Proper ax'illary
  Mus'culocutáneous
  Médian
  Ulnar
  Internal cutáneous
  Radial
Twelve dorsal pairs
  Intercostal branches
  Great sympathet'ic, or intercostal
    Su-

- Superior cervical ganglion
  - Branches to the pharynx
  - Superficial cardiac
- Branches to the cardiac plexus
- Inferior cervical ganglion
- Dorsal ganglion
  - Splan'chnic pair
    - Semilúnar ganglion
      - Sólar plexus
        - Coéliac plexus
        - Hepatic plexus
        - Splenic plexus
        - Renal plexus
        - Superior mesenteric plexus
        - Inferior mesenteric plexus
        - Hypogastric plexus
        - Spermatic plexus
- Branches to the viscera
- Terminal arch

Five lumbar pairs

- Crural nerve
  - Femoral branch
  - Saphénal branch
- Obturatórial nerve
- Sciat'ic, see sacral nerves

Five or six sacral pairs

- Superior seminal
- Pudical
- Branch to the pelvis
- Glutéal branch
- Sciatic
  - Tibial
    - Internal plantar
    - External plantar
  - Fibular

PRACTICAL ANATOMY.

Dissection and Preparation.

Monro on anatomical preparations. Ed. med. ess. I. 94. III. 107.

Sue Art d'injecter, de disséquer, et d'embaumer. 12. Par. 1765.

Pole's anatomical instructor. 8. Lond. 1790.

*Fischer anweisung zur practischen zergliederungskunst. 2 v. 8. Leipz. 1791. From Pole, Leyser, Cassebohm, Lieutaud, and Fabricius.

London dissector. 12. Lond.

Osiander über das aufbewahren in weingeist, von Sömmering. 4. Gott. 1797.

Wichelhausen über die wachsbildnerey, nebst nachrichten von der sammlung in Florenz. 8. Frankf. 1798.

C. Bell's system of dissections. 2 v. f. Lond. 1800...

Prost ouverture des corps. 2 v. 8. Par. 1804. Ed. med. journ. I. 453.

Baillie on embalming. Tr. soc. med. ch. kn. III. 7.

PHYSIOLOGY.

OF HEALTH.

GENERAL WORKS.

Galen on the parts of the human body.

Descartes de homine. 4. Amst. 1677.

Boerhaave institutiones, ab Haller. 6 v. 8. Amst. 1742-4.

Halleri primae lineae physiologiae. 8. Gott. 1747. Ed. 1767. A Wrisberg. 8. Gott. 1780. Germ. Hall. 1788. By A. Duncan. 8. Ed. 1801.

*Halleri elementa physiologiae. A useful work for reference, but which appeared to me to repay very inadequately the labour of four months spent in reading it through.

Bonnet sur les corps organisés. 2 v. 8. Amst. 1768.
Fordyce's elements of the practice of physic. 8. Lond. 1771.
* *Cullen's* institutions of medicine. 12. Ed. 1777.
Caldani institutiones physiologicae. 8. Leyd. 1784.
Moore's medical sketches. 8. Lond. 1786.
* Blumenbachii institutiones physiologicae. 8. Gott. 1787, 1797.
* Gregory conspectus medicinae theoreticae. 2 v. 8. Ed. 1790.
Metzger von der natur des menschen, in aphorismen. 8. Königsb. 1795. "Short, clear, and complete, with literature." Rothe.
Darwin's zoonomia. See General works.
Dumas Principes de physiologie. 4 v. 8. Par. 1800-3. A work of little importance. Imper. Rev. March. 1804.
Cuvier's introduction to the study of the animal economy. 8. Ed. 1801.
Richerand Elémens de physiologie. 8. Par. 1801. By Kerrison. 8. Lond. 1803. Imper. Rev. Sept. 1805.
Garnett's zoomonia. 4. Lond. 1804.
Darwin's temple of nature. 4. Lond. 1805. Fanciful. Imp. Rev.
Wagners Physiologisch-Anthropologisches Lehrbuch. 8. Bayreuth. 1809. Ed. med. journ. VII. 223.
Buchan's bionomia. 8. Lond. 1811. Ed. med. journ. VIII. 482.
Berzelius on the animal fluids, Medicoch. tr. III. 198: *Bostock*, IV. 53.
Magendie Physiologie. 2 v. 8. Par. 1816. 1817; Ed. med. journ. XV. 561.
Lawrence's Lectures on Physiology. 8. Lond. 1819.
(Hildebrandt, Kreyssig, Jadelot, Gönner, Hunter).

MISCELLANEOUS WORKS.

Keill tentamina medicophysica. 8. Lond. 1718.
Fontana on poisons, by Skinner, 2 v. 8. Lond. 1787. "Should be read by every physician." Rothe.

Spallanzani's essays. 2 v. 8. Lond. 1784. Dunc. med. comm. XX. 1. With Stevens on digestion.

Roose über die gesundheit. 8. Gott. 1793.

* Reils archiv für die physiologie. 8. Halle. 1795...

Roose Physiologische untersuchungen. 8. Brunsw. 1796.

COMPARATIVE PHYSIOLOGY AND ANATOMY.

Swammerdam historia insectorum. 4. Leyd. 1683. "***" Hall.

Swammerdam biblia naturae. f. Amst. 1738. "***" Hall.

Trembley sur le polype d'eau douce. 4. Leyd. 1744. "***" Hall.

Lyonnet Anatomie de la chenille du saule, 4. Hag. 1760. "***" Hall.

J. Hunter on an amphibious biped. Phil. trans. 1766. 307.

Dicquemare on sea anemonies. Phil. trans. 1773. 361. 1775. 207. 1777. 56.

Monro's comparative anatomy. 8. Ed. 1775.

Fontana fisica animale. 4. Flor. 1775.

G. Bell de physiologia plantarum. 8. Ed. 1779.

Bruce on the averrhoa carambola. Phil. trans. 1785. 356.

Monro on fishes. f. Ed. 1785.

Vicq d'Azyr Traité d'anatomie et de physiologie. f. Par. 1786-90.

J. Hunter on whales. Phil. Trans. 1787. 371.

Ludwig historiae anatomiae et physiologiae comparativae brevis expositio. 4. Leipz. 1787...

Monro on the nervous system.

Blumenbach on comparative physiology. Comm. Gott. IX. Dunc. med. comm. XIV. 156.

Von Uslar on plants. 1795.

Abernethy on the whale. Phil. Trans. 1796. 27.

Home and Menzies on the otter. Phil. trans. 1796. 385.

Darwin's phytologia. 4. Lond. 1800.

* *Cuvier* Leçons d'anatomie comparée 5 v. 8. Par. 1800. Dunc. ann. 1801. 223. Engl. 2 v. 8. Lond. 1800.

Thomas on the rhinoceros. Phil. trans. 1801. 145.

Home on the ornithorhynchus paradoxus. Phil. trans. 1802. 67. 348.

*Blumenbach's comparative anatomy, by Lawrence. 8. Lond. 1807. Includes a concise account of the latest observations.

Smith's introduction to botany. 8. Lond. 1807.

Ellis on the effects of germination, vegetation, and respiration on air. 8. Lond. 1807.

Home on the wombat. Phil. trans. 1808. 304. On the squalus maximus. 1809. 212. On the ovivivíparous shark. 1810. 205.

Home's Lectures on comparative anatomy. 2 v. 4. Lond. 1813.

(Ebel, Josephi.)

SENSATION AND NERVOUS ENERGY.

VITAL POWERS IN GENERAL.

Literature.) Kühn bibl. med. I. 254-9.

Kaau Boerhaave impetum faciens. 12. Leyd. 1745.

Haller. See motion.

Brocklesby. Phil. trans. 1755. 240.

Nose uber die erfordernisse zu theoricen. 8. Hall. 1795.

Brandis über die lebenskraft. 8. Hanov. 1795.

Roose von der lebenskraft. 8. Brunsw. 1797.

Humboldt über die gereizte faser. 8. Posen. 1797. Dunc. ann. 1798. 103. 1799. 211.

Treviranus Biologie. 4 v. 8. Gott. 1802-14.

Woodham on Wilson's opinions. Ed. med journ. V. 286.

Wilson on opinions of Bichat. Ed. med. journ. V. 301.

Legallois Expériences sur le principe de la vie. 8. Par. 1812. Ed. med. journ. X. 207. See Heart.

Abernethy on Hunter's theory of life. 8. Lond. 1814. 1815. Ed. med. journ. X. 381, 395.

Lawrence's Introductory Lectures. 8. Lond. 1816; Ed. med. journ. XII. 458, 454.

Wilson Philip's Laws of the vital functions. 8. Lond. 1817; Ed. med. journ. XIV. 243.

Dewar on the influence of chemical laws. Ed. med. journ. XVII. 479.

ANIMAL ELECTRICITY.

J. Hunter on the torpedo. Phil. trans. 1773. 481. On the gymnotus. 1775. 395.

Galvani's experiments. Med. facts. III. 180.

* Volta on Galvani's discoveries. Phil. tr. 1793. 10.

Valli on animal electricity. 8. Lond. 1793. Dunc. med. comm. XVIII. 1. Med. facts. III. 190. 212.

Fowler on animal electricity. 8. Lond. 1793. Dunc. med. comm. XVIII. 17.

Monro on animal electricity. Ed. trans. III. 231. 4. Ed. Dunc. med. comm. XIX. 38.

Wells on Galvani's experiments. Ph. tr. 1795. 246.

Ritter on galvanism. 8. Weim. 1798. Dunc. ann. 1800. 278. 285.

Nicholson on galvanism. Nich. Journ. Dunc. ann. 1800. 291.

Aldini on galvanism. 4. Lond. 1803.

Kellie on the electricity of Animals. Dunc. ann. 1803. 305.

Wilkinson on galvanism. 2 v. 8. Lond. 1804. Ed. med. journ. I. 468.

† See Chemistry.

NERVOUS SYSTEM IN GENERAL.

Hartley on man. 8. Lond. 1801.

Stuart de systematis nervosi officiis. 8. Ed. 1781. Smellie Thes. IV. 227.

BRAIN.

Home on the functions of the brain. Phil. trans. 1814. 469.

Structure.) Decussation of the fibres. See anatomy. Supposed pulsation.) The pulsation of the brain is of two kinds; one occasioned by that of its arteries, the other by the re-

sistance produced by respiration; and the latter seems not to be observable unless the animal is crying, or otherwise compressing the air contained within the thorax, so that contradictory conclusions have been formed respecting it. Y.

NERVES.

Martin on cutting the recurrent nerves. Ed. med. ess. II. 114.
Johnstone on ganglions. Phil. trans. 1764. 177. 1767. 118. 1770. 30. On the Nervous system. 8. Lond. 1795.
Teckel and Hunter on the insensibility of tendons. Med. obs. inq. IV. 343.
Vicq d'Azyr on sensibility. Soc. R. med. I. 340.
Prochaska de structura nervorum. 8. Vienn. 1779.
Monro on the nervous system. Monro, Med. comm. Ed. VI. 111.
Fontana sur les poisons.
Reil de structura nervorum. f. Hall. 1796.
Home on the structure of nerves. Phil. trans. 1799. 1.
Home on the irritability of nerves. Phil trans. 1801. 1.
Sewel on a canal in the spinal marrow of quadrupeds. Phil. trans. 1809. 146. See anatomy.
C. Bell on the nerves. Phil. trans. 1821. 398.

ORGANS OF SENSE.

Common feeling.) Bichat Anat. génér. Pleasure. Pain. Sense of heat and cold. Hunger. Thirst. Anxiety.

Touch.) (Skin and its appendages.) Home on the rete mucosum of the negro. Phil. trans. 1821. 1.

Taste.) (Tongue.)

Smell.) (Nostrils.)

Hearing.) (Ear.) See Nat. Phil. I. 386. II. 271. Fen Sleigh de auditu. 8. Ed. 1753; Smellie Thes. II. 37. Odier de musicae sensationibus. 8. Ed. 1770; Smellie Thes. III. 181. J. Hunter on the organ of hearing in fish. Phil. trans. 1782. 379. Comparetti de aure interna comparata. 4. Pav. 1789. Home on the membrana tympani. Phil. trans. 1800. 1. Carlisle on the stapes. Phil. trans. 1805. 198. Wollaston

on sounds inaudible by certain ears. Phil. trans. 1820. 306. Swan on the physiology of the ear. Medicoch. tr. XI. 330. The use of the semicircular canals has never been satisfactorily explained: they seem, however, to be very capable of assisting in the estimation of the acuteness or pitch of a sound, by receiving its impression at their opposite ends, and occasioning a recurrence of similar effects at different points of their length, according to the different character of the sound; while the greater or less pressure of the stapes must serve to moderate the tension of the fluid within the vestibule, which serves to convey the impression. The cochlea seems to be pretty evidently a micrometer of sound. Y.

Vision.) (Eye.) See Nat. Phil. I. 447. II. 310. Newton's opticks. "* *" Haller. *Porterfield on the motions of the eyes, Ed. med. ess. III. 160. IV. 124. Porterfield on the eye. 2 v. 8. 1759. Camper de visu. 4. Leyd. 1746. Wilson de luce. 8. Ed. 1749; Smellie Thes. I. 409. On the seat of vision, Darwin. Phil. trans. 1778. 86. André on the eyes of the monoculus. Phil. trans. 1782. 440. R. W. Darwin on ocular spectra. Phil. trans. 1786. 313. Maskelyne on the dispersion of light as affecting vision. Phil. trans. 1789. 256. Young on vision. Phil. trans. 1793. 169. Home's facts relative to Hunter's intended Croonian lecture. Phil. trans. 1794. 21. Hosack on vision. Phil. trans. 1794. 196. Home's Croonian lectures. Phil. trans. 1795. 1. 1796. 1. 1797. 1. 1802. 1. P. Smith on the eyes of birds. Phil. trans. 1795. 263. Herschel on the illuminating power of light. Phil. trans. 1800. 225. *Young on the mechanism of the eye. Phil. trans. 1801. 23. Ware on a recovery of sight. Phil. trans. 1801. 382. Chenevix on the humours of the eye. Phil. trans. 1803. 195. Wells on vision. Phil. trans. 1811. 378; found that the iris and the power of accommodation were equally affected by the belladonna; while the actions of the external muscles remained unimpaired. Mr. Home, in his last Croonian lecture on vision, laments that Benjamin Clerk could not then be found: he has however since returned to this country, and experiments have been made on his sight, in the presence of the late

Mr. Cavendish, Mr. Home, Mr. Brodie, and Dr. Young; after the most patient examination, it appeared that the imperfect eye, from which the crystalline lens had been extracted, possessed no power whatever of altering its focus, while the same tests exhibited a very considerable change in the focal distance of the perfect eye. Y.

SENSATIONS.

Transmission.) The "nature of sensations," as transmitted by the nerves, may be "illustrated by the example of sound, the essence of which is undeniably motion: the sensation of light" also manifestly originates in motion, and, according to the opinion of Newton, as well as upon the principles of those who adopt the theory of Huygens, this motion, as it affects the retina, is decidedly vibratory. Hence we may deduce a "probable inference with respect to other sensations: touch" being "a simple impression of motion or pressure," of a certain intensity, extent, and duration; and "smell and taste" which seem to differ only in the nerves which they affect, being both dependent on certain "minute vibrations, which must demonstrably exist in the particles of bodies, considered as infinitely elastic:" there being many reasons to believe that the constituent particles of solid bodies are held in equilibrium by certain forces, without actually touching each other, and all independent elastic bodies being as necessarily thrown into vibration, by any force which acts on them, as a bell is made to sound when it is struck. Newton has supposed the vibrations, which he attributes to the retina, to be transmitted by the nerves in a manner resembling the passage of light through a transparent body, which may be illustrated by the transmission of sound through a long pipe containing air or water; and there is no mechanical objection whatever to such an explanation, which exhibits an "analogy with the transmission of electricity," if not an "identity." Syllabus of a course of medical lectures. But even granting the truth of this

theory, it brings us very little nearer to a clear idea of the nature of sensations, as affecting the mind; for there seems, both in the eye and in the ear, to be an arrangement to supersede the necessity of the performance of the numerical operation of counting vibrations within the brain; each sentient point of the retina appearing to be capable of receiving only three distinct and primitive impressions of colour, variously combined; and the semicircular canals, with the cochlea, probably serving to substitute the impression of certain parts of the nerve being peculiarly affected, for that of the frequency of the recurrence of the pulsation. The other organs of sense, which are destitute of this intermediate arrangement, seem to be capable of much less precision in appreciating the relations of the subjects of their respective functions. And with respect to the soul itself, it appears to be decidedly of a nature superior to all mechanical and even vital powers. Y.

FACULTIES OF THE MIND.

IN GENERAL. PSYCHOLOGY.

Ploucquet über die erbfähigkeit der kinder. 8. Tub. 1779. Platner Neue anthropologie. 8. Leipz. 1790. Metzger Anthropologie. 8. Weissenf. 1790. Usteri Anthropologie, nebst literatur. 8. Zur. 1791. Grosse Magazin für die naturgeschichte des menschen. 8. Zittau, 1789-91. Loder. Wagner.

MEMORY.

ASSOCIATION?

H. Cullen de consuetudine. 8. Ed. 1780. Smellie Thes. IV. 151.

THOUGHT.

Locke on the human understanding. 2 v. 8.

Reid, Stewart, Kant??

SYMPATHY.

Opuscula de mirabili sympathia, edente Schlegel. 8. Leipz. 1787. Veit de organis. 8. Hall. 1797. The muscles which move the eye are subjected to insuperable associations of sympathy, although their motions are in one sense strictly voluntary. For instance, when one eye is diseased, it is by no means sufficient to cover this eye only, "in order to give rest to its muscles," as has been advised by a modern author, (Phil. trans. 1797,) since these muscles unavoidably follow the motions of the sound eye, as we may easily feel through the eyelid. Nor can we disturb the parallelism of the vertical diameters of the irides by any effort that we can make.

PATHEMATOLOGY.

Gesenius pathematologie. 8. Erf. 1786. Falconer on the influence of the passions. 8. Lond. 1788. Dufours.

SLEEP. TORPIDITY.

Simon on the reviviscence of snails. Phil. trans. 1774. 432. Cleghorn de somno. 8. Ed. 1783; Smellie Thes. IV. 380. Nudov; theorie des schlafs. 8. Königsb. 1791. Reeve on torpidity. 8. Lond. 1809; Ed. med. journ. VI. 106. A theory of sleep, Quarterly Rev. 1809. II. 157. † See Respiration.

PHYSIOGNOMY.

Lavater physiognomische fragmente. 4 v. f. Leipz. 1775-8. Abridged by Armbruster. 8. Leipz. 1783. Engl. by Hunter. Camper Traité des visages. 2 v. 4. Utr. 1791-2. Gall's physiognomy, with strictures by Hufeland. 8. 1807. See anatomy, associated motions, and pathogony.

MOTION.

Borellus de motu animalium. 4. Leyd. 1685.
Morton on muscular motion. Phil. trans. 1751. 305.
Smith de actione musculari. 8. Ed. 1767. Smellie Thes. III. 78.
Fordyce on muscular motion. Phil. trans. 1788. 23.
* Blane's Croonian lecture. 4. Lond. 1790.
Home on muscular motion. Phil. trans. 1795. 202.
Carlisle on muscular motion. Phil. trans. 1805. 1.
Barclay on muscular motion. 8. Ed. med. journ. VI. 86.
Wollaston's Croonian lecture. Phil. trans. 1810. 1.
Nysten Nouvelles Experiences Galvaniques. Par 1803? Ed. med. journ. X. 100; Galvanism revived the extinguished irritability of the heart.
† See vital power.

MUSCLES.

Intimate structure.) Muys musculorum artificiosa fabrica. 4. Leyd. 1754. Prochaska de carne musculari. 8. Vienn. 1778. They are minutely fibrous when examined under the microscope. Y.

Chemical analysis.) Fourcroy. Mem. S. R. méd. V. 502, There seems to be some variety in their chemical constitution, fibrin not being essentially necessary to muscular action. Y.

Arrangement and connexion by cellular membrane.) Monro on the effect of oblique fibres. Ed. trans. III. 250.

Contraction.) Roger de perpetua fibrarum muscularium palpitatione. 12. Gott. 1760. Carlisle on the action of the muscles of fishes. Phil. trans. 1806. 1. Its force has not been proved to be greater than the cohesive force of all the fibres properly cooperating after death; and this inanimate force may perhaps be safely assumed as its maximum. Its immediate nature is probably "neither mechanical nor chemical, but of the same order as the expansion of bodies by heat." Syllab. med. lect. Wollaston, Phil. Trans.

Irritability.) Haller sur les parties irritables, par Tissot. 8. Laus. 1755. Haen difficultates. 8. Vienn. 1761. Haller ad difficultates apologia. 8. Laus. 1762. Haen vindiciae contra Hallerum. 8. Vienn. 1762. On the opposite excitability of flexors and extensors, Ritters beyträge. Jen. 1805; Ed med. journ. III. 228. Seems to be wholly incredible. The term irritability appears to be "merely an expression of the proximity of the governing power," or of the nervous channel which is the medium between the cause and effect, to the muscular fibres. Syllabus. med. lect.

† See animal electricity.

Volition.) Ganglions. Johnstone on the nerves.

BONES.

Porterfield on the strength of bones. Ed. med. ess. I. 112. Stiffness of Hollow bones. Young's Nat. Phil. Monro on the intervertebral cartilages. Ed. med. ess. V. 244; liquid at the centre in whales. Home, Phil. trans. 1809. 177; Liquid in the squalus maximus.

PARTICULAR ASSOCIATIONS OF MOTION.

Pugh on muscular motion. 4. Lond. 1794.

C. Bell on the anatomy of expression in painting. 4. Lond. 1806.

† Borellus.

Walking.) Nat. Phil. I. Pl. 9. II. 164. Home on the feet of flies and lizards. Phil. Trans. 1816. 149, 322.

Swimming.) Robertson on the specific gravity of men. Phil. trans. 1757. 30. Wilkinson, Phil. trans. 1765. 95; a man weighed 4 pounds in river water; hence probably 1 in sea water: but in the author's calculation there is an error.

Voice.) Nat. Phil. I. 400. II. 275. Wallis de sonorum formatione. 12. 1740. Amman de loquela. 8. Amst. 1700. "* * *" Haller. Parsons on the windpipes of birds. Phil. trans. 1766. 204. Camper on the organs of speech of the

oran outang. Phil. trans. 1779. 139. Louis on the physiology and pathology of the tongue. M. Ac. chir. V. 486. Haighton's experiments on the eighth pair of nerves. M. Med. soc. Lond. III. 422.

CIRCULATION.

Harveius de motu cordis et sanguinis. 4. Frankf. 1628. "* * *" Haller.

Harveius de circulatione sanguinis. 4. Leyd. 1639. "* *" Hall.

Walaei epistolae de chylo et sanguinis motu. 8. Leyd. 1641. "* * *" Hall.

Entius de circuitione sanguinis. 8. Lond. 1685.

Hales's vegetable statics and haemastatics. 3 v. 8. Lond. 1738.

Whytt's physiological essays. 8. Ed. 1755.

Haller sur le mouvement du sang. 12. Laus. 1756. Engl. 8. Lond. 1757.

Prochaska de viribus cordis et motu sanguinis. 8. Vienn. 1778.

Spallanzani on the circulation, by Hall. 8. Lond. 1801.

Young on the motion of the blood. Phil. trans. 1808. 164. 1809.

Home on the influence of the nerves on the arteries. Phil. trans. 1814. 583. Shows that they modify the calibres.

Knox Ed. med. journ. XI. 52, 164; diurnal variations of the pulse.

* Parry on the arterial pulse. 8. Lond. 1816.

C. Bell on the forces which circulate the blood. 12. Lond. 1819.

Wilson Philip. Phil. trans. 1815. 424.

Carson's inquiry. 8. Liverp. 1815: Ed. med. journ. XII. 227.

Carson Medicoch. tr. XI. 165; emptiness of the arteries.

Home on the circulation of the vermes. Phil. trans. 1817. 1.

† Thebesius.

HEART AND BLOOD VESSELS.

Thebesius de circulo sanguinis in corde. 8. Leyd. 1716.
Abernethy on the foramina Thebesii. Phil. trans. 1798. 103.

ACTION OF THE HEART.

Jurin. Phil. trans. Jurin Lettre à Buffon. "Par." 1749.
Spallanzani. Med. com. Ed. I. 287.
Brodie. Phil. trans. 1811. 36.
Wilson Philip. Phil. trans. 1815. 65. 424; Ed. med. journ. XI. 519. XII. 93. against Legallois.
Clift. Phil. trans. 1815. 91. Destroying the spinal marrow of fishes does *not* affect the heart.

RESISTANCES.

Wintringham on the exility of the vessels. 8. Lond. 1743.

ELASTICITY OF THE VESSELS.

MUSCULAR POWERS OF THE VESSELS.

Verschuir de arteriarum et venarum vi irritabili. 4. Leyd. 1766.
Dennison de vasorum irritabilitate. Ed. 1775. Smell. Thes. III. 394.

(Whytt, Berzelius.)

PECULIARITIES OF CIRCULATION.

Monro on a monster. Ed. trans. III. 215. No heart.

Clarke on a mola. Phil. trans. 1793. 154. Carlisle on the arteries of slow moving animals. Phil. trans. 1800. 98. 1804, 17. Brodie on a foetus without a heart. Phil. trans. 1809. 161. G. W. Young on a foetus in the abdomen of a boy. Medicoch. trans. I. 234. The monster had no heart: the branches of its great vessel "met with numerous arterial branches of the containing child;" but their communication was not demonstrated.

Storer on the want of pulsation in paralytic limbs. Tr. Soc. med. ch. III. 448.

BLOOD.

Martine on the analysis of the blood. Ed. med. ess. II. 67. Unimportant.

Schwenke haematologia. 8. Hag. 1743.

Fontana sopra i globetti rossi. 8. Lucca, 1766.

Hewson on the red particles. Phil. trans. 1773. 308. Med. comm. Ed. III. 87. Allows that a dog lives perfectly well without a spleen. Falconar on the red particles. 8. Lond. 1777.

Stevens, Med. comm. Ed. VI. 231; deduces the colour of the blood from the principle of inflammability, not from iron.

Hey on the blood. 8. Lond. Med. comm. Ed. VI. 376. Objects to Hewson, but reasons too loosely.

* *J. Hunter* on the blood, inflammation, and gunshot wounds. 4. Lond. 1794.

Harles de physiologia sanguinis. 8. Erlang. 1794.

Blumenbach de vi vitali sanguini neganda. 4. Gott. 1795.

Wells on the colour of blood. Phil. trans. 1797. 416.

Birkbeck de sanguine. 8. Ed. 1797.

Brande on albumen. Phil. trans. 1809. 373.

Bostock on the gelatine of the blood. Medicoch. trans. I. 47; on the serum. II. 161.

Brande on the blood. Phil. trans. 1812. Finds little or no iron in the blood.

Home on the coagulation of the blood. Phil. trans. 1818. 172. 185. 1820. 1.

Blundell, Medicoch. tr. IX. 56; on transfusion; dogs live but a few days with human or sheep's blood.

Wilson on the blood. 8. Lond. 1819; Ed. med. journ. XVI. 443.

Traill on oil in Serum. Ed. med. journ. XVI. 637.

Thackrah on the blood. 8. Lond. 1819.

(Berzelius.)

RESPIRATION.

Galen on respiration. Compares the lungs to the wick of a lamp.

Action of the muscles. *Mayow* tractatus medicophysici. Oxf. 1674. Yeats Ed. med. journ. XII. 298.

Martine on the motion of the thorax. Ed. med. ess. I. 156. Unimportant.

Whytt on respiration in sleeping and waking. Ed. ess. phys. and lit. I. 436.

J. Hunter on receptacles of air in birds. Phil. trans. 1774. 205.

Darwin. Phil. trans. 1774. 344. Found that venous blood, when exposed, swells in an exhausted receiver to 10 times its bulk, but not when tied in its vein. Probably a slight pressure is sufficient to confine the rarefied air extracted from it.

Priestley. Phil. trans. 1776. 226.

Vicq d'Azyr. Soc. R. méd. I. 340.

Lavoisier. Acad. Par. 1777. Dunc. med. com. X. 97.

Debutts de aeris effectibus. 8. Ed. 1782; Smellie thes. IV. 306.

Goodwyn on the connexion of life with respiration. 8. Lond. 1788. Dunc. med. comm. XIV. 83.

Priestley. Phil. trans. 1790. 106.
Menzies on respiration. 8. 1796.
Davy's researches.
Coleman on natural and suspended respiration. 8. 1802.
Spallanzani sur la respiration, par Sénébier. 8. Gen. 1803. Dunc. ann. 1803. 99. 3 v. Gen. 1807. Ed. med. journ. V. 102.
Bostock on respiration. 8. Liverp. 1804. Ed. med. journ. I.
Ellis on germination. Bostock on Ellis's theory. Ed. med. journ. IV. 159. Ellis's reply. 320.
* Allen and Pepys on the changes produced by respiration. Phil. trans. 1808. 249. 1809. 404.
Home on the respiration of fishes and worms. Phil. trans. 1815. 256.
Carson on the elasticity of the lungs. Phil. trans. 1820. 29.

MOTIONS OF THE CHEST.

Pulsation of the brain. Sighing. Coughing. Sneezing. In sneezing the soft palate seems to be the valve, which, like the glottis in coughing, is suddenly opened, and allows the air to rush on with a greater velocity than it could have acquired without such an obstruction. Laughing. Crying. Hiccup. Drawing air into the oesophagus. Snuffing. Sucking.

CHANGES OF THE BLOOD.

Venous blood. (Chyle.) Arterial blood. J. Davy. Ph. tr. 1814.

ANIMAL HEAT.

Depends jointly on circulation and nervous energy, but probably little on respiration.

Lindesay de calore. 8. Ed. 1732. Smellie Thes. I. 83.
Martinius de similibus animalibus. 8. Lond. 1740. Abstract, Ed. med. ess. III. 133. From friction.

Stevens on animal heat. Ed. med. ess. V. ii. 806. Good.

Braun on the heat of animals. N. Comm. Petr. XIII. Med. comm. Ed. I. 59.

* *Blagden's* experiments in a heated room. Phil. trans. 1775. 111. 484.

* *J. Hunter*. Phil. trans. 1775. 446. 1778. 7.

Dobson's experiments in a heated room. Phil. trans. 1775. 463.

Duncan. Med. comm. Ed. VI. 98.

Crawford on the power of producing cold. Phil. trans. 1781. 479.

Rigby on animal heat. 8. Lond. 1785.

Crawford on animal heat. 8. Lond. 1788.

J. Pearson. Lond. med. journ. VII. 169.

Seguin. Fourcroy méd. éclairc. I. Dunc. med. comm. XVIII. 148.

* Brodie. Phil. trans. 1811. 36; Ed. med. journ. VIII. 447.

J. Davy. Phil. trans. 1814. 590. Rather favourable to Black; the left ventricle being a little warmest, and no such difference of capacity for heat as Crawford supposed.

Earle. Medicoch. tr. VII. 173, confirming Brodie's opinions.

SECRETION.

Gordon on the opuntia and indigo colouring the juices. Phil. trans. 1757. 296.

Hendy de secretione glandulari. 8. Ed. Med. comm. Ed. III. 63.

Kreyssig de secretionibus. 4. Leipz. 1794-5.

Plenck's hygrology, by Hooper. 8. Lond. 1797.

Johnson's animal chemistry. 3 v. 8. Lond. 1803.

Bostock on animal fluids. Ed. med. journ. I. 257. II. 37.

Home's hints. Phil. trans. 1809. 385.

* Berzelius on animal chemistry. Swed. Professor Berzelius has found the lactic acid in urine, sweat, and other animal fluids.

Autenrieth chemie thierischer stoffe. Tubing. B. I. 1815; Ed. med. journ. XII. 473.

Dewar Ed. Med. journ. XVII. 479; influence of chemical laws.

SECRETED FLUIDS.

Aqueous.) Perspiration. Sanctorii medicina statica. 12. Ven. 1614. "**" Haller. Cum Dodartio et Keilio, a Noguez. 2 v. 12. 1723. A. Lorry. 12. Par. 1770. Gorter de perspiratione. 4. Leyd. 1736. Hamilton de perspiratione. 8. Ed. 1771; Smellie Thes. III. 231. Cruikshank. 8. 1795. Sweat. Pulmonary exhalation. Currie's Reports. Wells. 94; dropsical.

Urinary.) Hallé. M. Soc. R. méd. III. 469. Cruikshank in Rollo on Diabetes. *Brande.* Tr. Soc. med. ch. kn. III. 187; changes from disease. *Prout* Medicoch. tr. VII. 526, IX. 472. Prout on the purpuric acid, obtained from the uric. Phil. trans. 1818. 420. John Davy on the urine of ranae. Phil. trans. 1821. 95.

Milky.) Young de lacte. Ed. 1761. Sandif. II. 525. Ferris on milk. 8. 1782. Gesner. Volenius. Werner. Bergius.

Albuminous.) Aqueous humours. Saliva. Pancreatic fluid. Liquor of the pericardium, and of the abdomen. Liquor of the amnion. Sinovia.

Mucous.) Tears. Fourcroy and Vauquelin, Dunc. med. comm. XVII. 138. Follicular fluids. Seminal fluids. (Animal poisons).

Unctuous.) Bile. Grieve de bile. 8. Ed. 1731; Smellie Thes. I. 43. Ramsay. 8. Ed. 1757; Smellie Thes. II. 453. Cadet on bile. Ac. Par. 1767-9; Med. comm. Ed. I. 63. 403. Maclurg on the bile. 8. Lond. 1772; Med. comm. Ed. I. 150. Cerumen. Haygarth. Med. obs. inq. IV. 198.

Sebaceous.) Fat. Lorry. M. Soc. R. méd. III. 97. See digestion.

SECRETORY ORGANS.

Exhalant vessels.) Kaau perspiratio illustrata. 8. Leyd. 1738. Pratolongi halituum theoria. Römer Diss. med. Ital. 8. Nur. 1797.

Tubular glands.) Kidney. There is some reason to think that the blood flows more rapidly through the capillary vessels of the kidney, than through those of any other part of the body. Y. Testis.

Conglomerated glands; Evidently composed of acini.)

Follicles.) Simple cavities, opening internally.

Pores.) Opening externally; sebaceous or ceruminous.

Parenchymatous glands. Dense and without obvious distinction of minute parts. Abernethy on an uncommon formation of the liver. Phil. trans. 1793. 59.

INTIMATE NATURE OF THE PROCESS OF SECRETION.

Braconnot on vegetable substances. Ann. Chim.

Syll. med. lect. "As far as chemical effects are produced, secretion probably regulated by electrical influences."

Home. Phil. trans. 1809. Refers to the syllabus and to a paper of Dr. Wollaston.

Brande on albumen. Phil. trans. 1809.

"We may imagine that at the subdivison of a minute artery, a nervous filament pierces it on one side, and affords a pole positively electrical, and another opposite filament a negative pole: then the particles of oxygen and nitrogen contained in the blood, being most attracted by the positive point, tend towards the branch which is nearest to it, while those of the hydrogen and carbon take the opposite channel: and that both these portions may again be subdivided, if it be required, and the fluid thus analysed may be recombined into new forms, by the reunion of a certain number of each of the kinds of minute ramifications. In

some cases the apparatus may be somewhat more simple than this, in others perhaps much more complicated: but we cannot expect to trace the processes of nature through every particular step: we only inquire into the general direction of the path that she follows, as much in order to avoid being led away by false opinions, as for the sake of any direct advantage that can be gained from our partial views of the true state of the operations." Medical lectures. M.S.

DIGESTION.

* Stevens de alimentorum concoctione. 8. Ed. 1777. Smell. Thes. III. 471. Med. com. Ed. V. 146. See Misc. works.

Spallanzani sur la digestion. 8. Gen. 1783. See Misc. works.

Fordyce on digestion. 8. Lond. 1791. Dunc. med. comm. XVII. 107. "Paradoxical, but improving." Rothe.

Smith on the digestive power of the body. Dunc. med. comm. XX. 354.

Montegre, Spier, Wilson Philip, Law, Kitchiner. See Ed. med. journ. XVII. 574.

Deglutition.) Hunger. Thirst. Great thirst without disease, Med. facts. II. 73; two pailfuls daily. Bonet. sep. III. iii. Obs. 5..7. Mastication. Fox on the teeth. 4. Lond. 1803. Ed. med. journ. III. 193. See anatomy.

Stomach.) Home. Phil. trans. 1807. 1817. 347. Contraction, and gastric glands.

Progress of digestion.) * Réaumur Ac. Par. J. Hunter on the digestion of the dead stomach. Phil. trans. 1772. 447. Baillie engr. 63. A. Burns. Ed. med. journ. VI. 129. Rutty on the dispensatories. 8. Lond. 1776; gives a list of articles absorbed without digestion. Stevens. Gosse. Spallanzani. Home on the formation of fat in the intestines. Phil. trans. 1813. 146, 1816 301. Brodie on the influence of the nerves of the eighth pair. Phil. trans. 1814. 102; considerable.

Comparative digestion.) Peyeri merycologia. 4. Bale, 1685. Barrington, Watson, and Hunter on the Gillaroo

trout. Phil. trans. 1774. 116, 121, 210. André on the teeth of cartilaginous fishes. Phil. 1784. 274. Home on the teeth of graminivorous quadrupeds. Phil. trans. 1799. 237; of the wild boar, 1801, 319; on the camel's stomach, 1806. 357; on the whale's, 1807. 93; on stomachs, 1807. 139; on gizzards, 1810. 184; on the coagulating power of the secretions, 1813. 96. The stomachs, described by Mr. Home, may be referred to about 12 kinds, 6 wholly without cuticle, for example those of the Human subject, the Hare, the Beaver, the Elephant, the Hawk, and the Cod; 6 partially covered with cuticle, as that of the Horse, the Hog, the Kangaroo, the Whale, the Bullock, and the Turkey.

Food.) See Pharmacology.

Chemical analogy, more or less remote.) Solution, Precipitation, Crystallization, Coagulation, Fermentations: Panary, Vinous, Acetous, Putrefactive.

Intimate nature of digestion.) Saliva. Gastric fluid. Dunc. med. comm. X. 305.

ABSORPTION.

Akenside, Phil. trans. 1757. 322.

Hewson on the lymphatics in animals. Phil. trans. 1768. 192. 217. 1769. 204. 295.

Intestines.) See Splanchnology, Absorbents. Meckel de finibus venarum ac vasorum lymphaticorum. 8. Berl. 1771. Macartney on the small intestines of birds. Phil. trans. 1811. 257. Lieberkün. Haas. Hedwig jun.

Bile and pancreatic fluid.) See Secretions.

Chyme.) Marcet, Medicoch. tr. VI. 618.

Actions of the absorbents.) See Progress of digestion. Wright on the nonabsorption of steel. Phil. trans. 1758. 594. Cooper on tying the thoracic duct. Med. records. 86. There is some doubt whether the absorbents possess a peristaltic motion: the lacrymal duct, which has sometimes been considered as analogous to them, seems to remain nearly passive, while the tears are attracted by its capillary

powers, and carried over by the preponderance of the longer column, or forced through it by the eyelids.

Chyle.) Marcet. Medicoch. tr. VI. 618.

Intimate nature of absorption.) "No power so capable of performing this selection as electricity." Syllab. med. lect.

Spleen.) Home. Phil. trans. 1808. 45. 133. 1811. 163.

Omentum.)

Venous absorption?) Home. Phil. trans. 1811. 163.

* Tiedemann und Gmelin Wege ins blut. 8. Heidelberg. 1820; Ed. med. journ. XVII. 455; the experiments seem conclusive. Appendix by Mayer.

Cutaneous absorption.) Haas, See anatomy. Currie's reports. Kellie, Ed. med. journ. I. 170. Stock on Rousseau's experiments, Ed. med. journ. II. 10.

NUTRITION.

In general.) Wade de nutritione. 8. Ed. 1778. Smellie Thes. IV. 63. Blumenbach und Born über die nutritionskraft, von Wolf. 4. Petersb. 1789. Blumenbach de Nisus formativi aberrationibus. 4. Gott. 1814.

Supply of new particles.) Bone; Combe on a spear head in an elephant's tooth. Phil. trans. 1810. 165. Muscle. Membrane or integument.

Removal of the old.) J. Hunter.

Regulation of growth.)

GENERATION.

Literature.) See Kühn, p. 296.

* *Harveius* de generatione animalium. 4. Lond. 1651. "* * *" Haller.

Aldes (Slade) contra Harveium. 12. Amst. 1667. A single correction.

Harmer on the fecundity of fishes. Phil. trans. 1767. 280.

Haller sur la génération. 2 v. 8. Par. 1774.

Debraw on the sex of bees. Phil. trans. 1777. 15.
J. Hunter on the free martin. Phil. trans. 1779. 279.
Spallanzani's Essays. Patrin's doubts. Germ. 8. Gott. 1788.
Blumenbach über den bildungstrieb. 8. Gott. 1791. Engl. by Crichton. 8. Lond. 1792.
Luce über die degeneration. 8. Gott. 1794.
Home on the generation of the kangaroo. Phil. trans. 1795. 221.
Home on a hermaphrodite dog. Phil. trans. 1799. 157.
Knight on the influence of males and females. Phil. trans. 1809. 392.
Home on the generation of the lamprey. Phil. trans. 1815. 265. Hermaphrodite.
Functions of the male.)
Female.) Freind Emmenologia. 8. Lond. 1720. J. Hunter on an extraordinary pheasant. Phil. trans. 1780. 527; on the extirpation of an ovarium. Phil. trans. 1787. 233; produced 76 pigs, another sow 142. S. Walker on the constitution of women. 8. Lond. 1803. Moreau Histoire naturelle de la femme. 2 v. 8. Par. 1803; Ed. med. journ. IV. 470. Pears on a defect of the ovaria. Phil. trans. 1805. 225.

Conception.) Simson on the placenta and the uterus. Ed. med. ess. IV. 93. Merriman de conceptu. 8. Ed. 1753; Smellie Thes. II. 51. Wrisberg de structura ovi humani. 4. Gott. 1783. Garthshore on numerous births. Phil. trans. 1787. 344. Five females, weighing $2\frac{1}{4}$ pounds, 2 alive, at 5 months; Appendix. 4. Lond. Cleghorn on an ovarium with teeth. Ir. trans. I. 1787. 73. A birth of 4. Dunc. med. comm. XIV. 408. Monro on a monster. Ed. trans. III. 215. Clarke on a mola. Phil. trans. 1793. 154. Haighton and Cruikshank on impregnation. Phil. trans. 1797. 159. 197. Clarke on a tumour found in the placenta. Phil. trans. 1798. 361. Burns on the ovum. Ed. med. journ. II. 1. Brodie on a monster. Phil. trans. 1809. 161. G. W. Young on a foetus in a boy. Medicoch. tr. I. 234. Home on the descent of the ovum. Phil. trans. 1817. 252; 1819. 59; as depending merely on orgasm. Granville on the absence of an ovarium. Phil. trans.

1818. 308. Earl of Morton on a singular fact. Phil. trans. 1821. 20. Giles on a similar fact. 23. Blundell Medicoch. tr. X. 245; necessity of contact. Superfoetation. See dystocia.

Gestation.) Albini icones ossium foetus. 4. Leyd. 1737. " * * " Haller. Albini tabulae uteri gravidi. f. Leyd. 1749. " * * " Haller. D. and A. Monro. Ed. ess. phys. and lit. I. 403. 426. Alanson on fractures in pregnancy. Med. obs. inq. 410. * Hunter's anatomy of the gravid uterus. Lond. Schenk vis animi mulieris. 4. Leipz. 1786. Sömmering tabulae embryonum. f. Frankf. 1798. Burns on the gravid uterus. 8. Glasg. 1799.

Foetal nutrition.) Nichols Compendium anatomicum. 4. Lond. 1733. Gibson. Ed. med. ess. I. 171. * Monro on foetal nutrition, and on the egg. Ed. med. ess. II. 121, 203, 232. III. 261. Fleming. Phil. trans. 1755. 254. Vogel de foetus nutritione. 4. Gott. 1761. Evans de foetus nutrimento. 8. Ed. 1778; Smellie Thes. IV. 1. Carlisle on a monstrous lamb. Phil. trans. 1801. 139. Home on the aeration of the foetal blood. Phil. trans. 1810. 205. Bryce on the foetal liver. Ed. med. journ. XI. 25.

Parturition.) Threipland de partu. 8. Ed. 1742; Smellie Thes. I. 255. Arnoldi de partu 324 dierum. 8. Leipz. 1775. Bland on parturition and probability of life. Phil. trans. 1781. 355. Thouret on the compression of the foetal head, as saving pain to the child. M. soc. R. méd. III. 416. V. 514. On the enlargement of the pelvis. M. Ac. chir. IV. H. 63.

Changes at birth.) Portal on the earlier effect of respiration on the right lung. Ac. Par. 1769; Med. comm. Ed. I. 409. Wrisberg de testiculorum descensu. 4. Gott. 1779. Danz zergliederungskunde des neugebohrnen kindes. 8. Frankf. 1792-3. Haxby on retention of the testicles till the fourth year. Dunc. ann. 1799. 434.

Incubation and germination.)

GROWTH.

Monro's osteology. Accurate account.
Duhamel on tinging bones in strata. Ed. med. ess. V. ii. 931.
Haller sur la formation des os. 12. Laus. 1758.
Home on the growth of bones, from Hunter. Tr. Soc. med. chir. kn. II. 277.
Howship on the formation of bone. Medicoch. tr. VI. 263; VII. 387; 581; with plates.

Infancy.)

Dentition.) See osteology. Corse on the dentition of elephants. Phil. trans. 1799. 205. On dentition. Ed. med. journ. III. 62.

Childhood.)

Puberty.) White and Wall on premature puberty. Medicoch. tr. I. 276. II. 115. Cooper. IV. 204. Breschet. XI. 446.

Manhood.) Size of man. Ed. Med. journ. XIII. 260; 5 f. 6 i. to 5 f. 7 i. the most common.

Old age.) Rush Med. inq. II. Dunc. med. comm. XX. 61.

Death.) Winslow et Bruhier sur l'incertitude des signes de la mort. 2 v. 12. Par. 1742. Birch's bills of mortality. 1657.. 1758. Lond. 1759. Remarks on the bills of mortality. Med. obs. inq. IV. 214. Wigglesworth on longevity. Am. Ac. Lond. med. journ. VII. 316. Fischer vom hohen alter, von Weinhard. 8. Leipz. 1777. Clarke on the mortality of males. Phil. trans. 1786. 349. Black on the mortality of different ages. 8. Lond. 1788. Schmelzer de probabilitate vitae. 8. Gott. 1788. Hufeland über die ungewissheit des todes. 8. Weim. 1791. Titius. Mezger. * Himly mortis historia. 4. Gott. 1794. Anschel Thanatologie. 8. Gott. 1795; on the

different modes of death. Atzel. Creve von metallreize. 8. Leipz. 1796. Kausch Erfahrungen. Easton on longevity. 8. Salisb. 1799. Bichat. * Brodie on death by poisons. Phil. trans. 1811. 178. Romer. Med. tr. V. 478; "signum mortis pathognomonicum": Halford, VI. 398, uncertainty of its approach.

Decay.) Huxham and Tripe on a body preserved. Phil. trans. 1751. 253; Collignon. 1772. 465. Thouret on a change after death. Rapport sur les exhumations; Med. facts. I. 186. Crawford on gases extricated. Phil. trans. 1790. 391. Sneyd on a bird converted into a fatty matter. Phil. trans. 1792. 197. Gibbes on the conversion of animal substances. Phil. trans. 1794. 169. 1796. 239. J. Pearson on mummies of the ibis. Phil. trans. 1805. 264. Macartney on luminous animals? Phil. trans. 1810. 258. J. Davy. Medicoch. tr. X. 89; in a hot climate.

PHYSIOLOGY OF DISEASE.

PATHOGONY,

Or general pathology.

* *Gaubii* institutiones pathologiae, ab Ackermann. 8. Nuremb. 1787. Germ. by Gruner. 8. Berl. 1791; with literary and other additions.

Caldanii institutiones pathologicae. 8. Pad. 1772.

Daniel systema aegritudinum. 2 v. 8. Leipz. 1781-2.

Testa de vitalibus periodis. 2 v. 8. Lond. 1787.

Gönner Einleitung in die pathologie. 8. Berl. 1788.

Juncker conspectus pathologiae, laudatis auctoribus. 2 v. 8. Hall. 1789-90. "Uncommonly original and valuable." Rothe.

Metzger Grundsätze der krankheitslehre. Konigsb. 1792.

* Hufelands ideen über pathogenie. 8. Jen. 1795.

Sprengel Handbuch der pathologie. 3 v. 8. Leipz. 1795-7.

Röschlaub über pathogenie. 8. Frankf. 1798.

Brandis pathologie. 8. Jen. 1799.

* Himly Lehrbuch der practischen heilkunde. Vol. 1. 8. Gott. 1807. Ingenious and useful, but too fond of metaphysical and mathematical language. Denies the existence of the Brunonian sthenic or hypersthenic diseases.

Pearson's surgery, Preface. Remarks on medical theory.

May on the *unity* of disease, as *opposed* to Nosology! Caldwell's Medical theses. 8. Philad. 1805. P. 214.

Parry's elements of pathology and therapeutics. 8. Lond. 1815. Ed. med. journ. XV. 93.

Traill. Ed. med. journ. XVII. 235; pathological chemistry.

† Darwin, Brown.

Native varieties of mankind.) Parsons on a white negro. Phil. trans. 1765. 45. Clarke on tall men. Phil. trans. 1767. 75. Carteret on the Patagonians. Phil. trans. 1770. 20. J. Hunter de hominum varietatibus. 8. Ed. 1775; Smellie Thes. III. 431; Med. comm. Ed. III. 367. Camper on the difference of features. Dutch. 4. Utr. 1791. Fr. 4. Par. 1791. Fourcr. Méd. écl. 1791. ii. B. 33. Blumenbach de generis hamani varietate nativa. 8. Gott. 1795. Ludwig Grundriss der naturgeschichte der menschenspecies. 8. Leipz. 1796. White on the regular gradation in man. 4. 1799. Dolomieu on mineralogy. Germ. 8. Hamb. 1802. Strength of different nations, from Péron. Ed. med. journ. VI. 180; in favour of civilisation. Jarrold on the form and colour of man. 4. Lond. 1808. Ed. med. journ. V. 98. Prichard on the physical history of man. 8. Lond. 1813. Carlisle on supernumary fingers. Phil. trans. 1814, 94. Somerville. Medicoch. tr. VII. 154; Hottentots.

† See Physiognomy.

Temperaments.) Galen on plethóra; Rabbi Moyses; Forest. XXVIII. n. 4.; Horst. I. 265; Krugers untersuchung des temperaments einer ganzen nation. 8. Stockh. 1737; Gregory consp. Metzler von der schwarzgallichten konstitution. 8. Ulm. 1788. Fischer de temperamentis. 4. Gott. 1791. Trotter on the nervous temperament. 8. Newc. 1807. Ed. med. journ. III. 473. Adams on hereditary disease. 8. Lond. 1814.

Symptomatology.) Allen's synopsis, Index of symptoms. Gruneri semiotice. 8. Hall 1775. * Gruners zeichenlehre. 8. Jen. 1794. Weber. Schlegel thesaurus semiotices pathologicae. 2 v. 8. Stend. 1787-92. Büttner et Weber critices semiologiae rudimenta. 8. Rost. 1791. On passing conscripts; Code de la conscription. Ed. med. journ. VI. 138. Sensations.) Thirst; Bonet. Sep. III. iii. Obs. 1.. 7. Menteith de dolore. 8. Ed. 1726; Smellie Thes. I. 1. Crawford on sympathy. Ed. med. ess. V. ii. 480. Böttcher et Weber de sopore. 8. Rost. 1794. Motions.) Anderson on the brain. Ed. trans. II. 17. Haighton on vomiting. M. Med. soc. Lond. II. 250; requires the cooperation of the stomach and abdominal muscles. Härtel und Nudow uber die zeichendeutung des auges. 8. Königsb. 1791. I have observed the falling of the left eyelid in a fever not very severe. Y. Pulse.) Bellinus. Bordeu sur le pouls. 2 v. 12. Par. 1768; very absurd. Heberden. Med. tr. Lond. II. 18. Sprengel Beyträge zur geschichte des pulses. 8. Berl. 1787. Spens. Dunc. med. comm. XVII. 458; 10 in a minute, with syncope. Falconer on the pulse. 12. Lond. 1796; merely tables for appreciating its comparative frequency. A pulsation of the veins? Himly Lehrb. pract. heilk. §. 458. Rumball. Blood.) Hewson. Phil. trans. 1770. 368, 384. 398. Respiration.) Avenbrugger de percussione thoracis. 8. Vienn. 1763. Abernethy's essays. Secretions.) Bellinus de urinis et pulsibus. 4. Leyd. 1730. Quesnay on the faults of the humours. M. Ac. chir. I. 1. Fourcroy on the alterations of animal fluids. M. Soc. R. méd. V. 488. Ideler de crisi, ab Hebenstreit. 8. Thorn, 1794.

(Alpinus, Delius, Pezold, Vater, Klein.)

Aetiology of disease.) Fienus de viribus imaginationis. 12. Leyd. 1635; fabulous. Schaw de morbis ex animi passionibus. 8. Ed. 1735; Smellie Thes. I. 127. Priestley and Price on the effluvia of marshes. Phil. trans. 1774. 90. 96. Owen de contagione. 8. Ed. 1783; Smellie Thes. IV. 358. Weber de causis et signis morborum. 8. Heidelb. 1786-7. Lucas on febrile contagion. Lond. med journ. X. 260. Rougemont on hereditary diseases. Germ. by Wegeler. 8. Frankf. 1794.

Blizard on epidemical effects. Med. facts. II. 105. Adams on morbid poisons. 4. Lond. 1807. Ed. med. journ. III. 333. Mitchill on perspirable fluids. Dunc. ann. 1799. 340. Haygarth on the imagination. 8. Bath. 1800. Dunc. ann. 1800. 133. Haygarth's letter on the prevention of fevers. 8. Lond. 1801. Hossack on contagion. Ed. med. journ. V. 427. Blane on infection. Tr. Soc. med. ch. kn. III. 425; Wells on the alliance or opposition of diseases. 471.

Diseased action.) Manget on measles retarding smallpox. Med. comm. Ed. I. 317; many cases of smallpox and measles together. Rainey. Med. comm. Ed. III. 443. Lorry on diseases of the fat. M. Soc. R. méd. III. 97. Ferris de sanguinis putredine. 8. Ed. 1784; Smellie Thes. IV. 493. Wrisberg on absorption in disease. Comm. Soc. Gott. IX. Dunc. med. comm. XIV. 172. Fourcroy. Supposed retrograde motions of the absorbents; Darwin on pus; Case by Percival. Lond. med. journ. IV. 58. Baillie on the obliteration of vessels. Trans. Soc. med. chir. kn. I. 125. Baillie's objections to Darwin. Trans. Soc. med. chir. kn. II. 70. Russel on the coexistence of smallpox and measles. Trans. Soc. med. chir. kn. II. 90. Margueron on the fluid of blisters. Ann. Chim. XIV; Dunc. med. comm. XVIII. 154; resembles serum. Mossman on typhus succeeded by measles. Dunc. Ann. 1797. 298. Clutterbuck on some opinions of Hunter. 8. Lond. 1799. Adams on the laws of epidemics. 8. Lond. 1809. Ed. med. journ. VI. 231. On the conversion of diseases, after Ferriar. Ed. med. journ. IV. 328. Marcet on dropsical fluids. Medicoch. tr. II. 340; all contain nearly as much saline matter as serum, but less animal matter; that of hydrocephalus scarcely any; of hydrothorax somewhat more; of ascites and hydrocele still more.

Spontaneous cure.) Mezler über die vortheile des fiebers in langwierigen krankheiten. 8. Ulm. 1790. *Young* de corporis humani viribus conservatricibus. 8. Gott. 1796; with references. * *Jones* on the process of nature in suppressing haemorrhages. 8. Lond. 1805. Ed. med. journ. II. 224.

Inflammation.) Gehagan de inflammatione. 8. Ed. 1790; distension. Wedekind Theorie der entzündungen. 8. Leipz. 1791. Pearson's princ. surg. 1. Hunter on the blood. Vacca Berlinghieri. Ed. med. journ. II. 79. Wilson. Ed. med. journ. IV. 290. Suppuration.) Salmuth de diagnosi puris. 4. Gott. 1783. Brugman de puogenia. Leyd. 1787. C. Darwin on matter, and on the absorbents. 8. Litchfield, 1789; Dunc. med. comm. V. 329. VII. 150. * Home on pus. 4. Lond. 1788; Dunc. med. comm. XIII. 177. Grasmeyer vom eiter. 8. Gott. 1790; objects to the distinctions laid down by Cullen, Darwin, Brugman, Home, Salmuth, and others; and employs the oleum tartari per deliquium. * *Pearson.* Phil. trans. 1810. 294. Balfour. Ed. med. journ. XII. 430; union of suppurating parts. Home on the conversion of pus into granulations. Phil. trans. 1819. 1. See Essay on blood and pus. Regeneration.) Jamieson. Ed. med. ess. V. 434; a well proportioned glans penis reproduced, after being completely amputated. Camper on callus. Ed. ess phys. lit. III. 537. M. Ac. chir. V. 128. Troja on the regeneration of bone. M. Soc. R. méd. I. 355. Fontana sur les poisons. 2 v. 4. Flor. 1781. Arneman über die regeneration. 8. Gott. 1787. Cruikshank and Haighton on the reproduction of nerves. Phil. trans. 1795. 177, 190. Howship, Medicoch. tr. VIII. 515; new joints. IX. 143; callus. Earle, Phil. trans. 1821. 300; *reestablishment* of the urethra.

GENERAL THERAPEUTICS.

Drummond on the improvement of medicine. Ed. med. ess. I. 258. For simplicity.

* Home principia medicinae. 8. Ed. 1762.

Pratolongus de medica experientia. Roemer diss. med. Ital. 8. Nur. 1747.

Hebenstreit palaeologia therapiae, a Gruner. 8. Hall. 1778.

Ploucquet fundamenta therapiae catholicae. 8. Tub. 1785.

Juncker Versuch einer allgemeiner heilkunde. 2 v. 8. Halle, 1788-91.

Hecker therapia generalis. 8. Berl. 1789.
Müllers med. annal. i. ii. Baldingers journ. II. v.
Ackermanni institutiones therapiae generalis. 2 v. 8. Nur. 1794-5.
Tode Allgemeine heilkunde. 8. Copenh. 1797...
(Boerhaave, Haen, Bayer, Whiters, Anderson.)

General principles and modes of treatment.) Expectation.) Ged. Harvei ars curandi morbos expectatione. Stahl ars sanandi cum expectatione. 8. Par. 1730. Voullonne sur la médecine agissante et expectante. 8. Avign. 1776. Palliation.) Monro on successful indulgence of bad habits. Ed. med. ess. V. ii. 491. Promotion of symptoms.) Counteraction of symptoms.) Exhaustion of morbid power by incompatible actions.) Schönheyder de virtute ipecacuanhae antemetica. Act. Soc. Med. Havn. II. 139. Hahnemann's homoeopathic cure is a caricature of this principle.

Operations of medicines.) † See Pharmacology. Pacinus de humoris ante purgationem incrassatione. 8. Ven. 1558; seems to be remembered in Germany. Armstrong on penetrating topic medicines. Ed. med. ess. II. 36. Balguy. Ed. med. ess. V. 82; Speculative. A. Monro on the operation of medicines by the nerves or the circulation. Ed. ess. phys. and lit. III. 292; generally both ways. Duncan's elements of therapeutics. 2 v. 8. Scheidemantel über die leidenschaften als heilmittel. 8. Hildburgh. 1787. Percival. Manch. Mem. Lond. med. journ. XI. 287. Brera sopra le frizioni con saliva. 8. Pav. 1797; Dunc. ann. 1798. 190. Scheele on transfusion of the blood and injection of remedies into the veins. Copenh. 1801. Himly Lehrb. pract. heilk. ii. c. 6. Home on medicines acting through the blood. Phil. trans. 1816. 257. Crawford's experimental inquiry. See Tonics.

NOSOLOGY AND PRACTICE.

GENERAL AND MISCELLANEOUS WORKS.

* *Hippocrates*, Celsus. * *Aretaeus*, * Galen, Oribasius, Aëtius, *Caelius Aurelianus*. See single authors.

Fernelii medicina. f. Hanau. 1610. A diligent sober practitioner of the old school.

Forestus. "A man of great experience, and singular good fortune." Rothe.

Lommii observationes. 8. Amst. 1720. A compendium of nosology.

C. Pisonis observationes, praef. Boerhaave. 4. Leyd. 1733.

N. Piso de morbis, praef. Boerhaave. 4. Leyd. 1736.

Mercurialis.

Plateri observationes, 8. Bale, 1680. Praxis medica. 3 v. 4. Bale, 1736. "Makes an imperfect attempt to class diseases according to their symptoms." Cullen.

Ballonius.

Alpinus de praesagienda vita et morte. 4. Leyd. 1733. "Supplies method to the facts recorded by Hippocrates." Boerhaave.

Riolani methodus medendi. Sennertus. Riverius.

Borelli et Cattierii historiae. 8. Par. 1656. Concise and interesting.

Bartholini cista medica. 8. Copenh. 1661. Epistolae. 8. Hag. 1740. Inconceivably credulous.

* Schenkii observationes. f. Frankf. 1609.

Solenandri consilia. f. Hanau. 1609. Shows experience and observation.

Severinus de efficaci medicina. f. Frankf. 1646.

Boneti polyalthes, 3 v. f. Gen. 1690. A bulky commentary on Johnstoni syntagma nosocomices.

* Willis pharmaceutice rationalis. "Somewhat obscured by chemical pathology." Smyth.

Sydenham. Morton.

Tulpii observationes. 8. Amst. 1672.
Bierlingii adversaria. 4. Jen. 1679.
Lister de morbis chronicis. 4. Genev. 1696.
Lancisi de subitaneis mortibus. 4. Ven. 1713. "* * *" Haller.
Stahl theoria medica. 4. Hall. 1708. Contains above 1400 pages. His histories are considered as accurate.
* Hofmann medicina rationalis systematica. HOFMANN'S practice, by Lewis and Duncan. 2 v. 8. Lond. 1783. Lond. med. journ. V. 157.
* *Baglivi* de praxi medica.
Boerhaave aphorismi de cognoscendis et curandis morbis. 8. Leyd. 1737. "To be read ten times and more." Allen.
Radcliffe's prescriptions, Germ. Leipz. 1720.
Allen synopsis medicinae. Ed. 5. Amst. 1730. A good compilation.
Simson de re medica. 8. Ed. 1726.
Cheyne's natural method of curing diseases.
Dekkers exercitationes practicae. 4. Nap. 1726. Contains a great variety of cases distinctly related.
Stalpart van der Wiel observationes. 8. Leyd. 1727.
Marchettis observationum sylloge. 8. Lond. 1729.
Shaw's practice of physic. 2 v. 8. Lond. 1728.
Hofmanni medicina consultatoria. 12 v. 4. Hall. 1721-39
Dover's ancient physician's legacy. 8. Lond. 1733.
* *Juncker* conspectus medicinae.
Van Swieten commentarii in Boerhaavii aphorismos. 5 v. 4. Leyd. 1742-72. Index. Hildb. 1775. "The work is known and valued, though the state of physic is much altered since its publication." Rothe. Abridged by Schomberg. 4 v. 8. Lond. 1762. By Hossack. 5 v. 8. 1773.
Lamettrie Observations de médecine pratique. 12. Par. 1743.
Boerhaave consultationes. 12. Lond. 1744. 8. Gott. 1772.
Brooke's practice of physic. 2 v. 8. Lond. 1751.
Mead monita et praecepta. 8. Lond. 1751. A Wintringham. 2 v. 8. Lond. 1773.
Wintringham on endemic and epidemic diseases. 8. Lond. 1752.
Halleri disputationes.

* *Haen* ratio medendi. 18 v. 8. Vienn. 1757-79. Schosulan epitome operum Haenii. 8. Vienn. 1778. Some extracts; Med. comm. Ed. I. 25, 33; Lond. med. journ. II. 390.

Marryat therapeutice. 4. Lond. 1758. Eng. 8. Lond. 1792. Rashly empirical, and sometimes dangerous, but often original, and interesting to a judicious practitioner.

Heisters wahrnehmungen. 2 v. 4. Rost. 1759-70. Heisteri compendium medicinae practicae. 8. Amst. 1762. Heister's cases. 4. 1755.

Lentin observationes. 8. Leipz. 1764, Zell. 1770.

Vogel definitiones generum morborum. 4. Gott. 1764.

Licutaud synopsis medicae praxeos. 2 v. 4. Amst. 1765.

Platneri ars medendi. Leipz. 1765-73.

Sarcone on the diseases of Naples. 2 v. 8. Napl. 1765. Germ. 3 v. 8. Zur. 1770-2. Fr. Lyons. 1804...Much praised by Beddoes.

Hautesierk Recueil d'observations. 4. Par. 1766. From official reports.

Observationes clinicae. Wars. 1767-8. "The distinctions somewhat too subtle." Cullen.

Störck anni medici. 6 v. 8. Vienn. 1768-81. "Original." Rothe.

* *Sauvages* nosologia methodica. 2 v. 4. Amst. 1768. A Daniel. 5 v. 8. Leipz. 1790-8. Little improved.

H. Smith's system of physic. 4. Lond. 1769.

Nicolai pathologie. 9 v. Halle, 1769-84.

Baker opuscula. 8. Lond. 1771.

Kleinii interpres clinicus. 8. Frankf. 1771.

Brisbane's cases. 8. Lond. 1772.

Macbride's introduction to physic. 4. Lond. 1772.

Linnaei genera morborum. 8. Hamb. 1773. Amoen. ac.

Ja. Sims on epidemic disorders. 8. Lond. 1774. Med. comm. Ed. II. 57.

Gooch's observations. 8. Lond. Med. comm. Ed. II. 365.

Lentins beobachtungen. 8. Gott. 1774.

Traité de médicine, extrait de Bordeu. 8. Par. Med. comm. Ed. III. 137.

Lentin memorabilia de Clausdaliensibus. 4. Gott. 1779. Lond. med. journ. II. 289.

Grant on chronic diseases. 8. Lond. 1776. "The Sydenham of our age, deep, acute, and cool." Rothe. The Germans in general are great admirers of Grant.

* Cullen's first lines of the practice of physic. 4 v. 8. Ed. 1777. An extremely elegant and valuable introduction, rather encumbered than injured by some hypothetical speculations. By Reid. 2 v. 8. Lond. With some useful extracts from later works.

Lieutaud Précis de médecine. Par. 1777. M. Soc. R. méd. I. H. 94.

Ruef consultationes. 8. Augsb. 1777.

Stoll ratio medendi. 7 v. 8. Vienn. 1777-90. Struve Auszug aus Stoll. 2 v. 8. Bresl. 1794.

Pezold de prognosi in acutis. 8. Leipz. 1778.

Störck praecepta. 2 v. 8. Vienn. 1778.

* Home's clinical experiments. 8. Ed. 1780. Lond. med. journ. I. 1.

Tissot observations. 2 v. 12. Laus. 1780.

Tissots handbuch, von Held. 3 v. 8. Leipz. 1785.

Duncan's cases. 8. Ed. 1781. Med. comm. Ed. VI. 300.

Engel specimen medicum, Werlhofii selecta quaedam. 8. Berl. 1781.

Sandifort exercitationes academicae. Dunc. med. comm. XI. 246.

Marcards medicinische versuche. 8. Leipz. Dunc. med. comm. VII. 86. 196.

Webster medicinae praxeos systema ex disputationibus. 3 v. 8. Ed. 1781.

Raymond on epidemic diseases. M. Soc. R. méd. IV. 36.

Saunders's elements of physic.

Aitken's elements of physic and surgery. 8. Lond. 1782.

* Burserii institutiones medicinae practicae. 4 v. 8. Ven. 1782-5. Leipz. 1787-90. Engl. by Brown. 5 v. 8. Ed. 1800... "Less hypothetical than Cullen." Rothe. A useful compilation, with some original matter, and much literary information.

Van Swieten constitutiones epidemicae, a Stoll. 2 v. 8. Vienn. 1782.

Sagar systema morborum symptomaticum. 2 v. 8. Vienn. 1783.

Vater de praesagienda vita et morte, a Tissot. 8. Pav. 1783.

Campers kleinere schriften, von Herbell. 3 v. 8. Leipz. 1784-90.

Starke Auszüge aus dem tagebuche des Jenaischen klinischen instituts. 4. Jen. 1784, 1789.

London practice of physic. 8. Lond. 1785.

* *Cullen* synopsis nosologiae. 2 v. 8. Ed. 1785, 1792. A Frank. 8. Pav. 1787. "Nec quicquam fere praestiterit quod operae pretium sit." Ploucquet. Contains the systems of Sauvages, Linné, Vogel, Sagar, and Macbride.

Quarin observationes practicae. 8. Vienn. 1786. Dunc. Med. comm. XII. 159.

Eyerel observationes. 8. Vienn. 1786. A pupil of Stoll.

Stoll aphorismi. 8. Vienn. 1787.

Stoll praelectiones in morbos chronicos, ab Eyerel. 2 v. 8. Vienn. 1788-92.

Lentins beyträge. 8. Leipz. 1789. 2 v. 8. 1797.

* *Vogels* handbuch der practischen arzneywissenschaft. 8. Stend. 1789... A work of established character. Lat. by Keup. 8. Stend. 1790...

Thilenius Bemerkungen. 8. Frankf. 1789.

Schlegel thesaurus pathologicotherapeuticus. 8. Leipz. 1789-93.

Bang praxis medica. 8. Copenh. 1789. Selecta diarii. 2 v. 8. 1789.

Rush's general observations. Manch. M. II. Lond. med. journ. VII. 77.

Elliot's medical pocket book. 12. Lond. 1791.

Ploucquet delineatio systematis nosologici. 4 v. 8. Tub. 1791-3. Umriss. 8. Tub. 1797. The denominations here employed, without definitions, are not to be found in the author's own inestimable work on medical literature; so that any further criticism would be superfluous. This work may, however,

be of use as a collection of synonyms to the species of Sauvages and Sagar.

Gilibert's observations. Lyons, 1791. Germ. 8. Leipz. 1792.

Sallaba historia naturalis morborum. 8. Vienn. 1791.

Franck epitome. Pavia, 1792...

Lafontaine chirurgisch medicinische abhandlungen. 8. Bresl. 1792.

Rahn handbuch der practischen arzneywissenschaft. 8. Zur. 1792.

Anleitung kranke zu examiniren. 12. Marb. 1792. Chiefly from Stoll.

Reil memorabilia clinica. 8. Halle. Dunc. med. comm. XIX. 7; Ann. 1796. 159.

Ferriar's essays.

Pinel nosographie philosophique. 2 v. 8. Par. 1801.

Gotthards leitfaden. 8. Erl. 1793. On examining patients.

Arneman synopsis nosologiae. 8. Gott. 1793. Names of diseases and titles of books.

Scheidii observationes. 8. Utr. 1793.

A. G. Richter Medicinische und chirurgische bemerkungen. 8. Gott. 1793. Engl. by Spens. 8. Ed. 1794. Dunc. med. comm. XIX. 197.

Benkö ephemerides meteorologicomedicae, 1780-93. 5 v. 8. Vienn. 1794.

Temple's practice of physic. 8. Lond. 1798. Germ. 8. Leipz. 1794.

Arzneykundige beobachtungen, von Keup. 8. Stend. 1794.

Wichmann Ideen zur diagnostik. 2 v. 8. Hannov. 1794-7. "A work above all praise." Rothe.

Loder Chirurgisch medicinische beobachtungen. 8. Weim. 1794. "Necessary to every medical library." R.

Nisbet's clinical guide. 5 v. 8. Ed. 1801. Germ. Zittau, 1795.

Theden Bemerkungen und erfahrungen. 3 v. 8. Berl. 1795.

Hopfengärtner Theorie der epidemischen krankheiten. 8. Frankf. 1795.

Vogels krankenexamen. 8. Stend. 1796.

Mursinna Medicinisch chirurgische beobachtungen. 8. Berl. 1796.

Fischer über London. 8. Gott. 1796. Dunc. ann. 1796. 62. "No book could appear at a more appropriate time; shame on the physicians who praise and translate every thing that is English, without distinction." Rothe. In short, Fischer is much shocked to find that the English actually cure their patients by means of bark, without sal ammoniac.

Scheidemantel Beyträge. 2 v. 8. Leipz. 1796-7. Contents, Rothe. 484.

Cullen's clinical lectures. 8. Lond. 1797. Surreptitious.

Lindemanns handbuch, nach Brendel. 8. Berl. 1797.

Jo. Frank ratio instituti clinici. 8. Vienn. 1797. Germ. by Schäfer. 8. Vienn. 1797.

Selle medicina clinica Ed. 7. 8. Berl. 1797.

* Currie's medical reports. 8. Liv. 1798. Ed. 3. 1804. Dunc. ann. 1798. 1. Ed. med. journ. I. 67. On cold water, opium, alcohol, and inanition.

Kausch Erfahrungen, in briefen an ärtze, nebst deren antwort. 8. Leipz. 1798. "Highly valuable." Rothe.

Thoman annales instituti Wirceburgensis. Wurtzb. 1799.

Portal sur plusieurs maladies. 2 v. 8. Par. 1800.

Geoffroy Manuel de médecine. 2 v. Par. 1800.

Willan's reports on the diseases in London. 12. Lond. 1801. Principally employs the nosology of Sauvages.

Arneman Handbuch der practischen medicin. 8. Gott. 1800...

* *Thomas's* modern practice of physic. 2 v. 8. Lond. 1801.

* Heberden commentarii de morbis. 8. Lond. 1802.

Hufeland System der practischen heilkunde. 8. Jen. 1802.

Bateman's quarterly reports. Ed. med. journ.

Edinburgh practice of physic, surgery, and midwifery. 5 v. 8. Lond. 1803. Ed. med. journ. II. 82. "The first edition was reprinted from the Encyclopaedia Britannica, Art. Medicine, Surgery, and Midwifery, in 1 volume. In this edition, detailed cases and long extracts from diffuse writers are interpolated. The whole is beneath criticism". It may however be of some use to a judicious practitioner in the country.

Odier Manuel de médecine pratique. Gen. 1803. Ed. med. journ. II. 446.

Crichton's synoptical table of diseases. Lond. 1804. No definitions.

* *Hecker* Kunst die krankheiten zu heilen. 8. Erf. 1804...

* *Clarke's* modern practice of physic. 8. Lond. 1805. Ed. med. journ. II. 81.

Clarke's reports from the hospital near Nottingham. Ed. med. journ. III. 309. IV. 1, 265, 422. V. 188, 257. VI. 1, 261.

Bardsley's medical reports. 8. Lond. 1807. Ed. med. journ. IV. 93.

Barthez Consultations de médecine. 2 v. 8. Par. 1807. Ed. med. journ. VII. 347.

Himly lehrbuch der practischen heilkunde.

Frank acta instituti clinici Wilnensis. 8. Hag. 1808. Ed. med. journ. VI. 346.

Hooper's physician's vademecum. 8. Lond. 1809. A useful collection of memorandums.

Ferriar's medical histories and reflections. Ed. 2. 4 v. 8. Lond. 1810-2. Ed. med. journ. VII. 226. X. 240.

Pinel Nosographie philosophique. Par. 1810. Ed. med. journ. IX. 242.

G. Pearson's Principles of Physic. Ed. 3, 8. Lond. 1812; a syllabus of lectures.

Blane on the prevalence of diseases. Medicoch. tr. IV. 89, 466.

Bedingfield's compendium. Lond. 1816; Ed. med. journ. XII. 489.

Parkinson's Synopsis of Nosology. 8. Lond. 1816.

Dublin Hospital Reports and Communications; Dubl. 1817. Ed. med. journ. XIV. 97.

Good's *physiological* system of nosology. 8. Lond. 1817. Ed. med. journ. XIV. 107. Every science ought to have its peculiar method, and not to follow that of another.

Hall on Diagnosis. 8. Edinb. 1817. Ed. med. journ. XIV. 236: Armstrong's practical illustrations. 8. Lond. 1818; 265; fevers, and chronic diseases, and sulfureous waters.

G. Gregory's Elements of Physic. 8. Lond. 1820.

Hosack's Practical Nosology. 8. V. York. 1821.

(" Medicus, Grainger, Glass, Grimm, Monteaux, Unzer, Baldinger, Kaempf, Lettsom, Bosch, Thilenius, Fritze, Schäffer, Isenflamm, Marcard, Kloeckhof, C. L. Hoffmann, Thompson, Burggrave, Strack, Wendt, Rosenstein, Piquer, Eller, Gardiner, Vachier, Lyson, Senac, Riegler, Wagler, Lorry, Girtanner, Elsner, Bacher, Böttger, Chicoyneau, Schilling, Poupart, Fothergill, Andry, Michell, Collin, Haeberl, Campbell, Senft, Weikard, Scherf, Mellin, Birnstiel, Bond, Lepecq de la Cloture, Taube." Vogel. Fritze. Brera. Knackstädt.)

SURGERY.

Wiseman's chirurgical treatises. f. Lond. 1676.

Barbette opera, Mangeti. 4. Gen. 1683.

Juncker chirurgia. 4. Hall. 1731.

Lamotte Traité de chirurgie. 4 v. 12. Par. 1732. Cases, with reflections.

Haller disp. chir.

* *Heisteri* institutiones chirurgicae. 2 v. 4. Amst. 1739.

Gooch's cases. 1758. Chirurgical works. 3 v. 8. 1792.

Portal Précis de la chirurgie. Par. 1760.

Richter observationes chirurgicae. 3 fasc. 8. Gott. 1760-80.

Ledran. 8. Par. 1765.

Goulard oeuvres de chirurgie. 2 v. 12. 1766.

Morand. Par. 1768. Germ. 8. Leipz. 1776.

Bromfeild's chirurgical observations. 2 v. 8. Lond. 1773. Med. comm. Ed. 1. 345.

Plenck Sammlung zur wundarzneykunst. Med. comm. Ed. II. 261.

Schmucker Chirurgische wahrnehmungen. 8. Berl. 1774-89. Med. comm. Ed. IV. 424. Lond. med. journ. I. 231. II. 10.

Dease's introduction to surgery. 1776. 1780.

Alix observata chirurgica. 8. Altenb. Med. comm. Ed. IV. 420, and again VI. 295.

Callisen systema chirurgiae. 2 v. 8. Copenh. 1777, 1798.. 1800.

Aitken conspectus rei chirurgicae. 8. 1778.

Acrels chirurgische händelser. 2 v. 8. Stockh. 1778. Lond. med. journ. III. 1.

* Pharmacopoeia chirurgica. 12. Lond.

Wilmer's cases in surgery. Dunc. med. comm. VII. 18.

* B. Bell's surgery, 6 v. 8. Ed. 1784, 1801. "A work of decided merit, which should be in the library of every physician." Rothe. Dawplucker's remarks. 8. 1799.

Pott's works, by Earle. 3 v. 8. Lond. 1781.

Kirkland on medical surgery. 8 Lond. Lond. med. journ. V. 384.

Warner's cases. Lond. 1784.

* *Richter* Anfangsgrunde der wundarzneyhunst. 5 v. 8. Gott. 1787-98. "No other nation can boast of a work like this, which every physician and surgeon ought to possess." Rothe.

* *Pearson's* principles of surgery. 8. Lond. 1788. 1808.

Pallettae adversaria. 4. Mil. 1789.

Bernstein Handbuch für wundärzte und geburtshelfer. 4 v. 8. Leipz. 1790-2. 1799. "Contains almost every thing that has been written." Rothe.

Hecker therapia generalis chirurgica. 8 Erf. 1791.

Mezger Handbuch der chirurgie. 8. Jen. 1791. Königsb. 1798.

Danz semiotik fur wundärzte. 8. Leipz. 1793.

* *Latta's* surgery. 3 v. 8. Ed. 1794-6.

Loders journal für die chirurgie. 8. Jen. 1797...

Sabatier Lehrbuch für practische wundärzte. Berl. 1797...

Plenck compendium institutionum chirurgicarum. 8. Vienn. 1797.

Desault Oeuvres chirurgicales. 8. Par. 1798.

Arneman System der chirurgie. 8. Gott. 1798, 1800.

* *J. Bell's* surgery. 2 v. 4. Ed. 1801... Dunc. ann. 1801. 1.

White's practical surgery. 8. 1804.

* *Abernethy's* surgical observations. 2 v. 8. Lond. 1804-6.

Sue Clinique externe. Par. 1804.

Desault Clinique externe, par Cassius. 2 v. 8. Par. Ed. med. journ. IV. 209.

Ware's chirurgical observations. 2 v. 8. Lond. 1805.

* Hey's cases in surgery. 8. Ed. 2. Lond. 1810. Ed. med. journ. VIII. 107.
* S. Cooper's first lines of the practice of surgery. 8. Lond. 1809. Ed. 4. 1819; Ed. med. journ. XVI. 583.
* *S. Cooper's* dictionary of surgery. 8. Lond. 1809.
Hooper's surgeon's vademecum. 8. Lond. 1809.
Pelletan Clinique chirurgicale. 3 v. 8. Par. 1810; Ed. med. journ. VIII. 239.
Hutchinson's practical observations. 8. Lond. 1816; Ed. med. journ. XIII. 389; Hennen on military surgery; XIV. 370.
Howship's practical observations. 8. Lond. 1816. Ed. med. journ. XIV. 387.
Cooper and Travers's surgical essays. 8. Lond. 1818. Ed. med. journ. XIV. 626.
* *Hennen's* principles of military surgery. Ed. 2. 8. Edinb. 1820. Ed. med. journ. XVI. 447.
Allan's surgery. vol. 1. 8. Edinb. 1819; Ed. med. journ. XVI. 582.

Theden, Kohlhaas, Mursinna, Platner by Krause, Lauth, Hunczovsky, Hunters.

MORBID APPEARANCES.

Bartholini historiae anatomicae. 8. Copenh. 1654...
Kerckringii spicilegium anatomicum. 4. Amst. 1670. Credulous.
* Boneti sepulcretum anatomicum. 3 v. f. Gen. 1700. "Egregie, si quis alius, meritus est." Morgagni.
* *Morgagni* de sedibus et causis morborum. 2 v. f. Ven. 1761. "* * *" Haller. "A stupendous work." Baillie. Tissoti, 3 v. 4. Winterth. 1779. By Alexander. 8. 1768. By Hamilton, vol. 1. 8. Ed. 1795; reduced into Macbride's order; Dunc. ann. 1795. 143.

Lieutaud historia anatemicomedica, a Portal. 2 v. 4. Par. 1767. "Almost preferable to Morgagni, never omitting the history." Rothe.

* Halleri opuscula pathologica. 8. Laus. 1768.

Sandifort observationes anatomicopathologicae. 4 v. 4. Leyd. 1777-80.

Bonn thesaurus ossium morbosorum. 4. Amst. 1783. f. 1785.

Ludwigii primae lineae anatomiae pathologicae. 8 Leipz. 1785. With ample references.

Doeveren observationes pathologicoanatomicae. 4. Leyd. 1789.

* Baillie's morbid anatomy. 8 Lond. 1793, 1807. Germ. by Sömmering, with additions. 8. Berl. 1794. "No physician should be without this work." Rothe.

Sandifort museum anatomicum. f. Leyd. 1793.

Walters anatomisches museum 2 v. 4. Berl. 1796.

Conradi Handbuch der pathologischen anatomie. 8. Hannov. 1796. "Supersedes Ludwig." Rothe.

Hecker Magazin für die pathologische anatomie. 8. Alt. 1796. Enumerates 161 authors.

* Baillie's series of engravings. 4. Lond. 1803.

* Portal Cours d'anatomie médicale. 5 v. 8. Par. 1805. Ed. med. journ. III. 82.

Voigtel Handbuch der pathologischen anatomie, von Meckel. 3 v. 8. Halle, 1806. Ed. med. journ. V. 245; "The German is tediously minute, exact, and prolix: the Frenchman," Portal, "is luminous, copious, and verbose: the Englishman," Baillie, "is simple, short, perspicuous, and careful; not a word is said more than is necessary, and *that* word is always directed to the point."

Heberden, Med. tr. V. 173; water in the head, without symptoms.

Sandwith, Ed. med. journ. XVI. 371; contributions: A. Duncan, XVII. 321.

(Manget, Cheston, Baader, Schinz.)

LOCAL AFFECTIONS.

Bones). Petit Maladies des os. 2 v. 12. Par. 1723. Böttcher Krankheiten der knochen, knorpel, und sehnen. 3 v. 8. Königsb. 1787-92. Boyer on the diseases of the bones by Richerand and Farrell. 2 v. 8. 1807. Howship, Medicoch. Medicoch tr. VIII. 57. X. 176.

Joints.) Brodie, tr. IV. 207: V. 239: VI. 318. also 8. Lond. 1818.

Nerves.) Tissot on the nerves and their diseases. See Paraneurismi. Swan on the morbid local affections of nerves. A prize essay. 8. Lond. 1820; Ed. med. journ. XVII. 424.

Bloodvessels.) Hodgson on the diseases of arteries and veins. 8. Lond. 1815; Engravings, fol. Ed. med. journ. XII. 330; a prize essay.

Absorbents.) Sömmering de morbis absorbentium. 8. Frankf. 1795. Compiled from 313 works. Pring on the absorbents. 8. Bath 1813; Ed. med. journ. X. 484. Goodlad on the diseases of the absorbent system. Lond. 1814; Ed. med. journ. X. 480; a prize essay.

Head.) Bellinus de urinis. Wepferi observationes de affectibus capitis. 4. Schafh. 1727. Home on the functions of the brain. Phil. trans. 1814. 469. *Powell* Med. tr. V. 198; pathology. Abercrombie Ed. med. journ. XIV. 553. XV. 481.

Eye.) Galen on the eyes. Hofmann Opp. Suppl. I. 2. Demours. Ed. med. ess. V. ii. Trnka de morbis oculorum internis. Vienn. 1771. Janin sur l'oeil. Lyons. 1722. Jung von augenkrankheiten. 8. Marb. 1791. Kortum Augenkrankheiten. 8 Lemg. 1791. Beer Beobachtungen über verschiedene augenkrankheiten welche aus allgemeinen krankheiten des körpers entspringen. 8. Vienn. 1791. "Very important." Rothe. Beer Lehre der augenkrankheiten. 2 v. 8. Vienn. 1792. 1813. Ed. med. journ. XIV. 209. Smith Ed. med. journ. XVII. 349. 495; case, at Chatham. * *Scarpa* malattie degli occhi. f. Pav. 1801. Fr. by Leveillé. 2 v. 8. Par. 1802. Ed. med. journ. I. 430. By Briggs. 8 Lond. 1806. Himly ophthal-

mologische beobachtungen. 8. Brem. 1801 . . . **Wardrop* on the morbid anatomy of the eye. 8. Ed. 1810. Ed. med. journ. IV. 354. *Saunders* on diseases of the eye, by Farre. 8. Lond. 1811. Ed. med. journ. IX. 84. Scarpa's letters. XV. *Travers's* synopsis of the diseases of the eye. 8. Lond. 1820, also *Vetch's* practical treatise. 8. Lond. 1820. Ed. med. journ. XVII. 266.

Ear.) Swan. Medioch. tr. IX. 422.

Teeth.) Hunter. Fox on the diseases of the teeth. 4. Lond. 1806. Ed. med. journ. III. 193. Bell, Medicoch. tr. X. 38.

Spine.) Abercrombie. Ed. med. journ. XIV. 42.

Chest.) Cheyne's pathology of the membrane of the larynx and bronchia. 8. Ed. 1810.

Heart.) *Corvisart* Maladies du coeur. 8. Par. 1806. Ed. med. journ. VII. 68. Farre's pathological researches. 8. Lond. 1814; Ed. med. journ. XI. 101. Kreysig Krankheiten des Herzens. 4 v. 8. Berl. 1814; more laborious than discriminating; Warren's cases. 8. Boston 1809 : VII. 108.

Alimentary canal.) Monro's morbid anatomy of the gullet, stomach, and intestines. 8. Edinb. Ed. med. journ. IX. 105. *Yeats* on the duodenum. Med. tr. VI. 325.

Abdominal Viscera.) Pemberton on diseases of the viscera. 8. Lond. 1806. Ed. med. journ. III. 68 : Baron on accretions of serous membranes. 8. Lond. 1819. XVI. 131. Alimentary canal.] Wedekind de morbis primarum viarum. 4. Nur. 1799. *Monro* on the diseases of the alimentary canal. 8. Ed. 1812. Abercrombie Ed. med. journ. XVI. 1. 161. 321. Howship on diseases of the lower intestines. 8. Lond. 1820; Ed. med. journ. XVI. 590. Ed. 2. 1821. Liver.] **Saunders* on the liver. 8. Lond. 1793. Dunc. med. comm. XIX. 51. Niemeyer de commercio inter animi pathemata, hepar, bilemque, 4 Gott. 1795. Farre's morbid anatomy of the liver. 4. Lond. 1812 . . Ed. med. journ. IX. 97. Faithhorn on liver complaints. 8. Lond. 1814. Ed. med. journ. XI. 380 : Macdonnell XVII. 73; liver and lungs; from climate.

Pelvic viscera.) André Maladies de l'uréthre. Par. 1756. Rees on diseases of the uterus. 8. Lond. 1803. C. Bell on the diseases of the urethra. 8. Lond. 1809. Howship on the

diseases of the urinary organs. 8. Lond. 1816; Ed med. journ. XIII. 496.

Extremities.) Wardrop, Medicoch. tr. V. 129; toes and fingers.

RELATING TO PARTICULAR AGES AND SEXES.

Children.) Harris de morbis acutis infantum. 4. Gen. 1696; et Ketelaer de aphthis. 8. Amst. 1736. Jameson de infantum morbis. 8. Ed. 1731. Smellie Thes. 1. 19. Astruc on diseases of children. 8. 1741. Conyers de morbis infantum. 8. Lond. 1748. Armstrong on the diseases of infants. 12. Lond. 1767; Germ. by Schäffer. 8. Ratisb. 1792; By Buchan. 8. Lond. 1808. Rosenstein von den kinderkrankheiten. 8. Gott. 1768; von Murray und Loder. 8. Gott. 1798. * Underwood on the diseases of children. 3 v. 8. Lond. 1805. Logan de morbis infantum. 8. Ed. Webster. med. pr. III. 273. Clarke on some diseases of infancy. Med. facts. VIII. 215. *Clarke's* commentaries. 8. Lond. 1815; Ed. med. journ. XII. 89. Struve Kinderkrankheiten. 8. Bresl. 1797; Ueber physische erziehung. 8. Hannov. 1798; A disagreeable writer. Heberden morborum puerilium epitome. 8. Lond. 1804. Ed. med. journ. I. 221. Hamilton. Syers on the management of infants. 8. Lond. 1812; Ed. med. journ. VIII. 225.

Females.) Mauriceau Traité sur les maladies des femmes grosses. 4. Gen. 1693; Observations sur la grossesse et les maladies des femmes. 4. Amst. 1695; Bears strong marks of correct observation. Leake on the chronic diseases of women. Lond. 1777. Med. comm. Ed. V. 118. Doeveren de mulierum morbis, a Schlegel, 8. Leipz. 1786. Hofmann Wie können frauenzimmer frohe mütter werden. 4 v. 8. Frankf. 1791... Hamilton on female complaints and infantile diseases. 8. Ed. 1809. Ed. med. journ. V. 359.

RELATING TO EMPLOYMENTS.

Princes.) Ramazzini de principum valetudine.

Men of the world.) Tissot sur les maladies des gens de monde. 12. 1770.

Men of letters.) Ackermann über die krankheiten der gelehrten. 8.Nur. 1777. Tissot de la santé des gens de lettres. 12.

Comedians.) Hunnius Arzt für schauspieler. 8. Weim. 1798.

Artisans.) Ramazzini de morbis artificum. Germ. by Ackermann. 2 v. 8. Stend. 1780-3.

Labourers.) Falconer, Papers of the Bath Soc. IV; and 8. Lond. 1789.

Poor.) Carl medicina pauperum. 8. Bud. 1719.

Army.) * Pringle on the diseases of the army. 8. Lond. 1764. Van Swieten. 8. Lond. 1762. Brocklesby on military hospitals and camp diseases. 8. Lond. 1764. *D. Monro* on diseases in the military hospitals. 8. Lond. 1764. Baldinger krankheiten einer armee. 8. Lang. 1765. 1774. Fritzens feldlazareth. 8. Leipz. 1780. Monro on preserving the health of soldiers. 2 v. 8. Lond. 1783. J. Hunter. M.D. on the diseases of the army in Jamaica. 8. Lond. 1788. Hebenstreits handbuch, nach Hamilton. 3 v. 8. Leipz. 1790. Piderit Annalen. 8. Cassel. 1794. Jäger Beyträge. 3 v. 8. Frankf. 1794-6. Ackermanns handbuch der kriegsarneykunde. 2 v. 8. Leipz. 1795. "A masterly work." Rothe. Ackermanns handbuch der ausübenden arzneykunde und wundarzneywissenschaft bey armeen. 2 v. 8. Leipz. 1797. Wedekind über das Französische kriegspitalwesen. 8. Leipz. 1797. Wright on the diseases of troops in the West Indies. Dunc. ann. 1797. 346. Lindemann Entwurf soldaten schneller zu heilen. 8. Berl. 1799. Macgrigor on the diseases of the 88th regiment in the E. I. Dunc. ann. 1801. 353. Desgenettes Histoire médicale de l'armee de l'Orient. 8. Par. 1802. Dunc. ann. 1802. 98. Jackson on the medical department of the army. 8. Lond. 1803. Dunc. ann. 1803. 131. Larrey Mémoires de Chirurgie militaire, 3 v. 8.

Par. 1812. Ed. med. journ. IX. 207. Macgrigor's sketch. Medicoch. tr. VI. 381.

Seamen.) * Lind on the diseases of seamen. 8. Lond. 1757. Rouppe de morbis navigantium. 8. 1764. Pringle's discourse on preserving the health of seamen. 4. Lond. * *Blane* on the diseases of seamen. 8. Lond. 1785. * *Trotter* medicina nautica. 8. Lond. 1797. Watson on diseases on board the Europa. Med. facts. V. 20. *W. Hunter* on the diseases of Indian seamen. f. Calcutt. 1804. Ed. med. journ. III. 112. Robertson on diseases incident to seamen. 4 v. 1804. Turnbull's naval surgeon. 8. 1806. J. F.'s journal on a cruise. Ed. med. journ. IV. 450. On medicine in the navy. Ed. med. journ. VI. 326. *Blane's* statements. Medicoch. tr. VI. 40.

Prisoners.) J. M. Good on the diseases of prisons. 12. Lond. 1795. *Blane* Medicoch. tr. VI. 561; paucity of deaths among French prisoners in England.

RELATING TO CLIMATES.

See Acology.

Sloane on the diseases of Jamaica. Cleghorn on Minorca. 8. Lond. 1751. 1768. Huxham. * *Hillary* on the air and diseases of Barbadoes. 8. Lond. 1759. * Lind on diseases in hot climates. 8. Lond. 1768. * Clark on diseases in long voyages. 8. Lond. Med. comm. Ed. II. 1. *Chalmers* on the weather and diseases in South Carolina. 2 v. 8. Lond. 1776. Bisset on the climate of Great Britain. 8. Lond. Rollo on St. Lucia. 12. Lond. 1781. Lond. med. journ. II. 298. *Moseley* on tropical diseases. 8. Lond. 1787. Lorimer on the sick in the E. I. service. Med. facts. VI. 211. N. Fontana on diseases in hot climates. Germ. 4. Stend. 1790. Thomas on the diseases of warm climates. 8. 1790. Wade on disorders in Bengal. 8. Lond. 1793; Dunc. med. comm. XVIII. 200. Shannon on the operation of medicines in hot climates. 8. Lond. 1794. Rodschied über Rio Esequibo. 8. Frankf. 1796. Currie on the climates and diseases of America. 8. Philad. Dunc. med. comm. XX. 41. T. Clark

on diseases of the W. and E. Indies. 8. 1801. Campet des maladies graves des pays chauds. 8. Par. 1802. Macgregor on diseases in Bombay. Ed. med journ. I. 266. Macgregor's medical sketches. 8. Lond. 1804; Dunc. ann. 1803. 257. Dancer's Jamaica practice of physic. 4. Pinckard's notes on the W. I. 3 v. Lond. 1807. Curtis on the diseases of India. 1807. * *Johnson* on the influence of tropical climates. 8. Lond. 1813. Ed. med. journ. XI. 244. Clarke's report for Nottingham. Ed. med. journ. VII. 129; VIII 138: Irvine on diseases in Sicily. 8. Lond. 1810: VII. 333: *Duncan*, 481: Edinburgh: Tuomey's diseases of Dublin. 8. Dubl. 399; VIII. 82: *Holland* in Mackenzie; VIII. 201; Iceland and De morbis Islandiae. 8. Ed. 1811. *Heberden* on the mortality of London. Med. trans. IV. 103. *Macgregor* Medicoch. tr. V. 435; in the military asylum. Nicoll, Ed. med. journ. XI. 286; Seringapatam. Bacot Medicoch. tr. VII. 372; a battalion. *New Orleans*, Ed. med. journ. XII. 129: Chisholm XIII. 265; Bristol. Williamson on the W. I. Islands. 2 v. 8. Edinb. 1817; Ed. med. journ. XIII. 520. Bruce, Medicoch. tr. IX. 249; Military colleges. M'Cabe. Ed. med. journ. XIV. 593. V. XV. 33; 179; 533; Trinidad. Ballingall on the diseases of India, 8. Edinb. 1818; Ed. med. journ. XV. 587: Douglas's medical topography of Canada. 8. Lond. 1819; XVI. 566: Murray, XVII. 337; Alford.

EXOTIC MEDICINE.

Alpini medicina Aegyptiorum, ut et Bontii medicina Indorum. 4. Leyd. 1745. Piso. Cleyer. Winterbottom's Sierra Leone.

POPULAR MEDICINE.

Langhens Anweisung. 8. Bern. 1762. Tissot Avis au peuple 2 v. 12. Lyons, 1764; By Kirkpatrick. 8. Lond. 1768. *Buchan's* domestic medicine, by A. Buchan. 8. Lond. 1807; Par Duplanil. 3 v. 8. Par. 1789. Lange Artz für alle menschen. 8. Lauenb. 1777. Metzger Entwurf einer medicina naturalis. 8.

Königsb. 1784. Juncker, Nolde. Herrenschwand. Jahn Handbuch. 8. Jen. 1790. Der tod in töpfen. 8. Hildburgh. 1790. "Worthy of being read day and night." Rothe. Paulitz Anleitung. 8. Frankf. 1791. Unzer Medicinisches handbuch. 8. Leipz. 1794. *Struve* über gesundheitswohl und volksvorurtheile. 2 v. 8. Bresl. 1797-8. Parkinson's villager's friend and physician. 12. Lond. 1804. Companion to the medicine chest. 12. 1804. Domestic pharmacopoeia. 12. 1805. Reece's medical guide. 8. Lond. 1811. Richerand des Erreurs populaires. 8. Par. 1810, Ed. med. journ. VII. 64; on the *tact* of the French physicians, as superior to learning.

VETERINARY MEDICINE.

Layard on the inoculation of horned cattle. Phil. trans. 1758. 528. Vitets unterricht, von Erxleben und Hennemann. 3 v. 8. Lemg. 1773-86. Remarks on epizootic diseases, by Daubenton, Berg, and others. M. Soc. R. méd. I. 312. II. 570. 616. III. 326. Layard on the distemper of cattle. Phil. trans. 1780. 536. Jungs lehrbuch der vieharzneykunde. 8. Heidelb. 1785. Camper on a disease of cattle. Lond. med. journ. IV. 386. Lafosse Cours d'hippiatrique. Tufts on the horn distemper in cattle. Amer. Ac. Lond. med. journ. VII. 305. Kausch über rindviehseuche. 8. Grottkau, 1790. *Camper* on diseases common to men and animals; and on the influence of climate, Germ. by Herbell. 8. Ling. 1794. Wollstein. Niederhuber Polizeypflege bey viehseuchen. 8. Salz. 1793. Saint Bel's elements of the veterinary art. 4. Lond. 1797. Bourgelat Elemens de l'art vétérinaire. 2 v. Par. 1798. Blane's outlines of the veterinary art. 2 v. 8. Lond. 1802. Lafosse's veterinarian's pocket manual. 1803. Feron's system of farriery. 4. Lond. 1803. Harrison on the rot in sheep. 8. Lond. 1804. Ed. med. journ. I. 440. * *A. Duncan* on the diseases of sheep in Scotland. Tr. Highl. Soc. Ed. med. journ. VI. 109. Chisholm on the lues bovina. Ed. med. journ. VI. 32. Rosenschild on the pestis bovilla. Ed. med. journ. VI. 147. See also Daniel bibl. der staatsarzn. 190.

(Busch und Daum. Kersting. Henze. Chabret.)

FORENSIC MEDICINE.

Or medical jurisprudence and police.

Starck, praes. Heistero, de medicinae utilitate in jurisprudentia. 4. Helmst. 1730. Hebenstreit anthropologia forensis. 8. Leipz. 1753. Büttler über tödtliche verletzungen. 4. Königsb. 1768; Ueber kindermord, 1771; Von der tödtlichkeit der wunden. 8. 1776. Frank System einer medicinischen polizey. 5 v. 8. Manh. 1779-88. Plenck elementa medicinae et chirurgiae forensis. 8. Vienn. 1781. Hallers vorlesungen über die gerichtliche arzneywissenschaft. 3 v. 8. Bern. 1782-4. Schlegel collectio opusculorum ad medicinam forensem spectantium. 6 v. 8. Leipz. 1785-91. Husty über die medicinsche polizey. 2. v. 8. Presb. 1786. Hebenstreit Lehrsätze der medicinischen polizeywissenschaft. 8. Leipz. 1791; Contains enough of literature. Loder Anfangsgründe der medicinischen anthropologie und der staatsarzneykunde. 8. Weim. 1793. *Metzger* System der gerichtlichen arzneywissenschaft. 8. Konigsb. 1793, 1798; Lat. by Keup. 8. Stend. 1794. Müller Entwurf der gerichtlichen arzneywissenschaft. 2 v. 8. Frankf. 1796-8. Fodéré Médecine légale. 3 v. 8. Par. 1799; Ed. med. journ. I. 330. Mahon Médecine légale. 3 v. 8. Par. 1802. Ed. med. journ. I. 330. Davis Projet concernant les décès. 8. Verd. 1806. Ed. med. journ. IV. 234. Mahon on the signs of infanticide, by Johnson. Lancaster. 1813. Ed. med. journ. X. 294: Bartley's treatise. 8. Bristol. 1815; Male's epitome. Lond. 1816; XIV. 111. Hosack on the Medical Police of New York. 8. N. York. 1820.

(Brinckman. Daniel. Hahnemann. Ploucquet. Schmelzer. Elvert. Schwabe. Gruner. Uden. Pyl. Formey. Scherf. Elsner. Bucholz. Roose. Schweikhard. Zachias. Amman. Welsch. Bohn. Valentin. Richter. Fabricius. Waitz. Rickmann. Arnold. Liebing. Kannegiesser. Teichmeyer. Börner. Eschenbach. Baumer. Ludwig. Bohn. Sicora. Fort. Fidelis. Alberti. Kölpin. Kamper. Jäger. All these are named by authors who profess to mention none but good and useful works.)

CLASSES OF DISEASES.

Diseases depending on the vital powers.
Of the nervous and muscular system. PARANEURIS'MI. Nervous diseases.
Of the sanguiferous system. PARHAEMA'SIAE. Sanguine.
Of the secretions. PAREC'CRISES. Secretory.
Of the nutritive powers. PARAMOR'PHIAE. Structural.
Mechanical affections. ECTO'PIAE. Displacements.

ORDERS.

Class 1. Paraneurismi. Not subdivided.
2. Parhaemasiae.
Affecting the minute bloodvessels only. *PHLOGIS'MI.* Flushes.
Affecting all kinds of functions. *PYREX'IAE.* Fevers.
3. Pareccrises.
The secretions being diminished. *EPIS'CHESES.* Retentions.
The secretions being increased. *APOCENO'SES.* Effusions.
The secretions being vitiated. *CACOCHYM'IAE.* Cachexies.
4. Paramorphiae.
Single or nearly single changes of structure. *PARAPHY'MATA.* Local changes.
Changes frequently repeated. *EPIPHY'MATA.* Eruptions.
5. Ectopiae. Not subdivided.

SYNOPSIS OF GENERA.

CLASS I.

PARANEURISMI.

NERVOUS DISEASES.

Diseases solely or principally affecting the functions of sensation or motion, as depending on the nervous system.

1.	Ca'rus.	A preternatural appearance of sleep. Apoplexy.
2.	Paral'ysis.	An insensibility, or incapacity of motion. Palsy.
3.	Astheni'a.	A debility of the nerves or muscles. Weakness.
4.	Dysaesthe'sia.	A defect of sensation, from an obscure cause in the organ. Heb'etude.
5.	Autal'gia.	Partial pain without apparent cause. Local pain.
6.	Erethis'mus.	A morbid sensibility or irritability. Irritation.
7.	Pal'mus.	Irregular action of the involuntary muscles. Spasm.
8.	Pneu'sis.	Irregular action of the partially voluntary muscles. Anhelation.
9.	Clo'nus.	Repeated contraction of a voluntary muscle. Convulsion.
10.	Ento'nia.	A fixed contraction of a voluntary muscle. Rigidity.
11.	Ma'nia.	An idiopathic depravation of the faculties. Insanity.

† Pyrexiae. Venenatio. lxxv.

CLASS II.

PARHAEMASIAE.

SANGUINE DISEASES.

Diseases principally of the sanguiferous system.

ORDER I. *PHLOGISMI.* FLUSHES.

Affecting only, or primarily, the minute bloodvessels.

12. Ru'bor. Distension of the minute bloodvessels, not painful. Erubesence.
13. Inflamma'tio. Distention of the minute bloodvessels, with pain. Inflammation.
14. Profu'sio. Simple effusion of blood. Profusion.

ORDER II. *PYREXIAE.* FEVERS.

Affecting the whole circulation, and the constitution in general; particularly the stomach and the nervous system.

Possibly the nervous system may be the primary seat of fever in general; but the affection of the circulation affords the most convenient nosological criterion of the diseases of this order.

15. Cau'ma. Pulse hard and full throughout. Inflammatory.
16. Erysip'elas. Pulse frequent; a local inflammation, with burning pain. Erysipelatous.
17. Syn'ochus. Pulse hard and full at first, then small and weak. Mixed.
18. Ty'phus. Pulse small and weak, with prostration of strength, from the beginning. Typhous.
19. An'etus. With regular and well marked paroxysms. Palúdal.
20. Deflux'io. With a mucous or serous discharge: pulse becoming weak. Catarrhal.
21. Hec'tica. With frequent weak pulse, flushing, and night sweats. Hectic.

CLASS III.

PARECCRISES.

SECRETORY DISEASES.

Diseases principally affecting the functions of secretion or excretion.

ORDER I. *EPISCHESES.* RETENTIONS.

The secretion being diminished or obstructed.

22. OBSTIPA'TIO. Obstruction of the alvine discharge. Constipation.
23. ISCHU'RIA. Retention of urine. Ischury.
24. AMENORRHOE'A. Retention of the catamenia. Suppression.
25. AGALAX'IA. Retension or suppression of milk. Agalaxy?

ORDER II. *APOCENOSES.* EFFUSIONS.

The secretion being morbidly increased in quantity.

26. EPHIDRO'SIS. An effusion of sweat. Colliquation.
27. EPIPH'ORA. From a conglomerate gland. Overflowing.
28. HYPERURE'SIS. From the kidneys. Flow of water.
29. BLENNORRHO'EA. From the mucous follicles. Mucous effusion.
30. DIARRHOE'A. From the intestines. Looseness.

ORDER III. *CACOCHYMIAE.* CACHEXIES.

The quality of the secretion being vitiated.

31. DYSPEP'SIA. The gastric fluid and the digestion being deranged. Indigestion.

32.	Pod'agra.	Indigestion with inflammation of the small joints. Gout.
33.	Cholelith'ia.	Occasional pain near the cardia, with obstruction of bile. Gallstone.
34.	Lithi'asis.	A discharge of gravel, or a stone sensible in the bladder. Stone.
35.	Diabe'tes.	A discharge of saccharine urine. Diabetes.
36.	Leucorrhoe'a.	A pale coloured discharge. Whites.
	(Concre'tio.	A calculus formed in a mucous secretion.
	Dyso'dia.	A fetid smell of the body or breath.
	Catacau'sis.	A general inflammability.
	Cacoga'lia.	A vitiated secretion of milk. All of little importance.)

CLASS IV.

PARAMORPHIAE.

STRUCTURAL DISEASES.

ORDER I. *PARAPHYMATA.* LOCAL CHANGES.

Principally confined to a single part of the body.

37. Puthar'ma.	Morbid change of structure only of a living part. Depravation.
38. Rha'gas.	A simple spontaneous solution of continuity. Chop.
39? Curvatu'ra.	A change of a form only of a bone. Curvature.
40. Contractu'ra.	A permanent contraction of a soft part. Contraction.
41. Emphrag'ma.	A tumour produced by an obstruction. Stoppage.
42. Emphyse'ma.	A tumour containing air. Inflation.
43. Exange'ia.	An enlargement of a bloodvessel. Dilatation.
44. Hy'drops.	A tumour containing a watery fluid. Dropsy.
45. Emmyx'ium.	A tumour containing a mucilaginous substance. Mucous tumour.
46. Empime'lium.	A tumour containing a fatty substance. Fatty tumour.
47. Athero'ma.	A tumour containing a mealy substance. Pulpy tumour.
48. Ecphy'ma.	A solid tumour, not acutely painful. Solid tumour.
49. Carcino'ma.	An uneven tumour, with lancinating pains. Cancer.
50. Aposte'ma.	A collection of pus, in a confined cavity. Abscess.

51. Ul'cus. A suppurating sore. Ulcer.
52. Gangrae'na. The death of a part of the body. Gangrene.

ORDER II. *EPIPHYMATA*. ERUPTIONS.

Structural diseases frequently repeated, especially on the surface of the body: the whole system appearing to be affected.

53. Licheni'asis. Red acuminated pimples, not suppurating. Pimples.
54. Pruri'go. Pimples itching without inflammation. Itchings.
55. Lepido'sis. Scales or crusts. Scales.
56. Exanthis'ma. Red patches, not acuminated. Rash.
57. Pompholyg'mus. Serous vesicles. Blains.
58. Cystis'ma. Vesicles turning to scabs. Vesicles.
59. Phly'sis. Pustules, suppurating. Pustules.
60. Phymato'sis. Tubercles, scarcely suppurating. Tubercles.
61. Syph'ilis. Ulcers, nodes, and cutaneous eruptions, in succession. Lues.
62. Scrof'ula. Swellings of the glands or bones from a general disease. King's evil.
63. Scor'butus. Livid spots, spongy gums, and general debility. Scurvy.
64. Spilo'sis. Simple discolorations of the skin. Spots.

CLASS V.

ECTOPIAE.

DISPLACEMENTS.

Mechanical affections, independent of the vital powers.

65. LUXA'TIO. The derangement of a joint. Dislocation.
66. HER'NIA. The passage of a soft part through a neighbouring orifice. Rupture.
67. PROLAP'SUS. The passage of a soft part through its own orifice. Protrusion.
68. INTROSUSCEP'TIO. The engagement of one part of a cavity in another. Introsusception.
69. DISTEN'SIO. A violent tension of a soft part. Strain.
70. CONTU'SIO. A violence affecting the internal structure only. Contusion.
71. FRACTU'RA. The division of a bone by violence. Fracture.
72. LACERA'TIO. The division of an internal soft part by violence. Laceration.
73. VUL'NUS. A division of parts extending to the surface. Wound.
74. OBSTRUC'TIO. The mechanical obstruction of a passage. Obstruction.
75. VENENA'TIO. The presence of a poison in the alimentary canal. Poison.
76. PARASITIS'MUS. The presence of parasitical animals. Vermination.
77. DYSTO'CIA. Morbid pregnancy or childbearing. Obstetrical disease.
78. DYSODONTI'ASIS. Irritation from teething. Difficult dentition.
79. DEFOR'MITAS. Original malformation. Deformity.

GENERA AND SPECIES OF DISEASES.

CLASS I.

PARANEURISMI.

NERVOUS DISEASES.

Willis pathol. cerebr. Hofm. III. 194, 209. Junck. 45, 54, 114. Boerhaave de morbis nervorum. 12. 1761. Boerhaave aph. 1071, 1080. Cheyne on nervous disorders. 8. Lond. 1734. Whytt on nervous disorders. 8. Ed. 1765. Tissot Maladies des nerfs. 6 v. 8. Laus. Lond. med. journ. I. 32. Germ. by Ackermann. 3 v. 8. Leipz. 1790-3. S. Walker on nervous diseases. 8. Lond. 1796. *Armstrong*. Ed. med. journ. XI. 417; chronic diseases termed nervous: *Thomson*. XIV. 614; dissections in convulsive diseases. * *Cooke* on nervous diseases. 2 v. 8. Lond. 1820-1. Ed. med. journ. XVII. 285.

I. CARUS.

Apoplexy, or Entrancement.

A suspension of the powers of sense and motion, more or less perfect, with an appearance of sleep; the motion of the heart remaining uninterrupted.

(Apoplexia, Carus, Cataphora, Coma, Haemorrhagia cerebri, Catalepsis, Ecstasis, Typhomania, Lethargus.)

1. C. *lethar'gus.* Simple and habitual. Lethargy.
2. C. *hydroceph'alus.* Supervening by slow degrees, with frequent or continued sleepiness, and dilatation of the pupil. Water in the head.
3. C. *apoplex'ia.* Supervening suddenly, with stertorous breathing. Apoplexy.
4. C. *traumat'icus.* Supervening in consequence of an injury of the head. Injured brain.

5? C. *venena'tus.* Supervening from the effect of some noxious agent.

† Asthenia suffocatio, iii. Entonia catalepsia, x.

† Hysteriae, epilepsiae, pyrexiae, ischuriae, dyspepsiae, podagrae, scorbuti, parasitismi symptoma.

1. *Carus lethargus.* Galen loc. aff. IV. ii; on coma, cl. 3. Cael. Aur. II. ii. c. 3. Willis an. brut. Pathol. c. 3-5. Bellin. morb. cap. 455. Lancis. sub. mort. 100. Wepfer obs. 355. *Morgagni*, ep. 6. de affectibus soporosis. *Brady*, Med. obs. inq. I. 280; daily. *Smith* and others, Med. obs. inq. VI. 180; stupor. Med. comm. Ed. VI. 418? from *Boyer*; 5 days sleep. *Swieten*, 1010. Stoll. prael. 348. Baldinger kr. 206. Gallot, Journ. med. XLIV. Cheyne on apoplexy. *Cooke*, Ed. med. journ. VIII. 24; fatal torpor; no effusion; *Buchanan*; 276; an encysted tumour; symptoms like fever: *Arrot*, XI. 533; 7 days perfect sleep, and 30 more imperfect, after fever. *Brewster* Ed. tr. VIII. i. Ed. med. journ. XIII. 238; six weeks; afterwards destroyed herself.

(Ballonius, Forestus, Oliver, Ph. tr.)

A. Sleepines. Cataphora, *Sauvages*, I. 835.

B. With forgetfulness. Lethargus, *Sauvages*, I. 832. Rather a complication with Asthenia.

2. *Carus hydrocephalus.* Apoplexia hydrocephalica, Cull. syn. xlii. 3. Hippocr. on dis. Foes. II. 466. Bartholin. H. anat. I. 28. Mauriceau, II. 487. Tulp. 1. 24, 25. Duverney, Ac. Par. 1704. 8. Petit, Ac. Par. 1718. Ruysch obs. n. 52; thes. an. II. Stalpart, II. 14. Wepfer obs. 49... Whytt's works, 725. Ed. med. Ess. II. 18. *Mowat*, ed. med. ess. III. 332; *Paisley*, 333. Lecat on a trocart, Phil. trans. 1751. 267. *Morgagni*, ep. 12, de hydrocephalo et hydrorachitide. *Fothergill*, Med. obs. inq. IV. 40; *Watson*, 78, 321. Armstr. dis. ch. Hydrocephalus interior, *Sauvages*, II. 496; Asthenia ab hydrocephalo, I. 802. Gaudelius, Sandif. thes. II. Stoll. rat. med. VII. *D. Monro*, Med. tr. Lond. II. 325. *Percival*, Med. comm. Ed. V. 174; Simmons, 415; blisters; VI. 219;

Remmett, 440. Dunc. cas. 180. Quin de hydrocephalo interno. 8. Ed. 1779; Smellie Thes. IV. 135; Webster m. pr. III. 22; Dunc. med. comm. VII. 69; *Mackie*, 282; *Willan*, 322. *Odier*, M. Soc. R. méd. III. 195. Loftie, med. obs. inq. V. *Aery*, Lond. med. journ. I. 424; Dunc. med. comm. VIII. 332; mercury. *White*, Lond. med. journ. III. 402; blisters. *Eason*, Dunc. med. comm. VIII. 325; mercury. *Wier*, Lond. med. journ. IV. 78, 393. *Campbell*, Dunc. med. comm. IX. 240. *Michaelis*, Med. commun. I. 404; partial paralysis. *Dobson*, Med. obs. inq. VI. 48; *Dr. J. Hunter*, 52; *Haygarth*, 58. Dunc. med. comm. X. 149. *Evans*, 299; leeches and diaphoretics; *Dixon*, 312; brain become membranous; *Perkins*, XI. 298; fatal after salivation. Monro on dropsy. Withering on digitalis. *J. Moseley*, Lond. med. journ. VI. 113; mercury. *Hooper*, M. Med. soc. Lond. I. 165; *Lettsom*, 169. *Warren*, Lond. med. journ. IX. 122; *Ford*, XI. 56. *Gehagan*, Dunc. med. comm. XIII. 353; after pleurisy. Bucholz. Bald. N. M. I. 481. II. 130; Meier, IV. 1. Bald. N. M. VIII. 180. Rosenstein kinderkr. *Jameson*, M. Med. soc. Lond. III. 414. *Percival*, Med. facts. I. 111. *Cribb*, M. Med. soc. Lond. iv. 400. *Haxby*, Dunc. ann. 1799. 434; after an enlargement of a vertebra. *Baillie's* engr. 213. *A. Monro*, Paterson de hydrocephalo; Dunc. ann. 1803. 364. Phrenitis hydrocephalica. Kirby tabl. mat. med. If we retain the term febricula in Cullen's definition, as including the acute stage, this denomination is a very proper one. *Ed.* med. journ. II. 52; diagnosis from worms. *Gapper*, M. Med. soc. Lond. VI. 50; mercury. *Kuhn*, Ed. med. journ. III. 13. *Cheyne* on hydrocephalus acutus. 8. Ed. 1808; Dubl. 1815; Ed. med. journ. IV. 341. XI. 478. *W. Cooke*, Medicoch. tr. II. 17; with disease of the liver, and premature pubescence. *Male's* case. Ed. med. journ. IX. 398. Smyth on hydrencephalus. 8. Lond. 1814; Yeats on the disease termed water in the brain. 8. Lond. 1815; Ed. med. journ. XI. 478; Cheyne and Yeats refer to the abdomen as the primary cause. *Reid*, Ed. med. journ. XI. 453; case. *Baron*. Medicoch. tr. VIII. 51. burst. *Salter*, Ed. med. journ. XVI. 393. *Dickson* 412: *Freckleton*, XVII. 240; punctured through the medulla,

with a trocar, several times; but without success. *Lizars*, 243; more successful: 471; died afterwards. *Hood*, 510. See Hydrops capitis.

(Faloppius, Forestus, Freind, Ph. tr.)

3. *Carus apoplexia.* Hipp. on the glands; aph. iii. 16. vii. 51; on dis. iii. p. 488. Forestus, X. obs. 69-80. Ballonius, III. 120. Willis de an. br. Path. viii. Horst. II. 71. Gid. Harv. expect. c. 32. Bellini morb. cap. 437. Lancisi de sub. mort. 12. Rom. 1609. Hofmann. opp. Suppl. II. 2. Bagliv. pr. med. I. ix. Wepfer de apopl. 8. Leyd. 1734; W. obs. 642. Dover's legacy. Torti ther. sper. Haen. rat. med. IV. v. *Morgagni*, ep. 2, 60, de apoplexia; ep. 5, de apoplexia neque sanguinea, neque serosa; ep. 11, 14, 62, 63, 67. *Ayton Douglas*, Ed. med. ess. V. ii. 598; from a fall. Hillary Barbad. Lentin memor. Heberden. Med. trans. Lond. I. 472. Delamare, Journ. méd. XXXIII. Stoll prael. 340, 346; rat. med. I. III. VII. Monteggia fasciculus pathologicus; Roemer. Ruddiman Stewart de apoplexia, Webster. m. pr. II. 214. Portal, Ac. Par. 1781. *Fothergill*, Med. obs. inq. VI. 68. Dick, Dunc. med. comm. X. 8. Selle N. beitr. II. 34. III. 79. Weikard. verm. schr. II. 23. Chandler on apoplexies and palsies. 8. Cant. 1785. *Williams*, Med. facts. V. 96; in a pregnant woman. Bothke über schlagflüsse. 8. Leipz. 1797; a good repertory. *Baillie's* engr. 227; an appearance of membrane filled with serum, in an old case. Cheyne on apoplexy and lethargy. 8. Lond. 1812; Ed. med. journ. VIII. 355. *Baillie*, Med. trans. IV. 1, 9; uncommon symptoms and effects. *Clarke*, Med. tr. V. 109; oysters. *Abercrombie*, Ed. med. journ. XIV. 553.

(Chandler, Zuliani von Domeier, Kirkland, Le Cat, Ph. tr. Burserius.)

A. With a hard full pulse, and a flushed countenance. Apoplexia sanguinea, Cull. syn. xlii. 1; Apoplexia atrabiliaria, 4; the distinction "in corpore melancholico"

is not sufficient to characterize even a variety; Apoplexia mentalis, 7; distinguished only by the cause, which is here extraneous to the disease. Apoplexia sanguinea, Sennert. Duhamel, Ac. Par. 1688. H. Boerhaave, 1945; prael. inst. 401. *Morgagni*, ep. 2, 3, de apoplexia sanguinea; ep. 60. Preysinger. sp. 1. Apoplexia sanguinea, *Sauvages*, I. 845; Carus spontaneus? 838; Cataphora coma? 835.

B. With a feeble pulse, and a pale countenance. Apoplexia serosa, Cull. syn. xlii. 2. A difference of treatment is frequently required according to the distinction of these varieties: but it can seldom be ascertained, during life, whether there is a rupture of a vessel, and a consequent effusion of blood, or an oozing of serum into the ventricles, with a general disease of the coats of the arteries, except that in the latter case the symptoms are commonly more simply paralytic. Apoplexia pituitosa. Sennert. de apopl. Bonet. sep. obs. 18-52. Le Cat. Phil. trans. Preysinger. sp. 4. *Morgagni*, ep. 4, de apoplexia serosa; 60. Apoplexia pituitosa, *Suuvages*, I. 848; Carus ab hydrocephalo? 844. Lamotte tum. obs. 107; Cataphora hydrocephalica? I. 836. Schneider aff. sop. 54. Bonet. sep. Obs. 7. .13.

4. *Carus traumaticus*. Apoplexia traumatica, Cull. syn. xlii. 5. The cause would not afford a sufficient specific distinction, if the symptoms were not in general essentially different, tending to an inflammatory fever. Forest. X. obs. 73, 79. Wepf. apopl. 321, 331-3. Ed. med. ess. V. 52. Apoplexia traumatica, *Sauvages*, I. 846. *Robertson's* case of concussion. Ed. med. journ. IX. 402. *Thomson* X. 12.

5. *Carus venenatus*. Apoplexia venenata, Cull. syn. xlii. 6. Seems scarcely to differ from C. apoplexia B, unless when it comes under the denomination Venenatio, or Asthenia. The case most directly in point is the Carus ab insolatione, *Sauvages*, I. 142. But on the whole there seems not to be any sufficient reason for making this a distinct species.

II. PARALYSIS.

Palsy.

An incapacity of sense or of motion when the person is awake.

1. P. *hemiplégia.* Affecting one side of the body.
2. P. *paraplégia.* Affecting the lower half of the body on both sides.
3. P. *particuláris.* Affecting less than half of the body.

† Febris, dyspepsiae, abscessus, cariei, plicae, scrofulae, syphilidis, scorbuti, luxationis, venenationis, vulneris symptoma.

Paralysis. Galen on swellings xi. Forest. X. obs. 84, 85, 90, 91. Horst. II. 109. Ballon. cons. III. 523. Willis an. brut. Path. ix. *Morgagni*, ep. 11, 62. de paralysi. Monro arm. dis. Death of Richmann. Phil. trans. 1755. 61. *Hart*, Phil. trans. 1756. 558; electricity. *Russel*, Med. obs. inq. I. 296. Brydone, Phil. trans. 1757-8.; *Himsel*, 1759. 179; electricity. *Heustet*, M. Ac. chir. IV. 141. *Fowler*, Med. comm. Ed. VI. 194. Stoll. prael. 369; rat. med. II. 92. Baldinger kr. arm. 256. Home's clin. exp. Haen rat. med. I. 105, 107. II. 219. III. 125, 216, 225. Theden N. bem. II. 67. Wardrobe de paralysi; Webster m. pr. II. 185. Chandler on apopl. *Vaughan*, M. med. soc. Lond. I. 360; cantharides. *Falconer*, M. med. soc. Lond. II. 201. *Gilby*, Med. facts. II. 102; electricity. *Ross*, Dunc. ann. 1800. 381; electricity. *Baillie's* engr. 219? tumours on the dura mater; 207? tumour, like ivory, within the cranium and orbit. *Odier* on Saussure's case, Ed. med. journ. II. 393. *Vieusseux*, Medicoch. tr. II. 215. *Wilson*, Tr. Soc. med. ch. kn. III. 115; from exostoses. *Mellor* Ed. med. journ. VII. 148; superseded by hepatitis and gout. *Wardrop* VIII. 197; titillation. *Powell*, Med. tr. V. 96; from cold. *Abercrombie*, Ed. med. journ. XV. 1.

1. *Paralysis hemiplegia.* Paralysis hemiplegica, Cull. syn. xliii. 2. Apoplexia, Hippocr. prorrh. I. 50. Bonet. sep. Schenk. obs. Hemiplegia, *Sauvages*, I. 791. Med. obs. inq. IV. 110. *Yelloly*, Medicoch. tr. I. 181; from a tumour in the brain. *Morrah*, Medicoch. tr. II. 215; a hydatid in the brain; a case attended by Y. *Hartte*, Ed. med. journ. X. 412; lytta; *Black* and *Marcet*, Medicoch. tr. VII. 228; abstinence; Ferguson's case. See Clonus epilepsia, Cauma phrenitis.

2. *Paralysis paraplegia.* Paralysis paraplegica, Cull. syn. xliii. 3. *Drummond*, Ed. med. ess. I. 327. Paraplexia, *Sauvages*, I. 797. Knox. Med. obs. inq. III. 160. *Hall*, med. comm. Ed. VI. 71; a vertebra starting by degrees. *Pott* on palsy from curvature. 8. Lond. 1779-82. Lond. med. journ. III. 225. Jebb's cases of paraplegia. 8. Lond. 1782. Kite, Lond. med. journ. III. 405; issue; from a blow. *Bostock* Medicoch. tr. IX. 1; loss of motion only; from a fall. *Baillie*, Med. tr. VI. 16. *Gairdour*. Ed. med. journ. XVII. 222; friction; after an accident. *Peake*. 380.

3. *Paralysis particularis. Odier*. Medicoch. tr. VII. 211; De Saussure's case.

A. Want of sensation.

1. Of the olfactory nerve. Anosmia atonica. Cull. syn. xcviii. 2. *Morgagni*, ep. 9. art. 25. Anosmia, *Sauvages*, 1. 750.

2. Of the retina. Gutta serena. Amaurosis, Cull. Syn. xciii; A. compressionis, 1; A. atonica, 2; A. spasmodica, 3; A. venenata, 4. Hippocr. on dis. 461. Vesal. corp. fabr. IV. c. 4. Fernel. cons. xi. Forest, X. n. 89. Horst. opp. II. 443, 447. Ballon. opp. III. 525. Sennert. par. ad l. 5. c. 2. Bartholin. ep. 3. 275; hist. IV. n. 32. Schenk. obs. I. 306. Bonet. sep. I. xviii. obs. 8...29 Tulp. I. c. 31. Ramazzin. morb. art. xiii. Hofm. med. rat. syst.

II. 116, 229. Bagliv. opp. 215. Wepfer obs. 867. Raii hist. pl. XIII. xxiii. Stalp. I. obs. 31. II. obs. 14. Ross de amaurosi. 8. Ed. 1754; Smellie Thes. II. 253. Brendel opp. III. 33. St. Yves mal. des yeux, II. 27. Haen rat. med. IV. 262. VI. 255, 264, 271. *Morgagni*, ep. 9. art. 20. ep. 13, de oculorum affectibus; ep. 52; ep. 63. de caecitate. Haller opusc. path. obs. 65; opp. min. III. 366; El. phys. IV. 297. Trécourt, M. Ac. chir.; La Peyronie, I. 212. Zinn ocul. XI. vi. Journ. méd. X; Janon, XX. 442; Becherel, XLIII. Lentin Oberh. I. 17, 67, 68. Stark clin. inst. Bromfeild's cases, I. 34. Marat on a disease of the eyes. Stoll prael. I. 384; rat. med. V. 436. VI. 386. Baldinger, N. mag. XI. 78; Grosman, 322; Justi, 446. *Hey*, Med. obs. inq. V. 1, 29; electricity. Ed. med comm. V. 165. Vogel prael. acad. Webster m. pr. III. 222. Trnka historia amauroseos. 8. Vienn. 1781. Richter. N. comm. Gott. IV. 81-3; chir. bibl. IV. 121, 627. Mursinna beob. I. n. 6. Theden. unterr. II. 199. Selle N. beitr. III. 111. Cheston's observations. *Partington*, Lond. med. journ. IX. 389. *Ware*, M. Med. soc. Lond. III. 309; electricity, hydrargyrus vitriolatus. *Blagden*, Med. facts. IV. 126; hydr. vitr. gr. v. pulv. as. comp. xxxv. *Ware* on cataract. *Gerard*, M. Med. soc. Lond. IV. 348; capsic. gr. j, aq. unc. j. used several times a day, cured in three weeks. *Estlin*, Ed. med. journ. XI. 410; active treatment.

(Briggs, Ph. tr. Vater, Ph. tr.)

3. Of the gustatory nerves. Ageustia atonica, Cull. syn. xcix. 2. Ageustia, *Sauvages*, I. 751.

4. Of the auditory nerves. Dysecoea atonica. Cull, syn. xcvi. 2. Cophosis, *Sauvages*, I. 757. Trnka historia cophoseos. 8. Vienn. 1778. Sandifort obs. anat. path. I.

5. Of the nerves of touch. Anaesthesia, Cull. syn. c. Fernel. Cons. II. Stalpart. II. obs. 43. *Sauvages*, I. 763.

† Dysaesthesia, iv.

B. Want of motion. Paralysis partialis, Cull. syn. xliii. 1. Paralysis, Junck. 115; *Sauvages*, I. 789. Benevuti, Phil. trans. 1768. 189; a large head.

1. From the effects of lead; generally, but not always, with colic. Paralysis venenata, Cull. syn. xliii. 4. Paralysis rachialgica. *Sauvages*. I. 789; Hemiplegia saturnina. Brendel, 797. Kühn über bleykolik. 8. Leipz. 1784; including Tronchin, Strack, Huxham, and Grashuys. *Whitehurst*, Lond. med. journ. V. 77; electricity. See colica.

2. Of the eyelid. *Percival*, Medicoch. tr. IV. 17; with one side of the face.

3. Of the muscles of deglutition. Dysphagia, Cull. syn. cxv, sometimes. Dysphagia paralytica, Forest. Hofm. Swiet. *Sauvages*, II. 79. J. Hunter, Tr. soc. med. ch. kn. I. 182.

4. Of the organs of speech. Aphonia, *Sauvages*, I. 779; Mutitas, 775. *Jones*, Ed. med. journ. V. 281. See asthenia.

5. Of the bladder. Pringle, Ed. med. ess. II. 365.

C. Want of tonic contraction. Enuresis, Cull. syn. cxxi, sometimes. Enuresis paralyticorum, Juncker, *Sauvages*, II. 386. See Hyperuresis, xxviii.

III. ASTHENIA.

Weakness.

A defect of motion, from a debility of the nerves or muscles.

1. A. *trémor.* Producing an obvious trembling.
2. A. *vócis.* A weakness or imperfection of the voice as formed in the larynx.
3. A. *loquélae.* A defect of articulation.
4. A. *deglutitiónis.* A difficulty of swallowing.

[5.] A. *erethis'tica.* With depression, anxiety, sighing and trembling.

5. A. *pectorális.* A difficulty of respiration and motion, supervening suddenly during exercise, with anxiety and pain.
6. A. *syn'cope.* Temporary debility of the heart, causing a cessation of pulsation, and a suspension of the faculties, without total insensibility. Fainting.
7. A. *suffocátio.* Cessation of pulsation and of sensibility. Suffocation.
8. A. *aphrodisíasca.* Impotence.
9. A. *beribéria.* With a sensation of tingling, stiffness of the knees, hoarseness, and often anasarcous swellings.
10. A. *totális.* Universal debility of all the functions.

† Clonus chorea, ix, Dyspepsia anorexia, adipsia, xxxi.

† (Hydrocephali, 1, paralysis, 2, hydrophobiae, 6, vomitus, 7, tussis, 8, cloni, 9, maniae, 11, rheumatismi, 15, dyspepsiae, 31, podagrae, 32, exangeiae, 43, ecphymatis, 48, carcinomatis, 49, scorbuti, 63, vulneris, 73, obstructionis, 74, venenationis, 75, symptoma.)

Asthenia. Tissot on nervous diseases. II.III. Blacia Ploucq. syst. nos. Hall on a morbid affection. 8. Lond. 1820; Ed. med. journ. XVII. 300?

1. *Asthenia tremor.* Tremor semper symptomaticus, vel astheniae, vel paralysios, vel convulsionis, Cull. syn. de paral. xliii; but unfortunately Cullen has forgotten to place asthenia among his genera. Fernel. consil. xvi. Forest, X. obs. 99. Bartholin. hist. an. v. n. 58. Tulp. I. xii. Bellin. morb. cap. 562. Wepf. obs. 473. Ed. med. ess. II. xix. IV. xxv. Tremor, *Sauvages*, I. 557. Haen rat. med. III. 202. IV. 241; from mercury. Lettsom on tea.

2. *Asthenia vocis.* Galen. loc. aff. I. vi. IV. vi. Tulp. I. c. 39. 40. Huxham, Phil. trans. 1758. 743; speech recovered after 14 months by dancing. The same happened to a patient of mine, a daughter of the Hon. Col. L. Y. *Morgagni*, ep. 14, de balbutie. Aphonia, *Sauvages*, I. 779. Baldinger, N. mag. X. 41. *Jones*, Ed. med. journ. V. 281; purgatives: *Scudamore*, XI. 304, from measles. See paralysis, Clonus hysteria.

A. Hoarseness. Paraphonia rauca, Cull. syn. cxii. 2. Forest, X. n. 134. XV. 32. Horst. II. 147. Ballon. II. III. Stalpart. I. 27. Finck gallenkr. 236. Starke clin. inst. p. 180.

B. A shrill voice. Paraphonia clangens, Cull. syn. cxii. 3. Paraphonia sibilans, *Sauvages*, I. 788.

† Aphonia gutturalis, Cull. syn. cx. 1. catarrhi; A. trachealis, 2, paraphymatis; atonica, 3, vulneris; Paraphonia comatosa, cxii. 8, apoplexiae symptoma; puberum, 1, a natural occurrence.

3. *Asthenia loquelae.* Thelwal on imperfections of faculties and speech. Lond. 1810; Ed. med. journ. VI. 489.

A. General want of articulation. Forest, X. XIV. Plater obs. I. 136. Schenk, I. 45. Watson, Phil. trans. Stoll, prael. I. 378; rat. med. IV. 435. Selle N. beitr. III. 109. Mutitas spasmodica, *Sauvages*, I. 777; *Smyth* and *Wells*,

Med. commun. II. 488, 501; electricity. *Perfect*, M. Med. soc. Lond. IV. 426, electricity. Leveling Ersetzung mehrerer zur sprache nothwendiger werkzeuge. 8. Heid. 1793.

† Mutitas organica, Cull. syn. cxi. 1; atonica, 2, vulneris; surdorum, 3, dysaesthesiae symptoma.

B. A nasal sound. Paraphonia resonans, Cull. syn. cxii. 3; probably always occasioned by some diseased structure. Paraphonia nasalis, *Sauvages*, I. 786.

C. Hesitation. Psellismus haesitans, Cull. syn. cxiii. 1. Psellismus ischnophonia, *Sauvages*, I. 781.

D. A fault of enunciation. Psellismi, Cull. syn. *Sauvages*, I. 780.

1. "Vibration of the R." Psellismus ringens, Cull. syn. cxiii. 2.
2. "Making L liquid, or substituting it for R." Psellismus lallans, Cull. syn. cxiii. 3.
3. "Softening the harder letters, and introducing D too often." Psellismus emolliens, Cull. syn. cxiii. 4.
4. Introducing "too many labials." Psellismus balbutiens, Cull. syn. cxiii. 5.
5. "Omission of labials." Psellismus acheilos, Cull. syn. cxiii. 6.
6. Lisping. Thetismus.
7. Making S guttural. Chiasmus.

† Psellismus lagostomatum, Cull. syn. cxiii. 7; Paraphonia palatina, cxii. 4, deformitatis symptoma.

4. *Asthenia deglutitionis*. Dysphagia, Cull. syn. cxv. Hipp. aph. III. n. 26. Prorrhet. I. Galen, loc. aff. IV. iii. Paul. Aeg. III. c. 27. Plater obs. I. 222...Tulp. I. 42. Hofmann, I. 130, Dysphagia spasmodica. Stalpart, II. 27.

Ferrein, Ac. Par. Montal, Ac. Par. Ed. med. ess. I. xxviii. Odier, Ed. med. ess. III. 207; *Jamieson*, 353; a steatoma found on dissection. *Morgagni.* ep. 28, de laesa deglutitione. Dysphagia, *Sauvages*, II. 78. Gooch's cases. Stoll rat. med. V. 437. Dunc. med. comm. VII. 91. Balding. N. mag. III. 242. VI. 535. VIII. 175. IX. 515. *Sequeira*, Med. obs. inq. VI. 138; mercurial friction. See paralysis particularis.

[5.] *Asthenia erethistica.* Produced by mercury, and accompanied by a quick and often by an intermitting pulse. Erethismus. Pearson Princ. surg. i. Obs. on lues. 156. *Percival* Ed. med. journal IX 62; from silvering mirrors: *Bateman's* reply, 180. *Astbury:* XIV. 601; from debility of the heart.

5. *Asthenia pectoralis.* Probably Angina pectoris, Cull. syn. catal. "morborum omissorum quos omisisse fortassis non oportebat." Respirandi difficultas quae per intervalla deambulantibus incidit,—" hi utplurimum derepente moriuntur," Poterii opp. cent. n. 22; a passage pointed out by a measurement note of Dr. Letherland. *Percival?* Med. comm. Ed. III. 180. *Fothergill*, Med. obs. inq. V. 233, 252; fat and ossification. *Macbride*, Med. comm. Ed. V. 97; Med. obs. inq. VI. 9; antimonials, issues. *Hamilton*, Dunc. med. comm. IX. 307; hereditary. *Macqueen*, Lond. med. journ. V. 162. *Heberden*, Med. trans. Lond. II. 59. Case, III. 1; small specks of ossification; *Wall*, 12; some ossification; *Haygarth*, 37; mediastinum. *Hooper*, M. Med. soc. Lond. I. 238. *E. Johnstone*, 306; *J. Johnstone*, 376; heart putrid, without ossification. *Alexander*, Dunc. med. comm. XV. 373; arsenic. *Perkins*, M. Med. soc. Lond. III. 580; white vitriol; *Black*, IV. 261; coronary arteries ossified. *Parry* on angina pectoris. 8. Bath, 1799; Dunc. ann. 1800. 53; calls it syncope cardiaca anginosa, and defines it from a disease of the heart; which however cannot be ascertained during life. *Cappe*, Med. phys. journ. IV. Dunc. ann. 1800, 91; argenti nitras. *Albers*, Dunc. ann. 1801. 382. *Black*, M. Med. soc. Lond. VI. 41. Hume on angina pectoris. Dubl. 1804. *Blackall* on dropsies. Appendix. *Latham*, Med. trans. IV. 278. *Black*, Medicoch. tr. VII. 70.

6. *Asthenia syncope.* Syncope occasionalis, Cull. syn. xliv. 2. Galen loc. aff. V. 6. Vesal. fabr. I. v. Forest. XVII. n. 7, 10, 12. Horst. II. 143. 533. Ballon. cons. I. 9. III. 32. Schenk. II. n. 90, 195, 241, 242, 246. Bonet. sep. II. ix. 10, 14, 15, 32, 42. Rammazzin,epid. 1692. s. 23. Bellin. morb. pect. 631. Lancis. subit. morb. 136. Senac du coeur 540. Bagliv. pr. med. I. ix. Haen rat. med. XII. 32, 42. *Morgagni*, ep. 24, de pulsibus praeter naturam; ep. 25, de lipothymia et syncope; 26, 27, de morte repentina ex vitio vasorum sanguiferorum et ex vitio cordis. *Nicholls*, Phil. trans. 1761. 265; death of Geo. II, from a laceration. *Sauvages*, Lipothymia. 1. 808; Syncope. 809. *Thomson*, Med. obs. inq. IV. 330; effusion into the pericardium. *Doubleday*, Med. obs. inq. V. 144; vena cava ruptured. Hare de syncope. 8. Ed. 1782; Smellie Thes. IV. 279. *Wright*, Med. obs. inq. VI. 1; effusion into the pericardium. Portal, Ac. Par. Lond. med. journ. IX. 156; rupture of the heart. Stoll. rat. med. I. 252. VI. 292. *Lynn*. Med. records. 71; aorta ruptured in labour, after having been ulcerated; the patient survived 14 days. *Chevalier* on asphyxia idiopathica. Medicoch. tr. I. 157; from relaxation of the heart: *Price*, XI. 274; hydatid in the heart.

† Syncope cardiaca. Cull. xliv. 1, palmi symptoma; or a complication with palmus. *Spens*, Ed. med. journ. XII. 192; from a depravation of the heart.

7. *Asthenia suffocatio.* Apoplexia suffocata, Cull. xlii. 9. Oribas. VIII. 57. Forest, XV. n. 25, 26, chir. VI. n. 33. Plater. obs. I. n. 19. 181. Barthol. hist. an. VI. 68. Apoplexia cerebelli, Willis. Brendel opp. III. 283. *Tossack*, Ed. med. ess. V. ii. 605; recovered by simple inflation with the mouth. Hofmann suppl. I. ii. Wepfer obs. 360. Fothergill, Phil. trans. *Nollet*, Phil. trans. 1751. 48; grotta dei cani. Haen rat. med. XV. 44, 161. Cont. I. ii. 54... *Morgagni*, ep. 19, de suffocatione; ep. 64. art. 4... *Frewen*, Phil. trans. 1762. 454; smoke. Asphyxia, *Sauvages*, I. 815. *Cullen* on the recovery of persons drowned, Med. comm. Ed. III. 243. *J. Hunter*, Phil. trans. 1776. 412. *Bucquet*, M. Soc.

R. méd. I. 177. *Guthrie*, Phil. trans. 1779. 325; Fontana, 337. Nachtigall, Dunc. med. comm. VIII. 94. Testa degli annegati. 8. Flor. 1780; Lond. med. journ. II. 288. Macdonnell de submersis. 8. Ed. 1784; Smellie Thes. IV. 543. Portal sur les vapeurs méphitiques. *Kite* on the recovery of the apparently dead. 8. Lond. Dunc. med. comm. XIV. 107; *Directions* of the Humane society, 413. *Kite*, M. Med. soc. Lond. III. 215. *Goodwyn's* experimental inquiry. Metzger in Goodwynum. *Coleman* on suspended respiration. 8. Lond. Dunc. med. com. XVI. 168. Balding. N. mag. I. 167. Prévinaire. Germ. by Schreger. 8. Leipz. 1790. Vogel de submersis. 8. Hamb. 1790. *Hnbbard*, M. Med. soc. Lond. IV. 423; from lightning, cured after an hour by nettles. Van Marum Rettungsmittel der ertrunkenen, von Hebenstreit. 8. Leipz. 1796. Zarda Rettungsmittel fur todtscheinende. 12. Prag. 1796. Struve Taschenbuch; Kunst scheintodte zu beleben. 8. Hanov. 1797; On suspended animation. 12. 1804. Wiedemann Anweisung zur rettung der ertrunkenen. 8. Brunsw. 1797. Transactions of the Humane society. *Babington*, Medicoch. tr. I. 83; from charcoal; bleeding was injurious. *King*, Ed. med. journ. VII. 180; coal fire. *Romer* signum mortis pathognomonicum, Med. tr. V. 479; an animal action taking place after death, and not before death. *Braid*, Ed. med. journ. XIII. 353; in a mine: *Terry* XIV. 183; still born infants, inflation continued for an hour or two: *Tomkins*, XVI. 223; an hour and a half.

(Gunther, Baldingers mag. Collenbusch, Lancisi, Barnave, Hensler und Scherf, Johnson, Rüdiger, Toll, Hofmann.)

8. *Asthenia aphrodisiaca.* Anaphrodisia, Cull. syn. cix.; Sterilitas utriusque sexus, cat. morb. omiss. Anaphrodisia, *Sauvages*, I. 770, 771.

A. Agonia. Aëtius, III. iii. 35. IV. iv. 26. Forest. X. 93. XXVI. 16..19. Plater. obs. I. 252; pr. med. I. ii. 17. Montaigne ess. I. 20. Ballon. I. 120. II. 26. III. 6, 20, 21, 28. Bartholin. hist. anat. III. 71. Schenk. obs. IV. 21, 50. Bonet. sep. III. xxxiv. 5. Stalpart. II. 48; from opium. Albin. annot. acad. II. 18. Gaub. path. S. 320. Ed. ess. I. 35; Forest. XXVI. 16; Schenk. IV. 41, 44; belonging rather to erethismus. Lapeyronie, M. Ac. chir. I; Petit, 434. *Morgagni*, ep. 44. art. 7, 10; ep. 46, de veneris impedimentis, et sterilitate in utroque sexu. Stoll prael. I. 122. Balding. N. mag. X. 315. Fordyce ven. dis.

1. Anaphrodisia paralytica, Cull. syn. cix; *Sauvages*, I. 770.

2. Dysspermatismus, Cull. syn. cxxv; *Sauvages*, II. 404. The species, urethralis, nodosus, praeputialis, mucosus, hypertonicus, epilepticus, refluus, are more properly classed according to the nature of the obstacle: D. apractodes, Cull. 7. Sauv. 410, belongs properly here.

B. Aphoria. Oribas. syn. IX. 45, 55. Aët. IV. iv. 16, 26..56, 78. Fernel. cons. L. Forest. XXVIII. n. 57. Plater. I. 259. Horst. II. 535. Bartholin. ep. III. 257; hist. an. II. 31. III. 102. Schenk. obs. IV. 302..5. Bonet. sep. III. xxxii. add. obs. 2. Mauriceau, I. 538. II. 318, 345, 366, 484. Ruysch obs. 6, 83. *Cockburn*, Ed. med. ess. II. 339; a symptom of varix; III. xix. Ed. ess. phys. and lit. II. xviii. Roonhuysen heylc. II. 3, 121. 4, 129. *Morgagni*, ep. 26. art. 13; ep. 43. art. 14; ep. 45. art. 4; ep. 46; ep. 47. art. 19..28; ep. 67, de morbis partium genitalium utriusque sexus, et praesertim muliebris; ep. 69. art. 16. Louis, M. Ac. chir. II. 9; Pecquet, 40; Levret, III. n. 26. Journ. med. XX. 246; Anselin, XXV. 458; Martini, XXXVI. 180; Figuet, XLI. 40; Giroud, XLII; Milleret, XLIX; Herbiniaux, LVIII. 481. Len-

tin. mem. Bromfeild surg. obs. Fitzpatrick, Dunc. med. comm. IX. 41. Sandifort obs. path.; Richt. chir. bibl. V. Theden. N. bem. II. 265. Wrisberg de uteri resectione. Gott. 1787. *Langstaff*, Medicoch. M. VIII. 505; sometimes caused by adhesions confining the Faloppian tubes.

9. *Asthenia beriberia.* Beriberia, Cull. syn. cat. morb. omiss. Bontius med. Ind. I. ii; had the disorder. Tulp. obs. IV. 5. Manget. bibl. pract. Beriberia, *Sauvages*, I. 592. *W. Hunter* dis. of Ind. seam.

10. *Asthenia totalis. Halford*, Med. trans. IV. 316; dimacteric disease?

A. Lassitude. Hippocr. on diet, II. Galen on pres. health, III, IV. Lassitudo, *Sauvages*, II. 39.

B. Fasting. Atrophia famelicorum. Cull. syn. lxx. 2. *Fairfax*, Birch Hist. R. S. II. 386. Ac. Par. 1712, 1713, 1719, 1739. *Steill*, Ed. med. ess. V. ii. 477; 50 years; a motion annually for 16. Phil. trans. 1756. 796; at Bergamoletto, two women fed for 36 days on the milk of a goat *Morgagni*, ch. 28, de morte ex inedia. Asthenia abstinentium, *Sauvages*, I. 805. *Millar*, Dunc. med. comm. XIV. 360; 18 days. *Walker*, M. Med. soc. Lond. II. 43; atrophia lactentium. *Willan*, Med. commun. II. 113; 60 days on water with a little orange juice. Mackay's narrative of the shipwreck of the Juno. 8. Lond. 1798; 23 days. Okes's case of cold and fasting. Cambr; Dunc. ann. 1799. 501. *Rankine*, Dunc. ann. 1803. 492; 18 days. *Grainger*, Ed. med. journ. V. 319.; IX. 323; detected; at Tutbury; *Henderson*, IX. 74.

C. From cold. *Currie*, Phil. trans. 1792. 199. *Kellie*, Ed. med. journ. I. 302.

D. Wasting. Generally a symptom of hectica. Atrophia cachochymica. Cull. syn. lxx. 3, debilium, 4. Galen on marasmus. Fern. cons. xix. Forest, IV. 10. Ballon. cons. I. 2. Sennert. paral. V. 4. Bonet. sep. II. vii. 130. Willis, ph. rat. II. i. 5. Morton phthis. ii. Hofm. Suppl. II. ii. *Morgagni*, ep. 49. art. 19. Raulin obs. 49. Whytt's works. Atrophia. *Sauvages*, II. 460. Stoll prael. II. 111. Justi, Balding. N. mag. XI. 446.

† Atrophia inanitorum, Cull. syn. lxx. 1, is generally a symptom of some other disease, except the Tabes or Atrophia nutricum, Sauv. II. 448, 461. Morton phthis. 14. Ackermann. Bald. N. mag. VI. 389. Walker, M. Med. soc. Lond. II.

† Hydrops cacotrophicus, xliv.

IV. DYSAESTHESIA.

Hebetude.

A defect of sensation, from an unknown or obscure disease of the organ, the nerve retaining its sensibility.

Where the intimate nature of the disease is known, it must be classed without regard to its effect on the sense, which then becomes a symptom only.

1. D. *contrectatória.* Defect of touch.
2. D. *gustatória.* Defect of taste.
3. D. *olfactória.* Defect of smell.
4. D. *auditória.* Defect of hearing.
5. D. *visuális.* Defect of sight.
6? D. *inter'na.* Want of memory, or confusion of intellect.

† Astheniae, 3, antalgiae, 5, maniae, 11, aneti, 19, dyspepsiae, 31, deformitatis, 79, symptoma.

1. *Dysaesthesia contrectatoria.* Anaesthesia, Cull. syn. c. Forest, XII. n. 98. Horst. opp. II. 42. Sennert febr. IV. xvi. Stalpart. II. n. 43. Ac. Par. 1710. 81. Duhamel, Ac. Par. 1748. Anaesthesia plethorica, *Sauvages*, I. 763; Stupor, II. 41. *Yelloly*, Medicoch. tr. III. 90. See paralysis particularis, A. 5. Often connected with formication, or tingling.

2. *Dysaesthesia gustatoria.* Ageustia atonica, Cull. syn. xcix. 2 Horst. opp. II. 123. See paralysis particularis.

† Ageustia organica, Cull. syn. xcix. 1, pyrexiae, dyspepsiae symptoma.

3. *Dysaesthesia olfactoria.* Anosmia atonica. Cull. syn. xcviii. 2. Bartholin. hist. an. IV. n. 91. *Morgagni*, ep. 14, de narium affectibus. Anosmia, *Sauvages*, I. 750. Lentin obs. I. n. 8.

† Anosmia organica, Cull. syn. xcviii. 1, pyrexiae, epischesis, ecphymatis, ulceris, syphilidis, parasitismi, symptoma.

4. *Dysaesthesia auditoria.* Horst. opp. III. n. 40. Ballon, cons. 13. Bartholin. hist. anat. VI. n. 36. Wepfer. obs. 901. Guyot, Ac. Par. 1724. Lechevin, Ac. Par. Prix. IX. Morant, Phil. trans. *Wathen*, Phil. trans. 1755. 213; injecting the tube. *Morgagni*, ep. 6. art. 4; ep. 14, de aurium affectibus. Stoll rat. med. II. 327. Mursinna beob. Haygarth, Med. obs. inq. IV. 198; cerumen, properly a cacochymia. *Gordon*, Med. comm. Ed. III. 80; from bathing, cured by salivation. Webster m. pr. III. 225. *Sims*, M. Med. soc. Lond. I. 94; from the tube. *Blizard*, Lond. med. journ. XI. 31; electricity. *Haighton*, M. Med. soc. Lond. III. 1; perhaps a deformitas; *Zencker*, 549; perforating the mastoid process. Arneman über die durch bohrung des processus mastoideus. 8. Gott. 1792. Lentin, comm. Gott.; "highly important" Rothe. Kritter de auditu difficili. 8. Gott. 1793. *Roult*, M. Med. Soc. Lond. IV. 398. *A. Cooper*, Phil. trans. 1800. 151. 1801. 435; perforation of the membrane; is said

not to have been permanently beneficial. Maunoir and Celliez, Corvisart. IX; Ed. med. journ. I. 382; on perforation. Volta, Brugn. ann. chim.: Ed. med. journ. II. 422; on galvanism. Ed. med. jonrn. VI. 381; on perforation; Epist. ad. Haller. quoted. *Earle* Medicoch. tr. X. 410; affections of the meatus. See paralysis particularis, obstructio auditoria.

A. Simple difficulty of hearing. Dysecoea atonica. Cull. syn. xcvi. 2. Dysecoea organica c, d, f, g, h, xcvi. 1; the other varieties are symptomatic; Paracusis imperfecta d, xcvii. 1; assisted by a noise, as that of a drum. *Morgagni*, ep. 7. art. 19. Dysecoea, *Sauvages*, I. 751.

B. Perversion of hearing. Paracusis imperfecta a, b, c, Cull. syn. xcvii. 1. Paracusis, *Sauvages*, I. 755.

C. Hearing without sound. Paracusis imaginaria, Cull. syn. xcvii. 2; a, syrigmus, ringing; b, susurrus, whizzing; c, bombus, beating. Syrigmus, *Sauvages*, II. 193.

5. *Dysaesthesia visualis.* Forest. XI. n. 24, 25. *Morgagni*, ep. 13, de oculorum affectibus. Stack. Ir. trans. II. 27. Percival, M. Med. soc. Lond. II. 62; "dislike of square objects." Fest Winke zur behandlung schwacher augen. 8. Leipz. 1793. Pflichten gegen die augen, von Adams, Büsch, Lichtenberg, und Sömmering. 8. Frankf. 1797. See general works, Paralysis.

A. Requiring a strong light. Dysopia tenebrarum, Cull. syn. xciv. 1. Amblyopia crepuscularis, *Sauvages*, I. 732; "Graecis hemeralopia, neotericis nyctalopia." *Heberden*, Med. trans. Lond. I. 60; "night blindness, or nyctalopia." Stark. clin. hist. 136; worms. Guthrie, M. Med. soc. Lond. IV. 368; Dunc. med. comm. XIX. 294; hen blindness. *Forbes*, Ed. med. journ. VII. 417; tropical. *Heberden*, Med. trans. IV. 56; with a red suffusion. Bampfield, Medicoch. tr. V. 32.

B. Requiring a weak light. Dysopia luminis, Cull. syn. xciv. 2. Forest. XI. n. 38. Horst. opp. II. 100. Hillary Barb. 353. Briggs, Phil. trans. Amblyopia meridiana, *Sauvages*, I. 734; " nyctalopia. Hipp. prorrh. II." Webster, Lond. med. journ. VIII. 306. Guthrie, M. Med. soc. Lond. *Isbell*, on a periodical day blindness. Ed. med. journ. IX. 269.

1. From excess of sensibility, photodysphoria. Forest, XI. 27, 28, 46. Ed. med. ess. V. ii. n. 2. Haen. rat. med. XIV. 70. Justi, Balding. N. mag. XI. 446. Stevenson on the morbid sensibility of the eye. Lond. 1810; Ed. med. journ. VIII. 362.

2. From a partial opacity, requiring a large aperture of the pupil.

C. Shortsightedness. Dysopia dissitorum, Cull. syn. xciv. 3. Forest XI. n. 37. Amblyopia dissitorum, *Sauvages*, I. 735; myopia.

D. Longsightedness. Dysopia proximorum, Cull. syn. xciv. 4. Forest. XI. n. 36. Amblyopia proximorum, *Sauvages*, I. 740; presbyopia.

E. Immutability of sight. Young, Phil. trans. 1793. 169. 1801. 23; Nat. phil. *Wells*, Phil. trans. 1811. 378; from belladonna.

F. Lateral vision. Dysopia lateralis, Cull. syn. xciv. 5. Amblyopia luscorum, *Sauvages*, I. 742. Richter wund. III. 430.

1. The direct light being intercepted by a concealed diseased structure.

2. Some parts of the retina having their sensibility weakened. Pseudoblepsis mutans c, Cull. syn. xcv. 2.

Suffusio dimidians. *Sauvages*, II. 190. I have twice felt a transitory affection of this kind, with a sensation of twinkling, once connected with a slight vertigo, and once, after an interval of some years, without vertigo. Y. It recurred a third time after several years more; it always affected both eyes equally, and was therefore probably derived from a cause behind the junction of the nerves.

G. A false perception, of either eye. Suffusio. *Sauvages*, II. 174.

1. Spots. Pseudoblepsis imaginaria a, Cull. syn. xcv. 1. Suffusio myodes, *Sauvages*, II. 176. Muscae volitantes. *Ware*, Medicoch. tr. V. 255. These appearances are sometimes, if not always, occasioned by an opacity of some of the vessels of the vitreous humour, near the retina. They are seen in a full light, and cannot therefore, as Sanvages has justly remarked, be caused by any thing in the anterior part of the eye, and they may often be observed to change their form with the motions of the eye, which they could not do, if they did not depend on some floating substance: their apparent change of position, when we attempt to follow them with the eye, is a necessary consequence of the motion of the eye itself which contains them. Y.

2. A network. Pseudoblepsis imaginaria b, Cull. syn. xcv. 1. Suffusio reticularis, *Sauvages*, II. 180. From the arteries of the retina.

3. Sparks. Pseudoblepsis imaginaria c, Cull. syn. xcv. 1. Suffusio scintillans, *Sauvages*, II. 181. R. W. Darwin, Phil. trans. 1786. 313; ocular spectra. Generally from too much light, or from a blow. *Ware*, Medicoch tr. 274; nearly like F. 2.

4. False colours. Pseudoblepsis imaginaria d, Cull. syn. xcv. 1. Suffusio coloris, *Sauvages*, II. 187. *Scott*, Phil. trans. 1778. Richter chir. bibl. V. 637. *Nicholl*, Medicoch. tr. VII. 477; confusion of colours; called green red; IX. 359; another case. See Deformitas, 79.

5. Change of form. Pseudoblepsis mutans a, b, Cull. syn. xcv. 2. Suffusio metamorphosis, *Sauvages*, II. 188; nutans, 190. I have had a small irregularity of this kind for some years in the central parts of my right eye, with a slight defect of sensibility, which I attribute to a minute tumour between the retina and the choroid. Y.

H. Double vision. Pseudoblepsis mutans d, Cull. syn. xcv. 2. Forest. XI. n. 30. Briggs, Phil. trans. Lentin, II. obs. 20. Richter chir. bibl. II. i. 106. Baldinger N. mag. IX. 446; from hydrocephalus.

I. Squinting. Strabismus, Cull. syn. cxiv. *Porterfield*, Ed. med. ess. III. Strabismus, *Sauvages*, I. 527. *Darwin*, Phil. trans. 1778. 86. Roux on a case of squinting cured in an adult. 12. Lond. 1815.

1? From a bad habit only. Strabismus habitualis. Cull. syn. cxiv. 1.

2? With double vision. Stalpart. II. n. 10.

3. One eye being weaker. Strabismus commodus. Cull. syn. cxiv. 2.

4. The eyes cooperating unnaturally. Strabismus necessarius. Cull. syn. cxiv. 3.

† Caligo lentis, Cull. syn. xcii. 1, phtharma; corneae, 2, ecphyma; pupillae, 3, contractura; humorum, 4, pro-

fusio, hydrops, abscessus; palpebrarum, 5, inflammatio, ecphyma.

6. *Dysaesthesia interna.* Amentiae initium, Cull. syn. lxv. Fernel. cons. II. Forest. X. n. 32. Severin. eff. med. 213. Wepfer obs. 363. Grüling, V. n. 39, 40. Junck. 120. Amnesia, *Sauvages*, II. 269. Balding. N. mag. IX. 51; from poison. See Autalgia vertigo.

B. Halluci nations of the senses. Ferriar on apparitions. 8. Lond. 1803. Ed. med. journ. IX. 358. See Mania.

V. AUTALGIA.

Local pain.

Partial pain or uneasiness, without auy apparent cause.

1. A. *dolorósa.* Simple pain or aching.
2. A. *pruriginósa.* Itching, rather a minute continued uneasiness than a severe pain.
3. A. *vertígo.* Combined with a degree of confusion. Giddiness.

† Prurigo obscura.

1. *Autalgia dolorosa. Chevalier*, Medicoch. tr. III. 102; extravasation on the spinal marrow; *Denmark*, IV. 48; pain like tic, from an injury of the radial nerve.

A. Universal. Frequently symptomatic of fever, with lassitude.

B. Wandering pains. *Kite*, Lond. med. journ. III. 300; referred to the foot, after amputation for caries: the

attacks resembled those of inflammatory fever, without inflammation of the stump.

C. In a bone. Ostocopus, *Sauvages*, II. 26; most of the species are merely symptomatic, except perhaps the O. cancrosus, 3. Theden N. bemerk. I. 109.

D. Headache. Cephalalgia, Hemicrania, Cull. syn. cat. morb. omissor. Hippocr. epid. IV. n. 1; diseas. II. p. 467. Galen comp. med. II. i. iii.; loc. affect. II. vii. III. ix; euporist. i; Solon. viii. Paul. Aeg. III. vii. Forest. IX. passim. Horst. opp. II. 120, 334-8. Ballon. cons. I. 1, 114, III. 1, 85, 93, 109, 532. Riolan. anthropol. VI. ii. Sennert. opp. III. 849. Bartholin. ep. II. 640. IV. 27; hist. anat. I. n. 33. VI. n. 3, 57. Schenk obs. I. n. 36, 80. Bonet. sep. I. i. Willis an. brut. path. i, ii, iii; anat. cerebr. viii. Tulp. I. n. 12, 13, 32. Ruysch obs. n. 34. Bellin. morb. cap. 575. Hofmann de cephalaea, Med. rat. syst. II. ii. c. 1. Opp. I. 326. Bagliv. opp. 355. Wepfer obs. passim. Brendel. opp. II. 147. Whytt's works. Monro's works. *Douglas*, Ed. med. ess. V. ii. 602; an abscess in the cerebellum. *Morgagni*, ep. 1, de capitis dolore; ep. 3. art. 8; ep. 5. art. 2; ep. 25. art. 6; ep. 62. art. 15. Haller el. phys. X. vii. §. 20. Lieutaud hist. an. ob. 176, 179. II. iv. 6. p. 540. Balme, Journ. med. XLI: Gallot, XLIV, with an audible pulsation. Cephalalgia; Cephalaea, crotaphus, Cael. Aur. ii, *Sauvages*, II. 49, 53. Stark. clin. inst. 102. Stoll. rat. med. I. 258, 282. II. 93. III. 231. V. 435. VII. 32; prael. 314-8. Tiss. nerv. dis. Med. com. Ed. II. 186. Home clin. exp. Balding. kr. arm. 174. Coquereau, M. Soc. R. méd. II. 38; periodical. Med. comm. Ed. VI. 34; coffee, from *Percival*. Kilgour, Dunc. med. comm. VIII. 7. *Henry*, M. Med. soc. Lond. I. 294. Mursinna beob. I. n. 6. Selle N. beitr. I. 36. *Helsham*, Dunc. med. comm. XIII. 289; hydatids in the ventricles; *Bell*, XVI. 386; 12 pounds of cold water daily for three months; See Marmontel's life.

Lettsom, M. Med. soc. Lond. III. 44; *Parry*, 77. *Baillie's* engr. 221, 223; abscess, tubercles. *Bateman*, Ed. med. journ. I. 150; a tumour. *Parry*, Phil. trans. 1811; relieved by pressure on the carotids. *Rumsey*, Ed. med. journ. VIII. 192; excited by extension of the leg; *Robinson*, XIV. 348; leeches.
† Dyspepsia symptoma.

E. Acute face ache. Following the course of the ramifications of a nerve. Opsialgia, Prosopalgia, Neuralgia. Tic douloureux. *André* mal. urethr. 318. Trismus dolorificus, *Sauvages*, I. 533. *Fothergill*, Med. obs. inq. V. 129. *Thouret*, M. Soc. R. méd. V. 204. *Blunt*, Lond. med. journ. VII. 115; electricity. *Collingwood*, Dunc. med. comm. XVIII. 390; incision. *Haighton*, med. records, 19. S. Fothergill's essay. 12. Lond. 1804. *Kitson*, Ed. med. journ. II. 319; *Pearson*, III. 272; *Corkindale*, IV. 305; calomel and opium; *M'kechnie*, VII. 299; arsenic. *Colville*, X. 288; tar externally; *Robinson*, XVII. 229; bark; *Lizars*, 529; operation. Galvanism [was] said to have been highly beneficial.

F. Ear ache. *Morgagni*, ep. 14, de aurium affectibus. Otalgia, *Sauvages*, II. 71.

G. Tooth ache. Dolor dentium, Sennert. prax. Odontalgia, *Sauvages*, II. 73. Often from inflammation, rheumatism, or caries, but not always: may extend, more or less, to the face.
(† Hysteriae, catarrhi, dyspepsiae, podagrae, cariei, scorbuti, dystociae, symptoma.)

H. Stitch, pain in the side. Pleurodyne, *Sauvages*, I. 682; none of the species idiopathic.

I. Pain in the breast. Mastodynia, *Sauvages*, II. 128; sp. 7. 8.

K. Pain in the uterus. Hysteralgia, *Sauvages*, II. 122. *Rutter*, Ed. med. journ. IV. 168.

L. Pudendagra, *Sauvages*, II. 147. *Bureau*, M. Med. soc. Lond. III. 65: removed by gonorrhoea.

M. Pain in the loins. Nervous lumbago Lumbago, *Sauvages* II. 138. Arthrodynia, rheumatismi sequela, Cull. syn. xxii. *Baine*, Med. obs. inq. II. 156; about the kidneys; relieved by equal parts of plain boiling and cold Pyrmont water.

N. Pain in the hip. Sciatica. Ischias, *Sauvages*, II. 141. Arthrodynia, rheumatismi sequela, Cull. syn. xxii. Hippocr. int. aff. III. p. 560. Cotunnius de ischiade nervosa. Germ. 8. Leipz. 1792. Haen. rat. med. IV. iv. Stoll. rat. med. V. 418. Sandifort tabul. visc. f. Leyd. 1801; Ed. med. journ. III. 461; from aneurysm. *Falconer*, M. Med. soc. Lond. VI. 174; Bath water.

2. *Autalgia pruriginosa.* Pruritus, *Sauvages*, II. 42. Oribas. VII. viii. Aëtius IV. i. 126. Forest. chir. V. n. 9.

A. Pudendagra pruriens, *Sauvages*, II. 148.

B. Hysterocnesmus. Forest. XXVIII. n. 50. Horst. opp. II. 95. Ballon. morb. mul. IV. 147. Bartholin. hist. an. V. 85; epist. III. 145. Bonet. sep. I. viii. Eph. N. cur. cent. III. IV. 156; from infancy. Astruc. mal. f. II. 299. Hysteralgia pruriginosa, *Sauvages*, II. 124. Betheder, Hautesierk rec. I. 274.

3. *Autalgia vertigo.* Galen loc. aff. III. viii. Forest. X. n. 43-9, 64. Horst. opp. II. Ballon. in Theophr. de vertig. opp. I. 291; consil. III. 1, 24, 62, 101. Willis an. brut. path. vii. Bellin. morb. cap. 581. Wepfer obs. 200, 230, 251. Vertigo, *Sauvages*, II. 166. Stoll. rat. med. I. 332. V. 435;

prael. I. 336, 338. *Blane*, Tr. Soc. med. chir. kn. II. 198; tumour. Herz über schwindel. 8. Berl. 1791. *Wollaston*, Phil. trans. 1810. 1; Ed. med. journ. VII. 55; sea sickness. *Chisholme*, Medicoch. tr. IV. 35; cured by mercury. *Salter*, Ed. med. journ. IX. 469; with some paralytic symptoms, from disease in the brain.

† Anxietas, Algor, Ardor, Nausea, Sauv. merely symptoms.

VI. ERETHISMUS.

Irritation.

A morbid sensibility or irritability.

1. E. *simplex.*	Simple and general. Fidgets.
2. E. *nostalgia.*	Accompanied by a longing after absent scenes.
3. E. *agrypnia.*	Want of sleep.
4. E. *onirodynia.*	Producing disturbed sleep.
5. E. *micturitius.*	Affecting chiefly the urinary organs.
6. E. *satyríasis.*	Incontinence in men.
7. E. *nymphománia.*	Incontinence in women.
8. E. *hydrophóbia.*	With a difficulty of swallowing liquids, and an intolerance of cold.

† Asthenia erethistica? iii. Clonus chorea, hysteria, ix. Obstipatio tenesmus, xxii.

(Parasitismi symptoma.)

1. *Erethismus simplex.* *Grant*, Lond. med. journ. IV. 1, 130; opium.

2. *Erethismus nostalgia.* Nostalgia simplex, Cull. syn. cvi. 1: *Sauvages*, I. 221. Junck. 125. Zwinger de nostomania. Balding. N. mag. 405. See Hectica tabes, xxi.

† Nostalgia complicata, Cull. syn. cvi. 2, cannot be ranked even as a variety.

3. *Erethismus agrypnia.* Plin. VII. 51; 3 years! Forest. X. 35, 36. Schenk, I. n. 256; 14 months. Wepfer obs. 354. Agrypnia, *Sauvages*, II. 271. Lentin. mem. 26.

4. *Erethismus onirodynia.*

A. Somnambulism. Onirodynia activa, Cull. syn. lxviii. 1. Sennert par. ad. I. 9. Hofmann suppl. II. 2. Wepf. obs. 355. Somnambulismus, *Sauvages*, II. 205. *Yeats*, Med. tr. V. 444.

B. Nightmare. Onirodynia gravans, Cull. syn. lxviii. 2. Forest. X. n. 50-2. Sennert par. ad. I. 10. Willis an. brut. Path.vi. Bellin. morb. cap. 604. Bond de incubo. 8. Ed. 1751; Smellie thes. II. 1. Ephialtes, *Sauvages*, I. 628; Panophobia? II. 223. Stoll prael. 353. Generally symptomatic of dyspepsia, sometimes of hydrocephalus, fever, or worms.

C. Gonorrhoea dormientium, Cull. syn. cxxiii. 4. Gonorrhoea onirogonos, *Sauvages*, II. 402. Hildebrandt über die ergiessungen des s. im schlaafe. 8. Brunsw. 1792. Jänisch de pollutione nocturna. 4. Gott. 1795.

5. *Erethismus micturitius.*

A. Enuresis, Cull. syn. cxxi. Seems to relate to this disease: but most of the species of Sauvages, II. 386, belong to paralysis. *Lettsom*, M. Med. soc. Lond. V. 18; from a tumour. *Hyslop*, Medicoch. tr. VI. 109; a bougie *externally*, fixed by adhesive straps. See hyperuresis, xxviii.

B. During sleep. I have found pills of turpentine and rhubarb in the morning, combined with antimonials and

opiates at night, very beneficial in a case where cantharides had totally failed. Y.

From laceration. See Laceratio lxxii, Dystocia lxxvii.

6. *Erethismus satyriasis.* Satyriasis furens, Cull. civ. 2. Aret. acut. II. xii. Galen loc. affect. VI. vi. Oribas. IX. 39. Forest. XXVI. n. 5, 10. Ballon. cons. III. 61. Satyriasis, *Sauvages*, II. 224. Norris, Tr. Med. soc. Lond.; from a tumour.

† Satyriasis juvenilis, Cull. syn. civ. 1. Scarcely a disease.

7. *Erethismus nymphomania.* Nymphomania, Cull. syn. cv. *Sauvages*, II. 226.

8. *Erethismus hydrophobia.* Hydrophobia rabiosa, Cull. syn. lxiv. 1; inaccurately characterized, cum mordendi cupiditate. Plin. XXIX. v. Galen on Hipp. prorrh. II. Horst. opp. II. 234. 332. Barthol. hist. an. II. n. 89. V. n. 52. Tulp. I. n. 20, 21. Werlhof opp. III. 699. Boerh. 1138. Junck. 124. Fuller, Gordon, Kennedy, Lister, Mayerne, Mead, Mortimer, Nourse, Delaprime, Phil. trans. Mead on poisons. Trécourt, M. Ac. chir. *Plummer*, Ed. med. ess. V. ii. 590. Andree on epilepsy and hydrophobia. 8. Lond. 1746. Sauvages sur la rage. *Wilbraham*, Phil. trans. 1752. 412. Dalby on cinnabar and musk. Nugent on hydrophobia. 8. Lond. 1753. James on canine madness. Journ. méd. Choisel on hydrophobia. 8. Lond. 1756; mercury. Journ. méd. 1756. *Morgagni*, ep. 8. de hydrophobia, art. 19...; ep. 61. art. 9. *Hillary's* Barbadoes; seems to have been remarkably fortunate. *Ld. Morton*, Phil. trans. 1765. 139. Hydrophobia, *Sauvages*, II. 232; mercury. *Dickson*, Med. obs. inq. III. 356. Munckley, Med. tr. Lond. II. 46; Wrightson, 192; opium, scarcely hydrophobia. *Falkener*, 222. Traitement de la rage, Par. 1776. Soc. R. méd. I; H. 94; *Andry*, M. 104, 146. *Battie*, Med. comm. Ed. III. 290; the dog came and ate bread, and only bit the boy when he attempted to tie him. *Fothergill* and *Watson*, Med. obs.

inq. V. 195. 290; *Raymond*, Append. Heysham de rabie canina. 8. Ed. 1777; Smellie thes. III. 496; Swed. trans. 1777; Lond. med. journ. III. 23; without a perceptible bite. J. Vaughan on hydrophobia. 8. Lond. 1778. Tilton, Med. comm. Ed. VI. 429; bleeding; after 17 years; scarcely hydrophobia. Soc. R. méd. II. H. 229, 230, 456. *Andry*, M. Soc. R. méd. II. 452. Parry de rabie contagiosa. 8. Ed. 1778; Webster m. pr. II. 255. Soc. R. med. III. H. 167. *Houlston*, Dunc. med. comm. VIII. 304. Portal, Ac. Par. *Papers* making Hist. et. mém. Soc. R. méd. VI. 1783. ii; recommend repeated applications of muriate of antimony for 6 weeks. Schwatz de hydrophobia et meloe. 8. Hall. 1783. Munch über die belladonna. 8. Gott. 1783. Ungnad über den maywurm. 8. Züllich. 1783. *Michaelis*, Lond. med. journ. V. 286. *Babington*, Med. commun. I. 215. *R. Hamilton* on hydrophobia. 8. Ipsw. 1785. 2 v. 1798; Lond. med. journ. VII. 89. *Haighton*, Lond. med. journ. VI. 361. Leroux on hydrophobia; Lond. med. journ. VII. 81. *Houlston*, Dunc. med. comm. XI. 330. *Dundas*, Lond. med. journ. VIII. 156. Callisen, Soc. med. Havn. I. Desault sur la rage. Struve, Balding. syll. I. Balding. N. mag. I. 357; Höpfner, VIII. 534. *J. Johnstone*, M. Med. soc. Lond. I. 243. *Gray*, Dunc. med. comm. XII. 304: fatal after salivation. *Fabbroni*, Lond. med. journ. IX. 69; *Russel*, 256; X. 283, *Tanjore* antidotes; *Percival*, 295. *O'Donnel*, Med. commun. II. 290; a finger bitten by the patient without injury. *Ferriar*, Med. facts. I. 1; *Loftie*, 11; *Foot*, III. 33. Foot on hydrophobia. 8. Lond. 1793; excision only. *Shadwell*, M. Med. soc. Lond. III. 454; *White*, 608. Bader über hundswuth. 8. Frankf. 1792. *Cases*, Dunc. med. comm. XVII. 544; one after excision and salivation. *Sims*, from a Greek manuscript. M. Med. soc. Lond. II. 1. *Dr. J. Hunter*, Tr. soc. med. ch. kn. I. 294; an admirable compendium. Simmons, Med. facts, V. 87. *Tilton*, Dunc. med. comm. XVIII. 364. Arnold on hydrophobia. 8. Lond. 1793; Dunc. med. comm. XIX. 74; rather hysteria; relieved by musk, zinc, and laudanum; in dogs, according to Meynell, the disease appears

from 10 days to 8 months after the bite: they never bark, but howl in a peculiar manner: their eyes are leaden, and they often lap without swallowing: there is a dumb and a raving madness. *Dexter*, M. Med. soc. Lond. IV. 404; *Malden*, 409; muriatic acid as a caustic; *Andree*, 428. *Johnston*, Dunc. med. comm. XX. 264; after a careful excision; the parts were bathed and compressed to force out the blood; and thus perhaps the communication of the poison promoted: probably perfect rest is the most advisable. Y. Roserus über die hundswuth. 8. Stett. 1797. Hildebrands wink von der hundswuth. 8. Vienn. 1797. *Babington* and *Wavell*, Med. records, 117; 180 grains of opium ineffectual. *Gaitskell*, M. Med. soc. Lond. V. 1; *Haynes*, 289; *Norris*, 302. Duuc. ann. 1799. 510; alkalis, and perhaps putrid substances, alleviate hydrophobia in dogs, Mitchill. Arsenic, see Beddoes's Manual of Health. Autenrieth de praetervisa nervorum lustratione in sectione hydrophoborum; "has perhaps made more inquiries into the animal economy than any person living." Beddoes on fever. Bardsley's reports, 8. Lond. 1807, and Ed. med. journ. IV. 108; on the extirpation of hydrophobia. *Marcet*, Medicoch. tr. I. 132; Jenner, Medicoch. tr. I. 263; misinformed. *Gorey*, Ed. med. journ. III. 414. Moseley on hydrophobia. 8. Lond. 1808; Ed. med. journ. IV. 504. Ward on opiate friction. 8. Manch. 1809. *Oldknow*, Ed. med. journ. V. 277; the dog did not appear mad for 10 days after the bite. Gillman's prize essay. 8. Lond. 1812. Ed. med. jonrn. VIII. 491. *Satterley*, Med. trans. IV. 348. *Peake*, Ed. med. journ. VII. 53; dirt and straw in the dog's stomach: *Tymon* and *Berry*, IX. 22: Shoolbred, 30; bleeding largely: *Marshall*. X. 26; fatal. Wynn's case. 8. Shrewsbury; X, 495. Edmonston's hints. 8. X. 495; Ballingall. XI. 74; failure of bleeding: also *Albers*, 413: *Johnson*, XV. 212: Reid on tetanus and hydrophobia. Dubl. 1817; XV. 262: *Ballingall*, XVI. 209; without bite that could be discovered; excision after two hours successful; after four failed. *Majendie Physiological Journ. I; inoculation with human saliva.

B ? Hydrophobia simplex, Cull. syn. lxiv. 2. Caelius Aurel. III. ix. Coste lett. to Mead. Med. comm. Ed. IV. 274. Trécourt, M. Ac. chir. Hydrophobia spontanea, *Sauvages*, II. 235. Sarcone, Nap. II. 264. Raymond, M. Soc. R. méd. II. 457. Lentin obs. I. n. 32. De la Lance, Balding. syll. I. Richter chir. bibl. I. ii. Theden N. bem. II. 162.

VII. PALMUS.

Spasm.

Irregular action of some of the involuntary muscles.

1. P. *cor'dis.*	Palpitation of the heart.
2. P. *vom'itus.*	Vomiting.
3. P. *col'ica.*	Griping pains supervening at intervals; at first without much tenderness.
4 ? P. *plumbárius.*	Severe griping, with a paralytic affection of the hands.
5 ? P. *ábdominális.*	Abdominal pulsation, independent of the heart.

† Hysteriae, maniae, pyrexiae, dyspepsiae, podagrae, ecphymatis, hydropis symptoma.

I. *Palmus cordis.* Palpitatio cardiaca, Cull. syn. liv. Palmus, Ploucq. nos. Galen loc. aff. V. 2; on swell. Fernel. cons. XXV. Forest. XVII. 1, 2, 5, 6. Horst. opp. II. 137. 139. III. Ballon. cons. I. 109. Bartholin. ep. I. 273. Schenk. II. 213; Dod. 215, Fern. 232. Bonet. sep. II. viii. Tulp. I. n. 15, 19, 27. Senac. mal. du coeur. Malpigh. opp. 123. Bellin. morb. pect. 637. Lancis. de aneur. Hofm. III. 83. Leeuwenhoek, Gould, Templeman, Phil. trans. *Lewis*, Ed.

med. journ. II. 320. *Pulteney*, Phil. trans. 1761. 344. Junck. 33. *Morgagni*, ep. 23, de palpitatione et dolore cordis; ep. 24, de pulsibus praeter naturam, art. 17, 22-4; ep. 64, art 9..12. Haller progr. de induratis partibus. Sandifort obs. path. Störck, I, 75, 245. Palpitatio, *Sauvages*, I. 560. Chalmers Carol. Huxham, III. 50; epidemic? Stark clim. rem. Stoll prael. II. 49. *Brocklesby*, Med. obs. inq. III. 274; with diabetes. *Storer*, Dunc. med. comm. VII. 290; cuprum ammoniatum. *Cheston*, Med. obs. inq. VI. 31; *W. Hunter*, 291. *Simmons*, Med. commun. I. 228, *Baillie's* engr. 19; ossification, var. A? *Chavasse*, Lond. med. journ. VII. 407. Lettsom's med. reports. *Lettsom*, M. Med. soc. Lond. I. 77; *Ogle*, 197; perhaps inflammation; *Bayford*, II; the subclavian compressed in swallowing, from a deformitas. Balding. N. mag. I. 289. II. 497. V. 485. *Bennet*, Dunc. med. comm. XII. 316; after scarlatina, perhaps hydrothorax. *Kinglake*, Lond. med. journ. X. 341. Hautesierk rec. II. *Dune*. med. comm. XIV. 402; a true polypus; *Guillan*, XVI. 377; fat in the ventricles. Theden, N. bem. II. 95. Selle, N. beitr. II. 26. *Baillie's* engr. 13; valves ossified. *Dundas*, Medicoch. tr. I. 37; heart soft. A. Burns on diseases of the heart. 8. Ed. 1809; Ed. med. journ. V. 340: *Aldis*, V. 424; enlarged: *Wishart*, VI. 80: *Henry*, VII. 152; enlargement. *Graham*, Medicoch. tr. V. 287; obstructed aorta. Wood. Ed. med. journ. X. 50; loose substances found in the left ventricle: *Pearson*: XII. 194; pulsation of the jugular veins: 201; diseased valves. *James*, Medicoch. tr. VIII. 434; diseases of the heart. *Gairdner*, Ed. med. journ. XVI. 547; dilated. See Hydrops thoracis, exangeia.

A. Affecting the pulse; a disease of the ventricle.

B. Not affecting the pulse; probably of the auricle; the more common.

2. *Palmus vomitus.* Dyspesiae var. Cull. syn. xlv. Forest. XVIII. 14..17, 34. Plater. obs. III. 803; after decapitation. Horst. opp. II. 292. Ballon. cons. III. 74. Barthol. hist. an. IV. 47. Schenk, III. n. 60, 61, 68, 75; 251, feculent, during life. Bonet. sep. III. viii. Tulp. II. n. 22, 23. Harris morb. inf. Mauriceau, I. 506. Hofmann suppl. II. 2. Stalpart, I. 56, 57. Sayer, Phil. trans. *Stedman*, Ed. med. ess. IV. 37; 20 drops of laudanum, taken after 6 grains of emetic tartar, fatal. Haen rat. med. VI. 13, 20; cont. II. ii. 38. *Morgagni*, ep. 30, de vomitu; ep. 36, art. 20; ep. 39, art. 21-9; ep. 65, art. 3. Pietsch, Journ. méd. XXI. 263; Fournier, XLII. 519; Sebire, LX. 548. Rec. pér. I. 20, 428. Lentin mem. 136. Vomitus, *Sauvages*, II. 336. Huxham, Phil. trans.; opp. III. 8. Stoll rat. med. III. 356, 385, 401; V. 461; prael. II. 169, 429. Anderson, Med. comm. Ed. II. 302. Portal, Dunc. med. comm. X. 77. Keir, Med. commun. I. 8. *Hunter*, Med. obs. inq. VI. 324; milk in small quantities. Fink gallenkr. 280. Mém. Tur. 1788-9. n. 19. *Daniel*, Lond. med. journ. V. 183; from dysmenorrhoea. Vaughan, M. Med. soc. Lond. II. n. 13; in pregnancy, relieved by fasting. Theden, N. bem. II. 75. Selle, N. beitr. II. 41. III. 114-5. *Smyth*, Med. commun. II. 463; sudden death from an ulcer in the stomach. *Pemberton* abd. visc. 129; I have also seen a fatal case of apparently idiopathic vomiting, in which no morbid affection was discoverable after death; the patient was below the middle age, but had been intemperate. Y. *Chevalier*, Medicoch. tr. V. 93; lacerating the coat of the stomach. See Diarrhoea, xxx, Dystocia, lxxvii.

3. *Palmus colica.* Colica, Cull. syn. lix. Hofm. II. 263, 284. Junck. 106, 107. *Short*, Ed. med. ess. IV. 441. *De Castro*, Phil. trans. 1751. 123. *Monro*, Ed. ess. phys. lit. II. 368. Colica, *Sauvages*, II. 99; Ileus, 344. *Garthshore*, Med. obs. inq. 223. *Scott*, Med. comm. Ed. IV. 334; fatty substances voided; *Percival*, V. 172; *Evans*, VI. 332; tobacco. Metford de colica; Webster m. pr. II. 60. *Dr. J. Hunter*, Med. trans. III. 227; new rum, containing a little

lead. *Forbes*, Dunc. med. comm. IX. 266; a blister: *Gerard*, X. 293; from scirrhus. *Bureau*, M. Med. soc. Lond. II. 227; a hydraulic machine; *Warner*, III. 590; *Hodges*, V. 6. *Baillie* engr. 81; a polypus in the colon. *Ross*, Ed. med. journ. I. 318; flatulent, cured by opiates.

A. With spasms of the abdominal muscles, often with feculent vomiting. Colica spasmodica, Cull. syn. lix. 1. Ed. med. ess. III. 27.

B. After long constipation. Colica stercorea, Cull. syn. lix. 3. Med. obs. inq. IV. 123. *Parry*, Dunc. med. comm. XVI. 331; quicksilver: also *O'Neill*, Ed. med. journ. XIII. 453.

C. Colica meconialis, Cull. syn. lix. 5.

D. Colica callosa, Cull. syn. lix. 6. See Carcinoma, xlix.

E. From a concretion, a fixed hardness being perceived, and calculi having been formerly voided. Colica calculosa, Cull. syn. lix. 7. *Simson*, Ed. med. ess. I. 301; on a plumbstone. *Monro*, Ed. ess. phys. lit. II. 345. *Marischal*, M. Ac. chir. III. 55; *Moreau*, 57. *Fitzgerald*, Dunc. med. comm. VIII. 329. *Gaitskell*, Med. facts. IV. 31. In horses, Watson, Phil. trans. 1754, 800, Baker, 1760. 694; Withers, M. Med. soc. Lond. IV. 393. See obstructio, lxxiv.

† Colica accidentalis, Cull. syn. lix. 4, venenationis symptoma.

4. *Palmus plumbarius.* Colica pictonum, Cull. syn. lix 2. *Porter*, Ed. med. ess. III. 357; warm bath. Hillary's Barb. Huxham de aere. *Wilson*, Ed. ess. phys. lit. I. 459; mill reek. *Baker* on the colic of Devonshire. 8. Lond. 1767. Geach's observations. Saunders's answer. Haen rat. med. I, III, X. XI. *Baker*, Med. trans. I. 175..460, II. 419, III. 407. Rachialgia, *Sauvages*, II. 131. *Warren*, Med. trans. II. 68; opium at

first. Withering on digitalis, 54. Lentin memor. 113, 114. *Luxmore*, M. med. soc. Lond. III. 584. *Dunc.* med. comm. XIX. 313; severe cases from a cistern on board of a ship; sulfuret of potass showed the lead; opium at first was injurious, promoting relapses; sulfur and camphor succeeded well. Stoll rat. med. II. 270. VII. 308. *Perceval*, Trans. Ir. Ac. V. 89; solution of lead by lime. Carten Balding. N. mag. I. 113. *Roberts*, Med. tr. V. 45; nitrate of silver; 468, in solution. See paralysis particularis B 1.

5? *Palmus abdominalis.* Columb. anat? Sehenk. III. n. 202. Tulp. II. 28. *Morgagni*, ep. 39. art. 19, 20; attributed to irregularities of the peristaltic motion, with flatulence. *Albers*, Ed. med. journ. III. 8; a pulsation in the abdomen. See the remarks on palpitations. Med. tr.

VIII. PNEUSIS.

Anhelation.

Irregular action of the partially voluntary muscles, that is, of muscles concerned in respiration.

1. Pn. *singul'tus.*	A convulsion of the diaphragm. Hiccup.
2. Pn. *sternutátio.*	Sneezing.
3. Pn. *tus'sis*	Cough.
4. Pn. *pertus'sis.*	A cough followed by a sonorous inspiration, with momentary debility, and often vomiting. Hooping Cough. Contagious.
5. Pn. *as'thma.*	A difficulty of breathing, occurring at intervals, with oppression, and a sense of suffocation, followed by expectoration.
6. Pn. *dyspnoéa.*	A permanent difficulty of breathing, with occasional cough.

(Hysteriae, profusionis, haemorrhagiae, rheumatismi, catarrhi, dyspepsiae, podagrae, paraphymatis, syphilidis, venenationis, parasitismi, dysodontiasis, dystociae, symptoma.)

1. *Pneusis singultus.* Oribas. VI. 1, 42. Forest. XVIII. n. 12. Plater. obs. I. 217. Ballon. consil. I. 59. Bartholin. hist. an. II. n. 4. III. p. 244. Schenk. III. n. 49. Med. comm. Ed. V. 166. Clegh. Minorc. Fink gallenkr. 238. Stoll prael. II. 153. *Duncan*, Dunc. med. comm. XIV. 371; sulfuric acid, *Scott*, Dunc. ann. 1802. 351.

2. *Pneusis sternutatio.* Forest. X. 127. Horst. opp. II. 298. Lancis. sub. mort. 34. Stalpart. II. 6. *Morgagni*, ep. 14. n. 27.

3. *Pneusis tussis.* Fernel. cons. XXIV. Forest. XVI. n. 1..6. Horst. opp. II. 128. Bartholin. hist. an. II. 27. Bonet. II. iii. 11; concretions. Willis pharm. rat. II. i. c. 4. Tulp. IV. n. 9, 15, 21. Mauriceau, I. 141. G. Harv. expect. vi. xxvii. Bellin. morb. pect. 662. Lancis. sub. mort. 36. Bagliv. pr. I. ix. Stalpart. I. 46. Nichols, Phil. trans. Morgan's mechanical practice. 8. Lond. 1735; gentle salivation. *Morgagni*, ep. 15, art. 21, 22; from concretions; ep. 19. de tussi; ep. 22, art. 24. Lentin mem. 54. Tussis, *Sauvages*, I. 647. D. Monro arm. dis. Stark clin. inst. Stoll. rat. med. I. 282. II. 321. V. 135; prael. II. 52, 431. Mudge on coughs. Balding. kr. arm. 171. N. mag. IV. 258. Fink gallenkr. 224. Doubleday, Med. obs. inq. V. *Leith*, Med. comm. Ed. VI. 343; flowers of zinc. *Varnier*, M. Soc. R. med. III. 411. *Douglas*, Med. obs. inq. VI. 163; with an itching, relieved only by eau de luce. *Percival*, Lond. med. journ. IV. 65; connected with the stomach. *B. Bell*, Dunc. med. comm. XIV. 307. *Stanger*, Medicoch. tr. I. 13.

4. *Pneusis pertussis.* Pertussis, Cull, syn. lvii. Willis path. cerebr. c. 12. Sydenham. p. 200, 311-2. Morton de tussi convulsiva. Hofmann, suppl. II. 2. Werlhof. opp. III. 690, 693. Huxham, 1732, opp. I. 98. Lentin, mem. 37. Tussis ferina, convulsiva, *Sauvages*, I. 651. *Morris*, Med.

obs. inq. III. 281; castor and bark; *Fothergill*, 319. Stoll. rat. med. II. 178; prael. 267, 290. Armstrong. dis. ch. Ackermann, Balding. N. mag. VI. 399. Butter on the kink-cough, and on hemlock. 8. Lond.; Med. comm. Ed. I. 387; Lettsom, III. 309. Schwediaur, Lond. med. journ. 1781. Kirkland, de pertussi; Webster, m. pr. II. 137. Strack de tussi convulsiva. 8. Mentz; Lond. med. journ. II. 398. *Percival*, M. Med. soc. Lond. II. 53; after croup. Danz geschichte des keichhustens. 8. Marb. 1791; "a good collection of all that has been done." Rothe. Ed. med. journ. IV. 256; acetate of lead. R. Pearson, Medicoch. tr. I. 23. *Edmonstone*, Ed. med. journ. VII. 16. *Gumprecht*, Medicoch. tr. VI. 608; extract of the lactuca virosa.

5. *Pneusis asthma.* Asthma spontaneum, Cull. syn. lv. 1; A. exanthematicum, 2; A. plethoricum, 3. Galen, diffic. breath. I. III; loc. aff. IV. vii. V. ii. Fernel. cons. XXII. Forest. XVI. n. 7..10. XXVIII. n. 25..34. Plater obs. I. 180. Horst. opp. II. 126..288. Ballon. opp. I. 108, 146; cons. I. 22, 51. III. 89. Barthol. ep. II. 683. IV. 91; hist. an. VI. n. 55. Schenk. II. 59, 68, 70, 264. Bonet. sep. I. 502, 644. II. i. Willis pharm. rat. II. i. c. 2, 3, 12; path. cer. xii. Mauriceau, I. 141. G. Harv. exp. xxxi. Ruysch. obs. n. 19, 21, 69. Bellin. morb. pect. 674. Hofmann, III. 94: suppl. II. 2. Bagliv. pr. I. ix. Boerh. opusc. 112. Wepf. obs. p. 45, 94; Memor. Wepf. Marchettis, 95. Giffard, Rutty, Paitoni, André, Holt, Phil. trans. Floyer on asthma. 8. Lond. 1726. Asthma spasticum Juncker. *Monro*, Ed. med. ess. III. 348, 485. Simson. V. ii. 622. Abernethy de asthmate. 8. Ed. 1754. Smellie thes. II. 95. *Morgagni*, ep. 15..18 de respiratione laesa; ep. 23, art. 8. Lentin mem. 144. Sandifort, obs. anat. Störck, praec. m. pr. I. 148. Musgrave's Gulstonian lecture. *Watson*, Phil. trans. 1764; emphysema, from sickness. *Akenside*, Med. trans. 1. 93; ipecacuan. Asthma, *Sauvages*, I. 661; Orthopnoea, 670: the orthopnoea being only less regularly periodical than asthma. Bordenave, Ac. Par. 1768. Kellie, Med. comm. Ed. II. 432. Withers on asthma and on zinc. 8. Lond. 1775. 1786. *Scott*, Phil. trans.

1776. 168; Med. comm. Ed. IV. 75; *from* ipecacuan. Fothergill's works, II. Percival and Pringle, Med. comm. Ed. VI.; coffee. Bromfeild, Richt. chir. bibl. II. ii. 110; Gooch, iv. 127. Huxham, III. 9. Stark, clin. obs. Melliar de asthmate; Webster, m. pr. II. 124. Stoll, rat. med. I. 298. II. 347. III. 117. V. 436. VII. 96, 135. prael. 1. 81. II. 78. Hamilton, Dunc. med. comm. IX. 9; Dick. X. 36. Pulteney, Med. trans. III. 253. Balding. kr. arm. 171. Pfündel, Bald. N. mag. VII. 165; Zeller, VIII. 177; Willich, IX. 267. Fordyce, fragm. Fink, gallenkr. 234. Chavasse, Lond. med. journ. 1786. Baylies pract. ess. Theden, N. bem. II. 72. 74, 79. Selle N. beitr. II. *Rush*, Med. obs. inq. V. 96; spasmodic asthma, with constant dyspnoea from a tumour on the trachea. *Bree* on disordered respiration. 8. Birm. 1803. Wilson Philip on the effect of galvanism. Phil. trans. 1817. 22. *Christie*, Ed. med. journ. VII. 158; daturae: *English*, 277; stramonium: *Crawford*, XII. 318; dissection. Some few of these authorities relate rather to the usual causes of asthma than to the symptoms.

A. Humoral asthma; the convulsions being excited by a morbid secretion.

B. Aerial; the convulsions being excited by effluvia, or by changes of air.

C. Visceral; the fits arising from sympathy with some diseased viscera.

D. Habitual; maintained by habit alone. Bree.

6. *Pneusis dyspnoea.* Dyspnoea, Cull. syn. lvi. Forest. XIII. 9. Plater. obs. I. 166..185. III. 601. Willis pharm. rat. II. i. 12. Stalpart, III. 22. Hofm. III. ii. c. 2. §. 3. Marchett. 58. Ed. med. ess. III. 25. *Morgagni*, ep. 15..18, de respiratione laesa; ep. 19, de suffocatione et de tussi; ep. 21, art. 19..22; ep. 24, art. 13; ep. 40, art. 23; ep. 43, thoracic hernia; ep. 54, art. 12, 13; ep. 64, art 19. Wilmer's cases.

Dyspnoea, *Sauvages*, I. 656; Rheuma? 686. Stark clin. obs. Stoll. pr. m. VII. 90. Jackson, Med. comm. Ed. VI. 224. Lettsom, M. Med. soc. Lond. Bayford, M. Med. soc. Lond. II. 225; the subclavian passing between the oesophagus and the trachea. *Smyth*, Med. commun. II. 471; a fatal extravasation into the lungs. Baillie's engr. 43; enlarged air cells. *Wilson Philip*, Medicoch. tr. III. 290; with hydrothorax and adhesion of the pericardium. *Abercrombie*, Ed. med. journ. XV. 259; from tumour about the fauces. See also many of the authorities quoted under the last species. For cyania, see deformitas.

† The species of Cullen are scarcely distinct and independent enough to constitute even varieties; D. catarrhalis, 1, is professedly a symptom of catarrh; D. sicca, 2, rather an attendant of cough, or a forerunner of hectic; D. aerea, 3, an accidental character of any other kind of dyspnoea; D. terrrea, 4, probably seldom without cough; D. aquosa, 5, a symptom of dropsy; D. pinguedinosa, 6, from polysarcia; D. thoracica, 7, from a structural disease, or a deformity; D. extrinseca, 8, from some accidental or mechanical affection.

IX. CLONUS.

Convulsion.

A repeated contraction of a voluntary muscle.

1. Cl. *convul'sio.* A simple convulsion of some of the muscles.
2. Cl. *choréa.* Convulsions mixed with tremors, capable of being partly controlled. St. Vitus's dance.
3. Cl. *hystéria.* With a sense of choking, as if from flatulence, aud with involuntary laughing or crying.
4. Cl. *raphánia.* Periodical contractions of the limbs, accompanied by violent pains.
5. Cl. *epilep'sia.* Convulsions accompanied by a total insensibility.

† Erethismus hydrophobia, vi.

(Erethismi, pyrexiae, epischesis, dyspepsiae, vulneris, venenationis, parasitismi, dystociae symptoma.)

Clonus. *Latham*, Med. tr. VI. 248; against bleeding.

1. *Clonus convulsio.* Convulsio, Cull. syn. 1. Galen. trem.; loc. aff. III. vi. V. Forest. X. n. 101..117. Horst. opp. II. 112, 120. Ballon. opp. I. 32; cons. I. 40, 73. II. n. 6. Bartholin. ep. II. 700. Willis path. cer. I. i. iv... morb. conv. ix. Tulp. I. n. 17. Bellin. morb. cap. 535. Hofm. opp. suppl. II. 2. Bagliv. pr. m. I. ix. Wepfer, obs. 480. Freind. Cole, Leigh, Watson, Phil. trans. Monro's works. *Morgagni*, ep. 1. art. 2... ep. 9, art. 18; ep. 10, 62, de convulsione, et motibus convulsivis; ep. 54. art. 44, from a wound, see vulnus. Sarcone, Nap. III. *Arnot*, Ed. med. ess. V. ii. 634; extract of poppies externally. Convulsio, *Sauvages*, I. 550. Stoll rat. med. II. 207. III. 412. Tiss. nerv. dis. II. Mannotti, Ac. Sienn. I. Armstr. dis. ch. *Owen*, Med. obs. inq. III. 183; musk. *Baker*, Med. trans. III. 113; among poor children, perhaps from impure air. *Hannes*, Med. comm. Ed. I. 245; *Smith*, III. 316; fright; *White*, IV. 326: hieranosos, cured by zinc; Bullivant, 447; after amputation; Dugud. V. 84; zinc; Balding. N. mag. II. 254; lead. Lay. M. Med. soc. Lond. I. 326; of the eyes, laudanum topically. Houlke, Lond. med. journ. V. *Clarke*, Trans. Ir. Ac. III. 89; VI. 3; Med. facts. III. 78; in infants. *Perceval*, Trans. Ir. Ac. IV. 97; Med. facts. V. 158; a peculiar motion of the eyes. *Malden*, M. Med. soc. Lond. IV. 412. *Albers*, Dunc. ann. 1802. 406. Albers, Ed. med. journ. III. 8; see palmus abdominalis, vii. *Mitchell*, Medicoch. tr. IV. 25; tongue and mouth.

2. *Clonus chorea.* Chorea, Cull. syn. li. Forest. XXX. n. 12. Horst. opp. II. 112, 118-9. Barthol. hist. an. VI. n. 35. Tulp. I. 16. Sydenh. sched. monit. 748. Bagliv. diss. 6. opp. 599; tarantula. Haen rat. med. III. 202: from mercury.

Geach, Phil. trans. Ed. ess. phys. lit. III. 5. Stoll, rat. med. III. 405, 416. Scelotyrbe, *Sauvages*, I. 590. Balding, N. mag. IX. 185. *A. Fothergill*, Phil. trans. 1779. 1. *Walker*, Dunc. med. comm. X. 288; cuprum ammoniatum. *Willan*, Lond. med. journ. VII. 187; cupr. amm. *Wilson*, Dunc. med. comm. XII. 325; camphor. *Lucas*, Lond. med. journ. XI. 125; music. *Wright*, M. Med. soc. Lond. III. 563; flowers of zinc; *Andree*, IV. 428. *Hall*, Dunc. ann. 1799. 374; 1800, 344; nitrate of silver; *Alexander* 1801. 303; zinc. *M'Mullin*, Ed. med. journ. I. 25; *Kellie*, II. 422; purgatives. *Shute*, VIII. 45: *Reeve*, 312: *Uwins*, 405. *Martin*, Medicoch. tr. IV. 45; arsenic: *Watt*, V. 1. *Maton*, Med. tr. V. 188; musk; in an aged person: *Powell*, 358; oil of turpentine. *Wood*, Medicoch. tr. VII. 237; influenced by music. *Salter*, X. 218; arsenic: also *Gregory*, XI. 299.

3. *Clonus hysteria.* Hysteria, Cull. syn. lxiii. Galen, loc. aff. III. Ballon, morb. mul. opp. IV. 147. Willis, opp. I. path. affect. hyst. c. 5. 10, 11; path. cer. x; de an. br. 11. Mauriceau. Sydenh. affect. hyst. 494. Hofm. III. 50. Junck. 36. *Eccles*, Ed. med. ess. V. ii. 471; an extraordinary abstinence. Raulin des affections vaporeuses. 12. Par. 1758. *Morgagni*, ep. 45, de uteri, ut mulieres aiunt, ascensu; art. 17... Whytt nerv. dis. Hysteria. *Sauvages*, I. 585. *Evans*, Med. obs. inq. I. 83; electricity; *Macaulay*, 230. Stoll prael. 353. Tissot nerv. dis. Fink gallenkr. 174. Woolcombe de hysteria. 8. Ed. 1776; Webster m. pr. II. 109. Caldwell de hysteria. 8. Ed. 1780. Baldinger neurolog. opusc. 187. *Storer*, Dunc. med. comm. VII. 290; cupr. amm.; *Maclachlan*, X. 247: oxyd of zinc. *Ed.* med. journ. III. 434; an epidemic in Scotland: *Watson*, XI, 303? In men, with loss of speech.

4. *Clonus raphania.* Raphania, Cull. syn. lii. Kriebelkrankheit. Ergot. Sennert. febr. IV. xvi. Horst. II. viii. n. 22. Willis morb. conv. Muller, Hall. disp. I; Waldschmied, Wedel, VII. Hofm. I. 231. Kanngiesser, Brunner,

Willich. Eph. N. C. Act. Ac. Caes. Wepf. obs. 120. Bresl. samml. 1717, 1723. Bruckmann, Comm. Norimb. 1743. 50. *Tissot*, Phil. trans. 1765. 106; ergot. *Linné* amoen. acad. VI. Convulsio raphania, *Sauvages*, I. 554, 7; ab ustilagine, 8; Eclampsia typhodes, I. 569. Rödde von der kriebelkrankheit. 8. Frankf. 1772. Saillant, M. Soc. R. méd. I. 303, and Tessier, II. 587; from ergot. Taube geschichte der kriebelkrankheit. 8. Vienn. 1782. Moscati on a convulsive disease in the poorhouse at Milan. Germ. 8. Vienn. 1796; had 90 cases.

B? With gangrenous affections. H. Ac. Par. 1740, 1748, 1751. Salerne, M. Sav. étr. II. 1755. Quesnay de gangraena sicca, 355, 407. Necrosis ustilaginea, *Sauvages*, II. 623. *Jussieu* and others, M. Soc. R. méd. I. 260; feu St. Antoine; see gangrene.

5. *Clonus epilepsia.* Epilepsia, Cull. syn. liii. Galen. loc. aff. III. vii. V. vi. Fernel. cons. VII. Forest. X. 53... Horst. opp. II. 75. Ballon. cons. I. 33, 61, II. 4. III. 43, 52, 118. Willis path. cer. ii, iii. Tulp. I. ix. Bellin. morb. cap. 513. Hofm. III. 9. Junck. 54. Boerh. 1771. Wepf. obs. 581, 626. Dover's legacy. Turberville, Phil. trans. *St. Clair*, Ed. med. ess. II. 287; *Short*, IV. 416; cured by extracting a minute tumour from the leg; *Monro*, V. ii. 501; bleeding. *Johnstone*, Med. obs. inq. II. 107; dissections. *Morgagni*, ep. 9, 67, de epilepsia. Sarcone, Nap. III. Eclampsia, *Sauvages*, I. 569; Epilepsia, 577. D. Monro arm. dis. *Laroche*, Med. comm. Ed. I. 200; hydrocephalus; *B. Bell*, 204; flowers of zinc; Odhelius; 368; stramonium. Duncan's cases; cupr. ammon. *Mackenzie*, Phil. trans. 1777. 1; abstinence for several years, with trismus. *Johnson*, Med. comm. Ed. V. 311; zinc. sulf. grv—xij, twice a day: *Bland*, VII. 301; cupr. amm.; *Hamilton*, 325; bleeding; *Heysham*, 341, 451; cupr. amm. in epilepsy and dysphagia spasmodica; *Armstrong*, IX. 317. Stark, clin. obs. Stoll rat. med. VII. 298; prael. II. 1. Tissot nerv. dis. IV. Balding. kr. arm. 125.

Theden, N. bem. 1. 52. *Saillant*, M. Soc. R. méd. III. 305. Turpin de epilepsia; Webster, m. pr. II. 147. *Clark*, Lond. med. journ. I. 428: *Janssen*, IV. 74; after haemorrhage. *Saillant*, M. Soc. R. méd. V. 88. *Fothergill*, Med. obs. inq. VI. 68. *Lind*, Lond. med. journ. VII. 52; fl. zinc. Dunc. med. comm. XIII. 411; arsenic. *Lettsom*, M. Med. soc. Lond. III. 383; emetics. Feuerstein de epilepsia. 4. Gott. 1792. *Ja. Sims*, M. Med. soc. Lond. IV. 379; silver. Gmelin über das Ragalosche mittel; chiefly valerian and cajuput oil. *Wilson*, Dunc. ann. 1797. 405; arg. nitr. Henning analecta literaria. 4. Leipz. 1798. *A. Fothergill*, M. Med. soc. Lond. V. 221; arteriotomy. *Hall*, Dunc. ann. 1799. 374; arg. nitr.; *Haxby*, 434; musk and opium; *Batty*, 1801. 377; cupr. amm. *Baillie's* engr. 215? Ossified falx. *Duncan*, D. ann. 1803. 339; galvanism. Mojon, Soc. em. Genov. I; a tumour pressing on a nerve. Fraser on misletoe. 8. Lond. 1806; Ed. med. journ. II. 352; *Coates*, 428; cured by trepanning. *Wells*, Tr. soc. med. ch. kn. III. 91; with hemiplegia, from an exostosis. *Percival*, Ed. med. journ. IX. 271; oil of turpentine: *Clifton*, X, 40; fatal case. *Latham*, Med. tr. V. 52: *Young*, 257; two cases in which the oil of turpentine, in a large dose, was successful; also *Lithgow*, Ed. med. journ. XI. 300; *Prichard*, 458; cathartics.

A. Without any local sensation, except in the head. Epilepsia cerebralis, Cull. syn. liii. 1; E. occasionalis a pathemate mentis, 3. Horst. opp. II. 75. p. 89. Sennert. paralip. 1. m. pr. n. 15, 16, paral. V. n. 2. Bonet. sep. 1. §. 12. Hunauld, Ac. Par. 1734. Walter, Phil. trans. Med. comm. Ed. I. 229. Fink gallenkr. Sarcone, Nap. III. Tissot. nerv. dis. IV. Meyer, Bald. N. mag. IV. 509.

B. Preceded by a peculiar sensation, creeping up from a distant part of the body. Epilepsia sympathica, Cull. syn. liii. 2.

† Epilepsia occasionalis, Cull. syn. liii; astheniae, pyrexiae, ischuriae, profusionis, dyspepsiae, epiphymatis, vulneris, venenationis, parasitismi, dystociae symptoma.

X. ENTONIA.

Rigidity.

A fixed or continued contraction of a voluntary muscle.

1. E. *rig'ida.* A forcible and violent contraction, depending on a continued exertion of muscular energy.
2. E. *catalep'sis.* A contraction, capable of being overcome by external force; while the limbs retain the position in which they are placed.

† Contractura, xl.

(† Hysteriae, maniae, pyrexiae, amenorrhoeae, dyspepsiae, paraphymatis, scorbuti, vulneris, venenationis, parasitismi symptoma.)

1. *Entonia rigida.* Hippocr. dis. III. 491; int. aff. 561. Barthol. ep. IV. 390, 397. Wepfer obs. 696. Brendel, opp. I. 189. Werlhof, opp. III. 704. Monro's lect. Geach, Phil. trans. Haen rat. med. VI. iv. s. 9; X. iii. iv. Hillary's Barb. Lentin memor. Chalmers Carol. Cleghorn Min. Stoll rat. med. IV. 89. Med. comm. Ed. I. 87. Balding. N. mag. III. 429; VIII. 513; Metzler, IX. 429. Steuart de spasmo; Webster m. pr. II. 164. Rush, Am. trans. II. Hufelands journ. Loders journ.

A. Locked jaw. Trismus, Cull. syn. xlviii. (2); Trismus nascentium, 1; Tr. traumaticus, 2. Heister comp. m. pr. xv. §. 10. Hillary's Barb. 221. Cleghorn's Min. intr. 33. Hofer, Act. Helv. I. 65; Zwinger, III. 319. *Silvester*, Med. obs. inq. I. 1; *Clephane*, 50; *Macaulay*, II. 130; *White*, 382; III. art. 31. *Woolcombe*, Phil. trans. 1765. 85; *Spry*, 1767. 88; electricity. Trismus, *Sauvages*, I. 530. *Farr*, Med. obs. inq. IV. 91. *Manget*, Med. comm. Ed. I. 318; from the insertion of a tooth. *Carter*, Med. trans. Lond. II. 39. *Moodie*, Med. comm. Ed. III. 304. Akermann über den trismus. 8. Nur.; Med. comm. Ed. VI. 387. *Wright*, Med. obs. inq. VI. 143. *Andree*, M. Med. soc. Lond. IV. 428. *Dexter*, Amer. Ac.; Med. facts. VII. 266. *Mackie*, Dunc. med. comm. XX. 202; from a wound; opium. *Chisholm*, Dunc. ann. 1800. 402. *Dalrymple*, Ed. med. journ. I. 294; cold affusion. *Harkness* and *Parkinson*, Medicoch. tr. II. 284, 291; immense doses of opium, wine, porter, and cathartics. Schneider über den kinnbackenkrampf. 8. Fulda; Ed. med. journ. VII. 225. *Phillips*, Medicoch. tr. VI. 65; enema of oil of turpentine. *Labatt*, Ed. med. journ. XV. 216.

† Trismus traumaticus Cull. is sometimes, but not always, symptomatic of a wound.

B. Affecting a small part of the body without locked jaw. *Aird*, Ed. med. ess. I. 281; oesophagus. *Percival*, Med. trans. II. 90; oesophagus. *Partington*, Phil. trans. 1778. 97; electricity. *Eason*, Med. comm. Ed. V. 83; electricity. *Gilby*, Lond. med. journ. XI. 385. wry neck; electricity. *Parkinson*, M. Med. soc. Lond. II. 493; eyelids, from lightning. *Baillie*, Med. tr. V. 136; sphincter ani. *Hall*, Ed. med. journ. XIII. 63; face.

2. Crampus, *Sauvages*, I. 540; painful and of short duration, but not a clonus. Cramp.

C. Affecting at least half of the body. Tetanus, Cull. syn. xlviii. 1. Spasmus, Bont. med. Indor. Hillary's Barb. 219. *D. Monro* and *A. Monro*, Ed. phys. ess. III. 551, 557; mercurial ointment. *Chalmers*, Med. obs. inq. I. 87. *Watson*, Phil. trans. 1763. 10. Tetanus, *Sauvages*, I. 541; Catochus, 545; Convulsio Indica, 554. *Huck*, Med. obs. inq. III. 326; opium and musk. Trnka de tetano. 8. Vienn. 1777. *Cochran*, Med. comm. Ed. III. 183; cold bathing. Munro de tetano. 8. Ed. 1783; Smellie thes. IV. 325. *Chavasse*, Dunc. med. comm. IX. 374. *Rush*, Am. trans.; Lond. med. journ. VII. 424. *Rush*, M. Med. soc. Lond. I. 65; *Shoaft*, II. 108; calomel, bark, wine, and cold bathing; *Conyngham*, 114; calomel, bark, and wine; *Hutchinson*, 138; electricity; *Ja. Carrie*, III. 147. *Ellis*, Dunc. med. comm. XIX. 341; from a puncture; caustic. *Dallas*, Dunc. ann. 1798. 323; *Hosack*, 1799. 389; wine. *Smith*, M. Med. soc. Lond. VI. 77. *Mursinna*, Ed. med. journ. II. 430; idiopathic: *Arnoldi*, IV. 45; cold affusion, to fainting: *Briggs*, V. 149; purgatives; VI. 173; from *Stoll*; *Grimstone*, VII. 14. *Christie*, 411. *Wells*, Tr. soc. med. ch. kn. III. 241; from salivation. *Latham*, Med. trans. IV. 22, 174; Dover's powder: *Currey*, 166; cold affusion: *Vaughan*, V. 469; Dover's powder. *Duncan*, Ed. med. journ. XI. 198; tobacco smoke: *Reid*, 306; mercery and opium: *Grimstone*, 419; *Dickson*, Medicoch. tr. VII. 448: *Macarthur*, 466. Morison on Tetanus. 8. Newry, 1816, Ed. med. journ. XIII. 241; warm rather than cold bath; opium: *Lazzaretto*, 451; from a bite: *Hall*, XV. 184, large dose of opium taken by mistake: Reid on tetanus, Dubl. 1817, 262; *Sanders* XVI. 473; nerves inflamed. *Burmester*, Medicoch. tr. XI. 384. See wounds.

1. Opisthot'onus. 2. Emprosthot'onus. 3. Pleurot'onus, not "Pleurosthotonus," Strack. 4. Holot'onus. 5? Ecstasis, *Sauvages*, I. 828; a partial rigidity.

2. *Entonia catalepsis.* Apoplexia cataleptica, Cull. syn. xlii. 8. Paul Aeg. III. x. Forest. X. n. 41. Sennert. paral. I. n. 11. Tulp. I. 22. Bellin. morb. cap. 599. Hofm. med. rat. IV. iii. c. 4. obs. 1. Boerh. 1036. Junck. 44. Wepf. obs. 558. Phil. trans. 1735. Reynell, Phil. trans. Catalepsis, *Sauvages*, I. 824. Stoll prael. II. 10. Tissot nerv. dis. Fabri de catalepsi. 8. Hall. 1780. Behrends, Bald. N. mag. IX. 193, 201; X. 67. Selle N. beitr. II. 18. *Fitzpatrick*, Dunc. med. comm. X. 242. *Wilkinson*, Med. facts. III. 53. *Lubbock*, Ed. med. journ. I. 61.

XI. MANIA.

Insanity.

An idiopathic depravation of the faculties of the mind.

The limits between health and disease in this case, as in many others, are somewhat indistinct: the species also run frequently into each other.

1. M. *amen'tia.* Want of perception, or of memory, as well as of judgment. Idiotism, or imbecility.
2. M. *melanchólia.* The perceptions being little affected, the derangement of the judgment confined to some particular objects.
3. M. *universális.* The derangement of the judgment being general and total; the sensations not being materially impaired.

(† Hysteriae, pyrexiae, dyspepsiae, venenationis symptoma.)

1. Mania. Galen melanch; loc. aff. III. vii. Forest. X. n. 12. 36. Plater. obs. I. Horst. opp. I. 431-2. II. 79, 94.

III. 72? Ballon. morb. mul. IV. 143. Sennert. paralip. I. 3, 8? Barthol. ep. I. 207. Willis an. brut. xi, xii. Tulp. I. n. 19. Sydenh. opp. 122, 531. Bellin. morb. cap. 501. 514. Hofm. suppl. II. 2. Bagliv. m. pr. xiv. Wepfer. obs. 316, 324, 332. Stalpart. II. 19. Swieten, §. 1180. Doddridge, Munckley, Phil. trans. *Barry*, Ed. med. ess. IV. 414; callus. *Battie* on madness. 4. Lond. 1758. *J. Monro* on Battie's treatise. 8. Lond. 1758. *Morgagni*, ep. 8, de mania, melancholia; ep. 61, de deliriis quae sine febri contingunt. Landais, Journ. méd. XLI. Lentin beob. 113, 116, 123; memor. 138. Sarcone, Nap. II. III. 1. Deliria, *Sauvages*, II. cl. 8. ord. 4. Stoll rat. med. III. 199; prael. II. 6. Med. comm. Ed. IV. 424; VII. 105; VIII. 1. Stuart de mania; Webster m. pr. II. 238. Arnold on insanity. Ed. 2. 2 v. 8. Lond. 1806. *Cowling*, Lond. med. journ. II. 198; after hemiplegia. *Jones*, Dunc. med. comm. XI. 302, 380; *Cox*, XIV. 261; digitalis. *Oliver*, Lond. med. journ. VI. 120; camphor; *Simmons*, 159; with hydrocephalus. *A. Fothergill*, M. Med. soc. Lond. I. 310. Balding. kr. arm. 134; Meier, Bald. N. mag. IV. 200; Bücking, VIII. 47; Willich, 252; IX. 83, 183, X. 76; Willich, 106: Pflüger, XI. 146. Withering on digitalis. Osiander beobachtungen, 137. Mursinna beob. I. 131. Selle, N. beitr. I. 25. Mania lactea, Denon on rupture of the uterus. Chiarugi on madness. Flor. 1793-4. Germ. 8. Leipz. 1791. Schmidt Psychologische behandlungsart. 8. Hamb. 1797. *Crichton* on mental derangement, 2 v. 8. Lond. 1798; Germ. *abridged*, 8. Leipz. 1798. "A valuable work, the author is acquainted with the *German physicians and philosophers*." Rothe. * *Haslam* on madness and melancholy. Ed. 2. 8. Lond. 1809. Quarterly Review. I. n. ii; Ed. med. journ. V. 449. *Ja. Sims*, M. Med. soc. Lond. V. 372. *Brown*, Dunc. ann. 1799. 488; cold; *Hall*, 1830. 364; cold; *Ross*, 383; fasting, often for 14 days. Jourdan, Hufel. journ. IV. 227; Bedd. on fever; from the pressure of a particle of glass. *Cox* on insanity. 8. Lond. 1804, 1806; Ed. med. journ. I. 228. *Pinel* on insanity, by Davis. 8. Lond. 1806; Ed. med. journ. III.

220. Ed. med. journ. II. 440. *Report* to the House of Commons, Ed. med. journ. IV. 129; *Duncan*, 144. *Crowther* on insanity. 8. Lond. 1811, VIII. 96. Halloran on insanity. 8. Cork. 1810; Ed. med. journ. VII. 218. Black, Lond. 1810; VII. 220: Haslam's Illustrations, 8. Lond. 1810; VII. 351: Parkinson's observations, Lond. 1811; VII. 272. *Powell*, Med. trans. IV. 131; comparative prevalence. *Reid* on insanity. 8. Lond. 1816; Ed. med. journ. XII. 467. Tuke's description of the Retreat. 8. York. 1813. Ed. med. journ. X. 65; warm bath, exercise, and kind treatment. Report on Delahoyd and Lucett's process. 8. Lond. 1813. Ed. med. jeurn. X. 250. It is said to be hot bathing combined with cold applications to the head.

1. *Mania amentia.* Amentia, Cull. syn. lxv. Sennert. paral. I. n. 17; imaginary poison. Bonet. sep. I. 260; brain dry. Willis an. brut.; Path. xiii. Sydenh. opp. 125. Raii hist. pl.; stramonium. Amentia, *Sauvages*, II. 248. *Morgagni*, ep. 1, art. 10; ep. 61; alterations of the brain. Lentin bem. einig. kr. Vollmar, Balding. N. mag. VII. 77. Idiotism of Pinel.

A. From birth. Amentia congenita, Cull. syn. lxv. 1. *Reeve* on cretinism, Phil. trans. 1808. 111; Ed. med. journ. V. 31.

B. Dotage. Amentia senilis, Cull. syn. lxv. 2.

C. Of middle age. Amentia acquisita, Cull syn. lxv. 3; sometimes merely symptomatic of another disease.

2. *Mania melancholia.* Melancholia, Cull. syn. lxvi. Plater. I. 39; "ex habitu jocorum." Hofm. III. 251. Boerh. 1089. Junck. 121. Lorry de melancholia, 2 v. 8. Par. 1765. Melancholia, *Sauvages*, II. 251; Daemonomania, 260; *Grant*, Med. comm. Ed. 11. 420. *Andry*, M. Soc. R. méd. II. 420. *Alderson*, Ed. med. journ. VI. 287; apparitions.

A. Wholly limited to one object. Melancholia, Pinel. 1. Melancholy. 2. Joyful. 3. Amorous. 4. Religious. 5. Indolent. 6. Restless. 7. Tedious. 8. Fanciful.

B. More general, but with more extravagance than want of judgment. Mania without delirium, Pinel.

3. *Mania universalis.* Mania, Cull. syn. lxvii ; M. mentalis, 1 ; M. corporea, 2; M. obscura; 3. Schenk obs. p. 142. Amat. Lusit. II. n. 67. Locher de mania. Hofm. III. 251, 263. Boerh. 1118. Junck. 122. Puzos. Preysinger morb. cap. Mania, *Sauvages*, II. 264; Paraphrosyne, 264, is always symptomatic of some other affection.

A. Complete and violent madness, with a degree of permanence in the illusions. Mania with delirium, Pinel.

B. With rapid transitions, and great incoherence. Dementia, Pinel.

CLASS II.

PARHAEMASIAE.

SANGUINE DISEASES.

ORDER I. *PHLOGISMI.* FLUSHES.

XII. RUBOR.

Erubescence.

Distension of the minute bloodvessels, without immediate pain.

1. R. *fúgax.* Transitory blushing.
2. R. *priapis'mus.* Priapism.

1. *Rubor fugax.* Scarcely a disease; sometimes a symptom of erethismus or hysteria, often of dyspepsia, and, in this case, more permanent. Bichat considers blushing as depending merely on the sudden action of the heart, forcing the blood into the most distensible vessels: supposing this opinion true, the affection ought to be referred to the genus palmus.

2. *Rubor priapismus.* Dysspermatismus hypertonicus, Cull. syn. cxxv. 5. *Cockburn*, Ed. med. ess. I. 327; a symptom of this affection. Priapismus, *Sauvages*, I. 540. See Erethismus satyriasis, vi. 6.

XIII. INFLAMMATIO.

Inflammation.

Distension of the minute bloodvessels, considerably permanent and painful, independent of constitutional affection.

The nerves may, perhaps, be very materially concerned both in fevers and in inflammations; but it is impossible to ascertain how far they are actually concerned, and the affection of the bloodvessels affords the most obvious criterion of the diseases.

1. I. *phlegmon'ica.*	With aching, throbbing pain; the part, if visible, being of a bright red colour. Not contagious. Phlegmonous.
2. I. *ustória.*	With acute burning pain, not spreading beyond the part first affected. A burn or scald.
3. I. *erythéma.*	With burning pain, and very little throbbing, having a tendency to spread rapidly. Scarcely contagious. Erysipelatous.
4. I. *specif'ica.*	Generating a peculiar matter, differing from simple pus. Commonly contagious. Specific.

Inflammatio. *Smyth*, Med. commun. II. 168; divides it as affecting the skin, the cellular membrane, serous membranes, mucous membranes, or muscular fibres. *Parry*, M. Med. soc. Lond. III. 77; compressing the arteries. *Thomson's* lectures on inflammation. 8. Edinb. 1813. Edinb. med. journ. X. 244; *Lizars*, XV. 396. *Ryland*, XVII. 257.

1. *Inflammatio phlegmonica.* Cullen classes all inflammations as fevers. *Beddoes*, Med. facts. IV. 148. Wedekind Theorie der entzündungen. 8. Leipz. 1795. See pathogony, spontaneous cure, and Cauma, xv.

A. Of a muscle. Arthrodynia rheumatica? Cull. syn. xxii; Arthropyosis? xxv. See rheumatismus.

A. 2. Of the periosteum. *Home*, Tr. soc. med. ch. kn.; spreading from the dura mater to the pericranium.

B. Of the integuments. Phlegmone, *Sauvages*, I. 144. *Drapes* on phlegmon. Ed. med. journ. XIV. 178; against repellents.

C. Of a vein. *Hunter*, Tr. soc. med. ch. kn. I. 18; Med. comm. Ed. III. 465; Sherwin, IV. 206. *Wilson*, Tr. soc. med. ch. kn. III. 65; lower cava obliterated.

D. Of an absorbent gland. Bubo, *Sauvages*, I. 145.

D. 2. Of the brain. See cauma.

E. Of the eye. See I. specifica.

F. Of the nasal sinus. *Bordenave*, M. Ac. chir. IV. 329, V. 225.

G. Of the teeth or gums. Forest. XIV. n. 3, 4, 6, 7. Horst. opp. II. 98. Schelhammer de parulide. Jen. 1692. Hofm. II. 330. Junck. 25. Odontalgia, *Sauvages*, II. 73. Stoll prael. I. 391. II. 47. Theden N. bem. Berdmore on the teeth. Hunter on the teeth.

H. Of the tongue, often from concretions. Forest. XIV. 29. Stalpart. I. n. 20. Freeman, Lister, Phil. trans. See Emphragma.

H. 2. Of the pharynx. Abercrombie, Ed. med. journ. XV. 259. *Home*, Tr. soc. med. ch. kn. III. 268; epiglottis.

I. Of the ear. Forest. XII. n. 1..6. Otalgia, *Sauvages*, II. 71.

K. Of the parotid gland. Parotis, *Sauvages*, I. 146.

L. Of the breast or nipple. Forest. XVII. 22, 23, 28. Mauriceau, I. 443, 495. Timaeus cas. p. 236.

M. Of the umbilicus. Mauriceau, I. 495.

N. Of the back or trunk. Forest. XXIV. n. 3. Ballon. cons. I. 28. *Morgagni*, ep. 16, art. 31; ep. 20, 21; de pectoris, laterum, et dorsi dolore.

O. Of the diaphragm. Barthol. hist. an. III. 50. *Morgagni*, ep. 70, art. 5.

P. Of the stomach? Fernel. Cons. XXVIII. Forest. XVIII. n. 4, 20..29, 39..41. Barthol. hist. an. III. n. 50. Bald. N. mag. VII. 273. See Dyspepsia, Hernia.

Q. Of the intestines? Galen loc. aff. VI. ii. Forest. XXI. n. 2..15. Horst. opp. II. 167. Ballon. cons. I. 5. Barthol. hist. an. IV. n. 11, 49; concretions. Willis an. brut. path. xv. Tulp. I. n. 59; concretions. Harris morb. ac. inf. Bagliv. pr. m. I. ix. Dover's legacy. Tronchin col. Pict. xii. Jenty, Mesaporitus, Cole, Thoresby, Huxham, Makerness, Martineau, Phil. trans.; mostly concretions. *Morgagni*, ep. 34, 35, de intestinorum dolore; ep. 37, art. 24; concretions often formed on gallstones; ep. 39, art. 30. Bajon, Journ. med. XXXIII; Amilhon, 1782. Wilmer's cases. Stoll rat. med. IV. 77. V. 281, 440; prael. II. 185.

Gooch, Med. comm. Ed. II. 373; Scott, V. 465; Fitzgerald, VIII. 40; Bisset, IX. 65; mostly concretions. White's cases. Millon, Lond. med. journ. *Parkinson*, Medicoch. tr. III. 57; peritonaeum. *Smith*, Ed. med. journ. IX. 287; cold water. *Powell*, Med. trans. VI. 106; membranes discharged, but without acute inflammation. Many of these authorities afford rather illustrations than cases.

R. Of the liver. Forest. XIX. n. 12. Barthol. hist. an. II. 85. Grosmann, Balding. N. mag. XI. 519. See Cholelithia.

S. Of the spleen. Forest. XX. n. 12. Barthol. ep. II. 586. *Morgagni*, ep. 36, art. 14; ep. 65, art. 11; chiefly Phtharma, xxxvii.

T. Of the pancreas. Scarcely to be ascertained. *Morgagni*, ep. 30, art. 8; scirrhous. Baader observationes medicae. 1762. Haller el. phys. VI. 431. Lieutaud, I. Haen de deglut. i. Baillie und Sömm. 151. Vogels handb. IV. xiv.

U. Of the mesentery. *Morgagni*, ep. 39, art. 9; ecphyma.

X. Of the kidney. Forest. XXIV. n. 14, 15, 18. Cowper, Phil. trans. *Morgagni*, ep. 42, art. 13... Stoll rat. med. V. 443. Stack med. cas. See Lithiasis, 34.

Y. Of the bladder. Ramazzini opp. 338.

Z. Of the prostate. Trampels bemerk. 1. Murray de lue curanda. Ups. 1777. Stoll. rat. med. I. 174. Baillie und Sömmering. *Baillie's* engr. 163; calculi.

AA. Of the penis. Forest. XXVI. n. 3. Monro, Ed. med. ess. V. 495, 498. Vogels handb. IV. xxvi.

BB. Of the testis. Forest. XXVII. n. 3, 4; scrotum. *Petit*, M. Ac. chir. IV. 323; suppuration of the tunica vaginalis. *Golding*, Med. facts. VII. 62; with fever, almost an orchitis. Vogels handb. IV. xxv. *Baillie's* engr. 177. See Ecphyma, xlviii.

CC. Of the uterus. Forest. XXVIII. n. 28..30, 81. Ballon. cons. II. 32. Barthol. hist. an. IV. 64. Stoll. rat. med. V. 442. Med. comm. Ed. III. 57; Swan, VI. 234. Bouvet Journ. med. XLI. Hooper, Med. obs. inq. V. Willich, Richt. chir. bibl. V; Waiz, V. 550. A venere nimia, Lond. 1811. S.

CC. 2. Of the labia. *Wood*, Medicoch. tr. VII. 84; with ulcers, in children.

DD. Of the anus. Forest. XXIII. n. 13. Plater. obs. II. 489. Proctalgia, *Sauvages*, II. 145. Theden N. bem. I. 113; from cold.

EE. Of the extremities. From cold. Chilblain. Forest. chir. V. n. 15. Timaeus. cas. 266. Pearson's princ. surg. 153.

FF. About the nails. Whitlow. Forest. chir. V. n. 15. Glandorp de paronychia. 8. Brem. 1623. Fordyce surg. fragm. Hegner de paronychia. Bâle, 1780. Theden N. bem. II. 236. Pears. princ. surg. 87. *Kerckhoffs*, Med. tr. VI. 48.

2. *Inflammatio ustoria.* Phlogosis erythema 2, Cull. syn. vii. 2. Forest. XXXI. 8; chir. II. 16, 18. Godfrey's miscellanea vere utilia; cold. Heister chir. IV. xv. Monro, Ed. med. ess. V. ii. 497. *Spry* and *Huxham*, Phil. trans. 1756. 477; melted lead in the stomach. *Huxham*, Phil. trans. 1762. 517; lightning. Erythema ambustio, *Sauvages*, I 138. *Henley*, Phil. trans. 1772. 131; lightning. Lowdell, M. med. soc. Lond. I. 315; cold. *Cleghorn*, Med. facts. II. 120; vinegar, chalk,

and poultices; sulfuric acid, of the same strength, did not succeed. Vinall Amer. Ac.; Med. facts. VII. 279; negative electricity. *Parkinson*, M. Med. soc. Lond. V. 62; spirits. Pears. princ. surg. 171. Kentish on burns. 2 v. 8. *Lyall*, Ed. med. journ. VII. 313. The workmen at Chatham sometimes cure themselves with sulfuric acid a little diluted, which makes a slough without much pain. W.

3. *Inflammatio erythema.* Erysipelas, Pears. princ. surg. 186; Oedema cum Erythemate, 323. See Cauma, xv, Erysipelas, xvi.

A. Simple.

B? Serous. Oedematous inflammation. J. Hunter; serum being thrown out in the second stage instead of lymph.

C. Carbunculous. J. Hunter. See Ecphyma, xlviii.

D. Coppery. J. Hunter.

4. *Inflammatio specifica.*

A. Local ophthalmia. Ophthalmia, Cull. syn. viii, is often without fever, and the presence of fever is not expressed in the definition of the genus, as in other genera of the same class; O. membranarum, 1; O. tarsi, 2. Taraxis Aëtii, Pauli Aeg. Forest. XI. n. 1..12. Hofm. Suppl. II. ii.. *Morgagni*, ep. 13, de oculorum affectibus. Marigues, Vanderm. XXXVI. Armstrong dis. childr. Ophthalmia, *Sauvages*, II. 58. Lind. Stoll. rat. med.; prael. I. 379, 383. II. 12. Bloch. med. bem. 106; from local syphilitic infection: see Sagar, ophthalmia gonorrhoica. Erndtel Warsov. illustr. and Schmucker wahrn. I. 301. Wemyss de ophthalmia; Webster m. pr. I. 137; "plerumque localis morbus est." *Dobson*, Med. comm. Ed. III. 411; febrile, emetics. Taube

de oculorum inflammationibus. Gott. 1783. Trnka historia ophthalmiae. 8. Vienn. 1783. Richter anf. III. Reil. mem. clin. I. i. Singeisen de ophthalmia a vitio ventriculi. Weim. 1786. Wilder de ophthalmia epidemica. Stuttg. 1787. Meckel et Pulvermacher dissertatio. Hall. 1788. Fest Winke. 8. Leipz. 1793. *Ware's* appendix. 8. Lond. 1795. *Hooper*, M. Med. soc. Lond. II. 328; orange and lemon juice; *Heynam*, V. 325; oil of turpentine. *Guthrie*, Dunc. ann. 1799. 473; sp. turp. Power on the Egyptian ophthalmia. 1803. Ware on the eye. 8. Lond. 1805; Ed. med. journ. II. 233; *Peach*, III. 52; Egyptian; *Wardrop*, 56; evacuating the aqueous humour. *Gibson*, 159; from leucorrhoea in the mother. Edmonston on ophthalmia. 8. Ed. 1806; Ed. med. journ. III. 211. Vetch on the Egyptian ophthalmia. 8. Lond. 1807; Ed. med. journ. III. 360; *Peach*, 395; Egyptian; *C. F. Forbes*, 430; epidemic; *Vetch*, IV. 151; in a moist air; 157; detection of counterfeit ophthalmia. Wardrop on evacuating the aqueous humour. 8. Ed. 1807; Ed. med. journ. IV. 361. *Ware* on purulent ophthalmy. 8. Lond. 1808; Ed. med. journ. IV. 362; *Vetch*, 447; *Simmons*, 238; purulent. Serny on local inflammation. 8. Lond. 1809. *Goodlad*, *Ankers*, and *Lyall*, Ed. med. journ. VI. 15, 62, 67; purulent: *Walker*, VII. 1; two kinds, in the army. *Muir*, 244; salivation: *Curry*, Medicoch. tr. III. 348; remitting. *Wilson*, Ed. med. journ. X. 411: *Mackesy*, XII. 411; not contagious; bleeding. *Cartam:* XIV. 507. Iritis; Cooper and Travers's essays; generally requires salivation. *Bostock*, Medicoch. tr. X. 161; annual attacks. *Macgregor*, Tr. Soc. med. ch. kn. III. 30, 45.

(See also Geach, Theden, Lange.)

See General works, Diseases of the eyes, and Dysaesthesia, iv.

(† Pyrexiae, ecphymatis, carcinomatis, ulceris, scrofulae, syphilidis, ectopiae symptoma.)

B. Gonorrhoea. Gonorrhoea impura, Cull. syn. cxxii. 2. *Peyronie*, M. Ac. chir. I. 425; dysspermatismus, a consequence. Gonorrhoea syphilitica, *Sauvages*, II. 403. *Simmons*, Lond. med. journ. II. 233. *Balfour's* thesis. Edinb. 1767; not syphilitic. Graham de gonorrhoea virulenta; Webster m. pr. I. 339. *Duncan*, med. comm. XII. 360. Tode Erleichterte kenntniss des trippers. 8. Copenh. 1790. B. Bell on gonorrhoea. 2 v. 8. Ed. Dunc. med. comm. XVIII. 165. *Robertson*, Dunc. ann. 1799. 455; succeeded by an affection of the eyes; uses acetate of zinc "with sulfuric acid," making sulfate of zinc and vinegar. Whateley on gonorrhoea. 8. Lond. 1801. Identities ascertained. 8. Lond. 1808; a gonorrhoeal ophthalmia, on Foot's principles. Langstaff. Ed. med. journ. VII. 29; calomel and opium. *M'Coy*, Ed. med. journ. XI. 296; a superficial ulcer from the same source: *Fletcher*, 298; injection of sea water: *Crawford*, XIII. 532; XIV. 32. 263; cubebs: *Adams*, XV. 61. See syphilis, lxi.

XIV. PROFUSIO.

Profusion.

A simple effusion of blood from the capillary vessels.

1. Pr. *haemorrhag'ica.* An excretion of blood. "Passive haemorrhage."
2. Pr. *subcutánea.* An effusion of blood under the skin.

† Cauma haemorrhagicum, xv.

1. *Profusio haemorrhagica.* Passive haemorrhages, though confessedly without fevers, have often been considered by nosologists as mere varieties of those to which fever is essential; hence the synonyms are somewhat indistinct. Oribas. VI. xlvii. *Murray*, Ed. med. ess. II. 306, continuing 29 years. Mesaporitus, Phil. trans. Heberden, Med. trans. II. 530; bleeding examined, but not very satisfactorily; *Reynolds*, III. 217; lead with opium safe. Coghlan de plethora; Webster m. pr. I. 1. *Adair*, Med. facts. IV. 25; oil of turpentine. Odier, Dunc. med. comm. XVIII. 441; beech charcoal. *Binns*, M. Med. soc. Lond. 348. *Yeats*, Med. tr. V. 429, with purpura.

A. Cutaneous. Plater obs. III. 774? Ash, Phil. trans.; fingers. Musgrave, Phil. trans.; thumb. Westphal, Bald. syllog. II.

B. From the eye. Forest. XI. n. 12. Schenk. IV. n. 257. Sennert. Havers. Menghini, Phil. trans. Epiphora cruenta, *Sauvages*, II. 375.

C. From the nose. Forest. XIII. n. 10..14; 12 pounds. Schenk. I. n. 188, 360, 368; II. n. 78. Wepfer, obs. 907. Haemorrhagia plethorica, *Sauvages*, II. 285. Stoll

rat. med. III. 31; prael. II. 94. Balding. N. mag. X. 323. *Hamilton*, Dunc. med. comm. XI. 337; vicarious.

D. From the ear. Schenk. IV. n. 257.

E. From the mouth. Hipp. int. aff. Plin. XXV. iii. Forest. XVI. 23. Plater. obs. III. 773; from the tongue. Horst. opp. II. 279; scorbutic. Barthol. ep. IV. 523; "from the sound of whetting a knife." Schenk. I. n. 403, 405; scorbutic; III. n. 158-9. Stalpart. I. n. 18; from the alveoli. Stomacace, *Sauvages*, II. 295; scorbutic.

F. From the lungs. Hippocr. dis. I. p. 451. Galen loc. aff. IV. v. Fernel. cons. 21. Forest. XVI. n. 11..18. Bont. med. Ind. xii. Plater. obs. III. 785-6. Horst. opp. II. 140. Ballon. cons. I. p. 76; II. 52; III. 18, 36, 97. Schenk. II. n. 79. Bonet. sep. II. v, vi. Willis pharm. rat. II. i. c. 7. Bellin. morb. pect. 686. Bagliv. aff. hep. *Darwin*, Phil. trans. 1760. 526; occurring in the night, and avoided by awaking the patient. *Morgagni*, ep. 15, art. 22, 23; from concretions. Haemoptysis, *Sauvages*, II. 287. *Dickson*, Med. obs. inq. IV. 206; nitre. Stoll. rat. med. I. 50. II. 12, 114...191. III. 11..22. IV. 520. V. 438; prael. II. 82. Duncan, p. 129. Med. comm. Ed. V. 164; *Jones*, XI. 302, 380; foxglove. *Moyle*, Lond. med. journ. VI. 252; a bronchial polypus or coagulum. *Rush*, M. Med. soc. Lond. II. 306; salt. Davidson, Med. facts. III. 68; abstinence from liquids. *Ross*, Dunc. ann. 1800. 380; nitre and an opiate. *Rumsey*, Medicoch. tr. IX. 389, 485; from worms, with convulsions. See cauma.

G. From the stomach. Hippocr. dis. II. p. 486. Gal. loc. aff. V. vi. Forest. XVI. n. 24, 25. XVIII. n. 18. Plater obs. III. 797. Horst. opp. II. 153. Ballon. I. 117, 152, 181, 190. Scultet. obs. 73. Barthol. hist. an. I. n. 19. Schenk. III. n. 56, 57, 66, 271. Tulp. II. 21. Marchettis, 97. Ulloa, Phil. trans. *Morgagni*, ep. 36.

art. 11; ep. 65, art. 2. Haematemesis, *Sauvages*, II. 296. Stoll. rat. med. I. 246. IV. 480. Perciv. essays; from electricity. Home clin. exp. *Marcard*, Med. comm. Ed. IV. 203; camphor. Baume, Journ. med. 1782. *Lucas*, Med. obs. inq. V. 73. Theden N. bem. II. 119. *Ploucq.* nosol. III. 75; from electricity. *Cooke*, Ed. med. journ. IX. 299; fatal.

H. From the stomach and intestines. Hippocr. dis. II. Navier, Varnier, Vandermonde. Haller. N. Comm. Gott. VIII. 2. Melaena, *Sauvages*, II. 332. Tissot on the morbus niger, by Burke. 8. Lond. 1776. *Key*, M. Med. soc. Lond. III. 554.

I. From the intestines in general, or perhaps from the liver. Haen rat. med. X. 310. Hepatirrhoea cruenta, *Sauvages*, II. 322. Bond, Med. obs. inq. I. 67; "a worm bred in the liver;" evidently a coagulum formed in the colon. Y. See Parasitismus, lxxvi. *Hill*, Ed. med. journ. XII. 275; fatal, with diseased rectum.

K. From the haemorrhoidal vessels. Galen on bl. bile. Fernel. cons. 54. Forest. XXIII. 3, 5, 6. Horst. opp. II. 285, 296. Ballon. cons. II. 51. III. 98. Schenk. III. 157. Mauriceau, I. 147. Bagliv. opp. 826. *Morgagni*, ep. 32, de haemorrhoidibus. Haemorrhois, *Sauvages*, II. 323. Duncan, 88. Stoll rat med. V. 441. Trnka historia haemorrhoidum. 3 v. 8. Vienn. 1794-5. Hildebrandt über die blinden hämorrhoiden. 8. Erl. 1795.

L. From the breast. Schenk. IV. n. 266.

M. From the urethra. Hippocr. int. aff. p. 540. Forest. XXIV. n. 5..13. Plater. III. 841. Horst. opp. II. 213. Ballon. cons. I. 3. Barthol.; aloe. Barthol. hist. an. IV. n. 45. Schenk. III. ii. n. 257, 294; a worm. IV. n. 40. VII. n. 124; cantharides. Sydenham. Stalpart, I. 80. Downman, Phil. trans. Hofm. II. 331. Junck.

x. Ed. med. ess. V. lxxii; a worm. Lentin memor. 128. Haematuria, *Sauvages*, II. 300. Stoll. rat. med. IV. 377; prael. II. 90. Fink gallenkr. 259. Theden N. bem. II. 79; accident. *Bland*, Lond. med. journ. IV. 282. *Stewart*, Dunc. med. comm. XIX. 332; periodical. *Home*, Phil. trans. 1796. 486; the coagulum dissolves slowly in the bladder into a powder, without putrefaction.

(† Typhi, lithiasis, vulneris, parasitismi symptoma.)

N. From the uterus. Hippocr. 567. Galen loc. aff. VI. v. Oribas. xliv. Forest. XXVIII. n. 10..18. Plater. III. 769. Horst. opp. II. 273, 278, 296. Ballon. cons. I. 12, 13. Barthol. hist. an. II. 42. Schenk. IV. 275. Mauriceau, passim. Stalpart. I. n. 76; in pregnancy. Freind emmenol. xii. Juncker. xiv. Pasta, Ed. med. ess. VI. 505. *Morgagni*, ep. 47, art. 8. Lentin, I. obs. 13. Menorrhagia, *Sauvages*, II. 306. Chalmers Carol. Stoll rat. med. V. 240; prael. II. 104, 381. Balding. N. mag. 1. 401; Höpfner. VI. 220. Rigby's essay; see Dystocia, lxxvii. Leroux sur les pertes de sang. Wallis on injudicious bleeding. Guattani de aneur. Fink gallenr. 254. Daly de menorrhagia; Webster m. pr. I. 73. *Denman*, Med. facts. I. 108; a membranous lining frequent in painful menstruation. *Copaine*, Med. facts. IV. 118; opiate clysters. Strack de una prae ceteris causa. 8. Berl. 1794.

2. *Profusio subcutanea.*

A. In broad irregular spots. Ecchymoma, Cull. syn. cxxx. Galen. tum. x. Horst. opp. II. 445. Ballon. I. 73. Tulp. I. 55. Ruysch obs. 2? Werlhof. opp. III. 748. Haen rat. med. VI. 4. §. 2. Ecchymoma, *Sauvages*, I. 130. Stark clin. obs. Macbride obs. inq. Theden N. bem. I. 20. II. 52. Rogert, Act. med. Havn.; Dunc. med. comm. XIV. 58.

B. In numerous round spots. Petechiae sine febre; *Ferris*, Med. facts. I. 79; *Aikin*, M. Med. soc. Lond. III. 393; with haemorhage; *Garnett*, IV .233; *Walker*, Dunc. ann. 1797. 231; *Albers*, 1802, 406. *Parry* on venesection in purpura? Ed. med. journ. V. 7. *Jeffrey's* Ed. med. journ. VIII. 435: *Walsh* IX. 161: *Combe*, XVII. 83; purpura. In this disease, the sulfuric acid is a powerful remedy, the cirric ineffectual; in true scurvy, the reverse. Y.

C. In an internal cavity. Seldom occurs without laceration, and cannot be very easily ascertainable. Ed. med. ess. V. 56; in the pericardium. Haematocele. Forest. chir. VI. 32; from violence.

ORDER II. *PYREXIAE*. FEVERS.

PYREXIAE. Palladius de febribus. Gr. Lat. Leyd. 1745. Lommius de curandis febribus. 8. Rotterd. 1720; was long considered as classical. Ballon. I. 89; Cons. III. 55, 71. Sennertus de febribus. Willis de febribus. Sydenham methodus curandi febres. 8. Lond. 1666. Morton de febribus. 2 v. 8. Lond. 1692-4. Bellin. miss. sang. 247. White on bleeding in fevers. 8. Lond. 1712. Bagliv. pr. med. I. ix. Werlhof observationes de febribus. 4. Hanov. 1732; chiefly on cinchona. Torti therapeutice specialis. 4. Ven. 1755; minute subdivisions; cinchona throughout. Langrish's theory and practice of physic. 8. Lond. 1735; found the serum less abundant, and the crassamentum more viscid, in acute continual fevers, than in health; by correct experiments; see also Sauvages. Comm. Norimb. 1736. viii. §. 2; cold water much used in Italy. Elliot de crisibus. 8. Ed. 1746; Smellie thes. I. 319. Clutton on a new febrifuge. 8. Lond. 1748; seems to be muriatic acid, and perhaps muriatic ether. Huxham's works. II. Quesnay des fievres continues. 2 v. 12. Par. 1753. *Munckley*, Phil. trans. 1758. 609; bark in delirium. Haen febrium divisiones. 8.

Vienn. 1760. Brendel opp. II. 161; division. Gregory's principles of curing diseases. *Morgagni*, ep. 49; de febribus. *Farley*, Phil. trans. 1768. 80; quassia; *Benevuti*, 189; cold. *Heberden*, Med. trans. I. 472; on warmth in eruptive fevers. Tode de duplici febrium indole. 8. Copenh. 1763. Drummond de febribus arcendis. 8. Ed. 1770; Smellie thes. III. 134. Senac de recondita febrium natura. 8. Par. 1759? Genev. 1770. *Grant* on fevers in London. 8. Lond. 1771, 1787. * *Selle* pyretologia. 8. Berl. 1773, 1789. Med. comm. Ed. II. 267; considered, in Germany, as a classical work: but the arrangement appears too artificial; many of the combinations being such as probably never occur in reality. *Jaubert*, M. Soc. R. méd. I. 529; exanthematic fever. Raymond de febribus Seelandiae; Balding. Syll. I; Med. comm. Ed. IV. 140. Westphal de limitandis laudibus vomitoriorum; Bald. Syll. II; Med. comm. Ed. V. 138. Rudolph de sanguinis missione in febribus putridis. 4. Gott. 1780. Quarin de febribus et inflammationibus. 8. Vienn. 1781. *Smyth*, Med. commun. I. 135; spiritus vitrioli dulcis. Weitz pyretologia. 2 v. 8. Vienn. 1784. *Sanden*, Lond. med. journ. IV. 289; cathartics. Moore's medical sketches. Balfour on the influence of the moon. 8. Edinb. 1785. Juncker. * Vogels handbuch. Wall on opium in fevers. 8. Oxf. 1786; Dunc. med. comm. XI. 216. Glass. Schraud. Clark on fevers; Dunc. med. comm. VII. 108. Drennan cautelae de venaesectione in febribus continuis; Webster m. pr. I. 425. Goldhagen de diagnosi febrium in primo stadio. Halle, 1784. *Stoll* aphorismi de cognoscendis et curandis febribus. 8. Vienn. 1786. Pratolongo delle febbri. 8. Gen. 1786; highly praised by Beddoes. *Jackson*, Lond. med. journ. VIII. 25; lunar influence; also *Lind*, 145. Alderson on contagion. 8. Hull, 1788. Elsner Beyträge. 8. Königsb. 1789. Jackson on the fevers of Jamaica. 8. Lond. 1791; Germ. by Sprengel, with additions. 8. Leipz. 1796. *Boag*, Med. facts. IV. 1; mercury. *Fordyce*, Tr. Soc. med. ch. kn. I. 1; causes. * *Fordyce* on fever. 3 v. 8. Lond. 1794.. 1803. Kramp Fieberlehre nach mechanischen grundsätzen. 8. Heidelb. 1794. *Wright*, Med. facts. VII. 1. Ideler

über die crisis, von Hebenstreit. 8. Bresl. 1796. Reil über die fieber. 8. Halle. 1726; "a masterly work." Beddoes. Jackson's outline of the cure of fever. 8. Lond. 1798. Beddoes on calculus. * *Wilson* on febrile diseases. 4 v. 8. Winch. 1799... Lond. 1803; Ed. med. journ. II. 72. Ed. 2. Lond. 1813; Ed. med. journ. IX. 362. Haygarth on the prevention of fevers. 8. Bath, 1801; Dunc. ann. 1802. 51. Stanger on the suppression of fever. 12. Lond. 1802; Dunc. ann. 1802. 79. *Brown*, Dunc. ann. 1802. 293; duration and crisis; see Preliminary essay. It appears, by calculating from the register here inserted, that in 296 cases of fever, the mean duration was 12 days; the mean of the days of admission is 6.45; the duration of the cases admitted on the first day, 8.8; 2d, 8.0; 4th, 7.3; 5th, 5.1; 6th, 7.0; 8th, 6.1, and 10th, 6.2; the terminations on the 8 critical days, the 3, 5, 7, 9, 11, 14, 17, and 20th, were to the terminations on the 10 intermediate days, as 8 to 5: that is twice as many for each day. Palloni sulle malattie febrili. Legh. 1804-5; Ed. med. journ. II. 83. Reich? 2 v. 8: Berl. 1805. Wilson on the nature of fever. 8. Worcest. 1807; Ed. med. journ. III. 461; *Wilson*, IV. 20; fever and phrenitis. Clutterbuck on the seat of fever. 8. Lond. 1807; Ed. med. journ. IV. 74; Beddoes on fever. 8. Lond. 1807? Ed. med. journ. IV. 82; bleeding extolled. *Boyle*, Ed. med. journ. VIII. 174; Sicily: *Wilson*, IX. 435. Mills on bloodletting in fever. 8. Dublin. 1813; 1816. See Ed. med. journ. X. 358; and XI. 83; XIII. 263. Hosack on contagious diseases. 4. New York. 1815; Ed. med. journ. XI. 357: Stoker's treatise on fever. 8. Lond. 1815; 512. *Allan* on bleeding in fever; XII. 257. *Drapes*, XIII. 59; purgatives: *Rumsey*, XV. 55; sometimes the effect of depletion: Stokes on contagion. Dubl. 1818; XV. 295: Dickson on the prevalence of fever, and on houses of recovery. 8. Bristol, 1819; XV. 616: *Murray*. XVII. 337; in Aberdeenshire.

XV. CAUMA.

Inflammatory fever.

A frequent and usually a hard and full pulse; a dry hot skin; a whitish tongue; little prostration of strength; the urine high coloured, and a buffy coat on the blood. When the pulse is not full, it is small from the beginning.

1. C. *sim'plex.*	Without local inflammation or affusion.
2. C. *haemorrhag'icum.*	With a discharge of blood at an early period of the disease. Active haemorrhage.
3. C. *rheumatis'mus.*	With pain of the muscles, or about the large joints. Rheumatism.
4. C. *podag'ricum.*	With pain and inflammation of a small joint, preceded by oppression and pain of the stomach. Fit of gout.
5. C. *phleg'mone.*	With bright redness and pain of the skin.
6. C. *erythemat'icum.*	With dull redness and burning pain of the skin, succeeded by scales or vesicles.
7. C. *rubéola.*	With watery eyes, coughing, and about the fourth day an eruption of pimples; about the seventh a desquamation. Measles. Contagious.

8. C. *phrenítis.* With acute pain in the head, redness of the face and eyes, intolerance of light and sound, watchfulness, and delirium. Phrensy, brain fever.

9. C. *ophthalmítis.* With pain or inflammation of the eye or its appendages.

10. C. *otítis.* With severe pain in the ear, and deafness or confusion of sound.

11. C. *parotítis.* With pain and tumour of the parotid gland. Mumps. Contagious.

12. C. *odontalgicum.* With toothache and swelling of the neighbouring parts.

13. C. *paristhmítis.* With pain and inflammation of the fauces, and difficulty of swallowing. Sore throat.

14. C. *catarrhále.* With stuffing of the nostrils, sneezing, cough, and generally a mucous expectoration.

15. C. *bronchítis.* With difficulty of breathing, a sonorous inspiration, and a ringing cough. Croup. Perhaps contagious.

16. C. *peripneumónia.* With an obtuse pain in the chest, difficult respiration, cough, and purple lips; the pulse usually soft.

17. C. *pleurítis.* With an acute pain in the chest, especially during inspiration, a difficulty of lying on the side, and a painful cough.

18. C. *cardítis.* With pain in the region of the heart, when the epigastrium is pressed, (W.) anxiety, palpitation, and irregular pulse.

19. C. *peritonítis.* With pain and tenderness of the abdomen, which is most perceived in the erect posture; the functions of the viscera remaining undisturbed.

20. C. *gastrítis.* With a burning pain in the stomach, increased by swallowing, vomiting of every thing which is taken, hiccup, and debility.

21. C. *enterítis.* An acute griping pain in the abdomen, with tension and tenderness; the pulse weak, the strength reduced.

22. C. *hepatítis.* With fulness, tenderness, and pain in the region of the liver, pain in the shoulder, and difficulty of lying on the left side.

23. C. *splenítis.* With heat, fulness, and tenderness in the left hypochondrium.

24. C. *nephrïtis.* With pain in the kidneys and ureters, frequent micturition, vomiting, numbness of the thigh, and, in men, retraction of the testis.

25. C. *cystítis.* With pain and swelling of the hypogastrium, frequent micturition or ischury, and tenesmus.

26. C. *hysterítis.* With heat, pain, and swelling of the hypogastrium, vomiting, and tenderness of the os uteri.

(† Inflammationis symptoma.)

Cauma. Synocha, Cull syn. iv; Phlegmasiae, Cl. 1, ord. 2; Haemorrhagiae, ord. 4. Heberden; Med. trans. II. 500; on the buff coat. Johnston de phlegmasiis; Webster m. pr. I. 85. *R. Hamilton*, Dunc. med. comm. IX. 191; mercury and opium. Lappenberg de diathesi sanguinis inflamma-

toria. 4. Gott. 1783. *Lind*, Lond. med. journ. VIII. 43; mercury. Reyland von verborgenen und langwierigen entzündungen. 8. Vienn. 1790. *Yeats*, Dunc. ann. 1802. 394; calomel and opium.

1. *Cauma simplex.* Synocha, Cull. syn. iv. Synochus imputris, Galen diff. fev. II. Continens non putrida, Lomm. febr. 2. Sennert. febr. II. xi, synocha sanguinea. Sydenh. sect. 5. c. 1, 5, 2; p. s. ad tr. de hydr; febris pleuritica, synochus rheumatizans, hiemalis. Hofm. II. 105. Junck. 57-8. Boerh. 728-9. Ephemera, *Sauvages*, I. 289; Synocha, 297.

A. Synocha simplex, Cricht. tab.

B. Synocha biliosa, Cricht. tab.

(† Autalgiae, scorbuti, dystociae symptoma.)

2. *Cauma haemorrhagicum.* Haemorrhagiae, Cull. syn. cl. 1, ord. 4. The active haemorrhages are not so distinct in their nature, nor so frequent in their occurrence, as to require a separate order in the system: nor is the part of the body, from which the blood flows, sufficient to constitute a specific difference, since the symptoms vary but little with it; while, in local inflammations, they differ much more materially. Hofm. II. 194. Junck. 5. Clapham de haemorrhagiis; Webster m. pr. I. 20.

(† As a symptom of other caumata, occurs later.)

A. From the nose, commonly with flushing and headache. Epistaxis, Cull. syn. xxxvi. Hofm. II. 196. Junck. 6.

B. From the lungs, the blood being frothy, with a cough. Haemoptysis plethorica, Cull. syn. xxxvii. 1; H. vica-

ria, 5. Hofm. II. 202. Junck. 8. Boerh. 1198. Caw de haemoptoe; Webster m. pr. I. 51. *Davidson*, Med. facts. IV. 129; see profusio, xiv.

† Haemoptysis violenta, Cull. syn. xxxvii. 2; lacerationis vel vulneris symptoma; phthisica, 3, calculosa, 4, hecticae.

(† Peripneumoniae, rubeolae, variolae, dyspepsiae, hydropis symptoma.)

C. Vomiting of blood. Haematemesis, Cull. syn. II. p. 169.

(† Aneurysmatis, vulneris, venenationis symptoma.)

D. Bleeding piles. Haemorrhois fluens, Cull. syn. xxxviii. 3. Claxton de haemorrhoide; Webster m. pr. I. 61.

† Haemorrhois tumens, Cull. syn. xxxviii. 1, H. caeca, 4, belong to varix; H. procidens, 4, to prolapsus; and, if inflamed, to inflammatio, or C. phlegmone.

E. Excess of the catamenia. Menorrhagia rubra, Cull. syn. xxxix. 1. Hofm. H. 224. Junck. 14.

† Lencorrhoea, xxxvi. Dystocia abortus, haemorrhagica, lxxvii.

† Menorrhagia vitiorum, Cull. syn. xxxix. 4, ulceris, prolapsus symptoma.

3. *Cauma rheumatismus.* Rheumatismus acutus, Arthrodynia, Cull. syn. xxii. Ballon. opp. IV; opusc. 313. Dover's legacy; bleeding useless. Sydenham, V. vi. Lancis. hist. rheum. epid. Hofm. II. 317. Junck. 90. Boerh. 1490. Molineux, Phil. trans. *Monro*, Ed. med. ess. V. ii. 502; large bleeding. Clerk de rheumatismo. 8. Ed. 1746; Smellie thes. I. 355. *Morgagni*, ep. 57, de artuum doloribus. Rheumatismus acutus. *Sauvages*, II. 28. D. Monro

arm. dis. Brocklesby arm. dis.; nitre. Störck ann. II. Haen, IV. iv. Swieten. V. *Fothergill*, Med. obs. inq. IV. 69; calomel and antimony for chronic rheumatism; Works. II. 164. Grant on fevers. Fordyce's fragments. Stoll rat. med. I. 2. II. III, especially de nat. dysent. V. 420. Lentin memor. 122. Med. comm. Ed. V. 398, 472. *Fowler*, Dunc. med. comm. VII. 272; tinct. guaiac. amm. Dillon de rheumatismo acuto; Webster m. pr. I. 241; Cowling de rheumatismo chronico; II. 301. *Percival*, Lond. med. journ. III. 392; cod liver oil. *Lanphier*, Dunc. med. comm. VIII. 314; electricity; *Johnstone*, IX. 388; rheumatic palsy. Falconer on Bath waters. Theden N. bem. I. 130. *Dunc.* med. comm. XIII. 410; opium. *Sherson*, M. Med. soc. London. I. 221; electricity. *Dunc.* med. comm. XV. 367; with ischuria. Lentin on rheumatism and gout, Hufel. Journ. I, II; "excellent." Rothe. *Leeds*, Dunc. med. comm. XVIII. 331; chronic, cured by sarsaparilla. *Price*, M. Med. soc. Lond. IV. 389; antim. tartar. externally. * *Fowler's* reports on rheumatism. 8. Lond. 1795; Dunc. med. comm. XX. 211. Latham on rheumatism and gout. 8. Lond. 1796. *Patterson*, M. Med. soc. Lond. V. 321; epidemic. *Livingston*, Dunc. ann. 1801. 313; tourniquet. *De Roches*, Ed. med. journ. I. 154; opium. Haygarth's clinical history. 8. Lond. 1805. Ed. med. journ. I. 479; bark. *Dundas*, Medicoch. tr. I. 37; in the heart. *Kellie*, Ed. med. journ. IV. 179; arsenic. *Haygarth*, Med. trans. IV. 294. *Rumsey*, Ed. med. journ. XIV. 342; intermittent. *Balfour*, Ed. med. journ. XV. 168; pressure. *Wardrop*, Medicoch. tr. X. 1; affecting the eye. (See also Riviere, Huxham, Sarcone, Pringle, Home, Baldinger, Macbride, Buchan, R. A. Vogel, Clark, Tissot, Cotunni, Sims.)

† Arthrodynia, Cull. syn. xxii, chronic rheumatism, as distinguished by the relief instead of increase of pain produced by heat, is either a sequel of rheumatism, or if it exists wholly without original fever, an Inflammatio, xiii, 1, A, or an Autalgia, v, 1, M, N. *Marcet*, Medicoch. tr. III. 310; case relieved by exercise in flannel.

(† Erethismi, hysteriae, synochi, catarrhi, hecticae, ischuriae, dyspepsiae, aneurysmatis, hydropis, rachitidis, cariei, scorbuti, syphilidis, luxationis, lacerationis, parasitismi, dystociae symptoma.)

A. In the muscles of the chest. Rheumatismus acutus C. Cull. syn. xxii. Ballon. epid. I. Pleuritis spuria, Boerh. 878. Pleurodyne rheumatica, *Sauvages*, I. 683. Confounded by a modern author with peripneumonia notha.

(B ?) Attacking the heart; very common. *Russell's* case; Ed. med. journ. X. 18; Penkivil. 355. *Wells*, Tr. soc. med. ch. kn. III. 373.

B. In the loins. Rheumatismus acutus A. Cull. syn. xxii. Lumbago rheumatica, Sydenh. p. 170; Junck. 19; *Sauvages*, II. 138; Nephralgia rheumatica, 114.

C. In the hip. Rheumatismus acutus B. Cull. syn. xxii. Sennert. vi. Ischias rheumaticum, *Sauvages*, II. 144. *Fothergill*, Med. obs. inq. IV. 69.

D ? Arthropyosis, Cull. syn. xxv; with little fever, terminating in suppuration; allied to rheumatism, but belonging more properly to the genus Apostema, l. Chiefly the lumbar abscess. Lumbago psoadica, Lamothe. Haen rat. med. I. xxxii. Ledran Consultations. 8. 1765. Lumbago psoadica, *Sauvages*, II. 139; apostematosa, 140; ab arthrocace, 141; Ischias ex abscessu, 143. Fordyce pr. II. 70. Cheston app. n. 4, 5. B. Bell's surgery, IV. Tomlinson, Med. obs. inq. V. Tomlinson's miscellanies. A. F. Vogel chir. wahrn. II. 17. Schoenmezel obs. in Frank del. V. 169. Siebolds tageb. 18. Bell, Med. comm. Ed. III; Toll, VI. Meckels arch. I. 118. Vogels handb. IV. xviii.

4. *Cauma podagricum.* Podagra regularis, Cull. syn. xxiv. 1. See Podagra, xxxii.

† Podagra aberrans, Cull. syn. xxiv. 4, another Cauma induced by the gout.

5. *Cauma phlegmone.* Phlogosis phlegmone, Cull. syn. vii. 1. Galen swell. Junck. 20. Boerh. 370.

† Apostema l, Gangraena, lii.

6 ? *Cauma erythematicum.* Phlogosis erythema, Cull. syn. vii. 2. Galen tum. ix ; to Glauc. II. i. Forest. chir. II. n. 1, 4. Sennert febr. II. xv. Hofm. med. rat. IV. i. 13. Haen febr. divis. Monro arm. dis. Erythema, *Sauvages*, I. 137. Stoll rat. med. II. 80 ; aph. 271. But it does not appear that a cauma was the original disease in all the cases in contemplation. See Inflammatio, xiii, and Erysipelas, xvi.

7. *Cauma rubeola.* Rubeola, Cull. syn. xxviii, Synocha morbillosa, Cricht. tab. Haly Abb. pr. III. i. Sydenh. iv. v. Morton de febr. infl. Hofm. II. 62. Junck. 76. Ed. med. ess. V. ii. Mead de variolis et morbillis. 8. Lond. 1747. Rubeola, *Sauvages*, I. 432. *Dickson*, Med. obs. inq. IV. 247, 256. *Lassone*, M. Soc. R. méd. III. 84. *Percival*, Med. obs. inq. V. 282. *Heberden*, Med. trans. III. 389. Lee de rubeola ; Webster m. pr. I. 300. *Lucas*, Lond. med. journ. XI. 325. *Mossman*, Dunc. ann. 1797. 298 ; after typhus. *Willan*, cut. dis. Pl. XIX. *Baillie*, Tr. soc. med. ch. kn. III. 258, 263 ; second attacks. (See also Willis, Huxham, Home, Fordyce, Ziegler, Stoll, Lentin.)

A. Pimples little prominent, confluent. Rubeola vulgaris, Cull. syn. xxviii, 1. Morbilli regulares Sydenh. Ed. med. ess. V. art. 2 ; with sore throat. Med. obs. inq. IV. 19, 20.

B? Pimples more elevated, separate, with little or no catarrh. Nirles. Rubeola variolodes, Cull. syn. xxviii. 2. *Sauvages*, I. 435. Rubeola sine catarrho? Willan cut. dis. Pl. XX. Perhaps this disease ought to constitute a distinct species, since it does not appear to secure the constitution from the true measles; but there is some doubt of the identity of the diseases described by the different authors.

B. With livid spots intermixed, and great debility, the fever approaching to typhus. Rubeola vulgaris 3, Cull. syn. xxviii. 1. Mathieu de febre maligna morbillosa. Strasb. 1768; Balding. syll. IV. *Watson*, Med. obs. inq. IV. 132. Selle.

C. Rubeola nigra. Will. cut. dis. Pl. XXI. Becoming livid and yellowish about the seventh day, without increase of inconvenience or danger.

8. *Cauma phrenitis.* Phrenitis, Cull. syn. ix. Hippocr. prorrhet. I. Plin. II. iii. Aët. I. iv. c. 13. Cauma, Alex. Tr. Forest. X. n. 1, 7. Willis an. brut. path. x. Hofm. II. 131. Junck. 63. Bagliv. pr. I. ix. Boerh. 771. Oliver, Phil. trans. *Morgagni*, ep. 7, de phrenitide, paraphrenitide, et delirio. Haen. rat. med. XVI. 128. Phrenitis, *Sauvages*, I. 458; Cephalitis, 484. Stoll rat. med. II. 376. III. 173... Schroeder opusc. med. I. vi. Falkensohn de causa phrenitidis. Hall. 1772. *Fowler?* Med. comm. Ed. VI. 194; lightning. Timmermann de phrenitide. Kiel, 1778. Samml. med. wahrn. VIII. Bertram de phrenitide; Webster m. pr. I. 151. Goldhagen et Weinschenk de phrenitide. 8. Hall. 1785; how far idiopathic. Fischer in Hornsteins bemerkungen über die hirnwuth. Ed. 2. Giess. 1792. Aronsohn de phrenitide. Giess. 1790. Oberkamp de phrenitide. Heid. 1791. *Baillie's* engr. 215; dura mater. Paterson de hydrocephalo phrenitico. 8. Ed. 1803. *Boyle*, Ed. med. journ. VI. 420; temporal artery opened: *Armstrong*, IX. 58,

146; from intoxication. *S. B. Pearson*, Ed. med. journ. IX. 328: *Wood*, XIII. 438: *Abercrombie*, XIV. 265; chronic. *Sym*, 336; in a fever. *Paley*, XV. 222. (See also Frank, Quarin, Borsieri, Brendel, Saalman, Sarcone, Medicus, Pringle, Tissot, R. A. Vogel, Ferro eph. med. Rondolini; for surgical cases, Pott, Bell, Dease, Schmucker, Richter; on diseases of the brain in general, Wepfer, Greding, Lorry, Büchner, Albrecht, Gennari.)

B. Spreading to the spinal marrow. Frank de vertebralis columnae dignitate. 8. Pav. 1791. Vogels handb. IV. ii.

C? *Sutton* on delirium tremens. 8. Lond. 1813. Ed. med. journ. IX. 352; from spirits; *Nicol*'s case: XVII. 412; followed by hemiplegia.

9. *Cauma ophthalmitis.* See Inflammatio specifica.

10. *Cauma otitis.* Otitis, Cricht. tab. Brotbeck de inflammatione aurium. Tub. 1667. Frank. Borsieri, Callisen, R. A. Vogel, Haas, Weiz, Ausz. für. wund. XVI. 12. Vogels handb. IV. iv. See inflammation.

11. *Cauma parotitis.* Cynanche parotidaea, Cull. syn. x. 5. Galen to Glauc. II. 1. Ballon. cons. I. 81, 87. Fabr. ab Aquap. 43. Bagl. pr. med. I. ix. Gaspari Osservazioni. Ven. 1731. Tozzetti osservazioni, I. 176. Encyclopédie, art. Oreillons. Tissot avis n. 116. Russel oecon. nat. 114. Cynanche parotidaea, *Sauvages*, I. 493; Catarrhus Bellinsulanus, II. 36. *Hamilton*, Ed. trans. II. 59; Lond. med. journ. XI. 190. *Noble*, Ed. med. journ. IV. 304.

12. *Cauma odontalgicum.* Odontalgia, Cull. syn. xxiii. See Inflammatio, Autalgia.

13. *Cauma paristhmitis.* Galen comp. med. VI. ii, iii. Wedel de angina. Jen. 1716. Stalpart. I. 25. Hofm. II. 125.

Junck. 30. Boerh. 798. *Monro*, Ed. med. ess. III. 341. Huxham on fevers and sore throat. 8. Lond. 1757; opp. I. *Morant*, Phil. trans. 1761. 264; spreading to the ear. D. Monro arm. dis. Stoll aph. 23; prael. II. 18. Theden N. bem. I. 179. *Recolin*, M. Ac. chir. IV. 429. Johnston, Med. comm. Ed. VI. 280; catarrhal. Elsner de angina catarrhali. Königsb. 1788. Mathaei et Elsner de angina. Kön. 1792. (See also Forestus, Swieten, R. A. Vogel, Fink, Lentin, Borsieri, Quarin, Frank, Störck.)

† Typhus scarlatina, xviii.

(† Dyspepsiae, epiphorae, podagrae, dysenteriae, obstructionis symptoma.)

A. Chiefly of the tongue. Forest. XIV. n. 24. Jourdain malad. de la bouche. Meyer Abrahamson, Meckels N. arch. I. 65. La Malle, M. Ac. chir. V. Frank epit. II. 94. Elsner et Günther de glossitide. Kön. 1788. *Hayes* and *Lettsom*, M. Med. soc. Lond. II. 185. Beireis et Bode de glossitide. Helmst. 1791. Vogels handb. IV. v. (See also R. A. Vogel, Borsieri, Scheidemantel, Mertens.)

B. Chiefly of the tonsils. Cynanche tonsillaris, Cull. syn. x. 1; *Sauvages*, I. 487. Hoggart Toulmin de cynanche tonsillari; Webster m. pr. I. 99. M. Ac. chir. V. 423; on excision; 461; caculi.

C. Of the pharynx or oesophagus. Cynanche pharyngea, Cull. syn. x. 4; *Sauvages*, I. 492. *Odier*, Med. comm. Ed. III. 191; cynanche oesophagea.

D. Spreading into the upper part of the larynx, and causing hoarseness: laryngea. *Mainwaring*, Med. facts. I. 40; affecting the epiglottis.

14. *Cauma catarrhale.* Catarrhus a frigore, Cull. xl. 1. Where the fever is inflammatory throughout, there is no

reason for removing a cold from the neighbourhood of sore throat and pleurisy, especially if we place haemorrhages in the same genus: there is often only an attempt to secrete mucus, "excretionis molimina," and in such cases a cold cannot with propriety be placed among the profluvia of Cullen. The contagious cold is generally attended by more debility in its latter stages. Forest. I. n. 8. Willis pharm. rat. II. 3. Camerarius de coryza sicca. Tub. 1688. Morton. Sydenh. opp. 64. Salmuth obs. I. n. 37. Hofm. III. 109. Junck. 28. Stenze de catarrhis asylo ignorantiae. Wittenb. 1735. Werlhof febr. Ed. med. ess. V. ii. art. 49. Huxham. *Whytt*, Phil. trans. 1758. 569; blisters. Fordyce de catarrho. 8. Ed. 1758; Smellie thes. II. 501. Monro prael. *Morgagni*, ep. 13, de catarrho; ep. 14, art. 21. Rosen; Hall. disp. pr. II. Catarrhus, *Sauvages*, II. 35, class 7. dolores. Mudge on colds and coughs. Grant. Stoll rat. med. III. 39. IV. 223. Nankivell de catarrho. 8. Ed. 1778; Webster m. pr. I. 312. Dixon, Dunc. med. comm. IX. 69. Barrow de catarrho. 8. Ed. 1785. Hufeland kinderkr. Beddoes on calculus. E. R. White on colds. 1807. *Hall*, Ed. med. journ. XII. 425.

(† Rubeolae, variolae symptoma.)

15. *Cauma bronchitis.* Cynanche trachealis, Cull. syn. x. 3. The inflammation and membranous lining generally extend from the larynx to the bronchia. Dodon. obs. 18. Horst. obs. III. 1. Tulp. I. n. 51. Boerh. 801. Eller de cogn. morb. s. 7. Starr, Phil. trans. n. 495. Bergen, Act. N. Nat. Cur. II. 157. Ghisi, Lett. med. Crem. 1749. Cynanche trachealis, *Sauvages*, I. 491. Molloy, Rutty hist. weath. Russel oecon. nat. 70. Hillary's Barb. 134. Home on the croup. Millar on asthma; asthma infantum. *Warren*, Med. trans. I. 407. Rush de asthmate infantum. Lond. 1770. T. Crawford de cynanche stridula, 8. Ed. 1771; Smellie thes. III. 210. M. Ac. chir. V. 539; supposed expectoration of pulmonary vessels. Mease de cynanche tracheali; Webster m. pr. I. 121. H. Soc. R. méd. II. 206.

Johnston, Med. comm. Ed. VI. 280. *Dixon*, Dunc. med. comm. IX. 254. *Chambon*, M. Soc. R. méd. V. 81. Hamilton on female complaints. Michaelis de angina polyposa. Strasb. 1778. 1788; with ample literature; med. pr. bibl. I. 97; Richt. chir. bibl. V. 739. VI. 119, 128, 164. Lentin beytr. 298. Rosensteins kinderkr. Wilke; Sandif. thes. II. 352. Regnault, Journ. med. LVII. Bayley's cases, Lond. med. journ. *Field*, M. Med. soc. Lond. IV. 141. *Anderson*, Dunc. ann. 1798. 451; calomel. *Field*, M. Med. soc. Lond. V. 165. *Rumsey*, Tr. Soc. med. ch. kn. II. 25; epidemic, but not decidedly contagious. *Anderson*, Dunc. ann. 1799. 459; hydrargyrus muriatus mitis; *Archer*, 511; senega; Albers, 1800. 384. Cheyne on croup. 8. Ed. 1801. Dunc. ann. 1801. 212; *Anderson*, 1801. 388; mercurials. *Baillie's* engr. 29. *Smith*, M. Med. soc. Lond. VI. 74; emetics; ant. tart. gr. viii. zinc, sulf. gr. xv. aq. unc. iss. taken within $1\frac{1}{4}$ hour, in six parts. Badham on inflammations of the bronchiae. 12. Lond. 1808: Ed. med. journ. IV. 493; *Cheyne*, 441. *Cheyne's* pathology of the larynx. 8. Ed. 1809. Ed. med. journ. V. 454. *Baillie*, Tr. soc. med. ch. kn. III. 275. *Farre*, Medicoch. tr. III. 84, 323; cynanche laryngea. *Percival*, IV. 297: *Wilson*, V. 156: *Roberts*, VI. 135: *Blane*, 141: *Chevalier*, 151: bronchotomy successful. *Armstrong*, Ed. med. journ. X. 284: *Abercrombie*, XII. 205: *Hill*, 439. Rapport sur le croup. 8. Par. 1812. Of 79 prize essays, Jurine's and Albers's were preferred. Albers de trachitide. 4. Leipz. 1816. Albers de diagnosi asthmatis Millari. Gott. 1817; Ed. med. journ. XIII. 392. *Arnold*, Medicoch. tr. IX. 31; cynanche laryngea: *Hall*, X. 166. *Wood*, Ed. med. journ. XV. 542: *Tatham*, XVI. 519. *Porter*, Medicoch. tr. XI. 414. Hastings on inflammation of the mucous membrane. 8. Lond. 1820; Ed. med. journ. XVII. 137.

16. *Cauma peripneumonia.* Pneumonia peripneumonia, Cull. syn. xi. 1; Vomica, Empyema, sequels, referable also to Apostema. The softness of the pulse in peripneumony seems to show how much the character of the whole circu-

lation depends on the action of the heart, the obstruction of the passage of the blood out of the right ventricle causing a modification not only of the contraction of the whole heart, but also of the pulsation throughout the body. Y. Stahl de peripneumonia. Erf. 1730. Hofm. II. 136. Junck. 67. Boerh. 820. *Morgagni*, ep. 20, 21, de pectoris, laterum, et dorsi dolore. Huxham, I. 66. Peripneumonia, *Sauvages*, I. 495. Leith de pneumonia; Webster m. pr. I. 157. *Hicks*, Med. commun. I. 173; with emphysema, from an unknown cause. *Makary*, Dunc. med. comm. XVIII. 371. Ed. med. journ. IV. 331, V. 9; lungs condensed: *Robertson*, X. 192; bleeding to 40 or 48 ounces, at once. *Gibney*, Ed. med. journ. XIII. 1804: *Kind*, XVI. 400. See pleuritis, 17.

(† Colicae, hydrophobiae, hecticae, dyspepsiae, podagrae, epiphymatis symptoma.)

A. With considerable pain, and but little expectoration in the beginning. Peripneumonia pura sive vera, Cull. *Morgagni*, ep. 20, art. 30, 31. *Sauvages*, I. 495. sp. 1.

B. With great expectoration, and but moderate inflammatory symptoms. Peripneumonia notha Sydenh. s. 6. c. 4. Boerh. 867. *Morgagni*, ep. 21, art. 11..15. Coze, Journ. med. 1790. Oct. Vogels handb. IV. vii. s. 20. (See also Huxham, Grant, Nezler, Stoll, Bordeu.)

C? Erysipelas pulmonis Lommii.

17. *Cauma pleuritis*. Pneumonia pleuritis, Cull. syn. xi. 2. Literature of pleuritis and peripneumonia, Triller vom seitenstich, von Ackermann, 8. Frankf. 1786. Galen loc. aff. V. iii. Cael. Aurel. II. xiii. Willis pharm. rat. II. i. 8. Bellin. morb. pect. 639. Stahl de pleuritide. Erf. 1730. Hofm. II. 136; Suppl. I. 2. Junck. 67. Bagliv. pr. m. I. ix. Boerh. 875. Werlhof opp. III. 732. Verna de pleuritide. Zeviani della parapleuritide. Brendel. opp. II. 45.

III. 171. Huxham on pleurisies. *Morgagni*, ep. 20, 21, de pectoris, laterum, et dorsi dolore; ep. 45, art. 16. Bianchi hist. hepat. I. 234. Wendt de pleuritide et peripneumonia. Gott. 1762; Sandif. thes. II. Pringle dis. arm. 147. Pleuritis, *Sauvages*, I. 466. Richter et Tattarinoff de pleuritide. Gott. 1768. Swieten, 913. Baronius de pleuripneumonia. Haller opusc. path. obs. 13. Lentin, I. 24. Monro arm. dis. Musgrave's Gulst. lect. Cleghorn's Min. 235, 247. Home's clin. exp. Schröder. opusc. med. I. iii. Gregory, Med. comm. Ed. I. 140. Tralles de abusu vesicantium in pleuritide. 8. Bresl.; Med. comm. Ed. VI. 262. Delius curatio pleuritidis. Erl. 1780. *Paxton*, Dunc. med. comm. VIII. 90; with effusion. Küster de peripneumonia. Hall. 1785. Strack theoria pleuritidis. 8. Mayence, 1786. Saalmann de pleuritide et peripneumonia. 4. Münst. 1789. Mursinna beob. II. Rahns arch. II. i. 33. Stoll rat. med. III. 8, 54. V. 402; aph. 40, 58, 61. Sachtleben über brustentzündungen. 8. Gott. 1790. *Baillie's* engr. 33. *Carden?* M. Med. soc. Lond. VI. 122; a tumour, with cough, pain, and dyspnoea. *Badham*, Ed. med. journ. I. 166; *Maule*, VI. 437: *Wardrop*, IX. 11; albuminous concretions in the cavity. (See also Moreau, Tissot, Sarcone, Quarin, Störck, Borsieri, Frank, Ferro, Baillie und Sömmering.)

A. Pleuritis vera. Paraphrenesis pleuritica? *Sauvages*, I. 464.

B. Pleuritis mediastini. *Sauvages*, I. 469. Salius de aff. part. vi. Rondelet de morb. x. Hildan. I. n. 43. Freind, Hist. med. on Avenzoar. Verna, ix. Act. Bonon. II. 188. *Morgagni*, ep. 21, art. 46. Stoll. aphor. 80. Haygarth, Med. obs. inq. III. 32.

C. Paraphrenesis diaphragmatica, *Sauvages*, I. 464. Galen loc. aff. V. iv. Sal. opusc. 262. Bellin. morb. cap. 496. morb. pect. 654. Stuven de phrenitide. Jen. 1724. Werlhoff. III. 815. Zwinger de paraphrenitide. Basle, 1731. Werke de paraphrenitide. Schulze et Bezel de paraphrenitide. Gott. 1747. Huxham opp. Beelsnyder

de inflammatione diaphragmatis. Utr. 1762. Paen rat. med. I. 7. III. 31. IX. ii. 7. Boerhaave et Swieten. Fein de phrenitide. Gott. 1765; Schröd. opusc. I. 6; Ebeling, Gott. 1771; II. vi. Stoll aph. 78. Aaskow, Act. Soc. Hafn. I. 205. Gattenhof dissertationes. Heidelb. 1791. I. (See also Frank, Quarin, Störck.)

D? Pleuritis pericardii, *Sauvages*, I. 470. Verna, p. 77. Freind hist. med. 108. Salmuth. I. n. 13. Cull. syn. II. p. 107, note. *Knox*, Ed. med. journ. XVII. 566.

(† Epischesis, dyspepsiae, plicae, vulneris, parasitismi symptoma.)

18. *Cauma carditis.* Carditis idiopathica, Cull. syn. xiii. 1. Erysipelas pulmonis? Lomm. obs. ii. Senac du coeur. IV. vii. Berger de inflammatione cordis. Witt. 1717. Trécourt, Journ. méd. 1755. Meckel M. Berl. 1756. Carditis spontanea, *Sauvages*, I. 494. Stoll Aphor. 81. Frank. Ferro eph. med. Hautesierck rec. II. 580. Nunn de carditide. Erf. 1788. Mortzfeldt, pr. Metzger, de carditide. Königsb. 1789. Störk, Sagar, Doeveren, Sachtleben, Walter, Baillie und Sömmering. *Baillie's* engr. 9. *Davis* on carditis. 8. Bath. 1808; Ed. med. journ. V. 354. *Crowfoot*, Ed. med. journ. V. 298; *A case;* VI. 448. *Stanley*, Medicoch. tr. VII. 323; *A Duncan* XII. 43.

(† Vulneris symptomo.)

29. *Cauma peritonitis*, or *peritonaeitis.* Peritonitis, Cull. syn. xiv. Frank. Baillie und Sömmering. Hunter, Med. comm. Ed. III. 349; in childbed; also Selle N. beitr. III. 102. Sutton on delirium tremens. *Briggs*, Ed. med. journ. XII. 270; a tooth in the caecum: *Hay* XIV. 623; with hydatids and tubercles. See dystocia febrilis, lxxvii.

A. Peritonitis propria, Cull. syn. xiv. 1. Lieutaud hist. an. I. n. 3; n. 341; from Rayger. *Morgagni*, ep. 57. n. 20.

B. Peritonitis omentalis, Cull. syn. xiv. 2. Sennert. pr. III. iii. 8. Willis path. cer. ix. Boerh. 958. Retmann de omento. Strasb. 1753. Störck ann. med. I. 132. Worm de abscessu omenti. Erf. 1767. Epiploitis, *Sauvages*, I. 480. Ludwig anat. pathol. Swieten, Hulme on puerp. fever; Med. comm. Ed. I. 25; VII. 13. Halder de morbis omenti. 4. Gott. 1786. Selle N. beitr. I. 48. Vogels handb. IV. xvi.

C. Peritonitis mesenterica, Cull. syn. xiv. 3. Galen. loc. aff. V. vii. Sennert pr. III. iv. 3. Henrici et Nootnagel de abscessu mesenterii. Hall. 1712; Hallers streitsch. von Crell. III. 497. Stock et Eberhard de mesenterio. Jen. 1755. Hebenstreit de scirrho mesenterii. Hall. 1756. Enteritis mesenterica, *Sauvages*, I. 480. (See also Morgagni, Lieutaud, Baillie und Sömmering.)

20. *Cauma gastritis.* Gastritis, Cull. syn. xv. River. pr. m. IX. xi. Bonet. sep. III. vii. Eller de morbis xi. Hall. obs. xiv. n. 3. Lieut. hist. an. i. 74. Wepfer cic. aq. 224; from jalap; venenatio. Tralles de op. 231. Hofm. II. 121; opp. VI. *Innes*, Ed. med. ess. I. 283. *Morgagni*, ep. 49, art. 14. Gastritis, *Sauvages*, I. 476. Haen. rat. med. VI. 263. IX. 64, 119. XIV. 105. 130, 132. Stoll. rat. med. I. 191. III. 384; aph. 95. Med. comm. Ed. V. 293. Hayman de gastritide; Webster m. pr. I. 182. Lind, Lond. med. journ.; arthritic. Johnston de gastritide. Ed. 1790. Bode de gastritide. Vogels handb. IV. xii. *Forbes*, Ed. med. jouru. VI. 313; steam bath. *Yelloly*, Medicoch. tr. IV. 370; caution required in anatomical examination. See also Baglivi, Meibomius, Störck, R. A. Vogel, Quarin, Pringle, Tissot, Sagar, Baillie und Sömmering.)

A. Gastritis phlegmonodea, Cull. syn. xv. 1. The usual form.

B.? Gastritis erythematica, Cull. syn. xv. 2, rather an erysipelas.

(† Epiphymatis? herniae symptoma.)

21. *Cauma enteritis.* Enteritis, Cull. syn. xvi. Galen loc. aff. VI. ii. Sennert. III. ii. 1. ii. Ruysch obs. n. 91; from introsusception; perhaps such cases belong rather to inflammatio, the fever being symptomatic, supposing the primitive disease to be unknown. Hofm. II. 170; suppl. II. 2. Boerh. 959. *Peyronie*, M. Ac. chir. I. 693; a strangulation from adhesion; *Moscati*, III. 368; a strangulation. *Jenty*, Phil. trans. 1758. 550; cohering. Lieutaud hist. an. *Morgagni*, ep. 29, art. 10; ep. 34, 35, de intestinorum dolore; ep. 54. art. 12, 13; a rupture into the thorax; ep. 65, art. 8. N. A. Nat. Cur. IV. 56. Enteritis, *Sauvages*, I. 478. Haen rat. med. XI. 162; a rupture through the mesentery; XIV. 128. Stoll rat. med. I. 262. II. 376, 409; prael. II. 214; Aph. 99, White, Med. comm. Ed. I. 155; in childbed; III. 123; VII. 13; childbed; Dougall, IX. Rotboel et Rogert de inflammatione abdominis. Copenh. 1776. Hicks de enteritide; Webster m. pr. I. 195. Osianders denkwürdigkeiten. Voltelen, Abh. pr. ärtz. X. 431. Ferro eph. med. Selle N. beitr. I. 65. II. 46, 120; in childbed. *Willison*, Dunc. med. comm. XV. 355; with adhesions. *Mackittrick Adair*, M. Med. Soc. Lond. II. 236; with constipation. Vogels. handb. IV. xiii. *Brown*, Dunc. med. comm. XVIII. 348. *Baillie*, Tr. soc. med. ch. kn. II. 144; part of the colon voided. Baillies's engr. 68; 71; ulcers. *Sanden*, Dunc. ann. 1801. 293; a portion discharged, probably from introsusception about an orange seed. *Rumsey*, Ed. med. journ. I. 64. *Hall*, XII. 426: *Renton*, XIII. 447; a portion of the ileum discharged: *Oudney*, XVI. 383; twist in the colon: *Belcombe*, 612; with phrenitis. (See also Quarin, Bang, Frank, Baillie und Sömmering.)

† Dystocia febrilis lxxvii.

(† Dyspepsiae, herniae symptoma.)

A. Enteritis phlegmonodea, Cull. syn. xvi. 1.

B? Enteritis erythematica, Cull. syn. xvi. 2. With little vomiting, and some diarrhoea. Cullen says "sine vomitu," though "vomitus" is in the generic character.

22. *Cauma hepatitis.* Hepatitis acuta, Cull. syn. xvii. 1. Hipp. int. aff. 547. Galen loc. aff. V. vii; 1. ep. comm. 3; isag. 146. Forest. I. n. 39; febris typhodes. Sennert. III. i. Bierwirth de hep. Leyd. 1706. Huxham, Phil. trans. 1724; bile expectorated. Hofm. II. 14. Junck. 66. Bagliv. pr. I. ix. Boerh. 914. Tacconi de hepatis affectibus. Bologn. 1740. *Morgagni*, ep. 36, de tumore et dolore hypochondriorum; ep. 65, art. 9. *Smith*, Phil. trans. 1766. 92. Ferrein, Ac. Par. 1766-7-8. Hepatitis, *Sauvages*, I. 500; Anacatharsis bilosa. II. 382. David, Ac. chir. Prix. X. Schroder de phthisi hepatica. Cheston's pathol. inq. III. ii; app. n. 12. Stoll aph. 81. *Heberden*, Med. trans. II. 143. Crawford on a disease of the liver; Monthl. R. 1772. Lind. dis. of warm cl. Clark dis. of long voy. *Simson*, Med. comm. Ed. I. 94; bile expectorated. Portal, Ac. Par. 1777; Dunc. med. comm. X. 115. *J. Clarke*, Med. comm. Ed. V. 423. Aaskow, Act. med. Havn. II. Murray de hepatitide Indiae orientalis. 8. Gott. 1772. Willan de jecinoris inflammatione. 8. Ed. 1780. Elvert et Joeger de hepatitide. 4. Tub. 1780; the gall bladder wanting. Scott de hepatitide; Webster m. pr. 1. 208. *Chisholm*, Dunc. med. comm. XI. 353; epidemic. Leake on diseases of the abdominal viscera. Saviard observations chirurgiques. Par. 1784. Weissenborn von den eitergeschwüren der leber. Erf. 1786. Girdlestone on hepatitis. 1787. Frank del. op. V. 183. Fontana dis. hot. clim. Schwarze; Auserl. abh. f. artz. XII. 195. *Wilkinson*, Lond. med. journ. X. 142. Clark, Dunc. med. comm. XIV; *Gordon*, XVIII. 326; bile expectorated. *Ludlow*, M. Med. soc. Lond. III. 137; hepatitic phthisis; *Jameson*, 573. *Baillie's* engr. 97; 101, 103; tubercles. *Lettsom*, M. Med. Soc. Lond. VI. 62; chronic, relieved. *A. Monro*, Ed. med. journ. I. 397; bile expectorated. *Duncan?* Ed. med. journ. IV. 187; jaundice from a hydatid: Sphacelus; VIII. 56: *Hay* XIII. 357; catarrhal. (See also Quarin, R. A. Vogel,

Borsieri, Bianchi, Pringle, Lieutaud, Saunders, Baillie und Sömmering.) Case examined 24 March, 1812. John James, about 20, has for some months expectorated bile, and passed faeces without any; he was some time in Portugal, and was there supposed to have had a hepatitis. He was slightly salivated, and latterly took powerful cathartics, but without effect: his strength gradually declined, his cough increased, and his appetite failed. The common biliary duct, at its entrance into the duodenum, was completely blocked up by the coats of a hydatid: a considerable cavity in the right lobe of the liver communicated freely, through the diaphragm, with the lungs, in which was a still larger cavity: the whole was filled with bile, and with hydatids of various dimensions, all empty and flaccid except a very few. The lungs on the left side were tolerably sound. Bilious expectorations have very frequently been relieved by purgatives; and it has sometimes been found of advantage to order the bile to be swallowed (C.); but in this case the stomach rejected almost all liquids that were offered to it: sometimes opiates were given in pretty large doses, which might have been expected to release the obstructing substance, if it had been confined by any spasmodic stricture; and it is difficult to say what further mode of relief could have been employed, if the precise nature of the disease had been ascertained. Y.

A. Of the liver itself.

B. Of the gall bladder, often combined with cholelithia.

† Hepatitis chronica, Cull. syn. xvii. 2, when not a sequel of H. acuta, is an ecphyma, xlviii.

23. *Cauma splenitis.* Splenitis, Cull. syn. xviii. Forest. XX. n. 5, 6. Sennert. VIII. iv. 5. Junck. 67. Boerh. 958. Swieten. Pohl de tumore lienis. Leipz. 1749. *Morgagni*, ep. 34, 35. Splenitis, *Sauvages*, I. 503. Merk de anatomia lienis. Strasb. 1769. Giess. 1784. Ruckstuhl de morbis lienis. 4. Strasb. 1781. *Baillie's* engr. 119. *Drake*, Ed. med. journ. II. 409; probably a sequel: *Cullen;* VII. 169. *Bree* Medi-

coch. tr. III. 155. (See also Lieutaud, Frank, Baillie und Sömmering.)

24. *Cauma nephritis.* Nephritis idiopathica, Cull. syn. xix. 1. Hipp. int. aff. 540. Gal. loc. aff. VI. iii. Sennert. III. vii. 1. Wepf. obs. 897. *Morgagni*, ep. 42. art. 13..28. *Lysons*, Phil. trans. 1762, 635; Dr. Bradley's case. Nephritis, *Sauvages*, I. 503. Lhoyd de nephritide; Webster m. pr. I. 226. Cheston's inq. ii. *Keir*, Med. commun. I. 127; kidney mistaken for hardened faeces. Stoll aphor. 109. Troja on the diseases of the kidnies. Heer de renum morbis. Hall. 1790. Espenmüller de nephritide. Giess. 1790. Dessault Journ. I. *Carter*, Med. facts. VI. 85. *Baillie's* engr. 127. *Turner*, Med. trans. IV. 226. ("The best authors are Boerhaave and Swieten, Frank, Stoll, and Quarin; see also Lieutaud, Baillie, und Sömmering." Vogels handb. IV. xxi.)

(† Podagrae, lithiasis symptoma.)

25. *Cauma cystitis.* Cystitis, Cull. syn. xx. Forest. XXV. n. 27, 28, 33. Sennert. III. i. 4. p. 8. Hofm. II. 157. *Gilchrist*, Ed. phys. ess. III. 471. Isermann de vesica urinaria. Leyd. 1763. Cystitis, *Sauvages*, I. 483. Stoll aphor. 113. Zuber de morbis vesicae. Strasb. 1771. Pohl de abscessu vesicae. Leipz. 1777. Troja dis. kidn. R. A. Vogel prael. Löflers beytr. I. II. Ploucquet de ischuria cystica. Tub. 1790. Desault Journ. I. (See also Frank, Lieutaud, Baillie und Sömmering.)

26. *Cauma hysteritis.* Hysteritis, Cull. syn. xxi. Forest. XXVIII. n. 41, 51. Sennert. morb. mul. Mauriceau, I. p. 419. iii. 11. Werlhof. III. 696. Hofm. II. 156. Kiesling de uteri post partum inflammatione. Leipz. 1754; Hallers beytr. von Crell, I. 471. Metritis typhodes, *Sauvages*, I. 481. Swieten, IV. Mohrenheims beob. II. Cheston, 55. White, Med. comm. Ed. I. 155; VII. 13. Brotherson de hysteritide; Webster m. pr. I. 237. Gebhard de inflam-

matione uteri. Marb. 1786. Sandifort, Arch. pr. arzn. I. 211. Voigtel semiologia obstetricia. Hall. 1792; with literature. Osianders denkw. I. Selle N. beitr. I. 48. (See also Frank, Sagar, R. A. Vogel, Chambon de Montaux, Mursinna, Müller, Morgagni, Lieutaud, Hamilton, Baillie und Sömmering.)

† Many of these references, and the species M. puerperarum, and M. lactea of Sauvages and Cullen, belong to Dystocia febrilis, lxxvii.

XVI. ERYSIPELAS.

Erysipelas.

The pulse frequent, not full throughout, with sleepiness or delirium, and an inflammation supervening, attended by a burning pain, spreading more or less along a membranous part.

Where the fever is completely inflammatory, the disease becomes a Cauma erythema.

1. E. *vesiculósum.* Commonly with some vesicles scattered over the inflamed part. Sometimes contagious.
2? E. *phlyctaenódes.* The inflammation being principally confined to the vesicles. Shingles.
3. E. *inter'num.* Accompanied by pain and derangement of an internal part.
4? E. *urticátum.* With red blotches appearing on the second day, most troublesome at night, and turning into scales.

1. *Erysipelas vesiculosum.* Cull. syn. xxxi. 1. Sennert. febr. II. xv. Sydenh. VI. v. Hofm. II. 98. Deslandes? H. Ac. Par. 1746; contagious; cuticle peeled. Erysipelas rosa, typhodes, pestilens, contagiosum, *Sauvages*, I. 449-52. *Walshman*, M. Med. soc. Lond. V. 182; in children. Dale de erysipelate; Webster m. pr. I. 254. *Duncan*, med. comm. XII. 360; a cathartic, opium, bark, and a fomentation of decoct. pap. with one sixth of spirit. *Bromfield* and *Garthshore*, Med. commun. II. 22, 28; native. *Fordyce*, Tr. soc. med. ch. kn. I. 243; throat. *Makary*, Dunc. med. comm. XVIII. 371. *Wells*, Tr. soc. med. ch. kn. II. 213; contagious: *Wilson*, III. 367. *Hutchinson*, Medicoch. tr. V. 278; early incision. *Dickson*, Ed. med. journ. XVII. 93; depletion: *A. Duncan*, 537; bleeding.

A. E. phlegmonodes. Acute erysipelas. Full red. Willan.
B. E. oedematodes. Paler, or brownish, with some oedema. Willan.
C. E. gangraenosum. Darker, with delirium. Willan.
D. E. erraticum. Successive patches. Willan.
E. Erysipelas laeve. Duncan. Without vesicles.

(† Venenationis symptoma.)

2. *Erysipelas phlyctaenodes.* Cull. syn. xxxi. 2. Plin. XXVI. xi. Hofm. III. app. 426. Russel tab. gland. 124. n. 35. Erysipelas zoster, *Sauvages*, I. 452; Herpes zoster, 134. The "febricula," does not seem to be the original disease, and the whole affection is more properly a Cystisma, lviii.

3. *Erysipelas internum.* Gastritis erythematica, Cull. syn. xv. 2; with dark redness of the fauces. Cullen, from a theory which he has assumed, confines erysipelatous inflammation to parts covered by cuticle, not being aware that the human stomach is without cuticle.

4. *Erysipelas urticatum.* Urticaria, Cull. syn. xxxiii. Sydenh. VI. vi; erysipelatis species altera. Junck. 75.

Meyzerey mal. arm. II. 251. Scarlatina urticata, *Sauvages*, I. 253. Is described as distinctly febrile, but probably differs little from the nettle rash, an Exanthisma, lvi. *Willan* cut. dis. Pl. XXIV. 2. Urticaria febrilis.

XVII. SYNOCHUS.

Mixed fever.

The pulse at first hard and full, afterwards becoming small and weak, while the heat abates, the urine becomess less red, and the furred tongue dark, the sensorial powers are impaired, and the strength is diminished. More or less contagious.

The limits between synochus and typhus can scarcely be laid down with perfect accuracy. Cull. syn. II. 78, note.

1. S. *sim'plex.*	Without eruptions or tinge of the skin.
2. S. *icteródes.*	With a yellow tinge of the skin.
3. S. *miliária.*	With anxiety and sweating, succeeded by an eruption of small vesicles, disappearing in about two days.
4. S. *varíola.*	With vomiting and tenderness of the stomach; on the third day an eruption of pimples, which snppurate on the tenth, and then dry into crusts. Small pox.
5? S. *vaccína.*	The symptoms of fever mild, a depressed cellular vesicle containing a transparent fluid, leaving a dark brown scab. Cow pox.
6? S. *varicel'la.*	The symptoms of fever mild, about the fourth day an eruption of vesicles, which in three days burst and form scabs. Chicken pox.

These definitions, expressed in Latin, do not exceed the limits of Aph. 291; thus S. variola; ventriculi pressi dolor, die tertio papularum eruptio, decimo suppurantium, postea exarentium; S. vaccina; pyrexia lenis, vesicula depressa cellularis lympha plena, in crustam nigrofuscam abiens; S. varicella; pyrexia lenis, die quarto vesicularum eruptio, triduo disrumpendarum inque crustas abiturarum.

Synochus. In the Mediterranean, Ed. med. journ. IX. 139.

1. *Synochus simplex.* Synochus, Cull. syn. vi. Synochus, Galeni. Continens putrida, Lomm. Febris putrida, River. Febris depuratoria, 1661-4; continua 1665-7, 1673. Sydenh. morb. acut. Boerh. 730. Febris continua putrida, Wintringh. Comm. nosol. Synochus, *Sauvages*, I. 301. Bell de febre maligna anni 1779; Webster m. pr. I. 415. Probably not perfectly distinct from the next species.

B? Suette. See miliaria.

2. *Synochus icterodes.* Such appears to be the yellow fever of N. America: that of the West Indies seems to be usually of a paludal kind, but it is difficult, in some cases, to distinguish the descriptions of different authors; and the existence of a separate typhus icterodes is still more uncertain. Hipp.? diss. II. p. 473; int. aff. 553; epid. IV. 1136; Coac. progn. n. 240. Forest. II. n. 6, 9, 14, 24. III. 19. V. 6, 7. Ballon. opp. I. 26. Williams and Bennet on the bilious fever. Lond. 1752. Hillary's Barb. 171. *Lining*, Ed. phys. ess. II. 370; with the black vomit; considered as contagious. Typhus icterodes, *Sauvages*, I. 314; contagious. Fink gallenkr. Tissot de febre biliosa. Beireis de febribus biliosis. Helmst. 1780. Curtin de febre flava; Webster m. pr. I. 401; W. I. "synochus biliosus." Schotte on the synochus atrabiliosa or contagious fever of Senegal. 8. Lond. 1782; Lond. med. journ. V. 260; commended by

Vogel. * *Fink* von gallenkrankheiten. 1776-80. 8. Nur. 1787; orig. Lat. Münst. 1781. *Rait*, Dunc. med. comm. XIII. 313. Tissot de febribus biliosis. 8. Laus. 1790. Dunc. med. comm. XIX. 344; *Philadelphia.* Rush on the bilious remitting fever. 8. Philad. 1794; Dunc. med. comm. XX. 117. Chisholm on the fever introduced from Boullam. 8. Lond. 1795, 1801. Dunc. med. comm. XX. 81. Currie on the synochus icteroides of Philadelphia. 8. Philad. Dunc. med. comm. XX. 136. Clark on the yellow fever. 8. Lond. 1797; Dunc. ann. 1797. 155; distinguishes it from the bilious remittent, but thinks it produced without contagion. *Wilson*? 1800. 349; N. York. Dunc. ann. 1801. 447; in *Spain.* Rush, Med. repos. VI; Ed. med. journ. I. 342; not contagious. Prussian questions; M. Med. soc. Lond. VI. 610. *Stringham*? Ed. med. journ. I. 143; Philadelphia. Dalmas sur la fievre jaune. Par. 1805; " modest and instructive." Beddoes. Miller, New York; see Anetus. * *Bancroft* on yellow fever. *Nagle* and *Wilson*, in Currie, Ed. med. journ. VII. 20: *Wilson's* reply, 280: *Parsons*, VIII. 385: *Burnett*, 393: Ramsay, 422: *Chisholm*, IX. 412: *Gilpin*, X. 41, 311: *Bancroft*, 325. *Fellowes* on the fever of Cadiz and Gibraltar, 8. Lond. 1815. Pym on the Bulam fever. 8. Lond. 1815. Ed. med. journ. XI. 383. *Ed. med. journ.* IX. 49, 51; depletory cure of tropical fever. *Denmark*, Medicoch. tr. VI. 296; depletion. *Allan*, Ed. med. journ. XI. 319; bleeding: *Pym*, XII. 183; attacking the same person only once: *Dickson*, XIII. 35: *Comrie*, 165; bleeding: *Birnie*, 331. See Typhus icterodes, xviii, and Anetus, xix.

3. *Synochus miliaria.* The miliary eruption, though not altogether peculiar to this fever, sometimes seems to characterize a well marked epidemic. Miliaria, Cull. syn. xxxii. Welsch de novo puerperarum morbo. Leipz. 1655. Nova febris, Sydenh. Sch. mon. Hamilton de febre miliari. 1710. Fontana, 1747. Fordyce, 1748. Allioni, 1758. Hofm. II. 68. Junck. 75. Werlhof. Haen rat. med.; febr. divis.

Fischer de febre miliari. Riga, 1767. Collin ad Baldinger. 1764. Miliaris, *Sauvages*, I. 435. Grant, Stoll, Percival. *Baraillon*, M. Soc. R. méd. I. 193; *Varnier*, III. 281; *Aufauvre*, IV. 153. Gastellier sur la fièvre miliaire. Montarg. 1779. Quin de febre miliari idiopathica; Webster m. pr. I. 491. Miliaria. Bateman. Pl. LV. 1.

B? Suette. Miliaris sudatoria, *Sauvages*, I. 441. *Tessier*, M. Soc. méd. II. 46; cured by bleeding and astringents. Meyzerey méth. aisée; mal. arm. 250. Boyer mal. epid.

4. *Synochus variola.* Synochus variolosus, Cricht. tab. Variola, Cull. syn. xxvi. Literature, Krünitz. 8. Leipz. 1768; enumerates 817 works; continued by Olberg, Literatur der blattern. 8. Hall. 1791; with a concise account of most. Haly Abb. Rhazes, Willis, Sydenham. Morton, very diffuse. Hofm. II. 49. Junck. 76. Baglivi. Boerh. 1371. Brendel. Mead de var. Freind. Helvetius sur la petite vérole. Werlhof. *Simson*, Ed. med. ess. V. ii. 579. *Bayly*, Phil. trans. 1751. 27; bark. Huxham, *Morgagni*, ep. 49. art. 33. Variola, *Sauvages*, I. 422. *Perkins*, Med. obs. inq. III. 37; air; *Huck*, 308; air. *Percival*, V. 270. Stoll, Med. comm. Ed. VIII. *Lassone*, M. Soc. R. méd. III. 84. *J. Hunter*, Phil. trans. 1780. 128; in utero, also *Wright*, 1781. 372. *Bland*, Lond. med. journ. II. 204; in pregnancy. Macknight de variola. Webster m. pr. I. 271. *Roberts*, Lond. med. journ. V. 399; *Wright*, VII. 63. *Hallé*, M. Soc. R. méd. VII. 423. Sarcone. *Helsham*, Dunc. med. comm. XIII. 284; followed by herpes; *Rait*, 313; 3 days after birth. C. L. Hofmann von den pocken. 2 v. 8. Mayence, 1789. *Hufeland* über die blattern. 8. Leipz. 1789. Berl. 1798; much commended. *Davidson*, Lond. med. journ. X. 353. Meza de variolis; Dunc. med. comm. XVI. 251. *Baker*, M. Med. soc. Lond. III. 538. *Fordyce*, Tr. soc. med. ch. kn. I. 1. *Pearson*, Dunc. med. comm. XIX, 213; in pregnancy. *Withers*, M. Med. soc. Lond. IV. 186; a second time; *Kite*, 295; in pregnancy;

Turnbull, 364; in utero; *Flinders*, V. 330; native. *Haygarth's* inquiry how to prevent small pox. 8. Bath, 1801. *Laird*, Ed. med. journ. III. 155; and *Forbes*, 307; in utero; *Wright*, IV. 123; cold water. *Jenner*, Medicoch. tr. I. 269; in utero; *Bateman*, II. 31; secondary. *Bryce*, Ed. med. journ. VII. 410; inoculation after vaccination. *Moore's* history of the small pox. 8. Lond. 1815. Ed. med. journ. XII. 81: *Hennen*, XIV. 409; modifications, and recurrences. *Thomson*, 518: *Black*, XV. 37; anomalous: Thomson on a varioloid epidemic. 8. Edinb. 1820: XVI. 225. It is perhaps more necessary to apologize for the insertion of these references, than for the omission of many more; but the disease must not be wholly forgotten.

A. The pustules distinct and distended, the intervening spaces red, the fever ceasing when the eruption appears. Distinct small pox. Variola discreta, Cull. syn. xxvi. 1.

B. The pustules confluent, flaccid, the intervening spaces pale; with great debility. Confluent small pox. Variola confluens, Cull. syn. xxvi. 2. *Drummond*, Dunc. med. comm. XIV. 300; laudanum.

(C). Inoculation. Lady M. W. Montagu's letters. *Brooke*, Phil. trans. 1752. 470; 1752. 503; at *Geneva*; *Brown*, 570. *Guiot*, M. Ac. Chir. II. 552. *Gilchrist*, Ed. phys. ess. II. 396. *Sloane*, Phil. trans. 1756. 516; Gale, 1765. 193. *Maty*, Med. obs. inq. III. 287; early. *Chais*, Phil. trans. 1768. 128; *Russel*, 140. *Baker*, Med. trans. II. 275; *Quier*, 366; Jamaica; *Rush*, Med. obs. inq. V. 32. *Dehorne*, M. Soc. R. méd. IV. 214; *Girod*, 231. Dimsdale on inoculation. 8. Lond. 1779. *Mackittrick Adair*, Dunc. med. comm. VIII. 211. Douglas de variolae insitione; Webster m. pr. I. 286. *Dawson*, Med. trans. III. 385; an affection merely local, producing small pox in others, but not securing the children. *Houlston*, Lond. med. journ. VII. 7; matter kept 13 years in a bottle lost its

power; *Covey*, VIII. 1; *Werner*, XI. 140. Sutton's system. 8. 1796. *Kite*, M. Med. soc. Lond. IV. 114; *Whateley*, V. 159. *Millington*, Med. tr. V. 195.

5. *Synochus vaccina?* * Jenner on the variolae vaccinae. 4. Lond. 1798; Dunc. ann. 1798. 77. *Jenner's* further observations. 4. Lond. 1799; Dunc. ann. 1799. 23. Pearson on the cow pox. 8. Lond. 1798; Dunc. ann. 1799. 1. Woodville on cow pox. 8. Lond. 1799; Dunc. ann. 1799. 33. *Chapman* on the cow pox. Dunc. ann. 1799. 315. *Pearson*, Dunc. ann. 1799, 318; on affections merely local. Aikin on the cow pox. 8. Lond. 1800; Dunc. ann. 1800. 171. Ring on the cow pox. 2. v. 8. Lond. 1801-3. *Bryce* on cow pox, pointing out a test. 8. Ed. 1802, 1809; Dunc. ann. 1802. 218; Ed. med. journ. V. 461. *Ja. Sims*, M. Med. soc. Lond. VI. 604. Adams on the cow pox. 8. Lond.; Ed. med. journ. I. 486. **Willan* on vaccine inoculation. 4. Lond. 1806; Ed. med. journ. III. 73. * *Report* of the College of Physicians. 1807. *Johnston*, Ed. med. journ. II. 426. Report of the cow pox in Holstein; Ed. med. journ. III. 34. *Marshall*, M. Med. soc. Lond. VI. 80; origin from the horse. *Haden*, Ed. med. journ. VIII. 51: *Scot*, IX. 257; in India? Report of the College, Med. trans. IV. 374. *Annual Reports*, Ed. med. journ. passim: *Watt*, X. 168. *Sandeman*, Med. tr. V. 376. *Bruce*, Ed. med. journ. XI. 270; in Persia of old. *Colville*, XIV. 39. *Blane*, Medicoch. tr. X. 315: *Jenner's* letter, Ed. med. journ. XVII. 276.

† This disease, considered independently, might with more propriety be called an epiphyma, the fever being probably always symptomatic; but its obvious affinity to small pox renders it impossible to place it under a different genus.

6. *Synochus varicella?* Varicella, Cull. syn. xxvii. Heberden, Med. trans. I. 427. Swieten, IV. 10. † Thomson, Ed. med. journ. XIV. 518.

† Often without fever, and more properly an epiphyma: though Wiltan says he has never seen it without some constitutional disorder.

A. Lenticular. Common chicken pox. Batemann. Pl. XLVII, XLVIII.
B. Conoidal. B. Swine pox.
C. Large and globated. B. Swine pox. Hives.

XVIII. TYPHUS.

Typhous fever.

The pulse small, weak, and mostly frequent, the urine nearly natural, the sensorial powers greatly impaired, and the strength much diminished; the voice generally feeble and whining. The heat often cousiderably increased in the beginning.

1. T. *sim'plex.*	Without well marked putridity. Nervous fever.
2. T. *pútridus.*	With considerable putridity of the secretions, and generally petechiae. Putrid fever.
3. T. *biliósus.*	With a yellow skin.
4? T. *aphthoidéus.*	With white sloughs of the fauces, the tongue swoln and purplish. Thrush.
5. T. *scarlat'ina.*	With a scarlet eruption, or dark sloughs of the fauces. Scarlet fever.
6? T. *vesiculáris.*	With vesicular eruptions, which remain for several days, and then burst. Pemphigus.
7. T. *pes'tis.*	With great weakness and tremor from the beginning, and generally with glandular swellings. Plague.

Typhus, especially *Typhus putridus*. Hipp. int. aff. 553; "typhus 1 et 2." Sauv. Fracast. morb. cont. II. vi. Forest. VI. n. 35-9. Typhodes, Prosp. Alp. Roboret febr. peric. Donckers id. febr. pet. Loew Act. Nat. Cur. II. app. Ramazzin. opp. 187. Bellin. morb. cap. 477. Hofm. II. 80; suppl. II. 1, 2. Stahl de malign. indcl. Helwich Eph. Nat. Cur. Dec. 3. ann. 7, 8. p. 616. Adolph. cent. p. 3. 296. Dover's legacy; cold bathing. Rogers on ep. dis. O'Connel de morbis. Valcarengh. med. rat. iii. Weitbrecht; Hall. diss. V. Ritter Act. Nat. cur. VII. obs. 4; Furstenau, obs. 5. Wall's works, 337. Brandhorst; Hall. diss. V. Pratolongo delle febbri che si dicono putride. 8. Genoa, 1786; disapproves the appellation putrid; extolled by Beddoes. *Pringle's* army dis. Swieten arm. dis.; comment. Hasenohrl hist. med. ii. Ludw. adv. I. i. Haen divis. febr. *Morgagni*, ep. 68. art. 2. Strack de morbo cum petechiis. Haller und Zimmermann, Hann. mag. 1773. Hallers beytr. von Crell, II. Brocklesby's obs. Monro's arm. dis. Hillary's Barb. Huxham's works. Typhus, *Sauvages*, I. 108. Störck ann. med. *Crell*, Phil. trans. 1771. 332. Macbride's introd. Ball on fevers. Langswert hist. morb. epid. Zimmermann in Bucholz Nachrichten. Weim. 1772. Schröder opusc. ed. Ackermann. Lind. dis. Europ. Clark dis. hot clim. Grant on fevers; new observ. *Percival*, Med. comm. Ed. I. 306; injecting fixed air. Aepli bös. fieb. Closset, Wien. beytr. II. 53. Bonté, M. Soc. R. méd. I. 23. Maret Memoire, 1775. Fournier obs. sur les fievr. Ciera de febre nosocomiali. Mil. 1779. Fahner de causis et signis malignitatis. Jen. 1780. Rigler constitutiones epidemicae. Bresl. 1780. Fearne de typho; Webster m. pr. I. 374. Lettsom acc. dispens. Sims on epid. dis. Mertens obs. de febr. Quarin meth. med. feb. iv. Bang, Act. Soc. med. Havn. II. Balding. kr. arm. Stoll rat. med.; aph. 237, 271. Tissot avis; lettre a Zimmermann. Sarcone Nap. Finck de morb. bil. anom. Fritze med. ann. Weikards kl. schr. 14. Pezold von faulf. Sagar historia morbi epidemici. 8. Leipz. 1783. Kessler Geschichte der faulfieber. Gessner med. samml. Oberkamp de prophylaxi. Balding. N. mag. III. 358.

Wright, Lond. med. journ. VII. 109. *Campbell* on typhus. 8. Lond; Dunc. med. comm. IX. 195. *May*, Lond. med. journ. X. 117; approaching to synochus. Balfour on putrid fever, and lunar influence. 8 Edinb.; Dunc. med. comm. XV. 260; *Brandreth*, XVI. 383, and *Halls*, XX. 227; washing. Selle N. beitr. I. 72. III. 75. *Harrison*, M. Med. soc. Lond. IV. 107; cold water and vinegar. Currie's reports. Haygarth on the prevention of infectious fevers. 8. 1801. Eisfield on an acute typhus. Leipz. 1801. Stanger on contagious fever. Lond. 1802. *Scott*, Dunc. ann. 1802. 358; cold water. *Dimsdale's* cases of typhus. 8. London; Dunc. ann. 1802. 435. Wake de typho. 8. Ed. 1807; Ed. med. journ. IV. 117; gestation. Jackson on the affusion of cold water and gestation. 8. Ed. 1808; Ed. med. journ. V. 112. *M'Grigor*, Ed. med. journ. VI. 19; typhus from Spain; Chisholm, 389; animal effluvia not injurious except when confined, but then capable of producing a malignant fever not contagious. * *Bancroft* on yellow fever. 8. Lond. 1811. *Bancroft's* sequel. 8. Lond. 1817: Ed. med. journ. VIII. 324. *Armstrong* on typhus. 8 Lond. 1816; Ed. med. journ. XIII. 108. Hufeland über die kriegspest. Berl. 1814; Von Hildenbrand über den Typhus. Vienna, 1810; Richter Medicinische geschichte. Berl. 1814; Ed. med. journ. XIII. 375: *Prichard*, 413: *Wood*, 465; cold to the head; warmth to the feet: *Mills's* morbid anatomy of the brain. Dublin, 1817. XIV. 119; *Kidd*, 144; in Ireland: *Astbury*, 158; *Reports* of epidemics, 528; House of Commons. *Bateman*, *Millar*, *Graham*, *Brown*, *Bonnar*, *Yule*, *Kidd*, *Rogan*, and *Duncan*. *Bateman* on the contagious fever of this conntry. 8 Lond. 1818. Barker's medical reports. 8. Dubl. 1818. Ed. med. journ. XV. 143; *Wood*, 225. *Hunter*, 234. *Jackson* on the history and cure of contagious fever. 8. Lond. 1819; XVI. 278: *Dixon*, 523; cold affusion. Epidemic of Ireland, 24 works, by Cheyne, Harty, Stoker, Grattan, Crampton, and others; Ed. med. journ. XVII. 620. See pathogony. (See also Bilguer, Mead, Alexander, Wintringham, Home, Fordyce, Langrish, Fothergill, Riedel, Schobelt, Jagemann, Buchholz, Fauken, Opitz, Mursinna, Alderson, Campbell.)

1. *Typhus simplex.* Typhus petechialis 1, mitior, Cull. syn. v. 1. Fracastor. morb. cont. II. iv. Forest. IV. n. 26, 32. Willis morb. conv. viii; lues πυρωδὴς. Sydenh. sched. monit.; febr. nov. 1685. Wintr. comm. nosol. 1720, 1721. Huxham fev. viii; slow nervous fever. Ed. med. ess. II. n. xviii. *Gilchrist*, IV. 357. V. ii. 505. *Knight*, Med. obs. inq. I. 35; watching the pulse in sleep. Typhus nervosus, *Sauvages*, I. 311; comatosus, 312; Tritaeophya typhodes Mangeti, 340; Raym. Fort. de febr. 24. Macbride, 304. M. Soc. R. méd. I. 23. Lind on fevers; contagious fever. Herz de febribus nervosis. 8. Berl. 1789. Roderer de morbo mucoso. Brandis Journ. erfind. V; Dunc. ann. 1796. 73; tepid bathing. *M'Gregor*, Dunc. ann. 1798. 340. *Falconer*, M. Med. soc. Lond. VI. 1; morbus cardiacus of the ancients; a learned and elaborate dissertation. *Muir*, Ed. med. journ. VIII. 134. *Wilson*, 403. *Satterley*, Med. tr. V. 350, with inordinate appetite, recovered slowly. *Haviland*, Med. tr. V. 381; Cambridge: also *Harrison*, 400. *Dickson*, Ed. med. journ. XII. 158; evacuants: *Edmonston*, XIV. 71; Newcastle: *Gourlay*, XV. 329; Scotland: *Sheppard*, 344.

† T. scarlatina D.

B? The sweating sickness. Ephemera sudatoria, *Sauvages*, I. 294. Caius de ephemera. 8. Lond. 1721. Bacon Henr. VII. Forest. VI. n. 8; hidronosos. Sennert. IV. 15. R. Fortis; ephemera Anglica pestilens. Junck. p. 468. Ed. med. journ. IV. 464.

2. *Typhus putridus.* Typhus petechialis 2 gravior, Cull. syn. v. 1. Sal. Divers. de febr. pest. Alpin. med. Aeg. I. xiv. Sennert. febr. IV. x, xiii. River. XVII. 3. i. Willis febr. xiv. Hofm. II. 75, 84. Junck. 72, 73, 74. Huxham de aer. 1740; febris nautica; 1742, in carceribus genita; on fevers. viii; petechial. Med. obs. inq. II. n. 21. Maius et Koph; Scrincus; Haller dis. V. Ludwig inst. med. clin. n. 146. Eller de morbis. vi. Schreiber erk. und cur. 126.

Pringle dis. arm. 294; Phil. trans. 1753. 42. *Taitherell*, Ed. phys. ess. II. 420; with pustules. *Lecat*, Phil. trans. 1755. 49. Swieten mal. arm. 136. *Ward*, Phil. trans. 1758. 699; on the black assizes. Typhus carcerum, *Sauvages*, I. 309; castrensis, Aegyptiaca, 313; Miliaris nautica, 444; purpurata, 445; Cephalitis epidemica, 486. Mertens obs. i. iii. *Robin* de Keriavalle, M. Soc. R. méd. II. 53; *Tessier*, III. 23; *Galeron*, 41, Jeanroy and Lalonette, 45. Cera de febre nosocomiali; extolled by Beddoes. *Dr. J. Hunter*, Med. trans. III. 345; not observed in warm climates, from the free ventilation. *Janssen*, Lond. med. journ. IV. 74; fixed air. *Fordyce*, Tr. soc. med. ch. kn. I. 243; a case. Smyth on the jail distemper. 8. Lond. 1795; Dunc. ann. 1796. 81. Hoven geschichte eines epidemischen fiebers. 8. Jen. 1795. (See also Gesenius, Röber, Weber.) See Typhus in general.

3. *Typhus biliosus.* Typhus icterodes, Cull. syn. v. 2; *Sauvages*, I. 314. "Hillary's Barb. Warren on the fever of Barbadoes. Lining, Ed. phys. ess. II. Mackittrick de febre flava Ind. occ. Ed. 1766." Arejula de febre epidemica Malagae, a Frank. 8. Vienn. 1805; Ed. med. journ. I. 447; "typhus icterodes." *Gilpin*, Medicoch. tr. V. 303; Gibraltar, supposed to have been brought from Cadiz. *Hosack* on contagion. See Fevers. *Fellowes* on the disorder of Andalusia. 8. Lond. 1815; Ed. med. journ. XII. 109: *Humphreys*, 177; at Gibraltar: *Pennell* on the bilious typhus. 8. New York. 1821. Facts relative to the late fever. 8. N. York, 1821; by the Board of Health.

4. *Typhus aphthoideus.* Aphtha infantum, Cull. syn. xxxv. Pemphigodes, Gal. def. P. Aeg. I. x. Sennert, II. 1. xviii. Mauriceau, III. xxxiv. Hofm. II. 478. Junck. 137. Boerh. 978. Aphtha, *Sauvages*, I. 455. The fever is sometimes more like synochus, and sometimes absent: see ecphymata.

(† Pyrexiae alius, syphilidis, scorbuti symptoma.)

5. *Typhus scarlatina.* Morton febr. scarlat. Sydenh. Junck. 75. Werlhof. III. 731. Douglas on an epidemic. 8. Boston. N. E. 1736; bleeding pernicious. Scarlatina, *Sauvages*, I. 453. *Withering* on the scarlet fever. 8. Lond.; Med. comm. Ed. VI. 279. Vogel de febre scarlatina. Frib. 1783. Sims, M. Med. soc. Lond. I. 388. Grundmann Abris. 8. Gera, 1788. *Ramsay*, Lond. med. journ. X. 7. *Johnstone*, M. Med. soc. Lond. III. 355; *Jas. Sims*, V. 415. Braithwaite, Ph. mag.; Dunc. ann. 1803. 487; oxymuriatic acid. Blackburn on scarlet fever. 8. Lond. 1803. *Binns*, Ed. med. journ. III. 135. *Wells* on the dropsy succeeding it. Tr. soc. med. ch. kn. III. 167; supposes the peritonaeum inflamed. *Tweedie*, Ed. med. journ. XV. 58; bleeding for the dropsy. (See also Stoll, Lentin, Stark.)

A. Without sore throat, and with little prostration of strength. Scarlatina simplex, Cull. syn. xxix. 1. Sydenh. VI. ii. Scarlatina febris, *Sauvages*, I. 453. M. Soc. R. méd. I, 10. *Willan*, cut. dis. Pl. XXII. Scarlatina simplex.

B. With sore throat, but with little prostration of strength. Scarlatina cynanchica, Cull. syn. xxix. 2. Scarlatina anginosa, *Sauvages*, I. 454. *Lettsom*, M. Med. soc. Lond. IV. 280. *Mossman*, Dunc. ann. 1799. 422; cold water. *Willan*, cut. dis. Pl. XXIII. 1, 2, Scarlatina anginosa.

C. With gangrenous sore throat, throwing off grey sloughs, and great prostration of strength. Cynanche maligna, Cull. syn. v. 2. Hipp. progn. I; dry sore throat. Syrian ulcer? Aret. Pestilent tonsils, Aët. Panarol. pentec. 5. Mercat. cons. 24. Douglas epid. Bost. *Colden*, Med. obs. inq. I. 211. Russel Oecon. nat. 105. Wall's works, 58. Rabours de ulcere tonsillarum. 1749. Fothergill on the ulcerous sore throat. 8. Lond. 1751. Huxham on the malignant sore throat.

Marteau, Journ. méd. 1756. Boucler, Vnaderm. 1758. Swieten. Withering de angina gangraenosa. Ed. 1766: see T. scarlatina in general. Cynanche maligna, *Sauvages*, I. 489. Bard's inquiry. New York, 1771. Johnstone on the malignant angina. 8. Worcest. 1779; Med. comm. Ed. VI. 267. Tailour de cynanche gangraenosa; Webster m. pr. I. 406. *Stephen*, Dunc. med. comm. XII. 375; capsicnm. *Collins*, Med. commun. II. 363; capsicum. *Crichton*, Dunc. ann. 1796. 318. *Willan*, cut. dis. Pl. XXIII. 3. Scarlatina maligna.

† D. A disease arising from the contagion of scarlatina, but without either eruption or sore throat. Gourlay on Madeira, 125. I have also observed some fatal cases of this kind. Y. Jarvis, Medicoch. tr. II. 235; describes a disease equally sudden, without the existence of any epidemic that was observed: perhaps from poison.

6. *Typhus vesicularis.* Pemphigus, Cull. syn. xxxiv. Galen epid. VI? C. Pis. obs. 147, 150. Eph. Nat. Cur. Dec. 1. ann. 8. obs. 56. Morton exerc. ii. app. Thiery med. exp. 134. Langhans, Act. Helv. II. 260; Beschreibung des Siementhals. Zur. 1753. Pemphigus, *Sauvages*, I. 430. *Stewart*, Med. comm. Ed. VI. 79. Busch, Balding. N. mag. X. 230; fatal. Fink gallenkr. 187. Burser. inst. II. *Dickson*, Trans. Ir. ac. I. 1787. 47; Dunc. med. comm. XV. 86; Lond. med. journ. IX. 309; *Christie*, X. 361; *Ring*, XI. 234. *Blagden*, Med. facts. I. 105; Winterbottom, III. 10. *Upton*, M. Med. soc. Lond. III. 532. Braune über den pemphigus. 8. Leipz. 1795. *Hall*, Dunc. ann. 1798. 386. 1799. 328: *Dickson*, Ed. med. journ. X. 451; not always febrile: *Porter*, XV. 517; eruption rather accidental than essential: Bateman is of the same opinion.

† Pompholygmus pemphigus, lvii, without origiual fever.

7. *Typhus pestis.* Pestis, Cull. syn. xxx. Pr. Alp. med. Aegypt. Mindererus de pestilentia. 8. 1619; Germ. 8. Riga, 1790. Willis febr. xiii. Diemerbroeck de peste. Hodges loemologia. 8. Lond. 1672. Sydenham. Ramazzini. Journal de la contagion a Marseille. 12. Par. 1721. Muratori del governo della peste. Bresc. 1721. * *Smith* Massa de peste contractus, cum Diomede et Mead. 8. Lond. 1721. Mead on the plague. 8. Lond. 1744. Hofm. II. 93. Junck. 78. Chamberlayne, Cousier, Deidier, Phil. trans. Waldschmidt; Hall. dis. V. Heister de peste. Helmst. 1744. *Mackenzie*, Phil. trans. 1752. 514. Weszpreme de inoculanda peste. 8. Lond. 1755. *Maty* and *Porter*, Phil. trans. 1755. 96. Chenot de peste Transylvanica. *Dawes*, Phil. trans. 1763. 39. *Mackenzie*, 1764. 69. Huen rat. med. XIV. Huxham's works. Unterricht gegen die pest. Danz. 1770. Butzow de contagio pestilentiali. Leyd. 1777. Samoilowitz sur la peste de Moscou, 1771; sur les frictions glaciales; sur l'inoculation de la peste. Mertens de peste. 12. Vienn.; Med. comm. Ed. VI. 162. *Guthrie*, Dunc. med. comm. VIII. 345; case of inoculation. Thomas de peste; Webster m. pr. I. 436. Howard on lazarettos. 4. Lond. Russell on the plague. 4. Lond. 1791. Lange de peste. 8. Offenb. 1791. Assalini on the plague. 8. 1804. Gillam, Ed. med. journ. II. 182; fancies small pox prevents plague. Jackson's Marocco; Ed. med. journ. VI. 459: *Faulkner*, X. 137; Malta; also Calvert, Medicoch. tr. VI. 1; seems to have been every where most fatal in the summer months. *Stafford*, Ed. med. journ. XII. 13. *Wobb*, Med. tr. VI. 118; Egypt. Report of the committee of the House of Commons, 1819; Ed. med. journ. XVI. 109: *Faulkner* on the plague. 8. Lond. 1820; XVII. 296.

XIX. ANETUS.

Paludal fever.

An intermitting or remitting fever, not contagious, with well marked exacerbations; usually periodical.

The cause of such fevers appears to be exclusively the exhalation from half dry mud.

1. A. *quotidiána.* The paroxysms recurring daily, and commonly in the morning.
2. A. *tertiána.* The paroxysms recurring at the interval of about two days, commonly about noon.
3. A. *quartána.* The paroxysms returning once in three days, commonly in the afternoon.
4. A. *errat'ica.* With paroxysms either irregular, or at longer periods than three days.

These species are constituted in imitation of Dr. Cullen's genera; bnt, in fact, they often pass into each other, and are not more distinct than the intermittent and remittent type, or the simple and the bilious: and it will be most convenient to class most of our modern references under the heads Intermittents of temperate climates, Remittents of hot climates, and Yellow fever, W. I.

Anetus. Intermittentes, Cull. syn. cl. 1, ord. 1, sect. 1. Continuae periodicae, Sennert. febr. II. xiii. Continentes, Morton ex. ii. Boerh. 727. Junck. 82. * *Torti* ther. spec. V. i. (See also Collin, Cole, Werlhof, Senac, Grainger, Medicus, Cleghorn, Monro, Pringle, Brocklesby, Grant, Baldinger, Lyson, Störck, Nicolai, Lautter, Stoll, Rahn.) Intermittens.) Muys de salis ammoniaci usu. 4. Frank. 1716. *Thomson*, Ed. med. ess. IV. 406. *Stone*, Phil. trans. 1763, 195; willow bark. *D. Monro*, Med. trans. II. 325. Trnka historia febrium intermittentium. 8. Vienn. 1775. *Causland.* Dunc. med. comm. VIII. 247; emetic tartar and opium. *Hayes*, Lond. med. journ. II. 267. *Baker*, Med. trans. III.

141. Brandreth de febribus intermittentibus; Webster m. pr. I. 352. *Chapman*, Med. commun. I. 260; with pulmonary complaints. Buchhave de gei utilitate. 8. Marb. 1786. *Willan*, Lond. med. journ. VIII. 191, and *Jenner*, IX. 48; arsenic. Strack de febribus intermittentibus. 8. Offenb.; Dunc. med. comm. XII. 119; *Davidson*, XV. 391; affecting the right temple. Hoven über das wechselfieber. 2 v. 8. Winterth. 1789. *Kellie*, Dunc. med. comm. XIX. 271; tourniquet. *Beddoes*, Med. facts. VII. 26; origin. *Russel*, Tr. soc. med. ch. kn. II. 90; in utero; the fit came on before the mother's; it was cured a little earlier. Gilbert, Rec. pér. XVII; Dunc. ann. 1803. 246; gelatine, also Gautiere, Hufel. journ.; Ed. med. journ. II. 479. Dawson on the Walcheren disease. 8. Ipsw. 1810; Davis on the fever of Walcheren. 8. Lond. 1810; Ed. med. journ. VI. 338. *Wells* on consumption as opposed to intermittents. Tr. Soc. med. ch. kn. III. 471. * *Blane*, Medicoch. tr. III. 1. Remittens.) Home de febre remittente. 8. Ed. 1750; Smellie thes. I. 435. *Oliphant*, Med. obs. inq. I. 62; *Vage*, II. 269. Lind de febre remittente. 8. Ed. 1768; Smellie thes. III. 116. *Badenoch*, Med. obs. inq. IV. 156; bilious; Sandiford, 305; putrid; *Rush*, V. 32; bilious; bark, not bleeding. G. Monro on bilious remitting fevers in Martiniqe; Med. comm. Ed. V. 254. *Ryan*, Lond. med. journ. II. 253. III. 63. At *Bussorah*, Tr. soc. med. ch. kn. I. 53. *Winterbottom*, Med. facts. VI. I; arsenic. *Chisholm*, Dunc. med. comm. XVIII. 267. *Fowler*, Dunc. med. comm. XIX. 337; arsenic. M'Lean on the fever of St. Domingo. 8. Lond. 1797; Dunc. ann. 1797. 184. *Beane*, M. Med. soc. Lond. V. 333. *Chisholm*, Dunc. ann. 1800. 407; with palpitation, supposed to be from a polypus. *Fergusson*, Medicoch. tr. II. 180; mercury. *Macmillan* on W. I. fevers. Ed. med. journ. X. 30: *Gibson*, XI. 280; mercury. *Ainslie*, *Smith* and *Christie* on the epidemic in India. 8. Lond. 1816: Ed. med. journ. XIII. 76. Icterodes.) *Curtin*, Dunc. med. comm. IX. 236. *Maclarty*, Dunc. ann. 1796. 328; mercury; *Todd*, 334. Anderson on yellow fever. 8. Ed. 1798; Dunc. ann. 1800. 38; properly a remittent; another species the

typhus icterodes. *Miller*, Ed. med. journ. III. 276; N. York, 1806; supports miasmata against contagion with great labour and ingenuity. *Blane's* letter; Ed. med. journ. III. 385. *Dickson*, Ed. med. journ. IV. 458; *Henderson* on the prevention of the yellow fever. 8. 1808; Ed. med. journ. V. 373; by mercurials. Chisholm's letter to Haygarth. 8. Lond. 1809; Ed. med. journ. VI. 364; against Miller. * *Bancroft* on the yellow fever. 8. Lond. 1811; learned, ingenious and instructive. 585. *Burnett* on the bilious remittent of the Mediterranean. 8. Lond. 1814; Ed. med. journ. X. 472: *Sheppard*, XII. 306. *Ferguson*, Medicoch. tr. XII. 154, 185; miasmata; green wood on board. Pym on the Bulam fever. 8. Lond. 1815. Doughty on yellow fever. 8. Lond. 1816; Ed. med. journ. XIII. 238: *Sheppard*, 427: against mercury. *Musgrave*, Medicoch. tr. IX. 93; intermittent terminating in black vomit: and repeated attacks not uncommon. See Synochus icterodes.

I. *Anetus quotidiana.* Quotidiana, Cull. syn. Hofm. II. 33. Junck. 79. See A. tertiana, to which Cullen has referred many quotidians.

A. Intermittent. Quotidiana I, Cull. syn. iii. Sennert. febr. xviii. Ed. med. ess. V. 49. Brendel. Quotidiana, *Sauvages*, I. 347. Morton pyret. ex. 1. hist. 19. 20; hysteralgia febricosa, Sauv. II. 124; hist. 28, quotidiana nephralgica, Sauv. I. 349, nephralgia febricosa, II. 116. Scharf. Eph. Nat. cur. Dec. 2. ann. 2. obs. 104; ureticosputatoria. Baine, Ed. med. ess. V. ii. n. 49; quotidiana ischiadica, Sauv. I. 348; ischias intermittens, II. 141; 9. epileptica. I. 348. Partial.) Cnoffel Eph. Nat. cur. Dec. 1. ann. 3. obs. 205. Ed. med. ess. I. n. 31. II. n. 19: Head, Morton pyret. ex. 1. hist. 27; Swieten p. 534; M. Soc. R. méd. II. 38; Cephalalgia intermittens, Sauv. II. 51; Cephalaea febricosa, 54: Eyes, Morton hist. 17; Swieten; Journ. med. 1760. 228; ophthalmia febricosa, Sauv. II. 71; *Pye*, Med. obs. inq. I. 111; quotidian or tertian blindness, cured by bark.

(† Hysteriae, catarrhi, ischuriae symptoma.)

B. Remittent. Quotidiana II, Cull. syn. iii. Galen on epid. 564. n. 11. Quotidiana continua, Sennert. River. obs. I. n. 47, 57. Ettmuller coll. cons. cas. 32. Amphemer'ina latica, *Sauvages*, I. 322; singultuosa, 328.

(† Tussis, paristhmitidis, peripneumoniae, synochi, catarhi, podagrae symptoma.)

2. *Anetus tertiana.* Tertiana, Cull. syn. i. Stohl de tertiana febris genium universum manifestante. Hall. 1706; casuale magn. n. 21; cas. min. n. 96. Hofm. II. 11. Senac de recondita febrium natura. Ed. med. ess. IV. n. 24.

A. Intermittent. Tertiana I, Cull. syn. i. Tertiana, *Sauvages*, I. 349. 1) With single paroxysms, *a.* Not exeeeding 12 hours. Tertiana legitima, Sennert. febr. II. c. 17, 18; Hofm. II. 12; Sauv. I. 349. Clegh. Min. 140, T. vera. *b.* Exceeding 12 hours. Tertiana notha. Sennert. febr. II. c. 17, 18; Hofm. II. 12. Sauv. I. 350; Cleg. min. 140. 2) With more than single paroxysms. *a.* With daily paroxysms alternately unequal. Tertiana duplex, Sennert. febr. II. c. 21; I. River. obs. III. n. 10, 11, IV. 77. Sauv. I. 353. Clegh. Min. 141. *b.* With two paroxyms on the same day. Tertiana duplicata, River. obs. IV. n. 16. Jones de febr. int. II. vi; Sauv. I. 353. *c.* With two paraxysms and one alternately. Semitertiana 1 Galeni, Spig. de semit. II. iv. Schenk, V. n. 12. Hofm. II. 40. Tertiana triplex, Brendel; Sauv. I. 353. Clegh. Min. 142. *d.* With daily paroxysms, but unequal intermissions. Hemitritaeus. Cels. III. iii. Semitertiana 2 Galeni, Spig. II. v. Ballon. cons. I. n. 115. II. 29. River. obs. I. 54. comm. 23. Semitertiana, Clegh. Min. 143. Amphemerina, hemitritaeus, pseudohemitritaeus. Sauv. I. 326. 3) With complicated symptoms. *a.* Drowsiness. C. Pis. obs. 175, 176; Quotidiana soporosa, Sauv. I. 349. Febris caput impetens, Sydenh. ad Brad. Morton. ix. h. 25. Ramazzin.

const. ep. 228. Febris lethargica, Torti, III. Werlhof febr. p. 6; Tertiana carotica, Sauv. I. 352; hemiplegica. 354. *b*. Spasmodic action. Bonet. pol. I. 250. Tertiana asthmatica, Sauv. I. 351. Morton, ix. h. 14, 15; Journ. med. VIII. vi. XXI. 224; Eclampsia febricosa, Sauv. I. 576. Wedel Eph. Nat. Cur. Dec. 1. ann. 2. obs. 193; Tertiana hysterica, Sauv. I. 352; Hysteria febricosa, 590. Bonet. sep. Calder. trib. med. med. 225; Torti, IV. iv. h. 3; Journ. méd. 1758. 43; Lautter hist. med. Vienn. 1761. ii. n. 2; Tertiana epileptica, Sauv. I. 353; Epilepsia febricosa, 584. Ed. med. ess. V. ii. n. 49; Quotidiana epileptica, Sauv. I. 348. E. Störck ann. II. 163; Tetanus febricosus, Sauv. I. 544. *c*. Eruption. Donat. III. xiv; Wedel? Eph. Nat. Cur. Dec. 1. ann. 2. obs. 193; Tertiana petechialis, Sauv. I. 350. Walthier. ap. Roncall. Europ. med. 151; Tertiana miliaris, Sauv. I. 354. Clegh. Min. 157; Planchon, Journ. méd. 1765; Tertiana urticata, Sauv. I. 354. Inflammatory fever. Vales. in epid. I. iii; Morton pyret. h. 8. p. 141; int. diagn. 33; Pleuritis febricosa, Tort. Anon. de rec. febr. nat. xviii. p. 102. Lautt. hist. med. ii. n. 5, 9. Tertiana pleuritica, Sauv. I. 351; Pleuritis periodica, 473. Morton ex. 1. ix. h. 22. Lautt. cas. 19; Tertiana arthritica, Sauv. I. 351. 4) Complicated with other diseases. Ettmuller prax. I. xvi. c. 2; Timae. VIII. c. 15; Tertiana scorbutica, Sauv. I. 351. Deidier morb. ven. iv; Tertiana syphilitica, Sauv. I. 353. Ramazzin. const. ep. 1690, xi; Lancis. nox. pal. II. v, vi; Stisser act. Helmst. Bosch const. epid. verm. 1760; Tertiana verminosa, Sauv. I. 353. 5) Excited by an occasional cause. Sydenh. v. p. 53; Tertiana accidentalis, Sauv. I. 352. Hofm. II. 12; Junck. 80; Tertiana a seabie, Sauv. I. 352.

B. Remittent. Tertiana II, Cull. syn. i. Causus, Hipp. epid. III. iii; Tritaeophya causus, Sauv. I. 333. Boerhaave? 738; febris ardens. Macbride, 360. Mercat. febr. vi; tertiana perniciosa. Sal. Divers. febr. pest. x. River.

XVII. ii. c. 1, iii. c. 3. Lang. Lemb. I. ep. 4; Sennert. febr. IV. xiv; Jord. pest. xix; Cober. obs. castr. Hung. I. n. 6...; Junck. 73; Hofm. I. x; Amphemerina Hungarica, Sauv. I. 327. Schenk, VI. e Gemma; hemitritaeus pestilens. Alp. Aeg. I. xiv. Barthol. hist. an. II. 56. Willis febr. xvi; febr. aut. 1657-8. Morton ex. 2. app.; febris syn. 1658-64, 1673-91. Sydenh. morb. ep. 24; ep. 1. 191; Torti, 200...259; Tritaeophya deceptiva, Sauv. I. 339. Sydenh. morb. ac. 1661-4; ep. ad Pam. 1678; febres autumnales incipientes. Sylv. pr. med. app. tr. 10; orat. de affect. epidem. Fanois; Hall. disp. V; morb. ep. 1669. Lancis. pal. effi.; tertianae pestilentes, febres castrenses epidemiae. Hofm. II. 38; anomalae et mali moris; 112; cholerica. Koker; Hall. disp. V; epid. 1719. Torti ther. sp. III. i. Tort. 199, febris subcontinua; Quotidiana deceptiva, Sauv. I. 348. Torti, 131; Tertiana subcontinua, Sauv. I. 353. Amphemerina paludosa, Sauv. I. 330; Pringle, ed. 4. p. 179. Beccari Act. Nat. cur. III. obs. 48; 1729. Pringle, 174; Huxham de aere 1729, Tissot de febr. bil. 1759; Amphemerina biliosa, Sauv. I. 331; Macbride, 360. Hahn, Act. Nat. cur. X. app.; Tritaeophya Wratislaviensis, Sauv. I. 334. Desperieres, Journ. méd. 1762; Tritaeophya Americana, Sauv. I. 341; St. Domingo. Amphemerina semiquintana, Sauv. I. 333. Grainger de febre anom. Pujati morb. Naron. Hillary's Barb. continued remittent; Med. obs. inq. IV. 24. V. 2. Soc. R. méd. I. 213. M. 14. H. II. 145. Lind. diss. inaug. 1768; Med. obs. inq. IV, art. 12; E. Ind. Rouppe morb. nav.; febris critica, febris biliosa aestatis. Lind. dis. hot clim. With complicated symptoms.) a. Morton ex. 2. app. Tertiana cholerica, Torti. Lautter hist. med. cas. 6, 16, 17, 20. b. Tertiana subcruenta, Torti. c. Ballon. cons. I. n. 8. Lancis. II. iii. Huxham de aere. I. 97. Tertiana cardiaca Torti. Lautt. cas. 15, 18, 23. Amphemerina cardiaca, Sauv. I. 324; Tritaeophya assodes. 337. d. Tertiana diaphoretica, Torti. Tritaeophya typhodes, Sauv. I. 335, elodes, 336. e. P. Aeg. II. xxxvii.

Forest. t. 1. p. 89. obs. 29, 61. River. obs. IV. n. 36. Tertiana syncopalis, Torti. Lautter cas. 11, 12, 13, 15, 16. Amphemerina syncopalis, Sauv. I. 325, humorosa, 325; Tritaeophya syncopalis; 333. f. Epiala Gal Phricodes Gal. introd. Lipyria Gal. Aët. V. 89. Forest. II. n. 36. River. obs. IV. n. 56. Amphemerina epiala, Sauv. I. 323, phricodes, 325; Tritaeophya lipyria, 338; Tertiana lipyria, 354. Valcarengh. med. rat. 18. g. C. Pis. 78. Bonet. sep. 210. Morton ex. 1. ix. h. 25. Lancis. I. II. iii. Werlhof febr. 6. Tertiana lethargica, Torti. Lautter 1, 7, 14. Tritaeophya carotica, Sauv. 337.

(† Dystociae symptoma.)

3. *Anetus quartana.* Quartana, Cull. syn. ii. Hofm. II. 23. Junck. 81.

A. Intermittent. Quartana I. Cull. syn. ii. *Monro*, Ed. med. ess. V. ii. 564; mercury. *Fowler*, M. Med. soc. Lond. III. 114; electricity. 1) Simple. Sydenh. morb. ac. v. Quartana legitima, *Sauvages*, I. 355. 2) With two paroxysms on the same day only. Bonet. polyalth. Quartana duplicara, Sauv. I. 356. 3) With three paroxysms on the same day. Quartana triplicata, Sauv. I. 358. 4) Occurring two days out of three. Sennert. Quartana duplex, Sauv. I. 356. 5) Occurring daily, but with similar paroxysms every fourth day. Barthol. hist. an. I. n. 95. Schenk. V. n. 11. Bonet. sep. V. Quartana triplex, Sauv. I. 356. 6) With complicated symptoms. Bonet. polyalth. I. 805; Quartana cataleptica, Sauv. I. 357. C. Pis. obs. 166-9, 171-4; Werlhof febr.; Quartana comatosa, Sauv. I. 358. Scholz. cons. 379, 380; Quartana epileptica, Sauv. I. 357. Mort. pyr. ex. 1. ix. h. 10, 11; Quartana hysterica, Sauv. I. 357. Léméry Journ. Sav.; Quartana nephralgica, Sauv. I. 357. Quartana metastatica, Sauv. I. 359. Sydenh. morb. acut. v; Quartana amens, Sauv. I. 357. Sennert. febr.; Ettmuller coll. cons. cas. 25; Quartana splenetica, Sauv. I. 356. Quartana hepatica, Macbr. 354. 7) Complicated with other diseases.

Ballon. epid. II. p. 131; Plater obs. III. 676; Monro, Ed. med. ess. V. ii. n. 47. obs. 8. 9; Quartana syphilitica, Sauv. I. 357. Morton; Werlhof febr. 55. Musgr. arthr. ix. h. 4, 5; Cockburn morb. nav. obs. 19. Quartana arthritica, Sauv. 1, 357; Arthritis febrisequa, II. 24, febricosa, 25. Barthol. med. dan. iv. Tim. VIII. n. 18; Quartana scorbutica, Sauv. I. 358.

B. Remittent. Quartana II, Cull. syn. ii. Tetartophya, *Sauvages*, I. 342. Horst. I. n. 15; Donat. III. xiv. ex Gatenaria; Lautter. c. 21; Tetartophya maligna, Sauv. Forest. III. 39; Bianch. hepat. 751. Werlhof febr.; Tetartophya carotica, Sauv. C. Pis. pr. 33; Tetartophya hepatalgica, Sauv. Vandermonde, 1757; Amphemerina spasmodica, Sauv. I. 329. A. semiquartana, Sauv. I. 332.

4. *Anetus erratica.* Erraticae, Cull. syn. ii. Erratica, *Sauvages*, I. 359. *Monro*, Ed. med. ess. II. 301; anomalous sequel; *Willison*, IV. 412; shaking after an ague; *Baine*, V. ii. 574. Senac. rec. febr. nat. I. i. *Gardeil*, M. Soc. R. méd. I. 14.

A. Erratica quintana, Sauv. Forest. III. 33. Tulp. III. 52. Swieten, p. 505.

B. E. septana, Sauv. Donat. 3. 14. Schenk. 826. *Morgagni*, ep. 49. art. 36. Swieten.

C. E. octana, Sauv. Sal. Divers. in Altom. xii. Zacut. Lusit. III. n. 34. Schultz. Eph. Nat. cur. Dec. 1. ann. 4, 5. obs. 70. Ettmuller pr. I. xv. c. 2. Cyrill. in Ettm. 187, 188, 365. Valles controv. V. xxv. Arnold. ap. Haller disp. V. Haen div. febr. iv. 9. Hemicrania lunatica, Sauv. II. 58.

D. E. nonana, Sauv. Zacut. Lusit.

E. E. decimana, Sauv. Zacut. Lusit.

F. Ephemera dichomene, Sauvages, I. 295. Donat. III. 14. Deidier obs. II. n. 14.

E. Erratica vaga, Sauv. River. obs. III. n. 32. Ettmuller, XV. ii.

XX. DEFLUXIO.

Defluxion.

A fever with some debility, and with a mucous or serous discharge. Often contagious.

1. D. *catar'rhus.* With a discharge from the nostrils, fauces, or bronchiae. Influenza.
2. D. *dysentéria.* A mucous and sometimes bloody discharge from the intestines, with griping and tenesmus. Dysentery.

1. *Defluxio catarrhus.* Catarrhus a contagio, Cull. syn. xl. 2. Rheuma, *Sauvages*, I. 686, sometimes; Coryza, II. 376, sometimes; Anacatharsis, 382; a symptom. Coryza maligna, Underwood; Snuffles, Denm. on rupt. of the uterus; a variety. Epidemics of 1323, 1328, 1358. Tozzetti oss. med. I. 175. Of 1387. Taranta, Marchesi, ap. Morgagn. ep. 13, art. 4. Of 1510. Valleriol. loc. comm. app. ii. Of 1575. Valleriola, River. obs. bibl. vet. n. 9. Forest. VI. i. Of 1580. Henisch. Aret. 315, 396. Sal. Divers. de febr. pest. xi. Forest. VI. n. 3. River. obs. bibl. vet. x. Sennert. febr. IV. xvii. Bokel synopsis novi morbi. Synocha catarrhalis, Sauv. I. 299. Of 1591. Sennert. Pechlin. II. obs. 17. Of 1658. Willis febr. xvi. Of 1675. Sydenh. V. 5. Rayger Eph. Nat. cur. Dec. 1. ann. 6, 7. obs. 213. Sorbait. Of 1679. Sydenh. ad Brad. Zod. med. Gall. I. Of 1708. Schroeck. Eph. Nat. cur. Cent. 1, 2, app. 14. Of 1709. Hofm. II. 47. Of 1712. Camerar. Eph. Nat. cur. Cent. 3, 4, obs. 58; Schroeck. app. 26. Of 1729, 1730. Hofm. II. 109. Loew, Act. Nat. cur. III. app. Scheuchzer obs. met. in Act. Nat. cur. IV. app. *Mor-*

gagni, ep. 13, art. 3, 4. Beccar. Act. Nat. cur. III. p. 142. Hillary 35. Wintringh. comm. nosol. 319. Rutty hist. weath. 17. Perkins, H. Soc. R. méd. I. 209. Of 1732, 1733. Comm. lit. Nor. 1733. 6, 52, 108, 267. Dethard-ing, Hall, disp. pr. V. Ed. med. ess. II. n. 2. Hillary, 47. Wintringham comm. nosol. 354. Huxham de aere, 1733, Febr. Rutty hist. weath. 30. Catarrhus epidemicus, Sauv. II. 36. Of 1737. Rutty, 60. Comm. lit. Nor. 1737. 347. Of 1742, 1743. Comm. lit. Nor. 1743. 106, 188, 313, 336. Guch et Zuberbuchler; Haller disp. pr. V. Huxham de aere, 1743. Rutty weath. 99. Tozzetti oss. med. I. 176. Rheuma epidemicum, Sauv. I. 688. Of 1748. Clegh. Min. 132. Perkins, H. Soc. R. méd. 210. Of 1758. Rutty weath. 211. *Whytt*, Med. obs. inq. II. 187. Of 1762. *Watson*, Phil. trans. 1762. 646. Baker de catarrho et de dysenteria. 4. Lond. 1764. Monro arm. dis. 137. Mac-bride, 333. *Gilchrist*, Ed. phys. ess. III. 409. Ehrmann de morbo catarrhali. Strasb. 1762. Of 1767. *Heberden*, Med. trans. I. 437. Grant on the influenza? Of 1775. *Fothergill's* sketch, with observations by *Pringle*. *Heberden*, *Baker*, *Reynolds*, *Cuming*, *Glass*, *Ash*, *White*, *Haygarth*, *Pulteney*, *Thomson*, *Skene*, and *Campbell*, Med. obs. inq. VI. 340; agreeing tolerably well with each other. Of 1779, 1780. M. Soc. R. méd. III. 16. Saillant tableau, 1780. Of 1782. Wittwer über den epidemischen catarrh. Nur. 1782. Crell et Langguth de catarrho. 8. Helmst. 1782. * *Gray*, Med. commun. I. 1; very contradictory accounts; *Smyth*, 71. *Report*, Med. trans. III. 54. R. Hamilton on the influenza; Dunc. med. comm. IX. 214; Another *account*, 393. Metzger geschichte der epidemie. 8. Kön. 1782. Mursinna heob. II. 1. *Hamilton*, M. Med. soc. Lond. II. 418; further observations. Of 1788. *Sim-mons*, Lond. med. journ. IX. 335; *Bew*, 354. *May*, Dunc. med. comm. XIV. 363; *Chisholm*? XV. 325; W. Ind. *Lindsay*? XVII. 499. *Falconer*? M. Med. soc. Lond. III. 20; *A. Fothergill*? 30; *Warren*? IV. 434; N. Engl. Of 1803. *Carrick*, Dunc. ann. 1803, 410; *Scott*,

424; *Duncan*, 437. *Circular letter*, with 57 answers. M. Med. soc. Lond. VI. 266. (See also Schneider, Göter, Wagler, Moneta, Mudge, Tissot, Stoll r. m. Grimm, Marx, Weikard, Stark.)

† Cauma catarrhale, xv.

2. *Defluxio dysenteria.* Dysenteria, Cull. syn. xli, Galen loc. aff. VI. ii. Bont. med. Ind. iii. Sydenh. IV. iii; p. 211. Helwich morb. Wratisl. 1699. Ramazz. morb. art. xl. Hofm. III. 151; Suppl. II. ii. Junck. 76. Bagliv. pr. m. I. ix. Werlhof opp. III. 779. Degner dys. Neom. 1736. Ed. med. ess. III. 32; *conessi* bark; *Pringle*, V. 194; vitrum antimonii ceratum; *Simson*, V. ii. 654; separation of the villous coat. Monro's lect. Huxham de aere, 1743. Clegh. Min. v. *Grainger*, Ed. phys. ess. II. 257; lime water. Hillary Barb. 243, 328. *Morgagni*, ep. 31, de alvi profluviis. Grimm, Act. N. Nat. cur. III. app. *Watson*, Phil. trans. 1762. 646. Akenside de dysenteria. Lond. 1762. Roederer. Baker de catarrho. Monro arm. dis. 57. Stark historiae dysentericae. Leyd. 1766. Hannes Unschuld des obstes. 8. Pes. 1766. **Zimmermann* von der ruhr. Zur. 1767; by Hopson. 8. Lond. 1771. Dysenteria epidemica, castrensis, *Sauvages*, II. 327; aequinoctialis, 328. Lentin. Clark. *Whytt*, Ed. phys. ess. III. 366; *D. Monro*, 516; great intestines ulcerated. Fordyce surg. fragm. *Lassone*, M. Soc. R. méd. I. 97; from putrid effluvia; *Caille*, III. 32; *Durand*, IV. 84. Wardrop de dysenteria contagiosa; Webster m. pr. I. 476. Mursinna über die ruhr. 8. Berl. 1780; Lond. med. journ. V. 137. Moseley on dysentery. 4. Kingst. 1780; Lond. med. journ. II. 86. Hagström on the nux vomica; Lond. med. journ. III. 189. *Causland*, Dunc. med. comm. VIII. 286. *Fothergill*, Med. obs. inq. VI. 186; ipecacuan sparingly. Houlston on poisons; mercury. Stoll. rat. med.; prael. II. 253. 264. *Chavasse*, Lond. med. journ. V. 297; vitr. ant. cer. *Atchison*, Dunc. med. comm. IX. 268. Rollo on

acute dysentery. 8. Lond. 1786. *Cawley*, Lond. med. journ. VII. 337. *Cardin*, M. Med. soc. Lond. III. 517; ipecacuan. Lambsma ventris fluxus. 8. Frankf. 1792. Brüning über die schädlichkeit des mohndsafts. 8. Neuw. 1794. Engelhard über die ruhr. 8. Winterth. 1797. Matthäi über die ruhr. 8. Hann. 1797. Hunnius über ruhr. 8. Jen. 1797. Vogler von der ruhr. 8. Gïess. 1797; "from 6000 cases." Hufelands journ. I. *Balmain*, M. Med. soc. Lond. V. 210; ipecacuan very largely. *Baillie's* engr. 73. Dewar on diarrhoea and dysentery in Egypt. 8. Lond. 1803; Dunc. ann. 1803. 44. *Field*, M. Med. soc. Lond. VI. 128; ulceration. *Harty* on dysentery. 8. Lond. 1805. Ed. med. journ. V. 393; at *Wallajahbad*. *Hooper*, Ed. med. journ. V. 399; from Corunna; Remarks, VI. 167; Reply, 450. Lichtenstein, Rec. période; Ed. med. journ. VI. 296. *Ferguson* and *Gray*, Medicoch. tr. II. 180: salivation. *R. N.* Ed. med. journ. VII. 172; mercury: *Playfair*, IX. 18; ipecacuan and laudanum: also *English*, 458, and *Bateman*, XI. 531. Bampfield on tropical dysentery, 8. Lond. 1819; Ed. med. journ. XVII. 441.

A. Dysenteria verminosa, Sauv. II. 329. Huxham de aere 1743, Maio. Pringle, 225. Dusausay, Vanderm. 1757, Mai. Monro, 62.

B. Dysenteria carnosa, Sauv. II. 329; Diarrhoea carnosa, 356. Wedel, Eph. Nat. cur. Dec. 2. ann. 2. obs. 182; Wagner and Schroeck, ann. 3. obs. 187. Peyer gland. int. ex. 1. p. 2. *Morgagni*, ep. 31, art. 17..24. Pringle, 237. Monro, 62.

C. Dysenteria intermittens. Sauv. II. 330. Morton ex. 2. app. Torti, III. i. 125. Werlhof febr. Clegh. Min. 236. Lautter hist. med. cas. 17, 20.

D. Dysenteria alba, Sauv. II. 328. Sennert. III. Willis ph. rat. I. iii. c. 3. Sydenh. 179. Ettmuller. *Morgagni*,

ep. 31, art. 11. Pringle, 225. Roederer de morbo mucoso. 4. Gott. 1762; a Wrisberg, 1783. Monro, 61.

E. Dysenteria miliaris, Sauv. II. 330. Gruber de febre Tiguri epidemica, 1747.

(† Amenorrhoeae, dyspepsiae, plicae, syphilidis, scrofulae, scorbuti, dystociae, diarrhoeae symptoma.)

XXI. HECTICA.

Hectic fever.

A frequent weak pulse, with night sweats or liquid evacuations, flushings of the face or extremities, and a sediment in the urine.

The fever generally increases in the afternoon, but sometimes is most observable in the morning. A hectic fever, though perhaps always occasioned by some other disease, may yet require the greatest share of our attention, and may be most conveniently considered as idiopathic.

1. H. *debil'ium.* Without emaciation.
2. H. *tábes.* With great emaciation, but no cough.
3. H. *pethísis.* With cough or pain in the chest.

Hectica. Stahl de hectica febre. Hall. 1705. Schulze de febre lenta. Hofm. med. rat. Nicolai path. febr. III. *Heberden*, Med. trans. II. 1. Griffith on hectic. 8. Lond. 1776. Fournier sur la fievre lente. 8. Dij. 1781. Drechsler febrium lentarum aetiologia. Leipz. 1782. Trnka historia febris hecticae. 8. Vienn. 1783; Lond. med. journ. VI. 81.

Sachtleben über auszehrende krankheiten. 2 v. 8. Dantz. 1792. Young on consumptive diseases, 8. Lond. 1815; Ed. med. journ. XIII. 499; "a complete library in regard to consumption."

1. *Hectica debilium.* Hectica, Cull. syn. II. 80. Does not necessarily imply emaciation, but can scarcely exist long without it. Hectica, Sauvages, I. 316, is supposed to have no exacerbations of fever except in immediate consequence of eating. Withers on chronic weakness? 8. York. Med. comm. Ed. IV. 399; beginning with dyspepsia.

B. Infantile remittent. *Coley's* treatise on the remittent fever of infants. Lond. 1813. Ed, med. journ. X. 72.

2. *Hectica tabes.* Tabes, Cull. syn. lxix, *Sauvages*, II. 446.

A. Without organic disease. Hectica, *Sauvages*, I. 316. Tabes venenata, Cull. syn. lxix. 3. Tabes a veneno, *Sauvages*, II. 451. Forest. IV. n. 2; nostalgica; also Meyzerey II. n. 226, and *Hamilton*, Dunc. med. comm. XI. 343. See Asthenia universalis, and Erethismus nostalgia.

B? With a tumour, especially enlarged glands. Tabes scrofulosa, Cull. syn. lxix. 2; Tabes mesenterica, glandularis, rachialgica, Scrofula mesenterica, Atrophia rachitica, infantilis, Sauv. Belongs properly to scrofula. *Ayton Douglas*, Ed. med. ess. V. ii. 629. *Gregory*, Medicoch. tr. XI. 258; from scrofulous inflammation of the peritonaeum.

C? With an abscess. Tabes purulenta, Cull. syn. lxix. 1; Arthropyosis, xxv; in the last stage. See Cauma rheumatismus, xv, Apostema, 1. Hippocr. int. aff. 540. Bonet, sep. II. vii. 152, 160. Horst. II. 185. Stahl

de hectica abscessus comite. Hall. 1710. Armstrong de tabe purulenta. 8. Ed. 1732; Smellie thes. I. 61. Haen rat. med. IV. iv. §. 4. *Morgagni*, ep. 46. n. 20; ep. 65. n. 15. Schroeder de phthisi hepatica? 8. Gott. 1783. Schüler, Journ. méd. LIII. 264.

3. *Hectica phthisis.* Phthisis, Cull. syn. in xxxvii. Hipp· dis. I. 450: int. aff. 456, 478, 536. Horst. opp. II. 134. Willis pharm. rat. II. i. 6, 11. Bennet theatrum tabidorum. 8. Leyd. 1742; vestibulum. 8. Lond. 1654. *Morton* phthisiologia. 8. Lond. 1689. Sydenh. opp. 790. Bellin. morb. pect. 663. Werlhof, III. 791. *Barry*, Ed. med. ess. I. 273; after peripneumony, extending to the liver; II. n. 22; IV. 418; from *Dover*; bleeding; *Thomson*, V. 88; repeated emetics. *Foubert*, M. Ac. chir. I. 717. *Arnot*, Ed. med. ess. V. ii. 613; a bone coughed up. Huxham, I. 197. Musgrave Gulst. lect. Pringle arm. dis. Haen rat. med. I. 86. II. 2. III. 181, 187. VI. 74, 131. VII. 238, 240. VIII. 91. IX. 49. XII. 250, 254. *Morgagni*, ep. 22, de sputo sanguinis, et de sputis purulentis, empyemate, et phthisi. Monro arm dis. Brendel. opp. III. 111. *Paitoni*, Phil. trans. 1765. 79. Phthisis, *Sauvages*, II. 451. *Dickson*, Med. obs. inq. IV. 206; *Fothergill*, 231, 289; against balsams; *Brymner*, Med. comm. Ed. III. 422; a seton. *M. Ac.* chir. V. 549; fumigations. *Fothergill*, Med. obs. inq. V. 345; against bark and sulfuric acid in the first stage; oxymel of squills often irritates. Home's clin. exp. Chalmers. Lentin. Roederer morb. muc. Stoll. rat. med. I. 203. II. 1, 356..370. IV. 117, 121. VII. passim; aph. 300. S. F. Simmons on consumptions. 8. Lond.; Dunc. med. comm. VII. 59. Halliday de phthisi; Webster m. pr. I. 323. Portal Ac. Par. 1781, 1788. *T. Reid* on phthisis. 8. Lond. 1782; Lond. med. journ. III. 385. *Keir*, Med. commun. I. 157; an ulceration into the oesophagus; *Stark* and *Smyth*, 359. Finke gallenkr. 74. Starke klin. inst. 59, from arsenical vapour; 72. *Holman*, Lond. med. journ. VII. 120; a carious bone coughed up,

which had probably been swallowed 15 years before. Smyth on swinging. 8. Lond.; Dunc. med. comm. XII. 143. *May*, Lond. med. journ. IX. 268; XI. 255; *Gapper*, 388. *Percival*, M. Med. soc. Lond. II. 288. Metternich vom schaden der brechmittel in der lungensucht. 8. Mayence, 1792; against Reid, who is very fond of emetics. *Adair*, Dunc. med. comm. XVII. 473; emetics of cupr. sulf. with extr. conii; Davidson, XVIII. 395; limited use of liquids. Desault sur la phthisie. *R. Pearson*, Med. facts. VII. 95. Dunc. ann. 1796. 401; vapour of ether. Rush, med. inq. II; Dunc. med. comm. XX. 68. *Howison*, Dunc. ann. 1797. 324; carbonic acid. Carrick on Bristol water, 8. 1797. Drake; Beddoes's contributions. 8. Bristol; Dunc. ann. 1799. 123; digitalis; *Fowler*, 145. *Ja. Johnstone*, M. Med. soc. Lond. V. 89. Ferriar on digitalis. 8. 1790. Beddoes on calculus. Beddoes on the causes of consumption. 8. Brist. 1799; Dunc. ann. 1799. 68. Beddoes on the management of consumption and the cure of scrofula. 1801; Dunc. ann. 1801. 188. Pears's cases of phthisis. 8. 1801. Baillie's engr. 37, 41; tuberculated lungs. Bourne on uva ursi. 8. Lond. 1806; Ed. med. journ. II. 346. J. Reid on consumption. 8. Lond. 1806; Ed. med. journ. III. 78. Regnault on lichen. 8. 1806. Sanders on consumption and digitalis. 8. Ed. 1808; Ed. med. journ. IV. 364. *Pearson*, Phil. trans. 1809. 313; expectorated matter. Woolcombe on the frequency of diseases. 8. Lond. 1808; Ed. med. journ. V. 205. Smyth on consumption. Uttox. 1809. *Shearman*, Ed. med. journ. VI. 75; steel, where there is amenorrhoea; *Fogo*, 175; against the influence of the uterus. Buxton on a regulated temperature. 8. Lond. 1810; Ed. med. journ. VI. 332, VII. 385. *Wells* on consumption, as opposed to intermittent fever. Tr. soc. med. ch. kn. III. 471. *Roberts*, Med. trans. IV. 119: *Orban*, V. 277; vinegar: also *Roberts*, 463: *Latham*, 341, lead. *Duncan* on consumption. 8. Edinb. 1813; Ed. med. journ. X. 488. *Southey's* observations on consumption. 8. Lond. 1814; Ed. med. journ. XI. 220. *Wilson Philip* on dyspeptic phthisis.

Medicoch. tr. VII. 499. * *Bayle* on phthisis, by Barrow. 8. Liverp. 1815; Ed. med. journ. XII. 351: Crichton on the vapour of tar. 8. Edinb. 1817; XIV. 113: *Pearson*, 133; purulent sputa without ulceration. *Kerckhofs*, Med. tr. VI. 38; mucous phthisis: *Carter*, 54; warm climate *early*. *Lawrance*, Ed. med. journ. XVI. 42; a large coagulum: *Abercrombie*, XVII. 29.

(† Catarrhi, dyspepsiae, lithiasis, hydropis, rachitidis, syphilidis, scrofulae, parasitismi symptoma.)

CLASS III.

PARECCRISES.

SECRETORY DISEASES.

ORDER I. *EPISCHESES.* RETENTIONS.

XXII. OBSTIPATIO.

Constipation.

Retention of the alvine discharge.

1. O. *alvina.* Positive costiveness.
2. O. *tenes'mus.* Relative to the effort.

1. *Obstipatio alvina.* Obstipatio debilium, rigidorum, Cull. syn. cxxiii. 1, 2; scarcely varieties. Aët. I. iv. 20. III. i. 15, 26. Forest. XXI. 24. Ballon. opp. I. 40; stricture. Sennert. paral. III. 4. Barthol. hist. an. IV. 43; V. 40; VI. 38, from hernia. Schenk, 275-6. Bonet. sep. III. xiii. 5, stricture; 11, from hernia. Ruysch obs. 95, 96. Stalpart. I. 55; 56, a tumour; 64, obstructio. Ed. med. ess. IV. 31; from hernia. Cowper, Shearman, Phil. trans. Amyand, Fielding, Yonnge, obstructio. Phil. trans. Madder, from hernia, Phil. trans. *Morgagni*, ep. 32, de alvi adstrictione. Tenesmus a scybalis, *Sauvages*, II. 363. Med. obs. inq. IV. n. 10. Barral, Journ. med. L; obstructio. Rec. period. II. 330. Gooch, Med. comm. Ed. II. 373; a concretion. *Johnston*, V, 302, stricture; 323. White's cases. Lorry, M. Soc. R. méd. II. Walther thes. obs. n. 12; obstructio. Weikard verm. schr. II. 52,

Callisen, Act. Soc. med. Havn. II. *Elliott*, Lond. med. journ. I. 349; *Willan*, V. 401. Gerard, Dunc. med. comm. X. 44; *Warren*, 255; from indurated faeces, with apparent diarrhoea. *Spence*, Med. trans. III. 99; water externally. Fink gallenkr. 77. Theden N. bem. II. 269. *Kite*, Lond. med. journ. VIII. 164. *Helsham*, Dunc. med. comm. XIII. 282; indurated faeces. Sherwen, M. Med. soc. Lond. II; *Falconer*, 73; cold water. *Bishoprick*, Dunc. med. comm. XX. 340; accumulation, with colic pain. Reil. mem. clin. I. n. 3. Mursinna beob. I. 141; introsusception. *Clarke*, Trans. Ir. ac. VI. 3; in infants. *Hosack*, Dunc. ann. 1796. 310: 22 days; an ounce of calomel taken, which relieved after salivation. *Mossman*, Dunc. ann. 1797. 307; fatal. *Baillie*, Tr. soc. med. ch. kn. II. 174; 103 days; from a contracted and ulcerated rectum. *Green*, Ed. med. journ. IX. 166: *Oudnay*, XVI. 383; twist in the colon: *Clarkson*, 475; galvanism, for a distension.

2. *Obstipatio tenesmus.* Galen loc. aff. VI. ii. Oribas. IX. xiii. Forest. XXII. n. 40..43. Bont. med. Ind. v. Tenesmus, *Sauvages*, II. 362. Zimmerm. on dys.

† Obstipatio obstructorum, Cull. syn. cxxiii. 3. Colicae symptoma.

XXIII. ISCHURIA.

Ischury.

Obstruction of the urine.

† Dysspermatismus, Cull. syn. cxxvi. may often coexist with ischuria, especially when merely symptomatic, as seems to be the case in all the species distinguished by Cullen. D. urethralis, nodosus, praeputialis, refluus, 1, 2, 3, 8, are

symptoms of structural diseases, which must also produce dysury; D. mucosus, 4, of blennorrhoea; D. hypertonicus, of priapismus; D. epilepticus, 6, of epilepsy, and D. apractodes, 7, of asthenia.

1. I. *renális.*	With an uneasiness about the kidneys, and without micturition or distension of the hypogastrium.
2. I. *ureteˈica.*	With pain or uneasiness in the region of the ureters, and without micturition.
3. I. *vesicális.*	With micturition, pain at the neck of the bladder, and tumour in the hypogastrium.
4. I. *urethrális.*	With distension of part of the urethra.
5. I. *dysúria.*	Partial, the passage not being entirely closed. Dysury, Strangury.

Ischuria. Cull. syn. cxxiv. Galen loc. aff. I. i. VI. iv. Aët. III. iii. 21, 23. Forest. XXV. n. 12. Horst. opp. II. 242. Ballon. cons. III. 17, 82. Barthol. ep. IV. 91. Schacht. inst. med. pr. VIII. Nenteri de ischuria. Varandaeus. Monro arm. dis. *Morgagni*, ep. 41, de urinae suppressione; ep. 66, de morbis potissimum vesicae. *Mackenzie*, Med. obs. inq. I. 81; bark. Ischuria, *Sauvages*, II. 520, and Cusson. *Grüling*. *Raymond*, Med. obs. inq. V. app.; blistering the sacrum; Med. comm. Ed. V. 475. *Bentley*, Med. commun. I. 256. *J. Pearson*, Med. obs. inq. VI. 246; opium. *Snowden*, Lond. med. journ. VII. 10; electricity; *Stevenson*, IX. 382; fatal. *Latham*, Med. commun. II. 138; camphor applied to the thighs. *Patten*, Lond. med. journ. X. 306. *Lucas*, XI. 109. *Livingston*, M. Med. soc. Lond. III. 570; IV. 421. *Bishop*, Med. facts. VIII. 122; decoction of peach leaves. *Cline*, Med. records. 83; tinct. ferr. mur.

The authorities, arranged under the subdivisions of Cusson and Ploucquet, may serve as a specimen of the prolixity inseparable from the introduction of too minute distinctions.

1. *Ischuria renalis.* Cull. syn. cxxiv. 1. Stalpart. I. n. 51; calculi. *Balderston*, Ed. med. ess. II. 359; kidney enlarged. Lysons, Phil. trans. *Dawson*, Phil. trans. 1759. 215. *J. Clarke*, Med. comm. Ed. VI. 204. Stevenson, Lond. med. journ. IV. 1788. Stoll rat. med. II. 143. Lettsom, M. Med. soc. Lond. II; hydatids. *Willan*, Med. facts. III. 1. *Senter*, M. Med. soc. Lond. IV. 164. Ischuriae renales, *Sauvages*, II. 522. Cusson's species.) A. I. nephritica. Fabr. Hildan. lithot. 1. iv. Bonet. sep. III. xxiv. 4. §. 3. Schenk. III. isch. fals. iv, v. Ettmull. coll. pr. 994. † B. I. nephrolithica. Car. Piso morb. coll. ser. Schenk. isch. Bonet. sep. ur. suppr. Ed. med. ess. II. n. 31. Journ. méd. 1756. C. I. nephroplethorica. River. obs. I. n. 1, 89. Ettmuller. Gaub. pathol. Ludwig. inst. med. clin. D. I. lunatica. Tulp. obs. II. xlix; monthly. E. I. nephrospastica. Sydenh. diss. ep. Raulin. mal. vap. M. Ac. Par. 1715. † F. I. nephrelminthica. Gorter med. pr. Gaub. pathol. † G. I. nephrothromboides. Fernel. path. VI. xiii. Mercat. morb. int. xii. Ettmuller. 314. Gorter. Gaubius. † H. I. nephropyica. Schenk. III. ren. tum. Bonet. sep. ur. suppr. Sal. Div. aff. part. xiv. Gorter. Gaub. † 1. I. nephrophlegmatica. Bonet. sep. isch. n. 4. Sal. Div. Graf, Eph. Nat. cur. III. obs. 212. Mercati. Gorter. Gaub. Blennorrhoea? K. I. nephroplegica. Sal. Divers. Mercat. Horst. II. iv. n. 49. Donat. hist. med. IV. 28. Barthol. ep. IV. 18, 38, 39. L. I. suppleta. Donat. IV. 27; Schenk. III. diab. n. 9; by diarrhoea and sweat. Sennert. pr. III. viii. s. 2. c. 9; discharge from the ears. Vandermonde, IV, perspiration; X, sweat. *Laing*, Ed. med. journ. X. 409. *Halford*, Med. tr. VI. *Abercrombie*, Ed. med. journ. XVII. 210.

2. *Ischuria ureterica.* Cull. syn. cxxiv. 2. Ed. med. ess. II. n. 31; Störck ann. II. 253; stricture and adhesion. Ischuriae uretericae, *Sauvages*, II. 526. Cusson's species.) A. I. ureteritica. Sal. Divers. Ludwig. Gaub. † B. I. ureterolithica. Bonet. sep. III. Tulp. obs. II. xlv. Schenk. III. Sal. Divers. Stalpart. I. 51. Monro, Ed. med. ess. V. ii. n. 68. † C. I. ureterothromboides. Bonet. sep. III. ur.

suppr. n. I. † D. I. ureterophlegmatica. Sal. Divers. Bonet. Gorter. Fink gallenkr. 264. Blennorrhoea? † E. I. ureteropyica. Gorter. Salius. † F. I. ureterostomatica. Eller, Misc. Ber. IV. 381. Noel and Verdier, M. Ac. chir. II. n. 17. Lieutaud, M. Ac. Par. 1753. Salzmann. obs. anat. 62.

3. *Ischuria vesicalis.* Cull. syn. cxxiv. 3. *Gilchrist*, Ed. phys. ess. III. 471; bladder thickened. Sharp's researches. Ischuriae vesicales, *Sauvages*, II. 528. *Hamilton*, Phil. trans. 1776. 578; punctured by the rectum. Buck de ischuria vesicali; Webster m. pr. III. 185. *Norris* M. Med. soc. Lond. I. 117; punct. by rect. *Lucas*, Med. commun. II. 90; punctured; *Smyth*, II. 505; cantharides. *Wilson*, Dunc. med. comm. XVI. 288; fatal, more than 16 pounds. *Turner*, Lond. med. journ. XI. 7; *Watson*, 349; punct. by rect. *J. Johnston*, M. Med. soc. Lond. III. 543; bladder ruptured. Senter, Tr. Coll. Phil. I; Med. facts. VI. 212; Dunc. med. comm. XIX. 142; gravel vomited and discharged by the rectum; no ulceration remained after death. Bonn über die harnverhaltung und den blasenstich. 8. Leipz. 1794. Weldon on puncturing the bladder. *Home*, Tr. soc. med. ch. kn. II. 344; puncture. *Baillie's* engr. 139; thickened bladder. Cusson's species.) A. I. cystitica. Galen. ap. Zacut. Lusit. hist. med. princ. II. h. 150. Forest. XXV. n. 27, 28. Bonet. sep. III. M. Ac. Par. 1704, 1753. Lieutaud; from the inflammation of the uvula vesicae. *Baillie*, Ed. med. journ. VII. 178; camphor. † B. I. cystolithica. Forest. XXV. n. (7), 13, 19, 23. Car. Piso morb. a coll. ser. Fabr. Hild. III. n. 67. Schenk. III. ii. 239. Bonet. sep. III. xxiv. Tulp. IV. 37; Ed. med. ess. II. n. 31; IV. n. 1, 2, (9), 10. Werlhof opp. III. 701. Lieutaud, Journ. méd. XXI. 349; Pamard, XXIII. 421. Med. comm. Ed. VI. C. I. cystospastica. Forest. XXV. n. 14. Schenk. III. ii. 243. Mercati morb. int. IV. xxii. Sarcone Nap. Snowden, Chavasse, Lond. med. journ. Stoll rat. med. II. 143. *J. Pearson*, Med. obs. inq. VI. 246; opium, also *Mather*, Med. facts. IV. 102. † D. I. cysto-

plegica. Galen. ap. Zacut. Lus. II. h. 140. Manget. bibl. IV. Pringle, Ed. med. ess. II. n. 32. See N. E. I. polyurica. Forest. XXV. 14. Sennert. pr. III. viii. s. 1. c. 4. Ettmuller. Haller prael. in B. II. 336. F. I. cystopyica. Galen ap. Zacut. Lus. II. h. 148. Plater mant. obs. 29. André mal. ur. Vandermonde, Journ. méd. IX. *Manget*, Med. comm. Ed. I. 318. G. I. cystothromboides. Galen loc. aff. VI. v. Paul. Aeg. VI. lix. Forest. XXV. n. 20. Fabr. Hildan. III. n. 66. Mercat. morb. intern. xii. H. I. cystophlegmatica. Bonet. ex Bartholin. Mercati. Etmuller. Fink gallenkr. 264. † I. I. ectopocystica. Plater obs. p. 830. Verdier and Noel, M. Ac. chir. II ; hernia or prolapsus. Richter br. II. 256. K. I. cystoproctica. Schenk. III. isch. obs. 6. Bonet. sep. III. ur. suppr. obs. 18. §. 4. Wepfer apopl. 391. Vandermonde, IX. 261. Fink gallenkr. 267. *Oliphant*, Lond. med. journ. VII. 26. L. I. hysterocystica. 1. Pregnancy. Nordmann de ischuria gravidarum. Mauriceau, I. xv. 138. Bromfeild, Phil. trans. Cheston's obs. Richt. chir. bibl. V. 674. 2. Labour. Bonet. ex Riolan. Daran in Vandermonde, V. 3. Dropsy. Hippocr. dis. wom. xii. Sennert. pr. IV. i. s. 2. c. 10, 11. Schenk. IV. mol. falsa. 4. Tumour. Sennert. Knoffel Eph. Nat. cur. IV. Gaub. Cheston's obs. Richt. chir. bibl. V. 673. 5. Prolapsus. Sennert. c. 16. Nordmann. Sabatier, M. Ac. chir. III. (6. Pl.) Obliquity. Hipp. dis. wom. 654. Aët. IV. iv. c. 77. (7. Pl.) Retroversion. Hipp. dis. wom. 647. Aët. IV. iv. c. 77. Hunter, Med. obs. inq. V. Cheston, Med. comm. Ed. II. ii. ; IV. 167. Richt. chir. bibl. IV. 236. V. 680. Wanters, Journ. méd. LV. 323. LVIII. 337 ; Desgranges, LIX. 36 ; Dusaussoy, LXVII. 283. (8). Concretions. *Louis*, M. Ac. chir. II 130 ; *Pecquet*, 585. See dysuria, dystocia. ÷ M. I. atretarum. Schenk. IV. part. mul. obs. 9. Heist. chir. II. 951. Amyand, Phil. trans. 1732. 45. Astruc morb. mul. I. i. c. 5. Magnan. H. soc. R. méd. 1776. 286. Dolignon, Journ. méd. LXIV. 252. Birnstiel. Balding. N. mag. X. 325. See deformitas. N. I. paradoxa. With partial flow of urine. Leclerc, Journ. méd. 1755. *Morgagni*, ep. 56, art. 12. Stoll prael. I. 368. See dysuria. † (O. Pl.)

From malconformation of the bladder. Ruysch. obs. 28. Huxham, Phil. trans. † (P. Pl.) From obstruction. Morg. ep. 42. pass. † (Q. Pl.) From the pressure of an abscess. Sever. rec. absc. n. IV. 35. † (R. Pl.) From a tumour. Barthol. hist. an. II. 52. *Macgill*, Ed. med. ess. V. ii. 355. Brady, Warner, Phil. trans. Med. comm. Ed. I. 148; hydatid. Home clin. exp. Hill's cases. *Cullum*, Med. obs. inq. VI. 91. (S. Pl.) From a cicatrix or callus. Ruysch obs. 89. Tyson, Phil. trans. Morg. ep. 40. art. 4. Ed. phys. ess. III. 21. (T. Pl.) From a cartilaginous substance. Ac. Par. 1770. (U. Cuss. Pl.) From a steatoma. Barthol. cent. I. h. 23. Swertner, Richter chir. bibl. V. 551. (X. Pl.) From general dropsy. Theden N. bem. II. 78. (Y.) From a slough. *Andreé*, Med. obs. inq. V. 342.

4. *Ischuria urethralis.* Forest. XXV. n. 15, 20. Bonet. sep. III. xxiv. 11, 14, 7. Ischuriae urethrales, *Sauvages*, II. 534. Martin, Journ. méd. XXIII. 266; Coste, XXVI. 240. André, Med. obs. inq. VI. 32. Sandifort, obs. an. path. III. 3. Cusson's species.) A. I. perinaealis. Galen. loc. aff. ap. Zacut. Lusit. hist. 149. Forest. XXVI. n. 2. Tulp. III. x. Daran, Vandermonde, V. 291. Lacroix, Journ. méd. L. 39. † B. I. urethrolithica. Barthol. IV. ep. 5. Bonet. sep. ur. suppr. obs. 14. Tulp. III. viii. Heister. chir. II. 839. C. I. urethrophlegmatica. Forest. XXV. 25. Bonet. sep. D. I. urethrothromboides. Forest. XXV. 25. Bonet. sep. ur. suppr. obs. 11. E. I. urethropyica. Forest. Bonet. Boerh. praef. aph. F. I. urethrohymenodes. H. Ac. Par. 1714. 22; membrane or perhaps coagulable lymph. † G. I. urethrelminthica. Bonet. med. sept. de urin. xxxi. Manget. bibl. IV. Vandermonde 1758. 245. Albrecht. † H. I. urethritica. Fabr. Hild. IV. obs. 54. Forest. III. iii. s. f. Bonet. med. sept. Goulard mal. uréthr. Heist. chir. II. 838. † I. I. carunculosa. Stalpart. I. 88. II. 40. Goulard mal. ur. Heister chir. II. 834. André mal. ur. Sharp's researches. Foot. dis. ur. See contractura. † K. I. hydrocelodes. Apini, Eph. Nat. cur. Dec. 3. ann. 3. obs. 68; accidental laceration. L. I. cryptopeica. Hofm. cons. morb.

abd. cas. 105. † M. I. peridesmica. Bonet. med. sept. isch. i. n. 8. † N. I. phimotica. Rorst. II. iv. 274. Bonet. sep. isch. obs. 15. Goulard mal. ur. Heist. chir. II. 818. † O. I. aspadialis. Horst. II. 55. Bonet. sep. ur. suppr. obs. 15. sch. Wier. obs. 221. Heist. chir. II. 818. 951. See deformitas. (P. Pl.) From an enlarged prostate. Bonet. sep. III. xxv. 17. *Morgagni*, ep. 66, art. 5; the uvula of Lieutaud, from whom Morgagni dissents. Sandifort ex. acad. II. 109. *Ware*, M. Med. soc. Lond. II. 236. (Q. Pl.) From aneurysm in the penis. Tyre Med. Commun. II. n. 17. (R. Pl.) Aphrodisiaca. Ballon. opp. I. 116.

B? Praeputial. (N) Bonet. sep. III. xxiv. n. 15; from accident. *Dickson*, Dnnc. ann. 1799. 412; concretions.

5. *Ischuria dysuria.* Dysuria, Cull. syn. cxxv. Hipp. dis. 523. Galen? loc. aff. VI. iv; strangury. Aët. III. iii. c. 19...Fernel. cons. LIX; strangury. Forest. XX. n. 1..6; strangury; XXV. 2, 8, 9, 34..39. Ballon. cons. I. p. 99. III. p. 68; p. 25, 82, strangury. G. Harv. expect. viii. strang. Plater quaest. 64. Barthol. hist. an. V. 21. *Heberden*, Med. trans. I. 471; from camphor. Dysuria, *Sauvages*, II. 388. *Percival*, Lond. med. journ. IV. 68; from ammonia. Lentin memor. 57; beytr. Stoll rat. med. V. 444. *Macbeth*, Dunc. med. comm. XX. 232; cured by copaiba. *Smyth*, Med. commun. II. 505; from distension; recommends cantharides, gr. j or ij, with camphor.

A? With ardor urinae. Dysuria ardens. Cull. syn. cxxv. 1. Astr. morb. ven. I. vii. n. 5. Delii am. ac. 188.

B. Spasmodic? Dysuria spasmodica, Cull. syn. cxxv. 2. Sydenh. hyst. pass. p. 132; opp. p. 680; Stahl in Harv.

† C. From compression. Dysuria compressionis. Cull. syn. cxxv. 3. Ruysch, obs. 88. Canterell. Phil. trans.

Mery, M. Ac. Par. 1713. 146. Salzmann de hern. ves. *Morgagni*, ep. 39. art. 5, 6; ep. 48, art. 39. Bouver, Journ. méd. XLI; Med. comm. Ed. III. 58; a concretion in the uterus.

† D. From inflammation. Dysuria phlogistica, Cull. syn. cxxv. 4.

† E. From lithiasis. Dysuria irritata. Cull. syn. cxxv. 5.

† F. With a secretion of mucus. Dysuria mucosa. Cull. syn. cxxv. 6. Blennorrhoea.

(† Contracturae, carcinomatis symptoma.)

XXIV. AMENORRHOEA.

Suppression.

A simple retention or suppression of the catamenia.

1. A. *eman'sio.* The catamenia having never appeared at the time of puberty.
2. A. *suppres'sio.* The catamenia having before appeared.
3. A. *partiális.* The catamenia being scanty or irregular.

† Autalgia dolorosa κ, v. Dyspepsia chlorosis, xxxi.

Amenorrhoea. Cull. syn. cxxvii. *Morgagni*, ep. 47. de menstrui fluxus vitiis, Sauvages, II. 598; a cause of chlorosis. *Austin*, Ed. phys. ess. III. 116; electricity. Harris de morbis virginum; Webster m. pr. III. 229. *Watson*, Lond. med. journ. VII. 413; calomel; *Copland*, XI. 230; madder. See dyspepsia chlorosis.

1. *Amenorrhoea emansio.* Amenorrhoea emansionis, Cull. syn. cxxvii. 1. Forest. XXVIII. n. 6...9. Ballon. opp. I. 197. Bonet. sep. III. xxxv. 6; from a tumour. *Perfect*, M. Med. soc. Lond. III. 593; till 47, from that time menstruation continued till death. († B. Imperforated hymen, a deformitas. Schenk. IV. n. 97. Bonet. sep. III. xxxv. add. obs. 4. Ruysch, obs. 32. Journ. med. XXXVII. app. 121. Haen rat. med. VI. ii. §. 3. Walter, M. Ac. Ber. 1774. 81. Asper, Richter chir. bibl. IV. 76.)

2. *Amenorrhoea suppressio.* Amenorrhoea suppressionis, Cull. syn. cxxvii. 2. Galen loc. aff. VI. v. Forest. XXVIII. n. 1. Horst. II. 262. 273. Plater obs. I. 247. Freind emmenologia. Chalmers, Hamilton, Ed. phys. ess. II. 403; compresses the iliac arteries. Stoll prael. II. 372. Balding. N. mag. IX. 20.

3. *Amenorrhoea partialis.* Amenorrhoea difficilis, Cull. syn. cxxvii. 3; the definition including pain. *Pearce*, M. Med. soc. Lond. III. 502.

A. A simple deficiency. Pearce; irregular.

B. A vicarious discharge. *Calder*, Ed. med. ess. III. 380; from an ulcer; also Pearce.

XXV. AGALAXIA.

Want of milk.

1. A. *idiopath'ica.* Independent of any other disease.

† Dystocia.

1. *Agalaxia idiopathica.* Aët. IV. iv. 33. Forest. XVII. 16...Horst. II. 277. Levret. Journ. méd. XXXVII.

A. A simple deficiency.

B ? A vicarious discharge or accumulation. Hipp. on glands 273. Astruc mal. f. V. 450. Ac. Par. 1728, 1746. Levret acc. Bossu, Martin, Journ. méd. XXXIV; Planchon, XXXVI; Milleret, XLII. Haen rat. med. VII. 134. Lentin beob.; memor. 101. Swieten comm. IV. 611. Stoll rat. med. II. 350. Scheffer vers. II. 406, 411; asserts that the fluids are always purulent: this might easily be ascertained by the eriometer. Selle N. beitr. I. 68. II. 73. Theden N. bem. II. 231. Weikard verm. schr. I. 47. Richter chir. bibl. I. iv. 9, 22.

ORDER II. *APOCENOSES.* EFFUSIONS.

XXVI. EPHIDROSIS.

Colliquation.

An increase of the cutaneous secretion.

1. E. *spontánea.* Independent of any other disease.

1. *Ephidrosis spontanea.* Cull. syn. cxviii. *Sauvages*, II. 369. Haen rat. med. XII. vi. §. 6. Balding. N. mag. I. 495.

A. General.

B. Partial. Ephidrosis lateralis, Sauv. II. 371.

† C. Depraved; properly a cacochymia. Ephidrosis lactea, mellea, vinosa, viridis, nigra, lutea, urinosa, cruenta, caerulea, acida, arenosa, Sauv.

(† Syncopes, pyrexiae, dyspepsiae, scorbuti symptoma.)

XXVII. EPIPHORA.

Overflowing.

An effusion from a conglomerate gland.

1. E. *lacrymális.* From the lacrymal gland.
2. E. *ptyalis'mus.* From the salivary glands.
3? E. *lac'tea.* From the breast.

1. *Epiphora lacrymalis.* Epiphora, Cull. syn. cxix. Oribas. VIII. c. 53. Forest. XI. 11, 15. Sennert. c. 46. Janin mém. 285. Wepfer obs. 822. M. Ac. chir. II. n. 12..14. Epiphora frigida, *Sauvages*, II. 375. Lentin beob. Richter, Comm. Gott. 1778. 100; obs. chir. iii. *Ware* on the eye. 8. Lond. 1805; Ed. med. journ. II. 233.

(† Ophthalmiae, variolae, podagrae, emphragmatis, ecphymatis symptoma.)

2. *Epiphora ptyalismus.* Ptyalismus, Cull. syn. cxx. Forest. XIV. 23. Ballon. cons. I. 180. II. 13, 25. Wepf. obs. 959. Werlhof opp. III. 752. Cheyne, v. 366. Hirschel br. n. 3; steel useful. Ptyalismus a laxitate, *Sauvages*, II. 378; a calculo, 382. *Power*, Med. trans. Lond. II. 34. *Silvester*, Med. obs. inq. III. 241; a most obstinate vomiting relieved, after 5 months, by restoring a salivation which had ceased; *Dobson*, VI. 174; a case somewhat similar. Fink gallenkr. 239. Lettsom. Febure, Journ. méd. LXVIII. 446. Willich, Balding. N. mag. VIII. 252. *Daniel*, Med. commun. I. 155; from a diminished secretion of urine.

(† Inflammationis, pyrexiae, dyspepsiae, aphthae, ulceris, syphilidis, scorbuti, venenationis, dystociae symptoma.)

3. *Epiphora lactea.* Galen fragm. Dioscor. II. xcviii. Forest. XVII. 19. Galactirrhoea, *Sauvages*, II. 411. Lentin memor.

XXVIII. HYPÉRURESIS.

Flow of water.

A morbid increase of the discharge of urine.

1. H. *aquósa.* The quantity secreted in a given time being increased.
2. H. *micturit'ia.* The frequency of the discharge being more affected than the quantity.

1. *Hyperuresis aquosa.* Diabetes insipidus, Cull. syn. lxii. 2. Aret. chr. II. 2. Gal. loc. aff. VI; cris. I. 2. Eph. Nat. cur. Dec. 1. ann. 2. obs. 122. Diabetes legitimus, *Sauvages*, II. 384; a vino, 385. Vauquelin, Med. écl.; Med. facts. III. 167; from habitual thirst. *Shee*, Dunc. ann. 1796. 343; camphor; *Jarrold*, 1801. 390. 1802. 261; galls and lime water. *Bostock*, Medicoch. tr. III. 107.

(† Hysteriae, podagrae symptoma.)

1. *Hyperuresis micturitia.* Enuresis, Cull. syn, cxxi; not very accurately defined. Generally referable either to paralysis or to erethismus. "Stranguria Galeni." Aët. III. iii. c. 24, 25. Fernel. cons. lxii. Forest. XXV. 21. Ballon. const. I. 104. III. 50, 53, 122. Barthol. act. Hafn. II. 109. Bonet. sep. III. xxvii. 2. Mauriceau, I. 138. Haller N. Comm. Gott. VIII. n. 7. Monro arm. dis. Arnaud. instr.

Enuresis, *Sauvages*, II. 386. *Mitchell*, Med. obs. inq. VI. 169; flexible catheter.

A. From debility. Enuresis atonica, Cull. syn. cxxi. 1. Junck. 98. *Dickson*, Med. obs. inq. II. 311, 388, III. 102; blistering; also *A. Fothergill*, III. 138. Enuresis paralyticorum, Sauv. II. 386. Michaelis, Richt. chir. bibl. V. 112. Theden N. bem. I. 111. II. 68. *Oliphant*, Lond. med. journ. VII. 416; blisters. See paralysis particularis c, ii.

B. From irritability. Enuresis irritata, Cull. syn. cxxi. 2. Enuresis a sparganosi, Sauv. II. 388. Lieut. hist. anat. I. 296; from contraction. See erethismus micturitius, vi.

(† Ectopiae symptoma.)

XXIX. BLENNORRHOEA.

Mucous effusion.

An increased discharge from some of the mucous follicles or pores.

1. Bl. *cutánea.* From the skin.
2. Bl. *pulmonáris.* From the mucous glands of the lungs.
3. Bl. *vesicális.* From the bladder.
4. Bl. *urethrális.* From the urethra.

1. *Blennorrhoea cutanea.*

A. About the ears. Sennert. ix; fluxus aurium. Ettmuller. Otorrhoea serosa, *Sauvages*, II. 413.

B. At the corona glandis. Gonorrhoea balani, *Sauvages*, II. 404.

2. *Blennorrhoea pulmonaris.* Nearly connected with humoral asthma viii, but sometimes existing without any spasmodic disease.

(† Caumatis catarrhalis, Defluxionis catarrhi symptoma.)

3. *Blennorrhoea vesicalis.* Dysuria mucosa, Cull syn. cxxv. 6. Hofm. IV. cons. II. n. 93. Lieutaud, syn. 272. Pyuria mucosa, *Sauvages*, II. 396; viscida, 395. Parnham de cystirrhoea. 8. Ed. 1772; Smellie thes. III. 251. Bailheron, Journ. méd. 1782; Gilbert, LI. 507. Balding. N. mag. VII. 236, 504. *Squire*, M. Med. soc. Lond. III. 504; with disease of the kidney. Trnka de catarrho vesicae? *Brown*, Dunc. med. comm. XX. 223; cured by injections. Kausch Erfahrungen.

B? The discharge rather purulent than mucous. Galen loc. aff. VI. iv. Oribas. IX. xxvii. Fernel. cons. lvi, lxi. Plater. obs. II. 476. 819. Ballon. cons. II. 39. Barth. act. Hafn. IV. 29. *Johnson*, Lond. med. journ. VI. 295.

4. *Blennorrhoe urethralis.* Gonorrhoea, Cull. syn. cxxii, sometimes; but the synonyms are very incorrectly quoted. Fernel. cons. lxiii. Forest. XXVI. n. 13..16. Ballon. cons. I. 69, 78, 92. *Morgagni*, ep. 44, de gonorrhoea. Stoll rat. med. V. 443; prael. 103, 187. Richter chir. bibl. IV. 508. Fordyce ven. dis.; from pepper. Murray; from ammonia. Hunter ven. dis.; gouty, and from distant irritation. Schwediauer ven. kr. 41, 44. Roberton, Ed. med. journ. II. 134; recommends tinct. lytt. Roberton on cantharides. 8. 1806.

A. Purely mucous. Gleet. Almost always either a symptom of stricture or a sequel of gonorrhoea.

B. More puriform. Gonorrhoea pora, Cull. 1; without infection or dysury. Sometimes a symptom of stricture, and mistaken for Bl. vesicalis.

† C. Seminal. Gonorrhoea pura, *Sauvages*, II. 401; libidinosa ib. G. laxorum, Cull. 3. Galen loc. aff. VI. vi. Forest. XXVI. 11, 12, 17. Ballon. cons. III. 54. Wichmann de pollutione diurna. 8. Gott. 1782.

† Gonorrhoea impura, mucosa, Cull. 2. Inflammatio specifica B, xiii. 4; G. dormientium, Cull. 4, Erethismus onirodynia C, vi. 4.

† Diarrhoea mucosa, serosa, XXX.

XXX. DIARRHOEA.

Looseness.

An increase of the alvine discharge.

1. D. *stercórea.* The quantity only being increased.
2. D. *biliósa.* The quantity of bile being increased, as indicated by the colour and consistence; preceded only by nausea.
3. D. *chol'era.* Accompanied by bilious vomiting and cramps.
4. D. *mucósa.* The discharge being principally mucous.
5. D. *serósa.* The discharge being almost wholly liquid.
6? D. *lientéria.* The discharge containing much of the food little digested.
7? D. *chylósa.* The discharge containing chyle.

DIARRHOEA. Cull. syn. lxi. Galen loc. aff. VI. ii; on progn. I. Aët. I. iv. c. 19. II. i. c. 90. III. i. c. 35-8. Al. Trall. VIII. vii; rheumatismus. Cael. Aur. III. 22; defluxio. Forest. XVIII. n. 50, 51. XXI. 15, 21..29. XXII. 8. 11, 19, 30. Horst. opp. II. 174. Bonet. sep. III. x. add. obs. 3. Ballon. cons. I. pass. Bont. med. Ind. iv. Mauriceau, I. 149,

430, 504. Harris morb. inf. 30. Bagliv. pr. med. I. ix. Junck. 112. Lambsma ventris fluxus. Amst. 1756. *Morgagni*, ep. 31, de alvi profluviis; ep. 65, de ventris morbis, art. 5. Armst. dis. ch. *D. Monro*, Med. trans. II. 325; mesentery ossified. Lentin beob.; with ischury. Med. comm. Ed. V. 334. Stoll prael. II. 219, 430. Stark clin. obs. Balding. kr. arm. 231, 305. Vialez, Hautes. rec. *Hughes*, Med. facts. VI. 156; mahogany wood. *Clarke*, Trans. Ir. Ac. VI. 3; in infants.

1. *Diarrhoea stercorea.* Diarrhoea crapulosa, Cull. syn. lxi. 1. D. stercorosa, vulgaris, *Sauvages*, II. 355. Scarcely a disease.

2. *Diarrhoea biliosa.* Cull. syn. lxi. 2. Al. Trall. Cael. Aur.; coeliaca. Forest. XXII. 9, 10, 12. Bonet. sep. III. x. n. 13. Hofm. II. 165. Diaarhoea biliosa, *Sauvages*, II. 357. *Caille*, M. Soc. R. méd. V. 37.

3. *Diarrhoea cholera.* Cholera spontanea, Cull. syn. lx. 1; *Sauvages*, II. 351. Hipp. epid. V. 1144, 1159. Aretaeus. Sydenh. IV. ii. 1669. Hofm. II. 165. Junck. 112. *Porter*, Ed. med. ess. III. 357; warm bath; *Aytoun Douglass*, V. ii. 646; decoction of toasted oat bread. Cleghorn's Min. Monro arm. dis. *Heberden*, Med. trans. II. 153. Leman de cholera; Webster m. pr. II. 72. Stoll rat. med. III. 64. *Sherwen*, Dunc. ann. 1801. 399; 1802. 259; *Paisley*, 1801. 413. *Clarke*, Ir. trans. XI; Ed. med. journ. VIII. 353; in infants, with convulsions; purgatives: *Anderson*, XV. 354; epidemic in India: also *Corbyn*, Medicoch. tr. XI. 110; calomel, laudanum, and bleeding: also *Walker*, Ed. med. journ. XVI. 421; *Official* reports XVI. 458: *Kinnis*, XVII. 1; *Telfair*, 517; Mauritius: *Lloyd*, 527; bleeding and cathartics.

† Cholera accidentalis, Cull. syn. lx. 2, dyspepsiae, venenationis symptoma.

4. *Diarrhoea mucosa.* Cull. lxi. 3, Fernel. path. VI. x. Stalpart, I. 62; from the rectum. Mucous diarrhoea, Freind. hist. med. Diarrhoea lactentium, *Sauvages*, II. 359; pituitosa, 356; Dysenteria Parisiaca, 326.

5. *Diarrhoea serosa.* Diarrhoea hepatirrhoea, Cull. syn. lxi. 6. Al. Trall. VIII; coeliac affection. C. Piso coll ser. Hofm. II. 117. Phil. trans. n. 337, and Hall. phys. II. 370; urinous, with ischury. Diarrhoea serosa, *Sauvages*, II. 358; Hepatirrhoea intestinalis, 321.

6. *Diarrhoea lienteria.* Cull. syn. lxi. 5. Cels. IV. Gabelchover, II. obs. 41. Scanlan de lienteria. 8. Ed. 1751; Smellie thes. II. 25. Lienteria spontanea, *Sauvages*, II. 361. See dyspepsia.

7. *Diarrhoea chylosa.* Diarrhoea coeliaca, Cull. syn. lxi. 4. Rather a symptom of scrofula or tabes. Aretaeus. Cael. Aur. IV; ventriculosa passio. Forest. XXII. 7. Bonet. sep. II. x. 5. Tralles de opio. Coeliaca chylosa, *Sauvages*, II. 360. *Baillie*, Med. tr. V. 166? Chalky appearance.

† Symptomatic of a variety of diseases.

ORDER III. *CACOCHYMIAE.* CACHEXIES.

XXXI. DYSPEPSIAE.

Indigestion.

A depravation of the gastric fluid, and a derangement of the functions of the stomach in general.

1. D. *sim'plex.* The derangement of the digestion being the prominent feature of the disease.

2. D. *pyrósis.*	With an abundant eructation of an aqueous fluid. Water brash.
3. D. *hypochondriasis.*	The spirits being dejected, and the imagination in some measure perverted.
4. D. *chlorósis.*	With suppression of the catamenia.
5. D. *pica.*	With a perversion of appetite.
6. D. *bulim'ia.*	With an inordinate craving.
7? D. *anorex'ia.*	Want of appetite.
8? D. *adip'sia.*	Want of thirst.
9? D. *polydip'sia.*	With morbid thirst.

† Diarrhoea lienteria, xxx.

1. *Dyspepsia simplex.* Dyspepsia, Cull. syn. xlv. Fernel. cons. xxvi. Forest. XVIII. 2, 3, 35-8. Bonet. sep. III. vi. 1; stomach enlarged; 2, a preternatural lining; 4, the omentum putrescent; 12, hernia. *Thomson*, Ed. med. ess. V. 86; emetics and purgatives frequently repeated. Wyhytt's works. Black de humore acido a cibis. 8. Ed. 1754; Smellie thes. II. 271. Lieutaud, M. Ac. Par. 1756. 223; "Cardialgia paralytica," *Sauvages*, II. 91; stomach distended. *Johnstone*, Med. obs. inq. II. 107. Richt. chir. bibl. III. 78. *Anderson*, Med. comm. Ed. II. 294; stomach enlarged. Temple de dyspepsia; Webster m. pr. II. 1. Stoll rat. med. V. 439. Daubenton on ipecacuan. Engl. 8. Lond. 1806. Weikard verm. schr. I. 275... Wedekind de morbis primarum viarum. *Douglass*, M. Med. soc. Lond. IV. 395; stomach enlarged. Gibson on bilious diseases. 8. 1794; quassia and soda. *Martyn*, Dunc. med. comm. XIX. 298; mercury. *Faulkner*, Ed. med. journ. II. 5; active exercise; *Forbes*, 9; sulfureted hydrogen. * *Abernethy's* surgical observations, II; on the digestive organs. 8. Lond. 1806; Ed. med. journ. II. 463. Stone on diseases of the stomach. 8. Lond. 1806; Ed. med. journ. III. 357. *Baillie's* engr. 55; ulcer of the stomach. Ayre on marasmus. 8. Lond. 1818; Ed. med. journ. XV. 430. *Yeats* on the duodenum. Med. tr. VI. 325. Hall on mimoses. 8. Lond. Ed. med. journ. XVI. 124: Thomas on

chronic affections. 8. Lond. 1820; XVII. 278: Wilson Philip on indigestion. 8. Lond. 1821: Law on the digestive organs. 8. Edinb. 1821: Peptic precepts, 12. Lond. 1821; XVII. 574.

A. With nausea. Nausea ex cacochylia, Sennerti, *Sauvages*, II. 336. *Fothergill*, Med. obs. inq. VI. 103; sick head ache.

B. With vomiting. Vomitus a crapula, a saburra, lacteus, *Sauvages*, II. 337; pituitosus, 344. Sydenh. vii. 132; pr. int. 669; "Gastrodynia hysterica," Sauv. II. 98. *W. Hunter* and *Hey*, Med. obs. inq. VI. 310, 319; milk in small quantities.

C? With rumination. Vomitus ruminatio, *Sauvages*, II. 339. Horst. opp. II. 162. Bonet. sep. III. v. 0. 9. 10. Peyer merycol. *Morgagni*, ep. 29, de hominum ruminatione, art. 4.

D. With flatulence. Flatulentia, *Sauvages*, II. 413. Aët. III. i. 27. Forest. XVIII. 42. Fienus de flatibus.

E. With heartburn. Pyrosis vulgaris, *Sauvages*, II. 83. Sennert. xvi. H. Ac. Par. 1706. Hofm. II. 120.

F. With aching or spasmodic pain. Cardíalgia, Gastrodynia, *Sauvages*, II. 88, 93; sometimes his cardialgia is attended by faintness. Aët. III. i. 13 Plater. 369, 377. Hofm. II. 261. n. 6. Trnka historiae cardialgia? 8. Vienn. 1785. Schlüter über den magenkrampf. 8. Brunsw. 1796.

G? Anaemia, Hallé, Journ. med.; Ed. med. journ. III. 170; occurring in coal mines. Seems to be allied to chlorosis.

H. As producing headache. *Warren*, Med. trans. IV. 233.

† Nightmare. See Erethismus onirodynia.

(† Autalgiae, hydrophobiae, colicae, hysteriae, pyrexiae, cholelithiae, paraphymatis, herniae, obstructionis, venenationis, parasitismi, dystociae, dysodontiasis symptoma.)

2. *Dyspepsia pyrosis.* Pyrosis, Cull. syn. lviii. Pyrosis Suecica, *Sauvages*, II. 84. *Pemb.* dis. abd. visc.

3. *Dyspepsia hypochondriasis.* Hypochondriasis, Cnll. syn. xlvi. Gal. loc. aff. III. 7. Horst. opp. II. 181, 543. Ballon. cons. II. 33, 49. III. 40, 54. Willis path cer.; path. aff. hyst. hyp. opp. I. Manardi, XVII. 1. Fracassinus de morbo hypochondriaco. Hofm. III. 64; suppl. II. ii. Junck. 36. Bagliv. pr. m. I. ix. Boerh. 1098. Dover's leg. Cheyne's English malady. 8. Lond. 1734. Turner de morbo hypochondriaco. 8. Ed. 1756; Smellie thes. II. 401. Grant on fevers. Stoll rat. med. IV. 371, 380, 392. 401. prael. II. 316. Baynes de hypochondriasi; Webster m. pr. II. 17. Geschichte eines hypochondristen. 8. Berl. 1782. Kämpf von der hypochondrie. 8. Leipz. 1786. Zimmerman von der einsamkeit. IV. 33. Balding. N. mag. VIII. 542. Weikard verm. schr. I. 174. II. 174. Theden N. bem. II. 186, 193. Tode Unterricht für hypochondristen. 8. Copenh. 1797. See Mania.

(† Hysteriae, asthmatis, hecticae, lithiasis, tympanitidis symptoma.)

4. *Dyspepsiae chlorosis.* Chlorosis, Cull. syn xlvii. I have followed a prevalent opinion, in referring chlorosis to dyspepsia, but there are reasons for thinking it is quite as naturally connected with amenorrhoea. Oribas. IX. 22. Aët. III. ii. 19. Forest. XIX. 25. 27. Plater. obs. III. 603... Horst. opp. II. 269, 281, 295. Ballon. cons. III. 7, 51, 88, 114; morb. mul. opp. IV. 66, 129. Bonet. sep. III. xviii. 32. Hofm. III. 311; suppl. II. ii. Junck. 36. Boerh. 1285. Niemann de unguium mollitie in chlorotica. 4. Magd 1744; steel. Astruc mal. f. II. 1. Chlorosis virginea, *Sauvages*, II. 597. Stoll prael. II. 376. Dorsey de chlorosi; Webster m. pr. II. 44.

(† Colicae, hydropis, parasitismi, dystociae symptoma.)

5. *Dyspepsia pica.* Pica, Cull. syn. ciii. Gal. loc. aff. V. vi. Forest. XVIII. 7. XXVIII. 65. Horst. opp. II. 160. Sennert. par. III. n. 2. Schenk, III. 33. IV. 131. Tulp. II. xxiv. IV. xxiv. Ettmuller. Whytt's works. Pica infantilis, chlorosiantium, *Sauvages*, II. 212.

B? Antipathy. Barthol. hist. ann. III. 28. Antipathia, *Sauvages*, II. 220.

(† Dystociae symptoma.)

6. *Dyspepsia bulimia.* Bulimia, Cull. syn. ci. Forest. XVIII. n. 5, 6. Schenk. III. 26. Bonet. sep. III. ii. 1, 12. Ruysch. obs. 74. Meujot de bulimo. Cookson, Phil. trans. Bulimia, *Sauvages*, II. 215.

A? Habitual only. Bulimia helluonum, Cull. syn. ci. 1. B. esurigo, Sauv. II. 217; "vix est morbus."

B. With faintness. Bulimia syncopalis, Cull. syn. ci. 2. B. cardialgica, Sauv. II. 216.

C. With vomiting. Bulimia emetica, Cull. syn. ci. 3. B. canina, Sauv. II. 216. *Wastell*, M. Med. soc. Lond. III. 501.

(† Paraneurismi, venenationis, parasitismi symptoma.)

7. *Dyspepsia anorexia.* Anorexia, Cull. syn. cvii; "always symptomatic." Forest. XVIII. 8..10, 13, 14. Horst. opp. II. 153. Ballon. cons. III. 10. Schenk. III. 37. Bonet. sep. I. ix. 31. Anorexia, *Sauvages*, I. 765. Pflüger. Balding. N. mag. XI. 151. *Granger*, Ed. med. journ. IX. 157. See asthenia universalis.

A? From offending substances. Anorexia humoralis, Cull.

syn. cvii. 1. Gal. loc. aff. V. 6. Forest. XVIII. 7. Bonet. sep. I. 13.

B? From debility of the stomach. Anorexia atonica, Cull. syn. cvii. 2. Sennert. Bonet. II. Bagliv. pr. m. I. xiv. 3.

(† Podagrae symptoma.)

8. *Dyspepsia adipsia.* Adipsia, Cull. syn. cviii; "not a disease;" *Sauvages*, I. 770.

9. *Dyspepsia polydipsia.* Polydipsia, Cull. syn. cii; "generally symptomatic;" *Sauvages*, II. 218. Bonet. sep. II. See Hyperuresis. Where it exists alone, it is only a variety of a natural appetite.

(† Pyrexiae, apocenosis, hydropis, venenationis symptoma.)

XXXII. PODAGRA.

Gout.

Indigestion, with a peculiar pain in the stomach, followed by pain and swelling of the small joints of the feet or hands: the cutaneous and urinary secretions undergoing also peculiar modifications.

1. P. *arthritis.*

1. *Podagra arthritis.* Podagra, Cull. syn. xxiv. Podalgia Dioscoridis. Fern. cons. xiii. Forest. XXIX. 1..17. Horst. opp. II. 400, 406. Willis an. brut. path. xiv. Sydenham de podagra. Morton pyretol. ix. h. 22. Lister in Morton. Musgrave de arthritide anomala. 8. Amst. 1710; a case of

death from the use of cold water. Hofm. II. 317, 339. Junck. 46. Bagliv. pr. m. I. 9. II. 6, 7. Boerh. 1254. Werlhof opp. III. 700. Tacconus; Ed. med. ess. II. 380; gouty matter sometimes acid, sometimes alkaline. Oliver on warm bathing. 4. 1751. *Pringle*, Ed. phys. ess. II. 250; musk. *Pye*, Med. obs. inq. I. 41; a critical acid vomiting; *Clephane*, 126; on the gout powder. *Morgagni*, ep. 57, de artbritide. *Heberden*, Med. trans. I. 472; if salutary. Arthritis, *Sauvages*, II. 18. Cadogan on the gont. 8. Lond. 1771. *Clerk*, Ed. phys. ess. III. 425; *Whytt*, 466. Med. comm. Ed. III. 125. V. 399. Nicoll de arthritide; Webster m. pr. II. 281. Lee on a gouty case. 8. Lond. 1782; a singular secretion. Lond. med. journ. I. 199. Stevenson on blisters in the gout. *Small*, Med. obs. inq. VI. 198, 214; emetics and bark. *Watson*, Med. commun. I. 86: dissection. *Hulke*, Lond. med. journ. V. 389; cramp in a gouty person. Dunc. med. comm. XI. 392; sulfur water. Weismantel Kraft des guaiacharzes. 4. Erf. 1786. Stoll rat. med. II. 365. V. 431; prael. 359. Aasheim, Act. med. Hafn.; Dunc. med. comm. XIV. 73; minyanthes. Desault sur la goutte. Gardiner on the gout. Rowley on the gout. 8. Lond. 1792; muriatic acid. Forbes on gravel and gout. 8. Lond. 1793. * *Wollaston*, Phil. trans. 1797. 386: gouty concretions. *Dunc.* ann. 1802. 443; cold water. Barthez des maladies goutteuses. 2 v. 8. Par. 1802; Ed. med. journ. I. 212. Tavares de corticis usu in podagra. 12. Lisb. 1802; Ed. med journ. I. 211. Kinglake on gout. 8. Lond. 1804; Ed. med. journ. I. 200. Edlin's cases. 12. Uxbridge; Ed. med. jouru. I. 209. Kinglake on Edlin's cases. 8. Taunt. 1804; Ed. med. journ. I. 210. *Duncan*, Ed. med. journ. III. 425; in a negro, also Quarrie, IV. 459. *Moore*, Medicoch. tr. I. 112; concretions. Hamilton on the gout. 8. Lynn, 1809; Ed. med. journ. VI. 361. * *Jones* on the eau médicinale in the gout. 12. Lond. 1810; Ed. med. journ. VI. 353. Ring on the gout. 8. Lond. 1811. Sutton on delirium tremens. *Burroughs*, Ed. med. journ. VII. 317; eau médicinale and rhubarb: Moore's letter to Jones. 8. Lond. 1811; 449; veratrum; *Balfour*, XII. 432; compression and percussion:

Scudamore on gout. 8. Lond. 1816.; XIII. 99: *Veitch*, XVII. 310; leeches, after the inflammation. See colchicum, Pharm.

A. With external inflammation. Podagra regularis, Cull. syn. xxiv. 1. See Cauma podagricum.

B. With much debility and indigestion, but little local pain. Podagra atonica, Cull. syn. xxiv. 2. *Lind?* Lond. med. journ. VI. 53; ether in gout in the stomach.

C. The inflammation suddenly succeeded by great debility. Podagra retrograda, Cull. syn. xxiv. 3.

D. With internal inflammation. Podagra aberrans, Cull. syn. xxiv. 4. Galiesky vom miserere oder darmgicht? 8 Mitt. 1767.

XXXIII. CHOLELITHIA.

Gallstones.

Pain near the cardia, without constant tenderness; a want of bile in the alvine discharge, and frequently a yellow tinge in the urine and the skin.

I have written cholelithia, rather than chololithia, Syll. med. lect., partly because Ploucquet has used the word, and partly from the analogy of choledochus.

1 ? Ch. *acúta.* The pain being severe, the obstruction of bile and yellowness of the skin inconsiderable.

2. Ch. *ic'terus.* With yellowness of the skin, eyes, and urine, and without considerable pain.

CHOLELITHIA. Bonet. sep. *Morgagni*, ep. 37, de ictero, et de calculis biliosis.

1. *Cholelithia acuta.* Icterus calculosus, Cull. xci. 1. Ed. med. ess. I. n. 33. II. n. 28, 29. *Petit* and *Morand?* M. Ac. chir. I. 155. II. 470; tumours of the gall bladder. * *Coe* on biliary concretions. 8. Lond. 1757. *Johnstone*, Phil. trans. 1758. 543. Heb. Med. trans. II. n. 10. Lettsom, M. Med. soc. Lond. I. 373. Sömmering de concrementis biliosis. 8. Frankf. 1795. Hall, Tr. coll. Phil. I; Dunc. med. comm. XIX. 160; electricity. *Gibbons*, Dunc. ann. 1796. 279; salivation. *Baillie's* engr. 109. *Pemberton*, abd. visc. *Blagdon*, Med. trans. IV. 181; discharged by an abscess. *Copeland*, Medicoch. tr. III. 191; "of the fusible kind," from an abscess in the groin. *Thomas*, Medicoch. tr. VI. 98; obstructing the rectum, and supposed to be hernia. *Powell*, Med. tr. VI. 106; spurious. See the next species.

2. *Cholelithia icterus.* Icterus, Cull. syn. xci; I. calculosus, 1, sometimes; I. infantum, 5. Jaundice is properly a symptom either of gallstones, or of some structural disease of the liver or gall duct; more frequently of the former, especially in temperate climates; and some of the authorities here quoted relate to both species. Viscidity of the bile of course belongs to this species. Hippocr. dis. II. 472; int. aff. 551. Gal. loc. aff. V. 7. Aët. III. ii. 17, 18. Forest. XIX. 15..23. Plater. obs. III. 610 Horst. opp. II. 207. Ballon. cons. III. 114. Barthol. hist. an. II. 89. Willis. ph. rat. II. ii. 1. Tulp. II. xxxvi. Sydenh. opp. 272. 764. Schachtius de icteritia phthisi 4. Herborn. 1724. Bagl. pr. med. I. ix. 136. Hofm. III. 301. Junck. 90. Boerh. 918. Werlhof de aurig. III. 662. Mead de morbis biliosis. 8. Lond. 1749. Huxham's works. I. 158. Dale, Stuart, Camillis, Phil. trans. *Ed.* med. ess. I. 305; *Sympson*, II. 341; *Dundas*, 345: with suppuration. Housset, Journ. med. XXIII. 312; Audoux, XXXII. 438. Drummond de ictero. 8. Ed. 1750; Smellie thes. I. 465. *Morgagni*, ep. 59, art. 36. Monro arm. dis. Störck ann. I. 150. Swieten comm. §. 935, 590. Haen

de verm. intest. Lieut. hist. anat. 1. 211 ; worms. Aurigo, *Sauvages*, II. 584. *Heberden*, Med. trans. II. 123. Tissot nerv. dis. Grant fev. Home's clin. exp. Portal ; Dunc. med. comm. X. 76. Willis de ictero ; Webster m. pr. III. 155. Stoll rat. med. I. 290...III. 361...VII. 15 ; prael. II. 289 ; febr. 81. Balding. kr. arm. 226. *Percival*, M. Med. soc. Lond. II. 60 ; objects sometimes seem yellow. Percival's essays. *Sims*, M. Med. soc. Lond. II. 283 ; cured by bathing and then lying in hot linen. Vogler von der gelbsucht. 8. Wetzl. 1791. Hautes. rec. II. 329. Selle med. clin. 176. Powell on the bile. 8. Lond. 1800. Gibbons's cases. 8. 1801 ; salivation. *Baillie*, Med. tr. V. 143 ; green jaundice.

† Icterus spasmodicus, Cull. syn. xci. 2, is a doubtful disease, either not essentially distinct, or a symptom, or sequel, of hysteria or some other spasmodic affection ; I. hepaticus, 3, a symptom of a structural disease, especially physconia ; I. gravidarum, 4, Swiet. III. 95, of dystocia.

(† Colicae, pyrexiae, venenationis, parasitismi symptoma.)

† Instances of spurious icterus attributed to different causes. Hipp. int. aff. 551. Forest. XIX. 17 ; dyspeptic. Sydenh. opp. 272, 764 ; hysterical. Lieutaud hist. anat. I. 211 ; a worm. *Morgagni*, ep. 37, de ictero ; various causes. Swieten, 590, 935. Tissot nerv. dis. Hautesierk rec. II. 329 ; injury of the head. Stoll rat. med. I. 214, 286...III. 361, 386...Cullen first lines, IV ; from absorption of bile. Portal.

XXXIV. LITHIASIS.

Stone.

Pain in the loins or in the urinary passages, especially in or after making water, with a sabulous discharge, or a stone sensible to the sound.

1. L. *renális.* Pain in the loins, extending towards the thighs, or a discharge of gravel. Gravel.
2. L. *vesicális.* A stone being sensible in the bladder.

Lithiasis. Cull. syn. cat. morb. omiss. *Paisley*, Ed. med. ess. V. ii. 750. *Morgagni.* epp. 42, de urinae vitiis. Lanphier de calculo; Webster m. pr. III. 168. Wilson on the causes of gravel. 8. Lond. Dunc. med. comm. XVII. 55. Beddoes on calculus, scurvy, consumption, catarrh, and fever. 8. Lond.; Dunc. med. comm. XVIII. 17; *Wilson* and *Forbes*, XIX. 391. *Blane*, Tr. soc. med. ch. kn. II. 135; magnesia tried without advantage. * *Wollaston*, Phil. trans. 1797. 386; *Pearson*, 1798. 15. *Egan*, Tr. Ir. Ac. X. 309. *Barlow*, Ed. med. journ. V. 16; *Goodlad*, 438; *Inquirer*, 444; *Barlow*, VI. 307. *Brande*, Phil. trans. 1810. 136; 1813, 213; magnesia; * *Wollaston*, 1810, 223; cystic oxyd; Ed. med. journ. VII. 354: *Copland*, VII. 38: *Blane*, Tr. soc. med. ch. kn. III. 238; soda and opium. Magendie on gravel. 12. Lond. 1818: Ed. med. journ. XV. 446; vegetable food. *Wilson Philip*, Med. tr. VI. 172; dyspepsia and acidity cause lithic acid. Prout's inquiry. 8. Lond. 1821.

Dr. Wollaston's division of calculi. 1. Scheelian; dissipable; soluble in pure potass; urate of ammonia. 2. Fusible; into an enamel; soluble in muriatic acid; triple phosphate.

3. Bone earth; little alterable by the blowpipe; soluble in muriatic acid. 4. Mulberry; calcinable; little soluble in muriatic acid; oxalate of lime. 5. Cystic oxyd; crystallizing both with acids and with alkalis, but not readily soluble. Dr. Marcet reckons 10 species. 1. Scheelian. 2 Bone earth. 3. Triple phosphate. 4. Fusible; 2 and 3 mixed. 5. Mulberry. 6. Cystic oxyd. 7. Stratified. 8. Compound or mixed. 9. Neutral phosphate; prostatal. 10. Xanthic oxyd; discovered by Dr. M., affording a bright yellow, with dilute nitric acid. 11. Fibrinous.

1. *Lithiasis renalis.*

A. The calculus being confined to the kidney. Nephralgia calculosa, *Sauvages*, II. 112. Sennert. Bagliv. p. 419. *Douglas*, Ed. med ess. I. 231. *Lafitte*, M. Ac. chir. II. 233; nephrotomy, also *Hevin*, III. 238. *Taithwell?* Ed. phys. ess. II. 412; a sediment only, with convulsions. *Morgagni*, ep. 40. art. 16. *Simmons*, Phil. trans. 1774. 108; discharged from the loins. Erratt, M. Med. soc. Lond. V. 53. *Lowdell*, M. Med. soc. Lond. I. 315; supposed in the bladder. Schützercrantz, M. Ac. Stockh.; Med. facts. VII. 285. *Baillie's* engr. 129, 131. *Marcet*, Medicoch. tr. X. 147; Nephritis calculosa: *Earle*, XI. 211.

B. Calculous matter being discharged. Nephralgia arenosa, *Sauvages*, II. 113. Bonet. sep. obs. 21..27. *Monro*, Ed. med. ess. V. ii. 665; in the ureters. *Morgagni*, ep. 4, art. 2; ep. 10, art. 11; ep. 11, art. 6; ep. 40, art. 4; ep. 57, art. 10. *Phil.* trans. 1765. 128; a stone.

2. *Lithiasis visiculis.* Dysuria irritata, Cull. syn. cxxv. 5. See Ischuria vesicalis † B, xxiii. *Brown*, Ed. med. ess. IV. 297; on a needle. *Houstet*, M. Ac. chir. I. 395; encysted. *Walpole*, Phil. trans. 1751. 43. 1752. 472; *Lecat*, 1751. 292; the symptoms produced by fungous

excrescences; *Warner*, 1752. 475; with a bone; *Walpole* and *Whytt*; 1757. 205, 385; *Warner*, 1758. 579. 1759. 304; cut from the urethra; 1761. 258. *Morgagni*, ep. 4, art. 2; ep. 42, art. 8..42; ep. 45, art. 8. Dysuria calculosa, *Sauvages*, II. 391. *White*, Med. obs. inq. III. 1; with prolapsus uteri and vesicae. *Livingston*, Ed. phys. ess. III. 546. *Louis*, M. Ac. chir. III. 332; with ulceration. *Dawson*, Med. trans. II. 105. *Med.* comm. Ed. III. 333; cured by injection in Arabia. Hartenkeil de vesicae calculis. 4. Wurtzb. 1785. *Chandler*, Lond. med. journ. V. 387; *Lucas*, XI. 237. *Lane*, Phil. trans. 1791. 223. Austin on the stone. 8. Lond. 1791. *Johnstone*, M. Med. soc. Lond. III. 536; discharged by the rectum. *Baillie's* engr. 143, 147, 151. *Brande* and *Home*, Phil. trans. 1808. 223, 244; structure. *Earle*, Phil. trans. 1809. 303. Solvents.) Hales and Harty on Stephens's medicines. 8. Lond. *Whytt*, Ed. med. ess. V. ii. 667; lime water. Whytt on lime water. 8. Ed. 1755. *Simpson*, Phil. trans. 1757. 221; soap. *Lane*, Med. trans. I. 112. *Med.* comm. Ed. V. 441; fixed air. *Harrison*, M. Med. soc. Lond. I. 225; potass and sulfuric acid. Falconer on alkaline water. *Copland*, M. Med. soc. Lond. V. 71. VI. 601; muriatic acid. Lithotomy.) Lithotomia Douglassiana. 8. Lond. 1720. Douglas on the lateral operation. 4. Lond. 1726. Ledran on extracting the stone. 8. 1731. *Barry*, Ed. med. ess. I. 321; bladder scirrhous after the operation. *Foubert*, M. Ac. chir. I. 650; *Louis*, III. 623. *Vicq d'Azyr*, M. Soc. R. méd. II. 579; on Cheselden's operation. Moltens bemerkung. 8. Cassel, 1779: between the coats. Sammlung zur geschichte des blaseneinschmitts. 8. Leipz. 1785; Günz, Maret, Camper, Faguer, Desault, Plattner, de Come, Hausmann, and others. *Camper*, Lond. med. journ. X. 162; dividing the operation. Weldon on lithotomy. 8. Southampt. 1793. *Wickham*, Med. facts. VIII. 126. *Cheston*, Med. records. 163. Earle on lithotomy. 8. 1803. *Smith*, M. Med. soc. Lond. VI. 227. *A. Burns*, Ed. med. journ. IV. 56. Simmons on lithotomy. 12. Manch. 1808.

Ed. med. journ. IV. 503. Thomson on lithotomy. 8. Ed. 1808; Ed. med. journ. IV. 530: Appendix, Ed. 1810; VII. 464. *Forster*, Medicoch. tr. I. 99; *Thomas*, I. 122; dilating the f. urethra. *Lawrence*, Ed. med. journ. V. 136; *Simmons*, V. 326. VI. 61; on the cutting gorget. *Chevalier*, Medicoch. tr. II. 200. Trye's essay, 8. Lond. 1811; Ed. med. journ. VII. 464; *Jack*, VIII. 265; *Barlow*, 268; *Rodman*, IX. 129. *Yelloly*, Medicoch. tr. VI. 574; removal in females: *S. Cooper*, VIII. 206: *A. Cooper*, 427; removed without cutting: *Hutchison*, IX. 443; rare at sea. *Scarpa* on the cutting gorget of Hawkins, by Wishart, 8. Edinb. 1816; Ed. med. journ. XIII. 113: *Smith*, XIV. 141; at 77: Marcet on calculous disorders. 8. Lond. 1817; XIV. 249. *Henry*, Medicoch. tr. X. 125: *Prout*, 389; lithiate of ammonia. *Elderton*, Ed. med. journ. XV. 261; instrument for breaking calculi: a masked file. *Smith*, Medicoch. tr. XI. 1; frequency: *Mayo*, 55: operation; and *Dickinson*, 61: *Earle*, 69: stone breaker: *A. Cooper*, 349; extraction without lithotomy. * *Martineau*, 402; of 84 operations in 17 years, 2 only were fatal: the disease is remarkably frequent in Norfolk: seldom serious. Home on the high operation. Phil. trans. 1820. 209.

XXXV. DIABETES.

Diabetes.

A discharge of saccharine matter in the urine.

1. D. *mellitus*.

Diabetes mellitus. Cull. syn. lxxii. 1. Aretaeus ? chir. H. ii. Gal. loc. aff. VI. 3, 4. Forest. XXIV. 4. Barthol. hist. an. I. 68. Schenk. III. ii. 162-9. Bonet. sep. III. xxii. 8, xxvi. 1..5. Tulp. II. xlvi. Sydenh. ep. ad Brady. Ruysch obs. 13. Mead pois. i; Mon, med. IX. ii. Dover's legacy; alum whey. Diabetes Anglicus, *Sauvages*, II. 384; febricosus, 385. Gooch, I. 417. Brisbane's cases. *A. Fothergill*, Med. obs. inq. III. 138; *Dobson*, V. 298. Trnka de diabete. Vienn. 1778. Meyers de diabete. 8. Ed. 1779; Webster m. pr. II. 92. *M'Cormick*, Dunc. med. comm. IX. 349; Dover's powder. *Cawley*, Lond. med. journ. IX. 286; quantity not increased; *Werner*, XI. 221. Girdlestone on diabetes. 8. Yarm. 1794. *Rollo* on diabetes. 2. v. 8. Lond. 1796; Dunc. ann. 1797. 85. Marabelli sull' orina di diabete. 8. Dunc. ann. 1798. 215. * *Baillie*, Tr. soc. med. ch. kn. II. 70. *Duncan* and *Monro*, Dunc. ann. 1803. 388; arteries scarlet within; but, according to Bichat, this is no uncommon appearance. *Bostock*, M. Med. soc. Lond. VI. 237. *Rutherford*, Ed. med. journ. I. 314; *Fraser*, II. 16; tonics: *Alley*, IV. 35. Watt on diabetes. 8. Paisley, 1808; Ed. med. journ. V. 85. *Watt*, Ed. med. journ. V. 287. Latham on diabetes. 8. London; Ed. med. journ. VII. 194: *Christie*, 285; in Ceylon, common; animal regimen: *M'Keur*, 310; bleeding: *Murray*, VIII. 20; bleeding: * *Wollaston*, Phil. trans. 1811. 96; VIII. 95; non-existence of sugar in the blood: *Ayre*, X. 186; bleeding, partially successful. *Henry*, Medicoch. tr. II. 118. *Warren*, Med. trans. IV. 188; opium: also *Money*, Medicoch. tr. V. 236. *Satterley*, Med. tr. V. 1: bleeding.

XXXVI. LEUCORRHOEA.

Whites.

A pale coloured discharge from the uterus or vagina.

1? L. *repentína.* Sudden and occasional.
2? L. *period'ica.* Abont the period of the catamenia.
3. L. *contin'ua.* With little intermission.

Leucorrhoea. *Sauvages*, II. 397. Oribas, IX. xlviii, xlix. Aët. IV. iv. 67, 72. Forest. XXVIII. n. 19..37. Plater. obs. III. 781. Horst. opp. II. 280. Ballon. cons. I, II, III, passim. Barthol. act. Hafn. I. n. 83; in an infant. Mauriceau, I. 457. II. 147. Hofm. III. 348. Junck. 133. Astruc mal. f. II. 188. *Morgagni*, ep. 47, de fluore muliebri; ep. 67, art. 14. Raulin Traité des fleurs blanches. 2 v. 8. Par. 1766; Germ. abr. by Riederer. 8. Nur. 1793. Fordyce surg. fr. Ramel. Journ. méd. LXIV. 585. Keating de leucorrhoea; Webster m. pr. III. 235. Stoll rat. med. VII. 158; prael. II. 382, 409. Trnka historia leucorrhoeae. 8. Vienn. 1781. Hofmann, Bald. N. mag. III. 265. IX. 135. *Speer*, Dunc. med. comm. VII. 356; simarouba. *Clarke* on diseases of females with discharges. 8. Lond. 1814: Ed. med. journ. XII. 211. *Forbes*, Ed. med. journ. VII. 176; lytta. *Latham*, Med. tr. V. 23.

1. *Leucorrhoea repentina. Heberden*, comm. sect. de uteri morbis. Perhaps a symptom of dropsy.

2. *Leucorrhoea periodica.* Menorrhagia decolor, *Sauvages*, II. 311. Sennert. morb. mul. viii. Scarcely distinct from the next species.

3. *Leucorrhoea continua.* Menorrhagia alba, Cull. syn. xxxix. 5; Nabothi, 6; the latter in pregnancy.

(† Ulceris, obstructionis, symptoma.)

(Concretio. See colica, inflammatio.

Dysodia. *Sauvages*, II. 418. Horst. opp. II. 553. Wepf. obs. 920. Bald. N. mag. IV. 425. Weikard verm. schr. III. 37. 1. General] Bald. N. mag. VII. 554; with amenorrhoea. 2. Oral] Aët. II. iv. 17. Forest. XIV. 19. Plater. quaest. 53. Ballon. cons. I. 41. II. 11. 3. Nasal] Oribus. VIII. xxix, xxx. Forest. XIII. 2. 4. Cutaneous] Oribas. xxxvi. Forest. XVII. 29.

Catacausis. Pl. Barthol. hist. an. I. 70; act. Hafn. I. 118. Bianchi, Phil. trans.; *Wilmer*, 1774. 340; a good authority.

Cacogalia. Pl. Vitiated secretion of milk. Forest. XVII. 21; Mauriceau, 437; cheesy. Barthol. act. Hafn. II. n. 62; bitter. Bonet. pol. III. 380; bloody. *Morgagni*, ep. 50. art. 47; various instances.

Cacospermatia. Worms de causa immunditiei spermatis apud Ebraeos. 4. Giess. 1768. Heberd. comm.)

CLASS IV.

PARAMORPHIAE.

STRUCTURAL DISEASES.

ORDER I. *PARAPHYMATA.* LOCAL CHANGES.

Galen on tumours. Arantius de tumoribus. Astruc on tumours and ulcers. Brown on tumours. Plenck systema tumorum. 8. Vienn. 1766.

XXXVII. PHTHARMA.

Depravation.

Diseased alteration of structure in a living part, without change of dimensions.

1.	Ph. *os'sium.*	Softness or brittleness of the bones.
2.	Ph. *ossificátio.*	Conversion of muscle or cellular membrane into bone.
3.	Ph. *cutáneum.*	Hardness or harshness of the skin.
4.	Ph. *calígo.*	Simple opacity of the cornea.
5.	Ph. *glaucóma.*	Opacity of the humours of the eye.
6.	Ph. *catarac'ta.*	Opacity of the crystalline lens.
7.	Ph. *viscerále.*	Interstitial change of a viscus.

1. *Phtharma ossium.*

A. Softness, from want of the earthy part. Forest. XVII. n.

15. Schenk, V. n. 244. Courtial, Ac. Par. 1700. Monro's osteology. Pott, Phil. trans. n. 459; Bevan, n. 470. Haller de induratis partibus. *Hosty*, Phil. trans. 1753. 26; *Pringle*, 297; like liver. Morand, Ac. Par. 1753. Gooch's cases. *Morgagni*, ep. 58. art. 4..6; ep. 68, art. 4. Asthenia ab osteosarcosi, *Sauvages*, I. 804; Ostocopus ab osteosarcosi, II. 28; Rachialgia osteosarcosis, 137. Swiet. comm. IV. 330. Chalmers Carol. Macbride introd. II. 379. Balfour, Med. obs. inq. IV; Cooper, V; *Thomson*, V. 259; Med. comm. Ed. IV. 187. Saillant, Ac. Par. 1779. Cheston's observations. Stoll rat. med. IV. 352. *Goodwin*, Lond. med. journ. VI. 288. VIII. 67; *Hunter*, 70. Ekman de osteomalacia. 4. Ups.; Dunc. med. comm. XV. 1. Fremery et Paradys de mutationibus figurae pelvis. 4. Leyd. 1793. *Bostock*, Medicoch. tr. IV. 38; $\frac{1}{5}$ of earth, instead of about $\frac{1}{2}$.

B. Brittleness. Lieut. hist. an. obs. 206. *Pringle? Kentish*, Dunc. med. comm. XV. 1; " latent cancer," after extirpation.

C? Fungus intermixed. *Morgagni*, ep. 68, art. 4. Ludwig chir. 191. Exostosis osteosteatoma, *Sauvages*, I. 160. Pott. Phil. trans. Murray de osteosteatomate. Ups. 1780. Balding. N. mag. II. 495.

2. *Phtharma ossificatio.* Might be called osteogenes, if Hederic were a sufficient authority, " ossa procreans." Probably can seldom be ascertained during life. Stalpart? II. 35. Machin? Vater? Phil. trans.

A. Of muscles or tendons. Wepfer obs? 741; from labour. Pechlin, II. obs. 40. Vandermonde, 1758. *Henry*, Phil. trans. 1759. 89, 92. 1761. 143; salivation. Catochus scorbuticus, *Sauvages*, I. 546. Haller de indu ratis corporis humani partibus. Gott. 1783.

B. Of membranous parts. Guattani de aneurysmatibus; aorta. *Baillie*, Tr. soc. med. chir. kn. I. 133. *Baillie's* engr. 33, pleura; 43, lungs.

C. Of cartilages. A common consequence of inflammation. *Travers*, Medicoch. tr. VII. 150; larynx.

3. *Phtharma cutaneum.* Catochus cutaneus, *Sauvages*, I. 546. Zacut. pr. 398. Diemerbr. anat. 747. More, Vater, Phil. trans. Curzio Raro morbo. Nap. 1755.

B? Changes of the nails. Aët. IV. ii. 79. Plater. obs. III. 588. Barthol. act. Hafn. I. 116; epist. II. 729, 732, IV. 258. See epiphymata.

4. *Phtharma caligo.* Caligo corneae, Cull. syn. xcii. 2. Generally an ecphyma. Caligo a nephelio, a leucomate, *Sauvages*, I. 726. *Swieten*, Med. obs. inq. II. 232; sublimate. *Farar*, Med. commun. II. 463; in infants, gradually disappearing.

5. *Phtharma glaucoma.* Caligo humorum, Cull. syn. xcii. 4. Bonet. sep. I. xviii. 6. Rhodius, I. obs. 63; "a worm." Caligo hypoaema, lactea, *Sauvages*, I. 729. Ferras, Journ. méd. XLV. Richter N. comm. Gott. IV. 80; Wundarzn. III. Cavallo on electricity. Seldom idiopathic.

6. *Phtharma cataracta.* Caligo lentis, Cull. syn. xcii. 1. Glaucosis, Hipp. Hypochysis, Gal. Forest. XI. 30, 31, 33. Horst. opp. II. 102, 104. Maitre Jan de l'oeil. St. Yves. Brown of tumours. Hofm. Suppl. II. ii. *Monro*, Ed. med. ess. V. ii. 603. Hope, Phil. trans. 1752, 530; on Daviel's method. *Sharp*, Phil. trans. 1753. 161, 322. *Daviel*, M. Ac. chir. II. 337; *Hoin*, 425; capsular; *Lafaye*, *Morand*, and *Verlac*, 578, 585. *Young*, Ed. phys. ess. II. 324. Lander de cataracta. 8. Ed. 1758; Smellie thes. II. 471. *Morgagni*, ep. 13, de oculorum affectibus, art. 14. . . ep. 63, de caecitate, art. 4; art. 11; capsular. *Cantwell*, Phil. trans. 1762. 519; Daviel's mode. Cataracta, *Sauvages*, I. 719. *Borthwick*, Med. comm. Ed. II. 84. Pellier, Journ. méd. XLII; capsular. Richter von der ausziehung des

grauen staars. Gott. 1773; Med. comm. Ed. V. 274; Engl. 8. Lond. 1790; extracts the capsule; Wundarzn. III; capsular, *Knox*, Dunc. med. comm. IX. 303; electricity. Saxtorph, Act. med. Hafn. II; caps. Wathen on the cataract. Stoll rat. med. III. 403. Fieliz, Bald. N. mag. X. 176. *Lucas*, Med. obs. inq. VI. 250. *O'Halloran*, Tr. Ir. Ac. II. 121; Lond. med. journ. X. 395. *Kite*, VII. 141; *Sparrow*, IX. 109. *Wenzel's* mode. Dunc. med. comm. XIII. 246. Wenzel on the cataract. 8. 1791. *Sparrow*, Med. facts. I. 43. Conradi über die ausziehung des grauen staars. 8. Leipz. 1791. Beer über den grauen staar. 8. Vienn. 1791; Dunc. ann. 1800. 105, 123; with the capsule. *Ware*, M. Med. soc. Lond. III. 12; dispersion. *Ware* on cataract and epiphora. 8. Lond. 1795. Schiferli über den grauen staar. 8. Jen. 1797. *Borthwick*, Dunc. ann. 1799. 466. Earle's new mode of operating for the cataract. 8. Lond. 1801. *Monnet*, Dunc. ann. 1802. 416; punctures the posterior part of the capsule. S. Cooper on the cataract. 8. Lond. 1805. *Home*, Phil. trans. 1807. 83; native. *Wardrop*, Ed. med. journ. V. 1. Muter on the cataract. 8. Lond. 1811. *Ware* on cataract and gutta serena. 8. Lond. 1811. Saunders on diseases of the eye. Travers; punctures the anterior part of the capsule only. *Gibson*, Ed. med. journ. VII; couching infants. *Ware* on puncturing the capsula. 8. Lond. 1812. Ed. med. journ. VIII. 478. *Travers*, Medicoch. tr. IV. 278; V. 291. *Wishart* on congenital cataract. Ed. med. journ. IX. 1: *Wardrop*, IX. 473; a deaf and dumb boy. Buchhorn's keratonyxis. Magdeburg. 1811; Ed. med. journ. XI. 231; couching through the cornea. *Lübenstein Löbel*, XIII, 56; extracting behind the uvea: *Chapman*, 300. Most of these works relate principally to the operation.

† Caligo pupillae, palpebrarum, Cull. syn. xcii. 3, 5, are symptoms of paralysis, contractura, or ecphyma, or consequences of inflammation or ulceration.

7. *Phtharma viscerale.* Generally a sequel of inflammation. See ecphyma. For instance, Scirrhus lienis sine tumore, *Sauvages*, I. 144; "sclerysma."

XXXVIII. RHAGAS.

Chop.

A simple spontaneous solution of continuity.

1. Rh. *cutánea.* Of the skin.

1. *Rhagas cutanea.* Rhagus, *Sauvages*, I. 241. Theden N. bem. II. 261. See Vulnus ablatitium.

XXXIX. CURVATURA.

Curvature.

A simple change of the form of a bone.

1. C. *adscitit'ia.*

1. *Curvatura adscititia.* Seldom occurs independently of rhachitis, phtharma, or caries. Galen on Hippocr. on joints, II. Forest. XXXIX. 23. Barthol. ep. III. 330. Bonet. sep. II. xii. 902... Severin. rec. absc. n. VI. Ruysch. obs. 67. *Morgagni*, ep. 27, art. 31... Levacher, M. Ac. chir. IV. Richt. chir. bibl. VII. 321-2.

A. Of the spine or thorax. Gibbositas, *Sauvages*, I. 160. See apostema.

B. Of the legs. Lordosis, *Sauvages*, I. 161, sometimes.

C. About the joints. Loxarthrus, *Sauvages*, I. 232; sometimes.

XL. CONTRACTURA.

Contraction.

A permanent contraction of a soft part.

1. C. *musculáris.* Of a muscle.
2. C. *superficiális.* Of the skin. "Hidebound."
3. C. *pupilláris.* Of the pupil.
4. C. *laryngéa.* Of the larynx.
5. C. *oesophagéa.* Of the oesophagus.
6. C. *intestinális.* Of the intestinal canal.
7. C. *ureter'ica.* Of the ureter.
8. C. *urethrális.* Of the urethra. Stricture.
9. C. *phimósis.* Of the prepuce.

† Emphragma lacrymale, xli.

Contractura. Forest. XIV. 18; Ruysch, 82; of a membrane. *Lardner*, Ed. med. journ. VII. 407; of a vein, obliterated.

1. *Contractura muscularis.* Contractura primaria, Cull. syn. cxvi. 1. Forest. X. obs. 114? Monro lect. Haen rat. med. III. 209. Contractura, *Sauvages*, I. 537; Obstipitas, 536; sometimes: but the species enumerated are symptomatic of paralysis, entonia, or scorbutus, or sequels of inflammation, or inflammatory affections. Ed. med. comm. V. 313? *Scudamore*, Ed. med. journ. XI. 304; splints.

† Contractura articularis, Cull. syn. cxvi. 2. See ecphyma ancylosis.

2. *Contractura superficialis.* See Phtharma cutaneum. *Watson* from Crusio. Phil. trans. 1754. 579; mercury and sarsaparilla. Berdmore? gums.

3. *Contractura pupillaris.* Caligo pupillae, Cull. syn. xcii. 3. Caligo a synizesi, *Sauvages*, I. 19. Mauchart. Woolhouse.

4. *Contractura laryngea. Jackson*, Med. comm. Ed. VI. 208; the patient seems to have drawn air into the oesophagus at each inspiration. Y. Ed. med. journ. XI. 269; a fatal case. [Dr. P.]

5. *Contractura oesophagea.* Dysphagia, Cull. syn. cxv; sometimes. D. pharyngea, oesophagea, *Sauvages*, II. 79; sometimes. There is generally a tendency to scirrhus in such contractions. *Munckley*, Med. trans. I. 165; salivation. *Odier*; Med. comm. Ed. III. 193; conium and a compress. *Patten*, Lond. med. journ. X. 356; mercury. *Johnstone*, M. Med. soc. Lond. II. 177; *Farquharson*, 357; with scirrhus. Monro de dysphagia. 1797. *Baillie's* engr. 51, ulcerated; 53. Home on strictures. Monro on the alimentary canal. See carcinoma.

† Asthenia deglutitionis.

6. *Contractura intestinalis.* Ascertainable by examination. *Hunter* and *Watson*, Phil. trans. 1777. 608; Maty. *Johnstone*, M. Med. comm. Ed. V. 302; obstipatio. *Sherwen*, M. Med. soc. Lond. II. 9; scirrhocontracted, also *R. White*, IV. 225. *Baillie's* engr. 75; scirrhous. *Combe*, Med. trans. IV. 16: *Baillie*, V. 136. *Edwards*, Ed. med. journ. XIII. 441. *Blundell*, Medicoch. tr. X. 296; transfusion of blood in a case of irritation; ineffectual. White on strictures. 8. Bath. 1820; Ed. med. journ. XVI. 590: *Greenhow*, XVII. 375; at the beginning of the rectum. See obstipatio, xxii.

7. *Contractura ureterica.* See Ischuria ureterica. † κ, xxiii.

8. *Contractura urethralis.* See Ischuria urethralis. † ι, xxiii. *Petit*, M. Ac. chir. I. 434; dysecbolia. *Lecat*, Phil.

trans. 1751. 328. *R. W. Darwin*, M. Med. soc. Lond. III. 507; supposed a blennorrhoea vesicalis; *Ward*, 535; ischuria. *Abernethy* on diseases of the urethra, surg. obs. ii. *Baillie's* engr. 169. *Home* on strictures. II. 8. Lond. 1804, 1806; Ed. med. journ. I. 81. Whateley on strictures. 8. Lond. 1804; Ed. med. journ. I. 214; *Carmichael*, 416; caustic; *Anderson*, III. 24. *Andrews* on lunar caustic. 8. Lond. 1807; Ed. med. journ. IV. 219. *S. Cooper*, Ed. med. journ. V. 333: haemorrhage from caustic. Luxmore on strictures, fistula, and tinea. 8. Lond. 1809; Ed. med. journ. VI. 103; simple bougie: Bingham on strictures. 8. Lond. 1820; XVI. 603.

9. *Contractura phimosis.* See Ischuria urethralis † N. Phlogosis phlegmones varietas, Cull. syn. vii. 1. Phimosis, *Sauvages*, I. 151. *Thomson*, Ed. med. journ. X. 353. Cooper and Travers's essay.

A. Phimosis vera, Sauv. 151. Heist. chir. c. 130.

B. Paraphimosis. Phimosis circumligata, Sauv. 152. Paul. Aeg. VI. 55. Astr. morb. ven. III. viii.

XLI. EMPHRAGMA.

Stoppage.

A tumour occasioned by a contraction or obstruction.

This genus differs only in degree from some of the order epischeses, since, speaking correctly, it implies a defect in the secretion: but the tumour being a more prominent feature of the disease than the retention, it may most properly be placed in this class. The first three species are also eruptive diseases.

1. E. *sebáceum.* Of the pores or sebaceous glands of the skin.
2. E. *piláre.* At the root of the hair.
3. E. *cuticuláre.* Under the cuticle only.
4. E. *lacrymále.* In the lacrymal sac or duct.
5. E. *maxilláre.* Of the antrum.
6. E. *saliváre.* Of the salivary ducts.
7. E. *spermat'icum.* Of the seminal passages.

1. *Emphragma sebaceum.*

A ? In children. Perhaps the crinons of Sauvages and others. Horst ; morbus pilaris. Crinones, Ettmull. Atrophia a crinonibus, *Sauvages*, II. 462 ; Malis a crinonibus, 552 ; *Bassignot*, M. Soc. R. méd. I. 173. Said to be hairs, but to be discharged by rubbing them.

B. In young persons, generally causing some inflammation.

C. Of the eyelid. Hordeolum steatomatosum, siro ? *Sauvages*, I. 157.

2. *Emphragma pilare.* See Licheniasis. A matter of a mucosebaceous nature collects round the root of a hair, and sometimes causes inflammation. Possibly the morbus pilaris ought to be referred to this species.

3. *Emphragma cuticulare.* A hard white point, generally near the eyes. It may be removed by the inflammation and absorption, excited by scraping it a few successive mornings with a razor.

4. *Emphragma lacrymale.* Fistula lacrymalis. Aegilops. Sennert. *Monro*, Ed. med. ess. III. 279. *Bordenave*, M. Ac. chir. II. 161 ; *Delaforest*, 175 ; *Louis*, 193. Pott on the fistula lacrymalis. 8. Lond. 1758. Epiphora ex aegilope, *Sauvages*, II. 373. *Vicq d'Azyr*, M. Soc. R. méd. I. 367. *Blizard*, Phil. trans. 1780. 239. Richter. Comm. Gott. ;

Lond. med. journ. II. 77; the passage generally obstructed by morbid matter; introduces a probe into the duct. Wathen on fistula lacrymalis. 4. Lond. 1781; Lond. med. journ. II. 245; a tube.

5. *Emphragma maxillare.* *Monro*, Ed. med. ess. V. 403.

6. *Emphragma salivare.* Ranula. Often with fistula. Bonet. sep. I. xxi. 17. *Monro*, Ed. med. ess. II. 249. III. 261. *Duphenix* and others, M. Ac. chir. III. 431; *Louis*, 460. IV. 263. 865. V. 406. Peuffler, Journ. méd. XXXIX. 160; the duct obliterated. *Gill*, Dunc. med. comm. XII. 322. See Inflammatio phlegmonica.

7. *Emphragma spermaticum.* Spermatocele, *Monro*, Ed. med. ess. V. 324; Arnaud on hernia; *Morgagni*, ep. 43, art. 39. Oscheocele seminalis, *Sauvages*, I. 170.

XLII. EMPHYSEMA.

Inflation.

A tumour containing air, and consequently compressible and sonorous.

1. E. *cellulâre.*	In the cellular membrane, crackling when pressed.
2. E. *tympanit'icum.*	In the intestines, with costiveness, and generally borborygmi.
3. E. *abdominâle.*	In the cavity of the peritonaem.
4? E. *uterínum.*	In the uterus.

1. *Emphysema cellulare.* Pneumatosis, Cull. syn. lxxii; spontanea, 1, venenata, 3, hysterica, 4. Oribas. VII. 50.

River. II. obs. 69. Severin. rec. absc. nat. IV. ix. 16. Sydenh. diss. ep. 41. Brown of tumours. Combalusier pneumatopathologia. Emphysema, *Sauvages*, I. 142; Mastodynia emphysematosa, II. 134; Pneumatosis, 468. Brown of tumours. Herbin, Journ. méd. L. 431. Wilmer's cases. Huuter, Med. obs. inq. II. n. 2. *Huxham*, Med. obs. inq. III. 28: *Russel*, 397; fracture. *Kellie*, Med. comm. Ed. II. 427; paracentesis; an abscess found after death. *Swediar*, Lond. med. journ. II. 408; from coughing. *Simmons*, Med. commun. I. 176; labour pains. *Lloyd*, Med. obs. inq. VI. 192; communicating with the ear; the bone carious. † *Darby*, Lond. med. journ. VIII. 407; wound. Theden N. bem. II. 76. *Blagden*, Med. facts. II. 45; labour pains. *Baillie*, Tr. soc. med. ch. kn. I. 202; general, without violence or putridity. Holyoke, Amer. Ac.; Med. facts. VII. 259. Halliday on emphysema. 8. Lond. 1807; Ed. med. journ. IV. 351: *Balfour*, VII. 174; during labour: *Johnson*, VIII. 154.

B? Pneumatocele? Forest. XXVII. 25. Brown tum. 349. *Monro*, Ed. med. ess. V. 329. *Morgagni*, ep. 43. art. 35. Pott on hydrocele, 216. Oscheocele flatulenta, *Sauvages*, I. 169.

† Pneumatosis traumatica, Cull. syn. lxxii. 3; vulneris symptoma.

2. *Emphysema tympaniticum.* Tympanites intestinalis, Cull. syn. lxxiii. 1. Hippocr. 555; typhus 4; aph. II. iv. Galen on diet in ac. d. Al. Trall. III. Forest. XIX. n. 43 ..46, XXI. 8. Fabr. Hildan. VI. obs. 74. Plater. obs. III. 656; worms. Horst. opp. II. 204. Schenk. III. iii. 152. Willis ph. rat. II. ii. 4. Tulp. II. xxxv. Baglivi. Littre, M. Ac. Par. 1773. Hofm. III. 339. Junck. 87. Boerh. 226. *Monro*, Ed. med. ess. I. 294. Raulin mal. vap. *Morgagni*, ep. 38, de tympanite. Brendel. Combalusier. Tissot febr. bil. Zeviani del flato. Tympanites, *Sauvages*, II. 513; sometimes; Meteorismus, 518; either acute or partial.

Arcey, Journ. méd. LIV. 402. Störck ann. II. 190. Stoll prael. I. 89. Trnka historia tympanitidis. 8. Vienn. 1788. Selle N. beitr. II. 11, 14, 106, 109. Balding. N. mag. XI. 351; costiveness. Richt. chir. bibl. IX. 17. *Graves*, Med. facts. I. 90; M. ventriculi, Sauv. *Collins*, Ed. med. journ. I. 298. *Wells*, Tr. soc. med. ch. ku. III. 158; colon and caecum enlarged. See colica.

3. *Emphysema abdominale.* Tympanites abdominalis, Cull. syn. lxxiii. 2. Ballor. paradigm. 241. Heist. wahrn. I. 28. Combalusier. Zeviani. Mead monita. Lieut. hist. an. I. 432. *Morgagni*, ep. 38, art. 24, 25. Tympanites abdominalis, *Sauvages*, II. 515; † Stuartii, 518; from a wound; Ascites flatulentoperitonaeus, 508.

4. *Emphysema uterinum.* Physometra, Cull. syn. lxxiv. Ambr. Paré, XXV. 34; with water. Salmuth, II. obs. 57. Astruc mal. f. II. ix. Physometra, *Sauvages*, II. 512.

XLIII. EXANGEIA.

Dilatation.

Enlargment of a bloodvessel.

1. E. *aneurys'ma.*	A pulsating tumour of an artery.
2. E. *várix.*	An enlargement of a vein.
3. E. *intermédia.*	A tumour formed by the enlargement of the capillary vessels.
4. E. *mix'ta.*	† A pulsating tumour of a vein, from communication with an artery.

Exangeia. Hodgson on the diseases of arteries and veins. See local affections.

1. *Exangeia aneurysma.* Aneurysma, Cull. syn. cxxviii. Galen tum. II. Forest. chir. I. obs. 15. Horst. II. 430. Arant de tum. Barthol. ep. I. 270. III. 219. Severin. rec. absc. nat. IV. vii. Schenk. V. 211. Lancisi de motu cordis et de aneurysmatibus. 4. Leyd. 1740; seems to fancy that the name of a proposition constitutes the essence of mathematical reasoning; Subit. mort. 63. Ruysch. obs. 38. Brown on tumours. Cooper, Gooch, Douglas, Phil. trans.; Dougl.; heart. Heist. inst. chir. 391. *Macgill*, Ed. med. ess. II. 255; *Monro*, 264, 279. IV. 299. *Foubert*, M. Ac. chir. II. 535; false an. Monro's works. *Warner*, Phil. trans. 1757. 363. *W. Hunter*, Med. obs. inq. I. 323; *Lambert*, II. 360; stiching a wounded artery. *Morgagni*, ep. 17, 18, de respiratione laesa a cordis aut aortae intra thoracem aneurysmatibus; ep. 26, de morte repentina ex vitio vasorum sanguiferorum potissimum in thorace; ep. 50, de tumoribus, art. 8; ep. 58, art. 13...Haen rat. med. IV. ii. §. 7. V. vi. VII. ii. IX. ii. §. 5. Aneurysma, *Sauvages*, I. 162. W. Hunter's observations. *Bayford*, Med. obs. inq. III. 14; aorta; *Thomson*, 57; *Burchall*, III. 106. *D. Monro*, Ed. phys. ess. III. 178. Guattani de aneurysmatibus. 4. Rom. 1772. *Leslie*, Med. comm. Ed. II. 176; femoral. *Gooch*, Phil. trans. 1775. 378. *Dehorne*, M. Soc. R. méd. III. 298. Wrainitz Geschichte eines abgestorbenen oberarms. 8. Freyb. 1782; mortification from ligature on the tumour. *Hall*, Med. obs. inq. VI. 23. *Simmons*, Med. commun. I. 118; and *Watson*, 178; aorta. Lauth collectio de aneurysmatibus. 4. Strasb. 1785; Lancisi, Guattani, Matani, Verbrugge, Weltin, Murray, Trew, Asman. *Home*, Lond. med. journ. VII. 391. VIII. 126; Hunter's operation; *Kinglake*, 385; compression; *Ford*, IX. 142; thigh; spontaneous cure. *Clark*, Dunc. med. comm. XIII. 326; crural; was recovering after gangrene. † *J. Pearson*, Med. commun. II. 95; caries, with symptoms of aneurysm. *Concanen*, Dunc. comm. XV. 387; aorta. *Luxmore*, M. Med. soc. Lond. III. 404. *Blagden*, Med. facts. II. 48; spontaneous cure. *Baillie*, Tr. Soc. med. ch. kn. I. 119; *Home*, 138; Hunter's operation. *Forster*, Med. facts. V. 1; pop-

liteal. *Bird*, M. Med. soc. Lond. IV. 406. *Forster*, Med. facts. VI. 114. Theden N. bem. II. 72. Weikard verm. schr. II. 48. *Mr. W. Hunter*, M. Med. soc. Lond. V. 349. *Blane*, Tr. soc. med. ch. kn. II. 192; carotids; *Home*, 255; popliteal; *Wilson*, 268; spontaneous cures, one sloughing. *Baillie's* engr. 15, 17. Scarpa sull'aneurisma. f. Pav. 1804; Engl. by Wishart. 8. Ed. 1808; Ed. med. journ. III. 473. IV. 347; *Abernethy*, III. 46; external iliac tied; Scarpa on spurious aneurysm. Loders journ. 161; *Dawson*; 404; popliteal. Freen on aneurysm. 4. 1807. *Cooper*, Medicoch. tr. I. 1; carotid tied, without success; 222; successfully. *Hosack*, Ed. med. journ. V. 182; femoral. A. Burns on diseases of the heart. 8. Ed. 1809; Ed. med. journ. V. 340: *W. Young*, VI. 438; spurious; subsided. Hutchinson on popliteal aneurysm. 8. Lond. 1811. *Armiger*, Medicoch. tr. II. 242; difficulty of swallowing; *Cooper*, 249; dissection: *Wells*, Tr. soc. med. ch. kn. III. 81, 85; aorta. *Dalrymple*, Medicoch. tr. VI. 110; carotid tied: *Chamberlayne*, 128; axillary: *Colles*, IV. 425; new circulation. *Stevens*, Medicoch. tr. V. 422; internal iliac tied, for a gluteal aneurysm. *Macaulay*, Ed. med. journ. X. 178; carotid tied, with success. *Baillie*, Med. trans. IV. 271; pulsations of the aorta, *without* aneurysm. Ed. med. journ. XI. 1. subclavian tied: *Mackesy*, 401. *Collier*, Medicoch. tr. VII. 137; external iliac tied: *Crampton*, 341; a compressor, to save the coats. *Soden*, Medicoch. tr. VII. 536. *Duncan*, Ed. med. journ. XII. 1; carotid: *Newbigging*, 71; iliac tied. *Lawrence*, Medicoch. tr. VIII. 490. *Pearson*, Ed. med. journ. XIII. 196; with phthisis: *Robertson*, 467; iliac tied. *Albers*, Medicoch. tr. IX. 26; compression: *Post*, 185; subclavian tied: *Travers*, 405; temporary ligature. *Cooper* and *Travers's* essays; descending aorta tied; survived 40 hours. *Norman*, Medicoch. tr. X. 94: *Vincent*, 212; carotid: also *Lyford*, XI. 97: *Roberts*, 100; temporary ligature. *Liston*, Ed. med. journ. XVI. 75: *Rutherford*, 199; axillary, failed: *Liston*, 348. *Coates*, Medicoch. tr. XI. 277; carotid: *Salmon*, 398; inguinal: *Whiting*, Ed. med. journ. XVII. 81; idocarotid.

B. Of the heart, approaching to Ecphyma physconia. Ed. med. ess. II. n. 23. Douglas, Phil. trans. *Morgagni*, ep. 17; ep. 18, art. 4; ep. 21; art. 49; ep. 26; art. 31, 33; ep. 27, art. 12. Portal, Ac. Par. 1784.

2. *Exangeia varix.* Varix, Cull. syn. cxxix. Forest. XXIX. obs. 24, 25. Severin. rec. absc. nat. IV. ix. 13. Mauriceau, I. 144. Varix, *Sauvages*, I. 163. *Else*, Med. obs. inq. III. 169; false varices, some from accidents, mistaken for aneurysms. Michaelis, Richt. chir. bibl. V. 123. Theden N. bem. I. 59. II. 75; v. cava. *J. Pearson*, Med. facts. VI. 96; a distended vein appearing to produce great pain. *Home* on ulcers. *Brodie*, Medicoch. tr. VII. 195. *Forster*, Ed. med. journ. XVI. 50; varicose ulcers.

A. Piles. Haemorrhois tumens, Cull. syn. xxxviii. 1; caeca, 4. Junck. 11, 12. Alberti de haemorrhoidibus. Haen de haemorrhoidibus. 8. Vien. 1759. Marisca, *Sauvages*, I. 164. *Baillie's* engr. 77. Ware on the eye. 8. Lond. 1805; Ed. med. journ. II. 233. Earle on haemorrhoidal excresences. 8. Lond. 1807. Sometimes relieved by pressure. Y. Larroque traité des hémorrhoides. 8. Par. 1813. Ed. med. journ. X. 393. *Astbury*, XVII. 307; astringents externally.

B. Cirsocele. Forest. XXVII. 24. Goulard's surg. Heister. Platner. *Monro*, Ed. med. ess. V. 322. *Morgagni*, ep. 43, art. 36. Sharp. Sarcoma varicocele, *Sauvages*, I. 154: Oscheocele varicosa, 170. † *Dyson*, M. Med. soc. Lond. III. 556; accident.

C. In the extremities. *Oldknow*, Ed. med. journ. V. 175; death from tying the vena saphena.

3. *Exangeia intermedia.* Aneurysm by anastomosis. *Hill*, Med. comm. Ed. III. 313; eyebrow. Abernethy surg. obs. ii? a species of naevus. *Travers*, Medicoch. tr. II. 1; in the orbit; cured by tying the carotid; a pulsation remained,

but the tumour diminished. Wardrop on the subcutaneous naevus. See deformitas. *Lawrence*, Medicoch. tr. IX. 216.

4. *Exangeia mixta.* Varicose aneurysm, a sequel of a wound. *W. Hunter*, Med. obs. inq. II. 390; *Cleghorn*, III. 110. Guattani. *W. White*, Med. obs. inq. IV. 377; *Armiger*, 382; *Hunter*, 385. *Park*, Med. facts IV. 111.

XLIV. HYDROPS.

Dropsy.

A tumour of a natural cavity, containing a watery fluid, manifested by its fluctuation or softness.

Abscesses are generally distinguishable from dropsies by the formation of a preternatural cavity, as well as by the inflammation preceding them, although dropsy is sometimes a sequel of inflammation.

1? H. *bul'la.*	Under the cuticle only.
2. H. *anasar'ca.*	In the cellular membrane, an impression of the finger remaining for some time.
3. H. *cap'itis.*	In the external parts of the head, the fluctuation being observable in children at the fontanelle.
4. H. *spínae.*	Of the spinal marrow, generally observable by means of a defect in the vertebrae.
5. H. *oc'uli.*	A simple enlargement of the eye, the cornea being protruded.
6. H. *thorácis.*	With livid lips, respiration more difficult in the horizontal posture, and generally starting from sleep.
7. H. *pericar'dii.*	With oppression at the heart, palpitation, and some difficulty of breathing.

8. H. *ascítes.* Of the whole abdomen.
9. H. *ovárii.* Beginning from one or both of the iliac regions, the fluctuation being at first obscure.
10. H. *úteri.* In the hypogastrium, with some fluctuation.
11. H. *scróti.* Of the scrotum; semitransparent.
12. H. *cacotroph'icus.* Anasarca with stiffness of the joints and tenderness about the cardia.

† Asthenia beriberia, iii.

Hydrops. Dropsy in general, and general dropsy, especially anasarca. Hipp. aph. 3. 7; dls. I, II; int. aff. 543-5; epid. V; on air. Aretaeus chr. II. i. Galen. loc. aff. V. vii; sympt. caus III. viii. Cael. Aur. 468, 171. Fern. cons. xxxii... Arant. tum. Forest. XIX. 14..39. Plater. obs. III. 630.. 655. Horst. opp. II. 199, 200, 271, 439, 529. Ballon. opp. I. 192; cons. I. 24, 39, 71. II. 8. III. 102. Severin. rec. absc. nat. IV. 35. Barthol. ep. I. 290. III. 132, 327, 338. IV. 76, 200, 202, 401. Schenk. III. ii. 116..123. iv. 143. Bonet. pol. de hydrope. IV. c. 47; med. sept. 705. Willis. ph. rat. II. ii. 3, 5. Mauriceau, II. 81. Morton phthis. I. x. Malpigh. opp. II. 232. Ruysch obs. n. 70, 86, 87; thes. anat. X. Glisson de rach. 14. Bont. med. Ind. ix. Duverney Ac. Par. 1701. 181, 193, 1703. 181; Littre, 111; Mery, 1706. 33; Littre, 1710. 52. 1713. 111. Helmont de hydrope. Garengot, I. 405; Ed. med. ess. I. 242; defence of Freind. Hofm. suppl. II. ii. Baglivi pr. m. I. ix. p. 81. Wepf. obs. 117, 630, 853. Werlhof opp. III. 749. 885. Dover's leg. Maloet, Ac. Par. 1732. 350. Ed. med. ess. II. n. 22. IV. n. 30. V. n. 64; *Murray*, V. ii. 637; with a tumour. Younge, Fairfax, Phil. trans. Huxham's works. I. 274. D. Monro de hydrope. 8. Ed. 1753; Smellie thes. II. 191; On dropsy. 8. Lond. 1755. *Oliver*, Phil. trans. 1755. 46; friction with oil. Laurence de hydrope. 12. Lond. 1756. *Morgagni*, ep. 24, art. 18; ep. 38, de hydrope. Haen rat. med. IV. 77. 96, 125. V. 38, 53, 90.

VI. 61, 78, 81, 82, 87, 91. VII. 124. X. 102. XI. 41, 227, 242 294. XV. 68. *Mackenzie*, Med. obs. inq. II. 287. *Baker*, Med. trans. II. 235. Störk ann. I. 121, 129, 132, 145. II. 177, 245, 265. Lentin mem. 33; beob. 97, 100, 125, 142; fasc. 1. obs. 12, 25, 30; epid. 93, 97. Lysons obs. 42. Grant on fevers. Swieten, §. 1219..1240. Hautes. rec. II. Med. comm. Ed. II. 163; Bacher's pill, Extr. helleb. griiss, myrrh, griiss, card. ben. grj, to be tripled, if necessary; Planchon, II. 244. *Garden*, III. 330; ashes of tobacco; Musgrave, IV. 387. V. 194, 415. *Latham*, Phil. trans. 1779. 54. Milman de hydrope. 8. Vienn. 1779, Lond. 1780. Colin de lactuca virosa. 8. Vienn. 1780; Lond. med. journ. I. 263; Dunc. med. comm. XI. 37. *Wright*, Lond. med. journ. I. 266; cupr. sulf. *Campcr*, M. Soc. R. méd. VII. 46; *Barailon*, 157. Bennet, Scott, et Vize de hydrope; Webster m. pr. III. 1. *Ring*, Dunc. med. comm. VIII. 83; bark. *Mason*, Med. obs. inq. VI. 19; moderate doses of opium. *Grieve*, Dunc. med. comm. IX. 286; cathartics with diuretics; *Darbey*, 305; vapour bath; *Broughton*, 368. Hunter, Med. trans. III. 192; *Pearson*, 319; scarification; *Knight*, 368; with obstructed liver. Kühlewein de diureticorum noxa. 4. Gott. 1785. Stoll rat. med. I. 295. II. 158, 378. III. 55, 132, 133, 277, 300..; prael. I. 52..82, 299, II. 291. Tissot nerv. dis. Brisb. sel. cas. C. Darwin's exp. *Lond.* med. journ. VI. 55; digitalis, also *J. Warren*, 145. *Dick*, Dunc. med. comm. X. 207; E. Ind. *Cook*, Lond. med. journ. VII. 54. *Hall*, 157; medullary cells filled with a gelatinous fluid. *T. Hamilton*, Dunc. med. comm. XII. 370; cyder. Stark clin. obs. Fink. gallenkr. 73. Schwenkers über wassersucht. von Schmalz. 8. Dresd. 1787. Mezler von der wassersucht, 8. Ulm, 1787. *Lawson*, Dunc. med. comm. XIII. 299. *Wright*, Lond. med. journ. X. 149. cupr. sulf. with opium, a direct diuretic. Daniel system. aegrit. Demiani; Balding. syll. IV. Bald. kr. arm. 204. Willich, Balding. N. mag. VIII. 249. *Garnet*, Dunc. med. comm. XVI. 271; tobacco. Lettsom, M. Med. soc. Lond. I; *Farr*, II. 132; cantharides; *Lettsom*, 145; digitalis; *Winship*, 368; encysted; *Chamberlaine*, III. 561; guaiacum; sudorific,

cathartic, and diuretic; *Wright*, 563; digitalis. *Chamberlaine*, 571; friction with oil. Osiander beob. 114; frauenz. 123. Stack cas. Selle N. beitr. II. 17, 24, 39, 82. Weikard verm. schr. III. 145. Blizard. Sachtleben klinik der wassersucht in ihrer ganzen sippschaft. 8. Danz. 1795; with literature. *Grapengiesser* de hydrope plethorico. 8. Gott. 1795; Dunc. ann. 1796. 176; *Guthrie*, 1799. 482; sand as a cathartic. *Walker*, M. Med. soc. Lond. V. 449; 90 pounds; encysted and partly solid. Shuttleworth on dropsy. 8. Liverp. 1808; Ed. med. journ. V. 217. *Wells* and *Brande*. Tr. med. ch. kn. III. * *Blackall* on dropsies. 8. Lond. 1813. Ed. med. journ. IX. 334. Quart. Rev. IX. 466; particularly on the presence of coagulable matter in the urine. *Abercrombie*, Ed. med. rev. XIV. 163; bleeding, in an acute species: *Hunter*, 619. *Bostock*, Medicoch. tr. X. 77; diseased fluids. *Dempster*, Ed. med. journ. XVI. 64. bleeding: also *Lewins*, 359.

1. *Hydrops bulla.* Hydatis, Cull. syn. cxxxix, *Sauvages*, I. 165. Boerhave; hygroma. Deidier consult. Bulla, *Willan*, cut dis.

2. *Hydrops anasarca.* Cull. syn. lxxv. Hipp. int. aff. 521; aph. VI. n. 25. VII. n. 47. diet. ac. IV; ileus. 555. Aret. chr. II. Galen tum. ix; Glauc. II. iii. Orib. VII. xxxv. Cael. Aur. III. viii. Arant. tum. c. 66. Forest. chir. III. n. 1, 2, 4. Plater. obs. III. 669. Mauriceau, I. 446. Sydenh. pass. hyst. Hofm. III. 332. Junck. 87. Boerh. 1225, 791. Brown tum. Langlands de hydrope anasarca. 8. Ed. 1753; Smellie thes. II. 73. *Livingston*, Ed. phys. ess. II. 407; punctures. Anasarca, *Sauvages*, II. 470; Phlegmatia, 474; partial. *Cheston*, Phil. trans. 1780. 323, 578; thoracic duct obliterated; not much emaciation. Unthank de leucophlegmatia. 8. Ed. 1784; Smellie thes. IV. 428. *Dove*, Dunc. med. comm. XVIII. 379, and *Bishopric*, 382; tobacco. Theden N. bem. I. 175. *Abernethy*, Medicoch. tr. I. 27; with livor; the mitral valve ossified. *J. Pearson*, Princ.

surg. 293. *Gairdner*, Ed. med. journ. XIV. 479; after Scarlatina; leeches: *Steele*, XVI. 545.

A? Anasarca "serosa." Cull. syn. lxxv. 1; including phlegmatia lactea, Sauv. or phl. dolens of others, which is more properly an ecphyma. B? oppilata, Cull. 2; from pressure on the veins; as in Lower de corde 123, from tying the jugulars of a dog. C? A. exanthematica, Cull. 3; After eruptive fevers. D? A. anaemia, Cull. 4; after haemorrhage. E? A. debilium, Cull. 5. The first species seems to include all the others, which express only the varieties of the causes.

3. *Hydrops capitis.* Hydrocephalus, Cull. lxxvi Arant. tum. i. Forest. VIII. n. 29. Boerh. 1217. Ed. med. ess. III. 22. *Lecat*, Phil. trans. 1751. 267; tapped gradually without success. *Morgagni*, ep. 12, de hydrocephalo. Hydrocephalus exterior, *Sauvages*, II. 496. Med. trans. II. 18. *Remmett*, Med. comm. Ed. VI. 422; repeated punctures seemed to succeed, but there was scarcely any brain in the cranium. *Loftie*, Med. obs. inq. V. 121; with abscesses. *Tenghil*, M. Tur.; Med. facts. VII. 281. *Voze*, Medicoch. tr. IX. 354; tapped with success; probably external. See Apoplexia hydrocephalica, i, II. spinae.

4. *Hydrops spinae.* Hydrorachitis, Cull. syn. lxxvii. Barthol. ep. III. 149. Tulp. III. xxix, xxx. Ruysch obs. 34-6. Aylett, Rutty, Phil. trans. *Morgagni*, ep. 12, de hydrorachitide, art. 9... Hydrorachitis, *Sauvages*, II. 497. Okes on spina bifida. 8. Lond. 1810; Ed. med. journ. VII. 364. *A. Cooper*, Medicoch. tr. II. 322; successfully treated both by bandages and by cautious and repeated punctures. *Vacca*, Ed. med. journ. XVII. 251; operation failed: *Brewerton*, 378; bilobate tumour.

5. *Hydrops oculi.* Caligo humorum? Cull. syn. xiii. 4. Morand, Ac. Par. 1723. 45. Boerh. morb. oc. II. v. Mau-

chart; Haller disp. chir. I. Maitre Jan. II. vi. St. Yve, II. i. *Layard?* Phil. trans. 1758. 747. Exophthalmia hydropica, *Sauvages*, I. 173; Amblyopia hydrophthalmica, 744; Ophthalmia tenebricosa, II. 64. Cheston's obs. Callisen inst. chir. 46. *Ford*, Lond. med. journ. I. 346; Med. commun. I. 409; a seton.

6. *Hydrops thoracis.* Hydrothorax, Cull. syn. lxxviii. Hipp. int. aff. 544; dis. II. 483; "dropsy of the lungs." Columb. anat. II. iii. Ballon. opp. I. 13. River. I. obs. 60. Barthol. hist. an. II. 7, 66. Tulp. II. xvi. Willis pharm. rat. II. i. 13. Duverney, Ac. Par. 1703. 197. Hofm. III. 337. Baglivi, 432. Boerh. 1219. *Alston*, Ed. med. ess. V. ii. 609; blood in the pericardium; *Simson*, 623; with ascites. Bergeron de hydrope pectoris. *Morant*, M. Ac. chir. II. 545; operation. *Morgagni*, ep. 10, art. 11; ep. 16, de respiratione laesa a thoracis aut pericardii hydrope; ep. 64, art. 5. Haen rat. med. V. 97, 111. VI. 86. *Moreland*, Phil. trans. 1766. 302; operation. Hydrothorax, *Sauvages*, I. 688. Marteau, Journ. Med. XXXII. *Med.* comm. Ed. I. 208, 248; the sudden waking observed by Baglivi not always present; Ruysch. Percival's essays. Stoll. prael. I. 79. Knebel de hydrothorace. 4. Witt. 1795; with literature. Maclean on hydrothorax. 8. Sudbury, 1810; Ed. med. journ. VI. 474: *Robertson*, X. 295: *Hall*, VIII. 303; diagnosis. *Henderson* and *Hennen*, Ed. med. journ. XVI. 529; paracentesis performed. See Remarks on palpitation.

A. H. vulgaris, Sauv.

B. H. mediastini, Sauv.

C. Encysted. H. pleurae, Sauv. Fairfax, Phil. trans. Haller opusc. path. obs. 14. Störck ann. I. 154. Stoll rat. med. I. 212.

D. H. pulmonis? See Morgagni, ep. 16, art. 33.

7. *Hydrops pericardii.* Hydrothorax (pericardii), Cull. syn. lxxviii. Hildan. obs. 19. Tulp. IV. 20. Hofm. suppl. II. ii. Stalpart. I. 36. Senac du coeur. II. 349. Ed. med. ess. V. 56, 58, 59. *Morgagni*, ep. 16; ep. 17, art. 14, 21, 25; ep. 38, art. 6, 10, 12. Hydrothorax pericardii, *Sauvages*, I. 692. Scarcely ever occurs alone. Hennen. Ed. med. journ. XVI. 542.

8. *Hydrops ascites.* Ascites, Cull. syn. lxxix. Hippocr. 559, 4th kind. Al. Trall. I. Hofm. III. 322. Junck. 87. Boerh. 1226. *Pringle*, Ed. med. ess. III. 378; discharge from the navel; *Monro*, IV. 428; from a steatomatous omentum; *Johnston*, V. ii. 640; from a tumour attached to the navel internally. *Guy?* Phil. trans. 1755. 34; fluid like honey; *Warrick*, 1756. 485; injecting claret. *Mackenzie*, Med. obs. inq. I. 146; *Pye*, II. 121; a viscid matter forced out by vomiting, after paracentesis. *Morgagni*, ep. 38, de hydrope ascite, peritonaei, et de aliis quos saccatos vocitant. *Fothergill*, Med. obs. inq. IV. 114; tapping early, Ascites, *Sauvages*, II. 498. †Med. comm. Ed. V. 181; blood. Med. trans. II. 17. *Scott*, Med. comm. Ed. VI. 440. *M'Lachlan*, Dunc. med. comm. IX. 360; purulent. *Watson*, Med. commun. I. 162; tapping the prolapsed vagina. *Willan*, Lond. med. journ. VII. 189; a discharge by the vagina. *Bishop*, Med. commun. II. 360; tapping the vagina; *Smyth*, 482; wounding the epigastric artery. This artery *never* is without the edge of the rectus muscle; a smaller one is sometimes at the edge, but its pulsations may be felt (B.) *Warner*, M. Med. soc. Lond. III. 588.

A. In the general cavity of the abdomen. Ascites abdominalis, Cull. syn. lxxix. 1; A, from an obstruction; B, from debility; C, from thinness of blood.

B. Confined in a cyst or sac. Ascites saccatus, Cull. syn. lxxix. 2; sometimes. Duverney, Ac. Par. 1703. 191;

Morand, 1722. 275. Gareng. I. 439. Glass, Phil. trans. Ed. med. ess. V. n. 63. *Morgagni*, ep. 38, art. 49, 67; ep. 65, art. 16. Haen rat. med. XI. 272, 309. *Lowdell*, M. Med. soc. Lond. III. 594. Balding. N. mag. X. 543.

1) Between the laminae of the peritonaeum. Tulp. IV. xliv. Stalpart, II. 28. Fairfax, Phil. trans. Jacquin, Med. obs. inq. I. 7; of 44 years standing. Morgagni.

2) At the epigastrium. Allen synops. 294. Garengeot chir. I. 435. Douglas. Haen rat. med. IV. 99. Morgagni. Hantes. rec. II.

3) In the omentum. Haen rat. med. IV. 95. Störck ann. I. 149.

4) In the kidney. *Martineau*, Dunc. med. comm. IX. 282. *Baillie's* engr. 137; spurious hydatids.

5) Resembling hydatids. Hipp. int. aff. 544. *Morgagni*, ep. 38, art. 35, 40, 41, 43, 71. Haen rat. med. V. 44. *Simmons*, Med. commun. I. 101. *Brown?* Dunc. med. comm. IX. 233; in the groin. *Macleay*, Ed. med. journ. II. 170.

9. *Hydrops ovarii.* Ascites saccatus (ovarii), Cull. syn. lxxix. 2. Werlhof opp. III. 771. Mead, Sampson, Sloane, Phil. trans. Ac. Par. 1739. 22. *Paisley*, Ed. med. ess. V. ii. 766. *Ledran* and others, M. Ac. chir. II. 431, 455; with scirrhi. *Morgagni*, ep. 47, art. 12. Mey; 212 pounds. Haen rat. med. VI. 38, VII. 117. XI. 281. *Martineau*, Phil. trans. 1784. 471. Stoll rat. med. VII. 86. Dunc. med. comm. VII. 1; *Johnson*, 269; X. 151. *French*, M. Med. soc. Lond. I. 234; with ascites. *Ford*, Med. commun. II. 123. *Baillie's* engr. 197; 203, in the Faloppian tube, which is often confounded with dropsy of the

ovarium. *Chevalier*, Medicoch. tr. II. 41. *Edwards*, Ed. med. journ. XIV. 351; affecting the head.

10. *Hydrops uteri.* Hydrometra, Cull. syn. lxxx. Hipp. diss. 515. Fernel. pathol. VI. 15. Vesalius de corp. hum. I. v. 9. Horst. opp. II. 266. Tulp. III. 32. IV. 45. Mauriceau, I. 74, 175. II. 148. Ruysch obs. n. 17. Duverney, Ac. Par. 1703. 189, 192. Belchier, Douglas, Turner, Phil. trans. *Morgagni*, ep. 38, art. 65, 66; ep. 39, art. 39; hydatids; ep. 65, art. 16. Hydrometra, *Sauvages*, II. 510; Ascites uterinus, 505; sanguineoüterinus, 508. Cheston's obs. Percival's essays. Baldinger N. mag. VI. 358, 468; hydatids. Kemmerich in Selle N. beitr. II. 153. Gregorini de hydrope uteri. 4. Hall. 1795.

B. In the tube. *Morgagni*, ep. 38, art. 66. *Baillie's* engr. 203. See hydrops ovarii.

11. *Hydrops scroti.* Hydrocele, Cull. syn. lxxxi. Boerh. 1227. *Jamieson*, Ed. med. ess. II. 252; bleeding after puncture; blood removed by the radical operation. Ledran operat. chir. *Monro*, V. 298. Douglas on hydrocele. *Bertrandi*, M. Ac. chir. III. 84. *Morgagni*, ep. 20, art. 24; ep. 21, art. 19; ep. 43, art. 16..24, 31..34. Pott on hydrocele. 8. Lond. 1767. Sharp operat. Oscheocele aquosa, hydatidosa, Malabarica. *Sauvages*, I. 169. *Sabatier*, M. Ac. chir. V. 670; radical cure. Else on hydrocele. 8. 1782. Dease on hydrocele. 8. 1782. Howard on hydrocele. 8. Lond. 1783; Lond. med. journ. V. 61; Seton; Tomlinson, VIII. 119. Keate's cases. 8. Lond. 1788. *Sparrow*, Lond. med. journ. IX. 109. *Maxwell*, Dunc. med. comm. XV. 399; subsiding by cold applications; fluid like blood and milk mixed; could be traced to no source after death. Delonnes on a hydrocele. 8. Par. 1791. Earle on hydrocele. 8. Lond. 1791-3; Dunc. med. comm. XVIII. 215. Else. Murray. Bell on hydrocele. 8. Ed. 1794; von Hebenstreit. 8. Leipz. 1795. *Hosack*, Dunc. ann. 1796. 306; injection, also *Farre*, Med. records, 182.

Baillie's engr. 175; 181, hydatidous. *Fletcher*, Ed. med. journ. XI. 452; absorbed suddenly. *Wood*, Medicoch. tr. IX. 38.

12. *Hydrops cacotrophicus.* Anasarca cacotrophica, W. Hunter on the diseases of seamen.

XLV. EMMYXIUM.

Mucous tumour.

A tumour containing a mucilaginous fluid.

The nature of the secretion of the part concerned must often determine the probable quality of the fluid.

1.	E. *articuláre.*	Swelling of a joint, with distension of its cavity. White swelling, or Hip case.
2.	E. *gan'glion.*	Swelling in the sheath of a tendon, containing a fluid.
3.	E. *subcutáneum.*	Encysted soft tumour under the skin.
4?	E. *celluláre.*	Of a cellular structure.
5.†	E. *hydatidéum.*	An encysted tumour deeply seated, sometimes containing detached sacs.

† Ecphyma polyposum, viscerale, xlviii. Carcinoma, xlix. Apostema pustula, c, 1.

1. *Emmyxium articulare.* Hydrarthrus, Cull. syn. cxl. Ed. med. ess. II. 464; *Monro*, IV. 302; sinovia and pus discharged. *Simson*, 306; purging and pumping hot water, together or alternately. *Warner*, Phil. trans. 1756. 452. Reimarus de fungo articulorum. Leyd. 1757. *Akenside*,

Med. trans. I. 104; blisters, calomel, and bark. Hydrarthrus, *Sauvages*, I. 166. *Orred* and *Percival*, Dunc. med. comm. VII. 315; perpetual blister. *Swediaur*, Lond. med. journ. I. 194. Haffner de hydrope articulorum. 8. Vienna; Dunc. med. comm. VI. 132. Stoll rat. med. III. 126, 133. *Lawson*, Dunc. med. comm. XVI. 342; " rheumatic." *Crowther*, Med. facts. IV. 157; caustics. *Ford* on diseases of the hip joint. 8. Lond. 1794, 1810. Russel on the knee joint. 8. Ed. 1802. Herdman on white swellings. 8. Ed. 1802; Dunc. ann. 1802. 180. Bayle, Journ. med.; Ed. med. journ. II. 401. Cooper on diseases of the joints. Lond. 1807; Ed. med. journ. V. 237. *Crowther* on white swellings. 8. Lond. 1808; Ed. med. journ. V. 229; *Robertson*, 432; corrosive sublimate: *Duncan;* VIII. 49; friction. See apostema, 1.

(† Rheumatismi, scrofulae symptoma.)

2. *Emmyxium ganglion.* Ganglion, Cull. syn. cxxxviii. Forest. III. n. 9. Heist. chir. c. 171. *Morgagni*, ep. 50, n. 19. Girard Lupiologie. Acrel chir. vorf. II. 196. *Dease*, Lond. med. journ. V. 172; a seton fatal; *Evans*, VIII. 134; opened. Richter wund. I. §. 503. Meier, Balding. N. mag. IV. 484. *Woodham*, Ed. med. journ. VI. 157; escharotics: *Burne*, XVII. 263; mistaken for aneurysm.

3. *Emmyxium subcutaneum. Paton*, Ed. med. ess. I. 212. *Bromfield* and *Ingram*, Med. obs. inq. IV. 371. *Ford*, Lond. med. journ. IX. 362; with a calculus. Loder über die balggeschwülste, von Jakobsen. 8. Leipz. 1793. *Cooper's* Essays, II.

B? Producing horny substances. *Parsons*, Phil. trans. 1755. 183; from a sheep's throat. *Parkinson*, M. Med. soc. Lond. IV. 391. *Home*, Phil. trans. 1791. 95.

C? In the orbit, from a tooth misplaced. See Deformitas. lxxix.

4. *Emmyxium cellulare.* Cystic sarcoma, Abernethy surg. obs.

5.† *Emmyxium hydatideum.* Scarcely distinguishable during life. Physconia externa hydatidosa, Cusson, *Sauvages*, II. 489. Cull. syn. lxxxii. Hippocr. fem. dis. Horst. V. obs. 33. Bonet. sep. grav. fals. obs. 3. §. 2, 3, 4, 11... med. sept. II. 313; liver. River. obs. ult. Schenk. III. n. 4. Tulp. II. xxxiv; mesenteric. Solenander. cons. 15, sect. 5. See parasitismus.

XLVI. EMPIMELIUM.

Fatty tumour.

A tumour containing a fatty substance.

1. E. *polysar'cia.* General.
2. E. *lipóma.* Circumscribed.

1. *Empimelium polysarcia.* Polysarcia, Cull. syn. lxxi. Fernel. cons. xiv. Forest. XXXI. Barthol. ep. II. 665. III. 402. Baglivi opp. 393. Catesby, Phil. trans. *Coe*, Ph. tr. 1751. 188; Bright, about 616 pounds. Latour, Journ. méd. 1757. Flemyng on corpulency. 8. Polysarcia, *Sauvages*, II. 467. *Baker*, Med. trans. II. 259. III. 309; Wood; would not be weighed. *Wade*, Med. obs. inq. III. 69. Ackermann, Balding. N. mag. VI. 489. Remarks on corpulence. 8. Lond. 1810; Ed. med. journ. VI. 491.

2. *Empimelium lipoma.* Physconia ab adipe subcutaneo, Cusson, *Sauvages*, II. 490. Cull. syn. lxxxii. Lupia steatoma, aliis lipoma, *Sauv.* I. 166. Adipose sarcoma, Abernethy. Galen tum. v. Aët. IV. iii. 8. Arant. tum. iii. Forest. III. n. 12. Bonet. med. sept. I. 636. II. 486. Tulp. II. xxxii, xxxiii; mesenteric. Brown tum. *Parsons*, Phil.

trans. 1757. 350. Lieut. comp. med. *Morgagni*, ep. 43, art. 37; steatocele; ep. 50, art. 22; natta... *Hanly*, Phil. traus. 1771. 131. Raum de lipomate. 4. Gott. 1787. *Lockhart*, Dunc. med. comm. XVII. 490. *Brodbelt?* M. Med. soc. Lond. VI. 232. *Bostock*, Ed. med. journ. II. 14; steatoid. *Crane's* case of steatoma, Ed. med. journ. IX. 209. *Cooper*, Medicoch. tr. XI. 440; weighed 38 pounds.

XLVII. ATHEROMA.

Pulpy tumour.

A tumour containing a mealy, pulpy, or curdlike substance.

1. A. *lúpia.*

1. *Atheroma lupia.* Lupia? Cull. syn. cxxxvii. Physconia externa lupialis, Cusson. *Sauvages*, II. 488. Cull. syn. lxxxii; Lupia meliceris, *Sauv.* I. 165. Galen tum. v. Aët. IV. i. 23. Arant. tum. iii. Severin. rec. abs. nat. IV. 277. Marchettis obs. p. 66. Brown tum. 208, 215. Graham, Phil. trans. old abr. IX. 187. Acrel, I. 257, 334; Comm. Gott. II. 1779. See Emmyxium subcutaneum, cellulare, xlv, Ecphyma medullare, xlviii.

XLVIII. ECPHYMA.

Solid tumour.

A solid tumour not acutely painful.

1. E. *exostósis.*	A bony tumour.
2. E. *ancylósis.*	An osseous union of two neighbouring bones.
3. E. *cartilagin'eum.*	A cartilaginous tumour.
4. E. *physcónia.*	A general softish tumour of a viscus or gland, completely occupying a considerable part of its substances.
5. E. *indurátum.*	A general tumour of a viscus or gland, of a stony hardness.
6. E. *clávus.*	A cuticular swelling. Corn.
7. E. *trichóma.*	A vascular thickening of the hair.
8. E. *verrúca.*	A permanent cutaneous swelling, with a texture distinct from that of the surrounding skin. Wart.
9. E. *pap'ula.*	A temporary local thickening of the skin, generally painful or itching. Pimple.
10. E. *oedemat'icum.*	An extensive hard thickening of the integuments.
11. E. *sarcóma.*	A circumscribed independent internal fleshy swelling, of a simple texture.
12. E. *superficiále.*	An excrescence attached to an exposed membrane.
13. E. *pol'ypus.*	A fleshy projection hanging within an internal cavity.

14. E. *glandulifor'me.* An unequal fleshy swelling, not accurately circumscribed.

15? E. *medulláre.* A soft tumour, resembling the brain in its texture.

16. E. *mix'tum.* A tumour consisting of a combination of heterogeneous substances.

† Rhachitis, lxii.

Ecphyma. *Morgagni*, ep. 50, de tumoribus. Abernethy's surgical observations on tumours. 8. Lond. 1804; Ed. med. journ. I. 90: Baron on tuberculated accretions. 8. Lond. 1819; XVI. 131. *Baron's* Illustrations. 8. Lond. 1822.

1. *Ecphyma exostosis.* Exostosis, Cull. syn. cxli. Severin. rec. absc. nat. IV. ix. 4. Freke, Phil. trans. *Houstet*, M. Ac. chir. III. 130. *Bordenave*, M. Ac. chir. V. 338. *Brady*, Phil. trans. 1760. 660; on the mesentery. *Morgagni*, ep. 50, art. 56..60. *Fearon*, Med. commun. I. 416; supposed a kidney. *Abernethy*, Tr. soc. med. ch. kn. II. 309. *Baillie's* engr. 207; on the cranium. *Lucas* and *A. Duncan*, Ed. med. journ. I. 405, 407; in the orbit. *Wilson*, Tr. soc. med. ch. kn. III. 115; cured by mercury. Cooper and Travers's essays. *Keate*, Medicoch. tr. X. 278; between the tables of the cranium; containing hydatids. *Hill*, XV. 523; from the loss of a tooth; fatal.

B. Loose bodies in a joint. See E. cartilagineum.

C. General extension of a bone. *Morgagni*, ep. 12, de hydrocephalo; ep. 68, art. 4. Stoll? rat. med. VII. 132. Noel, Journ. méd. LI. *Haxby?* Dunc. ann. 1799. 434.

2. *Ecphyma ancylosis.* Ancylosis, Cull. syn. cat. morb. omiss. Reimarus de fung. artic. *Morgagni*, ep. 69, art. 12. Contractura ankylosis, *Sauvages*,, I. 539. *Carmichael*,

Ed. med. journ. V. 185. Probably the union is sometimes cartilaginous only, although inflamed cartilages generally ossify.

3. *Ecphyma cartilagineum.*

A. Fixed. *Morgagni*, ep. 57, art. 14.

B. Loose, in a joint, sometimes partly bony. *Monro*, Ed. med. ess. IV. 305; *Simson*, 306. Reimarus de fung. artic. *Morgagni*, ep. 56, art. 10, 14, 23; ep. 57, art. 14; ep. 69, art. 12. *Ford*, Med. obs. inq. V. 329. Cheston's observ. *Cruikshank*, Med. comm. Ed. 342. Theden bem. I. 106. Paletta adv. chir. *Home*, Tr. soc. med. chir. kn. I. 229. Russell on affections of the knee joint. 8. Ed. 1802; Dunc. ann. 1802. 159. *Hey. Clark*, Medicoch. tr. V. 67; knee: *Coley*, 76; elbow.

4. *Ecphyma physconia. Morgagni*, ep. 48, art. 16. Durand, Journ. méd. XXX. 258.

A. Of an absorbent gland, when single or accidental. Bubo simplex, *Sauvages*, I. 145. For the salivary glands, see E. mixtum. † Bubo, Cull. syn. cxxxiii, includes an abscess.

B. Of the thyreoid gland. Bronchocele, *Sauvages*, I. 157. *Lane*, M. Med. soc. Lond. I. 217; burnt sponge. *Copeland*, Dunc. med. comm. XV. 380; camph. p. j. sp. amm. arom. oliv. ol. sing. p. iij, as a liniment. *Lettsom*, M. Med. soc. Lond. IV. 489. Gautieri de struma. 8. Vienn. 1794. *Baillie's* engr. 25. *Somerville*, Medicoch. tr. X. 16; Quadri's treatment, by seton. *Coates*, 312; tying the artery. *Hutchison*, Medicoch. tr. XI. 235; seton; partial success.

C? Pulmonary. Portal; Dunc. med. comm. X. 74. Rather dyspnoea.

D. Abdominal, extending to more than one viscus. Physconia megalosplanchna, Cusson, visceralis, *Sauvages*, II. 487. Cull. syn. lxxxii. Schenk. III. 9. Bonet. sep. de grav. fals. obs. 3: III. xxi. 35, 39, 44. add. obs. 80; med. sept. VII. 487. Salmuth, I. obs. 21. Bianchi hepat. I. 130. *Latham*, Med. trans. IV. 47; mistaken for diseased liver. See Cauma peritonitis.

E. Intestinal. Physconia intestinalis, Cusson, *Sauvages*, II. 484. Cull. syn. lxxxii. Giles, Healy, Phil. trans. *Morgagni*, ep. 39, art. 21. Fantoni obs. med. n. 11.

F. Peritonaeal. Meckel, Ac. Berl. 1753. 162; approaching to steatoma.

G. Omental. Physconia omentalis, Cusson, *Sauvages*, II. 485. Horst. opp. II. 525. III. 73; resembling steatoma. Bonet. sep. III. xxi. 33. Ruysch obs. 63. Reebman de omento. Portal, Ac. Par. 1771. *Dr. J. Hunter*, Med. trans. III. 250.

H. Mesenteric. Physconia mesenterica a, f, Cusson, *Sauvages*, II. 481, Cull. syn. lxxxii. Bonet. sep. fals. grav. obs. 3; III. xxi. 38, 87. Horst. opp. II. 184. Grüling. Haen rat. med. IX. i. §. 8.

I. Hepatic. Physconia hepatica, Cusson, *Sauvages*, II. 478. Cull. syn. lxxxii. Gal. loc. aff. V. vii. Forest. XIX. 4, 5, 6, 13, 20. Horst. opp. II. 198, 440. Ballon. cons. III. 76. Barthol. ep. III. 8. Schenk, III. 33; parasitismus. Bonet. sep. grav. fals. obs. 3. n. 8, 9, 10; obs. 5; concretions. III. xviii. Willis pharm. rat. II. ii. 2. Bont. med. Ind. vii. Seger. Eph. Nat. cur. Dec. 1, ann. 4. obs. 142. Hofm. suppl. II. ii. Brown tum. Bianchi hepat. Verduc rach. *Morgagni*, ep. 36, art. 3... Haen rat. med. VI. ii. Gooch's observations. *Heberden*, Med. trans. II. 143. Portal;

Med. comm. Ed. I. 216; marrubium. Stoll rat. med. I. 290, III. 387. Starke clin. inst. 133. *Ja. Clark*, Dunc. med. comm. XIV. 355. Roederer morb. muc. 191, and Walter obs. anat. 53; parasitismus. See hepatitis.

K. Splenic. Physconia splenica, Cusson, *Sauvages*, II. 480, Cull. syn. lxxxii. Hippocr. int. aff. 521. Fernel. cons. xlii. Forest. XX. 1..4, 8..10. Ballon. cons. II. 90. Barthol. hist. an. IV. n. 60; epist. I. 254. IV. 47, 53. Schenk, III. ii. 91, 92. Bonet. sep. III. xxi. 34. Tulp. II. xxx. Haller disp. path. IV. n. 109. *Morgagni*, ep. 20, art. 52; ep. 36, art. 17, 18, 23, 29; ep. 39, art. 42. Chalmers. Lentin, II. obs. 21. *Garlick*, Lond. med. journ. V. 186. *Elliot*, Dunc. med. comm. XVII. 495. *Burrowes*, Trans. Ir. Ac. IV. 183; Med. facts. VII. 219. *Young*, Dunc. ann. 1801. 437; after a remittent; cured by cautery. *Baillie's* engr. 119; cartilaginous coat; 125. *Bree*, Medicoch. tr. II. 84; haemorrhoidal; cathartics useful.

I. Pancreatic. Perhaps cancerous. Forest. XXI. 1. Barthol. ep. I. 254; parasitismus. *Morgagni*, ep. 30, art. 11. Cheston's inq. app. n. 9. Maury, Journ. méd. LXV. 18. *Baillie's* engr.? 115; with calculi.

M. Renal. Physconia renalis, Cusson, *Sauvages*, II. 480, Cull. syn. lxxxii. Plater. obs. II. 449; River. IV. obs. 34; with calculi. Schenk, III. ii. 196. Bonet. sep. grav. fals. obs. 3. n. 7; III. xxi. add. obs. 27. *Morgagni*, ep. 40, art. 6; ep. 48. art. 16. Haller disp. path. n. 114. Pearson. Martineau, Dunc. med. comm. IX. 97. See E. mixtum.

N. Vesical. Bonet. sep. III. xxi. add. obs. 23. *Morgagni*, ep. 39, art. 33. Phillips. See R.

O. Prostatal. See ecphyma induratum.

P. Testicular. Sarcoma scroti, sarcocele Graecorum, *Sauvnges*, I. 154. Forest. XXVII. 23. Goulard. Brown tum. 352. Heister chir. c. 121, 125; Wahrn. II. *Barry*, Ed. med. ess. IV. 30; caustics and turbith mineral; *Monro*, V. 325. *Morgagni*, ep. 43, n. 38. Haen rat. med. VI. iv. *Pott* on hydrocele. Sharp crit. inq. *Vaughan?* Med. obs. inq. III. 152; rather scrotal. Warner on the sarcocele. Lond. 1774. *Schotte*, Phil. trans. 1783. 85. *Hamilton*, Lond. med. journ. IV. 172; cicuta. *Gourlay*, Dunc. med. comm. IX. 336; encysted. *Hounsfield*, Lond. med. journ. VII. 247; electricity.

Q. Uterine. Physconia uterina, Cusson, *Sauvages*, II. 481; Cull. syn. lxxxii. Bonet. sep. grav. fals. obs. 2. n. 5, 6, 7. *Clarke*, Tr. soc. med. ch. kn. III. 298.

R. Ovarian. Physconia ab ovario, Cusson, *Sauvages*, II. 481, Cull. syn. lxxxii. *Monro*, Ed. med. ess. V. ii. n. 74. *Morgagni*, ep. 39, n. 37, 39. † Bland, Med. comm. Ed. II. 48; a foetus. Pulteney, M. Med. soc. Lond. II. 23. *Abernethy*, Medicoch. tr. I. 35. *Phillips*, Medicoch. tr. IX. 427; with a tooth and hair. See hydrops ovarii; the diseases being often mixed and undistinguishable; see also ecphyma mixtum.

5. *Ecphyma induratum.* Scirrhus, Cull. syn. cxxxi. Physconia externa scirrhodea, Cusson, *Sauvages*, II. 489, Cull. syn. lxxxii. Galen simpl. med. V. ix; tum. ix; method. XIV. iv; Glauc. II. iii. Oribas. VII. xxxiv. IX. 60. Aët. IV. iii. 3. Fernel. cons. lxvi. Forest. chir. IV. 1... Falopp. opp. II. tr. 9. Blas. obs. vi. Brown tum. 132. Acrel. I. 323.

A. Of a gland. Scirrhus lupia, *Sauvages*, I. 144. *Robertson* and *Stuart*, Ed. med. journ. VI. 442.

B. Of the viscera. Fabr. Hildan. II. 45. Physconia polysplanchna *a*, *Sauvages*, II. 486.

C. Of the mesentery. Riolan, anthrop. II. xxvi. *Morgagni*, ep. 39, n. 2; rather mixed. Physconia mesenterica *c*, *Sauvages*, II. 481.

D. Of the liver. See E. physconia 1. Physconia hepatica *a*, *Sauvages*, II. 478.

E. Of the spleen. Bonet. sep. ventr. tum. obs. 34. n. 3.

F. Of the prostate. *A. Fothergill*, M. Med. soc. Lond. I. 202. *Baillie's* engr. 165; "not ulcerating, therefore not cancer." *Home* on diseases of the prostate. 8. Lond. 1811.

G. Of the uterus. *Baillie's* engr. 187; "intersected by membranes," like all other hard swellings, "but not ulcerating;" 189, circumscribed tubercles of the same kind, but whiter, more properly sarcomatous.

H. Of the ovarium. *Ledran* and others, M. Ac. chir. II. 431. *Baillie's* engr. 199; not suppurating. Perhaps rather physconia.

6. *Ecphyma clavus.* Clavus, Cull. syn. cxxxvi, Aët. IV. ii. 82. Arant. tum. c. 69. Forest. chir. IV. 12. Brown tum. Albin. annot. acad. *Morgagni*, ep. 50, n. 61. Condyloma clavus, *Sauvages*, I. 154. Camper sur la meilleure forme des souliers. Laforest Kunst die füsse zu besorgen, von Hofmann. 8. Leipz. 1793. *Carlisle*, Med. facts. VII. 29. Lion on spinae pedum. 8. Ed. 1802.

B. Horns. Barthol. hist. an. I. 78; act. Hafn. III. 67. Ash, Baker, Wray, Phil. trans. *Morgagni*, ep. 65, n. 2. *Home*, Ph. tr. 1791. 1. See Emmyxium subcutaneum.

7. *Ecphyma trichoma.* Trichoma, Cull. syn. xc. Erndtel Varsov. illustr. Juch de trichomate. Stabel de plica. Hall. 1724. Bachstrom de plica. Copenh. 1725. Baker, Hain, Phil. trans. Trichoma, *Sauvages*, II. 603. Alibert. *Kerckhoffs*, Med. tr. VI. 27.

8. *Ecphyma verruca.* Verruca. Cull. syn. cxxxv. Oribas. VII 43. Arant. tum. c. 31, 74. Forest. chir. IV. 10, 11. *Monro*, Ed. med. ess. V. ii. 197. Verruca, *Sauvages*, I. 155. † *Gardiner*, Ed. phys. ess. III. 395; against caustics for syphilitic warts, savine cures them. Richter wund. I. 421. † Dease, Med. comm. Ed. IV. 340; syphilitic.

9. *Ecphyma papula.* Sometimes contains a little fluid which turns to a crust. Phlogosis phlegmone, Cull. syn. vii. 1. Papula, *Sauvages*, I. 131. *Willan*, cut. dis.

10. *Ecphyma oedematicum.*

A. Phlegmatia lactea. Levret, M. Ac. chir. Journ. méd. 1759, *Sauvages*, I. 475. White on a swelling, 8. Lond. 1784, Manch. 1792, 1801; Lond. med. journ. V. 50. Trye on a swelling of the lower extremities. 8. 1792. Hull on phlegmatia dolens. 1800. *Sankey*, Ed. med. journ. X. 402.

B. *Lettsom*, M. Med. soc. Lond. II. 185; of the tongue and lips; agrees with the phl. lactea in being terminated at the middle line.

C. Oedema simplex durius. *Pearson* princ. surg. 306.

11. *Ecphyma sarcoma*, and sometimes ecphyma in general. Sarcoma, Cull. syn. cxxxiv. Physconia ab excrescentia, Cusson, *Sauvages*, II. 491, Cull. syn. lxxxii. Forest. chir. III. 7. Plater. obs. III. 661. Barthol. hist. an. III. 40; epist. II. 725. *Morgagni*, ep. 50, n. 19. Sarcoma natta, *Sauvages*, I. 153; generally pendulous. Acrel I. 475

Eason, Med. comm. Ed. IV. 82; discussed by lightning. *Turnbull*, M. Med. soc. Lond. III. 558; moveable, "therefore encysted;" cured by electricity. Vascular sarcoma, *Abernethy* on tumours.

A. In a nerve. *Home*, Tr. soc. med. ch. kn. II. 152; part of the nerve to be removed with the tumour. Perhaps the subcutaneous tubercles of some authors belong to this variety. See Phymatosis mollusca, and *Windsor*, Ed. med. journ. XVII. 261.

B. In the head. *D. Monro*, Med. trans. II. 325; piercing the cranium.

C. In the eye. *Ford*, Med. commun. I. 95; brain diseased. See hydrops oculi, xliv.

D. Of the gums or mouth. Stalpart. I. n. 17. M. Ac. chir. V. 372. Bücking, Balding. N. mag. II. 270; from the socket of a tooth.

E. Of the tongue. *Lamalle*, M. Ac. chir. V. 513. *Clanny*, Ed. med. journ. I. 317; protruded. *Atkinson*, II. 318; calomel and cicuta.

E. 2. Of the tonsils. *Chevalier*. Medicoch. tr. III. 80; ligature.

E. 3. Of the face and neck. *Goodlad*. Medicoch. tr. VII. 112; carotid tied: VIII. 582; relapsed.

F. Of the larynx or trachea. *Sherwin*, Dunc. med. comm. VII. 330. *Smyth*, Med. commun. II. 476; after fever, causing suffocation.

G. Of the oesophagus. *Baillie's* engr. 49.

H. In the neck. *Simson*, Ed. med. ess. V. 408; after bleeding in the jugular vein.

I. About the abdomen. *Davidson*, Dunc. med. comm. XV. 391. *Pulteney*, M. Med. soc. Lond. II. 261, 512. Fisher, Amer. acad.; Lond. med. journ. VII. 287.

K. Of the pelvic viscera. Bladder; *Baillie's* engr. 153; spongy. Corpus cavernosum; *Peyronie*, M. Ac. chir. I. 425. Testis; *Lawrence*, Ed. med. journ. IV. 257: *Earle*, Medicoch. trans. III. 59; with diseased brain. Scrotum; *Warner*, M. Med. soc. Lond. III. 590: *Corn*, Tr. soc. med. chir. kn. II. 257. Labia; Acrel, I. 475.

L. Of the hands or feet. Haygarth's clinical history. 8. Lond. 1805. Ed. med. journ. I. 479; nodosities.

M. Of the thigh. *Hall*, Med. comm. Ed. I. 89. Fungous.

N. Of the leg. *Ed.* med. ess. I. 234.

12. *Ecphyma superficiale.* Principally Caligo corneae, Cull. syn. xcii. 2.

A. Albugo. A whitish spot on the cornea: when slight and semitransparent, Nephelium. Leucoma nephelium, *Sauvages*, I. 125; albugo, 126; Caligo a nephelio, a leucomate, 726.

B. Staphyloma. A thick prominent tumour on the cornea. The staphyloma of Sauvages, I. 165, 176, 728, II. 69, is described rather as a prominence of the cornea from distension, but not uniformly. *Bird*, M. Med. soc. Lond. IV. 105; "chemosis," which is generally understood to originate from violence. *Lyall*, Ed. med. journ. VII. 6; conical cornea, or "staphyloma pellucidum conicum.

C. Pterygium. A triangular excrescence extending from the cornea towards the angle of the eye. Pterygium, *Sauvages*, I. 156; Caligo a pterygio, 728.

D. Encanthis. An excrescence from the caruncle. Sarcoma encanthis, *Sauvages*, I. 154; Caligo a sarcomate, 727.

E? Crithe, chalazium. Of the eyelids. Hordeolum grando, chalazium, *Sauvages*, I. 157. Heist. chir. c. 43.

13. *Ecphyma polypus.* Sarcoma? Cull. syn. cxxxiv.

A? Within a joint. Fungus articulorum. Sagar. Brown tum. 389. Pott on palsy. Reimarus de fungo articulari. Cheston's observations. B. Bell's surg. and ulc. Med. comm. Ed. V. 310. Muller de fungo articulari. Gott. 1780.

B. Of the nostrils. Dalbis, Journ. méd. 1759. *Morgagni*, ep. 14, n. 17. Sarcoma narium, *Sauvages*, I. 153; Dyspnoea polyposa, 661; Anosmia a polypo, 750. Mauchart. Ruysch. Palfin. Meeckren. Weber de polypo narium. 4. Altdorf, 1792; much praised by Rothe. *Robertson*, Ed. med. journ. I. 410; an instrument. Whateley's cases of polypi. 8. Lond. 1805. Ed. med. journ. I. 465. *Liston*, XVII. 347; antrum.

C. In the pharynx. *Dallas* and *Monro*, Ed. phys. ess. III. 525. Schmiedel de polypo oesophagi. 4. Leipz. 1762.

D. In the bladder. *Baillie's* engr. 151. Probably never distinguishable during life.

E. On the testis. *Wardrop*, Ed. med. journ. III. 421.

F. Of or about the uterus, Sarcoma cercosis Aëtii, *Sauvages*, I. 153. Levret, M. Ac. chir. III. 518. *Fielding*, Med. comm. Ed. IV. 228. *Mem.* Med. soc. Lond. V. 14. *Baillie's* engr. 191. In the vagina; *Paterson*, Dunc. med. comm. XX. 298. At the end of the urethra; *Hughes*, Med. facts. II. 26. In the urethra; *Jenner*, Lond. med. journ. VII. 161; ligature. *Den-*

man on the polypus of the uterus. Lond. 1801. *Denman*, Tr. soc. med. ch. kn. III. 308; *Clarke*, 321; cauliflower excrescence.

14. *Ecphyma glanduliforme. Pringle*, Ed, med. ess. II. 324; in the oesophagus, impeding deglutition.

A. Pancreatic sarcoma, Abernethy.

B. Mammary sarcoma, Abernethy.

C. Tubercular sarcoma, Abernethy. *Longstaff*, Medicoch. tr. IX. 297.

15? *Ecphyma medullare.* Medullary sarcoma, Abernethy. *Baillie*'s engr. 177? pulpy testicle. More strictly belongs to Atheroma.

† Carcinoma spongiosum.

16. *Ecphyma mixtum.* More resembling ecphyma than any other tumour. Barthol. III. obs. 6; fatty and hard substances. Huldenreich, Eph. Nat. cur. Dec. 1. ann. 6, 7. p. 321; hard and fleshy. Haller disp. path. n. 114; fleshy and encysted; V. 256; hard substances with hydatids. *Dufouart*, M. Ac. chir. I. 271; hard and almost bony. *Monro*, Ed. med. Ess. V. ii. 770; mucososteatomatous ovarium; belonging rather to E. physconia. *Goodwin*, Lond. med. journ. VI. 292; hair with a honey like substance. Warren, Amer. Ac.; Lond. med. journ. VII. 298; hair. *Pole*, M. Med. soc. Lond. III. 546; salivary glands; of all kinds. *Baillie's* engr. 199; ovarium, with fat, hair, and teeth; not a conception. *Pearson*, Med. obs. inq. VI. 236; kidney. *Gairdner*, Ed. med. journ. XVII. 406; abdominal.

† Looseness of the skin, Tulp. I. 57, is too little understood to be properly classed.

XLIX. CARCINOMA.

Cancer.

An uneven tumour, with sharp lancinating pains, tending to ulceration.

1. C. *scirrhósum.* Hard. Cancer.
2. C. *spongiósum.* Spongy, and readily bleeding. Bleeding cancer.

† Ecphyma medullare, xlviii. 15.

1. *Carcinoma scirrhosum.* Cancer, Cull. syn. cxxxii. Ballon. I. 43; cons. III. 26. Tulp. I. 47. Goudron des cancers. 12. 1700. Boerhaave on cancers. *Love*, Ed. med. ess. V. 95; guaiacum. Barton, Phil. trans. *Ledran*, M. Ac. chir. III. 1. Louis sur le virus cancereux. 12; M. Ac. chir. III. 88; *Civadier*, 511; removal. *Morgagni*, ep. 50. n. 4, 47. *Colebrooke*, Phil. trans. 1765. 271; hemlock not a cure. Mare de cancro et spina ventosa. 8. Vienn. 1767. *Akenside*, Med. trans. I. 64. Cancer, *Sauvages*, I. 148; Carcinoma, II. 547; ulcerated. *Nicolson*, Med. obs. inq. IV. 358; hemlock and carrot poultice. Gooch med. surg. obs. Hill's cases; 8. Ed.; Med. comm. Ed. I. 126; for extirpation. Richter Comm. Gott. II.; Lond. med. journ. II. 363? Febure on cancers. André on hemlock in cancer. Justamond. *Douglas*, Med. obs. inq. V. 113; hemlock. Hopkins de scirrho et carcinomate; Webster m. pr. III. 120. Ronnou, Swed. tr.; Lond. med. journ. III. 146; arsenic. *R. White*, Lond. med. journ. V. 70. *Crawford*, Phil. trans. 1790. 891. *Fearon*, M. Med. soc. Lond. II. 473; vegetables and leeches. Fearon on cancers. 8. Lond. 1790. Hamilton on scrofula, cancer and rickets. 12. 1791. * *J. Pearson* on cancerous complaints. 8. Lond. 1793; great

abstinence seems to have succeeded: Pouteau suggests abstinence, Oeuvr. posth.; Med. commun. II. 121. Ewart on cancer. 8. 1794; carbonic acid. *Bishoprick*, Dunc. med. comm. XIX. 257; a case extremely like cancer cured by mercurial and antimonial pills, taken twice a day for 20 weeks. Whistling Kurmethoden des offenen krebses. 8. Altenb. 1796. Adams on cancer. 8. Lond. 1801. Kentish on cancer. 8. Dubl. 1802. Carmichael on carbonate of iron in cancer. 8. Dubl. 1806, 1809; Ed. med. journ. II. 372; VII. 232. Pearson princ. surg. 222. *Livingstone*, Ed. med. journ. I. 163; removed by scurvy. S. Young on cancer. 8. 1805, 1816. *Home* on cancer. 8. Lond. 1805; Ed. med. journ. I. 352. *Queries* on cancer; II. 382; Denman. W. Thomas on scirrhi and cancer. 8. 1805. Lambe's reports. 8. 1809. Johnson on cancer. 8. Lond. 1810; Ed. med. journ. VII. 363; a prize essay. Howard on cancer. 8. 1811. Metzger. *Langstaff*, Medicoch. tr. IX. 297; cases. *Butter*, Ed. med. journ. XIV. 498; failure of compression.

A. Of the eye. Saint Yves, II. i. cancer palpebrarum, vi. *Spry*, Phil. trans. 1755. 18; Daviel, 186. Exophthalmia cancrosa, *Sauvages*, I. 174; Ophthalmia cancrosa, II. 67. *Hayes*, Med. obs. inq. III. 120.

B. Of the face. Not uncommon, but seems to differ from other cancers in being more curable by arsenical caustics.

2? Cancerous pain. Fothergill, Med. obs. inq.; Works, II. 164. Blunt, Lond. med. journ. Selle N. beitr. I. 32.

C. Of the nose. *Ed.* med. ess. III. 299? with deformitas.

D. Of the lip. Timaeus cas. p. 71. Acrel. I. 55.

E. Of the mouth. *Bacon*, Med. comm. Ed. II. 296; cured by leeches.

F. Of the tongue. Bresl. samml. 1724; caustic. Dent, Phil. trans.

G. Of the pharynx or oesophagus. *Taylor?* Ed. med. ess. II. 325. *Simmons* and *Watson*, Med. commun. I. 228; contracted and ulcerated. *Cooper?* Med. records, 86; obstructing the thoracic duct. *Kitson*, Ed. med. journ. III. 401; pharynx.

H. Of the stomach. *Taylor.* Camillis, Phil. trans. *Jo. Sims*, Med. commun. I. 421. *Smyth*, 427. *Morris*, Med. obs. inq. VI. 408; pylorus. Pezold von verhärtung des untern magenmundes. 8. Dresd. 1787. *Loftie*, Lond. med. journ. XI. 17; Graves, 343. *Baillie's* engr. 59. 63. *Cooke*, Ed. med. journ. 144: *Holmes*, VIII. 151. Chardel Monographie. Par. 1808; Ed. med. journ. VIII. 497: *Paxton*, XV. 328.

I. Of the intestines and rectum. *Lettsom?* M. Med. soc. Lond. II. 308. *Burrell*, Ed. med. journ. IX. 321; from bristles swallowed: *Hill*, X. 299.

K. Of the breast. Forest. XVII. 26. 27; chir. IV. 6. *Monro*, Ed. med. ess. V. 410. *Fagel*, M. Ac. chir. I. 681. *Morgagni*, ep. 50. n. 49. Mastodynia cancrosa, *Sauvages*, II. 129. Lerche de cancro mammarum. 4. Gott. 1778. Camper, Geneesk. cabinet. *Fearon*, Lond. med. journ. IV. 406; *Hughes*, X. 40. North on cancers in the breast. 8. 1806. See Phymatosis vitiligo.

K. 2. Of the skin of the abdomen. *Norris*, Ed. med. journ. XVI. 562; might be called an ecphyma, or a phymatosis.

L. Of the penis. Ruysch obs. 30. *Morgagni*, ep. 50. n. 50. *Mackell*, Ed. med. journ. IV. 50; extirpated. Home on cancer.

M. Of the testis. Baillie's engr. 181. *Livingstone*, Ed. med. journ. I. 163.

N. Of the scrotum. *Hall*, Lond. med. journ. VIII. 81.

2? Chimneysweeper's cancer. Probably a distinct disease, though difficult to be defined. Pott's surg. obs. Simmons on lithotomy, and on the chimneysweeper's cancer. 1808.

O. Of the uterus. Forest. XXVIII. 46, 47. Ballon, I. 96. Mauriceau. Tralles de opio, I. 54. Astruc. III. vii. Hysteralgia cancrosa, *Sauvages*, II. 122; Leucorrhoea cancrosa, 399. *Lettsom*, M. Med. soc. Lond. V. 18. *Rutter?* Ed. med. journ. IV. 168; hysteralgia. *Salter*, Ed. med. journ. IX. 142. *Osiander*, Gött. Anz. Ed. med. journ. XII. 286; extirpated in nine cases with success; once a second time.

† Of the pancreas. See Ecphyma physconia.

2. *Carcinoma spongiosum.* Wardrop on fungus haematodes. 8. 1809; Ed. med. journ. VI. 209. Hey? *Wishart*, Ed. med. journ. VII. 48: *M'Kechnie;* 160. *Langstaff*, Medicoch. tr. III. 277; VIII. 272; *Lawrence*, 306. *Renton*, Ed. med. journ. XV. 174.

L. APOSTEMA.

Abscess.

A collection of pus in a confined cavity.

Abscess might without impropriety be classed as a sequel of inflammation; but since the inflammation frequently escapes observation, it is more natural and convenient to consider its immediate nature only.

1. A. *pus'tula.* Not extending below the skin.
2. A. *inter'num.* Of any internal soft part.
3. A. *cariósum.* Of a bone or joint.

APOSTEMA. Apostema, Phlogosis sequela, Cull. syn. vii.

1. *Apostema pustula.* Might perhaps be more properly classed with papula, as an ecphyma.

A. Phlyzacium. On a hard red base, succeeded by a dark scab.

B? Psydracium. A minute pustule, slightly elevated, ternating in a laminated scab, discharging, after it has burst, a watery fluid. Phlyctaenae, Sauv. I. 131. II. 70, seem to be of the same nature, but larger.

C. † Achor. Containing a fluid like honey; Favus or cerium when larger.

D. Phlyctis. The liquid pearl coloured, the base slightly inflamed. Hidroa. Boa. Sudamen. Miliaria.

E. † Furunculus. A boil, the central part resembling dried pus. Forest. obs. chir. I. 9. Mursinna beob. II. 89.

† See Phlysis.

2. *Apostema internum.* Apostema, *Sauvages*, I. 166. Galen tum. xiii; Glauc. II. vi; meth. heal. XIV. xii. Forest. chir. VII. 1; with worms. Horst. opp. II. 449, 453. Severinus de recondita abcessuum natura. 4. Frankf. 1643. Hofm. suppl. II. ii. Bagliv, pr. m. I. ix. Wepf. obs. 942, 877. *Watson*, Dunc. med. comm. XI. 317; seton.

A? Under the integuments. Oedema purulentum, Pears. princ. surg. 326.

B. In the brain. Ed. med. ess. V. 53. Haen rat. med. II. *Morgagni*, ep. 14, n. 3, 5. Med. comm. Ed. II. 180; discharge from the ear. Stoll prael. 149. Richter N. comm. Gott. II. *Home*, Tr. soc. med. ch. kn. III. 94; from an injury: *Brodie*, 106. *Denmark*, Medicoch. tr. V. 24.

C. In the throat. *Wauch*, Ed. med. ess. I. 274; in the oesophagus, after cynanche, causing convulsions. *Baillie's* engr. 25; thyreoid gland.

D. About the thorax. Ed. med. ess. I. n. 26; communicating with the liver. *Kite*, Med. comm. II. 46; and abdomen. *Farquharson*, M. Med. soc. Lond. III. 123.

1) Of the breast. Swieten comm. §. 1337. *Pears.* princ. surg. 77.

2) Empyema. Hippocr. dis. II. 482. Willis pharm. rat. II. i. 10. Bellin. morb. pect. *Jamieson*, Ed. med. ess. V. 422. *Warner*, Phil. trans. 1752. 407. 1753. 270. 1759. 194. *Morgagni*, ep. 22, n. 6, 10, 12; ep. 36, n. 4; with abscess of the liver. Stoll rat. med. VII. 215, 241. *Wastell*, M. Med. soc. Lond. V. 215; *Lettsom*, 293. *Renton*, Ed. med. journ. XVI. 516.

3) Confined to the pleura. Hipp. dis. II. 476.

4) Of the mediastinum. *Lond.* med. journ. II. 405.

5) Of the lungs. *A. Fothergill*, M. Med. soc. Lond. IV. 133; fatal without hectic. *Baillie's* engr. 37. *Hawthorn*, Ed. med. journ. XV. 513.

6) Of the heart. *Morgagni*, ep. 25, n. 19. Stoll rat. med. II. 385. Richt. chir. bibl. I. ii. 156.

E. In the abdomen. Greenhill, Phil. trans. *Monro*, Ed. med. ess. V. ii. 500; absorbed. Starke clin. inst. *Grant*, Lond. med. journ. XI. 138. *Ed.* med. journ. II. 129; muscles.

1) Of the general cavity. Stalpart. I. 481. Coste in Mead. *Morgagni*, ep. 40, n. 10. Hulme, Ed. med. comm. I. 25; IV. 378; V. 181? blood discharged by tapping. Osiander beob. 13. Selle N. beitr. I, II, III, passim; in puerperal fevers.

2) Of the stomach. Atkinson, Phil. trans. *Morgagni*, ep. 65, n. 2. Godot, Journ. méd. XL. Stoll rat. med. VII. 130.

3) Of the intestines.

4) Of the liver. Lancis. sub. mort.; from a wound in the head. Baglivi pr. m. I. ix. Short, Tyson. Phil. trans. *Jamieson*, Ed. med. ess. IV. 425. *Petit* jun. M. Ac. chir. II. 59; *Morand*, 69. *Morgagni*, ep. 36, n. 5, 6; ep. 51, n. 20; from a wound in the head; also Cheston's obs. *Oliphant*, Lond. med. journ. VII. 22; a blow. *Garnett*, Dunc. med. comm. XIII. 303; *Ja. Clark*, XIV. 317. *Sandeman*, Med. commun. II. 277.

5) Of the kidneys. Hipp. int. aff. 540. Galen loc. aff. VI. iii. Horst. opp. II. 214. Ballon. cons. II. 37, 38, 66. Douglas, Phil. trans. Stoll rat. med. VII. 64.

F. Of the loins. Collingwood, Dunc. med. comm. IX. 344. See A. cariosum.

G. About the pelvis.

1) In the groin. *Patch*, Ed. med. ess. V. 398; milky discharge. *Anderson*. Med. comm. Ed. II. 423; like hernia. *M'Keever*, Ed. med. journ. XVI. 367; ovarian.

2) In the rectum. *Faget*, M. Ac. chir. I. 389; *Foubert*, III. 473. See ulcus.

3) Of the bladder. Hofm. suppl. II. ii. Ford, Lond. med. journ. 1782. *Morgagni*, ep. 66, n. 2.

4) Of the scrotum and testis. Anderson, Med. comm. Ed. II. 425; pyocele. *Baillie's* engr. 177; testis.

5) Of the uterus. Forest. XXVIII. 48, 49. *Clarke*, Tr. soc. med. ch. kn. III. 560; not preceded by pain.

3. *Apostema cariosum.* Caries, Cull. syn. cli; Arthropyosis, xxv; sometimes. Forest. chir. VII. 11. Fabr. Hildan. IV. obs. 95. Amyand, Schlichting, Phil. trans. Werlhof opp. III. 715. *Monro*, Ed. med. ess. V. 334. *Morgagni*, ep. 55, n. 17. Caries, *Sauvages*, I. 242. Med. comm. Ed. V. 168. *Walker*, Med. trans. III. 25. Theden N. bem. II. 68. Park, Moreau, and Jeffray on the excision of carious joints. 8. Glasg. 1806; Ed. med. journ. III. 90. *Mayo*, Medicoch. tr. XI. 104; cartilages of joints. See syphilis.

A. Surrounded by an enlargement of the bone. Spina ventosa. See gangrene, which is a later stage.

B. Of the skull. *Wathen*, Med. obs. inq. V. 187. *Moyle*, Lond. med. journ. IV. 257.

C. Of the face. *Bordenave*, M. Ac. chir. IV. 329. V. 225; *Garengeot*, V. 259. *Abernethy*, Tr. soc. med. ch. kn. II. 309; antrum.

D. Of the nostrils. Ozaena. Anosmia ab ozaena, *Sauvages*, I. 750; Dysodia ab ozaena, II. 418. *Pearson*, princ. surg. 279.

E. Of the jaw. *Brandish*, Lond. med. journ. VIII. 296.

F. Of the spine, with curvature. Severin. rec. absc. nat. vi. *Vacher*, M. Ac. chir. IV. 596. *Bell*, Med. comm. Ed. III. 82. *Simmons*, Lond. med. journ. I. 271; *Munning*, VI. 358; caustics. Paletta adv. chir. Schmidt descriptio machinae. 8. Cassel, 1796. Earle on curved spine. 8. 1803. *Kymell.* Ed. med. journ. VII. 132: *Burroughs*, VIII. 419: *Armstrong*, IX. 385: Baynton on diseases of the spine. 8. Bristol. 1813; X. 389; horizontal posture. *Earle's* answer. XI. 35; caustics. Copeland on diseased spine. 8. Lond. 1815. Ed. med. journ. XI. 228: *Estlin*, XIII. 341. See curvatura, xxxix.

G. Lumbar and psoas abcess, generally from caries. Chomel in River. obs. 2. Perrault, Journ. méd. 1757. Lumbago apostematosa, *Sauvages*, II. 140; ab arthrocace, 141. Schoenmetzel de musculis psoa et iliaco suppuratis. Heidelb. 1776. *Maguire*, Lond. med. journ. VII. 14. *Smith*, Med. facts. IV. 138. *Pearson*, princ. surg. 102. *Latham*, Med. trans. IV. 329; causing abdominal tumour.

H. Of the bones of the pelvis only. *Ford*, Lond. med. journ. III. 80; affecting the bladder.

I. Of the hip joint. Fabr. Hild. I. obs. 71. River. II. obs. 53. Borell. II. obs. 86. Haen rat. med. I. xxxii. Ischias ex abscessu, *Sauvages*, II. 143. *Lawson*, Dunc. med. comm. XIII. 301; from a fall.

K. Of the upper extremity. *Bent*, Phil. trans. 1774. 353; excision of the head of the humerus.

L. Of the lower extremity. *Laing*, Ed. med. ess. I. 238; *Johnston*, V. 452. *Mackenzie?* Med. obs. inq. II. 299; separation; *Balfour*, IV. 1. *Smith*, Med. records, 53; supplied by ligament. *J. Pearson*, Med. commun. II. 95; taken for aneurysm.

LI. ULCUS.

Ulcer.

An open suppurating sore arising spontaneously.

1. U. *cutáneum.*	Confined to the skin.
2. U. *profun'dius.*	Extending into the soft parts below the skin.
3. U. *cariósum.*	Extending to a bone.

Ulcus. Cull. syn. cxlvi. *Monro*, Ed. med. ess. IV. 313; *Simson*, V. 388; separation of tendons. *Med.* obs. inq. I. 286; lime water; perhaps scrofula; *Whytt*, II. 213; sublimate; *Triguet*, 365; with sarsaparilla; *Rush*, IV. 367; wort. Ulcus, *Sauvages*, I. 240; Sinus, Fistula, 241. *Faure*, M. Ac. chir. V. 821; heat. B. Bell on ulcers. 8. Ed. Lond. 1787; Med. comm. Ed. IV. 277; *Dease*, V. 299; on extirpation. Underwood on ulcers. 8. Lond. 1783; Lond. med. journ. IV. 255. *Rait*, Dunc. med. comm. IX. 354; bark and wine. *Butini*, Lond. med. journ. VI. 404; gastric juice; *Hunczovsky*, X. 295; decoction of walnut. *Hooper*, M. Med. soc. Lond. II. 509; haemorrhage. Home on ulcers. 8. Lond. 1797; Dunc. med. comm. XVIII. 87; Ann. 1798. 45. Weber Helcologie, 8. Berl. 1792. *Home*, Tr. soc. med. ch. kn. I. 330. *Simmons*, Med. facts. VII. 77. *Baynton* on old ulcers. 8. Brist. 1797; Dunc. ann. 1798. 34; *Simmons*, 1797. 339; on Baynton. *Hammick*, Dunc. ann. 1797. 403; *Paterson*, 1798. 409; nitrous va-

pour. Whateley on ulcers. 8. 1799. Little on the contagious ulcer of the navy. 8. 1809. *Smith*, Ed. med. journ. IX. 287: cold applications.

† Helcosis, *Sauvages*, II. 619. See scrofula, lxiv.

† Varicose ulcers. See exangeia.

1. *Ulcus cutaneum.* Exulceratio, *Sauvages*, I. 241. *Earle*, Medicoch. tr. V. 96; VII. 411; contractions after ulcerations. Sore nipples; Underwood on ulcers, and Ed. med. journ. VII. 36; a shield.

2. *Ulcus profundius.* *Dewar* on sinuous ulcers. Medicoch. tr. VII. 482: *Welbank*, XI. 361. Sloughing phagedaena.

A. 0. Of the face. *Hall*, Ed. med. journ. XV. 547; gangrenous; in children.

A. Of the eye. *Ledran*, M. Ac. chir. I. 440.

A. 2. Of the nose. *Hall*, Ed. med. journ. XIII. 66.

A. 3. Of the ear. *Swan*, Ed. med. journ. XVII. 409; purulent discharge.

B. Of the mouth. *Watson*, Med. trans. III. 325; from transplanting a tooth; perhaps U. cariosum; also *Lettsom*, M. Med. soc. Lond. I. 330; one in 20 transplanted teeth occasions it, and 1 in 4 cases is fatal; and *Spence*, Lond. med. journ. X. 243. *Pearson*, princ. surg. 28; canker. *Lane*, Medicoch. tr. VIII. 201; tongue; arsenic.

C. Of the pharynx or oesophagus. *Garthshore*, Med. commun. I. 242.

D. Of the larynx. *Wathen*, M. Med. soc. Lond. I. 278; *Dyson*, IV. 390.

E. About the chest. *Reeve*, Ed. med. journ. I. 159; fungous sore of the breast.

F. About the abdomen. Fistula discharging chyle.) Morton phthisiol. I. x. Hofm. suppl. II. ii. Discharging bile.) Horst. opp. II. 11. Haen rat. med. X. 32. At the umbilicus.) Stalpart. I. 58.

G. About the rectum. Fistula. Majault, Journ. méd. XLI; Med. comm. Ed. III. 61; leaden wire. *Dillon*, Lond. med. journ. V. 392; caustic; *Savigny*, XI. 228; an instrument. *Mudge*, M. Med. soc. Lond. IV. 16. *Baillie's* engr. 77. Luxmore on strictures.

H. Of the rectum and urinary passages or vagina. Barthol. act. Hafn. II. 44, III. 40. Mauriceau II. 87, 90. *A. Fothergill*, Med. comm. Ed. II. 192, 194. *Garlick*, Lond. med. journ. V. 188. *Johnstone*, M. Med. soc. Lond. III. 542; Mitford, 600.

I. Of the bladder. *Lowdell*, M. Med. soc. Lond. III. 497. *Baillie's* engr. 139.

K. Of the urethra and perinaeum. *Petit*, M. Ac. chir. I. 619. *Gehagan*, Dunc. med. comm. XIV. 271. *Burt*, Dunc. ann. 1798. 354. *Baillie's* engr. 173. *Cooper's* Essay, II; filling up the orifice left, with a new piece.

L. Of the testis. *Ingham*, Med. obs. inq. II. 273; fistula. *Little*, Ed. med. journ. VIII. 440.

M. Of the uterus. Broughton de ulcere uteri. 8. Ed. 1755; Smellie thes. II. 305. *Baillie's* engr. 183; "malignant."

N. Of the legs. *Else*, Med. obs. inq. IV. 347; bandages. Underwood on ulcers. *Henderson*, Dunc. med. comm. XIII. 292. Rush, Med. inq. II; Dunc. med. comm. XX. 53. *Ed.* med. journ. I. 187; *Webb*, VI. 159.

3. *Ulcus cariosum.* See apostema cariosum, of which it is often a sequel: see also Gangraena.

LII. GANGRAENA.

Gangrene.

The death and consequent decay of a part of the body.

1. G. *spontánea.*	The circulation having been apparently uninterrupted.
2. G. *atroph'ica.*	The circulation having been interrupted.
3. G. *alopécia.*	Death and falling off of the hair.

1. *Gangraena spontanea.* Gangraena, post Phlogosin, Cull. syn. vii; without foetor; Sphacelus, post Gangraenam; fetid and "spreading." Galen tum. xi. Fabr. Hildan. passim. Lecat, Cowper, Phil. trans. Douglas on mortifications. 8. Lond. 1732; "quod cortex non sanat insanabile est." *Goolden*, Ed. med. ess. III. 35, *Paisley*, 43, *others*; IV. 47, and *Grindall*, Phil. trans. 1757. 379; bark. *Quesnay* de la gangrene. 12. Par. 1749. *Morgagni*, ep. 55, n. 24. *Wollaston* and *Bones*, Phil. trans. 1762. 523, 526, 529, 584. *Antrobus*, Med. obs. inq. II. 152. Gangraena, *Sauvages*, II. 614. *Aikin*, Med. comm. Ed. II. 417; threatened. *Berthe*, *Capdeville*, and *Lapeyronie*, M. Ac. chir. V. 381. 396, 404; gums. *Jussieu* and others, M. Soc. R. méd. I. 260; feu St. Antoine; See clonus raphania;

Jeanroi, V. 151. *Power*, Med. trans. III. 47; fermenting cataplasms. *Hamilton* and *Grant*, Lond. med. journ. V 75, 191. VI. 130; opium. *Watson*, Dunc. med. comm. XI. 323. *Luttrell*, M. Med. soc. Lond. I. 60; alkalis and acids separately; *Hubbard*, 462. *Brandish*, Lond. med. journ. VIII. 123. *Wilmer*, Dunc. med. comm. XIV. 302. *Latham*, Med. commun. II. 163. C. White on gangrenes with spasms. 8. Warringt. 1790; Lond. med. journ. XI. 167. *Church*, M. Med. soc. Lond. III. 529. *Paterson*, Med. facts. VIII. 111; gangrene of the stomach from lightning. Kausch Erfahrungen. *W. White*, M. Med. soc. Lond. IV. 74; omentum sphacelated, without fever. *Harness*, Tr. soc. med. ch. kn. II. 164; gastric juice to gangrenous sores. Neumann vom brande. 4. Vienn. 1801. Maunoir; Ed. med. journ. IV. 285; cornea. *Pearson* princ. surg. 114. *Wells*, Tr. soc. med. ch. kn. III. 360; extensive. *Marshall*, Ed. med. journ. IX. 449; in the arm after a stricture. *Kerckhoffs*, Med. tr. VI. 46: hospitals. See ulcers.

B. Exfoliations. *Quesnay*, M. Ac. chir. I. 293. *Cullam*, M. Med. soc. Lond. I. 194; cranium. *Loftie*, Lond. med. journ. IX. 57; jaw. *Edwards*, M. Med. soc. Lond. III. 555; sacrum. *Whateley*, M. Med. soc. Lond. I. 469; Med. commun. II. 386; tibia: Whateley on an affection of the tibia. 8. Lond. 1810; Ed. med. journ. VII. 362.

C. Surrounded by a swelling of the bone. Necrosis. Spina ventosa. See Apostema. Timmermann de spina ventosa. 4. Rint. 1765. *Mem.* Ac. chir. V. 355. Arthrocace, *Sauvages*, I. 242. Acrel II. 105, 110. Mezger opusc. acad. i. *Prousselin*, M. Soc. R. méd.; Lond. med. journ. VII. 263. *Weidmann* de necrosi. f. Frankf. 1793. *Russel* on necrosis. 8. Ed. 1794; Dunc. med. comm. XX. 182. Augustin de spina ventosa. 4. Hall. 1797; "exhibits great learning and diligence." Rothe.

2. *Gangraena atrophica. Morgagni?* ep. 55, n. 22; from contusion.

3. *Gangraena alopecia.* Oribas. VIII. 22..24. Aët. II. ii. 55. Fernel. cons. I. Forest. VIII. i. 2..8. XXXII. 25. Ballon. I. 166; with headache; cons. II. 17. Schenk, I. 8, 10; sometimes a native deformity; said to be unknown in eunuchs; Heist. wahrn. *Wells*, Tr. soc. med. ch. kn. II. 264; universal, without other disease. See Phlysis porrigo.

ORDER II. *EPIPHYMATA.* ERUPTIONS.

Turner de morbis cutaneis.

Lorry de morbis cutaneis. 2 v. 4. Par. 1757, 1777; H. Soc. R. méd. I. 98.

Plenck de morbis cutaneis. 8. Vienn. 1776.

Dimsdale de morbis cutaneis; Webster m. pr. III. 140.

Med. comm. Ed. V. 324; galium aparine.

Smyth, Med. commun. I. 191; lytta, ac. sulf. tinct. veratr. sometimes adding valerian.

Dunc. med. comm. XIII. 413; nitrate of mercury, for Ward's white drop.

Jackson dermatopathologia. 8. Lond. 1792; Dunc. med. comm. XIX. 95; general rather than particular.

Clarke, Trans. Ir. Ac. VI. 3; in infants.

Wedekind über die cachexie. 8. Leipz. 1796.

*Willan on cutaneous diseases. 4. Lond. 1798... Ed. med. journ. II. 56. V. 73.

Alibert Maladies de la peau. f. Par. 1806... Ed. med. journ. III. 448. V. 199. VI. 198.

*Bateman's Practical synopsis of cutaneous diseases. 8. Lond. 1813. Ed. med. journ. X. 81.

Bateman's delineations, 4. Lond. 1815.
Hall's classification. Ed. med. journ. XIII. 189: *Morison*, XVI. 525; friction.

I have thought it better to follow Dr. Willan's arrangement in this order, with very little alteration, than to attempt to introduce definitions and subdivisions more strictly methodical, the subject having been too little investigated to allow of our attempting perfect accuracy of classification. The numbers of the plates refer to his figures as completed by Dr. Bateman.

LIII. LICHENIASIS.

Pimples.

An eruption of red papulae, or acuminated pimples, not suppurating, but generally turning to scurf.

1. L. *stroph'ulus.* Wholly or partly of a vivid red, caused by some constitutional irritation in infants.
2. L. *adultórum.* In adults, usually of a less vivid red.

1. *Licheniasis strophulus.* Strophulus. Will.

A. Red gum. Str. intertinctus. Will. Vivid red: sometimes a few small vesicles. Pl. I.

B. White gum; generally surrounded by a red tinge. Str. albidus. Will. Pl. II.

C. Rank red gum, or tooth rash. Str. confertus. Will. Crowded, but not of a very vivid red. Pl. III. 1.

D. Patchy red gum. Str. volaticus. Will. Small circular patches. Pl. III. 2.

E. Smooth white gum; shining. Str. candidus. Will. Pl. III. 3.

2. *Licheniasis adultorum.* Lichen. Will. Herpes farinosus of some authors. Herpes simplex Sennerti? *Sauvages*, I. 132.

A. Mild pimpled rash. L. simplex. Will. Sometimes occurring in fevers as a scabies critica. Pl. IV. 1.

B. Bordered pimpled rash. L. circumscriptus. Will. Pl. V. 3.

C. Virulent pimpled rash; the pimples in clusters, inclined to suppuration, with diffused redness. L. agrius. Will. Pl. IV. 2.

D. Hair pimpled rash; at the roots of the hairs. L. pilaris. Will. See Emphragma pilare. Pl. V. 1.

E. Black pimpled rash; with petechiae. L. lividus. Will. Pl. V. 2.

F. Prickly heat; small bright red pimples, very transitory. L. tropicus. Will.

G. Wheal rash; in wheals like great bites, intensely itching. L. urticatus. Bateman.

† Exanthisma erythema D.

LIV. PRURIGO.

Itchings?

An eruption of pimples, not apparently inflamed, with a troublesome itching.

There is certainly some itching in some of the cases of Licheniasis; but in this genus the itching is a more prominent feature.

1. P. *mítis.* With well marked pimples, simply itching.
2. P. *formícans.* With a sensation of itching, creeping, tingling and burning.
3? P. *obscúra.* With scarcely any pimples.

1. *Prurigo mitis.* Willan. Pl. VI. 1.

2. *Prurigo formicans.*

A. In youth. Prurigo formicans. Will. Pl. VI. 2.

B. In old age. Prurigo senilis? Will. Pl. VI. 3.

3. *Prurigo obscura.* If no pimples have ever appeared, this disease becomes identical with the Autalgia prurigi-nosa, v.

A. Prurigo podicis. Will. Often from worms. *Lettsom*, M. Med. soc. Lond. III. 346. Sometimes idiopathic, in weak constitutions. B.

B? Pr. praeputii. Will. Rather from want of neatness. B.

C? Pr. urethrae. Will. From disease in the bladder: but sometimes in females removed by a bougie. B.

D? Pr. pubis. Will. Parasitismus. B.

E. Pr. pudendi muliebris. Will. Sometimes with aphthae or leucorrhoea. *Lettsom*, M. Med. soc. Lond. III. 346. *Wood*, Medicoch. tr. VII. 84: ulcerations, in children.

LV. LEPIDOSIS.

Scales.

An eruption of scales or crusts.

1. L. *pityríasis.* Patches of thin scales, not forming crusts, without fissures or excoriations. Dandriff.
2. L. *psoríasis.* Irregular patches, with a rough and chopped cuticle. Scaly tetter.
3. L. *lépra.* Circular patches of different sizes. Leprosy.
4. L. *ichthyósis.* The scales being harsh, dry, and almost horny.

1. *Lepidosis pityriasis.* Pityriasis. Will. Tinea furfuracea Sennert? See phlysis porrigo.

A. Pityriasis capitis. Will. Tinea furfuracea, T. asbestina? Alibert. In children or old persons; sometimes turning to Phlysis porrigo. Pl. XV. 1.

B. Red; the redness succeeded by scales. Pityriasis rubra, Will.

C. Coloured. Pityriasis versicolor. W. Pl. XV. 2.

D. Black. Pityriasis nigra. W. In Indian children.

2. *Lepidosis psoriasis.* Psoriasis. Will. Impetigo of many authors. Often syphilitic. Sulphureted alkali and bark. B.

A. Droplike. Ps. guttata. Will. Pl. IX. 1. Approaching to the character of lepra, but less regular.

B. Diffused. Ps. diffusa. Will. Pl. IX. 2. X. 1. 2. XIII. 1. Baker's itch, Pl. XI. Alibert, Pl. 13, 14.

C. Serpentine. Ps. gyrata. Will. Pl. XII.

D. Infantile. Ps. infantilis. Will. Often causing alopecia.

E. Ocular. Ps. ophthalmica. Will. About the eyelids.

F. Labial. Ps. labialis. Will. On the lips.

G. Praeputial. Ps. praeputii. Will. Often with phimosia.

H. Scrotal. Ps. scrotalis. Will. Sometimes following prurigo.

I. Palmary. Ps. palmaria. Will. Pl. XIV. Alibert Pl. 15.

K. Unguicular. Ps. unguium. Will.

L. Inveterate. Ps. inveterata. Will. Almost universal. Pl. XIII. 2.

3. *Lepidosis lepra.* Lepra. Will. Cull. syn. lxxxviii. Leprosy of the Greeks. Galen. tum. xiii : on the qual. of the juices. Forest. chir. IV. 9. Horst. opp. II. 325.

Willis pharm. rat. II. iii. 7. *Peyssonel?* Phil. trans. 1757. 38; in Guadaloupe. *Joannis?* Med. obs. inq. I. 201; in Provence; scales and tubercles. Lepra, *Sauvages*, II. 572. *Pulteney*, Phil. trans. 1772. 469; the oenanthe crocata, given instead of the sium, was beneficial. *Vidal?* M. Soc. R. méd. I. 161; Martigues. Schilling de lepra. 8. Leyd. 1777; Med. comm. Ed. V. 260. *Chamseru*, M. Soc. R. méd. V. 196; in France. *Davidson?* Med. facts. III. 61; from copper. *Falconer*, M. Med. soc. Lond. III. 368. Bonorden de lepra squamosa. 8. Hall. 1795. Rothe, med. litt. 507? *Chisholm*, Dunc. ann. 1800. 395; nitric acid. See phymatosis. Dulcamara, sometimes arsenic. B.

A. Common; smooth red spots, becoming covered with a convex whitish crust. L. vulgaris. Will. Pl. VII.

B. Excavated; the crusts being depressed and very white; the patches smaller than in the former variety, and confined to the extremities. L. alphoides. Will. Pl. VIII. 1.

C. Black; the patches livid. L. nigricans. Will. Pl. VIII. 2.

4. *Lepidosis ichthyosis.* Ichthyosis. Will. Avicenn. II 244, de morphaea, ix. Act. Lips. 1688. 617. Stalpart. II. 35. Hofm. disq. 138. Vater, Phil. trans. n. 140; *Baker*, 1755. 21. Buffon hist. nat. II. 507. Hall. phys. V. 13. Lepra ichthyosis, *Sauvages*, II. 572. See phymatosis elephantiasis, lx.

A. The skin remaining flexible. I. simplex. Will. Pl. XVI, XVII.

B. The skin being stiff. I. cornea. Sometimes with distinct horns. *Martin*, Medicoch. tr. IX. 52. See ecphyma clavus.

C. Each scale forming a spine. I. spinosa. Homme porc épic.

† Pellagra? Jansen de pellagra. 8. Leyd. 1787. Titius de pellagra. 4. Wittenb. 1792. Strombio, von Weigel. 8. Leipz. 1796. Frank Prax. II. *Holland*, Medicoch. tr. VIII. 317.

LVI. EXANTHISMA.

Rash.

An eruption of red patches, not acuminated, generally terminating in cuticular exfoliation.

1. E. *urticária.* With patches or stripes somewhat elevated, and pale in the middle. Nettle rash.
2. E. *roséola.* Rose coloured, irregular, without elevation, not contagious.
3. E. *purpura.* Small distinct purple specks, with debility. Land scurvy.
4. E. *erythéma.* Nearly continuous and uniform, without vesication or general swelling. Red rash.

1. *Exanthisma urticaria.* Urticaria, Will. *Heberden*, Med. trans. II. 173; salivation by calomel succeeded with Monsey; I have known it fail in a case nearly similar. Y. *Winterbottom*, Med. facts. V. 57; from poison. Dulcamara with muriate of lime will very commonly succeed. Y.

A. Without extensive efflorescence. U. evanida. Will. Pl. XXIV. 1.

B. Remaining several days. U. perstans. Will.

C. Crowded. U. conferta. Will.

D. Partly invisible, but tingling. U. subcutanea. W.

E. With hard and thick tubercles. U. tuberosa. W.

F ? With fever. U. febrilis. W. See Erysipelas urticatum, to which the disease must be referred when the fever is primary.

† Venenationis symptoma. Phoenigmus a venenis, *Sauvages*, II. 555 ; the cuticle separating.

2. *Exanthisma roseola.* Roseola. Will. *Maton*, Med. tr. V. 149 ? A rash liable to be mistaken for scarlatina, and infectious.

A ? R. aestiva. Will. Generally preceded by some days of fever, and sometimes with enlarged tonsils. Pl. XXV. 1.

B. R. autumnalis. Will. Oval and dark. Pl. XXV. 2.

C. R. annulata. Will. In spreading rings. Pl. XXVI. 1.

D. R. infantilis. Will. Pl. XXVI. 2.

E. R. variolosa. Will. From the small pox; not uncommon. Pl. XXVII. 1, 2. Preceeding the eruption.

F. R. vaccina. Will. From the cow pox, with fever ; rare. Pl. XXVII. 3.

G. R. miliaris. Will. With miliary fever; sometimes occurs in typhus.

3. *Exanthisma purpura.* Purpura. Will. Phoenigmus petechialis, *Sauvages*, II. 594. Cannot be said to terminate " in cuticular exfoliation." Sometimes accompanied by colourless tubercles, or by a painful thickening of the skin. Heberd. comm. See Profusio.

A. P. simplex. Will. Pl. XXVIII. 1. With little constitutional affection.

B. P. haemorrhagica. W. Pl. XXVIII. 2. With haemorrhage, vibices, and anasarca. *Harty*, Ed. med. journ. IX. 186; purgatives. See Profusio subrutanea. A fatal case has occurred which apparently originated from the effect of a small quantity of the pilula hydrargyri. Y.

C. P. urticans. W. Pl. XXIX. At first elevated.

D? P. contagiosa. W. A symptom of typhus.

E. P. "oxyadica;" (acidigena.) W. From the use of acids, omitted by Bateman.

F. P. senilis. B. Pl. XXX. Local and of long continuance, in old women.

4. *Exanthisma erythema.* Erythema. Will. Erythema, *Sauvages*, I. 137; sometimes.

A. Irregular patches of short duration. E. fugax. W. Often an unfavourable symptom in various diseases. E. volaticum? Sauv. I. 139.

B. In shining patches, spreading and becoming confluent. E. laeve. Will. Often with anasarca.

C. With a hard red border. E. marginatum. Will. Pl. XXXII. 2.

D. Beginning with obscure and fugitive papulae, then remaining red. E. papulatum. Will. Pl. XXXI. 1.

E? With softish tubercles, subsiding before the erythema. E. tuberculatum. Will. Generally febrile. Pl. XXXI. 2.

F. The patches rising gradually in the middle, so as at last to form knots, which subside and leave livid spots. E. nodosum. Will. Pl. XXXII. 1.

G. From friction of contiguous parts. E. intertriginosum. Will. Intertrigo, Sennert. Erythema intertrigo, *Sauvages*, I. 139; Proctalgia intertriginosa, II. 145.

H. From mercury. See cystisma.

LVII. POMPHOLYGMUS.

Blains.

An eruption of large thin vesicles, containing a serous fluid, not suppurating, except from accidental distension, succeeded by a yellowish or blackish scab.

1. P. *pom'pholyx.*	Vesicles or bullae, without surrounding inflammation, and without fever. Waterblebs.
2. P. *epinyc'tis.*	Phlyctaenae, or vesicles with dark red bases, most troublesome at night.
3. P. *pem'phigus.*	With phlyctaenae arising in succession in different parts of the body, without tumefaction or redness, and sometimes with fever.
†4. P. *erysipelat'icus.*	With redness irregularly circumscribed, and disappearing when pressed, and with fever.

1. *Pompholygmus pompholyx.* Pompholyx. Will. *Gaitskell?* M. Med. soc. Lond. IV. 1; pemphigus without fever.

A. Transparent, of the size of a pea, soon healing. P. "benignus," [benigna]. Will.

B. Spreading over a great part of the body in succession, and enlarging rapidly. P. " diutinus." Will. Pl. XXXIII. Hydrops vesicalis. Eugalenus. Sometimes called pemphigus.

C? Solitary, but succeeded by a new one in a neighbouring part; often containing some ounces of fluid. P. " solitarius." Will. Peculiar to females. See Hydrops bulla, xliv.

2. *Pompholygmus epinyctis.* Epinyctis, *Sauvages*, I. 134.

3? *Pompholygmus pemphigus.* Pemphigus. Will. Pompholyx diutinus. Bateman. Dr. Dickson thinks it better placed here than with typhus. Ed. med. journ. X.

A. Not contagious. P. vulgaris. Will. Galen epid. vi. C. Pison. obs. 147-9. Delii amoen. med. 71. Pemphigus major, *Sauvages*, I. 430.

B? Epidemic. P. contagiosus. Will. Doubtful. See Typhus vesicularis, xviii.

C. The vesicles oblong and flattened, followed by ulcerations. P. infantilis. Will.

† Scarlatinae, pestis, dysenteriae symptoma.

4? *Pompholygmus erysipelaticus.* Erysipelas. Will. See Erysipelas, xvi.

A. Dark red and smooth, of an inflammatory type. E. phlegmonodes. Will.

B. Pitting. E. oedematodes. Will.

C? Bcoming gangrenous, with typhous fever. E. gangraenosum. Will.

D. Wandering from one part of the body to another. E. erraticum. Will.

LVIII. CYSTISMA.

Vesicles.

An eruption of vesicles, small, round, and not always distinct, succeeded by scabs or crusts.

1. C. *her'pes.*	Uniting into thick crusts. Ringworm, or shingles.
2? C. *íris.*	A vesicle surrounded by concentric circles of different colours.
2. C. *rhy'pia.*	Vesicles broad and flattish, not confluent; crusts succeeding them easily rubbed off.
†3 C. *miliária.*	Small, thick, and little elevated, symptomatic of fever.
4. C. *ec'zema.*	Vesicles crowded, without inflammation; generally from the effects of heat.
5. C. *aphthósum.*	Flaccid and flat separations of the surface of a mucous membrane.
†6. C. *varicellósum.*	Appearing on the fourth day of fever, and bursting in three days.
7? C. *mercuriále.*	Vesicles indistinct, skin at first red and hardish, afterwards a watery discharge, and large dark desquamations.

1. *Cystisma herpes.* Herpes? Cull. syn. cxlvii. Galen to Glauc. II. i. ii; tum. ix. Forest. chir. II. n. 5..14. V. n. 5. Ballon. cons. II. 28. III. 12, 104. Herpes, *Sauvages*, I. 132; sometimes. Armstrong. Stoll prael. I. 45; supposed scrofulous. Gempt de herpete. 8. Marb. 1791. *Bishopric?* Dunc. med. comm. XVIII. 387; a lymphocrustaceous eruption, cured by calomel and antimony. Hufel. journ. Dufres-

noy sur le rhus radicans. 8. Par. 1799; Dunc. ann. 1799. 182. Ed. med. journ. II. 325. The herpes of Alibert is not identical with the disease here defined.

A. Circular, stinging and itching, spreading, often moist. H. serpigo, *Sauvages*, I. 132. Formica ambulatoria, Cels. Turner morb. cut. v. sp. 2. *Freer*, Dunc. ann. 1800. 371. H. circinatus. Bateman. Pl. LI. 1. Ringworm.

B. Small clustered vesicles, with some inflammation and fever, sometimes discharging a viscid fluid. H. miliaris, *Sauvages*, I. 132. Sennert. V. xvii. Hofm. II. 426. Turn. morb. cut. v. sp. 3. Included in the H. phlyctaenodes of Bateman. Pl. XLIX.

C? With superficial ulcerations. H. esthiomenos, *Sauvages*, I. 133. Galen meth. med. xvii. Turner morb. cut. v. sp. 4. Med. comm. Ed. IV. 415, from Bang; cured by jalap, bark, and sassafras. *Grenville*, Ed. med. journ. VI. 305; the sores pouring out animalcules with pus.

D. Surrounding the neck. H. collaris, *Sauvages*, I. 133.

E. Surrounding the body. H. zoster, *Sauvages*, I. 134. Hofm. II. 426. Russel de aq. mar. 124. Fordyce's fragm. *Albers*, Dunc. ann. 1801. 382; pustular; perhaps rather impetigo. H. zoster. B. Pl. L. Shingles. See Erysipelas.

F. Surrounding the knee. H. persiscelis, *Sauvages*, I. 133.

G. On the lips. H. labialis. Bateman.

H. On the prepuce. H. praeputialis. B. Pl. LI. 2.

2? *Cystisma iris.* Iris. Will. Ed. 1. *Hall*, Ed. med. journ. XVI. 62? "annular form, different hues, vesicular." Herpes Iris. Bateman. Pl. LII.

2. *Cystisma rhypia.*

A. Rupia simplex. Bateman. Pl. LIII. Crusts flattish.

B. Rupia prominens. B. Pl. LIV. Crusts elevated, conical.

C. Rupia escharotica. B. In infants; leaving deep pits.

†3. *Cystisma miliaria.* See Synochus, xvii.

4. *Cystisma eczema.*

A. E. solare. Bateman. Pl. LVI. On exposed parts of the skin.

B. E. impetiginodes. B. Pl. LV. 2. Kept up by irritation. Grocer's itch; Bricklayer's itch. Sometimes from blisters.

C? E. rubrum. B. Pl. LVII. From mercury. C. mercuriale. Sometimes from cold only.

5. *Cystisma aphthosum.* Forest. XIV. 21, 22. Armstrong. Colombier, Hist. Soc. méd. 1779. Stoll rat. med. II. 167; app. 273; prael. II. 436. Arneman de aphthis. 8. Gott. 1787; Dunc. med. comm. XIV. 223. *Baillie's* engr. 49. *Latham*, Med. tr. V. 75.

A. A. lactantium. Bateman. In infants.

B. A. adultorum. B. Symptomatic of many complaints with debility.

C. A. anginosa. B. Causing sore throat: preceded by slight febrile symptoms: generally in damp and cold weather.

D. Snuffles, a kind of nasal thrush. Denman, Lond. med. journ. IX. 374. Denm. on rupt. uter.

†6. *Cystisma varicellosum.* See Synochus, xvii.

7. *Cystisma mercuriale.* Eczema mercuriale, Pearson's obs. on lues, 166. *Spens*, Ed. med. journ. I. 7; *Macmullin*, II. 25; "erythema mercuriale, confounded in Willan's reports with pemphigus:" Alley on hydrargyria. 4. Lond. 1810; VIII. 100: *Ramsay*, VII. 270: *Nicholson*, VIII. 39. *Mathias* on the diseases produced by mercury. 8. Lond. 1810. *Bateman*, Medicoch. tr. IX. 220; his own case; musk, for the erethismus. *Crawford*, Ed. med. journ. XVI. 37; eczema rubrum. See C. eczema.

LIX. PHLYSIS.

Pustules.

An eruption of small suppurating tumours.

See Apostema. I.

1. Ph. *furunculósa.*	With a core nearly solid.
2. Ph. *impetígo.*	Pustules flattish and often irregular, or pysydracia; itching and turning to scaly crust, with cracks. Running tetter.
3. Ph. *ecthýma.*	Consisting of large inflamed pustules, or phlyzacia.
4. Ph. *scábies.*	Severely itching, affecting principally the interstices of the fingers; contagious. Itch.
5. Ph. *porrígo.*	At the roots of the hairs, "in the form of achores or favi," mixed with scales; contagious.

† Synochus variola, xvii, Licheniasis adultorum B. liii.

1. *Phlysis furunculosa.* The phyma of Willan, comprehending the boil and carbuncle, with the "Terminthus and Epinyctis," was classed by him among tubercles.

A. Boils. Seldom too large to be covered by a finger, and not gangrenous. Phlogosis phlegmones varietas, Cull. syn. vii. 1. Furunculus, *Sauvages*, I. 146. *Pearson's* princ. surg. 70. *Fosbrooke*, Ed. med. journ. XVII. 64; carbuncular furuncle.

B. Carbuncles. Larger, more inflamed and livid, and often gangrenous. Phlogosis erythematis varietas, Cull. syn. vii. 2. Galen tum. VI; to Glauc. II. i. Fabr. ab Aquap. 47. Forest. chir. I. n. 11, 12. Werhof opp. II, III. 745. Anthrax, *Sauvages*, I. 147. II. 621. *Pearson's* princ. surg. 147. *Hosack*, Ed. med. journ. VI. 445.

2. *Phlysis impetigo. Willan* on Porrigo and Impetigo. 4. Lond. 1814.

A. I. figurata. Bateman. Pl. XXXIV. In circumscribed patches.

B. I. sparsa. B. Pl. XXXV. Pustules scattered. Grocer's itch referred to this variety. B.

C. I. erysipelatodes. B. Pustules or psydracia at first scarcely visible.

D. I. scabida. B. Pl. XXXVI. Forming a crust like the bark of a tree. Lepra herpetica, *Sauvages*, II. 574.

E. I. rodens. B. Corroding the skin and cellular membrane; supposed to be cancerous.

F? *Gooch*, Phil. trans. 1769. 281; a cuticular glove. *Latham*, Phil. trans. 1770. 451; a red eruption, followed by a cuticular exfoliation, occuring repeatedly. Aposyrma,

Ploucq. nosol. *Rutter*, Ed. med. journ. V. 143. *Marcet*, Medicoch. tr. II. 73; "erythema not mercurial," the cuticle coming off in large patches, and sometimes the nails; Dr. Willan called it an impetigo, perhaps the impetigo rubra of Celsus. But it can scarcely belong to this genus: it seems to be more nearly related to herpes, unless it be classed under gangraena, with alopecia, to which it has some resemblance.

G? Cystisma mercuriale.

3. *Phlysis ecthyma.* Ecthyma. Will. B.

A. E. vulgare. B. Pl. XLIII. 1. Partial eruption of small hard pustules.

B. E. infantile. B. Repeated crops, protracted for several months.

C. E. luridum. B. Pl. XLIII. 2. Base dark red, hard, and elevated.

D. E. cachecticum. B. Pl. XLIV. Often following syphilis.

4. *Phlysis scabies.* Psora, Cull. syn. cxlix. Galen tum. XIII. Ballon. cons. I. 35. Horst. opp. II. 326, 330. Willis pharm. rat. II. iii. c. 6. Hofm. II. 416. Scabies, *Sauvages*, II. 575. Linné amoen. ac. III. Monro arm. dis. 216. Stoll prael. I. 279. II. 439. Hallé and others, M. Soc. R. méd. III. 162, 187; cured by plumbago europaea. Wichmann Aetiologie der krätze. 8. Hannov. 1791. Guldener über die krätze. 8. Prag. 1795; "an excellent work." Rothe. *Kerckhoffs*, Med. tr. VI. 47.

A. Sc. papuliformis, B. Appearing like papulae, though on close examination vesicular.

B. Sc. lymphatica. B. Pl. XLV. Considerable vesicles, without inflammation.

C. Sc. purulenta. B. Pl. XLVI. 1. With prominent yellow pustules. Frequent in children. Somewhat like small pox.

D. Sc. cachectica. B. Mixed with patches of scales or crusts. Common in India. Sometimes independent of contagion.

E. With the acarus scabiei. A parasitismus.

5. *Phlysis porrigo.* Tinea, *Sauvages*, II. 578. Forest. III. n. 17, 18. VIII. n. 12, 13, 21, 22. XXXI. n. 5; chir. V. n. 8. Ballon. cons. II. 19. III. 58. Mauriceau, I. 510. Wepfer obs. 962. Med. comm. Ed. V. 308. Stoll prael. 40, 46, 49. Baldinger N. mag. VIII. 171. Mursinna beob. II. 107. *Morison*, Dunc. ann. 1797. 246; a paste of ale and flour. *Barlow*, Ed. med. journ. I. 248; sulfuret of potass, with soap, lime water, and spirit. Luxmore on strictures. Cooke on tinea. Lond. 1810; Ed. med. journ. VII. 221. See Impetigo. *Hall*, Ed. med. journ. XIII. 64. "Sycosis" on the chin. See Phymatosis.

A. In infants at the breast, on the forehead and temples, pouring out a little of a mild fluid. Tinea lactea, *Sauvages*, II. 579. Strack de crusta lactea. 8. Frankf. 1779. Germ. by Weitz. 8. Weim. 1788; Lond. med. journ. II. 187; viola tricolor. P. larvalis. Bateman: Pl. XXXVII; ultimately covering the face as with a mask.

B. On the chin, about the time of dentition, throwing out a purulent serum. Tinea volatica, Sauv. II. 579. P. favosa. B.; with the next variety.

C. Resembling a honeycomb, containing a viscid matter. Tinea favosa, *Sauvages*, II. 580. Aët. VI. meliceris. P. favosa. B. Pl. XLI. Alibert. Pl. 16.

D. With yellowish grains in the cells. Tinea ficosa, *Sauvages*, II. 580. Astruc, I. 380. Alibert, T. granulata?

E. Very moist, but not cellular. Tinea humida, *Sauvages*, I. 580. Astruc, I. 380. Alibert, T. muciflua?

F. Nearly dry, after ulceration. Tinea porriginosa, crustacea, lupina, *Sauvages*, II. 581. Tinea, Cull. syn. cxlviii. Porrigo furfurans. B. Pl. XXXVIII. Alibert. Pl. 3. Porrigo lupinosa. B.

G. Irregularly circular. Ringworm of the scalp. B. Pl. XXXIX.

H? Patches of baldness. Porrigo decalvans. B. Pl. XL: thinks it probable that there *may* be an eruption of minute achores in the first instance. See gangraena alopecia.

LX. PHYMATOSIS.

Tubercles.

An eruption of circumscribed and permanent tubercles, scarcely suppurating.

1. Ph. *verrucósa.*	A collection of warts.
2. Ph. *mollus'ca.*	An eruption of small soft wens, lupiae.
3? Ph. *vitilígo.*	An eruption of white smooth tubercles.
4. Ph. *ac'ne.*	Red tuberculated swellings, especially of the face.
5. Ph. *sycósis.*	Patches of inflamed softish tubercles, matting the hair and beard together.
6? Ph. *lúpus.*	A thickening with small ulcerations, healing and spreading, especially of the nose. Noli me tangere.

7. Ph. *elephantíasis.* A pale swelling and thickening of the integuments of a limb, the hairs falling off, the sensibility impaired.

8. Ph. *framboésia.* The tumours having a tuberculated and fungous appearance, partially covered with scabs. Yaws.

† Exanthisma purpura, lvi.

1. *Phymatosis verrucosa.* See Ecphyma, xlviii. Verruca. Will.

2. *Phymatosis mollusca.* See Atheroma, xlvii. *O'Donnell,* Lond. med. journ. VI. 33; encysted tumours, or melicerides. *Wood,* Ed. med. journ. VIII. 283; subcutaneous tubercles: 429: also *Hall,* XI. 466. See Ecphyma sarcoma. A. Molluscum. Bateman. Pl. LX. 1: Pl. LXI; contagious; a milky fluid discharged.

3. *Phymatosis vitiligo.* Vitiligo? *Sauvages,* I. 127; the spots rather depressed than elevated; but there are probably elevations intermixed: if not, the disease ought to constitute a distinct genus. The tubercles are at first like warts, and afterwards become flat. Bateman.

A. Pale, not affecting the hair. V. alphus, Lepre des Juifs, *Sauvages,* I. 127. Rather a lepra or psoriasis, as well as the V. melas. Bateman.

B. White, the hairs falling off. V. leuce, *Sauvages,* I. 127. Bonet. sep. I. 764.

C. Brown. V. melas, *Sauvages,* I. 127. Avicenn. II. 244. c. 20.

D?? With lancinating pains like cancer. *Salter,* Ed. med. journ. X. 405.

4. *Phymatosis acne.* Phlogosis phlegmones varietas, Cull. syn. vii. 1. Gutta rosea, *Sauvages*, I. 129. Forest. X III n. 3. Wepfer obs. 973.

A. A. Simplex. Bateman. Pl. LXII. A few small distinct vari.

B. A. punctata. B. Pl. LXII. With the emphragma sebaceum.

C. A. indurata. B. Pl. LXIII. Tubercles conoidal.

D. A. rosacea. The skin red, and irregularly granulated.

5. *Phymatosis sycosis.*

A. S. menti. Bateman. Pl. LXV.

B. S. capillitii. B. Pl. LXVI. The tubercles softer, and more clustered than those on the skin.

6. *Phymatosis lupus.* Cancer lupus? *Sauvages*, I. 148. Lupus. Bateman. Pl. LXVII. Alibert. Pl. 19, bis. Pl. 21. Affections of the nose and face, often called cancerous, but in reality belonging to this genus, appear to be benefited by arsenical caustics, sarsaparilla, and mercurial medicines. Y.

7. *Phymatosis elephantiasis.* Elephantiasis, Cull. syn. lxxxvii, *Sauvages*, II. 567. Aret. chron. II. xiii. Plin. XXVI. i. *T. Heberden*, Med. trans. I. 23. *Cooke*, Ed. med. journ. III. 18; nitric acid; Edmonston, VI. 161. *Chevalier*, Medicoch. tr. II. 63; resembling ichthyosis. *Roberts*, Med. tr. V. 297; this person relapsed. Y. *Lawrence* and *Southey*, Medicoch. tr. VI. 209. Elephantiasis. Bateman. Pl. LXVIII. Alibert. Pl. 32, 34. See Lepidoris lepra, lv.

A. Arabian leprosy. E. orientalis, *Sauvages*, II. 568. Ap'har Alí Khán, Med. facts. IV. 168; arsenic. Rothe med. lit. 507.

B. Javanese. E. Javanensis, *Sauvages*, II. 568. Cleyer, Eph. N. C. Dec. 2. Ann. 2.

C. Indian. E. Indica, *Sauvages*, II. 569. Couzier, Journ. méd. Dec. 1757. *Kennedy*, Ed. med. journ. XIII. 54. *Robinson*, Medicoch. tr. X. 27. Baras, or white leprosy. Bateman.

D. Egyptian. Seems to approach to ichthyosis. Medicoch. tr. II.

E. Leprosy of Provence. E. legitima, *Sauvages*, II. 568. Journ. méd. 1765. 558. *Vidal*, M. Soc. R. méd. I. 161. V. 168.

F. Barbadoes leg. Hillary Barb. 383. Rollo on the glandular disease of Barbadoes. 12. Lond. 1785. *Chevalier*, Medicoch. tr. II. 63; observes that the cutis and cuticle remain natural: *Titley*, VI. 73; affecting the scrotum. Alibert, Pl. 33.

G. Norvegian. Tode et Gislesen de elephantiasi Norvegica. 8. Copenh. 1785.

8. *Phymatosis framboesia.* Framboesia, Cull. syn. lxxix, *Sauvages*, II. 554. Ed. med. ess. V. ii. 787. Hillary Barb. 402. *Med.* comm. Ed. II. 91; vapour bath and ointment of citrate of iron. *Chisholm*, Dunc. ann. 1800. 395. *Adams*, M. Med. soc. Lond. VI. 82. *Thomson*, Ed. med. journ. XV. 321. Framboesia, Bateman.

LXI. SYPHILIS.

Lues.

Corroding ulcers, especially of the tonsils, pains in the bones, nodes, and cutaneous eruptions, separate or united.

1.	S. *malig'na.*	Commnnicated only by contact with a mucous membrane, or an excoriated surface.
2?	S. *scot'ica.*	Communicated by simple contact, and accompanied by tuberculated eruptions. Sivvens.
3??	S. *pseudosyph'ilis.*	Not curable by mercury?

1. *Syphilis maligna.* Syphilis, Cull. syn. lxxxv. De morbo Gallico quae extant. 2. v. f. Ven. 1566. Massa. Faloppius. Fracastorius. Luisinus. Hutten. Boerhaave. Astruc de morbis venereis. 2. v. 4. Par. 1740. *Morgagni*, ep. 58, 59, de lue venerea. Fabre. Plenck. Swieten. Med. obs. inq. II. 70; on corrosive sublimate; Russel, 88. W. Fordyce on the venereal disease. 8. Lond. 1767. Syphilis venerea, *Sauvages*, II. 559. Walsh de luis stadio confirmato; Webst. med. pr. III. 101. *D. Monro*, Med. trans. II. 325. Dease on the v. disease. 8. Dubl. Dunc. med. comm. VIII. 25; *Causland*, 267; cases. Swediar on v. complaints. 8. Lond. 1784; Lond. med. journ. VI. 82. * *J. Hunter* on the v. disease. 4. Lond. By Home. 8. Lond. 1811. * Gruner aphrodisiacus. f. Jen. 1789; a continuation of Luisinus, containing 64 works. Fritze Handbuch. 8. Berl. 1790. Clossius über die lustseuche. 8. Tub. 1797. * Girtanner über die venerische krankheit. 3. v. 8. Gott. 1797; Dunc. med. comm. XIV. 254; the second and third parts contain extracts of more than 1800 works, judiciously

selected. Stair on the v. disease. 8. Lond. 1798; Dunc. ann. 1798. 91. Swediaur Traité. 2 v. 8. Par. 1798. *Pearson's* observations. 8. Lond. 1800; Dunc. ann. 1801. 267. Rees on lues, with an account of English writers. 8. 1802. Howard on the v. disease. 2 v. 8. 1806. Martens et Tilesius icones symptomatum venerei morbi. 4. Leipz. *Wilson*, Ed. med. journ. II. 274; in the S. Sea islands, former accounts exaggerated, but the population much diminished by a similar disease. *Peake*, Ed. med. journ. VIII. 47. *Ferguson*, Medicoch. tr. IV. 1; in Portugal. *Geoghegan's* commentaries. 8. Lond. 1814; Ed. med. journ. XII. 367. *Hey*, Medicoch. tr. VII. 541; in utero. *Hall*, Ed. med. journ. XII. 428; warmth, with mercury. *Rose*, Medicoch. tr. VIII. 349; without mercury: also *Guthrie*, 550. *Thomson*, Ed. med. journ. XIV. 84; without mercury: also *Hennen*, 201, 328. Sur la nonexistence de la maladie. 8. Paris. 1811; Ed. med. journ. XIV. 357: *Hamilton*, 485: *Butter*, XV. 195: Foot on lues. 8. Lond. 1820; XVII. 144. Communication.) *Barry*, Ed. med. ess. III. 323; a woman drawing breasts. Remedies.) *Monro*, Ed. phys. ess. III. 402; dec. sarsap. *Fordyce*, Med. obs. inq. I. 149; sarsaparilla; *Al. Gordon*, II. 256; sublimate. *Buquet*, Dunc. med. comm. VII. 425; rob antisyphilitique. *Kirkland*, Lond. med. jonrn. VII. 1; abuse of mercury. *Coste*, Lond. med. journ. IX. 7; opium. *Crichton*, Lond. med. journ. IX. 405; astragalus exscapus, from Girtanner. *Michaelis*, Med. commun. I. 307; opium. *Collingwood*, Dunc. med. comm. XVI. 274; mercury with sugar. *J. Pearson*, Med. commun. II. 56; opium. Balmis on the agave and begonia. 8. Rom. 1795. Germ. by Kreyssig. 8. Leipz. 1797. Cruickshank on acids in lues. 8. Lond. 1797; Dunc. ann. 1797. 106. Beddoes's testimonies on the treatment by nitrous acid. 8. *Blair*, M. Med. soc. Lond. V. 282. Blair on the effects of the nitrous acid. 8. Lond. 1808. *Kellie*, Dunc. ann. 1797. 254. Particula symptoms.) Lind de morbis venereis localibus. 8. Ed. 1748; Smellie thes. I. 381. Ulcers.] White de ulcusculis venereis; Webst. med. pr. III. 88. *Morison*, Dunc. ann. 1797. 240; arsenic externally. *Crowther*, Ed.

med. journ. II. 133. Tumours.] *Petit?* M. Ac. chir. I. 347; on the trachea. *Russel,* Med. obs. inq. III. 189; mezereon for nodes. *Dease,* Med. comm. Ed. IV. 335; warts. *Morton,* Med. facts. III. 50; enlarged nympha. *Baillie's* engr. 211; bones. Gonorrhoea, as related to syphilis.) See inflammatio specifica, xiii. Duncan's cases. Harrison de lue. 8. Ed. 1781; gonorrhoea produced by syphilitic matter. Simmons on gonorrhoea. Lond. Dunc. med. comm. VIII. 42; for the identity. Schlegel Geschichte des streites über die identität. 8. Jen. 1796.

2. *Syphilis scotica.* *Gilchrist,* Ed. phys. ess. III. 154.

3? *Syphilis pseudosyphilis.* A disease not at all tolerably defined. Arboe über deu salzfluss, radesyge, von Hensler. 8. Alt. 1797. Abernethy on tumours, and on diseases resembling syphilis. 8. Lond. 1804; Ed. med. journ. I. 90. Böcker, Ed. med. journ. V. 420; radesyge: *Clark,* VIII. 425; *Bateman,* Medicoch. tr. V. 225; a tubercular eruption. Whitshed on diseases resembling syphilis. 8. Peterborough, 1813; Ed. med. journ. X. 392. Carmichael on v. diseases confounded with syphilis. 4. Lond. 1814; Ed. med. journ. XI. 108, 372, 431: *Murray,* XII. 186; a sore throat: Evans's pathological and practical remarks. 8. Lond. 1819; XVI. 92.

LXII. SCROFULA.

Evil.

Swellings of the glands or bones from a constitutional disease.

1. S. *vulgáris.* Enlarged glands, or partial swellings of the bones. King's evil.
2. S. *rhachítis.* The bones in general being enlarged at their extremities, the head especially in front. Rickets.

1. *Scrofula vulgaris.* Scrophula, Cull. syn. lxxxiv. Galen meth. med. XIV. xi. Arant. tum. 27, 36, 37. Forest. chir. obs. 10, 11. Ballon. cons. III. 34, 59. Severin. absc. III. vii. IV. vi. Schenk? V. 40. Wharton adenogr. xl. Wepfer. obs. p. 980. Dover's legacy. Janin on the eyes. Brown tum. 265, 275. *Russel* de tabe glandulari. 8. Oxf. 1750. *Morgagni*, ep. 50, n. 28, 29. Scrophula, *Sauvages*, II. 542. Armstr. dis. childr. Marx obs. med. I. Med. comm. Ed. V. 168. Westrop de scrofula; Webst. med. pr. III. 54. Stoll rat. med. V. 437. VII. 155; prael. 30. Underwood on ulcers. Walther thes. obs. 85. White on scrofula. Bücking, Balding. N. mag. III. 241. Weber von den scropheln. 8. Salzb. 1793... *Hufeland* über die scrofelkrankheit. 8. Jen. 1797; from his own experience; scrofulous hydatids in the brain, p. 384. *Russell* on scrofula. 8. Ed. 1808; Ed. med. journ. V. 207. Carmichael on scrofula. 8. 1810. Particular symptoms.) *D. Monro?* Med. trans. II. 325; ossifications in the mesentery. *Gahagan*, Dunc. med. comm. XIV. 281; indurated glands, some distended with blood. *Cooper*, Med. records, 86; thoracic duct obstructed. *Baillie's* engr. 68; 123,

spleen; 137, kidney; 159? vesiculae seminales; 163, prostate; not all capable of very accurate investigation during life. Merat, Journ. méd.; Ed. med. journ. II. 405; tubercles in the brain; probably autalgia. Cure.) *Fordyce*, Med. obs. inq. I. 184, *Fothergill*, 303, *Bond*, II. 265; bark. *Streitt*, Med. facts. I. 134; gall as a liniment. *Armstrong*, Dunc. ann. 1801. 370; muriate of barita, in the W. I. *Wood*, Ed. med. journ. I. 147; muriate of lime. Ed. med. jonrn. III. 185, 322; on the touch. Brandish on caustic alkali. 8. 1811. Armstrong on ammonia. 8. 1812. *Goodlad*, Ed. med. journ. XI. 204; sulfate of zinc for the ulcers.

A. Simple, principally in the neck. Scrophula vulgaris, Cull. syn. lxxxiv.

B. With swelling of the abdomen, and fetid pale faeces. Scrophula mesenterica, Cull. syn. lxxxiv. 2. *Sauvages*, II. 545.

C. Principally in the bones or joints. Seems to require medicines somewhat different from the other varieties.

† Scrophula fugax, Cull. syn. lxxxiv, 3, inflammationis symptoma; Scrophula Americana, 4, a complication only.

2. *Scrofula rhachitis.* Rachitis, Cull. syn. lxxxiii. Since scrofula seems sometimes to affect the bones only, it is impossible to form a generic character for it which shall exclude rickets; and the diseases, though distinct, are so much allied, that they may very properly be referred to the same genus. Glisson, Bate et Regemorter de rhachitide. 8. Lond. 1650; considered as a new disease; Ed. med. ess. V. ii. 904; Hahn thinks it was known to Hippocrates. Mayow opp. tr. v. Duvern. mal. des os. II. 288. Hofm. III. 487. Boerh. 1480. Zeviani della rachitide. Nooth de rachitide. 8. Ed. 1766; Smellie thes. III. 56. Rachitis, *Sauvages*, II. 539. Armstr. dis. childr. Thomassin, Journ. med.

XLIII. 222. Strack, Act. Hassiac.; Med. comm. Ed. II. 47; ferri limat. rhei sing. gr. v. bis die. Med. comm. Ed. IV. 47. Moore de rhachitide; Webst. med. pr. III. 72. Balding. N. mag. XI. 52. Trnka de rachitide. 8. Vienn. 1787. Veirac sur le rachitisme. Portal sur le rachitisme. 8. Par. 1797; Dunc. ann. 1798. 166. *Stanley*, Medicoch. tr. VII. 404; state of the bones.

LXIII. SCORBUTUS.

Scurvy.

Livid spots, especially at the roots of the hairs, sponginess of the gums, general debility, and frequently contractions of the limbs.

1. S. *naúticus.*

† Asthenia beriberia, vii. Hydrops cacotrophicus, xliv.

1. *Scorbutus nauticus.* Eugalenus de scorbuto. Willis opp. I. Lister in Morton. Hofm. III. 369. Junck. 91. Boerh. 1148. Anson's voyage. Monro. Rouppe de morb. navig. Huxham opp. I. 341. Nitzsch de scorbuto exercitus Russici, 1747. Nitzsch vom scharbocke. Lind on the scurvy. 8. Lond. 1757. *Travis*, Med. obs. inq. II. 1; copper vessels; *Pugh*, 241; case. *Huxham*, Phil. trans. 1765. 6; from sea water. Macbride on the scurvy. 8. Lond. 1767. Macbride's experimental essays. 8. Lond. 1769. *D. Monro*, Med. trans. II. 325; *Milman*, 471; from want of nourishment. *Badenoch*, Med. obs. inq. V. 61; wort. Clark. Hulme de scorbuto. Pringle, Med. comm. Ed. IV. 313. *Mertens*, Phil. trans. 1778. 661. *Goguelin*, M. Soc. R. méd. IV. 168. Stoll. prael. 1. C. L. Hofman vom scharbocke. Brereton de scorbuto; Webst. med. pr. III. 36. *Coleman*, Lond. med. journ. II. 117.

Milman on scurvy. 8. Lond. 1782; Lond. med. journ. III. 45. Ferris de sanguinis putredine. *Gillespie*, Lond. med. journ. VI. 373; the putrid ulcer, cured by lime juice. *Guthrie*, Dunc. med. comm. XII. 328; *Brown*, 339; in Russia; *Leedes*, XIII. 320; *Fowler*, XIV. 291; haemorrhage. * *Trotter* on scurvy. 8. Lond. Dunc. med. comm. XVIII. 183; *Tattersall?* XX. 289; fatal petechiae sine febre. Beddoes on calculus. Anderson on the nopal. Madras, 1808. *Heberden*, Med. trans. IV. 65. *Hall*, Ed. med. journ. XVI. 204.

LXIV. SPILOSIS.

Spots.

Discolorations of the skin, or of the cuticular substances, without constitutional disease.

1. S. *ephélis.*	Freckles, occurring in hot weather, and generally disappearing in cold.
2? S. *per'manens.*	Permanent spots, like moles.
3. S. *poliósis.*	Grey hairs.
†4. S. *icter'ica*	A general yellowness.

† Profusio subcutanea, xiv, Phtharma cutaneum, xxxvii, Exanthisma purpura lvi, Deformitas, lxxix.

1. *Spilosis ephelis.* Ephelis, *Sauvages*, I. 128. Bateman. Pl. LXIX.

2. *Spilosis permanens.* Macula, Spilus, Willan. Galen loc. aff. V. vii. Barthol. act. Hafn. III. 83. Stalpart, II. 36. Steigerthal, Phil. trans. Weikard kl. schr. 266. Chamseru, Soc. R. méd. 1780-1; Lond. med. journ. VII. 280. Hunter med. obs. inq. VI. J. Bell's Surgery. I. xi.

A. Naevus vinaceus. Bateman. Pl. LXXI. 1.

B. Naevus foliaceus. B. Pl. LXX.

C. Naevus araneus. B. Pl. LXXI. 2.

D. Naevus cerasus. B. Pl. LXXI. 1.

E. Naevus fragarius. B. Pl. LXXII.

F. In negroes, becoming white. *Bate*, Phil. trans. 1759. 175.

† G. With hair, commonly native, a deformitas. Barthol. hist. an. I. 42; ep. II. 667.

3. *Spilosis poliosis.* Forest. VIII. 10. Schenk. I. iii. *How*, M. Med. soc. Lond. III. 515; suddenly becoming white in stripes. Bichat.

4. *Spilosis icterica.* See cholelithia, xxxiii.

CLASS V.

ECTOPIAE.

DISPLACEMENTS.

LXV. LUXATIO.

Dislocation.

The displacement of a bone from its relative situation in a joint.

1. L. *exarthréma.* The derangement of a diarthrosis, or a joint admitting extensive motion.
2. L. *dias'tasis.* The separation of a joint scarcely admitting motion.

Luxatio. Cull. syn. cxliv. *Morgagni*, ep. 56, de luxationibus. Pott on fractures and dislocations. 8. Lond. 1768. *Guyenot*, M. Ac. chir. V. 803; old luxations. Aitken on fractures and luxations. 8. Lond. 1790, 1800; Germ. by Reich. Nur. 1793; with valuable additions *Rumsey*, Med. facts. V. 44; with fracture. *Osborne*, Ed. med. journ. VI. 436; spontaneous.

1. *Luxatio exarthrema.* Exarthrema, *Sauvages*, I. 224. Galen med. xx; on Hipp. on artic. Falopp. opp. II. iii. *Morgagni*, ep. 66. n. 2..9. Jaw.) *Monro*, Ed. Med. ess. I. 124. III. 261. *Forbes*, Ed. med. journ. XIII. 315. Spine.) *Maty*, Med. obs. inq. III. 257; with palsy.

Sömmering über verrückung und bruch des rückgraths. 8. Berl. 1793. *Lazzaretto*, Ed. med. journ. IX. 165; atlas: also *Howison*, XV. 417. Ribs.) *Buttet*, M. Ac. chir. IV. 573. Shoulder.) *Thomson*, Med. obs. inq. II. 340; *White*, 373. *Chessher*, Lond. med. journ. VIII. 189; emetics. *Elderton*, Ed. med. journ. XVI. 388; instrument. Wrist.) *Hodgson*, Medicoch. tr. IV. 294. Thumb.) *Ballingall*, Ed. med. journ. XI. 188. Lower limbs.) Trye on injuries of the lower limbs. 4. 1802. Thigh.] *Moreau*, M. Ac. chir. II. 155; unreduced. *Mackenzie*, Ed. phys. ess. II. 317. *White*, Phil. trans. 1760. 676; *Yonge*, 846. *Travis*, Med. obs. inq. II. 99. *Sabatier*, M. Ac. chir. V. 791; repeated. *Anderson*, Med. comm. Ed. III. 424. *Cribb*, Lond. med. journ. V. 412. *Ed.* med. journ. III. 403. *Sinclair*, Ed. med. journ. XVI. 614; reduced by Dupuytren, after 11 weeks. Ancle.] Cooper's essays, II.

A. Complete luxation. Luxatio, Vogel.

B. Subluxation. Subluxatio, Vogel. *Guy*, Med. facts. V. 54; a rotation of the astragalus.

2. *Luxatio diastasis.* Diastasis, *Sauvages*, I. 230. Davis, Phil. trans. *W. Hunter?* Med. obs. inq. II. 321; a separation of the ossa pubis, with abscess.

LXVI. HERNIA.

Rupture.

The protrusion of a soft part, through an orifice in a neighbouring part, into a situation not natural to it.

1? II. *encephalocéle.* A protrusion of the brain from the sutures of a child's head, not yet closed.

2. H. *crystall'inocéle.* A protrusion of the crystalline lens into the aqueous humour.

3. H. *gastrocéle.* A rupture of the stomach, generally indicated by occasional hiccup, with vomiting, and a peculiar pain.

4. H. *enterocéle.* A rupture of an intestine, with a pain more griping when pressed.

5. H. *epip'loocéle.* A rupture containing the omentum, feeling like dough, without peculiar sensation when pressed.

6. H. *hépatocéle.* A rupture containing part of the liver, with biliary spmptoms, and sometimes a pain in the shoulder.

7. H. *splenocéle.* A rupture containing the spleen, distinguishable by its rounded form, and spongy substance.

8. H. *cystocéle.* A hernia of the bladder, the tumour subsiding after an evacuation of its contents.

9. H. *hys'terocéle.* A hernia of the uterus, discoverable by examination.

10. H. *oáriocéle.* A rupture containing an ovary, little prominent, and hardish, not affecting the functions of the intestinal canal.

Hernia. Cull. syn. cxlii. Gunzius de herniis. *Jamieson*, Ed. med. ess. I. 227; gangrenous. *Peyronie*, M. Ac. chir. I. 337; sphacelated; *Garengeot*, 699. Arnaud on hernia. 8. Lond. 1748, *Cookesley*, Ed. med. ess. V. 427, and *Symons*, Med. obs. inq. III. 64; with gangrene. *Lecat*, Phil. trans. 1751. 324, 341; *Carlisle*, 1766. 133. *Morgagni*, ep. 43; de herniis. *Pipelet*, M. Ac. chir. IV. 164; gangrenous; *Goursaud*, 243; *Louis*, 281. *Else*, Med. obs. inq. IV. 355. *Heberden*, Med. trans. II. 507; doubts the effect of stricture in strangulation. *Chalmers*, Med. comm.

Ed. I. 413. *Sabatier*, M. Ac. chir. V. 592; Camper, 626; trusses; *Bordenave*, 651, 881; danger of caustic. Richter de herniis; Med. comm. Ed. V. 269. * *Richter* von den brüchen. 8. Gott. 1785. *Ford*, Lond. med. journ. VI. 118; *Cribb*, 259. *Helsham*, Dunc. med. comm. XIII. 280. *Clowes*, Lond. med. journ. X. 72. *Livingston*, M. Med. soc. Lond. III. 568; *Say*, 581; with cramp; *Werner*, 589, 590. *Hughes*, Dunc. med. comm. XVII. 487; ether, as producing cold. *Livingston*, M. Med. soc. Lond. IV. 420. Sömmering über die nabel und leistenbrüche. 8. Frankf. 1797. Köler über die brüche. 8. Zelle, 1797. Vogel Methode den ileus zu heilen. 8. Nur. 1797; laxatives with opium. *Borthwick*, Dunc. ann. 1799. 466. *Fryer*, Tr. soc. med. ch. kn. II. 305; strangulated for 8 days. Sheldrake's hints. 8. Lond. 1803. *Baillie's* engr. 85. * *A. Cooper* on hernia, 2. v. f. Lond. 1804-7; Ed. med. journ. II. 241. IV. 224. *Kellie*, Ed. med. journ. II. 307; 313, *sphacelated.* * *Lawrence* on hernia. 8. Lond. 1808. *Scarpa* Memorie sull'ernie. Pavia. 1809; Ed. med. journ. IX. 218: Engl. by Wishart. 8. Edinb. 1814; XII. 240: On retnrning the sac unopened. X. 290: *Penkivil*, 461; *Edmonstone*, XI. 65: *Money's* register, XII. 249. Travers on injuries of the intestines. 8. Lond. 1812. Hesselbach de herniis. 4. Würtzb. 1816; Ed. med. journ. XIII. 69: *Barnes*, XV. 527; operations *Yeats*, Med. tr. VI. 1; ice. *Welchman*, Ed. med. journ. XVI. 44; complicated and adherent. Thoracic.) *Cooper*, Med. records, 1. Umbilical.) *Suret*, M. Ac. chir. II. 334. Parietal and scrotal.) *Russel*, Ed. trans. V. 23. Inguinal.) *Monro*, Ed. med. ess. V. 270. *Delaunay*, M. Ac. chir. I. 697. *Gibson*, Med. obs. inq. IV. 178. *Baillie's* engr. 175; with hydrocele. *Lee*, M. Med. soc. Lond. VI. 70; natural passage of the faeces restored after a year. Crural.) *Ed.* med. ess. I. 242. Gimbernat on crural hernia. 8. Lond. 1795. A. Monro on crural hernia. 8. Ed. 1803; Dunc. ann. 1803. 112. *Wardrop*, Ed. med. journ. II. 203; *Burns*, 265. Liston on the crural arch. 4. Ed. 1819; Ed. med. journ. XV. 454; anatomy. Congenita, a complication with a deformitas.) Meckel de

morbo hernioso congenito. 8. Berl. 1772. *Makary*, Dunc. med. comm. XVIII. 371; *Wilson*, XX. 334. *Tryer*, Med. facts. VIII. 131. *Baillie's* engr. 87. Geoghegan on ruptures. 8. Lond. 1810; Ed. med. journ. VII. 111, 400.

1. *Hernia encephalocele.* Belongs rather to deformitas or dystocia. Corvin. in Hall. disp. chir. II. xlvi. Trew Comm. litt. 1738. Ledran obs. chir. 1. Warner obs. 59. Encephalocele, *Sauvages*, I. 217. *Ferrand*, M. Ac. chir. V. 60, 863. *Burrows*, Medicoch. tr. II. 52. *Pring*, Ed. med. journ. IX. 14. *Earle*, Medicoch. tr. VII. 427; with hydrocephalus. *Crawford*, Ed. med. journ. XII. 22; from a wound.

2. *Hernia crystallinocele.* Burghart, Med. Siles. sat. II. iv; Ed. med. ess. V. ii. 958. Noble on ophthalmy.

3. *Hernia gastrocele.* Fabr. Hildan. 915. Amyand, Ph. tr. 1731. Kirschbaum in Hall. disp. chir. III. lxviii, lxix. Lafaye sur Dionis, 121. Sharp. Gastrocele, *Sauvages*, I. 206. *Pipelet*, M. Ac. chir. IV. 181. A singularly slight case, apparently of this disease, occurred to me at St. George's hospital; the humour could scarcely be perceived, except in a very oblique light, and disappeared on pressure with a crackling noise, but was reproduced by coughing or straining: it was accompanied by considerable pain and dyspepsia, and was relieved by a bandage. Y.

A. Above the navel.

B. At the navel.

C. At the abdominal ring.

D. Through the diaphragm. *Wheelwright*, Medicoch. tr. VI. 374

4. *Hernia enterocele.* Littre, M. Ac. Par. 1700. Haller disp. ch. I, III. Bertrandi, M. Ac. chir. II. Morgagni adv. an. III. 8, 9. *Pott*, Phil. trans. 1764. 61; including a calculus. *Louis*, M. Ac. chir. III. 145; *Vacher*, 515; *Ritsch*, IV. 173; intestinal cavity obliterated. Enterocele, *Sauvages*, I. 189; insaccatae, with laceration of the peritonaeum, 199. *Robertson*, Dunc. med. comm. XVI. 312. *Home*, Tr. soc. med. ch. kn. II. 99.

A. Diaphragmatic. Through the diaphragm. St. André, Phil. tr. XXX. 1717. P. 580. Abr. V. 267. *Clarke*, Tr. soc. med. ch. kn. II. 118. *Baillie's* engr. 87.

B. Mesenteric. Within the abdomen, through the mesentery. See colica.

C. Umbilical. At the navel. *Lettsom*, M. Med. soc. Lond. III. 494. *Peake*, Ed. med. journ. VII. 52; foetal.

D. Parietal. Through the parietes of the abdomen. Hypogastrocele, Vogel.

E. Lumbar. Through the muscles of the loins.

F. Inguinal: scrotal; labial. At the ring, and descending towards the scrotum or labia. *Lecat*, Phil. trans. 1767. 293; with hydrocele.

1. With a forced opening. *Forster*, Medicoch. tr. V. 232; requiring a second operation.

2. Native. The passage never having closed; a deformitas. Hey's surg. obs. Cooper; with a sac.

G. Femoral or crural. Under the inguinal ligament. Merocele, Vogel. *Watson*, Med. commun. II. 102; a cylinder of isinglass tried in a dog. *Chevalier*, Medicoch. tr. IV. 322.

H. Thyroideal. At the foramen ovale. Enterocele ovalaris, Vogel.

I. Ischiatic. Behind the tuberosity of the ischium. Ischiatocele, Vogel.

K. Vaginal. Into the vagina. Elytrocele. Vogel. Levret polyp. ii.

L. Perinaeal. In the perinaeum.

5. *Hernia epiploocele.* *Lowis*, Ed. med. ess. I. 290; with atrophy. *Livingston*, Ed. phys. ess. II. 333; scrotal. *Verdier*, M. Ac. chir. III. 67; *Pipelet*, 394, V. 643. Epiplocele, *Sauvages*, I. 201.

A..L. The varieties are nearly the same as in enterocele, with which this species is often complicated.

6. *Hernia hepatocele.* Hepatocele, *Sauvages*, I. 208.

A ? Thoracic.

B. Parietal.

C. Umbilical.

7. *Hernia splenocele.* Fabr. Hildan. 999. Spigel. corp. fabr. VIII. xiv. Ruysch adv. dec. 8. ii. 23. Splenocele, *Sauvages*, I. 209.

A. Parietal.

B. Inguinal.

8. *Hernia cystocele.* Salzmann in Hall. disp. ch. III. lxxii. Mery, M. Ac. Par. 1713. Levret pol. Sharp res.

Verdier, M. Ac. chir. II. 1; *Pipelet*, IV. 181. Cystocele, *Sauvages*, I. 211.

A. Inguinal. Cystocele, Vogel.

B. Parietal.

C. Femoral.

D. Vaginal. Sandifort de hernia vesicae vaginali; Med. comm. Ed. V. 257. *Christian*, Ed. med. journ. IX. 281; during parturition.

E. Perinaeal.

9. *Hernia hysterocele.* Sennert. med. pr. IV. ii. 2. xvii. Fabr. Hild. 893. Graaf mul. org. viii. Ruysch adv. ii. 23. *Sabatier*, M. Ac. chir. III. 361. Hysterocele, *Sauvages*, I. 209.

A. Parietal.

B. Inguinal.

10. *Hernia oariocele.*

A. Inguinal. Pott.

LXVII. PROLAPSUS.

Protrusion.

The passage of a soft part through the orifice which terminates it.

1. P. *ectrópium.*	The turning out of an eyelid.
2. P. *áni.*	Of the rectum.
3. P. *vagínae.*	Of the vagina.
4. P. *úteri.*	Of the uterus.
5. P. *vesícae.*	Of the bladder.

Prolapsus. *Monro*, Ed. Phys. ess. II. 353. *Whateley*, Med. facts. VIII. 163.

1. *Prolapsus ectropium.* Maitre Jan. St. Yves, Boerh. morb. oc. I. v. Blepharoptosis ectropium, *Sauvages*, I. 178. *Bordenave*, M. Ac. chir. V. 97, 110. Adams on diseases of the eyes. 8. Lond. 1812.

2. *Prolapsus ani.* Plater. prax. II. ii. Levret polyp. *Needham*, Phil. trans. 1755. 238; Med. trans. IV. 343; 57 inches mortified. *Morgagni*, ep. 33, de recti intestini prolapsu. Exania, *Sauvages*, I. 182. *Chevalier*, X. 400; relaxed rectum, with a kind of introsusception internally.

3. *Prolapsus vaginae.* Arant. tum. lix. *Morgagni*, ep. 45, n. 8... Hysteroptosis vaginae prolapsus, *Sauvages*, I. 188. Colpoptosis, Sagar.

4. *Prolapsus uteri.* Mercurial. IV. 21. Ballon. mul. opp. IV. 181; cons. III. 38. Barthol. hist. an. iv. 2. Mauriceau, I. 172, 390. II. passim. Puzos mal. matr. Ruysch obs. 7,

24. Stalpart. i. obs. 69. *Sabatier*, M. Ac. chir. III. 361. *Morgagni*, ep. 45; de uteri descensu; ep. 67, n. 3; from a disease of the ovary. Levret, M. Ac. chir. Journ. med. XL. *Clarke*, Ed. med. jonrn. II. 420.

A. Hysteroptosis uteri prolapsus, *Sauvages*, I. 185. *Monro*, Ed. med. ess. III. 303. *Hill*, Med. comm. Ed. IV. 88. See prolapsus vesicae.

B. Hysteroptosis uteri inversio, *Sauvages*, I. 187. Generally an obstetrical disease. *Cleghorn*, Med. commun. II. 226. *A. Hunter*, Dunc. ann. 1799. 366; extirpated. *Baillie's* engr. 193.

5. *Prolapsus vesicae.* Salzmann in Hall. disp. chir. III. Verdier, M. Ac. chir. II. Exocyste, *Sauvages*, I. 184. *White*, Med. obs. inq. III. 1; with prolapsus uteri and stone.

LXVIII. INTROSUSCEPTIO.

Introsusception.

The engagement of a constituent part of a cavity in another part of the same cavity.

1. I. *entrópium.* The turning in of an eyelid.
2? I. *intestinális.* Of an intestine; generally indicated by severe colic, sometimes with a discharge of blood.

1. *Introsusceptio entropium.* Blepharoptosis entropium, *Sauvages*, I. 178. Köhler über die trichiasis. 8. Leipz. 1796. *Crampton* on entropium. 8. Lond. 1805; Ed. med. journ. IV. 120. See prolapsus ectropium.

2. *Introsusceptio intestinalis.* Seldom to be positively ascertained during life. *Monro*, Ed. phys. ess. II. 353. *Hevin*, M. Ac. chir. IV. 201; gastrotomy. *Dougall*, Dunc. med. comm. IX. 278; a slough. *Lettsom*, Phil. trans. 1786. 305. *J. Hunter*, Tr. soc. med. ch. kn. I. 103; emetics, from theory. *Baillie's* engr. 81. *Langstaff*, Ed. med. journ. III. 262. *T. Blizard*, Medicoch. tr. I. 169. *Baillie*, Tr. soc. M. ch. kn. *Howship*, Ed. med. journ. VIII. 179.

A. By descent. See Prolapsus ani.

B. By ascent. Less common. *Home*, Tr. soc. med. ch. kn. I. 103.

LXIX. DISTENSIO.

Strain.

A violent tension of a soft part, followed by pain in the part.

1. D. *articuláris.* Of the ligaments about a joint.
2. D. *musculáris.* Of a muscle.

1. *Distensio articularis.* *Arnot*, Ed. med. ess. V. ii. 652; about the os sacrum; fatty substances voided. Theden? N. bem. II. 195.

2. *Distensio muscularis.*

LXX. CONTUSIO.

Contusion.

A violence done to any part by compression, deranging its internal structure.

1. C. *concussíva.* Without extravasation of fluid.
2. C. *serósa.* With a colourless swelling.
3. C. *sanguin'ea.* With ecchymosis of blood.

Contusio. *Sauvages*, I. 238. *Alexander*, Ed. phys. ess. III. 512; warm bath, in a case of apparent death. Wind of a ball.) *Ellis*, Ed. med. journ. VIII. 1: *Spence*, VIII. 161: *Forbes*, 310: *Ed.* med. journ. IX. 134. Brain.) *Houlston*, Lond. med. journ. V. 292. *Parkinson?* M. Med. soc. Lond. II. 493; lightning. *Andrews*, Med. facts. III. 12. *M'Intyre*, Ed. med. journ. XVI. 35: *Richardson*, XVII. 255; concussion. Eye.) *Mudd*, Ed. med. journ. III. 1; tumour, extirpated. Back.) *English*, Ed. med. journ. IX. 276; in utero. Spine.) *Gordon*, Ed. med. journ. XIII. 409: *Mortimer*, XIV. 69: *Arthure*, XVII. 420. Heart.) *Akenside*, Phil. trans. 1763. 353. Liver.) *Gibson*, Ed. med. ess. II. 352; enlarged gall bladder and dropsy. *Geach*, Phil. trans. 1763. 231. Intestines,) Dunc. ann. 1802. 345; portion discharged.

3. *Contusio sanguinea.* *Langstaff*, Ed. med. journ. VII. 323; utility of incisions. See fractura.

LXXI. FRACTURA.

Fracture.

The separation of a bone by violence into two or more parts.

1. F. *sim'plex.*	Simple division of one or more bones into two parts only.
2. F. *complicáta.*	A division of a bone into more than two parts.
3. F. *partiális.*	A partial division, or fissure.
4. F. *imperfec'ta.*	A depression or bending of a bone into an unnatural form, which it retains.
5. F. *penetratíva.*	With penetration, extending into an internal cavity, or to the surface of the body.

Fractura. Cull. syn. cl. Hippocr. fract. Gal. comm. Forest. VIII. obs. 1... Amyand, Phil. trans. *Lafaye*, M. Ac. chir. II. 403; a machine for moving patients; *Belloy*, III. 233; a machine. *White*, Phil. trans. 1760. 657; cutting off the ends of the bones; also *Ford*, Lond. med. journ. II. 46. *Morgagni*, ep 56, de ossium fracturis. Tissot nerv. dis. Fractura, *Sauvages*, I. 239; Fissura, 240. Med. comm. Ed. I. 243. *Home*, Tr. soc. med. ch. kn. I. 233; new joint. *Eaton*, Dunc. med. comm. XIX. 292; Arabian method, employing plaster. *Inglis*, Ed. med. journ. I. 419; cure of unnatural joints; also *Rowland*, Medicoch. tr. II. 47. Skull.) Berengarius de fractura cranii. 12. Leyd. 1715. *Baine*, Ed. med. ess. V. 401; with loss of brain. *Louis*, M. Ac. chir. II. 151; Petit's levator. *Maclagan*, Med. comm. Ed. I. 97. *Carlos* and *Taswell*, Med. obs. inq. V. 82. *Cooke*, Lond. med. journ. IV. 72; *Jones* and *Mynors*, V. 278; Johnson, VI. 354; *Causer*, VII. 152; *Ford*, VIII. 411;

Grimston, X. 277. *Trye*, Med. commun. II. 144; external table. *Wilkinson*, Lond. med. journ. XI. 370. *Irving*, Dunc. med. comm. XV. 363. *Blount*, M. Med. soc. Lond. III. 605. *Brown*, Dunc. med. comm. XVIII. 342. *Goodsir*, Dunc. ann. 1801. 300. *Hutchinson*, Medicoch. tr. II. 104; occiput; *Creagh*, 307. *Crawford*, Ed. med. journ. XII. 22. *Lazzaretto*, XIV. 68: *Edwards*, XVI. 31; with concussion: *Peake*, 513; with loss of brain. Jaw.) *Hughes*, Med. facts. III. 36. Rib.) *Leake*, Med. obs. inq. III. 28; with emphysema. *Wilkinson*, Lond. med. journ. XI. 130. Sternum.) *Meek*, Ed. phys. ess. III. 505. *Borthwick*, Med. comm. Ed. V. 185. *Hall*, Lond. med. journ. VIII. 391. Pelvis.) *Coates*, Medicoch. tr. XI. 270; fractured os pubis. Clavicle.) *Brasdor*, M Ac. chir. V. 575. Brünninghausen über den bruch des schlüsselbeins. 8. Würzb. 1791. Humerus.) *Moscati* and others, M. Ac. chir. IV. 614, 622. *Stansfield*, Medicoch. tr. VII. 303; a seton. *Granger*, Ed. med. journ. XIV. 196. Olecranon.) *Haighton*, Dunc. med. comm. IX. 382. Camper de fractura patellae et olecrani. 4. Hag. 1789. Radius.) *Colles*, Ed. med. journ. X. 182. Lower extremities.) Earle on fractures of the lower limbs. 8. Lond. 1807. *Sharp*, Phil. trans. 1767. 80; an instrument for fractured legs. *Sabatier*, M. Ac. chir. IV. 630; neck of the femur. Sheldon on fractures of the patella. 8. Lond. 1789. Brünninghausen über den bruch des schenkelbeinhalses. 8. Würzb. 1789; ties the limb to its fellow, a method claimed by Gescher. M. H. B. Ed. med. journ. IX. 333; femur. *Wardrop*, Medicoch tr. V. 358; a seton, to promote the union; *Brodie*, 387; after Dr. Physick. *Peake*, Ed. med. journ. XI. 93: *Liston*, XVI. 212; neck of the femur. *Cooper's* essays, II. Granger's inclined plane, Ed. med. journ. XVII. 194.

1. *Fractura simplex.*

A. Transverse. Fractura, Vogel.

B. Oblique, the bones unavoidably riding.

C. Longitudinal. Fissura, Vogel.

D. Epiphysical. The separation of an epiphysis. Diastasis epiphysica, *Sauvages*, I. 232.

2. *Fractura complicata.* *Brandish*, Lond. med. journ. VII. 135. *Vergan*, X. 80; internal.

3. *Fractura partialis.* Fissura, *Sauvages*, I. 240.

4. *Fractura imperfecta.* Plicatio, Thlasis, Vogel. *Mackie*, Dunc. ann. 1797, 250; a depression of the skull.

5. *Fractura penetrativa.*

A. Internal. A cavity being wounded. *Lassus*, M. Ac. chir. V. 71; the longitudinal sinus.

B. External. The skin being divided. Compound fracture. *Coutaros*, M. Ac. chir. II. 415. *Willison*, Dunc. med. comm. XIV. 310. *Carter*, Med. facts. II. 1; 11, of the skull. Weldon on compound fractures.

LXXII. LACERATIO.

Laceration.

The separation of an internal soft part by violence, into two or more portions.

1. L. *ligamentáris.* Of a ligament.
2. L. *musculáris.* Of a muscle, or its tendon.
3. L. *vasculáris.* Of a bloodvessel.
4. L. *viscerális.* Of a viscus.

1. *Laceratio ligamentaris.* Generally accompanies a luxation, and often a strain. Ruptura, *Sauvages*, I. 240; sometimes.

2. *Laceratio muscularis.*

A. Of the muscular fibres. Theden? N. bem. II. 145. *Wathen*, M. Med. soc. Lond. I. 292. *Wardrop*, Medicoch. tr. VII. 278; Gastrocnemius: bandages.

B. Of a tendon. Ruptura, *Sauvages*, I. 240; sometimes. *Monro*, Ed. phys. ess. I. 450. Duchanoy, Journ. méd. XLIII. *Rodbard*, Lond. med. journ. VIII. 304. Wardenburg Verbandarten. 8. Gott. 1793. All of the tendo Achillis.

3. *Laceratio vascularis.* Tulp. II. obs. 40. Morgagni, ep. 26, n. 27. 28. *Doubleday*, Med. obs. inq. V. *Thomas*, Med. comm. Ed. VI. 75. *Pasere*, Lond. med. journ. VI. 141; a vein. In a bone.) Gooch obs. *Blagden*, Medicoch. tr. VIII. 224; tooth; haemorrhage fatal. Haematocele.) Forest. chir. VI. 32. *Monro*, Ed. med. ess. V. 328. Morgagni, ep. 43, n. 35. Pott on hydrocele. *Harris*, M. Med. soc. Lond. V. 37.

4. *Laceratio visceralis.* Forest. chir. VI. 6. Morgagni, ep. 54; de ictibus ventris; ep. 69, n. 6. Oesophagus.) *Dryden*, Dunc. med. comm. XIII. 308; vomiting. Stomach.) *Crampton*, Medicoch. tr. VIII. 228. Heart or its connexions.) Morgagni, ep. 26, 27; ep. 64, n. 15. Ed. phys. ess. III. 257. Thompson, Med. obs. inq. IV; *Wright*, VI. 1. Portal, M. Ac. Par. 1784. See asthenia syncope. Mediastinum.) Morgagni, ep. 26, n. 40. Liver.) *Pearson*. Med. trans. III. 377. *Skeete*, Lond. med. journ. VI. 274. *Blane*, Tr. soc. med. ch. kn. II. 18; apparently spontaneous, with pain and languor. *Chisholm*, Ed. med. journ. VII. 257; with the spleen. *Fryer*, Medicoch. tr. IV. 330; recovered. *Bell*, Ed. med. journ. XV. 252. Spleen.) Schenk, II. ii.

104; not always fatal. Tulp. II. xxix. Morgagni, ep. 36, n. 11. Theden N. bem. II. 76. Bladder.) *Montague*, Med. commun. II. 284. *Baillie's* engr. 155? Opening into a cyst. Urethra.) *Wood*, Ed. med. journ. IV. 41. See Dystocia. Penis.) *Trye*, Med. commun. II. 158. Uterus.) Stalpart. I. 66. II. 30. Douglas, Ed. phys. ess. II. xxiv. Morgagni, ep. 48, art. 30..38. Mursinna beob. I. 11. Selle N. beytr. II. 50, 54.

LXXIII. VULNUS.

Wound.

A solution of continuity, effected by violence, and extending to the surface of the body.

1. V. *sim'plex.*	A simple separation of parts.
2. V. *pen'etrans.*	Communicating with a cavity.
3. V. *lacerátum.*	The substance being irregularly torn.
4. V. *contúsum.*	The surrounding substance being bruised.
5. V. *ablatit'ium.*	With loss of substance.
6. V. *venenátum.*	A poisoned wound.

Vulnus. Cull. syn. cxlv. Boerh. 145. *Guthrie*, Dunc. med. comm. XIX. 297; ardent spirits, as preventing suppuration. Perey sur le traitement des plaies. 8. Par. 1792. J. Bell on wounds. 8. 1800. Balfour on adhesion. 8. Ed. 1814. Sutures.) *Ed.* med. ess. I. 242. *Pibrac*, M. Ac. chir. III. 408. Haemorrhages, ligatures, and styptics.) Petit, M. Ac. Par. 1731; natural plugs. *Faget*, Phil. trans. 1752. 560. *Morand*, M. Ac. chir. II. 220; agaric; also *Sharp*, *Warner*, *Watson*, *Gooch*, *Ford*, *Thornhill*, Phil. trans. 1754-5. *Belloy*, M. Ac. chir. III. 600. *Kirkland*, Med. obs. inq. II. 278; sponge. *Wilmer*, M. Med. soc. Lond. III.

585; * *Jones* on haemorrhage and ligature. 8. Lond. 1805; Ed. med. journ. II. 224. S. Young on adhesion and suture. 4. Lond. 1808.

1. *Vulnus simplex.* *White*, Lond. med. journ. IV. 159; axilla. *Tryer*, Med. facts. VIII. 135; in the ear, causing a fungus. Verpinet, Journ. méd. IV; Ed. med. journ. III. 14; arm.

A. An open wound. Vulnus simplex, *Sauvages*, I. 235.

B. A puncture. Punctura simplex, *Sauvages*, I. 236. To this form we may refer wounds retaining foreign substances, or attended by peculiar symptoms of irritation. Morand, M. Ac. chir. III. 62. *Sherwin*, Med. comm. Ed. IV. 210; a nerve punctured in bleeding; *Scott*, 332; cathartics. *Borthwick*, Dunc. med. comm. VII. 353; in the head, with delirium: VIII. 322; a splinter in the temple: *Campbell*, IX. 275; a needle. *Pole*, M. Med. soc. Lond. I. 370; a bodkin left 15 years; III. 373; the puncture of a pin. *Watson*, Med. commun. II. 251; a contraction after bleeding, evidently an affection of the fascia; the biceps divided longitudinally, with great advantage. *Yeats*, Dunc. ann. 1799. 430; locked jaw threatened. *Tryer*, Med. facts. VII. 86; pins, after 60 years. *Bush*, Medicoch. tr. II. 251; a knife blade lodged 30 years in the back: *Wardrop*, VIII. 246; a severe nervous affection. See Entonia, x.

2. *Vulnus penetrans.* *Huxham*, Phil. trans. 1762. 515. *Simmons*, Med. facts. VIII. 23: *Tryer*, 137. Penetrating a great bloodvessel.) *Petit*, jun. M. Ac. chir. I. 237. II. 92; *Garengeot*, 115. *Ford*, Lond. med. journ. XI. 357; ulnar artery. *Adair*, Med. facts. IV. 21; brachial. *Croxall*, M. Med. soc. Lond. VI. 151; a portion of the fibula removed. *Guthrie*, Medicoch. tr. VII. 331; peronaeal. *Crawford*, Ed. med. journ. XII. 316: in venesection; two cases, cured. See laceratio. A lymphatic.) *Monro*, Ed. med. ess.

V. 395. The cavity of the cranium.) *Jamieson*, Ed. med. ess. II. 245; the brain forced by coughing through the cicatrix: the man was sensible, but paralytic, for 5 days, and then died. *Quesnay*, M. Ac. chir. I. 310; *Bertrandi*, III. 484, and *Andouillé*, 506; causing abscess of the liver. *Geach*, Phil. trans. 1763, 231. *Louis*, M. Ac. chir. V. 1; fungi of the dura mater. *Cairncross*, Dunc. med. comm. VIII. 296. Anderson, Ed. tr. Lond. med. journ. XI. 182; chiefly pathological. *French*, M. Med. soc. Lond. III. 604; with loss of brain; *Ledward*, IV. 424; small and fatal. *Ling*, Dunc. med. comm. XVIII. 301; loss of brain; also *Scott*, Dunc. ann. 1796. 358 .. *Carter*, Med. facts. VI. 91. *Walden*, M. Med. soc. Lond. V. 407; a gun breech remaining 2 months within the cranium. *Barlow*, Dunc. ann. 1802. 382. *Stanley*, Medicoch. tr. VIII. 12; fungi. The throat.) Verdier, M. Ac. chir. III. 78. *Stark*, Med. comm. Ed. IV. 434; trachea. *Ryan*, Dunc. med. comm. VIII. 319; pharynx. *Payne*, Lond. med. journ. VI. 28. *Robertson*, Dunc. med. comm. XVIII. 356; trachea. *Hathorn*, Ed. med. journ. XI. 194: *Gairdner*, XVI. 353. The chest.) Forest. chir. VI. 4, 47. Ballon. cons. I. 47. Barthol. hist. an. V. 96. Tulp. II. 17. Bont. med. Ind. 254. Stalpart. I. 30. Peters, Phil. trans. *Waugh*, Ed. med. ess. II. 316; causing consumption and hydrothorax. *Belloy*, M. Ac. chir. II. 125; a machine for compressing the intercostal artery. *Hewson*, Med. obs. inq. III. 372. *Pew*, Med. comm. Ed. V. 188; extending to the intestines. *R. Bell*, Dunc. med. comm. XI. 349. *Rigby*, Med. commun. II. 1. *Norris*, M. Med. soc. Lond. III. 440. *Home*, Tr. soc. med. ch. kn. II. 169. *Babington*, Med. records. 59; heart. *Featherton*, Medicoch. tr. II. 58; heart. *Grainger*, Ed. med. journ. XII. 498; heart of a buck: *Fuge*, XIV. 129: ball in the heart; lived 14 days: *Maclure*, 476; lungs. *Boyle*, Ed. med. journ. VIII. 42; diaphragm. Abdomen.) *Petit*, *Garengeot*, M. Ac. chir. I. II; *Verdier*, III. 67. *Morgagni*, ep. 54, de vulneribus abdominis. *Cochrane*, Dunc. med. comm. X. 276. *Kellie*, XVI. 306. *Hague*, Ed. med. journ. V. 129. *Calton*, Ed. med. journ.

XII. 27. *Kennedy*, Medicoch. tr. IX. 240; a shark; recovered. Stomach.] *Scott*, Med. commun. II. 78. *Burrowes*, Ir. trans. IV. 177; Med. facts. V. 185; a fistulous opening for 28 years. Intestines.] *Travers*, Phil. trans. 1757. 35; ileum; *Nourse*, 1776. 426. *Desault*, Med. facts. II. 153; a preternatural anus. Travers on injuries of the intestines. 8. Lond. 1812; Ed. med. journ. VIII. 471. Bladder.] *Douglas*, Ed. med. journ. XIII. 313. Kidney.] *Borthwick*, Dunc. ann. 1799. 466. Pelvis.) *Willison*, Ed. med. ess. IV. 294; with a hot iron. A joint.) *Morel*, Medicoch. tr. VII. 160; shoulder; joint removed.

3. *Vulnus laceratum.* Laceratura. Linn. *Benomont*, M. Ac. chir. II. 79; leg torn off at the knee; *Talin*, 80; toe; *Recolin*, 82; thumb; *Morand*, 83. *Home*, Phil. trans. 1758. 617. *Wilmer*, Med. obs. inq. IV. 338; on dividing an aponeurosis. *Carmichael*, Med. comm. Ed. V. 79; arm. *M. Med.* soc. Lond. III. 519; arm with scapula. *Carter*, Med. facts. II. 17; leg and thigh; VI. 66; sal ammoniac in vinegar. *Paterson*, Ed. med. journ. IV. 513; haemorrhage from drawing a tooth: *Gregson*, VIII. 23; metacarpal bone removed.

4. *Vulnus contusum.* Especially gunshot wounds. Vulnus sclopetorum, *Sauvages*, I. 236. *Guerin*, M. Ac. chir. II. 215; chest; *Boucher*, 287; 461, with splinters; *Carnac*, *Bordenave*, and others, 484, 501; *Martinière*, IV. 1; *Vacher*, 22. *Woolcomb*, Phil. trans. 1770. 94. Häberlein von schusswunden. 4. Vienn. 1787. Thomassin on extraction. 8. Strasb. 1788. B. Bell on gunshot wounds. Binney, Amer. Ac. Lond. med. journ. VII. 295; *Jackson*, XI. 363. *Manoury*, Med. facts. I. 176; mouth. * *J. Hunter* on the blood. *Aitken*, Dunc. ann. 1802. 390. Chevalier on gunshot wounds. 12. Lond. 1804. *Burmester*, Ed. med. journ. III. 268; death from punishment. *Maiden's* case of recovery. 4. Lond. 1812; Ed. med. journ. IX. 93; thorax. *Arnold*, X. 265; gunshot wounds of the thorax. *Denmark*, Medicoch. tr. IV. 48; radial nerve injured: *Hutchinson*,

IV. 188; brain injured. *Power*, Ed. med. journ. XI. 429. *Boggie*, Medicoch. tr. VII. 338; sore nipples. See ulcus. Guthrie on gunshot wounds of the extremities. 8. Lond. 1815: Ed. med. journ. XII. 220. *Quarner*, Medicoch. tr. VIII. 1. at Algiers; speedy amputation. Hutchinson on gunshot wounds. 8. Lond. Ed. med. journ. XIV. 643. *Guthrie* on gunshot wounds. 8. Lond. 1821.

5. *Vulnus ablatitium.*

A. Excoriatio, *Sauvages*, I. 238.

B. Deeper than the skin, and accidental. *Pibrac*, M. Ac. chir. IV. 63; *Fabre*, 74; *Louis*, 106. *Garrett*, Ed. med. journ. XI. 207; extensive gunshot wound.

C. Amputatura, *Sauvages*, I. 240. See acology. *Dunc.* med. comm. XIV. 405; circumcision in a negro child, followed by total adhesion of the vagina. *Scott*, Med. commun. II. 54; extirpation of the male organs. *Irvine*, Dunc. med. comm. XV. 363; penis. *Rait*, XVI. 299. *Greding*, Med. facts. VII. 74; self castration: *Balfour*. Ed. med. journ. X. 421; reunion of fingers: also *Bailey*, XI. 317; bone divided: *Fletcher*, 451: *Hunter*, 452; thumb: *Braid*, XII. 428; finger.

6. *Vulnus venenatum.* Mead on poisons. 8. Lond. 1745: is strangely mistaken in denying the perforation of a spider's fang. *Forster*, Phil. trans. 1762. 475; animals; *Gale*, 1765, 244; salt. Logan de venenis; Webster m. pr. III. 214. Serpents.) Geoffroy, M. Ac. Par. 1737; oil. Fontana sur le vénin de la vipère. 4. Flor.; Dunc. med. comm. XII. 74. *Gray*, Phil. trans. 1789. 21; distinction. *Lond.* med. journ. X. 283. *Alexander*, Dunc. med. comm. XIV. 297; eau de luce. *Russell* on Indian serpents. f. Lond. 1796; Duuc. ann. 1797. 1. *Russell* and *Home*, Phil. trans. 1804. 70, 346; structure. *Home*, Phil. trans. 1810. 75; a

fatal bite of a rattlesnake. *Ireland*, Medicoch. tr. II. 393; arsenic with a little opium, mint water and lime juice, in enormous doses. *Smith* on the fangs of serpents. Phil. trans. 1818. 471. Bee.) *Ed.* med. journ. XIII. 130. Tarantula.) *Cirillo*, Phil. trans. 1770. 233. *Turnbull*, Ed. phys. ess. III. 100. Fenomeno raro. 4. Madr. Vegetables.) *Herissant*, Phil. trans. 1751. 75; lama and ticunas: Fontana, 1780. 163; ticunas. Aepimelaeus de arbore Macassariensi. 4. Leipz.; Dunc. med. comm. XV. 36. Martius über den giftbaum. 8. Erl. 1792; declared by a letter of the emperor of Java to be fabulous. See also Staunton's voyage. Acids?) *More*, Phil. trans. 1760. 936; a peculiar effect on the skin, removed by a soap.

LXXIV. OBSTRUCTIO.

Obstruction.

The partial or total obstruction of a passage by a mechanical obstacle.

1? O. *auditoria.*	Of the auditory passage.
2. O. *oesophagéa.*	In the oesophagus.
3. O. *ventriculáris.*	In the stomach.
4. O. *intestinális.*	In the intestines.
5. O. *tracheális.*	In the trachea.
6. O. *pelvica.*	In the viscera of the pelvis.

Obstructio. Pins swallowed.) *Nicholls*, Phil. trans. 1769. 9. *Bew*, Lond. med. journ. IV. 77; *Mills*, VI. 36; *Boys*, 401.

1. *Obstructio auditoria.* *Stevenson*, Ed. med. journ. XI. 80.

2. *Obstructio oesophagea.* *Stedman*, Ed. med. ess. I. 210; a bone. *Hevin*, M. Ac. chir. I. 444. *Cleghorn*, Med. obs. inq. III. 7; a feather; *Ludlow*, 85; a cherry stone, causing a dilatation; *King*, VI. 231; a feather. *Coyte*, Med. trans. III. 30; a crown piece. *Blair*, M. Med. soc. Lond. V. 328; tobacco clyster. *Baillie's* engr. 45; a half crown, and a cherry stone.

3. *Obstructio ventricularis.* *Wheeler*, M. Med. soc. Lond. I. 322; a knife. *Wilson*, Dunc. ann. 1796. 371; a nail, remaining 15 months, causing hectic. *Wood*, Med. facts. VIII. 139; hairy concretions. *E. Harrison*, M. Med. soc. Lond. V. 132, 138; effect of nitric acid on iron; *J. E. Harrison*, 150; cherry stones, with a scirrhous pylorus. *Home?* Phil. trans. 1807; repletion. *Finchan*, Ed. med. journ. VI. 151: *M'Sweeny*, XVI. 46; spicula of bone.

4. *Obstructio intestinalis.* Forest. XXI. obs. 9. Stalpart. I. 64. Amyand, Derham, Fielding, Holbroke, Sloane, Yonge, Phil. trans. *Cole*, Ed. med. ess. V. 431; plumb stones, discharged by abscess. *Monro*, Ed. phys. ess. II. 345; concretions. Devillaine, Journ. méd. XXXVII; cherry stones, germinating; Barrat, L. *Fynney*, Phil. trans. 1777. 458; abscess. *Swediar*, Lond. med journ. II. 337; a cherry stone in an abscess; Johnson, VI. 355.. White's cases. Selle N. beytr. II. 109. Walther, thes. obs. n. 12. *Blair*, Med. facts. VI. 111. burnt bread, in the rectum. *E. Harrison*, M. Med. soc. Lond. V. 154; an apple core, causing fistula. *Clarke*, Dunc. ann. 1798. 357; a concretion on fruit stones. *Thomas*, Medicoch. tr. I. 122; dilating the rectum.

5. *Obstructio trachealis.* *Martin*, Phil. trans. 1765. 39; in the lungs. *Lamartinière* and others, M. Ac. chir. V. 521..536. *Borthwick*, Dunc. ann. 1796. 349; a plum stone; fatal to a child between 4 and 5. *North*, Tr. soc. med. ch. kn. III. 1; a leaden shot.

5. *Obstructio pelvica.* *Morgagni*, ep. 42, n. 18... *Morand*, M. Ac. chir. III. 605. *R. W. Darwin*, M. Med. soc. Lond. III. 513; a catgut bougie, dissolved. *Ford*, Med. facts. I. 96; a catheter. *Thomas*, Medicoch. tr. I. 122; dilating the f. urethra.

LXXV. VENENATIO.

Poison.

The presence of a noxious substance which has béen swallowed.

1. V. *inter'na.*

1. *Venenatio interna.* *Morgagni*, ep. 59, de morbis a veneno inductis. *Gmelin* Geschichte der gifte. 8. Leipz. 1776. *Fontana* sur les poisons. 2 v. 4. Flor. 1781; Lond. med. journ. V. 2. Houlston on poisons. 8. Lond. 1784; Lond. med. journ. V. 374; *Remarks* on poisons, 410. Logan de venenis; Webster med. pr. III. 214. Plenck toxicologia. 8. Vienn. 1785. Lindestolpe. Hahn. *Gervis?* Medicoch. tr. II. 234; pain, sometimes petechiae, and death, from an unknown cause. * *Brodie*, Phil. trans. 1811. 1812; Ed. med. journ. VIII. 447. * *Orfila*, Traité des poisons. 2 v. 8. Par. 1814. Engl. Lond. 1815; Ed. med. journ. XI. 120: XIII. 203. Orfila Secours à donner. 8. Paris. 1818; Ed. med. journ. XIV. 639. See Pharmacology. Fish.) *Anderson*, Phil. trans. 1776. 544. *Chisholm*, Ed. med. journ. IV. 393. *Thomas*, M. Med. soc. Lond. V. 94. Burrows on muscles. 8. London, 1815; fatal cases. Vegetables.) Wilmer on poisonous vegetables. 8. Lond.; Lond. med. journ. I. 336. Dölz über pflanzengifte, von Ackermann. 8.

Nur. 1792. Dölz circa quaedam venena. 8. Altd. 1793. Sage sur les Poisons Végetaux, 8. Par. 1811. Ed. med. journ. IX. 378. Stramonium.] *Fowler*, Med. comm. Ed. V. 161. *Johnson*, Med. facts. V. 78; seeds. Hyoscyamus.] *Hamilton*, Ed. phys. ess. II. 243. Tobacco.] *Grant?* Dunc. med. comm. XI. 327; employed for scabies; relieved by warm bath. Belladonna.] *Pulteney*, Phil. trans. 1757. 62. *Brumwell*, Med. obs. inq. VI. 222. Stramonium.] *Young*, Ed. med. journ. XV. 154; relieved by small doses of castor oil long continued, after the imperfect action of a violent emetic: *Granger*: XVI. 155; a fatal case; the poison had passed the stomach. Oenanthe crocata.] *Watson*, Phil. trans. 1746, 1758. 856. *Houlston*, Lond. med. journ. II. 40; mistaken for bunium; *Pulteney*, V. 192. *Graves*, Med. facts. VII. 308. Andromeda?] *Longmore*, Dunc. ann. 1798.; wine useful. Euphorbium.] *Yonge*, Phil. trans. 1760. 662. Manihot.] *Clark*, Med. facts. VII. 289. Manchenille.] *Peyssonel*, Phil. trans. 1758. 772. Yew.] Percival in Med. comm. Ed. VI. 33; fresh leaves a strong poison. Selle N. beytr. I. 1; petechiae, from the berries. Fungi.] Heberden, Med. trans. II. 216. Opium.] *Clark*, Ed. phys. III. 121; a drachm. *Whateley*, Med. obs. inq. VI. 331; breathing maintained by bellows. *Marcet*, Medicoch. tr. I. 77; six ounces of laudanum; cupr. sulf. gr. xv. given with advantage. *M'Kechnie*, Ed. med. journ. VII. 306: *Kinnis*, XIV. 603: *Richardson*, XVII. 226; venesection. Laurel water.] Penchinati, M. Tur. Lond. med. journ. XI. 160. Spirits.] *Rollo*, Lond. med. journ. VII. 33; fatal. Trotter on drunkenness. 8. Lond. 1804; Ed. med. journ. I. 73. Oxalic acid.] *Fraser*, Ed. med. journ. XIV. 607. Minerals.) *Wilson*, Ed. phys. ess. I. 499; mill reek, perhaps lead. *Fothergill*, Med. obs. inq. V. 394: water colours. *Houlston*, Med. comm. Ed. VI. 325; alkalis useful. *Bostock*, Ed. med. journ. V. 14. Nitrous gas.] *Mounsey*, Phil. trans. 1757. 19; *Baker*, 1764. 15. Desgranges, Journ. méd.; Ed. med. journ. III. 16. Nitric acid.] Tartra, Traité de l'empoisonnement. Par. 1802. Ed. med. journ. IX. 369. Arsenic.] *Thomson*, Ed. med. ess. IV. 45: vio-

lent effects from an insensible quantity. *Yelloly*, Ed. med. journ. V. 389. *Ogle*, Tr. soc. med. ch. kn. II. 63. *Bostock*, Ed. med. journ. V. 166; detection. *Roget*, Medicoch. tr. II. 136; bleeding. *Jaeger* de arsenico. 8. Tubing. 1808; Ed. med. journ. VII. 80: *Renault* Contrepoisons. Par. 1801; VII. 89. *Marcet*, Medicoch. tr. III. 342; nitrate of silver, a test; VI. 663; exceptions. *M'Leod's* case, Ed. med. journ. XV. 553: Granger, XVI. 155; objects to oil, after Fourcroy. Copper.] *Ramsay*, Med. obs. inq. 146; vessels. *Simmons*, Med. comm. Ed. IV. 73; sulfate; *Percival*, Med. trans. III. 80; in pickles. *Yeats*, Dunc. ann. 1802. 394; acetate. Lead.] Clutterbuck on lead. 8. Lond. 1794. *Kerckhofs*, Med. tr. VI. 39. See colica. Mercury.] See Asthenia. Corrosive sublimate.] *Henry*, Ed. med. journ. VII. 150. *Robertson*, VIII. 195: *Chisholm*, 291: *Valentine*, XIV. 468: *Anderson*, 474; starch useful: *Thomas*, XVI. 510.

LXXVI. PARASITISMUS.

Vermination.

The presence of worms or insects on or in the body.

1. P. *superficiéi.*	On the surface.
2. P. *cutáneus.*	In or under the skin.
3. P. *cephal'icus.*	In some of the natural cavities about the head.
4. P. *intestinális.*	In the alimentary canal.
5. P. *pel'vicus.*	In the natural cavities of the viscera of the pelvis.
6. P. *errat'icus.*	In a deep seated part, but not in a regular cavity.

Parasitismus. Schenk. II. 249. Doeveren. 4. Leyd. 1753. Musgrave. Tussis verminosa, *Sauvages*, I. 654.

Lieutaud hist. an. I. 211. Bosch ab Achermann. 8. Nur. 1779. Haen rat. med. XIV. 139. Lentin obs. I. xxii. Strack de febrium remittentium natura. Jördens Entomologie und helminthologie des menschlichen körpers. 2 v. 4. Hof. 1801-2; Ed. med. journ. VIII. 317. Brera Vermi. Cremon. 1802. Bradley on worms. 12. Lond. 1813; Ed. med. journ. IX. 231.

1. *Parasitismus superficiei.* Murray de vermibus in lep obviis. 12. Gott. 1769.

A. Pediculus vulgaris. Margin notched. Pruritus pedicularis, *Sauvages*, II. 43. Phthiriasis pedicularis, 602.

B. Pediculus pubis. Margin entire. Phthiriasis inguinalis. *Sauvages*, II. 603.

C. Pulex irritans.

D. Acarus reduvius. Sheep tick.

E. Acarus domesticus. Observed in the head, in considerable numbers. Y. Willan, in speaking of the prurigo senilis, mentions an insect apparently resembling this, but which he considers as approaching to the genus pulex.

F. Acarus scabiei.

2. *Parasitismus cutaneus.*

A. Pulex penetrans. Chigo or chigger. Malis americana, *Sauvages*, II. 551.

B. Acarus autumnalis. Harvest bug. Psydracia ab acaris, *Sauvages*, I. 135.

C. Acarus scabiei. Generally found in a fold of the cuticle near a pustule. Morgagni, ep. 55, n. 4. Scabies vermicularis, *Sauvages*, II. 578. *Wichmann*, Lond. med. journ. IX. 28.

D? Acarus phthiriacus. Said to harbour under the skin; but not correctly described. Forest. VIII. obs. 14.. 16? Phthiriasis interna, *Sauvages*, II. 603. The insect is the pediculus vulgaris. Y.

E? Cantharis. Maliasmus, Ploucq. nosol.

3. *Parasitismus cephalicus.* Maloet, M. Ac. P. 1733; a scolopendra in the frontal sinus. Journ. méd. 1758. 145; ear. *Morgagni*, ep. 1; hemicrania; ep. 14, n. 7; larvae in the ear. Hemicrania ab insectis, *Sauvages*, II. 57; Otalgia verminosa, 72; ab insectis, 73; not bred in the body. *Med.* comm. Ed. II. 312; a scolopendra in the nostrils. *Kilgour*, Dunc. med. comm. VIII. 75; larvae in the nose, destroyed by infusion of tobacco. *Heysham*, Med. commun. I. 430; from the antrum, probably the larva of an oestrus.

4. *Parasitismus intestinalis.* Hippocr. Foes. 512. Forest. XXI. 26, 37. Ballon. cons. I. 30, 119. III. 111. Barthol. hist. an. I. 90; Hofm. suppl. II. 2. *Douglas*, Ed. med. ess. I. 222; discharged from an ulcer. Werlhof opp. III. 734. *Nicholls*, Phil. trans. 1755. 246. *Oram* and *Gaze*, Phil. trans. 1758. 518; fits, cured by white lead. Morgagni, ep. 47, n. 12. Linn. amoen. acad. II. Act. Helv. I. 22. *Limbourg*, Phil. trans. 1766. 126. Palmer de vermibus intestinorum. 8. Ed. 1766; Smellie thes. III. 34. Armstrong. Swieten, IV. 699. Eclampsia verminosa, *Sauvages*, I. 570. Lentin mem. 16. Haen de vermibus intestinorum. 8. Vienn. 1780; Lond. med. journ. IV. 49; Meyer. Broughton de vermibus intestinorum; Webster med. pr. III. 199. Bloch von den eingeweidewürmern. 4. Berl. 1782; Lond. med. ourn. VI. 76. Göze Eingeweidewürmer. 4. Blankenb. 1782. Werner intestina. 8. Leipz. 1783-8. Balding. kr. arm. 276.

Stack med. cas. Starke clin. inst. 21. Stoll rat. med. VI. 7; prael. I. 252. II. 417. Schrank verzeichniss der eingeweidewürmern. 8. Mun. 1788. Gregory conspectus. *Hooper*, M. Med. soc. Lond. V. 224. *Baillie's* engr. 89; chiefly from Werner. *Rumsey*, Medicoch. tr. IX. 389. Anthelminthics.) *Fowler*, Dunc. med. comm. VIII. 336; their effects on earthworms. *Latham*, Med. tr. V. 52. Indian pink, Anthelmia.] *Lining*, Ed. phys. ess. I. 386; *Garden*, III. 145. *Clark*, Med. facts. VII. 289. Cowhage, Dolichos.] *Cochrane*, Med. comm. Ed. II. 82; *Kerr*, 202. Chamberlaine on cowitch. 8. Lond. 1784; Lond. med. journ. VI. 313. *Chamberlaine*, M. Med. soc. Lond. III. 562. Wild cabbage, Geoffroea.] *Duguid*, Ed. phy. ess. II. 264. *Med.* comm. Ed. II. 96; *Anderson*, IV. 84. *Wright*, Phil. trans. 1777. 507. Angeline tree.] *Grieve*, Dunc. med. comm. IX. 365. Corrosive sublimate.] *Gardiner*, and Clerk, Ed. phys. ess. III. 380.

A. Ascaris vermicularis. Thread worm. Del. amoen. med. I. 341. *Turner*, Med. obs. Inq. II. 307; tobacco smoke; a good case. *Heberden*, Med. trans. I. 45, 54; cinnabar and rhubarb, half a drachm of each; common salt. Pudendagra ab ascaridibus, *Sauvages*, II. 149; Tenesmus ab ascaridibus, 363. *Young* de vir. conservatr.

B. Ascaris lumbricalis. Round worm. *Maclaggan*, Med. comm. Ed. II. 80; discharged by a sore. Rau de ascaride lumbricoide. 4. Gott. 1779. *Wier*, Lond. med. journ. IV. 393; *Coleman*, VII. 251; by a hernial sore; *R. Hamilton*, 372; by the navel. *Church*, M. Med. soc. Lond. II. 63; *Warner*, III. 591.

C. Trichocephalus hominis. Hair worm? Roederer morb. mucos. 41.

D. Tape worm. Horst. II. 537. Tulp. II. xlii. Bagliv. pr. m. I. ix. epp. 687. Tyson, Phil. trans. abr. III. 121.

Wepfer obs. 234. *Alston*, Ed. med. ess. V. 89; tin. *Morgagni*, ep. 34, n. 37. Swieten, IV. 703. Haen rat. med. VIII. 256. IX. 231, 304. XII. 210. Batsch Bandwurm. 8. Hall. 1786. *Dunc.* med. comm. XVI. 369; a taenia from a dog lived in boiling water. Weikard, verm. schr. I. 71. *Malden*, M. Med. soc. Lond. IV. 419; two drachms of oil of turpentine, taken accidentally. *White*, Dunc. ann. 1797. 292; vomited. *Buchanan*, Ed. med. journ. III. 22; *Oil* of turpentine, VI. 253; *Laird*, 376; four ounces have been given. *Fenwick*, Medicoch. tr. II. 24; oil of turpentine: *Pollock*, Ed. med. journ. X. 412; pomegranate; in an infant: *Hartle*, XI. 299; oil of turpentine; also XIV. 481. *Breton*, Medicoch. tr. XI. 301; pomegranate *bark*; many cases. *Knox*, Ed. med. journ. XVII. 384; Great fish river; causes dyspnoea and salivation.

1. Taenia solium. Apertures single, marginal.

2. T. vulgaris. Two apertures at one margin.

3. T. lata. Aperture central.

4. T. dentata. An aperture at each edge.

E? Hydatids. Taenia visceralis? Barthol. ep. I. 491, 503. Scott, Med. comm. Ed. V. 196. Balding. N. mag. IV. 556. X. 345. *Gell*, Ed. med. journ. XV. 50; after an accident.

F? Leeches. Haematemesis ab hirudine, *Sauvages*, II. 298. Galen loc. aff. Schenk. 227. River. cent. 4. obs. 26.

G. Larvae of insects. *Calderwood*, Med. comm. Ed. IX. 223. *White* and *Church*, M. Med. soc. Lond. II. 67; pupa of the musca cibaria; mention the phryganea grandis, and the phalaena pinguinalis. *Crumpe*, Ir. trans.

VI. 57; Med. facts. VIII. 229; from the stomach. *Bateman* and others, Ed. med. journ. VII. 41; tenebrio molitor, the mealworm, musca domestica minor, musca nigra, and musca carnaria.

(H?) A lizard? *Spence*, Ed. med. journ. IX. 315; did not see it himself.

† H. Imaginary. Paisley, Ed. med. ess. II. 333; Bond, Med. obs. inq. I. 67; coagula formed in the colon and rectum, filled with blood, and mistaken for worms. Y.

5. *Parasitismus pelvicus.*

A. In the urinary passages. Bouet. Med. sept. xxxi. Tulp. II. 49..52. Journ. méd. 1758. 245. Morgagni, ep. 42, n. 6, 7. Ischuria nephrelminthica, *Sauvages*, II. 524; urethrelminthica, 535.

1. Hydatids. Taenia visceralis? *Russel*, Med. obs. inq. III. 146. *Blackburne*, Lond. med. journ. I. 125. *Fynney*, M. Med. soc. Lond. II. 516.

(2?) Larvae. Curculio nucum? *Henry*, Ed. med. journ. VII. 146.

2. Mesostenius? *Lawrence*, Medicoch. tr. II. 382; Some appearing like small round worms, others contracted and almost jointed in the middle, having their section nearly square, and their internal substance apparently homogeneous. Should future observations confirm this description, the worm might be called Mesostenius urethralis, and characterized, Vermis medio angustior, utrinque acuminatus, subtus hinc carinatus, inde serie duplici tuberculorum instructus, visceribus nullis conspicuis.

†3. Imaginary? *Barry*, Ed. med. ess. V. ii. 757; red, perhaps a coagulum; with haematuria.

B. In the uterus.

1. Larvae. *Cookson*, Med. comm. Ed. III. 86.

2. Hydatids. Taenia visceralis? Wilmer, Lond. med. journ. VIII. 382; *Home*, Tr. soc. med. ch. kn. II. 300. *Baillie's* engr. 203.

6. *Parasitismus erraticus.*

A. Filaria medinensis. Forest. XX. obs. 12. Kaempf. fasc. 3. obs. 4. Velsch de vena medinensi. *Hutcheson* and *Forbes*, Ed. med. ess. V. ii. 784. Hillary's Barb. 377, 380. Malis dracunculus, Sauvages, II. 553. *Drummond*, Dunc. med. comm. XVIII. 295. *Bruce*, Ed. med. journ. II. 145: *Paton*, 151: *Dubois* and *Anderson*, 300: Chisholm, XI. 145; mercurial medicines: *Heath*, XII. 120; not contagious: *Scot*, XVII. 96; extracted whole at once.

B. Taenia visceralis. Hydatids. Most common in the liver. Can scarcely be considered as of the same genus with the true taeniae, nothwithstanding the occasional resemblance of their heads. *Aret.* chron. II. i. Horst. opp. II. 291, 513. Barthol. hist. an. VI. 84. Tulp. II. 34. Ruysch. obs. 27, 33, 46. Tyson, Phil. trans. n. 475. p. 305. Lecat, Graham, Phil. trans. Guattani, M. Ac. Par. *Morgagni*, ep. 38, n. 35... Evesque, Journ. méd. XLIX. Haen rat. med. II. 282. Hill, Dunc. med. comm. VII. 310; Paxton, VIII. 23; X. 151. Grund, Meier, Balding. N mag. IV. 493. Pallas misc. zool. 174. Bloch, 24. Goeze, 196, 249. Werner, 68. Fischer taenia hydatigena. 8. Leipz. 1789. *Home's* lecture. 1790, Phil. trans. 1795. 202.

1. In the brain. See paralysis. *Moorcroft*, Med. facts. III. 17; in a cow.

2. Coughed up, generally with bile. *Collet* and *Baker*, Med. trans. II. 486. *Doubleday*, Med. obs. inq. V. 143. *Hill*, Med. comm. Ed. II. 30; with bile; a spontaneous diarrhoea useful. *Powell*, Lond. med. journ. VI. 139: *Johnson*, 293. *Yeats*, Dunc. ann. 1802. 405; yellow. See hepatitis.

3. In the liver. *Lind*, Lond. med. journ. X. 76; discharged during a course of mercury. *Baillie's* engr. 107.

4. In the kidney. *Lettsom*, M. Med. soc. Lond. II. 32. *Baillie's* engr. 133.

5. About the abdomen. *Morgagni*. *Hill*, Med. comm. Ed. II. 30.

6. Under the skin? *Bisset*, Dunc. med. comm. IX. 244; lymphatic encysted tumours.

7. In the muscular structure. *Baird*, Ed. med. journ. XVII. 417; encysted.

C. Taenia cellulosae. Wern. cont. 2. p. 2. Goeze über die finnen. Hall. 1784.

D? Taenia simplicissima? So indistinct as to leave its animal nature uncertain.

E. Furia infernalis. Linn. amoen. ac. III. 322. Solenandr. N. Act. Ups. I. Pennant's Zoology.

F. Scolopendra? *Graham*, Dunc. med. comm. XII. 366; under the skin.

LXXVII. DYSTOCIA.

Obstetrical disease.

Disease or difficulty attendant on pregnancy and child-bearing.

1. D. *dyscyésis.*	Diseased pregnancy.
2. D. *abortíva.*	Abortion.
3. D. *perver'sa.*	Preternatural presentation.
4. D. *amor'phica.*	From malformation or deformity.
5. D. *geminórum.*	From a plurality of children.
6. D. *protrac'ta.*	The labour being continued beyond 24 hours.
7. D. *retentíva.*	The placenta being retained several hours after the birth.
8. D. *haemorrhag'ica.*	Flooding during or after labour.
9. D. *syncopális.*	Fainting during or after labour.
10. D. *convulsíva.*	Convulsions during or after labour.
11. D. *inversória.*	Inversion of the uterus after labour
12. D. *laceratória.*	Laceration during labour.
13. D. *inflammatória.*	Local inflammation in consequence of labour.
14? D. *febrílis.*	Fever consequent on parturition.
15. D. *maníaca.*	Mania consequent on parturition.

Dystocia. Aët. IV. iv. 22. Arant. obs. an. xxxix. Forest. XXVIII. 68. Bonet. sep. III. xxxviii. App. obs. 8. Mauriceau, II. Portal Pratique des accouchemens. 4. Par. 1682. Manningham artis obstetriciae compendium. 4. Hall. 1746. Raulin, Levret. Smellie's practice of midwifery, f. 1754. *Morgagni*, ep. 48, de partu infelici. Roederer elementa artis obstetriciae, a Wrisberg. 8. Gott. 1766. Dystocia, *Sauvages*, II. 117. Leroy Pratique des accouchemens

8. Par. 1776; with history and literature. Gibbons de puerperarum morbis; Webster med. pr. III. 251. C. White on the management of pregnant and lying in women. 8. Lond.; Med. comm. Ed. I. 135. Hamilton's midwifery. 8. Ed. 1781; Med. comm. Ed. IV. 61; Lond. med. journ. I. 145. * *Denman's* introduction. 8. Lond. 1782. 4. 1801. 2 v. 8. 1805. 4. 1806. Germ. by Römer. 8. Zur. 1791. Denman on natural labours. 8. Lond. 1786; On difficult labours; 3 parts. On preternatural labours. Denman's aphorisms. 12. 1793. Herbiniaux Accouchemens laborieux, 2 v. 8. Bruss. 1782; Lond. med. journ. III. 161; a charlatan. Osborn on laborious parturition. 8. Lond. 1783; Lond. med. journ. IV. 135. Osborn's essays. 8. Lond. 1796. Dease's observations. 8. Dubl. 1783. Osiander über die entbindungskunst. 8. Tüb. 1787. Hamilton's select cases. 8. Ed. 1795; Dunc. ann. 1796. 266; Engravings, 1796; Outlines, 1803. Siebold de cubilibus sedilibusque. 4. Gott. 1790. Baudelocque. Germ. by Meckel. 2 v. 8. Leipz. 1791-4; "perhaps the best work, but too long." Rothe. Engl. by Heath, 3 v. 8. 1790. Sommer Axe des weiblichen bechens. 8. Brunsw. 1791. Römer Annalen der geburtshülfe. 8. Winterth. 1793... "Excellent collections." Rothe. Saxtorph examen armamentarii Lucinae. 8. Copenh. 1795. Plenck Anfangsgründe der geburtshülfe. 8. Vienn. 1798. Osiander Lehrbuch der hebammenkunst. 8. Gott. 1796; for midwives. Unzer und Uden Diätetik der schwangern und säugenden. 8. Brunsw. 1796. Fischer über die Englische geburtshülfe. 8. Gott. 1797. Vogler Erfahrungen über geburt. 8. Marb. 1797. Stein Anleitung zur geburtshülfe. 2 v. 8. Marb. 1797: "a work which every one must possess." Rothe. Knebel Grundriss zu einer zeichenlehre. 8. Bresl. 1798. *London* practice of midwifery. 12. Lond. 1803, 1807; stolen from Clarke's lectures. Clarke on pregnancy and labour. 1806. *J. Burns's* principles of midwifery. 8. Lond. 1809; Ed. med. journ. VI. 99. Merriman's synopsis. 8. Lond. 1814. *Clarke*, Med. tr. V. 109; effects of oysters. (Lamotte, Deventer, Aitken, Jacobs, Hinze, Hofer, Mohrenheim, Hagen, Starke, Saxtorph, Josephi, Jördens, Sue, Weydlich, Hensler, Ficker,

plattdeutsch, Mohr, Ehrhardt, Steidele, Camper, Zeller, Boes, Schweikhard, Schlegel, Wigand, Astruc, Müller, Busch, Röderer.)

1. *Dystocia dyscyesis.* Mursinna krankheiten der schwangern. 2 v. 8. Berl. 1792.

A. Chiefly mechanical.

1. Dyspnoica.

2. Dysurica, *Hay*, Med. obs. inq. IV. 58; bladder ruptured.

3. Obstipatoria.

4. Haemorrhoidalis.

5. Varicosa.

6. Hydropica. *Laurie*, Ed. med. ess. V. ii. 642; ascites.

7. Paralytica.

8. Ectopica. Hysteroloxia, *Sauvages*, I. 220; especially retroversion, H. posterior, 221. Dystocia ab hysteroloxia. II. 119. *Lynn* and *Hunter*, Med. obs. inq. IV. 388, 408. *Hooper*, V. 104; *Bird*, 110; *Hooper*, 378; *Garthshore*, 388. *Evans*, Med. comm. Ed. VI. 215; *Swan*, 217. *Cheston*, Med. commun. II. 6; bladder punctured. *Croft*, Lond. med. journ. XI. 380. Melitsch von der umbeugung der gebährmutter. 8. Prague, 1792. *White*, Dunc. med. comm. XX 254. *Bell*, Med. facts. VIII. 32. *Ross*, Dunc. ann. 1799. 284.

9. Extrauterina. Bonet. sep. III. xxi. 57? Horst. opp. I. 131. II. 521. Barthol. hist. an. VI. 92; ep. III.

250. Tulp. IV. xl. Bayle, Bromfeild, Copping, Middleton, Giffar, Morley, Simon, Winthrop, Phil. trans. *Gemmil*, Ed. med. ess. V. 336; ovarium; *King*, 441. Chamoux, Journ. méd. XXXIX; Laugier, XLI. Thibault, Rec. pér. I. 368. *Debenham*, Phil. trans. 1751. 92. *Young?* Ed. phys. ess. II. 273; ovarium, bones. Morgagni, ep. 48, n. 42. *Bard*, Med. obs. inq. II. 369; *Kelly*, III. 44; *Hay*, 341. Haller, M. Ac. Par. 1773. *T. Bell*, Med. comm. Ed. II. 72; Percival, 77; *Smith*, V. 314. Walther Geschichte. 4. Berl. 1778; 22 years. *Fitzgerald?* Dunc. med. comm. VIII. 329; perhaps a laceration. Gerson Beobachtung. 8. Hamb. 1784. Lent. obs. II. 15. *Cammel*, Lond. med. journ. V. 396; *Moyle*, VI. 52; followed by a hernia. *Bland*, Dunc. med. comm. XI. 334. *Jacob*, Lond. med. journ. VIII. 147; *Underwood*, 320. *Baynham*, Med. facts. I. 73. *Turnbull*, M. Med. soc. Lond. III. 176; with many references. Gmelin, Bald. N. mag. IV. 17. Krohn foetus extra uterum historia. f. Lond. 1791. Deutsch de graviditate abdominali. 4. Hall. 1792. Thom, Josephi, Weinknecht, *Maclarty*, Dunc. med. comm. XVII. 481; by ulceration. *Clarke*, Tr. soc. med. ch. kn. I. 215; tube, fatal haemorrhage at 6 weeks. *Gordon*, Dunc. med. comm. XVIII. 323. *Meaze*, M. Med. soc. Lond. IV. 342. *Wilson*, Dunc. ann. 1797. 317; 1799. 401; *Forrester*, 1798. 379; ovarium. *Clarke*, Tr. soc. med. ch. kn. II. 1; tube; *Mainwaring*, 287. *Goodsir*, Dunc. ann. 1802. 412. *Grivel*, Ed. med. journ. II. 19; at 83. *A. Fothergill*, M. Med. soc. Lond. VI. 107. *Blizard*, Ed. trans. V. 18. *Anderson?* Ed. med. journ. II. 180; teeth and hairs in the ovarium; *Coley*, VI. 50; ovarium, scirrhous. *Langstaff*, Medicoch. tr. VII. 437; Faloppian tube, burst: also VIII. 502. Granville on a foetus in the ovarium: Phil. trans. 1820. 101. *Stanley*, Med. tr. VI. 414.

10? Superfoetation. *Maton*, Med. trans. IV. 161; but perhaps a twin, as in Chapman's case. See 2, A.

B. Principally from irritation.

1. Emetica. *Watson*, Med. obs. inq. III. 335; with acidity; magnesia. Körber de nausea et vomitu gravidarum. 4. Gott. 1787. *W. Vaughan*, M. Med. soc. Lond. II. 125; total abstinence. See dyspepsia.

2. Convulsiva. *Bisset?* M. Med. soc. Lond. III. 58; an irritable sympathetic tumour on the legs, during pregnancy. *J. Hamilton*, Dunc. ann. 1800. 313; against opium.

3. Syncopalis.

4. Diarrhoica.

5. Dyspeptica. Swieten, III. 95; jaundice.

6. Mastalgica.

7. Seriflua. *Alexander*, Med. comm. Ed. III. 187; beginning at 6 months, the membranes remaining entire; abortion was threatened 10 days before the birth.

†8. Haemorrhagica. See D. abortiva.

2. *Dystocia abortiva.* Galen. eup. Sol. 51. Aët. IV. iv. 18. Forest. XXVIII. 67. Plater. obs. III. 698. Horst. V. n. 24. Ballon. cons. I. 40. II. 35. III. 102. Barth. hist. an. III. 1. Schenk, IV. 149. Mauriceau, I. 186. II. 26, 316, 491. Ed. med. ess. II. xi. *Morgagni*, ep. 48, de abortu, n. 17... Latham, Phil. tr. 1770. 453; a

twin which had died early. Zimmerm. erf. II. Stoll rat. med. V. 460; prael. II. 388. Waite de abortu; Webster med. pr. III. 241. Kausch erfahr. *Lettsom*, M. Med. soc. Lond. V. 18. Burns on abortion. 8. Lond. 1806; Ed. med. journ. II. 366. Tracts on the trial of Angus. 8. Liv. 1808; Ed. med. journ. V. 220. Trial on a case of abortion. 8. Ipsw. 1808; Ed. med. journ. VI. 244. *Stewart*, Medicoch. tr. V. 144; opium as a suppository. *Lemon*, Ed. med. journ. XI. 96; without a foetus: *Knowles*, XII. 310; enormous doses of opium. Among cattle.) Tessier, M. Soc. R. méd. V. 249; contagious. Infanticide.) *W. Hunter*, Med. obs. inq. VI. 266; a child that has breathed often dies. Ehrhardt de asphyxia neonatorum. 8. Mein. 1789. Roose über das ersticken neugebohrner kinder. 8. Brunsw. 1794.

A. Incipient. Haemorrhage during pregnancy. *Puzos*, M. Ac. chir. I. 358. *Blackburne*, Lond. med. journ. II. 122. *Douglas*, Med. commun. I. 107; placenta misplaced. *Gordon*, Dunc. med. comm. XVIII. 317; in the 9th month. *Bishoprick*, XX. 359. *Chapman*, Dunc. ann. 1799. 308; the placenta expelled 4 hours before the birth. J. Burns on uterine haemorrhage. 8. Lond. 1807; Ed. med. journ. III. 347. *Robertson*, Ed. med. journ. V. 178; at 7 months. *Chapman*, Medicoch. tr. IX. 194; a twin at 7 months, leaving the othor.

B. Premature labour. *Rodman*, Ed. med. journ. XI. 455; "in the 5th month:" but rather the 7th or 8th, XII. 126, 251.

3. *Dystocia perversa. Gardner*, Med. comm. Ed. V. 306. *Breen*, Ed. med. journ. XIV. 26; on turning. *Gooch*, Med. tr. VI. 230; spontaneous evolution.

A. Faciei. *Clarke*, Tr. soc. med. ch. kn. II. 229: alters the position.

B. Pedis.

C. Natium. Spangenberg de partu clunibus praeviis. 4. Gott. 1780.

D. Transversalis.

E. Brachialis. *Denman*, Lond. med. journ. V. 64, 301; spontaneous turning. *Simmons*, Med. facts. I. 76. *Rait*, Dunc. med. comm. XIX. 319; protracted.

F. Funis, prolapsi.

4. *Dystocia amorphica.* Barthol. hist. an. I. 94. *Morgagni*, ep. 48, n. 39. *Clarke*, Lond. med. journ. VII. 40. Denman's plate of the pelvis. Creve von den krankheiten des weiblichen bechens. 4. Berl. 1795. *Ed.* med. journ. IV. 516; a woman 25 inches high had a child 21½. *Russell*, Medicoch. tr. XI. 445: adhesion in a negro. Tumour.) *Gemmil*, Ed. med. ess. V. 438. Wirth, Balding. N. mag. XII. 61. *Drew*, Ed. med. journ. I. 20; extracted. *Park*, Medicoch. tr. II. 296: *Merriman*, X. 50. *Bell*, Ed. med. journ. XVI. 365. Child too large.) Bonet. sep. III. xxxviii. App. obs. 2. Galetti, Journ. méd. XLIX. 233; dropsical. Camper, M. Ac. chir. V. 729; long head. Buxtorf, Act. Helv. VIII. x; Mursinna beob. I. 151; Zeller, Bald. N. mag. VIII. 179; hydrocephalus. Abstinence.) *Lucas*, M. Med. soc. II. 406. Premature labour.) *Barlow*, Med. facts. VIII. 185. *Merriman*, Medicoch. tr. III. 123. *Sankey*, Ed. med. journ. IX. 169. Instruments.) Steidele Lehrbuch. 8. Vienn. 1785. Hinze Uebersicht. 8. Liegn. 1794. Saxtorph arm. Lucin. Forceps.] *Butter*, Ed. med. ess. III. 320. Sutthof. Danz forcipis historia. 4. Giess. 1790. Klees Geburtszange. 8. Frankf. 1794. Schweighäuser Anweisung. 8. Leipz. 1796. Mulder historia forcipum et vectium. 8. Leyd. 1794. Lever.] *Camper*, M. Ac. chir. V. 729, 887. *Bland*, Med.

comm. II. 397; elaborate. *Hamilton*, Dunc. med. comm XVIII. 400; Lowder's, rather an extractor. Crotchet.] M. Ac. chir. IV. H. 103; double headed. Ring scalpel.] *Sims*, Ed. med. ess. V. 445. Caesarian operation.) *Stewart*, Ed. med. ess. V. 434; and *King*, 441; with a razor. *Simon*, M. Ac. chir. I. 623. II. 308. *Cooper*, Med. obs. inq. IV. 261; *Thomson*, 272; *Cooper*, V. 217. *Crawley*, Lond. med. journ. VI. 366: VII. 61; performed by the woman. Fritze in Schmucker, III; Lond. med. journ. XI. 146. *Barlow*, Med. records, 154; successful, the peritonaeum not stitched; *Haighton*, 242. *Wood*, M. Med. soc. Lond. V. 463. *Chisholm*, Ed. med. journ. IV. 178; Martinique; in the linea alba. *Kellie*, Ed. med. journ. VIII. 11. *Wood*, Medicoch. tr. VII. 264: *Locher*, IX. 11; successful, at Zurich; and another case at Minden: XI. 182; repetition in the same woman, ultimately fatal: *Lawrence*, 201; three other cases in Germany; one a successful repetition. Section of the symphysis.) Leroy sur la section de la symphyse. 8. Par. 1778; Med. comm. Ed. V. 39: *V.* 211. Bentley de sectione synchondroseos. 4. Strasb.; Dunc. med. comm. VII. 189; objections. Walter de dissectione synchondroseos. 4. Berl. 1782; Lond. med. journ. III. 366. Michel de synchondrotomia. 8. Amst. 1783; Lond. med. journ. IV. 374. *Myers*, Dunc. med. comm. X. 281; objections. *Damen*, Lond. med. journ. VIII. 34; *Welchman*, XI. 46.

5. *Dystocia geminorum.* Bonet. sep. III. xxxviii. 6. *Fell*, Ed. phys. ess. II. 342; with preternatural collection of water. *Aikin*, Med. comm. Ed. II. 300; a tumour resembling a second child. *Dunn*, Medicoch. tr. X. 396; a bag without a second foetus. See 2, A.

6. *Dystocia protracta.* *Paisley*, Ed. med. ess. IV. 444; with extravasation. Mangin, Journ. méd. XLI. 174, Jalouset, XLIII. 366, uterus callous. Bordenave, M. Ac. Par. 1777; Dunc. med. comm. X. 102; Caesarian operation after death. *Blackburne*, Lond. med. journ. VIII. 60;

11 months, uterus destroyed. *Clarke*, 182; fatal compression of the funis. *Cathrall*, Dunc. ann. 1798, 331; incision into the vagina. *Caldwell*, Ed. med. journ. II. 22; ossified. *Merriman*, Medicoch. tr. III. 47; from a dropsical ovarium: *Cheston*, V. 104; retained 52 years. *Albers*, Medicoch. tr. VIII. 507; seven years. *Breen*, Ed. med. journ. XV. 161.

7. *Dystocia retentiva.* *Recolin*, M. Ac. chir. III. 202; injecting warm water; *Levret*, 216. Aepli Zurücklassung der nachgeburt. 8. Zur. 1776. Journ. der erf. 6. 22. 3. 23. 74. *Turnbull*, M. Med. soc. Lond. III. 213. *Douglas*, Med. tr. VI. 379; on the hourglass contraction.

8. *Dystocia haemorrhagica.* Mauriceau, II. 386. Denman. *Spier*, Med. comm. Ed. VI. 443; from an encysted tumour. Saxtorph, Act. Havn.; Lond. med. journ. I. 59. *Fitzpatrick*, Dunc. med. comm. IX. 227; cold water. Stoll prael. II. 399. Leroux. * *Rigby* on haemorrhage. 8. 1785, 1811. Burns on haemorrhage. 8. 1807. *Stewart*, Medicoch. tr. IV. 358; opium. *Edwards*, Ed. med. journ. XI. 313: Stewart on uterine haemorrhage, 8. Lond. 1816; XIII. 89. *Blundell*, Medicoch. tr. IX. 58; suggests transfusion with a syringe. Manual remedy, Ed. med. journ. XIV. 259: *Campbell*, XVI. 554. See D. abortiva.

9. *Dystocia syncopalis.*

10. *Dystocia convulsiva.* *Bland*, Lond. med. journ. II. 328. *Fynney*, Dunc. med. comm. IX. 380. *Duncan*, Ed. med. journ. XI. 309: *Edwards*, 313. Hall on a serious affection? See asthenia.

11. *Dystocia inversoria.* *Crawley*, Lond. med. journ. VI. 366. *Shaw*, M. Med. soc. Lond. I. 213; a partial prolapsus, round the head. Wrisberg de uteri resectione. 4. Gott. 1787. *Hamilton*, Dunc. med. comm. XVI. 315:

White, XX. 247. *Brown*, Dunc. ann. 1797. 277; reduced. *Brown*, M. Med. soc. Lond. V. 202; the placenta attached, returned with the uterus and discharged after 5 days. *Albers*, Dunc. ann. 1800. 390. *Dyson*, M. Med. soc. Lond. VI. 118. *Windsor*, Medicoch. tr. X. 358; removed by ligature.

12. *Dystocia laceratoria.* Bonet. sep. III. xxviii. 5, 7. *Monro*, Ed. phys. ess. II. 339, and *Farquharson*, Dunc. med. comm. XIII. 344; uterus and abdomen. Steidele de rupto utero. 8. Vienn. 1774; Med. comm. Ed. VI. 123. * *Douglas* on a ruptured uterus. 8. Lond. 1785; Lond. med. journ. VI. 92. *Hooper*, M. Med. soc. Lond. II. 118; *Wilkinson*, III. 480; *Kite*, IV. 253. *Cathrall*, Med. facts. VIII. 146; *Jo. Sims*, 150. *Ross*, Dunc. ann. 1798. 377. *Haden*, Tr. soc. med. ch. kn. II. 184. Denman on rupture of the uterus. 8. Lond. 1810; Ed. med. journ. VI. 350. *C. Clarke*, Tr. soc. med. ch. kn. III. 290; peritonaeum only.

A. Uteri. *Scott*, Medicoch. tr. XI. 392; separation of the os uteri with part of the neck.

A. 2. Vaginal. Communication with the urethra. *Barnes*, Medicoch. tr. VI. 583; bottle of caoutchouc.

B. Vesicae.

C. Perinaei.

13. *Dystocia inflammatoria.* *Simson*, Ed. med. ess. III. 315; the os uteri had adhered, and was divided, but the woman died. *Maitland*, Med. comm. Ed. VI. 85; swelled labium. *Macbride*, Med. obs. inq. V. 89; labia swoln from lacerated vessels. *Reeve*, Lond. med, journ. IX. 119; sphacelus of the perinaeum. *Graham*, Medicoch. tr. VI. 601; mortification of the uterus.

14. *Dystocia febrilis.*

A. Inflammatory and transient. Weed. Sometimes accompanying a retention of the lochial discharge. Mauriceau, I. 416; 417, with diarrhoea. Stoll prael. II. 401. See ecphyma oedematicum, xlviii.

2. Milk fever. With distension of the breasts.

B. Resembling typhus. Literature, Nicolai pathol. III. § 396; forts. II. 711. Strother on fevers. Lond. 1718. Hunter, Ed. med. ess. IV. *Taithwell*, Ed. phys. ess. II. 417. Denman on puerperal fever. Lond. 1768. Hulme on childbed fever. 8. Lond. 1772. Med. comm. Ed. I. 1. Leake on childbed fever; Med. comm. Ed. I. 227. White on the management of pregnancy and labour. Fauke. Vienn. 1772. Kirkland on childbed fevers. 8. Lond.; Med. comm. Ed. III. 124. Butter on puerperal fevers. Lond. 1775. Manning on female diseases. Lond. 1775. *Carmichael*, Med. comm. Ed. IV. 45; suppuration. Millar dis. Gr. Br. III. iii. Aikin on hosp. *E. Johnstone*, Dunc. med. comm. VII. 276. Slaughter de febre puerperali; Webster. med. pr. III. 264. Stoll rat. med. II. 57. Home clin. exp. 75. Gruner et Fuchs. Jen. 1781. Selle med. clin.; beitr. I. II. 45, 111. Burser. inst. I. Doublet, Doulcet and others. Journ. méd.; and A. Fothergill, Lond. med. journ. III. 411; an emetic. Delaroche sur la fievre puerpérale, Par. 1783. *Jo. Clarke*, Dunc. med. comm. XV. 299. Sachtleben über das kindbettfieber. 8. Leipz. 1793. *Sutton*, Ed. med. journ. IX. 318; cases. Armstrong on puerperal fever. 8. Lond. 1814; Ed. med. journ. X. 464: *Armstrong*, 444. *Ley*, Med. tr. V. 304. *Hay* on puerperal fever. 8. Lond. 1815; Ed. med. journ. XI. 500; bleeding profusely: *Dunn*, XII. 36. *Wilson*, Tr. soc. med.

ch. kn. III. 65. Lower vena cava obliterated. (Mauriceau, Smellie, Levret, Prizos, Deleurye.)

15. *Dystocia maniaca.* *Gooch*, Med. tr. VI. 263; indulgence successful.

LXXVIII. DYSODONTIASIS.

Difficult dentition.

Irritation from teething.

1. D. *lactan'tium.* Attending the appearance of the milk teeth.
2. D. *puerílis.* With the adult teeth.
3. D. *adultórum.* In cutting the wise teeth.

Dysodontiasis. Forest. XIV. 8. Mauriceau. Wedel de dentitione. Jen. 1678. Armstrong. Stoll prael. I. 247. II. 414. Berdmore on the teeth. Hunter on the teeth.

1. *Dysodontiasis lactantium.* Raulin on the care of childreu. H. Smith on nursing. 8. 1792. Buchan's advice to mothers. 1803. Herdman on the management of infants. 1807. *Kellie*, Ed. med. journ. XII. 448; swellings of hands and feet.

2. *Dysodontiasis puerilis.* Schenk. I. 413; double row. *Thomson*, Ed. med. ess. V. 222; supernumerary. *Symmonds*, Med. obs. inq. III. 178; three growths. *Whateley*, Med. facts. VIII. 173; supernumerary, with tumour and abscess.

3. *Dysodontiasis adultorum.* Tulp. obs. I. xxxvi; fatal.

LXXIX. DEFORMITAS.

Deformity.

Original malformation, independent of constitutional disease, and which may possibly have originated from a mechanical cause.

1. D. *defectíva.*	A part being deficient or divided.
2. D. *excessíva.*	A part being superfluous or adherent.
3. D. *distorsíva.*	A part being distorted.
4. D. *translatit'ia.*	A part being misplaced.
5. D. *colóris.*	An original depravation of colour only.
6. D. *unitórum.*	Two individuals being united or confounded.

Deformitas. Baster, Ferris, Parsons, Superville, Phil. trans. *Burton*, Ed. med. ess. V. 338. *Mowat* and *A. Monro*, Ed. phys. ess. II. 266, 270. Haller opusc. min. II. 3. *Morgagni*, ep. 48, n. 48. Cooper, Phil. trans. 1775. Bablot de l'imagination. 8. Par. 1788. *Lucas*, M. Med. soc. Lond. IV. 94. *Monro*, Ed. tr.; Med. facts. VII. 170.

1. *Deformitas defectiva.*

A. Wanting many parts. A mola. Aët. IV. iv. 80. Forest. XXVIII. 60. Ballon. cons. I. 100. Barthol. Act. Hafn. I. n. 26. IV. n. 11. Mauriceau, 313. Ruysch obs. 28, 29, 58. Stalpart. I. 70, 173. Heister chir. n. 156. Watson, Phil. trans. † *Browning*, Phil. trans. 1751. 278; a dwarf, weighing at 15 but 12 or 13 pounds, ultimately 31 inches high, and crooked. *Morgagni*, ep. 48, n. 12...; rather menorrhagia. *Lecat*, Phil. trans. 1767. 1; a twin mola without a

heart; *Johnston*, 118; an imperfect brain; *Cooper*, 1775. 311; no head nor heart. Heim in Selle N. beitr. II. 128. *Heysham*, Dunc. med. comm. XIII. 429; no brain: also *Lawrence*, Medicoch. tr. V. 165. *Breschet*, IX. 433.

B. Defect in the retina or optic nerve. *Huddart*, Phil. trans. 1777. 260; want of discrimination of colours. *Scott*, 1778. 611; knows only yellow. Dalton, Manch. Mem.

C. Hare lip. Barthol. III. 348. Albin. annot. ac. IV. xii. *Lafaye*, M. Ac. chir. I. 605; *Louis*, IV. 385. V. 292, 873. Chorin, Journ. Chir.; Med. facts. III. 153; double.

D. Spina bifida. See hydrops capitis, xliv.

E. About the abdomen. *Calder*, Ed. med. ess. I. 203; intestine perforated the parietes. *Dinmore*, Lond. med. journ. XI. 339; parietes deficient. *Cholmeley*, Med. tr. VI. 50; gall bladder wanting. *Murdoch*, Ed. med. journ. XVII. 315; part of the duodenum wanting, and the canal impervious.

F. Of the heart; the foramen ovale remaining opening, the lips purple. Cyania, Crichton. *W. Hunter*, Med. obs. inq. VI. 291. *Pulteney*, Med. trans. III. 339. *Nevin*, Dunc. med. comm. XIX. 325. *Baillie's* engr. 21; inverted distribution of the arteries. *Standert*, Phil. trans. 1805. 228; purple, but otherwise well; the heart single; see Anatomy. *Marcet*, Ed. med. journ. I. 412. *E. Thomas*, M. Med. soc. Lond. VI. 57; the affection disappearing after some years, with proper diet; *Spry*, 137; foramen ovale and ductus arteriosus open, at 17. *Howship*, Ed. med. journ. IX. 399. Farre's pathological researches. 8. Lond. 1814. *Thomson*, Ed. med. journ. XII. 3: *Howison*, XIII. 309. *Gregory*, Medicoch. tr. XI. 296.

G. Want of some of the sexual organs. Hermaphroditism, and malconformation of the pelvis viscera in general. *Mowat*, Ed. med. ess. III. 276. † *Parsons*, Phil. trans. 1751. 142; clitoris. *Innes*, Med. comm. Ed. II. 437. *Green*, Lond. med. journ. IV. 403. *Ford*, Med. facts. V. 92. *Baillie*, Tr. soc. med. ch. kn. I. 189. *A. Duncan*, Ed. med. journ. I. 43, 132; bladder deficient; *Coates*, 39; *Cooper*, 129. *Barclay*, 403; openings into the corpus spongiosum?? Ackermann androgyni historia. f. Jen. 1805; Ed. med. journ. III. 202: *Soden*, IV. 32; *Conquest*, VII. 23. *Buchan*, Tr. soc. med. ch. kn. III. 24.

2. *Deformitas excessiva.* See Physiology, Pathogony.

A. Adhesion of the tongue.

B. Imperforate nostrils.

C. Imperforate ear.

D. In the fauces. *Ford*, Med. commun. I. 444; hairy excrescences.

E. At the pylorus. *Calder*, Ed. med. ess. I. 203.

F. Imperforate rectum. Scultet. obs. 4. 77. Plater. III. 601. Bartholin. Mauriceau, I. 489. *Jamieson*, Ed. med. ess. IV. 442. Gregory, Phil. trans. *Petit*, M. Ac. chir. I. 377. *Morgagni*, ep. 32. n. 3... Bertin, M. Ac. Par. 1771; Med. comm. Ed. IV. 164. *Wright*, Med. comm. Ed. III. 419. Pappendorp von der verschliessung des afters. 8. Leipz. 1783. *Ford*, Med. facts. I. 102. Mansell, M. Med. soc. Lond. III. 389. *Adair*, Med. facts. IV. 27. *Chamberlayne*, M. Med. soc. Lond. V. 206. *Kennedy*, Dunc. ann. 1801. 351. *Baillie's* engr. 77. *Wayte*, Ed. med. journ. XVII. 232.

F. 2. Kidneys united. *Smith*, Ed. med. journ. XV. 90.

G. Imperforate urethra.

H. Imperforate vesiculae seminales. *Baillie's* engr. 159.

I. Imperforate hymen. *Eason*, Med. comm. Ed. II. 187; *M'Cormick*, 188. *Fynney*, III. 194; an inch thick. *Niven*, Dunc. med. comm. IX. 330; *Helsham*, XIII. 278; *Fryer*, Med. facts. VIII. 133. *Smith*, Dunc. ann. 1797. 331. *Sherwen*, Med. records, 279; married 14 years. Kaeymer, Dunc. ann. 1801. 347; supposed menstruation.

K. Double uterus. *Purcell*, Phil. trans. 1774. 472. Canestrini, Med. facts. III. 171. *Pole*, M. Med. soc. Lond. IV. 221.

3. *Deformitas distorsiva.* Lordosis, *Sauvages*, I. 162; sometimes. Gibber, Tortura, Strabismus, Linn. Phoxos, Cyphosis, Lordosis, Scoliosis, Seisis, Caput obstipum, Varus, Valgus, Leiopodes, Saniodes, Vogel. Venel's machines for club feet, described by Naumburg. 8. Leipz. 1796. Loders journ. Sheldrake on the club foot. 8. London, 1798. *M'Keever's* cases. Ed. med. journ. XVI. 220.

4. *Deformitas translatitia.*

A. Brain protruded. See hernia encephalocele, lxvi.

A. 2. Tooth misplaced. *Barnes*, Medicoch. tr. IV. 316; rather supernumerary.

B. Heart on the right side.

C. Subclavian behind the trachea. *Bayford*, M. Med. soc. Lond. II. 251; palpitation in swallowing.

D. Abdominal viscera in the thorax. *Macaulay*, Med. obs. inq. I. 25. *Campbell*, Ed. med. journ. XVII. 513.

E. Vena portarum joining the cava. Abernethy. See physiology.

F. Parorchidium, *Sauvages*, I. 222. Plater. mant. Ambr. Par. VII. Barthol. hist. an. Morgagn. adv. iv. Quelmalz in Hall. disp. an. V. i. Verdier, M. Ac. chir. II.

G. Uterus displaced. *Pole*, M. med. soc. Lond. III. 507.

5. *Deformitas coloris.* Naevus, *Sauvages*, I. 130. *Wardrop*, Medicoch. tr. IX. 199; subcutaneous.

† Exangeia intermedia.

6. *Deformitas unitorum.*

A. Simply united. *Percival*, Phil. trans. 1752. 360; *Torkos*, 1757. 311. Leroy, Journ. méd. I. *Torlese*, Phil. trans. 1782. 44. *Oliphant*, Dunc. med. comm. X. 249. *Reichel* and Anderson, Phil. trans. 1789. 157; *Home*, 1790. 296; 1799. 28; double head. *Knox*, Dunc. med. comm. XVI. 291. *Mather*, Med. facts. IV. 107; *Simmons*, VIII. 1. *Gibson*, Phil. trans. 1810. 123. *Maunoir*, Medicoch. tr. VII. 257.

B. One being enclosed within the other. *G. W. Young*, Medicoch. tr. I. 234. *Phillips*, Medicoch. tr. VI. 124.

ACOLOGY.

SENSIBLE AGENTS.

MECHANICAL AGENTS.

I. CLIMATES.

In general.) Hippocrate de l'air, par Coray. 2 v. 8. Par. 1800. Arbuthnot on air. Lond. 8. 1735. M'Fait de aere aquis et locis. 8. Ed. 1745; Smellie thes. I. 289. Mosca dell' aria e dei morbi. 4. Nap. 1746. Huxham de aere. 8. Lond. 1752. Huxham, Phil. trans. 1758. 528; effect of hot weather. Robinson on the virtues of medicines. 8. Dubl. 1752. Helds vortheile des landlebens. 4. Frankf. 1753. Heberden, Med. trans. II. 522; are damp clothes noxious? Unimportant. Hillary on changes of the air. Gilchrist on sea voyages. Rutty's history of the weather for 40 years 8. 1770. Zückert von der luft. 8. Berl. 1770. Richards natürliche geschichte der luft. 8. Nur. 1773. Gregory de coeli mutatione. 8. Ed. 1776; Smellie thes. III. 315. * Cotte, Soc. R. méd. passim. Fontana, Phil. trans. 1779. 432; atmosphere little varying; Ingenhousz; 1780. 354; at sea; small islands healthy; 1782. 426; influence of vegetables. Wilson on climate. 8. Lond. 1780. A. Cullen de frigore. 8. Ed. 1780; Smellie thes. IV. 176. Falconer on climate. 4. Lond. 1781; Lond. med. journ. I. 409; "a work of great practical utility." Rothe. Gmelin über die luft. Berl. 1784. * Kirwan on the temperature of different latitudes. 8. Lond. 1787. * Finke Medicinisch practische geographie. 3 v. 8. Leipz. 1792-5. Beddoes, Med. facts. IV. 148; heat and cold. W. Heberden, Phil. trans. 1796. 279; influence of cold. Stock on the effects of cold. 8. 1805. Kirwan, Ir. trans. VIII. 296; variations of

the atmosphere. Young's Nat. Phil. I; lectures on meteorology; II; literature. Robertson on the atmosphere. 2 v. 8. Clarke and Swanwick, Ed. med. journ. IX. 154, 155: XI. 264, 265: XII. 121; Sidmouth and Derby. Sinclair de impulsu quo coelum maris Mediterranei pulmones afficit. 8. Ed.1817. Johnson on the influence of the atmosphere. 8. Lond. 1818; Ed. med. journ. XIV. 254. *Carter*, Med. tr. VI. 54; Matthew's diary of an invalid. 8. Lond. 1820. Clark's medical notes on climate. 8. Lond. 1820; Ed. med. journ. XVI. 428; Rome for winters. Forbes on Penzance. 8. Penz. 1821. See Essay on climates.

Great Britain.) Bisset on the medical constitution of Great Britain. 8. Lond. 1762. Williams on the climate of Great Britain, and its changes. 8. Lond. 1807; Ed. med. journ. IV. 87. Manchester.] Percival, Phil. trans. 1774. 54, 1775. 322; population. Chester.] Haygarth, Phil. trans. 1778. 131. France.) Raymond, M. Soc. R. méd. II. 66; Marseilles and its territory; about $\frac{1}{4}$ die of consumption; Villar, 141; Champdaur, in Dauphiné; Cotte, III. 61; Montmorency; Madier, IV. 85; Bourg St. Andiol; Brieude, V. 257; upper Auvergne. Germany.) Reyger über die witterung in Danzig. 8. Dantz. 1770. Formey Medicinische topographie von Berlin. 8. Berl. 1796. Italy.) Lancisius de coelo Romano. 4. Rom. 1711. Thouvenel sur le climat de l'Italie. Pugh on the climate of Naples, Rome, and Nice. 8. Lond. 1784. Minorca.) Small, Phil. trans. 1776. 439. Malta,) Domeier on Malta. 8. Lond. 1810. Sierra Leone.) Winterbottom, Med. facts. VIII. 56. Madeira.) Adams's guide to Madeira. 8. Lond. 1801. Gourlay on Madeira. 8. Lond. 1811. Pitta on Madeira. 8. Lond. 1812. America.) Holyoke, Amer. Ac.; Med. facts. VII. 225. Philadelphia.] Trans. coll. phys. Phil. Maryland.] Brooke, Phil. trans. 1759. 58, 70. Jamaica.] T. Clarke, Med. comm. Ed. V. 321.

Particular observations.) Ed. med. ess. I... 1; Ker, V. 35; comparative view. Dunc. med. comm. passim; Edinb.

at 12. Schotte, Phil. trans. 1780. 478; Senegambia. Clarke, Dunc. Med. comm. VII. 369; at Jamaica. Kinnaird, Dunc. med. comm. IX. 425; hoar frost on a thermometer increasing the apparent cold. Six, Phil. trans. 1788. 103; local heat. Kite's essays. 8. Lond. 1795. Carrick, Dunc. ann. 1803. 421; Clifton. Stirling, M. S. R. S.; Penzance and Glasgow.

Epidemic constitutions.) Ed. med. ess. I. 37; for 1731. Lorry, M. Soc. R. med. I. 1; 1775-6; Leroy and Geoffroy, II. 1, 14; 1777-8. Geoffroy and Coquereau, III. 1; 1779; Geoffroy, IV, V, VII. 1780... W. Heberden on the increase and decrease of diseases. 4. Lond. 1803; Dysentery has amazingly decreased, fever and rickets considerably; apoplexy, palsy, and consumption have increased, in London. Jameson on the changes of the human body. 8. Lond. 1812.

Mortality and values of lives.) Ed. med. ess. I. 45; 1731-2. Dodson, Phil. trans. 1752. 333; Brackenridge, 1755. 181, tables, and elsewhere; A letter, 1761. 46; More, 140; at Holycross; T. Heberden; 1767, 461; Madeira. Short on the increase and decrease of mankind. 4. 1767. Price, Phil. trans. 1769. 89; Gorsuch, 1771. 57; Holycross; Haygarth, 1774. 67, 1775. 85; Chester; Aikin, 1774. 438; Warrington; Price, 1775. 424; town and country; Pulteney, 1778. 615; Blandford; Bland, 1781. 355; parturition and probability of life; White, 1782. 35; Gorsuch, 53; Holycross. Süssmilch Göttliche ordnung. 2 v. 8. Berl. Heberden finds the mortality from consumption 3000, 4000, and 5000 out of 21000, in London, in the beginning, middle and end of the 18th century.

† Lunar influence.) Mead de imperio solis et lunae. 8. Lond. 1746. Kratzenstein vom einflusse des mondes. 8. Hall. 1747. Balfour on the influence of the moon in fevers. 8. Calcutta. Lond.; Dunc. med. comm. IX. 147, XX. 171. Jackson, Lond. med. journ. VIII. 300.

II. HABITS.

Preservation of health in general. Hygiene.) Celsus, I; Lommius in Celsum de sanitate tuenda. 8. Leyd. 1724. Ramazzini de principum valetudine tuenda. Cheyne on health and long life. 8. 1734. Stentzelius de somno praestantissimo sanitatis et morborum auxilio. Gr. L. 8. Ghent, 1744. Gaubius de regimine mentis. 4. Leyd. 1747, 1763. Platner von krankheiten aus unterlassung der reinlichkeit. 8. Dresd. 1750; the contrary extreme, of too fastidious cleanliness, may also very possibly be in some cases injurious. Beddoes. Y. Lind on preserving the health of seamen. 8. Lond. 1757. Mackenzie on preserving health. 8. 1759. Monceau, (Duhamel) Moyen de conserver la santé aux equipages des vaisseaux. 12. Par. 1759. Krügers unterricht für soldaten. 8. Hall. 1763. Cook, Phil. trans. 1776. 402. Pringle's discourse. 4. Lond. 1776. Tissot de valetudine literatorum. 8. Laus. 1776. Rollo on preserving health in the West Indies. 12. Lond. 1783. Tode Der unterhaltende artz. 8. Copenh. 1785: "excellent." Rothe. Gillespie, Lond. med. journ. VIII. 113; at sea. Frank. Hebenstreit. Eickemeier. Cancrin. Scheidemantel über die leidenschaften als heilmittel. 8. Hildburgh. 1787. Fordyce, Tr. soc. med. ch. kn. I. 243; mode of life in London. Verhaltungsregeln bey nahen donnerwettern. 8. Gott. † Westrumb über bleyglasur. 8. Hannov. 1795. * Hufeland Kunst das leben zu verlängern. 8. Jen. 1798. Hufeland on the preservation of life, 2 v. 8. Lond. 1797 Gillespie on the preservation of the health of seamen. 8. 1798. Garnett's lecture on the preservation of health. 12. Lond. 1800. Struve on maintaining feeble life, by Johnson. 8. 1801. Nisbet's guide to the watering places. 12. Lond. 1804. Manual of health, by Beddoes. 12. Lond. 1806. Winterbottom's directions for hot climates. 12. 1806. Sinclair's code of health and longevity. 4 v. 8. Lond. 1807.

Johnson's influence of civic life. 8. Lond. 1818; Ed. med. journ. XV. 115. Physical education.] Audry Orthopädie. 8. Berl. 1774. Hufeland. Wichmann. Frank über die kindererziehung. 8. Leipz. 1794. Vogels unterricht für ältern und erzieher. 8. Stend. Würzer über die physische erziehung. 8. Bonn, 1796. Frankf. 1797. St. Marthe's paedotrophia, by Tytler. 8. 1797. Struve and Willich on physical education. 8. Lond. 1801; Dunc. ann. 1801. 290. Management at a later period.] Fothergill, Med. obs. inq. V. 160. Exercise.] Tissot's gymnastics. † Tessier, M. Soc. R. méd. V. 555; on the migrations of flocks. Wollaston, Phil. trans. 1810. 1; riding. Ventilation.] Sutton on extracting foul air. 8. Lond. 1749. Hales, Phil. trans. 1755. 332; in ships. Carrère, M. Soc. R. méd. IV. 215; Lavoisier, V. 569. Guyton Morveau Moyens de désinfecter l'air. 8. Par. 1801; Dunc. ann. 1802. 1. Haygarth's letter to Percival. 8. Lond. 1801. Guyton and Chaptal; Ed. med. journ. II. 290; with remarks; the editors have frequently traced contagion to the shambles. Nursing.] Cadogan on nursing. 8. 1772. Mayens unterricht. 8. Mannh. 1782. Pfähler Unterricht. 8. Rig. 1793. Carrere, Keck, Krügelstein.

Hospitals.) Howard on lazarettos, 4. Lond. 1789, 1791. Lettsom, M. Med. soc. Lond. IV. 321; Newgate. Anstalten in Magdeburg. 8. Magd. 1793. Hebenstreit med. poliz. 188. Blizard's suggestions. 8. Lond. 1796. Malaspina über die hospitäler, von Titius. 8. Leipz. 1798. Rollo on the Royal artillery hospital. 12. Lond. 1801. Bateman, Ed. med. journ. I. 117; On foundling hospitals, 319. Faulkner on an hospital for officers. 8. Lond. 1810; Ed. med. journ. VI. 355. In the infirmary at Edinburgh, the mortality has usually been about 1 in 18. *Carter* on the hospitals of the continent. 8. Lond. 1819; Ed. med. journ. XVI. 75: Sylvester on warming and cooking. 4. Lond. 1819: XVI. 284; infirmary at Derby. Beds.) *Heberden*, Med. tr. V. 39. *Granger*, Ed. med. journ. XVII. 194; double inclined plane. (Faucken. Stoll. Furstenan. Sturm. Grosser. Nahuys. Aikin. Percival. Petit. Richer.)

III. CLOTHING.

Gladback de morbis a vestitu contra frigus insufficiente. 4. 1761. Camper sur les souliers. 8. Lond. med. journ. IV. 343. Thompson, Count Rumford, Phil. trans. 1787. 240; absorption of moisture. W. Vaughan on clothing. 8. Lond. 1792. Sömmering über die schnurbrüste. 8. Berl. 1793. Creve versuch einer modernen kleidung. Vienn. 1794.

IV. INSTRUMENTS AND OPERATIONS.

Instruments in general.) Sculteti armamentarium. 2 v. 8. Amst. 1741. Garengeot des instrumens de chirurgie. 2 v. 12. Hag. 1725. Monro, Ed. med. ess. V. 454. Schwediauer descriptio praeparationum et instrumentorum. 8. Vienn. 1772. Brambillae instrumentarium. f. Vienn. 1782. Hofer Lehrsätze des chirurgischen verbandes. 3 v. 8. Erl. 1790-2. Böttcher Auswahl des verbandes. 8. Berl. 1795. Köhler Anleitung zum verbande. 8. Leipz. 1796; much praised. Arnemans übersicht. 8. Gott. 1796. Savigny on surgical instruments. f. Lond. 1798. Knaur selectio instrumentorum. f. Vienn. 1798.

Particular instruments and mechanical applications.) A car.] Crichton, Ed. med. journ. I. 252; for conveying the wounded. Lancets.] Daubenton, M. Soc. R. méd. V. 563. Razors.] Kingsbury. 8. Lond. 1810. Leeches.] Durondeau, M. Ac. Bruss.; Lond. med. journ. III. 139. Horn on leeches. 8. Lond. 1798. Johnson on the leech. 8. Lond. 1816: Phil. trans. 1817. 13. Brown, Ed. med. journ. XIV. 136; to the haemorrhoidal veins. Styptics.] Parsons, Phil.

trans. 1755. 38; dust of lycoperdon, or puff ball. See vulnus. Cautery.] Spiritus de cauteriis. Gott. 1781. Percy Pyrotechnie chirurgicale. 12. Par. 1794; Rec. pér. I. 323. Maunoir, Medicoch. tr. IX. 364; very favourable. Lint.] Terras, Samml. ärtz. X. Sponge.] Van Wy. Lycopodium.] Arnem. arzneimittellehre, II. 224. Tourniquet.] Kellie on the tourniquet. 8. Ed. 1797; Dunc. ann. 1797. 127: constitutional effects. Simmons, Med. facts. VIII. 19. Saws.] Marshall's circular saw. Ed. med. journ. XI. 273: Griffiths, 279. Cutting pliers.] Liston, Ed. med. journ. XVII. 155. Hardy, Ed. med. journ. XV. 557. Trepans.] King, Ir. trans. IV. 119; Med. facts. VII. 191. O'Halloran, Ir. trans. IV. 151; Med. facts. V. 161; trephine. Levator.] Petit, M. Ac. chir. I. 302. Teeth.] (Sepia octopodia.) Clarke, Med. facts. VI. 120; a key instrument; Savigny, VII. 90. Inhalation.] Ford, Med. commun. II. 123. Withering, Dunc. ann. 1798. 447. Bandages.] Lucas, Lond. med. journ. IX. 44. Sound.] Barlow, Ed. med. journ. XII. 295. Bougies.] Wilkinson, Lond. med. journ. IX. 378. Häger dissertatio. Hall. 1795. Catheter.] Ware on the eye. 8. Lond. 1805; Ed. med. journ. II. 233: M'Sweeny, XV. 52. Pessary.] Simson, Ed. med. ess. III. 311. Denman, Lond. med. journ. VII. 56; globe. Hunold de pessariis. 8. Marb. 1790. Obstetrical instruments.] Cansardine, Medicoch. tr. IX. 181; Chamberlain's.

Operations of surgery in general.) Garengeot Operations de chirurgie. 3 v. 12. Ledran Operations. 12. 1745; praised by Sharp. Sharp's researches on the state of surgery. 8. Lond. 1739, 1750. Moore on diminishing pain in operations. 8. Lond. 1784; Lond. med. journ. V. 369. Hunczovskys anweisung zu chirurgischen operationen. 8. Vienn. 1794. * Sabatier Médecine opératoire. 3 v. 8. 1796. Rougemonts handbuch. 8. Frankf. 1797; with literary references. Zeller über den nutzen des kalten wassers bey operationen. 8. Vienn. 1797. C. Bell's operative surgery. 2 v. 8. 1807. Wardrop, Medicoch. tr. X. 273; irritable patient; bleeding to 50 ounces.

Particular operations.) Bleeding.] Franciscus de abusu venaesectionis. 12. Frankf. 1685. Quesnay Art de guérir par la saignée. 12. Par. 1736. Monro, Ed. med. ess. II. 279; aneurysm produced. Dickson on bloodletting. 4. Lond. 1765. Lentin de praerogativa venaesectionis in partibus laborantibus. 4. Gott. 1779. Tralles de vena jugulari frequentius secanda. 8. Bresl Bücking Anleitung zum aderlassen. 1781. Butter's method of opening the temporal artery. 8. 1783. Bach über das allzuofte blutlassen. 8. Bresl. 1786. Bach vom nützen der blutigel. 1789. Colby, Med. commun. II. 18; the supposed puncture of a tendon; relieved on the appearance of erysipelas. Wolstein Anmerkungen, 1791. J. Hunter, Tr. soc. mod. ch. kn. I. 18; inflammation of the internal coats of veins. Mezler Geschichte des aderlasses. 8. Ulm. 1793. Malden, M. Med. soc. Lond. IV. 414. Pemb. abdom. visc.; a large orifice. Arteriotomy.] Kane, Ed. med. journ. XIV. 346. Cupping.] Mapleson on cupping. 12. Lond. 1813. Ed. med. journ. X. 102. Freteau Traité des Emissions sanguines. 8. Par. 1816. Transfusion.] Blundell, Medicoch. tr. X. 296. Compressing the arteries.] Parry, M. Med. soc. Lond. III. 77. Phil. trans. 1811. 80. On Assalini's compressor, Traver, Medicoch. tr. VI. 6 12. Ligature.] Aikin on ligature. Lond. 1770. Jones, Ed. med. journ. II. 176. Travers, Medicoch. tr. IV. 435: Lawrence, VI. 156, 632; cuts off the ends: 76, VIII. 490. M'Sweeny, Ed. med. journ. XIV. 597; silk gut. See Exangeia, Ecphyma. I have often wished to try ligatures of catgut, which might be absorbed. Y. Issues.] Hahn de fonticulis. Strasb. 1781. Setons.] Mauchard; Hall. disp. ch. II. Excision of tumours.] Trepanning.] Quesnay, M. Ac. chir. I. 188. 251. Med. comm. Ed. II. 313; by Copeland. Lassus, M. Ac. chir. V. 80. Mynors on trepanning. 8. 1785. Girand, Dunc. med. comm. IX. 272. O'Halloran, Ir. trans.; see instruments. Eye.] Couching aud extraction. See Phtharma. Louis, M. Ac. chir. V. 161; extirpation. Wardrop, Medicoch. tr. IV. 142; evacuating the aqueous humour. Maunoir and Scarpa, Medicoch. tr. VII. 301; IX. 382; artificial pupil; also Moore, Ed. med.

journ. XII. 187. Guthrie on the artificial pupil. 8. Lond. 1819; Ed. med. journ. XVI. 272. Nose.] Hutchinson, Ed. med. journ. XIV. 344; supplemental nose. Tongue.) Division of the fraenum. Home, Phil. trans. 1803. 205; ligature; also Inglis, Ed. med. journ. I. 34. Bronchotomy.] Louis, M. Ac. chir. IV. 455, 513. Fricker de tracheotomia et laryngotomia. 4. Erf. 1792. Lawrence, Medicoch. tr. VI. 221. Oesophagotomy.] Guattani, M. Ac. chir. III. 351. Thorax.] Martinière, M. Ac. chir. IV. 545; trepanning the sternum. Brandes de thoracis paracentesi 8. Gott. 1791. Abdomen and pelvis.] Paracentesis, Monro, Ed. med. ess. I. 214; Ford, Med. commun. II. 123; Jas. Sims, M. Med. soc. Lond. III. 472. Nephrotomy, Douglas, Ed. med. ess. I. 231. Paracentesis of the bladder, see Ischuria, xxiii. Lithotomy, see Lithiasis. xxxiv. Marschal von der kastration. 8. Salzb. 1791. En'ema, ἔνεμα.] Pfaff historia clysterum. Jen. 1780; Kämpf neue methode. 1785; Schaden der klystire. Leipz. 1789; see Colica, vii, cathartics. 20. Sounding.] Ed. med. journ. XVI. 605; some good remarks on the absurdity of inverting the catheter, and then turning it and twisting the urethra: if the surgeon recollect also to press the point steadily up under the arch of the pelvis, he will seldom fail in readily introducing it. Amputation.] Lafaye, M. Ac. chir. II. 243, flap; Garengeot, 261. Louis, 268, 355, IV. 40. Mudie, Ed. phys. ess. III. 502. White, Med. obs. inq. IV. 168. Brasdor, M. Ac. chir. V. 747; at the joints. Lucas, Med. obs. inq. V. 323; flap. Mynors on amputation. 12. Alanson on amputation. 8. Lond. 1782; Lond. med. journ. IV. 153. Jones, Dunc. med. comm. IX. 326; flap. Blizard on the situation of the large bloodvessels of the extremities. 8. Lond. 1785. Ploucquet von der unblutigen abnehmung der glieder. 8. Tub. 1786; Allg. lit. zeit. 1787. III. 697. Lucas, Lond. med. journ. VII. 225; Haine's remarks. 377; Lucas, VIII. 142; Sparrow, IX. 109; Lucas, 223. Johnston, Dunc. med. comm. XIII. 366. Flajani osservazioni. 8. Rom. 1791. Rodman's case. Ed. med. journ. X. 23. Amputation at the shoulder joint.] Lafaye, M. Ac. chir. II. 239. Bard,

Dunc. ann. 1797. 282. Robinson, Ed. med. journ. I. 289. Cutting, Medicoch. tr. II. 264. Amputation of the lower extremity.] Monro, Ed. med. ess. IV. 321; good. Veyret, M. Ac. chir. II. 265. Gooch, Phil. trans. 1775. 373. Kerr, Med. comm. Ed. VI. 387; hip joint. Turner, Lond. med. journ. IX. 54; middle of the foot. Veitch, Ed. med. journ. III. 129; hip joint. Dunn, Medicoch. tr. XI. 337; tarsus. Excision of bone.] Lecat, Phil. trans. 1766. 270; part of the humerus. White, Phil. trans. 1769. 39; Orred, 1769. 6. Park on the extirpation of joints. 8. Lond. 1783; Lond. med. journ. IV. 273; Park, XI. 22. Park, Moreau and Jeffray. Glasg. 1806. Wardrop, Medicoch. tr. IV. 308. Richer and Resection des cotes. 8. Par. 1818; Ed. med. journ. XIV. 647. Trepanning the tibia.] Vergan, Lond. journ. X. 80; for an internal fracture. Friction.] See Emmyxium. Chrestien Méthode Iatraleptique. 8. Par. 1811; Ed. med. journ. XI. 239. Titillation.] Wardrop, Ed. med. journ. VIII. 197. Cataplasms.] English, Ed. med. journ. XII. 303.

CHEMICAL AND VITAL AGENTS.

PHARMACOLOGY.

Materia medica, including dietetics, or the materia alimentaria.

IN GENERAL.

Literature. Böhmer bibl. hist. nat. XI. Baldinger lit. mat. med. 8. Marb. 1793; chiefly a catalogue of academical essays. Bibliotheca Banksiana. 5 v. 8. Lond. 1798... I. 272. *Stokes's botanical materia medica. 4 v. 8. Lond. 1812; Ed. med. journ. IX. 238; an immense collection of references only, in botanical order. (Murray. Halem.)

Dioscorides Saraceni. f. Frankf. 1598.
Matthiolus Bauhini. 2 v. f. Bale, 1598.
Bates's dispensatory, by Salmon. 12. Lond. 1713.
Boerhaave de materia medica. 12. 1740.
Geoffroy de materia medica. 3 v. 8. Par. 1741.
Pomet's history of drugs. 4. 1748.
Ward's receipts, by Page. 8. Lond. 1763.
Störck anni medici.
Channing, Phil. trans. 1767. 21 ; 3 Arabian substances.
Alexander's experimental essays. 8. Lond. 1768.
Alston's lectures. 2 v. 4. 1770.
Linnaei materia medica, Schreberi. 8. Vienn. 1773.
Rutty materia medica. 4. Rotterd. 1775. "Opus 40 annorum."
Wurz mappa medicamentorum secundum affinitates. 4. Strasb. 1778.
Coste et Willemet sur quelques plantes indigènes. 8. Nancy, 1778. Med. comm. Ed. V. 294.
Adair's hints, Dunc. med. comm. IX. 206. X. 233.
Anderson on evacuations.
Tingry and Gueret on cruciferous plants. M. Soc. R. méd. V. 341, 415.
* Lewis's materia medica, by Aikin. 4. Lond. 1784. Lond. med. journ. VI. 89.
Schöpf materia medica Americana. 8. Erl. 1787.
Cullen's materia medica. 2 v. 4. Ed. 1789.
Home methodus materiae medicae. 12. 1789.
Römer Chirurgische arzneimittellehre. 8. Altenb. 1789...
Hennings über einige arzneimittel. 8. Stend. 1789.
Wright on the medicinal plants of Jamaica. Lond. med. journ. VIII. 217 ; elaborate.
Lösecke materia medica. 8. Berl. 1790.
Gren Handbuch der pharmacologie. 2 v. 8. Hall. 1790-2. System. 3 v. 1798.
Althof Practische bemerkungen. 8. Gott. 1791.
Moore on the materia medica. 8. Lond. 1792.
* Murray apparatus medicaminum, ab Althof. 6 v. 8. Gott. Gmelin apparatus, regnum minerale. 2 v. 8. Gott. 1795-6.

Mellin Practische materia medica. 5 v. 8. Frankf.

Dietz über die methode in der arzneymittellehre. 8. Jen. 1793.

Schlegel thesaurus materiae medicae. 3 v. 8. Leipz. 1793-7.

Beddoes and Watt on factitious airs. 8. Lond. 1795. Dunc. ann. 1796. 245.

Gesenius Handbuch der Heilmittellehre. 8. 1796.

Jahn Auswahl der wirksamsten arzneymittel. 8. Erf. 1797. From a catalogue in Selle's Handbuch.

Arnemans arzneimittelkunde. 8. Gott. 1797.

Arnemans practische arzneimittellehre. Ed. 3. 2 v. 8. Gott. 1798. "Almost the best." Rothe.

R. Pearson thesaurus medicaminum. 8. Lond. 1794, 1804.

R. Pearson synopsis materiae medicae et alimentariae. 2 v. 8. Lond. 1797, 1807.

Tode Arzneymittel aus dem mineralreiche. 2 v. 8. Copenh. 1797-8.

Pharmacology contracted, by the French surgeons; Dunc. ann. 1798. 452. Aqua, acetum, vinum, hordeum, nitrum, mel, rheum, opium, stibium, ferrum, ignis.

* Fordyce, Tr. soc. med. ch. kn. II. 314. On the combination of medicines.

Peyrilhe Histoire naturelle médicale. 8. Par. 1799; Ed. med. journ. V. 479. Enlarged from Linné.

Swediaur materia medica. 2 v. 12. Par. 1800.

Parmentier Code pharmaceutique. 8. Par. 1803.

Graves's conspectus of the pharmacopoeias. 12. Lond. 1804.

Murray's materia medica. 2 v. 8. 1804.

Hahnemann de viribus medicamentorum in sano corpore. 2 v. 8. Leipz. 1805; Ed. med. journ. V. 374; "we have never met with an instance in which so much labour and attention, exerted in *attaining* so useful an object, have been so completely frustrated by want of judgment and discrimination."

Willdenow species plantarum.

Trommsdorfs journal der pharmacie. 12. Erfurt.

Withering's botany. 4 v. 8.

Kirby's tables of the materia medica. 12. Ed. 1805; Ed. med. journ. I. 492; a very useful compendium.

Cox on a medicine chest. 1808.

Pharmacopoeia chirurgica, with notes by Wilson. 8. Lond. 1809.

Synopsis pharmacopoeiae Londinensis. 8. Lond. 1810. By Dr. Haygarth.

Fleming's catalogue of Indian medicinal plants. As. Res. XI. and 8. Calc. 1810; Ed. med. journ. VII. 93.

* Woodville's medical botany. 4 v. 4; Ed. 2. Lond. 1810.

Pfaff materia medica nach chemischen principiona. 3 v. 8. Leipz. 1811.

* Paris's Pharmacologia. 8. Lond. 1812. Ed. 6. 1822.

* Duncan's Edinburgh new dispensatory. 8. Edinb.

Ainslie's Materia medica of Hindoostan. 4. Madras. 1813; Ed. med. journ. XII. 347.

* Magendie Formulaire de plusieurs nouveaux medicamens. 12. Par. 1821; such as nux vomica, morphine, Prussic acid, strychnine, veratrine, quinine, and iodine.

(Vogel, Cranz, Gleditsch, Spielmann, Pörner, Bergius, Gesenius, Lösecke, D. Monro, Batsch, Tode, Kühn, Haller von Vicat, Fourcroy, Mönch, Hilldebrand, Cranz, Von Lippert, Plenck, Retzius von Westrumb, Harwood.)

For children under 12 years old, the doses of most medicines must be diminished in the proportion of the age to the age increased by 12: for example, at two years old, to $\frac{1}{7} = \frac{2}{2+12.}$. At 21 the full dose may be given. Y.

CHEMICAL AGENTS.

V. CAUSTICS.

Thesaurus secretorum. 4. Cologn. 1709; some depilatories and cosmetics.

1. *Argen'ti nítras.* Powell, Med. trans. IV. 85; Roberts, V. 468; gives it in solution, to avoid mischief. Albers, Medicoch. tr. VII. 284; skin coloured; also Roget, 290; and Badeley; IX. 234.
2. *Arsen'icum?* Perhaps rather a vital agent, even when applied as a caustic. Fowler's reports. 8. Lond. 1786; Lond. med. journ. VII. 192; Dunc. med. comm. XI. 113. Sherwen, M. Med. soc. Lond. II. 394; Gaitskell, IV. 79. Hill, Ed. med. journ. V. 19; Jenkinson, 309; Hill, 312. VI. 55. Thilenius, Bernard, Justamond. Marshall on arsenic. 8. Lond. 1817; Ed. med. journ. XIII. 507: Astbury, XV. 415. oedema.
3. *Calx.* Hume, Phil. trans. 1753. 163; lime water as an antiseptic; also Hales, 1754. 826. Blane, Tr. soc. med. ch. kn. II. 132.
4. A. *Potas'sa.* Hamilton, Ir. trans. V. 319; caustic alkalis as antiseptics.
   B. *Potas'sa cum cal'ce.*
   C. *Potas'sa fúsa.*

† Acidum nitricum, 27.
Acidum sulfuricum, 27.
Aerugo? 25.
Alumen, 27.
Cupri sulfas, 19.
Hydrargyri oxydium, 19.
Hydrargyri oxymurias, 16.
Hydrargyri submurias? 16.
Hydrargyrum praecipitatum album? 16.
Unguentum hydrargyri nitratis, 25.
Saccharum? 8.

(Antimonii murias. Arsenici sulfuretum. Baritae murias?)

VI. ANTISEPTICS.

Resisting putrefaction.

1. *Carbo ligni.*
2. *Sódae múrias.* Pringle, Phil. trans. Percival's essays. Henry, Phil. trans. 1810. 89. Sherwen, Ed. med. journ. X. 44; proposes to scorbuticise the system by salt, in order to break down internal coagula.

†Absinthium, 18.
Acetum, 27.
Acidum nitricum, 27.
Aloe ? 20.
Alumen, 27.
Anthemis, 18.
Calx, 5.
Camphora ?
Cerevisiae fermentum, 25.
Cinchona, 28.
Dauci radix ? 25.
Gentiana ? 18.
Humulus, 29.
Limon, 27.
Marrubium ? 17.
Myrrha ? 28.
Potassa, 5.
Quercus ? 27.
Ruta ? 18.
Salix ? 28.
Serpentaria ? 28.
Styrax ? 17.
Terebinthinae oleum, 12.
Valeriana ? 11.

(Arnica, Bucholz Chemische versuche, 1776. Artemisia ? Chamomilla ? Citrus. Hippocastanum. Scordium.)

VII. ANTIDOTES.

Calculated to neutralise offending substances.

1. A. *Cor'nu us'tum.* Gr. 30..120.
   B. *Mistúra cor'nu us'ti.* Fl. ʒ iv..viii.
2. A. *Créta praeparáta.* Gr. 30..120.
   B. *Mistúra crétae.* Fl. ʒ i..iv.
   C. *Pul'vis crétae compos'itus.* Gr. 30..60.
3. *Líquor cal'cis.* Dewar, Ed. med. journ. XIII. 195. Fl. ʒ ii..viii.
4. A. *Líquor potas'sae.* M. 10..30.
   B. *Líquor potas'sae subcarbonátis.* M. 30..90.
   C. *Potas'sae carbónas.* Gr. 10..30...
   D. *Potas'sae subcarbónas.* Gr. 10..30.
   E? *Potas'sae sulfurétum.* Gr. 5..15.
5. A. *Magnésia.* Dunc. med. comm. X. 311; *directly* purgative. Brande, Phil. trans. 1813, 213. Gr. 30..60.
   B. *Magnésiae "carbónas."* Gr. 30..120.
6. A. *Sódae carbónas.* Gr. 10..60.
   B. *Sódae subcarbónas.* Bostock, Medicoch. tr. V. 80; chemical effects on the fluids. Gr. 10..30.
   C. *Sódae subcarbónas exsiccáta.* Gr. 5..15.
7. *Tes'tae praeparátae.* Gr. 30..120.

† Acidum muriaticum, 27. Sapo, 12.
Acidum nitricum, 27. See lxxiv. Spongia usta, 26.
Ammonia, 12.

(Ammoniae hydrothéas. Bolus. Cancri chelae. Corallium.)

VIII. DEMULCENTS.

With emollients. Enveloping acrid snbstances, and softening hard or dry parts.

1. A. *Acáciae gum'mi.*	
B. *Mucilágo acáciae.*	M. 60..480.
2. *A'deps.*	
3. A. *Althaéa.*	
B. *Syrúpus althaéae.*	M. 60..120...
4. A. *Amy'gdala.*	
B. *Confec'tio amyg'dalae.*	Gr. 20..240.
C. *Mistúra amyg'dalae.*	Fl. ʒ i..viii.
D. *O'leum amyg'dalae.*	M. 60..480.
5. A. *Am'ylum.*	
B. *Mucilágo amy'li.*	M. 60..480.
6. *Avéna.*	
7. A. *Céra.*	
B. *Cerátum sim'plex.*	
C. *Emplas'trum cérae.*	
8. A. *Cetáceum.*	Gr. 5..20.
B. *Cerátum cetácei.*	
C. *Unguen'tum cetácei.*	
9. *Confec'tio rósae canínae.*	Gr. 60..240.
10. *Cor'nu.*	
11. A. *Cydónia.*	
B. *Decoc'tum cydóniae.*	Fl. ʒ i..iv.
12. *Emplas'trum sapónis.*	
13. *Farína.*	
14. A. *Glycyrrhíza.*	
B. *Extrac'tum glycyrrhízae.*	Gr. 60..240.
15. A. *Hor'deum.*	
B. *Decoc'tum hor'dei.*	Fl. ʒ iv..viii.

C. *Decoc'tum hor'dei compos'itum.* Fl. ʒ iv..viii.

16. A. *Líchen.* Ebeling de quassia et lichene; Med. comm. Ed. VI. 367. Cramer de lichene Islandico. 4. Erl. 1780. Crichton, Lond. med. journ. X. 229.

B. *Decoc'tum lichénis.* Fl. ʒ i..iv.

17. A. *Líni sémen.*

B. *Infúsum líni.* Fl. ʒ i..viii.

C. *O'leum líni.* M. 120..480.

18. A. *Mal'va.*

B. *Decoc'tum mal'vae compos'itum.*

19. A. *Mel.*

B. *Ox'ymel sim'plex.* M. 60..480.

20. *Olivae óleum.* W. Hunter dis. Lasc.; Ed. med. journ. II. 185; externally.

21. *O'vum.*

22. A. *Sac'charum.* Rigby. 8. 1788.

B. *Syrúpus aurântii.*

C. *Syrúpus cróci.*

D. *Syrúpus sim'plex.*

23. *Sévum.*

24. A. *Tragacan'tha.*

B. *Pul'vis tragacan'thae compos'itus.* Gr. 10..60.

25. *Tussilágo.*

26. *U'vae pas'sae.*

†Carica, 20.
Decoctum sarsaparillae, 14.
Decoctum ulmi, 28.
Dulcamara, 14.
Mel boracis, 25.
Mel rosae, 27.

(Adeps anserinus. Adiantum. Al'cea. Amygdalus nana. Astragalus exscapus. Behen. Guilandina. Buglossum. Butyrum. Cacao. Cannabis. Carduus? Carex? Ceratonia. Dactylus, Phoenix. Eryngium. Foenum Graecum. Glycyrrhiza echinata. Helix. Iatropha, Tapioca. Ichthyocolla, Jackson, Phil. trans. 1773. 1. Juscula. Lac. Lactis saccharum. Lilium. Liquor gastricus, Sénébier. 8. Mannh. 1785. Malva rotundifolia. Maranta. Melilotus? Melissa. Melo. Nymphaea. Oleum nucis fixum. Cocos.

Orchis. Oryza. Palmae oleum. Passulae. Pepo. Pini nuces. Polygala amara. Polypodium vulgare. Populus nigra. Ribis confectio. Sago, Cycas, Bruckmann. 4. Brunsw. 1751. Sambuci flores. Saponaria? Pearson's obs. on lues vii. Sarcocolla. Scorzonera. Symphytum. Thermae. Triticum repens? Verbascum. Zizyphus.)

IX. DILUENTS.

Simply diluting.

Jameson on diluents. 8. Lond. 1788.

1. *Aqua distillata.*

(Aqua. Including baths and mineral waters. Literature. Böhmer bibl. hist. nat. V; Gmelin in Linn. Syst. nat. In general, as an article of diet.] Schwerdtners kraft des wassers. 6 v. 8. Züllich. 1737-43. Hales, Phil. trans. 1755. 339; showers of air for sweetening water and milk. Cavendish, Phil. trans. 1767. 92; Rathbone place. Heberden, Med. trans. I. 1; London. Newland, Phil. trans. 1772. 90; distillation at sea; Nairne, 1776. 249; ice of salt water. Mauduyt, Soc. R. Med. I. 245; corruption. Henry on preserving water. 8. Warringt.: Dunc. med. comm. VIII. 63; lime, then carbonic acid. Leidenfrost de aqua communi. 12. Duisb. 1796. Hot and cold water internally.] Med. obs. inq. II. 156; hot, as an anodyne. Chavasse, Lond. med. journ. VII. 123. Bathing, hot and cold.] Haworth on the duke's bagnio. 8. Lond. 1683. Floyer on cold bathing. 8. Lond. 1702. Baccius de thermis. f. Pad. 1711. Stevenson, Ed. med. ess. V. ii. 866; pediluvium. Springsfeld de thermis Carolinis; Watson, Phil. trans. 1756. 895; lithiasis; Miller, 1757. 25, Whytt, 386; Carlsbad; Bruni, 1760.

839, Vinadio. Parr de balneo. 8. Ed.; Med. comm. Ed. I. 297. Athill on cold bathing. 8. Ed.; Med. comm. Ed. VI. 62. Moneta über die kälte und das kalte wasser in katarrhkrankheiten. 8. Wars. 1779. Sanches, M. Soc. R. méd. III. 233; vapour baths. *Currie, Phil. trans. 1792. 199; effects of immersion. Currie, M. Med. soc. Lond. III. 147. *Marcard über die bäder. 8. Hanov. 1793; Dunc. med. comm. XX. 153. Vogel über den nutzen des seebades. 8. Stend. 1794. Buchan on sea bathing and on the warm bath. 8. Lond. 1804; Ed. med. journ. II. 456. Stock on the effects of cold in disease. 8. Lond. 1805; Ed. med. journ. II. 340; Reeve, III. 150; on the baths of Leuk, in which the patients remain 8 hours a day. Jackson on affusing cold water. 8. 1808. Kentish on warm and vapour baths. 8. 1809. Cochrane on the vapour bath. 4. Lond. 1809. Forbes, Ed. med. journ. VI. 313; a steam bath. Bateman on abstracting heat. Ed. med. journ. IX. 406. *Bathing. Suppl. Enc. Britann. II. Ed. 4. 1816. (Y.) Mineral waters.] Literature. Carrère Catalogue des ouvrages sur les eaux minérales; enumerates 252 general works, and 902 on the waters of France. Thomson, Ed. med. ess. II. 48; chalybeate; also Monro, III. 47. Rutty on mineral waters. 4. Lond. 1757. Rutty, Phil. trans. 1759. 275. Russel on sea water and on mineral waters. 8. Lond. 1769. Monro on mineral waters. 2 v. 8. 1770. D. Monro, Phil. trans. 1772. 15. Higgins's synopsis of some mineral waters. 12. Lond. 1781. Zückert, von Kühn. 8. Bresl. 1789. Zwierlein Brunnenschrift. 8. Weissenf. 1793. Hofmann Taschenbuch. 8. Weim. 1794. Systematische beschreibung aller gesundbrunnen und bäder. 8. Jen. 1798; about 600 described, with references. Wichmann über mineralische wasser. 8. Hannov. 1797. Kenney, Ir. trans. V. 83; artificial sulfureous water. Paul on artificial mineral waters. 8. 1802. Saunders on mineral waters and on bathing. 8. 1805. ¶. Sea water. White, 8. 1791. Taylor, 8. 1805. ¶. England. Lister de fontibus medicatis Angliae. 8. York. 1682. Malvern.] Wall, Phil. trans. 1756. 459, 1757. 23. With notes by his son. 8. 1806. Wilson on Malvern waters. 8.

1807. Buxton and Matlock.] Percival, Phil. trans. 1772, 455. Armstrong, Dunc. med. comm. VII. 377. Pearson on Buxton water. 2 v. 8. Lond.; Dunc. med. comm. IX. 124. Denman on Buxton water. 8. 1801. Bath and Bristol.] Howard, Phil. trans. 1767. 201; Canton, 203. Falconer on Bath waters. 8. 1798. Cheltenham.] Accum's analysis. 1808. Jameson, 8. 1809. Thomas on chronic affections. 8. Lond. 1820; Ed. med. journ. XVII. 278. Harrowgate.] Garnett on Harrowgate waters. 8. Lond.; Dunc. med. comm. XVII. 66. Garnett, M. Med. soc. Lond. V. 123. Wigglesworth.] Garnett, M. Med. soc. Lond. V. 119. Somersham.] Layard, Phil. trans. 1766. 10. Kilburn and Hampstead.] Bliss. 8. 1802. Schmeisser, Phil. trans. 1792. 115; Kilburn. Goodwin on Hampstead waters. 8. 1804. Amlwch and Hartfell.] Rutty, Phil. trans. 1760. 470. Tunbridge.] Scudamore on Tunbridge water. 8. Lond. 1816; Ed. med. journ. XII. 494. ¶. Scotland. Moffat.] Milligen, Ed. med. ess. I. 62; Plummer, 82. Walker, Phil. trans. 1757. 117. Hartfell.] Horseburgh, Ed. phys. ess. I. 341. Montrose.] Thomson, Ed. med. ess. III. 60. 96. Dunblane and Pitcaithly.] Murray, Ed. tr. VII. ii; Ed. med. journ. XII. 320. ¶. Flanders. Spa.] Jones, Medicoch. tr. VII. 1. ¶. Germany. Scheidemantel. 8. Goth. 1792. Seltzer water.] Brocklesby, Med. obs. inq. IV. 7. Pyrmont.] Marcard über Pyrmont. 2 v. 8. Leipz. 1784-5. Auszug. 8. Pyrm. 1791; Dunc. med. comm. XIII. 264. ¶. St. Miguel.] Gourlay, Dunc. med. comm. XVI. 232.) (Cerevisia tenuis.)

VITAL AGENTS.

A. SUPPORTING STRENGTH.

X. NUTRIENTS.

Sanctorius de medicina statica, a Lorry. Rüdiger de diaeta eruditorum. 8. Leipz. 1728. Arbuthnot on aliments. 8. Lond. 1731. 1756. Chimie du gout et de l'odorat. 8. 1755. Krügers diät. 8. Hall. 1763. Lorry sur les alimens. Guthrie, Phil. trans. 1778. 622; Russians. Falconer on diet and regimen. 8. Lond. 1778. Richter praecepta diaetetica. 8. Heidelb. 1780. Fothergill, Med. obs. inq. VI. 103; somewhat fanciful. H. Soc. R. méd. VII. 221; for the navy. Plenck bromatologia. 8. Vienn. 1781. Parmentier sur les végétaux nourrissans. 8. Par. 1781. Cuisinière bourgeoise. 8. Par. Zückert von den nahrungsmitteln, von Sprengel. 8. Berl. 1790. Mackittrick Adair's medical warnings. 1804. Bergius über die leckereyen, von Forster. 8. Hall. 1792. Germershausens hausmutter. 8. Leipz. Kühn. R. Pearson. Willich on diet. 8. Lond. Culina famulatrix medicinae. 8. Lond. 1810; by Hunter. Appert's Art of preserving. Lond. 1812. Ed. med. journ. X. 219.

† Many demulcents, 8. Excitants, 12, as condiments.

(Mammalium caro. Lac.] Young. Ferris on milk. 8. Lond. 1785. Clarke, Ir. trans. II. 171; Lond. med. journ. XI. 71; human milk, and its digestion, without coagulation. Grieve, Ed. trans. I. 178; Lond. med. journ. X. 197; koumiss. Avium caro. Ova.] Amphibiorum caro. Ova.] Piscium caro. Ova.] Watson, Phil. trans. 1754. 870;

castration of fish. Insecta.] Vermes.] Clarke, Med. tr. V. 109: bad effects of oysters. Vegetabilia; radices, herbae, fructus et semina, fungi, algae.] Bryant on esculent plants. Clark, Med. facts. VII. 300; amylaceous matter of different vegetables. Salep, Moult, Phil. trans. 1769. 1. Percival's essays. Tapioca, Lond. med. journ. IX. 67. The "arrow root" sold in the shops is a pure starch, and is often counterfeited by simply grating raw potatoes into a sieve, and washing the powder through with pure water. Earths.] Ed. med. journ. VI. 316; from Humboldt.)

B. CAUSING ACTION.

The term action is understood as including the exertion of any of the powers of the system.

1. *PARTIALLY AND TEMPORARILY.*

XI. EXPERGEFACIENTS.

Increasing the activity of the nervous system.

1? *A'qua rósae.* Rather astringent.

2. A. *Assafoet'ida.* Hope, Phil. tr. 1785. 36. Gr. 10..30.
   B. *Mistúra assafoet'idae.* Fl. ʒ ss..i.
   C. *Spir'itus ammóniae foet'idus.* M. 30..60.
   D. *Tinctúra assafoet'idae.* M. 30..120.

3. A. *Cam'phora.* Alexander, Phil. trans. 1767. 65. Hallé, M. Soc. R. méd. V. 66. Crawford, Dunc. med. comm. XVIII. 253; "great adulteration;" but with what? Gr. 3..20.
   B. *Mistúra cam'phorae.* Fl. ʒ ss..iv.
   C. *Spir'itus cam'phorae.* M. 30..90.

4. A. *Castóreum.*	Gr. 5..20.
B. *Tinctúra castórei.*	M. 30..120.
5. *Crocus.*	Gr. 10..60.
6. A. *Gal'banum.*	Gr. 10..30.
B. *Emplástrum gal'bani compos'itum.*	
C. *Pil'ulae gal'bani compos'itae.*	Gr. 10..30.
7. A. *O'leum suc'cini.*	M. 10..30.
B. *Spir'itus ammóniae succinátus.*	M. 10..30.
8. *Opop'anax.*	Gr. 10..30.
9. *Rosmarínus.*	Gr. 10..30.
B. *O'leum rosmaríni.*	M. 2..5.
C. *Spir'itus rosmaríni.*	M. 60..240.
10. *Sagapénum.*	Gr. 10..30.
11. A. *Valeriána.*	Gr. 20..120.
B. *Tinctúra valeriánae.*	M. 30..120.
C. *Tinctúra valeriánae ammoniáta.*	M. 30..120.

†Capsicum? 12.
Elemi? 25.
Limonis cortex? 12.
Lytta? 12.
Moschus, 29.
Olibanum? 25.
Pyrethrum? 16.
Senega, 17.
Vinum? 13.

(Acidum aceticum aromaticum. Acidi carbonici liquor. Ambra grisea. Coffea; Percival's essays. Thomson, Ed. med. journ. XVI. 27; for bark. Jasminum? Phosphorus?? Thea bohea, viridis. Lettsom on the tea tree. 4. Lond. 1799.)

XII. EXCITANTS.

Producing a strong local impressiou on the nerves.

Many of them are commonly called stimulants, but this term has been used in too vague a sense to be conveniently applied to a well defined class or order of substances. Rubefacients and Aromatics in general are included in this order. The "impression on the nerves" is perceived wherever the nerves are particularly delicate, as by the lips, or the eye, and often in any other part.

1. *Al'lium.* Succus.	M. 60..240.
2. A. *Ammóniae "carbónas."* Pearson's obs. on lues, 87.	Gr. 5..20.
B. *Linimen'tum ammóniae carbonátis.*	
C. *Linimen'tum ammóniae for'tius.*	
D. *Líquor ammóniae.*	M. 10..20.
E. *Líquor ammóniae carbonátis.*	M. 30..90.
F. *Spir'itus ammóniae.*	M. 30..120...
G. *Spiritus ammóniae aromaticus.* When the larger doses are given, they must be greatly diluted.	M. 30..120...
3. A. *Armorácia.*	M. 30..60.
B. *Infúsum armoráciae compos'itum.*	Fl. ʒ i..iv.
C. *Spir'itus armoráciae compos'itus.*	M. 60..240.
4. *Cajupúti óleum.*	M. 1..5.
5. *Cal'amus.*	Gr. 10..60.
6. A. *Cap'sicum.* Collins, Med. comm. II. 363.	Gr. 3..10.
B. *Tinctúra cap'sici.*	M. 10..120.
7. A. *Cardamómum.*	Gr. 5..30.
B. *Tinctúra cardamómi.*	M. 30..240.
C. *Tinctúra cardamómi compos'ita.*	M. 30..240.

8. A. *Car'ui.* Gr. 10..60.
   B. *A'qua car'ui.* Fl. ℥ ii..iv.
   C. *O'leum car'ui.* M. 1..5.
   D. *Spir'itus car'ui.* M. 30..240.
9. A. *Caryophyll'i.* Gr. 5..30.
   B. *Infúsum caryophyllórum.* Fl. ℥ i..iv.
   C. *O'leum caryophyllórum.* M. 3..6.
10. A. *Cinnamómum.* White, Phil. trans. 1758. 860. Gr. 5..20.
   B. *A'qua cinnamómi.* Fl. ℥ i..iv.
   C. *Confec'tio aromat'ica.* Gr. 10..120.
   D. *O'leum cinnamómi.* M. 1..3.
   E. *Pul'vis cinnamómi compos'itus.* Gr. 5..10...
   F. *Spir'itus cinnamómi.* M. 60..240.
   G. *Tinctúra cinnamómi.* M. 30..240.
   H. *Tinctúra cinnamómi compos'ita.* M. 20..180.
11. *Corian'drum.* Gr. 20..60.
12. A. *Cumínum.* Gr. 20..60.
   B. *Emplas'trum cumíni.*
13? A. *Decoc'tum verátri.*
   B. *Unguen'tum verátri.*
14. *Emplástrum pícis compos'itum.*
15. *Euphor'biae resína.*
16. A. *Lavan'dula.* Gr. 20..60.
   B. *O'leum lavan'dulae.* M. 1..5.
   C. *Spir'itus lavan dulae.* M. 60..240.
   D. *Spir'itus lavan'dulae compos'itus.* M. 30..240.
17. A. *Laúri bac'cae.* Gr. 10..30.
   B. *Laúri fólia.* Gr. 10..30.
18. A. *Limónum cor'tex.*
   B. *Limónum óleum.*
19. A. *Lyt'ta.* Toti di Fajano. 8. Pis. 1793. Gr. ½..3.
   B. *Tinctúra lyt'tae.* M. 30..120.
20? *Mas'tiche.* Gr. 10..30.
21. A. *Men'tha piperíta.* Gr. 10..60.
   B. *A'qua men'thae piperítae.* Fl. ℥ ii..iv.
   C. *O'leum men'thae piperítae.* M. 1..3.
   D. *Spir'itus men'thae piperítae.* M. 60..240.

22. A. *Men'tha vir'idis.* Gr. 10..60.
B. *A'qua men'thae vir'idis.* Fl. ʒ ii..iv.
C. *O'leum men'thae vir'idis.* M. 2..5.
D. *Spir'itus men'thae vir'idis.* M. 60..240.

23. *Mezéreum.* Leroy, 1765. Engel. 1781. Pearson's obs. on lues, 52. Gr. 1..10.

24. A. *Myris'tica.* Gr. 5..20.
B. *Spir'itus myris'ticae.* M. 60..240.

25. A. *Orig'anum.*
B. *O'leum orig'ani.* M. 1..3.

26. *Petróleum.* Peirce, Dunc. med. comm. XVI. 372; lepra. M. 10..30.

27. A. *Pimen'ta.* Gr. 5..20.
B. *A'qua pimen'tae.* Fl. ʒ ii..iv.
C. *O'leum pimen'tae.* M. 2..5.
D. *Spir'itus pimen'tae.* M. 60..240.

28. *Píper lon'gum.* Gr. 4..20.

29. *Píper nígrum.* Gr. 4..20.

30. *Por'rum.* Succus. M. 60..240.

31. A. *Pulégium.* Gr. 10..60.
B. *A'qua pulégii.* Fl. ʒ ii..iv.
C. *O'leum pulégii.* M. 1..5.
D. *Spir'itus pulégii.* M. 60..240.

32. *Sápo.* Gr. 5..30.

33. A. *Sinápis.* Gr. 20..60.
D. *Cataplasma sinápis.*

34. A. *Terebin'thinae o'leum.* Stedman, Ed. med. ess. II. 45; two drachms produced strangury. About a drop is contained in a drachm of gin. See Godfr. misc. ver. ut. 29. M. 10..40.
B. *Linimen'tum terebin'thinae.*

35. *Toxicoden'dron.* Alderson on toxicodendron. 8. Hull. 1804; Dunc. med. comm. XX. 32. Gr. 2..15.

36? A. *Unguen'tum sul'furis.*
B. *Unguen'tum sul'furis compositum.*

37. A. *Zin'giber.* Gr. 5..30.
B. *Syrúpus zingib'eris.* M. 60..180.
C. *Tinctúra zingib'eris.* M. 30..180.

†Acetum, 27.
Acidum nitricum, 27.
Aerugo? 25.
Aetherea, 13.
Anethum, 21.
Anisum, 21.
Arsenicum, 5.
Borax, 25.
Calx, 5.
Canella, 18.
Cascarilla, 28.
Digitalis? 22.
Emplastrum galbani, 11.
Emplastrum picis compositum, 12.
Foeniculum, 18.
Galbanum, 11.
Hydrargyri nitricooxydium, 25.
Hydrargyri oxymurias, 16.
Liquor potassae, 7.
Lytta, 12.
Mel boracis? 25.
Oleum succini, 11.
Pix liquida? 25.
Pyrethrum, 16.
Rosmarinus, 11.
Sabina, 23.
Senega? 17.
Sodae murias? 6.
Spiritus rectificatus, 13.
Tabacum, 29.
Terebinthina, 25.
Terebinthinae oleum, 12.
Vinum, 13.

(Acidum aceticum concentratum. Amyris. Anagallis. Anemone nemorosa. Anemone pratensis. Angelica. Apii semina. Arum recens. Baritae murias? Bellis? Bubon. Cassia lignea. Cepa. Chelidonium. Clematis flammula. Cochlearia. Convallaria. Cubeba. See inflammatio. Curcuma vulgaris. Electricitas. Bohadsch de utilitate electrizationis; Watson, Phil. trans. 1752. 345. Bianchini sur la médecine électrique; Watson, Phil. trans. 1752. 399. Hart, Phil. trans. 1754. 788; Brydone, 1757, 392, 1758, 695; Franklin, 481. Saunders, Med. comm. Ed. III. 394. Manduyt, M. Soc. R. méd. I. 461. II. 199. IV. 264. V. 160. Cavallo on medical electricity. 8. Lond. 1780; Lond. med. journ. I. 246. Ledru Rapport sur l'électricité médicale. 8. Par. 1783; Lond. med. journ. V. 59. Kühn Geschichte der medicinischen electricität. Bock Beyträge. Bertholon. Deiman von der wirkungen der electricität. 1793. Arnem. arzneim. II. 277. Cuthbertson's practical electricity. 8. Lond. 1806. Electricitas galvanica. Mengiardini, Soc. di Genova; Ed. med. journ. III. 29. Herholdt und Rafn vom Perkinismus, von Tode. 8. Copenh. 1798. Haygarth on the

imagination. 8. Bath, 1801. Eruca. Eryngium. Euphorbia. Galanga? Hyssopus? Inula? Ladanum. Levisticum. Marum. Melissa. Meloe. Mentha aquatica, crispa. Mithridatium. Heberden on mithridatium and theriaca. 8. Lond. 1745. Nigella. Origanum dictamnus. Pechurim. Petroselini semina. Petroselini radix? Phellandrium. Phosphorus? Hufeland, Dunc. ann. 1799. 269. Phytolacca. Ranunculus acris. Rhus radicans. Fresnoy; Dunc. med. comm. XVII. 120. Sabadilla. Staphisagria. Scordium. Sedum acre. Tacamahaca, popul. balsam. Tanacetum? Theriaca, Heberden. Thermae 110°. Urtica. Winterae cortex. Zedoaria.)

XIII. CALEFACIENTS.

Increasing the action of the heart.

1. A. *Aether rectificátus.* Morris, Med. obs. inq. II. 176. Lavoisier, M. Soc. R. méd. IV. 426; overrates its volatility; at the same time in the heat of fever it may have some tendency to expand. Tickell, Lond. med. journ. VI. 337. Davidson, Med. facts. V. 68; for spasms and intermittents. M. 30..120.
   B. *Spir'itus aétheris aromat'icus.* M. 30..60.
   C. *Spir'itus aétheris compos'itus.* M. 30..60.
   D. *Spir'itus aétheris sulfúrici.* M. 30..60.
2. *Spir'itus aétheris nit'rici.* Lassone, M. Soc. R. méd. V. 56. M. 30..60.
3. *Spir'itus vinósus.*
4. *Vínum.* Wainman de vino. 8, Ed. 1772; Smellie thes. III. 269. * Brande, Phil. trans. 1811 337; strong wines, are half as strong as brandy.

†Absinthium, 18.
Acidum nitricum, 27.
Allium, 12.
Ammoniacum, 17.
Anthemis, 18.
Armoracia, 12.
Aurantii cortex, 18.
Balsamum Peruvianum, 28.
Balsamum Tolutanum, 17.
Belladonna? 19.
Benzoinum? 17.
Cinchona, 28.
Cinnamomum, 12.
Crocus? 11.
Dauci semina? 21.
Ferrum? 28.
Guaiacum, 14.
Lavandula, 12.
Mezereum, 12.
Moschus, 29.
Myristica, 12.
Myrrha, 28.
Oleum succini, 11.
Opium, 29.
Pix liquida, 25.
Ruta, 18.
Sassafras, 14.
Scilla, 22.
Senega, 17.
Serpentaria, 28.
Styrax, 17.
Terebinthina Canadensis, 25.
Terebinthinae oleum, 12.
Uva ursi? 27.

† Excitants and sudorifics in general.

(Agaricus muscarius. Arnica. Artemisia? Centaurea benedicta. Chrysanthum, Rhododendron. Guthrie, Med. comm. Ed. V. 434. Coffea? Curcuma? Dianthus? Foenum Graecum. Galanga. Grana paradisi. Hypericum? Imperatoria. Inula? Liquidambar. Lobelia? Parietaria. Scabiosa succisa? Serpyllum. Thymus vulgaris. Vanilla. Urtica? Winterae cortex.)

XIV. SUDORIFICS.

Promoting the secretion of the skin.

1. A. *Aconítum.* Störck de stramonio. Kausch erfahr. Gr. 1..5.
   B. *Extrac'tum aconíti.* Gr. 1..5.
2. A. *Contrayer'va.* Gr. 10..30.
   B. *Pulvis contrayer'vae compos'itus.* Gr. 15..30.
3. A. *Dulcamára.* Hallenberg de dulcamara. 4. Ups.; Med. comm. Ed. III. 15. Pearson's obs. on lues. vii. Gr. 20..60.
   B. *Decoc'tum dulcamárae.* Fl. ℥ ss..ii.
4. *Guaíacum.* Pearson's obs. on lues. 1. Gr. 10..30.
   B. *Mistúra guaíaci.* Fl. ℥ ss..ii.
   C. *Tinctúra guaiaci.* M. 20..120.
   D. *Tinctúra guaíaci ammoniáta.* M. 60..240.
5. *Liquor ammóniae acetátis.* M. 120..360.
6. A. *Sarsaparil'la.* Pearson's obs. on lues, 17. Gr. 20..60.
   B. *Decoc'tum sarsaparil'lae.* Fl. ℥ iv..viii.
   C. *Decoc'tum sarsaparil'lae compos'itum.* Fl. ℥ iv..viii.
   D. *Extrac'tum sarsaparil'lae.* Gr. 10..30.
7. *Sas'safras.* Pearson's obs. on lues, vii. Gr. 20..60.

†Acetum, 27.
Acidum nitricum? 27.
Allium, 12.
Ammonia, 12.
Ammoniacum, 17.
Anisum? 21.
Anthemis? 18.
Antimonium, 19.
Asarum, 15.
Assafoetida, 11.
Belladonna, 29.
Camphora, 11.
Caryophylli, 12.
Ferrum? 28.
Helleborus niger, 20.
Hydrargyrum, 16.

Ipecacuanha, 19. Gr. ½..2.
Juniperus, 22.
Linimentum ammoniae, 12.
Magnesiae sulfas, 20.
Mezereum, 12.
Minyanthes? 28.
Moschus, 29.
Myrrha, 28.
Opium, 29.
Oxymel simplex? 8.
Petroleum? 12.
Pix liquida, 25.
Potassae nitras, 27.
Potassae sulfuretum? 7.
Potassae supertartras? 20.
Pulvis ipecacuanhae compositus, 29.
Sambuci flores? 27.
Senega, 17.
Serpentaria, 28.
Spiritus aetheris nitrici, 22.
Sulfur, 20.
Tabacum, 29.
Terebinthinae oleum, 12.
Tussilago? 8.
Vinum ipecacuanhae, 29. M. 10..40.
Ulmus? 28.

† Calefacients in general.

(Abrotonum? Ammoniae sulfuretum? Aquae sulfureae, Aqua frigida vel calida. Arctii radix? Aristolóchia trilobata. Dioscorides writes ἀριστολοχία, Nicander, who is no very high authority, ἀριστολόχεια, for the sake of his verse; and for a similar reason only we have "aristolochia secatur" in a Latin line. Asphaltum? Astragalus exscapus? Pearson's obs. on lues, vii. Bis'muthum? Cardamine? Centaurea benedicta. China. Pearson's obs. on lues. 14. Chrysanthum. Clematis flammula. Fumaria. Hydrargyri subsulfas. Hydrargyri sulfuretum nigrum? Imperatoria. Juglans?? Lacerta. Römer über eidechsen. 8. Leipz. 1788. Lactuca virosa. Levisticum. Oleum animale. Oxygenium? Pimpinella saxifraga. Potassae sulfuretum? Salvia? Sambuci baccae? Rob? Santonicum? Saponaria? Serum lactis sinapinum, vinosum. Thermae. Vincetoxicum. Zincum?)

XV. ERRHINES.

Promoting secretion in the nostrils.

1. *As'arum* (Gr. 10..20,)
2. *Verátrum.* Gr. 2..5.

†Hydrargyri submurias?
Lavandula?
Origanum?
Rosmarinus?
Saccharum?
Tabacum.
Zinci sulfas.

(Convallariae flores. Hydrargyri subsulfas; Gr. $\frac{1}{4}$, glycyrrh. gr. 2, Ware. Majorana? Marum. Nigella. Ptarmica. Sabadilla.)

XVI. SIALAGOGUES.

Promoting a flow of saliva.

1. A. *Hydrar'gyrum.* This orthography is more classical, as well as more chemical, than hydrargyrus. Hill, Ed. med. ess. IV. 41; half a drachm of cinnabar as a fumigation produced a salivation, which was ultimately fatal. Dennistoun, Ed. phys. ess. I. 390; 24 gr. of the pil. hydr. subm. daily for 6 weeks. Owen de mercurio. 8. Ed. 1757; Smellie thes. II. 427. Barry, Med. trans. I. 125. Pibrac, M. Ac. chir. IV. 143; sublimate; Lassone, 238. Houlston, Lond. med. journ. VI. 271; half a drachm of sublimate taken; Lind. VIII. 43; Underwood, 85; crude mercury; bark seemed to promote salivation; Corey, 136. Broadbelt,

M. Med. soc. Lond. V. 112; deposition in the bones. Pearson's obs. on lues, 110. Reeve, Ed. med. journ. V. 254; horses survived a dose of an ounce of the oxymuriate, and of two drachms of arsenic; but much less doses than this seem to have been lately fatal. Ed. med. journ. VI. 185. Currie on prejudices against mercury. 8. Lond. 1809, 1811. ℥ ss..iv.

B. *Hydrar'gyri oxyd'ium cinéreum.* Gr. 2..10.

C. *Hydrar'gyri oxyd'ium rúbrum.* Gr. ½..2.

D. *Hydrar'gyri oxymúrias.* Anderson, Ed. med. journ. VII. 437; poisoning externally: M'Clure, XV. 46; introduced by scarification. Gr. ⅛..½.

E. *Hydrar'gyri submúrias.* "Calomelas," River. arcana. 12. Utr. 1680. Gr. ½..2.

F. *Hydrar'gyri sulfurétum rúbrum.* Gr. 10..30.

G. *Hydrar'gyrum cum créta.* Gr. 10..30.

H. *Hydrar'gyrum praecipitátum al'bum.* Gr. 5..10.

I. *Líquor hydrar'gyri oxymuriátis.* Gr. 60..480.

K. *Pil'ulae hydrar'gyri.* Gr. 5..20.

L. *Pil'ulae hydrar'gyri submuriátis.* Plummer, Ed. med. ess. I. 46. The copaiba, employed for forming these pills, ought to be changed for gum, since it envelopes the substances so much as to lessen their activity. The subcarbonate of iron, made up into pills with copaiba, was given for some weeks without any apparent effect; and a few hours after the same quantity had been given with gum only, the faeces were perfectly black. Y. Gr. 5..10.

M. *Unguen'tum hydrar'gyri for'tius.* Gr. 30..120.

N. *Unguen'tum hydrar'gyri mil'ius.* Gr. 30..120.

2. *Pyr'ethrum.*

†Ammoniacum, 17.
Armoracia, mast. 12.
Belladonna? 29.
Digitalis, 22.
Linimentum hydrargyri, 26.
Mastiche, 12.
Mezereum, 12.
Zingiber, 12.

(Angelica, mast. Imperatoria, mast. Nigella. Pimpinella, mast. Ptarmica.)

XVII. EXPECTORANTS.

Promoting the bronchial secretion.

1. A. *Ammoníacum.*	Gr. 10..30.
B. *Mistúra ammoníaci.*	Fl. ℥ ss..ii.
2. A. *Bal'samum Tolutánum.*	Gr. 10..30.
B. *Syrúpus Tolutánus.*	M. 60..120.
3. A. *Benzóinum, or Benzoínum.*	Dryander, Phil. trans. 1787. 307.
	Gr. 10..30.
B. *Ac'idum benzóicum.*	Gr. 10..30.
C. *Tinctúra benzóini compos'ita.*	M. 30..120.
4. *Marrúbium?*	Gr. 20..120.
5. A. *Sen'ega.*	Gr. 20..40.
B. *Decoc'tum sen'egae.*	Fl. ℥ ss..ii.
6. *Sty'rax.*	Gr. 10..30.

†Acetum scillae, 22.
M. 30..90.
Aetheris vapor, 13.
Allium, 12.
Ammonia, 12,
Anisum, 21.
Antimonium, 19.
Assafoetida, 11.
Colchicum, 22.
Digitalis? 22.
Extractum taraxaci, 26.
Gr. 10..60.
Glycyrrhiza, 8.
Hydrargyrum? 16.
Ipecacuanha?? 19.
Lichen? 8.
Mel? 8.
Myrrha, 28.
Oleum sulfuratum? 25.
M. 10..30.
Pilulae scillae compositae, 22.
Gr. 10..20.
Potassa, 5.
Scilla exsiccata, 22. Gr. 1..3.
Scilla recens, 22. Gr. 5..15.
Spiritus vapor, 13.
Sulfur, 20.
Tabaci fumus, 29.
Tinctura scillae, 22. M. 10..60.
Tussilago, 8.

† Most emetics.

(Arnica. Arum. Basilium. Ocimum. Centaurea benedicta? Ceratonia. Cerefolium. Coffea. Scott, Ed. med. journ. XVII. 312. Colchicum. Cordia. Foeniculum. Glechoma? Hydrogenium? Hyssopus. Illicium. Lichen pulmonarius. Majorana? Oniscus?? Oxygenium. Pimpinella. Polygala vulgaris. Pulmonaria? Scabiosa arvensis. Verbascum. Veronica. Zizyphus.)

XVIII. STOMACHICS.

Promoting the secretion of the gastric fluid, or improving its quality.

1. *Absin'thium.*	Gr. 20..60.
2. A. *An'themis.*	Gr. 10..60.
B. *Extrac'tum anthem'idis.*	Gr. 10..30.
C. *Infúsum vnthem'idis.*	Fl. ʒ i..iv.
D. *O'leum anthem'idis.*	M. 5..10.
3. A. *Auran'tii cor'tex.*	
B. *Confec'tio auran'tii.*	Gr. 30..240.
C. *Infúsum auran'tii compos'itum.*	Fl. ʒ i..iv.
D. *Tinctúra auran'tii.*	M. 30..240.
4. A. *Calum'ba.* Percival's essays.	Gr. 10..20.
B. *Iufúsum calum'bae.*	Fl. ʒ i..iv.
C. *Tinctúra calum'bae.* Precipitates "cinchonin" from the tincture of cinchona.	M. 30..240.
5. *Canel'la.*	Gr. 10..30.
6. *Centaúrum.*	Gr. 15..60.
7. A. *Foenic'ulum.*	Gr. 20..60.
B. *A'qua foenic'uli.*	Fl. ʒ ii..iv.
8. A. *Gentiána.*	Gr. 10..60.
B. *Extrac'tum gentiánae.*	Gr. 10..30.
C. *Infúsum gentiánae compos'itum.*	Fl. ʒ i..iv

D. *Tinctúra gentiánae compos'ita.* M. 60..120.

9. A. *Quas'sia.* Ebeling de quassia. 8. Glasg.; Med. comm. Ed. VI. 367. Lettsom, M. Med. soc. Lond. I. 128. Lindsay, Ed. trans. III. 205; Med. facts. V. 140. Gr. 5..30.

B. *Infúsum quas'siae.* Fl. ʒ i..iv.

10. A. *Rúta.* Gr. 15..40.

Confec'tio rútae. En.

†Acidum sulfuricum, 27.
Assafoetida, 11.
Calamus, 12.
Carui, 12.
Cascarilla, 28.
Cinnamomum, 12.
Cusparia, 28.
Ipecacuanha, 19.
Limonis cortex? 12.
Menthae, 12.
Sinapis? 12.
Sodae murias, 6.
Spiritus rectificatus, 13.
Vinum, 13.

(Absinthium maritimum. Acoroidis resina. Artemisia pontica. Bismuthum, Odier, Journ. méd. LXVII; Lond. med. journ. VII. 321. Marcet, M. Med. soc. Lond. IV. 155. Centaurea benedicta. Cerevisia "porter"? Fel? Galanga. Gentiana Pannonica. Ginseng, Heberden, Med. trans. III. 34. Marrubium. Marum. Matricaria chamomilla. Mentha aquatilis, crispa. Millefolium. Pareira. Parthenium. Pechurim. Pimpinella saxifraga. Rheum undulatum. Salvia. Tanacetum? Virga aurea. Winterae cortex? Zedoaria.)

XIX. EMETICS.

Fothergill de emeticorum usu 8. Ed. 1736; Smellie thes. I. 153. Balguy, Ed. med. ess. IV. 33; unimportant. Neumann neglectus emeticorum vindicatus. 8. Prag. 1781.

1. *Antimónium.* Walker, Ed. phys. ess. II. 254; soporific effect of antimonial wine. Geoffroy, Phil. trans. 1751. 273; vitrum antimonii ceratum; Huxham, 1754. 832. Huxham on antimony. 8. Lond. 1755. Faucke de solutione antimonii in diversis vinis. 8. Vienn. 1767. Fourcroy, M. Soc. R. méd. IV. 248; chermes mineral. Kausch erfahr.; antimonii calx sulf. Hofm.

A. *Antimónii oxyd'ium.* Sud. Gr. 1...10.

C. *Antimónii sulfurétum.* Sud. Gr. 10..30.

C. *Antimónii sulfurétum praecipitátum.* Sud. Gr. 1..5.

D. *Antimónium tartarizátum.* Lassone, M. Soc. R. méd. I. 371; Caille, III. 520. Höpfner über die bereitung des brechweinsteins. 8. Weim. 1782. Small, Med. obs. inq. VI. 209; modified by bark; especially by the powder, but without acquiring any very remarkable virtues. Y. Blizard, Lond. med. journ. VIII. 57; for fungous sores; Blackburne, IX. 61; large dose. Sherwin, M. Med. soc. Lond. II. 386; absorption. Bradley, 247; externally; also Hutchinson, V. 81. Em. Gr. 1..3.
Sud. Gr. $\frac{1}{4}$..$\frac{1}{2}$.

E. *Líquor antimónii tartarizáti.* Em. M. 180..480.
Sud. M. 15..90.

F. *Pul'vis antimonális.* Pearson, Phil. trans. 1791. 317; James's powder. Gr. 5..10.

2. *Cúpri sul'fas.* Gr. 5..15.

3. *Ipecacuan'ha.* Pye, Med. obs. inq. I. 240; small doses. Lassone and Cornette, M. Soc. R. méd. III. 512.

Irving, Dunc. med. comm. X. 340. Daubenton on indigestion. Decandolle, Bulletin des sciences, n. 64; Ed. med. journ. I. 103. Gr. 5..30.

B. *Vinum ipecacuan'hae.* M. 120..480.

†Ammoniae carbonas, 12.
Anthemis, 18.
Asarum, 15.
Minyanthes, 28.
Olivae oleum, 8.
Scilla, 22.
Sinapis, 12.
Tabacum, 29.
Veratrum, 15.
Zinci sulfas, 28. Gr. 15..30.

(Aqua tepida. Boletus laricis. Centaurea benedicta. Chrysanthum. Ebulus. Euphorbium. Gratiola. Hydrargyri subsulfas. Platini oxydium, Gr. 2. Zinci acetas, Gr. 5..10.)

XX. CATHARTICS.

Causing alvine excretion.

Balguy, Ed. med. ess. IV. 33. Rotheram medicamina purgantia. 4. Ups. 1775; amara, acria, styptica, acida, dulcia. Daubenton, M. Soc. R. méd. IV. 256; for sheep. * Hamilton on purgative medicines. 8. Ed. 1805; Ed. med. journ. II. 97. 452; Morgan, III. 144; Cheyne, IV. 310; much theory.

†Aceti enema, 27.
Alumen? 27.
Ammoniacum, 17.
Anthemis, 18.
Antimonium, 19.
Argenti nitras, 5.
Asarum, 15.
Cinchonae, 28.
Dauci radix, 25.
Decoctum hordei? 8.
Gentiana, 18.
Guaiacum, 14.
Magnesiae carbonas, 7. Gr. 30..120.
Magnesia usta, 7. Gr. 30..60.
Malva? 8.
Marrubium? 17.
Mel, 8.

Minyanthes? 28.
Morus, 27.
Olivae oleum, 8.
Pilulae hydrargyri, 16.
Saccharum, 8.
Sapo, 12.
Sinapis, 12.
Tabacum, 29.
Tamarindus, 27.
Taraxàcum, 26.
Terebinthinae enema, 25.
Tinctura benzoini composita, 17.
Toxicodendron, 12.

(Aquae purgantes. Arctii radix? Argenti phosphas, Gr. 1..2. Asparagus? Astragalus exscapus? Pearson's obs. on lues, vii. Baritae murias? Betonica? Boletus laricis. Borago. Bryoniae extractum. Carthamus. Cerefolium. Chrysanthum. Cichorium. Convolvulus turpethum. Copaiba? Dauci semina. Ebuli cortex int. Enema aeris, Ockel de aere in primis viis. Hall. 1790. Enema aquae. Eryngium? Eupatorium. Euphorbium. Farmeria. Fel. Gratiola, Kostrzewski. 8. Vienn.; Med. comm. Ed. VI. 141. Jacea. Lactuca virosa. Lepidium. Lobelia? Pearson's obs. on lues, vii. Mays? Mechoacanha, Convolvulus Americanus. Mellassa. Mercurialis. Ova cruda? Persicae flores. Prunus spinosa. Pseudacori succus recens. Psyllium. Rheum undulatum. Sapo. Sambuci cortex, germina, rob. Scorzonera? Serum lactis. Suppositoria. Terebinthinae enema. Triticum repens. Vitrum antimonii. Uva. Xanthoxyli radicis succus, M. Med. soc. Lond. V.)

CHOLAGOGUES?

1? A. *Rhéum.* Hope, Phil. trans. 1765. 290. Sir W. Fordyce on the culture of rhubarb. 8. 1792. Tends particularly to promote the pelvic excretions. Y.

Gr. 10..40.

B. *Extrac'tum rhéi.* Gr. 10..30.
C. *Infúsum rhéi.* Fl. ℥ i..iv.
D. *Tinctúra rhéi.* Fl. ℥ ss..iss.
E. *Tinctúra rhéi compos'ita.* Fl. ℥ ss..iss.

†* Hydrargyri submurias, 16. Gr. 2..5. Ipecacuanha? 19.

HYDRAGOGUES?

2. A. *Elatérium.*
   B. *Extrac'tum elatéril.* Gr. ½..3.
3. A. *Jalápa.* Gr. 10..30.
   B. *Extrac'tum jalápae.* Gr. 10..20.
   C. *Tinctúra jalápae.* Gr. 60..240.
4. *Magnésiae sul'fas.* Gr. 60..480.
5. *Potas'sae sul'fas.* Gr. 60..240.
6. *Potas'sae supertar'tras.* Bergius; Med. comm. Ed. I. 243; "very soluble with ¼ of borax." Gr. 60..480.
7. *Potas'sae tar'tras.* Gr. 60..480.
8. *Sódae sul'fas.* Gr. 60..480.
9. *Sóda tartarizáta.* A very pleasant and salutary purgative draught may be made, by putting 2½ drachms of the crystallized subcarbonate of soda, with three drachms of crystals of tartar, and half a pint of water, into a stone bottle, and letting them remain well corked for a few days. Y. Gr. 60..480.

†Potassae acetas, 22. Potassae nitras, 27. Sodae murias, 6. ʒ ss..i. Spartium, 22.

(Iridis palustris radicis succus, Ramsay, Ed. Med. ess. V. 93. Sodae phosphas; weak and uncertain. Pearson, Lond. med. journ. IX. 393.)

SIMPLY PROPELLENTS.

10. A. *Al'oe spicáta.* Gr. 3..15.
    B. *Decoc'tum al'oes compos'itum.* Fl. ʒ ss..ii.
    C. *Extrac'tum al'oes.* Gr. 5..15.
    D. *Pil'ulae al'oes compos'tae.* Gr. 10..20.
    E. *Pil'ulae al'oes cum myr'rha.* Gr. 10..20.

F. *Pul'vis al'oes compos'itus.* Gr. 10..20.
G. *Tinctúra al'oes.* Fl. ℥ ss..i.
H. *Tinctúra al'oes compos'ita.* M. 30..120.
I. *Vínum al'oes.* Fl. ℥ ss..i.

11. *Al'oe vulgáris.* Millington, Lond. med. journ. VIII. 422. Gr. 3..15.

12. A. *Cambógia.* Murray, Comm. Gott. IX.; Dunc. med. comm. XIV. 180. Gr. 2..10.
B. *Pil'ulae cambógiae compos'itae.* Gr. 5..20.

13. *Car'ica.*

14. A. *Cas'sia.* ℥ ss..i.
B. *Confec'tio cas'siae.* Gr. 60..180.

15. A. *Colocyn'this.* Gr. 1..5.
B. *Extrac'tum colocyn'thidis.* Gr. 5..30.
C. *Extrac'tum colocyn'thidis compos'itum.* Gr. 5..30.

16. *Línum cathar'ticum.* Gr. 30..60.

17. *Man'na.* Cirillo, Phil. trans. 1770. 233. ℥ ss..ii.

18. *Prúnus.*

19. A. *Rham'nus.* Gr. 60..120.
B. *Syrúpus rham'ni.* M. 60..120.

20. *Ric'ini óleum.* Canvane on castor oil. 8. Lond. Fraser, Med. obs. inq. 235. M. 60..480.

21. A? *Rósa centifólia.* Gr. 20..60.
B. *Syrúpus rósae.* M. 60..120.

22. A. *Scammónia.* Σκαμμωνία. Dioscor. Scammonea, Cic. Russel, Med. obs. inq. I. 12. Gr. 5..20.
B. *Confec'tio scammóniae.* Gr. 30..120.
C. *Pul'vis scammóniae compos'itus.* Gr. 10..20.

23. A. *Sen'na.* Gr. 20..60.
B. *Confce'tio sen'nae.* Gr. 30..240.
C. *Infúsum sen'nae.* Fl. ℥ i..iv.
D. *Pul'vis sen'nae compos'itus.* Gr. 20..60.
E. *Syrúpus sen'nae.* M. 120..480...
F. *Tinctúra sen'nae.* M. 120..480.

24. A. *Sul'fur lótum.* Gr. 30..120.

B. *Sul'fur praecipitâtum.* Generally adulterated with sulfate of lime, by the employment of lime and sulfuric acid in making it. Y. Gr. 30..120.

25. *Víola?*

(Croton tiglium. Semen, Oleum. M. ½. Ingledow, Ed. med. journ. XIII. 256.)

ANTHELMINTHICS.

Latham, Med. tr. V. 52.

26. *Dol'ichos.*	Gr. 5..10.
27. *Fílix mas.*	Gr. 60..240.
28. *Helleb'orus foet'idus.*	Gr. 10..30.
29. A. *Helleb'orus níger.*	Gr. 10..30.
B. *Tinctúra helleb'ori nígri.*	M. 30..60.
30. *Spigélia.*	Gr. 10..40.
31. *Stan'num.*	Gr. 60..240.
32. *Staphiságria.*	Gr. 3..10.

†Absinthium? 18.
Allium, 12.
Ammonia? 12.
Ammoniae murias, 26.
Anthemis, 18.
Assafoetida, 11.
Camphora, 11.
Confectio rutae, 18. En.
Ferrum, 28.
Hydrargyri submurias, 16.
Hydrargyri sulfuretum, 16.
Linimentum camphorae, 26. En.
Liquor calcis, 7. En.
Magnesia, 7.
Petroleum, 12.
Sodae murias, 6.
Sulfur, Prop.
Tabacum, 29.
Terebinthinae oleum. Fl. ℥i..ii.
Valeriana, 11.
Veratrum, 15.

(Aquae sulfureae. Barita? Cepa, Chenopodium. Conferva dichotoma. Dictamnus, Geoffroea? Bondt. 8. Leyd.; Dunc. med. comm. XIII. 1. Helminthochortus. Hydrargyri sulfuretum nigrum? Jacobaea. Juglans, folia tosta. Nigella. Pteris. Sabadilla. Santonicum. Spigelia. Tabacum. Tanacetum.)

XXI. CARMINATIVES.

Promoting the excretion of flatulence.

1. A. *Anéthum.*	Gr. 10..60.
B. *A'qua anéthi.*	Fl. ℥ ii..iv.
2. A. *Anísum.*	Gr. 10..60.
B. *O'leum anísi.*	M. 3..15.
C. *Spir'itus anísi.*	M. 30..240.
3. *Daúci sem'ina.*	Gr. 20..60.

†Ammoniacum, 17.
Anthemis, 18.
Assafoetida, 11.
Aurantii cortex, 18.
Cajuputi, 12.
Calamus, 12.
Carui, 12.
Cinnamomum, 12.
Coriandrum, 12.
Cusparia, 28.
Emplastrum cumini, 12.
Juniperus, 22.
Menthae, 12.
Pulegium, 12.
Spiritus aetheris compositus, 13.
Spiritus aetheris nitrici, 22.
Tinctura sennae, 20.
Zingiber, 12.

† Excitants in general.

(Chamomilla. Chenopodium. Emplastrum ladani compositum? Foeniculum. Illicium. Imperatoria. Levisticum. Mentha aquatilis, crispa. Petroselini semina. Salvia.)

XXII. DIURETICS.

1. A. *Col'chicum.* Störck. 8. Vienn. 1763. Ring, Ed. med. journ. VII. 171; eau medicinale; fatal. Home, Phil. trans. 1816. 262; 1817. 262. Haden on colchicum. 8. Lond. 1820; to supersede bleeding; 5 to 10 grains. Gr. 1..5.
   B. *Acétum col'chici.* M. 30..90.
2. *Copáiba.* M. 20..60.
3. A. *Digitális.* Darwin, Med. trans. III. 255; dropsy and consumption; Baker, 287, 449. Withering on foxglove. 8. Birm. 1785; Lond. med. journ. VI. 298; Dunc. med. comm. X. 133. Beddoes, Med. facts. V. 17; effects relieved by opium. W. Currie, M. Med. soc. Lond. IV. 10. Ferriar on digitalis. 12. Manch. 1799; Dunc. ann. 1799. 505, 1800. 146. Baildon, Ed. med. journ. III. 270; pulse reduced to 40 in the horizontal posture, but becoming 100 on standing up. W. Hamilton on digitalis. 8. Lond. 1807; Ed. med. journ. IV. 215. Sanders on consumption and digitalis. 8. Ed. 1808; Ed. med. journ. IV. 314; primarily calefacient. Villiers sur la digitale. 8. Par. 1812. Henry, Ed. med. journ. VII. 148, poisoning. Gr. $\frac{1}{2}$..3.
   B. *Infúsum digitális.* Fl. ʒ ss..ii.
   C. *Tinctúra digitális.* M. 10..40.
4. A. *Junip'eri bac'cae.* Pearson's Obs. on lues. vii. Gr. 30..60.
   B. *O'leum junip'eri.* M. 2..10.
   C. *Spir'itus junip'eri compos'itus.* M. 60..240.
5. A. *Potas'sae acétas.* Fothergill, Ed. med. ess. V. 177. Gr. 20..30.
6. A. *Scil'la exsiccáta.* Gr. 1..3.
   B. *Scil'la récens.* Gr. 2..5.

C. *Acétum scil'lae.*	M. 30..90.
D. *Ox'ymel scil'lae.*	M. 30..120.
E. *Pil'ulae scil'lae compos'itae.*	Gr. 10..20.
F. *Tinctúra scil'lae.*	M. 10..60.
7. *Spar'tium.*	Gr. 20..60.
8. *Spir'itus aétheris nit'rici.*	M. 30..60.

†Acetosa? 27.
Acetum, 27.
Acidum nitricum, 27.
Aconitum? 14.
Allium, 12.
Ammoniacum, 17.
Asarum, 15.
Belladonna? 29.
Borax, 25.
Cambogia, 20.
Dauci semina? 21.
Guaiacum? 14.
Helleborus niger, 20.
Hydrargyri oxymurias, 16.
Hydrargyri submurias, 16.
Jalapa, 20.
Infusum armoraciae compositum, 12.
Liquor ammoniae acetatis, 14.
Lytta, 12.
Marrubium, 17.
Mezereum? 12.
Olibanum, 25.
Pix liquida, 25.
Potassae carbonas, 5.
Potassae nitras, 27.
Potassae supertartras, 20.
Sarsaparilla, 14.
Sassafras, 14.
Senega? 17.
Serpentaria, 28.
Sinapis, 12.
Sodae carbonas, 7.
Tabacum, 29. Fowler. Earle, Medicoch. tr. VI. 82.
Taraxacum, 26.
Terebinthina, 25. Gr. 20..60.
Terebinthinae oleum, 12. M. 10..30.
Tinctura ferri muriati, 28.
Ulmus, 28.
Uva ursi? 27.

† Saline cathartics in general, with other diuretics.

(Acidum carbonicum. Alkekengi. Anemone pratensis. Apium graveolens? Aquae alcalinae. Aqua laurocerasi? Aqua tepida. Arctii radix. Arctii semina. Aristolochia clematitis, longa, rotunda. Armoracia. Asparagus? Astragalus exscapus? Betulae succus. Bryoniae extractum. Calcis murias. Cardamine? Cepa. Cerefolium. Cerevisia pini. Chelidonium. Cichorium. Cinara. Clematis flammula.

Cochlearia. Digitalis epiglottis. Dulcamara. Ebulus. Eryngium. Erysimum. Eupatorium. Fraga ? Fumaria. Humulus. Hydrargyri vapor ? Illicium. Imperatoria. Lac asininum. Lactuca virosa. Laurocerasus. Ledum. Linaria. Lobelia. Lytta. Meloe. Mercurialis. Mesembryanthemum crystallinum, Leib, Dunc. med. comm. XII. 135. Nasturtium aquaticum. Oniscus ? Ononis. Opobalsamum. Pareira. Petroselini radix ? Pimpinella saxifraga. Porrum. Pyrola umbellata. Somerville, Medicoch. tr. V. 340 : Barton, VII. 143 ; blackens the urine, like the uva ursi. Serpyllum. Serum lactis. Sium ? Solanum nigrum. Terebinthina Veneta, Pinus larix. Thymus vulgaris. Vanilla. Ulmus. Urtica ? Uva.)

XXIII. EMMENAGOGUES.

1. *Rúbia.* Gr. 30..60.
2. *Sabína.* Gr. 10..30.

†Allium ? 12.
Aloe, 20.
Ammonia ? 12.
Ammoniacum ? 17.
Anthemis ? 18.
Asarum ? 15.
Assafoetida, 11.
Borax ? 25.
Castoreum, 11.
Crocus, 11.
Dulcamara, 14.
Ferrum, 28.
Galbanum, 11.
Helleborus niger, 20.
Hydrargyri submurias, 16.
Hydrargyrum, 16.
Marrubium, 17.
Myrrha, 28.
Oleum succini, 11.
Oleum terebinthinae, 12.
Opopanax, 11.
Pulegium, 12.
Rheum, 20.
Rosmarinus ? 11.
Ruta ? 18.
Sagapenum, 11.

(Aristolochia clematitis, longa, rotunda. Arnica. Bryonia. Chamaedrys. Electricitas, 12. Pulvis myrrhae compositus, Ph. 1787. Serpyllum. Sium ? Tanacetum ? Thymus vulgaris. Tinctura sabinae composita, Ph. 1787.)

XXIV. EPISPASTICS.

Promoting a serous secretion under the cuticle.

Meza de vesicantibus. 8. Copenh.; Med. comm. Ed. IV. 300. Tralles de usu vesicantium. 2 v. 4. Bresl. 1782-3.

1. A. *Cerátum lyt'tae.*
   B. *Emplas'trum lyt'tae.*

† Mezereum, 12. Sinapis, 12.

† Excitants in general.

(Unguentum antimonii tartarizati, 1 : 8. Unguentum lyttae, Ph. 1787.)

XXV. SUPPURATORIES.

Promoting or modifying suppuration.

Maton on substances from the genus pinus. Lambert pinus. f. Lond.

1. *Abíetis resína.*
2. A. *Aerúgo.* Lawson, Dunc. ann. 1800. 375; of no use to horses in glanders or botts.
   B. *Linimen'tum aerúginis.*
3. A. *Bórax.* Blane and Rovato, Phil. trans. 1787. 297, 301. (Gr. 10..30.)
   B. *Mel borácis.* (Gr. 60..120.)
4. A. *Calamína.*
   B. *Cerátum calamínae.*

5. *Cerátum sabínae.*
6. *Cerátum sapónis.*
7. A. *Cerevis'iae fermen'tum.*
   B. *Cataplas'ma fermen'ti.*
8. *Daúci rádix.* Gibson, Med. obs. inq. IV. 178.
9. A. *El'emi.*
   B. *Unguen'tum elémi compos'itum.*
10. A. *Hydrar'gyri nit'ricooxyd'ium.*
    B. *Unguen'tum hydrar'gyri nit'ricooxyd'ii.*
11. *O'leum sulfurátum.*
12. *Olib'anum.* (Gr. 10..30.)
13. A. *Pix ar'ida.* Burgundy pitch.
    B. *Emplas'trum pícis compos'itum.*
14. A. *Pix liq'uida.* Berkeley's Siris. 8. Lond. 1744.
    B. *Unguen'tum pícis liq'uidae.*
15. A. *Resína fláva.*
    B. *Cerátum resínae.*
    C. *Emplas'trum resínae.*
15. b. A. *Resína nigra.*
    B. *Unguen'tum resínae nígrae.*
16. *Terebin'thina Canaden'sis.* (Gr. 20..60.)
17. *Terebin'thina Chía.* (Gr. 20..60.)
18. *Terebin'thina vulgáris.* (Gr. 20..60.)
19. *Unguen'tum hydrar'gyri nitrátis.*
20. *Unguen'tum hydrar'gyri praecipitáti al'bi.*
21. *Unguen'tum sambúci.*
22. *Unguen'tum zin'ci.*

†Aceti vapor, 27.
Amylum, 8.
Aurantii pulpa assa, 27.
Balsamum Peruvianum, 28.
Belladonna, 29.
Calamus, 12.
Carbo ligni, 6.
Cinchona, 28.
Cupri sulfas, 19.
Cuprum ammoniatum, 28.
Digitalis? 22.
Gentiana? 18.
Lauri baccae, 12.
Liquor calcis, 7.
Liquor potassae, 7.
Mel, 8.
Rheum, 20.
Sabina, 23.
Saccharum, 8.
Sambucus, 27.

Serpentaria, 28. Garg.
Tinctura myrrhae, 28.
Zinci oxydium, 28.
Zinci sulfas, 28.

(Acidum phosphoricum. Alnus? Bolus? Dracaena? Hypericum. Juglans, Hunczovsky. Liquor gastricus? Sénébier. Germ. 8. Mannh. 1785. Opobalsamum? Verbena? Veronica? Unguentum hydrargyri nitratis saturatae, Haygarth; hydr. 1, ac. nitr. 1, butyr. 8, camph. 1. Xanthoxylum, Chamberlaine and Henry, M. Med. soc. Lond. V. 40.)

XXVI. SORBEFACIENTS.

Promoting absorption.

1. *Ammóniae múrias.* Gr. 10..30.
2. A. *Emplas'trum ammoníaci.*
   B. *Emplas'trum ammoníaci cum hydrar'gyro.*
3. *Emplas'trum hydrar'gyri.*
4. *Fúcus.*
5. A. *Linimen'tum cam'phorae.*
   B. *Linimen'tum cam'phorae compos'itum.*
6. *Linimen'tum hydrar'gyri.*
7. *Linimen'tum sapónis compos'itum.*
8. *Spóngia us'ta.* Gr. 60..240.
9. A. *Tarax'acum.* Delius de taraxaco. 8. Erl.; Dunc. med. comm. VIII. 35. Gr. 20..60.
   B. *Extrac'tum tarax'aci.* Gr. 10..30.

†Acetum, 27.
Acidum nitricum, 27.
Aconitum, 14.
Allium, 12, ext.
Ammoniacum? 17, ext.
Anthemis, 18, ext.
Antimonii sulfuretum, 19.
Armoracia? 12.

Assafoetida? 11.
Belladonna, 29.
Benzoinum, 17.
Borax, 25, ext.
Cajuputi, 12, ext.
Camphora, 11, ext.
Carui, 12, ext.
Cinchona, 28.
Colocynthis, 20.
Conium, 29.
Cuminum, 12, ext.
Digitalis, 22.
Dulcamara, 14.
Ferrum, 28.
Ferrum ammoniatum, 28.
Galbanum, 11, ext.
Guaiacum? 14.
Hydrargyrum, 16.
Juniperus, 22, ext.
Lavandula, 12, ext.
Laurus, 12, ext.
Liquor ammoniae acetatis, 14, ext.
Lytta, 12, ext. Johnson, Ed. med. journ. X. 21; in bubos, and in hydrocele.
Mentha, 12, ext.
Mezereum, 12, ext.
Myrrha? 28.
Oleum anisi, 21.
Oleum caryophyllorum, 12. ext.
Oleum foeniculi, 18.
Opium, 29, ext.
Petroleum, 12, ext.
Potassa, 5.
Potassae acetas, 22.
Potassae nitras? 27.
Potassae supertartras, 20.
Pulegium, 12, ext.
Rosmarinus, 11, ext.
Sambucus? 21.
Sinapis? 12.
Sapo, 12, ext.
Sodae murias, 6.
Sodae subcarbonas, 7.
Terebinthinae oleum, 12.
Veratrum, 15.

† Most cathartics.

(Absinthium maritimum? ext. Alnus? Arnica. Auri murias. Chrestien Méthode Iatraleptique. 8. Paris. 1811; Ed. med. journ. XI. 239. Baritae murias; Crawford, Med. commun. II. 301; Dunc. med. comm. XIV. 433; Clark, XVI. 267; XVII. 466; Mather, XIX. 265; an overdose. Hufeland Gebrauch der salzsauren schwererde. 8. Berl. 1794. Pearson's obs. on lues. 105. Bryoniae radix, ext. Calcis murias; Fourcroy, H. Soc. R. méd. V. 267. R. Pearson, Ed. med. journ. I. 510. Carex. Cerefolium, ext. Chamomilla, ext. Cicuta; Wepfer historia cicutae aquaticae. 4. Bale, 1761; "**" Haller. Cochlearia? Electri-

citas, 12. Humulus? Hydrargyri subsulfas. Hydrargyri sulfuretum nigrum? Hyssopus, ext. Inula, ext. Juglans? Laurocerasus? Ledum. Liquor gastricus, ext.; Carminati. 8. Mil. 1781. Lotae hepar. Majorana, ext. Melilotus? Melissa, ext. Oleum anethi? ext. Oleum cacao? ext. Oleum macis, ext. Oleum myristicae, ext. Origanum, ext. Petroselinum, ext. Phellandrium? Polypodium vulgare? Salvia, ext. Saponaria? Satureia? ext. Scrofularia? Senecio, ext.; Stedman, Ed. med. ess. II. 45. Sonchus? Stramonium. Thymus, ext. Triticum repens.)

XXVII. ASTRINGENTS.

Increasing tonic contraction.

Including refrigerants, which seem to operate princi as astringents.

Scott Byam de administratione antiphlogistica; Webster med. pr. I. 38. See parhaemasiae. Davy on astringent vegetables, Phil. trans. 1803. 233.

1. *Acetósa.*
2. *Acetosel'la.*
3. A. *Acétum.* Worthington de aceto. 8. Ed. 1740; Smellie thes. I. 217. Wirkung der pflanzensäure als äusserliches heilmittel. 8. Leipz. 1791.
   B. *Ac'idum acet'icum.* M. 60..240.
4. *Ac'idum muriat'icum.* Sir W. Fordyce on muriatic acid in putrid diseases. 8. 1790. Reich. Berl. 1800. Johnstone on mineral acid vapours. 8. 1803. Pearson's obs. on lues. 193. Scott, Medicoch. tr. VIII. 173; nitro-muriatic acid. M. 5..20.

5. *Ac'idum nit'ricum.* Scott, Dunc. ann. 1796. 373. Smyth's experiment. 8. Lond. 1796; Duuc. ann. 1796. 105. Beddoes's reports. 8. Brist. 1797; Dunc. ann. 1797. 214. Smyth on nitrous vapour. 8. Lond. 1799; Dunc. ann. 1800. 1. Johnstone. Pearson's Obs. on lues. 198. Killett, [Scot] Ed. med. journ. XVI. 542; epispastic. M. 1..10.

B. *Ac'idum nit'ricum dilútum*, $\frac{1}{10}$. M. 10..40...

6. A. *Ac'idum sulfúricum.* Lucas, Ed. med. ess. V. 189. Cornette, M. Soc. R. méd. III. 188; acid soaps. Pearson's Obs. on lues, 188.

B. *Ac'idum sulfúricum dilútum*, $\frac{1}{10}$. M. 10..40.

C. *Potas'sae supersúlfas.* Gr. 20..120.

7. A. *Alúmen.* Thomson, Ed. med. ess. IV. 38; with equal parts of dragon's blood, internally, an excellent styptic. Gr. 10..30.

B. *Líquor alúminis compos'itus.*

8. *Auran'tii fruc'tus.*

9. *Bistor'ta.* Gr. 10..60.

10. A. *Cat'echu.* Kerr, Med. obs. inq. V. 148. Gr. 10..40.

B. *Infúsum cat'echu.* Fl. ℥ i..iv.

C. *Tinctúra cat'echu.* M. 30..240.

11. *Gal'la.*

12. *Granátum.* Gr. 20..60.

13. A. *Haematox'ylum.* Gr. 20..60.

B. *Extrac'tum haematox'yli.* Gr. 10..30.

14. A. *Kíno.* A. Fothergill, M. Med. soc. Lond. II. 93. Vauquelin, Ann. ch. XLVI; Dunc. ann. 1803. 223. Pemb. abd. visc. Bostock on the coccoloba. Medicoch. tr. III. 146. Gr. 19..30.

B. *Tinctúra kíno.* M. 30..120.

15. A. *Límon.*

B. *Ac'idum cit'ricum.* Contains 20 per cent. of water. Berzelius. Sol. $\frac{4}{5}$ W.; neutralises somewhat more than an equal weight of subcarbonate of potass. Gr. 10..30.

C. *Syrúpus limónis.* M. 60..120.

16. A. *Mórus.*

B. *Syrúpus móri.* M. 60..120.

17. A. *Plum'bi carbónas.* Goulard on lead. 12. 1773. Percival on lead. 12. Lond.; Med. comm. Ed. II. 229. Lilie de plumbo. 8. Ed. 1775; Smellie thes. III. 370. White, Med. comm. Ed. III. 72; Percival, 199; danger. Schmidt Antigoulard. 8. Vienn. 1786. Aikin on lead.

B. *Plum'bi "superacétas."* Acetas, Berz. Knight, Lond. med. journ. IV. 286; two drachms; caused paralysis, but cured gonorrhoea and relieved syphilis. Gr. ½..2.

C. *Cerátum plum'bi superacetátis.*

18. A. *Plum'bi oxyd'ium semivit'reum.*

B. *Cerátum plum'bi compos'itum.*

C. *Emplas'trum plum'bi.*

D. *Líquor plum'bi "acetátis."* Subacetatis. Berz.

E. *Líquor plum'bi acetátis dilútus.*

19. *Potas'sae nítras.* Falconer, M. Med. soc. Lond. III. 527; haematemesis from 2 ounces: also Butter, Ed. med. journ. XIV. 34; with chorea: Ross, XVI. 310; febrifuge. Gr. 10..30...

20. A. *Quer'cus cor'tex.* Gr. 10..30.

B. *Decoc'tum quer'cus.*

21. *Pterocar'pus?*

22. *Rósa canína*, pulpa. Gr. 30..120.

23. A. *Rósa Gal'lica.* M. 20..60.

B. *A'qua rósae.*

C. *Infúsum rósae.* Fl. ℥ i..viii.

D. *Confec'tio rósae Gal'licae.* Gr. 60..480.

E. *Mel rósae.* Gr. 60..240.

24. A. *Sambúcus?*

25. A. *Simaroúba.* Wright, Ed. trans. II. 73; Lond. med. journ. XI. 91. Gr. 10..30.

B. *Infúsum simaroúbae.* Fl. ℥ i..iv.

26. *Tamarin'dus.* Gr. 30..120.

27. *Tormentil'la.* Gr. 10..30.

28. *U'va ur'si* Gr. 10..60.

†Aerugo? 25.
Ammoniae murias, 26.
Aqua rosae, 11.
Calamina? 25.

Capsicum ? 12.
Cinchona, 28.
Cupri sulfas, 19. Makes the best of all eye waters, a grain for an ounce of rose water, with ten drops of camphorated spirit.
Ferri sulfas, 28.
Hydrargyri oxymurias ? 16.
Potassae acetas, 22.
Pulvis kino compositus, 29.
Rheum, 20.
Saccharum ? 8.
Salix, 28.
Sodae murias, 6.
Spiritus rectificatus, 13.
Terebinthinae oleum, 12.
Zinci sulfas, 28.

(Acidum carbonicum ; Percival's essays. Percival, Med. comm. Ed. V. 170. Falconer on aqua mephitica. 8. Lond. ; Dunc. med. comm. XVII. 87. Acidum phosphoricum. Acoroidis resina. Alcea ? Aqua infra 45°, int. Aquifolium. Balaustia. Beccabunga. Berberis. Bismuthum. Bolus. Bromelia ? Brunella. Cerasus. Cochlearia ? Cynoglossum ? Cynomorium. Erysimum ? Dracaena draco. Eupatorium. Euphrasia ? Fagopyrum. Formica ? Fraga. Fraxini cortex ; Schreger. 4. Leipz. ; Dunc. med. comm. XVIII. 159. Geum rivale. Geum urbanum. Gummi Gambiense ; Fothergill, Med. obs. inq. I. 358. Hippocastanum. Horminum. Hypocistis, Cytisus. Juglans. Lacca. Lichen ? Lythrum. Malum. Myrobalanus. Myrtillus. Nasturtium ? Oryza ? Oxycoccos. Passulae minores. Pechurim. Pentaphyllum. Plantago media. Potentilla. Prunus spinosa. Pterocarpus draco ? Rhatania ; Reece on rhatany. 12. Lond. 1808 ; Ed. med. journ. IV. 504. Rheum rhaponticum. Ribes nigrum. Ribes rubrum. Ribis rob. Rubus arcticus, caesius, chamaemorus, fruticosus, idaeus. Rumex acutus. Salix alba, pentandra, fragilis, vitellina. Scolopendrium. Sempervivum. Swieteniae cortex. Symphytum. Tutia. Vitis idaea. Uva.)

2. *PRODUCING PERMANENT INCREASE OF ACTION AND OF POWER.*

XXVIII. TONICS.

Crawford's experimental inquiry. 8. Lond. 1817; Ed. med. journ. XIII. 393.

1. *Bal'samum Peruviánum.* Gr. 10..30.
2. *Cardamíne.* Nicander has Helxíne; Epicharmus Thridacíne. Baker, Med. trans. I. 442. Gr. 20..60.
3. A. *Cascaril'la.* Gr. 10..60.
   B. *Infúsum cascaril'lae.* Fl. ʒ i..iv.
   C. *Tinctúra cascaril'lae.* M. 30..240.
4. *Cinchóna.* Torti ad Ramazzinum de china china. 4. Mod. 1715. Monro, Ed. med. ess. V. 98. Fordyce, Med. obs. inq. I. 184; Pye, II. 245; externally. Pulteney de cinchona. 8. Ed. 1764; Smellie thes. III. 1. Lee, Phil. trans. 1766. 95; Percival, 1767. 221. Heberden, Med. trans. I. 470; if an astringent. Wright, Phil. trans. 1777. 504. Saunders on red bark. 8. Lond. 1782. Lond. med. journ. III. 249; Dunc. med. comm. VIII. 167. Davidson, Phil. trans. 1784. 452. Baker, Med. trans. III. 141. Ruiz. Collingwood, Dunc. med. comm. X. 265. Skeete on bark. 8. Lond.; Lond. med. journ. VII. 254; Dunc. med. comm. XII. 232; magnesia promoting the solubility of pale bark. Irving on bark. 8. Ed.; Dunc. med. comm. XII. 257. Irving, Lond. med. journ. VII. 419; Skeete, VIII. 75. Kentish on the bark of St. Lucia. 8. Lond. 8. Lond. 1784; Dunc. med. comm. XII. 277. Saunders, Lond. med. journ. XI. 67; an extract. Römer über die peruvianische rinde. 8. Alt. 1792. Lindsay, Ed. trans. III. 205; Med. facts. V. 140; cinchona brachycarpa. Vaughan on yellow bark. 8. 1795. Relph on yellow bark. 8. Lond.; Dunc.

med. comm. XX. 17. Germ. by Fries. 8. Bresl. 1797. Lambert on cinchona. 4. Lond. 1797. Marabelli on the yellow bark. Germ. by Titius. 8. Leipz. 1797. Pearson's Obs. on lues, 60. Seguin, Bullet. des sciences, n. 77; Dunc. ann. 1803. 240. A. Duncan, Nich. Journ. VI; Dunc. ann. 1803. 253. Fabbroni ricerche sulla quina; Ed. med. journ. II. 333. Humboldt, 485. Gomes Mem. Ac. Lisb. III.; Ed. med. journ. VII. 420. Calvert on charcoal for cinchona. Ed. med. journ. X. 15. 403; Thomson; XVI. 27; substitutes. Breton. See Swietenia. Gr. 10..90.

A. *Cinchóna lancifólia.* Pale.

B. *Decoctum cinchónae.* Fl. ʒ i..iv.

C. *Extractum cinchónae.* Gr. 10..30.

D. *Extractum cinchónae resinósum.* Gr. 10..30.

E. *Infúsum cinchónae.* Fl. ʒ i..iv.

F. *Tinctúra cinchónae.* M. 60..240.

G. *Tinctúra cinchónae composita.* M. 60..240.

H. *Cinchóna cordifólia.* Yellow.

I. *Cinchóna oblongifólia.* Red.

5. A. *Cúprum ammoniátum.* Odier, Med. comm. Ed. III. 191. Gr. ½..5.

B. *Líquor cúpri ammoniáti.* M. 60..300.

6. A. *Cuspária.* Ewer and Williams, Lond. med. journ. X. 154, 158; Brande, XI. 38; Wilkinson, 331. Wilkinson, Med. facts. II. 52. Meyer über die angusturarinde. 8. Gott. 1793. Lettsom, M. Med. soc. Lond. IV. 191. Brande on angustura bark. 8. Lond.; Dunc. med. comm. XX. 197. Winterbottom, Med. facts. VII. 41. Gr. 10..60.

B. *Infúsum cuspáriae.* Fl. ʒ i..iv.

7. A. *Ferrum.* Wright de ferro. 8. Ed. 1753; Smellie thes. II. 133. Gr. 5..10.

B. *Ferrum ammoniátum.* Gr. 3..15.

C. *Ferri "carbónas."* Gr. 2..60.

D. *Ferri sulfas.* Gr. 1..5.

E. *Ferrum tartarizátum.* Gr. 5..20.

F. *Líquor ferri alkalíni.* Simmons, Ed. med. journ.

VIII. 160; for scrofula. Words in inus, expressive of the nature of a substance, have not the penultimate short, unless they are Greek. Leeds in Labb. erud. pron. Aurinus, Cisterninus, Funginus. At the same time, in words derived from the Arabic, the pronunciation may follow either the Greek or the Latin form without impropriety. M. 30..60.

G. *Mistúra fer'ri compos'ita.* Fl. ʒ i..iv.

H. *Pil'ulae fer'ri cum myr'rha.* Gr. 10..20.

I. *Tinctúra fer'ri ammoniáti.* M. 30..120.

K. *Tinctúra fer'ri muriátis.* M. 10..30.

L. *Vínum fer'ri.* M. 60..720.

8. *Líquor arsenicális.* M. 5..15.

9. *Minyan'thes.* Μιννανθὲς, Nicand. Gr. 20..60.

10. A. *Myr'rha.* Bruce, Phil. trans. 1775. 408. Gr. 10..60.

B. *Tinctúra myr'rhae.* M. 30..120.

11. *Sálix.* Günz de cortice salicis. 8. Leipz. 1787. Wilkinson on the willow bark. 8. Newc. 1803; Dunc. ann. 1803. 231. Gr. 10..60.

12. A. *Serpentária.* Gr. 10..30.

B. *Tinctúra serpentáriae.* M. 30..120.

13. A. *Ul'mus.* Adee, Med. trans. II. 203. Collingwood, Dunc. med. comm. XVI. 281. Gr. 20..60.

B. *Decoc'tum ul'mi.* Fl. ʒ iv..viii.

14. A. *Zin'ci oxyd'ium.* Goodsir, Med. comm. Ed. I. 422; Percival, II. 309; Odier, III. 191; Percival, V. 166. Dunc. med. comm. XIII. 414; an ounce and a half weekly had no effect: the precipitates supposed more active. Gr. 3..20...

B. Zin'ci sul'fas. Gr. 1..5.

†Absinthium, 18.
Acidum nitricum, 27.
Acidum sulfuricum, 27.
Aconitum? 14.
Allium, 12.
Alumen, 27.
Ammonia, 12.
Ammoniacum, 17.
Anthemis, 18.
Argenti nitras, 5. Gr. ½..5...
Armoracia? 12, partial.
Arsenicum, 5. Gr. $\frac{1}{10}$..¼.

Assafoetida, 11.
Aurantii cortex; 18.
Balsamum tolutanum, 17.
Cajuputi oleum, 12, partial.
Calumba, 18.
Capsicum, 12.
Cinnamomum, 12.
Contrajerva, 14.
Copaiba, 22, partial.
Cupri sulfas, 19. Gr. 1..5.
Dulcamara? 14.
Gentiana, 18.
Guaiacum, 4.
Lichen, 8.
Limon? 27.
Lytta, 12, partial.
Marrubium, 17.
Mezereum, 12, partial.
Oleum rosmarini, 11, partial.
Oleum succini, 11.
Opium, 29.
Petroleum, 12.
Quassia, 18.
Rheum, 20.
Rubia, 23.
Sarsaparilla, 14.
Senega, 17.
Simarouba, 27.
Sinapis, 12.
Spiritus rectificatus? 13.
Terebinthina, 25, partial.
Terebinthinae oleum, 12, partial.
Toxicodendron, 12, partial.
Valeriana? 11.
Uva ursi, 27.

† Expergefacients in general acts as partial tonics, with respect to the nerves.

† Stomachics in general.

(Acidum sulfuricum aromaticum, Ph. Ed. Acidum phosphoricum? Acoroidis resina; Kite, M. Med. soc. Lond. IV. 24; stomachic. Aqua, 45°..60°, hausta. Aquifolium. Arnica. Collin de arnica. 4. Vienn.; Med. comm. Ed. V. 233. Meza de arnica emmenagogo; Dunc. med. comm. XII. 380. Crichton, Lond. med. journ. X. 229. Kauch erfahr. Arum? Baritae carbonas? Beccabunga. Brucea antidysenterica. Caleis murias? Centaurea benedicta. Chamaedrys. Chamaepitys. Chrysanthemum. Cichorium. Coffea. Cortex Managuensis. Sproat, Dunc. ann. 1803. 403. Curcuma? Dictamnus. Fel? Fumaria. Geum rivale, urbanum. Buchhaave, Act. med. Havn.; Dunc. med. comm. XIV. 43. Ginseng, Sium sisarum. Glechoma. Hippocastanum, trunci cortex. Turra. Cusson, Dunc. med. comm. XVII. 125.

Horminum. Intybus? Juglans. Pearson's Obs. on lues, vii. Lamium. Loranthus, Viscum qnercinum. Lythrum salicaria. Mahagoni cortex. Millefolium. Nux vomica. Oleum animale, partial. Oleum lauri baccarum, partial. Oxygenium? Pareira? partial. Polygala amara, vulgaris. Populus balsamea, Tacamahaca. Pulmonaria. Rumex aquaticus. Salix alba, pentandra, fragilis, vitellina. Salvia. Stanni nitromurias? Hatchett. Swietenia febrifuga. Roxburgh, Med. facts. VI. 127. Duncan de Swietenia soymida. 8. Ed. 1794. Breton, Medicoch. tr. XI. 310. Tanacetum? Vinum Lusitanicum. Viscum album, partial. Colbatch on misletoe. 8. Lond. 1720. Urtica? Winterae cortex. Fothergill, Med. obs. inq. V. 41; Morris, 56.)

3. DIMINISHING THE POWER OF ACTION OR OF SENSATION.

1. *PRIMARILY.*

XXIX. NARCOTICS.

Causing sleep.

1. *Belladon'na.* Graham, Med. comm. Ed. 419; root as a poultice, sorbefacient and suppuratory. Münch von der belladonna. 8. Gott. 1785. Dunc. med. comm. XII. 137. Buchhave de belladonna. Act. med. Havn. II; Dunc. med. comm. XVIII. 128. Paget, Ed. med. journ. IX. 279; dilating the pupil. Gr. $\frac{1}{2}$..5.

B. *Extrac'tum belladon'nae.* Gr. 1..5.

2? *Coc'cus.* Gr. 5..20.

3. A. *Conium.* Störck de cicuta. 8. Vienn. 1760-1. Lond. 1761. Watson, Phil. trans. 1761. 89. Colebrook, 1763. 346; Morris, 1764. 172. Haen. Rutty, Med. obs.

inq. III. 229. Fothergill, 400; Farr, IV. 91. Hooper, M Med. soc. Lond. II. 328. Pearson's Obs. on lues, 273. Gr. 2..20.

B. *Extrac'tum conii.* Gr. 5..20...

4. A. *Húmulus.* Freake on the hop. 8. Lond. Ed. med. journ. III. 351. Gr. 10..30.

B. *Extrac'tum húmuli.* Gr. 5..20.

C. *Tinctúra húmuli.* M. 30 120.

5. A. *Hyoscy'amus.* Stedman, Phil. trans. 1751. 194; as a poison. Störck. Barton, Dunc. med. comm. XII. 399.

B. *Extrac'tum hyoscy'ami.* Gr. 5..20...

C. *Tinctúra hyoscy'ami.* M. 10..60.

6. A. *Mos'chus.* Tralles de moscho. 8. Bresl. 1783. Gr. 2. 20.

B. *Mistúra mos'chi.* Fl. ʒ ss..ii.

7. A. *O'pium.* Alston, Ed. med. ess. V. 110. Whytt, Ed. phys. ess. II. 280. Tralles de opio. 4 v. 4. Bresl. 1757, 1762. G. Young. Kerr, Med. obs. inq. V. 317; culture. Bucquet, M. Soc. R. méd. I. 399; analysis; Lorry, II. 155. Leigh on opium. 8. Ed.; Dunc. med. comm. XI. 397; gummy and resinous portions. Brandish, Lond. med. journ. VII. 135; slow effect. Lassone, M. Soc. R. méd. V. 48; preparation by long or repeated boiling. Wilson, Ed. trans. IV. II. 18. Crumpe on opium. 8. 1794. Ball, Soc. Arts. 1796; Dunc. ann. 1796. 414; English. Josse, Rec. pér. 1796; Dunc. ann. 1798. 259; preparation. Chiarugi sull' uso esterno dell' opio. 8. Tur. 1797; Dunc. ann. 1798. 194. Cassels, Ed. med. journ. I. 508; black drop. Blane, Tr. soc. med. ch. kn. III. 338. Pearson's obs. on lues. 67. Hall, Ed. med. journ. XII. 423; bad effects in children. Gr. $\frac{1}{2}$..5.

B. *Confec'tio ópii* ($\frac{1}{36}$). Gr. 10..60.

C. *Emplas'trum ópii.*

D. *Extrac'tum ópii.* Gr. $\frac{1}{2}$..5.

E. *Pil'ulae sapónis cum ópio* ($\frac{1}{5}$). Gr. 3..10.

F. *Pul'vis cor'nu us'ti cum ópio* ($\frac{1}{10}$). Gr. 5..20.

G. *Pul'vis crétae compos'itus cum ópio* ($\frac{1}{40}$). Gr. 20..40.
H. *Pul'vis ipecacuan'hae compos'itus* ($\frac{1}{10}$). Dover's dose was from 40 to 70 grains. Gr. 5..30.
I. *Pul'vis kíno compos'itus* ($\frac{1}{20}$) Gr. 5..20.
K. *Tinctúra cam'phorae compos'ita.* M. 30..240.
L. *Tinctúra ópii* ($\frac{1}{13}$). M. 10..30.
M. *Vínum ópii* ($\frac{1}{10}$). M. 10..40.

8. A. *Papáver.* Arnot, Ed. med. ess. V. 105; extr. and syr.
B. *Decoc'tum papav'eris.*
C. *Extrac'tum papav'eris.* Gr. 2..20.
D. *Syrúpus papav'eris.* M. 60..480.

9. A. *Rhóeas.*
B. *Syrúpus rhóeadis.* M. 60..240.

10. A. *Tab'acum.* Stedman, Ed. med. ess. II. 45; ext. Bisset, Dunc. med. comm. VIII. 370; chewing. Schäffer Taschenbuch für wundärtze. 1784; smoke clyster. Fowler on tobacco. 8. Lond. 1785; Lond. med. journ. VI. 185; Dunc. med. comm. X. 122. Earle, Medicoch. tr. VI. 82. Hall, Ed. med. journ. XII. 11; poisonous effect.
B. *Infúsum tab'aci.* En. Fl. ℥ viii..xii.

†Aconitum, 14.
Antimonium tartarizatum, 19, ext.? Med. Phys. Journ.
Camphora, 11.
Digitalis, 22.
Dulcamara, 14.
Spiritus rectificatus, 13.
Toxicodendron, 12.
Valeriana, 11.
Vinum, 12.

(Arnica? Balsamum Asiaticum. M. 5..15. Hayg. Calor modicus. Cannabis? Cerasi nigri aqua. Cerevisia, "porter." Chrysanthum? Cicuta? Ebulus. Frigus summum. Humulus. Jacea. Lactuca. Laurocerasus. Nux vomica. Sium? Solanum nigrum. Solanum tuberosum. Latham, Med. tr. VI. 92. Spigelia. *Stramonium, fumus. Swaine, Ed. phys. ess. II. 247. Störck de stramonio, hyoscyamo, aconito. 8. Vienn. 1762-5. Wedenberg de stramonio. 4. Ups.; Med. comm. Ed. II. 18. Marcet, Medicoch. tr. VII. 556; extract: VIII. 594. Tilia? Xanthoxylum.)

(Counting 1000; or rather, 100 respirations.)

XXX. SEDATIVES.

Easing pain.

Frequently antispasmodic as well as anodyne.

†Absinthium, 18.
Aconitum, 14.
Aetherea, 13.
Ammonia, 12.
Ammoniacum, 17.
Ammoniae murias, 26.
Anthemis, 18.
Argenti nitras? 5.
Assafoetida, 11.
Benzoinum, 17.
Cajuputi, 12.
Calamina, 25.
Camphora, 11.
Cardamine, 28.
Castoreum, 11.
Cinchona, 28.
Conium, 29.
Crocus, 11.
Cuprum ammoniatum, 28.
Digitalis, 22.
Galbanum, 11.
Hydrargyrum? 16.
Hyoscyamus, 29.
Ipecacuanha, 19.
Limon? 27.
Mentha piperita? 12.
Moschus, 29.
Oleum succini, 11.
Opium, 29.
Petroleum, 12.
Ruta, 18.
Soda, 7.
Spiritus aetheris nitrici, 22.
Tabacum, 29.
Valeriana, 11.
Terebinthinae oleum, 12.
Vinum, 13.
Zinci oxydium, 28.

† Narcotics in general; astringents or refrigerants frequently.

(Acidum carbonicum. Ammoniae hydrotheas sulfurata. Artemisia. Aurantii folia. Bismuthi oxydium. Chamomilla? Fuligo? Hydrogenium. Lactuca sativa. Young. Ed. med journ. XVII. 313. Lactuca virosa. Extr. gr. ss. Gumprecht, Medicoch. tr. VI. 612. Narcissus. Oleum animale. Paeonia. Tanacetum?)

XXXI. NAUSEANTS.

Debilitating by their immediate effect on the stomach.

† Digitalis, 22.

† Emetics, especially Antimonium, Ipecacuanha, Scilla, when given in doses short of producing an emetic effect, belong to this class, and are often important in fevers and haemorrhages.

XXXII. DIAPHORETICS.

Debilitating and producing perspiration, rather by relaxation of the exhalants than by any increase of the powers of circulation. The distinction is, however, almost superfluous.

† Most emetics: perhaps not the sulfate of zinc.

2. *DIMINISHING ACTION SECONDARILY.*

XXXIII. EXHAURIENTS.

†Camphora? 11.
Capsicum? 12.
Hydrargyrum? 16, Hunter.
Lytta? 12.
Mentha? 12.
Oleum cinnamomi? 12. Tooth ache.
Oleum terebinthinae, 12. Burns.
Sinapis? 12.
Spiritus aetheris nitrici? 22.
Tabacum? 29.

† Expergefacients, excitants and calefacients, acting as narcotics and sedatives.

(Aqua laurocerasi. Rogers, Medicoch. tr. 1. Thea; to some narcotic. Y.)

INSENSIBLE AGENTS.

XXXIV. SPECIFICS.

Curing diseases without any perceptible connexion between the immediate effect and the benefit obtained.

Every thing relating to such medicines must be arranged under the particular diseases which they are adapted to relieve.

American dispensatory.

† Dyspepsia. (Aqua Bathonica.)
Podagra. (* Aqua medicinalis. Aquifolium? Chrysanthum?)
Lithiasis. Uva ursi? 27.
Phtharma ossium. (Sodae phosphas? This might be called a nutrient.)
Carcinoma. Belladonna?? (Onopordum?? Phytolacca??)
Apostema cariosum, Ulcus cariosum. Conium? 29. (Acidum phosphoricum. Lentin.)
Epiphymata. Minyanthes? Pix liquida. Ulmus. (Baritae murias. Betulae succus. Hydrargyri acetas.)
Scabies. Unguentum sulfuris, 12. Unguentum veratri, 12.
Syphilis. Hydrargyrum, 16. (China? Diervilla? Bardana?? Pearson's obs. on lues, vii.)
Scorbutus. *Acidum citricum, 27. (Cochlearia??)

IV.

CHEMICAL TABLES.

A. *TABLES OF SIMPLE AFFINITY,*

AND OF

SOLUBILITY IN WATER AT 60° F.

The substances inclosed in parentheses are inserted in their respective places in order to avoid inconsequences among the simple affinities. The numbers marked with asterisks may be employed for the determination of double decompositions: those which are inclosed in parentheses are inconsistent with the corrected order of simple elective attractions. See Phil. trans. 1809.

S. Soluble.
L. Little soluble.
I. Insoluble.
H. Boiling hot.

It must be remembered that a substance, less strongly attracted by another than a third, will sometimes precipitate this third from its combination with the second, where a supersalt or subsalt is readily formed: thus the oxyd of lead decomposes the muriate of soda, forming a submuriate of lead; the tartaric acid decomposes all the salts of potass, forming supertartrate of potass; and the carbonic the subacetate of lead, leaving the acetate. A saline draught also, consisting of the acetate of ammonia, is decomposed and made pungent by the addition of pure magnesia, which stands below ammonia in the order of elective attractions, the magnesia probably forming a triple acetate with one part of the ammonia, and setting the rest at liberty.

BARITA.	Attr.	Sol.
		20 (2 H.)
Sulfuric acid	1003*	43000
Oxalic	950	I ?
Succinic	930	L.
" *Fluoric*"		
Phosphoric	906*	I.
Mucic	900	I.
Nitric	849*	12
Muriatic	840*	3
Suberic	800	L.
" *Citric*"		
Tartaric	760	L.
Arsenic	733½	I.
(Citric)	730	L.
Lactic	729	
(Fluoric)	706*	L.
Benzoic	597	(See Sebates).
Acetic	594	1⅛
Boracic	(515)*	I.
Sulfurous	592*	I.
Nitrous	450	
Carbonic	420*	4300
Prussic s.	400	

Phosphite L, Hyperoxymuriate S, Chromate I, Tungstate I, Mellate I, Malate L, Sebate of Thénard, which, according to Berzelius, is always a Benzoate, S, Camphorate I ?

STRONTIA.	Attr.	Sol.
		50 (2½ H.)
Sulfuric acid	903*	L. (3840 H.)
Phosphoric	827*	I.
Oxalic	825	1920
Tartaric	757	320
" *Fluoric*"		
Nitric	754*	1
Muriatic	748*	⅔
(Succinic)	740	
Fluoric	70 *	
Succinic.		
Citric ?	618	L.
Lactic	603	
Sulfurous	527*	I.
Acetic		
Arsenic	(733¼)	I.
Boracic	513*	L.
(Acetic)	480	2½†
	116 ?	
Nitrous ?	430	
Carbonic	419*	I. (1540 H.)

Hyperoxymuriate S, Malate S, Sebate S.

	POTASS.		SODA.		LIME.	
	Attr.	Solub.	Attr.	Solub.	Attr.	Solub.
Sulfuric acid	894*	16, supers.5	885*	$2\frac{2}{3}$	Oxalic acid 960	I.
Nitric	812*	7	804*	3	Sulfuric 868*	500
Muriatic	804*	3	797*	$2\frac{14}{17}$	Tartaric 867	I.
Phosphoric	801*	S.	795*	4	Succinic 866	I.
Suberic?	745	S.	740	S.	Phosphoric 865*	I.
Fluoric	671*	S.	666*	S.	Mucic 860	I.
Oxalic	650	supero. 10	645	S.	Nitric 741*	$\frac{1}{4}$
Tartaric	616	1, sup. 60	611	1	Muriatic 736*	$\frac{1}{2}$
Arsenic	614	S.	609	S.	Suberic 735	
Succinic	612	S.	607	S.	Fluoric 734*	I.
Citric	610	S.	605	$1\frac{2}{3}$	Arsenic $733\frac{3}{4}$	I.
Lactic	609		604		*Lactic* 732	
Benzoic	608		603		Citric 731	L.
Sulfurous	488*	1	484*	4	Malic 700	
Acetic	486	$\frac{1}{2}$	482	$2\frac{4}{5}$	Benzoic 590	
Mucic	484	8	480	5	*Acetic.*	
Boracic	482*	S.	479*	subb.12	Boracic 537*	L.
Nitrous	440		437		Sulfurous 516*	800
Carbonic	306*	4	304*	2	(Acetic) 470	S.
Prussic s.	300		298		Nitrous 425	
					Carbonic 423*	I.
					Prussic s. 290	

Phosphite 3, Hyperoxymuriate 17, Chromate S, Molybdate S, Tungstate S, Columbate S. This acid is supposed, by Ekeberg, to be the tungstic, present in an ore of tantalium. Berz. Kem II. 105. Mellate S, Malate S, Sebate S, Moroxylate S, Camphorate 100, Gallotannate olive.

Phosphite2,Hyperoxymuriate S, Chromate S, Molybdate S, Tungstate 4, Mellate S, Malate S, Sebate S, Moroxylate S, Camphorate 100, Gallotannate olive.

Phosphite 1, Hyperoxymuriate S, Chromate S, Molybdate I, Tungstate I? Mellate I, Malate L, Sebate S, Camphorate 200.

MAGNESIA.

	Attr.	Solub.
Oxalic acid	820	I.
" *Phosphoric*"		
Sulfuric	810*	1
(Phosphoric)	736*	15
Fluoric		
Arsenic	733	
Mucic	732½	I.
Succinic	732¼	S.
Nitric	732*	1
Muriatic	728*	1
Suberic ?	700	S.
(Fluoric)	620*	I.
Tartaric	618	I.
Citric	615	
Malic ?	600 ?	
Lactic	575	
Benzoic	560	
Acetic		
Boracic	459*	I.
Sulfurous	439*	20
(Acetic)	430	S.
Nitrous	410	
Carbonic	366*	48
Prussic s.	280	

Phosphite sol. 400, Hyperoxymuriate S, Molybdate S, Tungstate S, Mellate I, Malate S, Gallotannate dirty yellow.

AMMONIA.

	Attr.	Solub.
Sulfuric acid	808*	2
Nitric	731*2 (A-Magn. 11)	
Muriatic	729*	3
Phosphoric	728*	4
Suberic? First?	720	S.
Fluoric	613*	S.
Oxalic	611	S.
Tartaric	609	S.
Arsenic	607	S.
Succinic	605	S.
Citric	603	S.
Lactic	601	
Benzoic	599	
Sulfurous	433*	1
Acetic	432	S.
Mucic	431	S.
Boracic	430*	S.
Nitrous	400	
Carbonic	339*	4
Prussic s.	270	

Phosphite 2, Hyperoxymuriate S, Molybdate S, Mellate S, Malate S, Sebate S, Moroxylate S, Camphorate 100.

	GLYCINA?		ALUMINA.		ZIRCONIA?	
	Attr.	Solub.	Attr.	Solub.	Attr.	Solub.
Sulfuric acid	718*	S.	709*	S.	700*	
Nitric	642*	S.	634*	S.	626*	S.
Muriatic	639*	S.	632*	S.	625*	S.
Oxalic	600	1	594	S.	588	
Arsenic	580		575	I.	570	
Suberic?	535		530	S.	525	
Fluoric	534*		529*	S.	524*	
Tartaric	520		515	S.	510	
Succinic	510	I.	505		500	
Mucic	425		420		415	
Citric	415		410		405	
Phosphoric	(648)*	I.	(642*)	I.	(636)*	
Lactic	410		405		400	
Benzoic	400		395		390	
Acetic	395	S.	391	S.	387	S.
Boracic	388*		385*	I.	382*	
Sulfurous	355*		351*	I.	347*	
Nitrous	340		336		332	
Carbonic	325*	I.	323*	I.	321*	
Prussic s.	260		258		256	

Camphorate sol. 200, Hydrotheate S?	Phosphite S, Hyperoxymuriate S, Tungstate I, Mellate I, Malate L, Gallate S, greenish, Gallotannate I, dirty yellow, Hydrotheate none?	Hydrotheate none?

OXYD OF ANTIMONY.

	Solub.
Gallic semiacid	I, wht.
Muriatic acid	S.
Benzoic	
Oxalic	L.
Sulfuric	L.
Nitric	
Tartaric	S.
Mucic	
Phosphoric	S.
Citric	
Succinic	S.
Fluoric	
Arsenic	I.
Lactic	
Acetic	S.
Boracic	I.
Prussic s.	
(Potass)	
(Soda)	
(Ammonia)	

Sulfite I, Molybdate I, Gallotannate I, white, Hydrotheate? I, orange.

OXYD OF ZINC.

	Solub.
Gallic semiacid	S?
Oxalic acid	
Sulfuric	2¼
Muriatic	S.
Mucic	
Nitric	S.
Tartaric	L.
Phosphoric	S.
Citric	L.
Succinic	S.
Fluoric	S.
Arsenic	I.
Lactic	
Acetic	S.
Boracic	I.
Prussic s.	
Carbonic a.	
(Potass)	
(Soda)	
(Ammonia)	

Sulfite S, Chromate I, Molybdate I, Tungstate I, Malate S, Gallotannate S? Hydrotheate I, white.

OXYD OF TIN.

	Solub.
Gallic semiacid (Tartaric acid?)	S?
Muriatic	
Sulfuric	S.
Oxalic	S.
Tartaric	S.
Arsenic	I.
Phosphoric	I.
Nitric	S.
Succinic	S.
Fluoric	S.
Mucic	
Citric	
Lactic	
Acetic	S.
Boracic	I.
Prussic s.	
(Ammonia)	

Sulfite S, Gallotannate I, brown; Hydrotheate I, brown black. Oxyhydrotheate, yellow.

OXYD OF IRON.

	Solub.
Gallic and gallotannic semiacid blue, with hyperoxyd black.	S?
Oxalic	S.
Tartaric	S.
Camphoric	
Sulfuric	2¼
Mucic	S.
Muriatic	S.
Nitric	S.
Phosphoric oxyph.	I. 1500
Arsenic	I.
Fluoric	S.
Succinic	S.
Citric	S.
Lactic	
Acetic	S.
Boracic	I.
Prussic s.	I.
Carbonic	I.

Sulfite S, Hyperoxymuriate S, Chromate I, Molybdate I, Tungstate I, (Columbate I,) Mellate I, Malate S, Suberate S, Hydrotheate I? black.

OXYD OF COPPER.

	Solub.
Gallic semiacid	I. brown.
Oxalic acid	L.
Tartaric	S.
Muriatic	S.
Sulfuric	4
Mucic	S.
Nitric	S.
Arsenic	S?
Phosphoric	I.
Succinic	
Fluoric	S.
Citric	S.
Lactic	
Acetic	S.
Boracic	L.
Prussic s.	
Carbonic	I.
(Potass)	
(Soda)	
(Ammonia)	
(Oils)	

Sulfite S, Hyperoxymuriate S, Chromate I, Molybdate I, Tungstate I, Mellate L, Malate S, Sebate S, Suberate S, Gallotannate S, olive, Hydrotheate I, black.

OXYD OF ARSENIC.

	Solub.
Gallic semiacid	S?
Muriatic acid	S.
Oxalic	S.
Sulfuric	L.
Nitric	S.
Tartaric	S.
Phosphoric	L.
Fluoric	L.
Succinic	
Citric	
Acetic	S.
Prussic s.	
(Potass)	
(Soda)	
(Ammonia)	
(Oils)	
(Water)	

Borate L, Gallotannate S? Hydrotheate S? yellow.

OXYD OF SILVER.

	Solub.
Gallic and gallotannic semiacids	I. yell. br.
Muriatic acid	3072
Oxalic	L.
Sulfuric	L.
Mucic	I.
Phosphoric	I.
Sulfurous	L.
Nitric	S.
Arsenic	I.
Fluoric	I.
Tartaric	S.
Citric	I.
Lactic	
Succinic	S.
Acetic	S.
Prussic s.	
Carbonic	I.
(Ammonia)	

Phosphite I, Hyperoxymuriate S, Borate I, Chromate I, Molybdate I, Mellate S, Malate L, Hydrotheate I, black.

OXYD OF LEAD.

	Solub.
Gallic and gallotannic semi-acids	I. white.
Sulfuric acid	1200
Mucic	I.
Oxalic	L.
Arsenic	I.
Tartaric	I.
Phosphoric	I.
Muriatic	22
Sulfurous	I.
Suberic	I.
Nitric	I.
Nitric	S.
Fluoric	I.
Citric	L.
Malic	
Succinic	L.
Lactic	
Acetic	$3\frac{2}{3}$
Benzoic	
Boracic	I.
Prussic s.	
Carbonic	I.
(Oils)	
(Ammonia)	

Chromate I, Molybdate I, Tungstate I, Mellate L. Malate I, Hydrotheate I, black.

OXYD OF GOLD.

	Solub.
Gallic and gallotannic semi-acids ?	I. met.
Muriatic acid	S.
Nitric	S.
Sulfuric	S.
Arsenic	
Fluoric	
Tartaric	
Phosphoric	
Acetic	"S."
Prussic s.	
(Ammonia)	

Hydrotheate I, black, with met.

OXYD OF MERCURY.

	Solub.
Gallic semiacid	I or. yell.
Muriatic acid	ox. 20
	Subm. 1152
Oxalic	L.
Succinic	S.
Arsenic	I.
Phosphoric	I.
Sulfuric	500
	Suboxys. 2000
Mucic	I.
Tartaric	I.
Citric	L.
Malic	
Sulfurous	
Nitric	S.
Fluoric	I.
Acetic	S.
Benzoic	
Boracic	I.
Prussic s.	
Carbonic a.	I.

Chromate L, Molybdate L, Tungstate I, Mellate I, Malate I, Gallotannate I, yellow, Hydrotheate I, black.

OXYD OF PLATINA.

	Solub.
Gallic nnd gallotannic semi-acids	S ?
Muriatic acid	500
Nitric	S.
Sulfuric	S.
Arsenic	
Fluoric	
Tartaric	
Phosphoric	
Oxalic	S.
Citric	
Acetic	"S."
Succinic	
Prussic	
Carbonic	
(Ammonia)	

Hydrotheate I, black, with met

OXYD OF CHROMIUM.

Acetate S? Gallotannate I, brown, Hydrotheate I, green.

OXYD OF TELLURIUM.

Sulfate S, Nitrate S, Muriate S? Acetate S? Gallotannate yellow, Hydrotheate black?

OXYD OF URANIUM.

Sulfate S, Phosphite L? Nitrate S, Muriate S, Fluate S, Arseniate S, Molybdate L. Tungstate I, Acetate S, Tartrate L, Gallotannate chocolate, Hydrotheate? I, brown yellow.

OXYD OF MANGANESE.

Sulfate S, Phosphate L, Nitrate S, Muriate S, Fluate L, Borate L, Carbonate I, Molybdate I, Acetate S, Oxalate I, Tartrate S, Succinate S, Gallate S? Hydrotheate S? white.

OXYD OF MOLYBDAENUM.

Sulfate S, Phosphate S, Nitrate S, Muriate S, Fluate S, Borate I, Acetate S, Oxalate S, Tartrate S, Succinate S, Hydrotheate I, red brown.

OXYD OF COBALT.

Sulfate S, Phosphate S, Nitrate S, Muriate S, Fluate S, Borate L, Acetate S, Tartrate S, Gallate S, Arseniate S? Gallotannate I, yellowish white, Hydrotheate I? black.

OXYD OF NICKEL.

Sulfate S, Sulfite S, Phosphate L, Nitrate S, Muriate S, Fluate S, Borate L, Carbonate I, Arseniate S, Molybdate I, Acetate S, Gallate I, white, Gallotannate I, grey, Hydrotheate I? black.

OXYD OF BISMUTH.

Sulfate L, Sulfite S, Phosphate S, Nitrate S, Muriate S, Fluate I, Borate I, Molybdate I, Acetate S, Oxalate L, Tartrate I, Succinate S, Gallate I, orange, Gallotannate I, orange, Hydrotheate I, black.

OXYD OF RHODIUM.

Nitrate S, Acetate S? Hydrotheate S.

OXYD OF PALLADIUM.

Sulfate S, Nitrate S, Muriate S, Arseniate I, Acetate S? Hydrotheate I, brown black.

OXYD OF TUNGSTEN.

Arseniate S? Acetate S, Gallotannate I, straw coloured.

OXYD OF IRIDIUM.

Gallotannate S, colourless.

OXYD OF OSMIUM.

Gallotannate I, blue.

OXYD OF TITANIUM.

Sulfate S, Phosphate I, Nitrate S, Muriate S, Carbonate I, Arseniate I, Acetate S? Oxalate L, Tartrate L, Gallotannate I, red brown, Hydrotheate I, bottle green.

ITRIA.

Sulfate, attr. 712? sol. 50, Phosphate I, Nitrate S, Muriate S, Carbonate I, Arseniate I, Acetate S, Tartrate S? Mucate I, Succinate L, Hydrotheate S?

OXYD OF COLUMBIUM.

Gallotannate I, orange, Hydrotheate I, chocolate.

SILICA.

Muriate S, if hot, I.

OXYD OF CERIUM.

Sulfate S, Sulfite S, Phosphate I, Nitrate S, Muriate I, Arseniate I, Molybdate I, Acetate S, Oxalate I, Tartrate I, Citrate S? Succinate L, Prussiate I, white, Gallate S, Gallotannate S, Hydrotheate I? brown.

SULFURIC ACID.		NITRIC ACID.		MURIATIC ACID.		PHOSPHORIC ACID.	
Barita	1000*	Barita	849*	Barita	849*	Barita	906*
Strontia	903*	Potass	812*	Potass	804*	Strontia	827*
Potass	894*	Soda	804*	Soda	797*	*Lime*	(865)*
Soda	888*	Strontia	754*	Strontia	748*	Potass	801*
Lime	868*	Lime	741*	Lime	736*	Soda	795*
Magnesia	810*	Magnesia	732*	Ammonia	729*	*Ammonia*	(728)*
Ammonia	808*	Ammonia	731*	Magnesia	728*	Magnesia	736*
Glycina	718*	Glycina	642*	Glycina	639*	Glycina	648*
Itria	712	Alumina	634*	Alumina	632*	Alumina	642*
Alumina	709*	Zirconia	626*	Zirconia	625*	Zirconia	636*
Zirconia	700*	Metallic oxyds.		Metallic oxyds.		Metallic oxyds.	
Metallic oxyds.						Silica	

FLUORIC ACID.	
Lime	734*
Barita	706*
Strontia	703*
Magnesia	(620)*
Potass	671*
Soda	666*
Ammonia	613*
Glycina	534*
Alumina	529*
Zirconia	524*
Silica	

OXALIC AND TARTARIC ACID.		
Lime	960	867
Barita	950	760
Strontia	825	757
Magnesia	820	618
Potass	650	616
Soda	645	611
Ammonia	611	609
Glycina?	600	520
Alumina	594	515
Zirconia?	588	510
Metallic oxyds.		

Some of the metallic tartrates are not decomposed by alkalis, nor is the tartrate of alumina Berz. II. 635.

ARSENIC ACID.	
Lime	733¼
Barita	733½
Strontia	733¼
Magnesia	733
Potass	614
Soda	609
Ammonia	607
Glycina	580
Alumina	575
Zirconia	570
Silica	

TUNGSTIC ACID.
Lime
Barita
Strontia
Magnesia
Potass
Soda
Ammonia
Glycina
Alumina
Zirconia

SUCCINIC ACID.	
Barita	930
Lime	866
Strontia?	740
(Magnesia)	732¼
Potass	612
Soda	607
Ammonia	605
Magnesia	
Glycina?	510
Alumina	505
Zirconia?	500

SUBERIC ACID.	
Barita	800
Potass	745
Soda	740
Lime	735
Ammonia	720
Magnesia	700
Glycina?	535?
Alumina	530
Zirconia?	525

CAMPHORIC ACID.
Lime
Potass
Soda
Barita
Ammonia
Glycina?
Alumina
Zirconia?
Magnesia

CITRIC ACID.	
Lime	731
Barita	730
Strontia	618
Magnesia	615
Potass	610
Soda	605
Ammonia	603
Glycina?	415?
Alumina	410
Zirconia	405
Metallic oxyds.	

LACTIC ACID.	
Barita	729
Potass	609
Soda	604
Strontia	603
Lime	(732)
Ammonia	601
Magnesia	575
Metallic oxyds.	
Glycina	410
Alumina	405
Zirconia	400

BENZOIC ACID.	
W. oxyd of arsenic	
Potass	608
Soda	603
Ammonia	599
Barita	597
Lime	590
Magnesia	560
Glycina?	400?
Alumina	395
Zirconia?	390?

SULFUROUS ACID.	
Barita	592*
Lime	516*
Potass	488*
Soda	484*
Strontia	(527)*
Magnesia	439*
Ammonia	433*
Glycina	355*
Alumina	351*
Zirconia	347*
Metallic oxyds.	

ACETIC ACID.		MUCIC ACID?		BORACIC ACID.		NITROUS ACID.	
Barita	594	Barita	900	Lime	537*	Barita	450
Potass	486	Lime	860	Barita	515*	Potass	440
Soda	482	Potass	484	Strontia	513*	Soda	437
Strontia	480	Soda	480	*Magnesia*	(459)*	Strontia	430
Lime	470	Ammonia	431	Potass	482*	Lime	425
Ammonia	432	Glycina	425	Soda	479*	Magnesia	410
Magnesia	430	Alumina	420	Ammonia	430*	Ammonia	400
Metallic oxyds.		Zirconia	415	Glycina	388*	Glycina	340
Glycina	395			Alumina	385*	Alumina	336
Alumina	391			Zirconia	382*	Zirconia	332
Zirconia	387						

PHOSPHOROUS ACID.		CARBONIC ACID.		PRUSSIC SEMIACID.		HYDROTHEIC SEMIACID.
Lime		Barita	420*	Barita	400	Barita
Barita		Strontia	419*	Strontia		Potass
Strontia		*Lime*	(423)*	Potass	300	Soda
Potass		Potass	306*	Soda	298	Lime
Soda		Soda	304*	Lime	290	Ammonia
Magnesia?		*Magnesia*	(366)*	Magnesia	280	Magnesia
Ammonia		Ammonia	339*	Ammonia	270	Zirconia
Glycina		Glycina	325*	Glycina?	260	
Alumina		Alumina	323*	Alumina?	258	
Zirconia		Zirconia	321*	Zirconia?	256	
Metallic oxyds.		Metallic oxyds.				

B. *MISCELLANEOUS ATTRACTIONS,*

NOT EXHIBITED IN WATER ONLY.

OXYGEN.
Potassium
Carbon, dry
Manganese
Zinc
Iron
Tin
Antimony
(Hydrogen)
(Phosphorus)
(Sulfur)
Arsenic
(Nitrogen?)
Nickel
Cobalt
Copper
Bismuth
Mercury
Silver
Arsenious acid
(Nitric oxyd)
Gold
Platina
(Carbonic oxyd)
(Muriatic acid?)
W. oxyd of manganese
W. oxyd of lead

(OXYGEN.)
With heat, Vauquelin.
Titanium
Manganese
Zinc
Iron
Tin
Uranium
Molybdaenum
Tungsten
Cobalt
Antimony
Nickel
Arsenic
Chromium
Bismuth
Lead
Copper
Tellurium
Platina
Mercury
Silver
Gold

(OXYGEN.)
At the lowest red heat. Davy.
Potassium
Sodium
Barium
Boron
Carbon
Manganesium
Zinc
Iron
Tin
Phosphorus
Antimony
Bismuth
Lead
Sulfur
Arsenic
Tungsten
Nitrogen
Palladium
Mercury
Silver
Gold
Platina

OXYMURIATIC ACID, CHLORINE. Davy.
Potassium
Sodium
Zinc
Iron
Lead
Silver
Antimony
Bismuth
Phosphorus
Copper
Sulfur
Mercury
Platina
Gold

HYDROGEN.
Oxygen
Sulfur
Carbon
Phosphorus
Nitrogen

(NITROGEN.)
Oxygen
Sulfur?
Phosphorus
Hydrogen

(SULFUR.)
Davy.
Potassium
Sodium
Iron
Copper
Antimony
Palladium
Lead
Silver

SULFUR, PHOSPHORUS?
Potass
Soda
Iron
Copper
Tin
Lead
Silver
Bismuth
Antimony
Mercury
Arsenic
Molybdaenum

SILICA.
Fluoric acid.
Potass

ALCOHOL.
Water
Ether
Essence
Alk. sulfurets

OIL.
Lime
Barita
Potass
Soda
Magnesia
Oxyd of mercury
Other metallic oxyds
Alumina

C. *TABLE OF DOUBLE DECOMPOSITIONS.*

In all mixtures of the aqueous solutions of two salts, each base remains united to the acid which stands nearest to it in this table.

Barita				Strontia					Lime				Potass	Magnesia
Sulfuric	*S*	*C*	*S*	*S*	*C*	*S*	*P*	*S*	*C*	*P*	*P*	*P*	Soda	order *B*
Nitric	*N*	*S*	*P*	*N*	*SS*	*P*	*S*	*P*	*P*	*F*	*F*	*F*	Magnesia	*S* *C*
Muriatic	*M*	*P*	*SS*	*M*	*F*	*SS*	*SS*	*SS*	*F*	*B*	*B*	*SS*	and Am-	*N* *P*
Phosphoric	*SS*	*SS*	*N*	*SS*	*P*	*F*	*F*	*F*	*B*	*SS*	*C*	*S*	monia	*M* *F*
Sulfurou S	*P*	*N*	*M*	*C*	*B*	*B*	*B*	*B*	*SS*	*S*	*SS*	*B*	Glycina	*P* *SS*
Fluoric	*C*	*M*	*F*	*B*	*S*	*C*	*C*	*N*	*S*	*C*	*S*	*N*	Alumina	*F* *S*
Boracic	*B*	*F*	*B*	*F*	*M*	*N*	*N*	*M*	*M*	*N*	*N*	*M*	Zirconia	*SS* *N*
Carbonic	*F*	*B*	*C*	*P*	*N*	*M*	*M*	*C*	*N*	*M*	*M*	*C*	Each with	*B* *M*
													every sub-	*C*
Strontia	Lm	Pt	Mg	Lm	Pt	Mg	Am	Gl	Pt	Mg	Am	Gl	sequent base	Am
		Sd	Am		Sd			Al	Sd			Al	in this	
			Gl					Zr				Zz		
			Al											
			Zr											

The brackets before the letters denote that there appear to be some exceptions in the cases to which they point: the brackets after the letters, that heat makes some changes in the respective cases.

The initial letters of the table are expressed in these technical hexameters.

CONTENTIO AQUATICA; VICTORIA; REQUIES.

REBARIsne modo posse adfore bellica ROSTRA?
Des nautam satis apta cibo refovere ALIMENTA;
Cor superest sanum; flabitque OPTATUS abunde
Spiritus; has animi ira feret tibi acerrima GAZAS.
AST BRONTES animosus acerbo fœdere PALMAS
Cæsus fert: ut pro rebus monet APTA SODALES!
Si possit, fato tubicen memor addat honores.
Postulat ossa relata, heu! flebile condere MARMOR.
Spes est fixa, bonum cœli GAZIS fruiturum.
ALMA huic pax fiat orbi, lassis omnipotens DES
O pater! Ut flebo jussus canere armigerûm vim!
Dire opifex belli, cesses normam abjicere omnem.
Pax fessos bona mulcet, GAZIS lætior auri.
PRÆSUMAM GAZAS nempe adfore rursus ab alto huc;
MIRA dabit lucra pax, fortassis in ultima MUNDI.

Table showing the sequences of some of the metallic oxyds.

SULFURIC ACID.

Barita	Barita	Lead
Strontia	Strontia	Mercury
Lime	Lime	Iron, Potass,
Silver ?	Potass	Soda, and
Lead ? Above amm.	Soda	Magnesia
Mercury ?	Mercury ?	
Potass	Iron ?	
Soda	Magnesia	
Zinc, Iron and	Ammonia	Lead
Copper	Glycina	Zinc and Copper
Magnesia	Alumina	
Ammonia	Zirconia	
Glycina	Copper ?	
Alumina		
Zirconia		

NITRIC ACID. MURIATIC ACID. ACETIC ACID.

V.

A SKETCH

OF

ANIMAL CHEMISTRY.

WITH

REMARKS ON THE LAWS

OF

CHEMICAL COMBINATIONS.

EXTRACTED AND ABSTRACTED

FROM THE WORKS OF PROFESSOR BERZELIUS.

TRANSLATED FROM THE SWEDISH.

Förelasningar i djurkemien. 2 v. 8. Stockh. 1806-8.
Afhandlingar i fysik, kemi och mineralogie, utgifne af W. Hisinger och J. Berzelius. 3 v. 8. Stockh. 1806. ..
Lärbok i kemien. 2 v. 8. Stockh. 1808-12.
Öfversigt af djurkemiens framsteg och närvarande tillstånd. 8. Stockh. 1812.

A. A SKETCH OF ANIMAL CHEMISTRY.

From the Öfversigt, or View of the progress and present state of Animal Chemistry, of which a complete translation is about to be published by Dr. Brunnmark.

1. *Nervous system.* Besides the advantages which animal chemistry, in common with other branches of the science, has derived from the discoveries of Black, Scheele, Priestley,

and Lavoisier, many of the labours of these chemists have been particularly devoted to subjects more intimately connected with it. Among those who have directed their attention to the nervous system, we cannot omit to mention the name of Galvani: the battery of nerve and muscle, constructed by Bunzen, seems not to have been a very fortunate illustration of the nervous action. Home and Reil have also advanced some speculations not very fully supported by facts. The brain has been examined by Thouret, Fourcroy, and Jourdan: and Bichat has investigated the structure of the membranes which accompany the nerves, by dissolving out the medullary matter by means of caustic alkali.

2. *Blood.* The most correct accounts of the blood and its properties have been given by Hales, Lemery, Menghini, Hofmann, Langrish, Cheyne, Schwencke, Gaubius, Rouelle junior, Hewson, Bucquet, Deyeux and Parmentier, in their prize dissertation, and lastly by Fourcroy and Vauquelin.

(P. 12). I have shown that the fibrin, colouring matter and albumen, with mineral acids in excess, enter into peculiar combinations of difficult solubility, which, when the superfluons acids are washed off, are soluble in water; that these substances are easily dissolved by the acetic and phosphoric acids, and that these acids prevent the coagulation of blood by heat; that when fibrin is boiled with water, a small portion of it is dissolved, and the remainder is shrivelled, and becomes insoluble in vinegar; that all the three substances, by the operation of alcohol and ether, are partly changed into peculiar fatty matters, with a pungent smell, different according to the medium employed. I have found in the blood the lactate of potass, and some peculiar substances, which accompany this salt in all the fluids of the body, and which, as I have endeavoured to show, appear in the blood as a step towards their removal from the body, in order to be excreted with other unnecessary substances. It has been generally believed, since the time of de Haen, that the blood contains gelatin, such as is obtained when bone or

cartilage is boiled in water; I have shown that there is no gelatin whatever in the living body, and that de Haen and his followers have taken for gelatin a partial coagulation of the last portion of albumen, which remains in the blood. The sulfur, which is exhibited when blood is heated in a silver vessel, is derived from the decomposition of the albumen by the uncombined alkali, with the assistance of the heat. Deyeux and Parmentier believed that the red colour of the blood was derived from the solution of iron in its uncombined alkali. Fourcroy and Vauquelin attempted to show, that it depended on the solution of the subphosphate of iron in albumen. They found that albumen or serum, which was shaken with this salt of iron, while still moist, dissolved it, and derived from it a deep red colour, which was heightened by caustic alkali. According to these experiments, it appeared that the colouring of chyle, exposed to the air, depended on the change of the neutral phosphate of the oxydiole or protoxyd, into the subphosphate of the oxyd. I have repeated these experiments with all possible care, and with the highest respect for the authority of these very celebrated chemists; and my results have been so opposite to theirs, that I cannot help concluding that they are mistaken, and that in fact we know as little of the mode of existence of iron in the colouring matter of the blood, as we did when iron was first discovered in it. The coloured particles, long since described by Lecuwenhoek and Hartsoeker, do not consist of albumen, although they much resemble it. I have shown that metallic oxyds, especially those of iron, are partly soluble in the serum, and change its colour more or less, but that none of them gives the true colour of blood, and that the serum containing iron is totally destitute of the proper characters of the coloured matter. Since none of the most delicate tests for iron detect its presence in the coloured matter of the blood, I have thought myself authorised to conclude, that it could not be in the form of a salt: and since neither iron, nor the earthy phosphates, so abundant in the ashes of the blood, can be extracted from its charcoal by means of the strongest acids, it

follows that, even in this charcoal, these compounds do not exist in the state of salts already formed, and it is very probable that the blood contains their primitive component parts in a totally different state of combination. Hence I have concluded that the quantity of bone earth, supposed to exist in the blood, is not really contained in it, since it cannot be extracted by a diluted acid from dried blood; but that bone earth must always be a product of the decomposition of the blood, by which it is formed precisely at the place which requires its presence. [The colouring matter affords $\frac{1}{80}$ of its weight of red ashes, more than one half of which is oxyd of iron. Djurk. II. p. xxvii.]

The cause of the coagulation of the blood is wholly unknown: the irritability, which appears to be excited in the fibrin by the electrochemical battery, has been very justly explained by Heidmann, as depending on the motion produced by the rapidity of the coagulation, which causes the fibres to bend themselves. The three component parts of the blood appear to resemble each other very much in their chemical constitution, so that they may easily either be transmuted one into another, or be employed for producing the same effects in secretion, or in the restoration of parts which require to be replaced.

The blood of bullocks approaches very near to that of men, so that we may easily understand the possibility of its transfusion into the human veins with safety. There is however one remarkable difference. In the human blood, the fibrin, as well as the coloured matter and the albumen, after having been dried, burn much more readily to ashes, and the coal requires neither so strong nor so long continued a heat to destroy it, as that of the blood of oxen. This difference evidently depends on the greater proportion of nitrogen contained in the bullock's blood, which is also further demonstrated by the constant production of carbonate of ammonia from bullock's blood, when it is burnt more slowly, notwithstanding the free access of air. This

difference is so much the more remarkable, as it is precisely the reverse of what would be expected, from the comparative nature of the usual food of men and of oxen. Perhaps this circumstance may be greatly illustrated by the results of future investigations respecting the elementary or compound nature of nitrogen.

In the capillary vessels, the coloured particles of the blood become darker, and possibly the colourless parts in the lymphatic arteries may undergo some analogous change. Probably the fibrin penetrates with the serum into these colourless vessels, although it would be difficult to collect their contents in a sufficient quantity for analysis.

The chemical nature of the bloodvessels has been little examined, except that Bichat has subjected their membranes to the effects of maceration. The fibrous membrane of the arteries, without doubt the most remarkable of all, has long been considered as composed of cylindrical muscles. Haller was of this opinion, and founded on it his doctrine of the pulse, which is still taught in our elementary works. The idea was, however, rejected by John Hunter, and Bichat endeavoured in vain to produce in the arteries of living animals any perceptible effect, by the strongest chemical and mechanical stimuli; whence he argued, that the pulse depended on the effect of the heart only, producing a locomotion in the arteries, without any dilatation. My experiments have proved, that these fibres cannot possibly be muscular, since muscular fibres are soft and flaccid, containing more than $\frac{3}{4}$ of their weight of humidity, while those of the arteries are dry, and quite elastic, and since the muscles agree in their chemical properties with the fibrin of the blood, being soluble in acetic acid, and entering into combinations of difficult solubility with muriatic and nitric acids, while the arterial fibres, on the contrary, are insoluble in vinegar, but are dissolved pretty easily in the diluted mineral acids, and not separated from them either by simple or prussiated alkalis, which are the precipitants of fibrin, [as well as of

albumen. Afh. III. 7.] Since, therefore, the arterial fibres have neither the structure nor the chemical composition of muscles, they cannot either be muscular, or fulfil the office of muscles, which indeed is sufficiently apparent from their elasticity. This elasticity, however, supplies the place of muscular power; and Haller's description of the pulse is correct, notwithstanding his idea of the cause of the contraction of the arteries is confuted. On the other hand, Bichat's opinion, that the arteries are not dilated, but only vibrate about their situation, on account of their numerous flexures, when the heart forces the blood into them, must be incorrect, being contrary to the mathematical laws of hydrostatics. Since it is proved, by chemical analysis, that the fibrous membrane of the arteries is not muscular, and consequently cannot have any power to contract itself, and since it follows necessarily from its elasticity, that it must be dilated when the heart pours out its contents, and afterwards, while the heart is at rest, resume its former dimensions, it is evident that the frequency of the pulse can never be different at the same time in different parts of the same individual. Every other inequality, except that of frequency, may possibly take place. Many medical writers have related cases in which such inequalities are supposed to have been observed: but the observations must have been erroneous, since the thing is utterly impossible. The decision of this question, which has been so long disputed, is of great importance to the science of medicine; since it proves that the branches of the arteries can never be thrown into spasmodic action, and that all the disturbances of the circulation, which have been attributed to spasms of the larger vessels, must be strictly limited to the obviously muscular parts, that is, the heart and its auricles, and perhaps sometimes the muscular fibres which are seen to extend a little way from it, on the trunks of the great veins which enter it. [Whatever reason there may be for admitting a part of these arguments as correct, it does not appear to be by any means demonstrated, that every muscular part must necessarily contain fibrin: on the contrary it seems to be proved,

by considerations which are perfectly unanswerable, that the crystalline lens possesses an internal power of altering its form, analogous to that of other muscular parts; and the crystalline lens contains no fibrin.]

3. *Respiration.* Cigna, Scheele, Lavoisier, Menzies, Goodwyn, Beddoes, Davy, Henderson and Pfaff have made many experiments on respiration. Dalton's doctrine, of the expulsion of one gas from an aqueous fluid by another, explains some of the apparent irregularities, respecting the accidental absorption of nitrogen. But Allen and Pepys, who have continued these investigations with great accuracy, have found more nitrogen evolved from a Guinea pig, than could possibly be contained in all its fluids.

It has been commonly supposed, that the whole mass of the blood operates on the air, absorbing its oxygen, and giving out carbonic acid: but this opinion is incorrect: the whole of the blood rapidly absorbs oxygen when shaken with it, and takes up, at the same time, a good deal of the carbonic acid that is formed: but serum, freed from the coloured particles, does not materially change the air until it begins to putrefy. The greatest part of the effects of the blood on the air belongs therefore to the colouring particles; and as this portion of the blood does not penetrate the capillary vessels in general, except in a very few of the secreting organs, and is therefore not employed in the growth or repair of the body, it seems very probable that it is principally concerned in the preservation of temperature. This process may be explained according to the ingenious and important theories and researches of Dr. Crawford; and it appears, from the experiments of Allen and Pepys, that as much heat must be evolved in 24 hours, as results from the combustion of about a pound of coal, or even more, since it is possible that still more heat may be evolved by the carbon, which is in a liquid state previously to its combination with oxygen, than by solid carbon. [But what becomes of all this heat, when the man is living in a temperature of 100°?] It must,

however, be confessed, that if these experiments have been correct, it is very difficult to understand how this extraordinary expenditure of carbon is to be replaced: since, besides the consumption for other purposes, respiration alone must require the carbon contained in at least 8 or 10 pounds of food in the day, which is much more than is usually taken.

Notwithstanding that the changes, which the blood undergoes in the lungs, are in all appearance similar to those, which take place when it is simply agitated in common air or oxygen, still the nervous system appears to have an influence over the process, without which it cannot be carried on. Dupuytren divided the 8th pair of nerves, near the oesophagus, in horses and in dogs, and observed that the animal, though its respiration was unimpaired, soon died for want of oxygenization. When an artery was opened, and the nerve on one side was divided, the arterial blood became darker for a few moments, but then resumed its red colour; if the nerves were divided on both sides, the blood remained venous, and the animal died, while the red colour of the lips and nostrils became black. If, instead of dividing, he only compressed the nerves, the arterial blood became dark, and remained so, as long as the compression was continued, but resumed its scarlet colour as soon as the compression was removed. These experiments sufficiently prove the influence of the nerves on the change of the blood in the lungs, supposing them to have been accurately performed. It is however well known that Baglivi and Bichat made similar experiments, and drew from them conclusions totally opposite to those of Dupuytren. Ducrotay de Blainville, a countryman of Dupuytren, has also repeated his experiments, and found that though the animals actually die some time after the division of the 8th pair of nerves, their death is by no means produced by the prevention of the change occasioned in the blood by respiration. This has been further examined by Emmert, with all the accuracy which is required for a good experimenter. He has fully shown, that the division of the 8th pair of nerves has no immediate in-

fluence on the change of the blood in the lungs, but only on the respiration, which becomes gradually more and more difficult, whence the blood grows dark in the arteries, so that the animal expires, after several hours, with venous blood in the arteries, from the cessation of respiration.

Of the difference of the blood at different periods of life, and in different diseases, we know little or nothing. It has been supposed, that the blood of the foetus undergoes, in the placenta, a change similar to that which takes place in the lungs of the adult, and that it returns of a scarlet colour through the veins of the funis: but credible authors assure us, that in the foetus the eye cannot distinguish the venous blood from the arterial. The principal object of the process, which is carried on in the lungs, appears to be the preservation of temperature; while the foetus borrows its temperature from the surrounding medium, and consequently has no particular occasion for a supply of heat, which could only have the effect of raising its temperature much above the common standard of ordinary animal heat. This circumstance therefore excludes the possibility of a change of the colouring matter in the foetal circulation, although there are many reasons for supposing the blood's passage through the placenta to answer some other very important purposes. Fourcroy has made some remarks on the foetal blood, but they seem to have been the results of accidental observation, and not of direct experiment. Deyeux and Parmentier were unable to distinguish any material difference, between the blood of healthy and of diseased persons. Bordeu also entered into some similar investigations; and Dupuytren, Thenard and Nicolas have shown, that the blood of diabetic patients does not contain the least trace of the sugar, which is so abundant in the urine.

With respect to the respiration of other classes of animals, our knowledge is confined within narrow limits. Birds are very sensible to foreign admixtures in the air, and in an

atmosphere which is fatal to a bird, a mouse can live without apparent inconvenience. The respiration of fishes has been somewhat more fully investigated. Fishes have their blood oxygenized in their gills by coming in contact with the uncombined oxygen, which is contained in water, to the amount of about $\frac{1}{100}$ of its volume. Fishes can however live for some days in water exhausted of air, but at last they die in it, without exhibiting any tendency to decompose it by their respiration. The airbladder has sometimes been considered as assisting in the functions of the gills; but this organ seems to be in reality appropriated to the office of regulating the specific gravity of the animal, so as to enable it without difficulty to remain at whatever depth below the surface it finds most convenient. In fresh water fishes, this bladder contains, according to Erman, nitrogen mixed with a variable proportion of oxygen, which however never amounts to the quantity contained in atmospheric air. In sea fish, on the contrary, Biot found that it contained oxygen in a greater proportion, as the depth at which they were found was greater, so that, at the depth of 1100 yards, it contained from $\frac{2}{3}$ to $\frac{9}{10}$ of oxygen. This air is so compressed, that when the fish is drawn out of the water, its expansion forces the bladder through its mouth. In one kind of fish, the cobitis fossilis, Erman found a double kind of respiration; in water containing air, the fish respired as usual by its gills: but if the water was deprived of its oxygen, the fish rose out of the water, swallowed a portion of air, which changed the colour of the bloodvessels to a bright red, as it passed through the intestines, and was discharged when deprived of its oxygen. The respiration of insects has been examined with great care by Haussman; he found that they all absorbed oxygen and gave out carbonic acid. He also examined the respiration of some worms, and found that these also changed the oxygen into carbonic acid. Spallanzani had found the same long before; but he also thought he observed, that many of the mollusca absorbed nitrogen, a circumstance which necessarily re-

mained doubtful at that time, from the imperfect state of chemical knowledge.

4. *Absorption.* The substance of the lymphatic vessels has not been particularly analysed: and their contents have only been examined by Emmert and Reuss, who found them to agree very much with serum, and when viewed with a microscope, to have the appearance of a homogeneous fluid. But after some time, this lymph coagulates into a mass which resembles the fibrin of the blood; whence it follows, that this substance must have been transmitted from the blood by the capillary arteries, and that the fibrin must have been in perfect solution in its original state. An important circumstance, which has not been considered in the investigation of the lymph, is the presence of the remains of the worn out and useless parts, which have been absorbed by the lymphatics, and can only be removed by their means. The analysis of the fluids contained in the muscular parts, and that of urine give me reason to suppose, that most of the substances, which compose the body, are changed by this process into lactic acid, phosphoric acid, and the two substances soluble in water and in alcohol, which accompany the lactates in the animal fluids, and afford the syrup like extract, which is obtained in their analysis. If this is the case, the fluids contained in the lymphatics, after the coagulation of the albumen by boiling, and the evaporation of the liquid, must leave a much greater proportion of this syrup like extract, than serum.

5. *Secretion in general.* The secreted and excreted fluids, formed by the remaining parts of the blood, have all their different characteristic properties, at the same time that they retain some marks of their common origin from albumen and fibrin. The fluids, which hold these characteristic substances in solution, contain the salts of the blood, and generally also its alkali, in the same quantity as the blood itself. Some secreted fluids are equally concentrated

with the blood, for instance, bile; others are more diluted; but none are more concentrated. The secretions, or the fluids destined to be employed within the body for particular purposes, without being excreted, are alkaline; but the excretions, which are destined for evacuation, are all acid; for instance, sweat, urine, and milk; and the uncombined acid is the lactic. [The acid fluids contain a larger portion of alkaline phosphate than the alkaline fluids, probably because the phosphoric acid is a product of spontaneous decomposition. Afh. III. 15. Djurk. II. 178-9.]

6. *Cellular membrane.* Of the cellular membrane we only know, that it is in great measure dissolved by slow boiling, and affords gelatin; a property which it possesses in common with cartilage and skin, although, from the different facility with which these substances are dissolved, there is reason to think that their chemical constitution may also be different. This gelatin is not found as such in these substances, but is properly a product of the operation of boiling. The incorrect opinion, that gelatin is found already existing in the living body, and dissolved in its fluids, has been in great measure derived from the supposed separation of this substance by precipitation with infusion of galls. But while many other animal substances are precipitated by galls, the precipitate of gelatin has the distinguishing character of uniting in a thick mass like caoutchouc, which, when dry, becomes hard and brittle. Such a precipitate canuot be obtained from any animal fluid, except from urine, which has been long boiled with alkali, since the substances dissolved in urine are probably made to approach nearer to the nature of gelatin, by the effect of the alkali and of the boiling.

The cellular membrane contains in its cavities a fluid, which has not been investigated, but which may probably be considered as identical with that which is found in the greater cavities of the body, in blisters, and in dropsy. It

contains also in proper cells the semifluid fat, of different consistence in different parts, but which in its chemical properties resembles the fat oils of the vegetable kingdom. The sebacic acid, obtained from it, by means of distillation, by Cartheuser, Segner, Knape, and Crell, has been shown by Thenard to consist of the acetic and muriatic acids, with an empyreumatic oil of a very disagreeable smell. But in this oil Thenard found an acid, which could be extracted by boiling it with water, whence were obtained, by evaporation, small light granular crystals, and which he considered as a peculiar acid, and called the sebacic. I have recognised in this acid, with the exception of a few external characters, all the properties of the benzoic acid; and have thence been induced to consider the sebacic acid of Thenard, as the benzoic, contaminated by the remains of other products of distillation, which evidently give a smell, both to the acid and to the salts, and which modify their taste.

7. *Pus.* Many attempts have been made to distinguish the pus, which is formed in the inflammation of the cellular membrane, from mucus, but their results have not yet been perfectly satisfactory. The mucus of the trachea has, however, the property of being easily dissolved by acids, and remaining in solution, while pus requires more concentrated acids, and may, after its solution, be precipitated by water. The modes proposed by Darwin, Bruggmans, Grasmeyer, and others, have failed for want of setting out with a correct distinction between the substances; it having been assumed, that the substance, expectorated from lungs not ulcerated, was mucus, and that only pus which is discharged from an ulcer or abscess. But, in fact, the coloured blood, which passes during inflammation into the capillary arteries, exudes through the membrane of the trachea, and forms one kind of pus; while, in other parts of the cellular membrane, it is confined by the neighbouring parts, and cannot escape till their destruction has been effected, so that their remains must be mixed with the pus which is formed in this case. Dr. George Pearson has lately bestowed much labour and

attention on this subject, but he was not acquainted with several of the substances which have lately been discovered in the animal fluids; at the same time, some of the results of his observations are worthy of attention, in particular the globules which he found in pus and purulent mucus, which appeared to be in continual motion, and which were not easily decomposed; but his conjecture, that they consist of organized carbon, seems not to be the most happy. He found also that the thinnest expectorations were the most saline and the most deliquescent; but the latter property was probably the consequence of the two former. When he met in these experiments with the syrup like extract, which I have shown in the analysis of the blood, muscle, milk, and urine, to consist of muriate of soda, alkaline lactate, and peculiar animal substances, he considered it as an animal oxyd, which had the property, in common with acids, of neutralising a certain portion of alkali so perfectly, that it could no longer be discovered by any test. In the ashes of pus, when burnt, he found, besides the usual constituent parts, silica and oxyd of iron.

8. *Digestion.* The mucous membrane, which lines all the cavities concerned in digestion, has been fully investigated by Bichat. Its principal character is insolubility in boiling water; it affords no gelatin, as the serous membranes do, and it is destroyed by maceration in cold water, and by the operation of acids, the most easily of all animal substances, after the brain.

The mucus, in which it is enveloped, though uniform in its appearance, is, however, very different in its chemical qualities, according to the nature of the substances with which it is destined to come into contact. Mucus is not properly a solution, but holds in suspension a solid, which has the property of expanding in water, into a thick semifluid mass, which it is not dissolved by the addition of more water, and which may be deprived of much of the water that it contains, by placing it on blotting paper. The

fluid which pervades mucus is no other than serum, deprived of the greatest part of its albumen. The peculiar substance, which forms the mucus of the nostrils, is soluble both in acids and alkalis, but somewhat more slowly in the latter, while that of the gall bladder, on the contrary, is very easily soluble in alkalis, but is completely precipitated by acids; so that it is separated from the bile, which holds it in solution, by the acids contained in the chyme, when the bile is decomposed in the process of digestion. If this mucus possessed the properties of that of the nostrils and trachea, it would remain mixed with the solution of the chyle, and produce less beneficial effects in the animal economy. Many authors mention an animal mucus, distinct from that of the membranes, which is supposed to be found in the fluids. In the many careful analyses which I have had occasion to make, I have never been able to find any substance to which this name could be applied, or which agreed sufficiently with the characters of the substances so denominated by Hatchett, Bostock, Jordan, and others. These chemists seem to have employed the term mucus as a general name for substances which could not be accurately determined. The celebrated Fourcroy has given us an essay on mucus, in the sense in which I here employ the term; but his reasonings, supported by no experiments, are calculated only to mislead the inexperienced: he generalises the use of the denomination so far, as to include in it cuticle, nails, silk, and many other heterogeneous substances, all which he considers as hardened mucus.

The mucous membrane of the intestines is surrounded by a dense cellular and a muscular membrane, agreeing in their nature with the cellular membrane and the muscle of other parts. These are covered by the peritonaeum, a serous membrane, which, according to some coarse experiments, probably agrees in its constitution with cellular membrane. The fluids of such membranes are too scanty to be examined, except in dropsy, but we have every reason to believe that they remain unaltered by this disease, [which appears, at

least in some cases, to be merely mechanical, the secretion continuing, while the absorbents have been obstructed by previous inflammation. Afh. III. 22.] According to some of my experiments, this fluid consists of serum, which has lost the principal part of its albumen, but has still so much left, that it affords a little coagulum when boiled: when it is evaporated, crystals of common salt are deposited, and among them we find the usual brown extract, containing alkali, alkaline lactate, and the extractive substances which commonly accompany it.

The saliva, the gastric fluid, the bile, and the pancreatic fluid, contribute also to digestion. Fourcroy and Vaquelin, and more lately Bostock, have analysed the saliva. I have also examined it myself, and have found it one of the most aqueous fluids of the whole body. It holds in suspension a white slimy substance, which is easily separated by dissolving the saliva in water, and which is soluble in alkalis, but not in acids. I am disposed to consider it, at least in part, as derived from the mucous membrane of the salivary ducts, and the inside of the mouth. The other part of the saliva contains, besides the salts commonly afforded by serum, a peculiar substance, remarkable for not being coagulable by boiling, by tannin, or sugar of lead; it affords with water a mucilaginous, light, frothy solution, although the capability of the saliva to be drawn out into threads belongs only to the mucus mixed with it. [It is precipitated by alcohol; when once dried, it is perfectly soluble in water, and is not separated by vegetable or mineral acids. Afh. III. 8.] It has been supposed that the viscidity of the saliva is intended for the admixture of small bubbles of air with the food during mastication: but this opinion is probably erroneous, and it seems, in reality, to be principally intended for the mechanical purpose of forming the food into coherent masses fit for swallowing; how far it may be concerned in the ulterior processes of digestion, is wholly uncertain. A part of it, which stagnates about the teeth, is thickened, becomes coloured, and forms what we call tartar. I have found this

substance of two kinds; when newly deposited, it is nothing more than the mucus rendered grey; but by degrees, as the mucus is decomposed, phosphate of lime fixes on the teeth, and sometimes accumulates so as to form a stony substance $\frac{1}{4}$ or $\frac{1}{2}$ a line thick; which contains, besides bone earth, about $\frac{1}{5}$ of its weight of the mucus of the saliva, dried up together with the earthy mass. [Dr. Bostock assumes that albumen is simply precipitated by sublimate, gelatin by infusion of galls, and mucus, unaffected by either of these, is thrown down by subacetate of lead. But in fact any of these precipitates may be of several kinds. The mucus, which he obtains from saliva, from oysters, or from the white of an egg, by agitation, filtration, and precipitation with subacetate of lead, is no other than a mixture of the oxyd of lead, thrown down by the uncombined alkali, and the submuriate of lead, which contains only 5 per cent. of the acid, and is therefore afforded in considerable abundance by a minute portion of common salt; for Bostock had not taken measures for separating these substances from his solutions: and when this has been done, the proper substance of saliva is not precipitated by subacetate of lead. While so much is presupposed, and so little accuracy is employed in distinguishing one product from another, it is impossible that animal chemistry can be rendered of any utility to physiology. Afh. III. 21.]

Stevens, Réaumur, Spallanzani, Scopoli, Brugnatelli, Carminati, Vauquelin, and others, have attempted, but without much success, to investigate the nature of the gastric fluid. Vauquelin constantly found uncombined phosphoric acid in the gastric fluid of graminivorous animals, while that of men and of carnivorous animals seldom contained any perceptible traces either of uncombined acid or alkali. One of the most remarkable chemical properties of this fluid is its power of dissolving the food on which the animal subsists, and of coagulating milk and albuminous fluids, when employed only in the minutest quantity, as

Young has shown in his essay on milk. It is unknown on what chemical substance these remarkable properties depend. It is however said that meat, for example, wrapped up in a piece of fine linen, and kept exposed to the influence of other animal fluids, for example that of the axillae, or of the toes, is dissolved in the same manner as by the gastric fluid.

The pancreatic fluid has never been chemically examined, but it appears to be analogous to the saliva. The bile, on the contrary, has been a very common subject of chemical investigation. Among the earlier chemists, Boerhaave, Bianchi, Verheyen, Hofmann, Drelincourt, Hartman, Barchhusen, Schröder, Marheer, and others, have taken great pains with it. Cadet was the first that performed a tolerably connected analysis of this fluid, and van Bochaut followed him in the same path. Since these, Maclurg, Fourcroy, Powell, and very lately Thenard, have pursued the investigation. All the earlier experiments agreed in making the bile consist of a kind of soap, composed of caustic soda, and a peculiar green bitter resin, which was precipitated by acids, mixed in any quantity with the bile; it was also supposed to contain a quantity of albumen, which could be separated by alcohol. Thenard showed also that bile contained, besides this resin, a peculiar bitter sweet extractive substance, to which he gave the name of picromel, and which contributed with the alkali to the solution of the resin. I was induced, by some apparent improbabilities in his conclusions, to attempt anew the same investigation: the result of which was, that bile contains no resin: that it has the same proportion of alkali and of salts as the blood, and contains also a peculiar substance of a bitter and afterwards sweetish taste, which has the property, in common with the three principal parts of the blood, out of which it is formed in the liver, of being capable of uniting with the mineral acids, and forming a body difficult of solution in water. With a considerable excess of acid, it is completely preci-

pitated, and has all the characters of a resin, is soluble in alcohol, fusible, and capable of forming a plaster with oxyd of lead. A smaller quantity of acid, on the contrary, affords a more soluble combination: and the resin, precipitated by the sulfuric acid, may, by digestion for instance with carbonate of barita, which takes away its acid, be restored to its former properties, so as to afford a solution exactly like bile. This substance agrees also with the albumen and fibrin of the blood in being incapable of precipitation by the acetic acid; [like fibrin too, it affords an adipocere with ether, and is not precipitated by tannin. Afh. III. 8.] In different animals, and in the same species under different circumstances, its capability of forming compounds of difficult solution with acids is different; and to judge from the observations which I have made, it appears that a long continuance in the gallbladder increases this tendency to form resin. All my predecessors have considered the bile as containing some albumen; but since the substance, which in this case is denominated albumen, is precipitated by acetic acid, and is not redissolved by a fresh addition of the acid, it must necessarily be something different from albumen. By an examination of mucus from different parts, I have been enabled to show, that the substance in question is nothing else than a part of the mucus of the gallbladder, which is dissolved in the bile, and makes it, to use a medical term, more involved. It is found dissolved in the bile in a very small proportion, so that the bile, which is scarcely fluid, gives no more considerable deposit after boiling, than that which is very thin.

The experiments of Stevens, Réaumur and Spallanzani have proved that digestion is a true solution of food by the gastric fluid. Eaglesfield Smith found that, in frogs, digestion is interrupted when the gall duct is tied, and proceeds again rapidly when the ligature is removed: but in the mammalia it is certain that the chyme is often rejected from the stomach, perfectly formed, without any admixture of

bile; and that when the bile is present in the stomach, it is always in consequence of disease.

The division, which Everard Home has supposed to exist in the human stomach, does not appear in itself to be highly probable: but his experiments on the two kinds of absorption, which are observable in fluids entering the stomach, and on the functions of the spleen, will lead, if they be confirmed by future investigations, to the most important results. The chyme, having acquired, by some such means, a proper consistency, enters the duodenum, and there meets the bile; which seems to be decomposed by it, not being found as bile in the contents of the intestines, but having its proper substance changed into a yellow or greenish fatty matter like spermaceti, which affords the dark colour. That the presence of the bile is not however absolutely necessary for the formation of chyle, is proved by cases of jaundice, in which the discharge of bile has been interrupted for one, two, or more weeks, and yet the person has not died for want of nourishment. The chyle is separated from the insoluble part by the operation of the absorbents; but in order that the mass may not remain dry, the chyle is gradually washed out of it by the intestinal fluid, which is successively poured out and reabsorbed, until at last the whole is extracted. What Vauquelin and Sage have done on this subject is not very accurate. Einhof and Thaer have minutely examined the dung of cattle; and I have found that, in the human subject, $\frac{3}{4}$ of the contents are aqueous, holding in solution the salts commonly found in the blood, a certain quantity of phosphate of magnesia, and the peculiar extractive animal matter, besides a small portion of undecompounded bile. The solid part contains all that is undissolved or precipitated, together with the mucus in which it is involved.

The experiments of Vauquelin, on the quantity of earths of different kinds consumed and excreted by fowls, seem to show, in conjunction with some other experiments on vege-

tables, that these earths must be composed and decomposed in different ways, as may be required for the processes of organic life.

Chyle, from its colour, and its coagulating when boiled, was for a long time compared to milk, and supposed to contain a large portion of sugar of milk: but this erroneous hypothesis is now corrected. In the thoracic duct, the milky appearance is less conspicuous, since it is diluted by the lymph of the lymphatic absorbents, and it is commonly of a yellow grey colour; it coagulates in the air, and the coagulum acquires by degrees a red colour. Hence there is reason to believe that the whitish substance, suspended in the chyle, is the colouring matter in an imperfect state, requiring the contact of the air in order to be completed. The experiments of Hallé, Emmert, and Reuss agree in showing that chyle, in every thing but its colour, resembles blood, but is much more diluted. From Fourcroy's doctrine, that the colour of the blood depended on the subphosphate of iron, it necessarily followed that the colouring matter contained in the chyle must be in the state of albumen, united with neutral phosphate of the protoxyd or oxydiole of iron, which, upon entering into the mass of the blood, was rendered a subphosphate by the alkali of the blood, while the protoxyd was changed in the lungs into an oxyd; but since this salt of iron cannot be discovered in the colouring matter, this erroneous conjecture falls to the ground.

The intimate nature of the liver and spleen has been little investigated; but the liver exhibits properties resembling those of the bile, and when spontaneously decomposed, under certain circumstances, it readily changes to a fatty matter like spermaceti.

9. *Bones.* The combustible part of the bones was shown by Papin, Hérissant, Lassone, and particularly Haller, to be cartilaginous, and to be capable of affording gelatin by boil-

ing. The nature and composition of bone earth was discovered by J. G. Gahn, whom we have still the happiness to number among the members of the Royal Academy of Sciences; the discovery was first mentioned by Scheele, but not as his own. Long after this, Fourcroy demonstrated that the bones of graminivorous animals contained phosphate of magnesia, which he could not find in human bone; and lastly Morichini discovered the fluate of lime, both in ivory and in the enamel of the teeth. I have also detected in human bone, by a very careful analysis, both fluate of lime and phosphate of magnesia, and shown that the sulfate of lime, which is found in it after burning, does not exist during life. The cartilaginous part I found about $\frac{1}{3}$ of the whole, something less in the teeth, and very little in the enamel. Fourcroy and Vauquelin had found in the enamel 27 per cent. of combustible matter, and Pepys only 16: I found, on the contrary, only 2 per cent: nor could I discover any such differences between the bones of oxen and of men, as Merat Guillot attributes to them. The cartilage is so incorporated with the bone earth, as to make a mass which presents a very strong mechanical combination, and a chemical union of such force, as to resist, in the absence of water, any tendency to decay for many centuries. Papin's proposal for making soup of bones, which was rejected by Charles the second on account of a pleasantry of one of his courtiers, was revived in later times by Proust; and some have even asserted that bones contain more nourishment than an equal weight of meat; but this opinion is by no means correct.

The shells of some of the testacea have been examined by Hatchett, who found in them the peculiar animal matter, which he has not very correctly described, with carbonate and phosphate of lime. The bones of the mammalia consisting chiefly of phosphate of lime, with but little carbonate, these shells on the contrary consist of the carbonate, with a few parts in 100 of the phosphate.

The marrow resembles other animal oils; and the changes produced in it, when boiled in the bone, depend only on the fluids contained in the vessels of the medullary membrane, which it loses when it is melted out of the cells.

Cartilage in general resembles the cartilaginous part of bones; when it is converted into gelatin by boiling, the small vessels and nerves remain undissolved.

The sinovia has been examined by Margueron: it appears to be serum, retaining its fibrin, and little altered; it forms a colourless coagulum, and the remainder has the appearance and properties of serum. The fibrin is not precisely identical with that of the blood, though it is difficult to judge from the analysis in what it differs from it. Fourcroy seems to conjecture, that it contains uric acid, an opinion for which there appears to be no other reason, than that the chalk-stones, formed in gout, which consist of urate of soda, are sometimes deposited in the joints, and impede their motion.

10. *Muscles.* The muscles have been examined by Geoffroy, with a view of determining the quantity of nourishment they afford. Thouvenel obtained from them, besides their peculiar fibres, an extract, soluble both in water and alchol. I have found that muscular flesh contains about $\frac{3}{4}$ of its weight of fluids, in which there is an uncombined acid; and that the extract, which Thouvenel has described, is the same acid syrup like mass, which is found in milk and in urine, and which consists of lactic acid, lactate of potass, muriate of soda, and the extractive substance which accompanies these salts. I have endeavoured to show, that this extract is not a component part of muscle, but that it belongs to the absorbents, and that it is principally derived from the parts which are worn out, which have partly been taken up by the absorbents, and were partly ready to be taken up at the instant of death. This extract, and the phosphate of soda, are more abundant in the muscular juices

than in the blood; whence I have concluded, that these substances are absorbed, and carried into the circulation, in order to be excreted with the urine, in which they are found again in considerable quantity.

[It may be objected, that these substances, if they are superfluous in the blood, ought not to be transmitted to the milk; but the author seems to consider their presence in this, and other secreted fluids, as wholly indifferent to the functions of those fluids, the secretory organs having little or no influence on any of the contents of the blood, except its three principal constituent parts. (Afh. III.) The two substances, so often mentioned, may perhaps, for the present, be distinguished by the name of peculiar animal extract, soluble in water and alcohol, and peculiar mucilage, insoluble in alcohol. The peculiar extract has not been obtained free from the alkaline lactate. (Afh. III. 13.)] [The peculiar mucilage is separated from the other parts of the watery extract of the residuum left by alcohol, by saturating the alkali present with acetic acid, and dissolving the acetate in alcohol: the remaining mass, when dissolved, filtered, and dried, affords a pale grey laminated substance, having not an unpleasant taste of meat: It is precipitated by galls and by sublimate; in the analysis of the blood, I have called it altered albumen, and it resembles so much the substance obtained by boiling pure fibrin in water, that I should almost consider these substances as identical. It may be separated from the precipitate with sublimate, by means of sulfureted hydrogen. The precipitate with galls is flocculent, and does not form a mass, like that which is obtained from gelatin, a substance which is never exhibited without the operation of boiling or of acids. But after long boiling, the peculiar mucilage contained in urine affords an elastic and adhesive precipitate, like that of gelatin: the same is true of the peculiar extract, which is so intimately connected with the lactic acid: but I have never obtained a fluid capable of forming a jelly from either of these substances. Afh. III. 15.]

The muscular fibres are soluble, like fibrin, by digestion in vinegar, leaving a considerable portion of cellular membrane, with the vessels and nerves, undissolved: like fibrin too they become insoluble in vinegar by being boiled: and the water, in which they are boiled, extracts from them a substance not coagulable, which has a strong and agreeable taste of meat: which, together with the dissolved cellular membrane, and the uncoagulable parts of the juices of the muscle, makes what we call soup; the strength and flavour of soup does not therefore depend on the gelatin obtained from the cellular membrane only, but also on a solution of a part of the muscular fibres, which give it their flavour. The difference between tasteless bone soup and meat soup was formerly attributed to the extractive matter contained in the meat; but, in fact, meat altogether freed from its juices affords a well flavoured and nourishing, though colourless, soup.

On the contraction of muscles, some very interesting experiments have been made by Carlisle, who has endeavoured to show, that their weight and volume are increased during their action. Tendons and aponeuroses resemble, in their chemical properties, cartilage and cellular membrane, affording gelatin when boiled, the vessels only remaining undissolved.

11. *Eye.* The humours of the eye have been examined by Chenevix, and I have also had an opportunity of analysing both these and the coats of that organ. The sclerotica is similar in its composition to tendon; the choroid also affords gelatin, while its numerous vessels and the pigmentum nigrum remained undissolved by boiling. The pigmentum is insoluble in acids, but is dissolved by caustic alkali, and precipitated by acids, of a colour somewhat paler. It burns like a vegetable substance, and leaves the same ferruginous ashes as the coloured matter of the blood, whence it is probably formed, while the colourless parts are transmitted by the vessels to the interior parts of the eye. The cornea also

affords gelatin: the iris, on the contrary, has all the chemical characters of a muscle, and its component parts are the same, as well as its functions.

The aqueous and vitreous humours resemble the fluids of serous membranes, but the aqueous seems to contain a smaller portion of albumen. According to Fourcroy and Chenevix, the crystalline lens consists of albumen and gelatin; but, in reality, it contains neither of these substances. It is almost totally soluble in water, and the solution is coagulated by boiling; but the coagulated mass does not resemble albumen; it is clotted and opaque, like the coloured matter of the blood: like this too it is easily soluble in acetic acid after coagulation. The coagulated mass is snow white, and leaves, when burnt, a slight trace of ferruginous ashes. It is distinguished from the coloured matter by nothing but its colour. Is it not possible that the coloured matter may leave its proper colouring part in the pigmentum, and that the remainder may pass on and form the crystalline? It may however be objected, that these parts receive their blood from different branches of the ophthalmic artery. I could not succeed in converting either the lens or the serum of the blood into the coloured matter, by the addition of the phosphate of iron in any form. This substance seems to be the limit between the fluids and the solids of the body: it contains little more than half its weight of water, and in this differs from all the secreted fluids, which are uniformly more aqueous than the blood. It gives, when analysed, a portion of acid extract, like that of the solid substances, from which the alkali has been carried out by their juices. Reil observed, that the crystalline lens assumed a fibrous appearance, when treated with dilute nitric acid, and thence inferred, that it was muscular: but although the interior structure of this substance is still too little known to enable us to explain the mechanical nature of its functions, yet it is sufficiently evident, from its solubility in water, and from its manner of coagulating, that it cannot be of a muscular nature. [This argument is merely hypothetical, assuming,

that the chemical properties of all muscles must be alike, which certainly cannot be proved: on the other hand, the arguments in favour of a spontaneous change of form in the lens, by its own powers, are direct, and, if I am not mistaken, fully demonstrative. The author has elsewhere observed, that the three principal parts of the blood so nearly resemble each other, that they may be considered as modifications of the same substance, and we are not warranted in confining the property of muscularity within such narrow limits, as to attribute it to substances analogous to one of them exclusively. Y.]

The tears have been examined by Fourcroy and Vauquelin: they resemble the humours of the eye; except that, instead of albumen, they hold in solution a particular substance, which is not coagulated by boiling, nor by acids, but which, by slow evaporation in the open air, is converted into an insoluble mucus, like that of the nostrils. Hence it seems to follow, that the nasal mucus also must be fluid when it is first secreted, and gradually acquire its consistency by exposure to the air in respiration; so that it must be essentially different from the mucus of parts not exposed to the air; [which is also distinguished by not recovering its viscidity when dried and again moistened. Afh. III. 8.]

12. *Ear.* The cerumen has been examined by Vauquelin. It is more or less dry, and consists of a peculiar fatty subsance, forming a sort of emulsion with albuminous matter.

13. *Skin.* The skin, by long boiling, may be changed into gelatin or glue, which is the better and more adhesive as the skin is more difficultly dissolved. The quality of leather may differ both according to the kind of skin, and to the vegetable substances employed in tanning. For the preparatory operation of steeping the leather, weak alkalis are better than water, and acids, especially vegetable acids, better than alkalis: and a very small quantity of acid may still have a very decided effect. The most important point

is, that the process should be conducted slowly and in weak infusions; when it is too much hastened, the external parts of the leather are overloaded with tannin, impede its admission into the internal parts, and afford a hard, brittle, and thin leather.

The rete mucosum of Malpighi has not been examined; it has only been observed that its dark colour in Negroes is bleached for some days by the oxymuriatic acid. The epidermis is not soluble by long boiling in water, but is dissolved by caustic alkalis and by acids, and in most of its chemical relations resembles the hair and the nails. The sebaceous matter of the skin has not been immediately analysed; but Vauquelin has examined that which accompanies sheep's wool, and found, that it contains, together with carbonated alkali, albumen, with the acetates of lime and potass, and a peculiar saponaceous compound of potass, lime, and a resinous fatty substance. He derives its greasiness from a part of the oil, which is separated as the alkali becomes carbonated in the air: but it seems difficult to conceive how carbonated alkali can exist together with pure lime. Vauquelin and Buniva found a curdy kind of fat on the skin of the foetus, which defends the cuticle from the effect of the liquor amnii.

The secretion of the skin is distinguished by the evaporation to which the extent of the surface renders it liable; its quantity has been very carefully examined by Sanctorius, Dodart, Keil, Robertson, Rye and Lining; and lately by Lavoisier and Seguin in France, and by Cruikshank in England: on an average it is found to amount to $4\frac{1}{3}$ pounds in a day, being most abundant during digestion, and least so immediately after eating. Cruikshank collected in a glass, in which he kept his hand, the fluid that exhaled, and he found it pure water. There was a portion of carbonic acid in the air, which was probably derived from the effect of the air on the matter that evaporated, since its volume was not increased. He found that more water was collected

when the apparatus was cold than when warm, and hence concluded that the cutaneous evaporation in general was more considerable as the temperature was lower; not remembering, that the more water the glass condensed, the more the capability of the included air to take up water was increased, when it was heated again in the neighbourhood of his warm hand. [But would not this happen equally in every case of cold weather?] Thenard collected the matter perspired, on flannel waistcoats, and found that by solution in water and evaporation it afforded a sour, salt, syruplike extract, the uncombined acid of which he considered as vinegar, in consequence of the experiments which induced him to believe the lactic and acetic acids to be identical. The perspired matter is always acid, and reddens litmus paper strongly and decidedly. A few drops, which I dried in a watchglass, gave crystals of muriate of soda, together with distinct marks of the common acid extract of the secretions; it left, upon a redissolution in water, a trace of insoluble matter, which, when heated, had the smell of burnt albumen.

The nails are similar to the epidermis, except that their organization is more compact. Hair has been examined by Hatchett, Achard and Vauquelin. Vauquelin found that in the digester it afforded a thick fluid, which remained viscid when it was dried, leaving an insoluble oil, which has the colour of the hair, and is also separated when the hair is dissolved in a caustic alkali very much diluted, or in nitric acid. In the ashes of black hair, he found, besides the common salts of lime, oxyd of iron, and of manganese, together with silica. Red hair, which contains more sulfur than black, affords less iron and manganese; white still less, with a perceptible quantity of magnesia.

14. *Pelvic fluids.* Van Helmont is the first that undertook a chemical examination of the urine. Brandt and Kunkel obtained phosphorus from it; and Boyle discovered a process by which Hankwitz manufactured this substance

for sale. Bellini, and especially Boerhaave, pursued the subject with great diligence. Marggraff, Pott, Haupt, Schlosser, Schockwitz, Bergman, Klaproth, and others employed themselves in distinctly exhibiting the phosphates contained in it, and attempted to improve the methods of manufacturing phosphorus. The analysis of the younger Rouelle is still of great value. He discovered its proper characteristic constituent part, which he called a saponaceous extract; he showed what salts were contained in it, and found that in graminivorous quadrupeds it does not contain phosphates, but carbonate of lime and benzoic acid. Some years afterwards, Scheele discovered in it phosphate of lime, dissolved in an excess of acid, uric acid, which was before unknown, and benzoic acid, which was most abundant in children. Cruikshank, who was employed by Rollo on the occasion of his investigation of diabetes, particularly described urea, showed its property of being precipitated by nitric acid, and described methods of ascertaining with precision the relative proportions of the different component parts of the secretion. He found that in fever, it affords a precipitate with corrosive sublimate; in a higher fever, with alum; and in a still higher, with nitric acid. In a general dropsy, he found that it contained a considerable quantity of albumen, and a smaller quantity in dyspepsia: but in an encysted dropsy the quantity of albumen was not increased. Three years afterwards, Fourcroy and Vauquelin published a still more elaborate and very excellent analysis: and Proust has since found, in this fluid, carbonic acid, carbonate of lime, and a peculiar resin, like that of the bile; all which however seem to be products of the operations by which they are obtained. Thenard has lately attempted to show that the uncombined acid is not the phosphoric, but the acetic; I have myself found that it was a mixture of the lactic and the uric acids. In the bone earth, which is held in solution by this excess of acid, I found, as in the bones, some fluate of lime: and it appeared by comparison with the substances contained in the blood, that the kidneys must oxygenize a part of the blood's remoter constituent

parts, and produce several acids, alkalis, and earths, which either did not previously exist in the blood, or were contained in it much less abundantly. I found, for example, the sulfuric and phosphoric acids in considerable quantity, while the blood does not contain a perceptible trace of the former, and a very small portion of the latter: the earthy and alkaline salts are also far more abundant than in the blood. [This secretion contains some ammoniacal salts, while the muriates of potass and soda are almost the only salts that are found in any other of the animal fluids. Afh. III. 12.]

The dissimilar precipitates, which are deposited in cooling, I found to be either the mucus of the bladder alone, which is always present, either in suspension or in solution, or a combination of this mucus with the uric acid, but without any of the earthy phosphates. I have endeavoured to show the necessity of distinguishing between the mechanical deposition of mucus, depending on a catarrhus vesicae, and the separation of bone earth, for want of a sufficient excess of acid for its solution. The urea, which had been before described, I found to be a combination of the true urea, with several deliquescent substances, from which I had the good fortune to separate it. The true urea is colourless, and shoots into very distinct prismatic crystals, like those of nitre. [Urea unites and forms triple combinations with most of the salts; it is precipitated in a crystalline form by diluted nitric acid, but is converted by the concentrated acid chiefly into nitrate of ammonia. Afh. III. 9.] The true urea is much enveloped in the lactic acid, lactate of ammonia, and the animal substance so often mentioned, which always accompanies this acid and its salts, and which is probably always formed at the same time with them. This substance has a brownish yellow colour, and gives, together with the acid and its salts, the peculiar colour to the secretion: it is easily soluble both in alcohol and in water, and it is this substance, and not albumen, as was formesly maintained, which is precipitated by tannin. The substance,

which is precipated by sublimate, is, besides albumen, which is very probably present in a state of disease, a peculiar extract or mucilage, which is not soluble in alcohol, but, like that which is soluble, always accompanies the lactic acid and its salts. It is not precipitated from the recent fluid, as long as it contains an excess of acid; and perhaps this circumstance is concerned in the precipitation by sublimate in the case of fever. Besides these substances, which were before unknown, I found also some silica, which, in a very few cases, I have also detected in calculi. This earth probably exists in all the fluids of the body in very minute quantities; it is derived from the water employed in cooking and for drink, and not being separable by any processes carried on within the body, must be found in the fluid excretions.

The experiments of Cruikshank, Nicolas, Sorg, Thenard and Bostock have shown that the product of diabetes is liable to considerable variation: that the sugar formed is easily destroyed in chemical operations, and that it cannot be discovered in the blood. I have found it in one case wholly wanting, where the urea had altogether disappeared. After evaporating the fluid in a gentle heat, a brown substance was dissolved in abundance by alcohol, and afforded a stiff extract; it contained the lactic acid, with a little trace of lactate and muriate of ammonia, but consisted almost entirely of the animal extract which accompanies the lactates, was precipitated by tannin, and left after combustion a little muriate of soda, which showed a slight trace of uncombined alkali.

Rouelle, Fourcroy, Vauquelin, Brande, Chevreul and others have analysed the urine of various animals; and perhaps we may consider as belonging to this subject the analyses of a mass of fowls' dung from the South Sea, called guano, which have been executed by Fourcroy, Vauquelin, and Klaproth, who found a large portion of uric acid in it. Brande thought that he found it in the camel, and Vauque-

lin detected it in a calculus from the bladder of tortoise; hence it follows that man is not the only animal in which this acid is formed.

The bladder resembles the intestines in its chemical nature. Its mucus may be collected by a filter, in small masses, which when dried generally become red, and show traces of uric acid: if again moistened, they do not recover their viscidity.

Calculous concretions were totally misunderstood by physiologists from Galen down to Paracelsus. Van Helmont compared them to tartar: Hales, Boyle, Boerhaave, and Slare examined them with some attention. Scheele discovered in some the uric acid, which he always found present in the fluid that forms them, and hence concluded, that this acid was always the principal component part of the calculi. The properties of the uric acid have been still further investigated by Henry: and the examination of calculi was pursued by Austin, Walther, Brugnatelli, and Pearson. At length Dr. Wollaston published, in the Philosophical transactions for 1797, his analyses of gouty concretions and of urinary calculi, which he proved to consist of four principal kinds, containing uric acid, phosphate of ammonia and magnesia, oxalate of lime, and phosphate of lime. Three years afterwards, Fourcroy and Vauquelin published a still more extensive investigation, in which Wollaston's discoveries are confirmed; although his name is not mentioned, either in this essay, or in Fourcroy's Systeme des connoissances chimiques: but having examined nearly 600 different specimens, they were enabled to make many important remarks on the modifications of their composition; they also discovered the presence of two additional substances, the urate of ammonia, and silica. The latter existed only in two specimens, and the former Brande considers as merely a combination of the uric acid with urea, although his reasons do not appear to be altogether conclusive.

It was accidentally observed that alkalis, taken internally, were beneficial in cases of stone, and that vegetable acids favoured the production of such as depended on uric acid. But it is often impossible to diminish the quantity of acid secreted, by the use of alkalis; and I have in vain attempted to remove a morbid excess of alkali by giving acids. In a gouty person of middle age, the urine was turbid and alkaline, containing the earthy phosphates in suspension. I gave him sulfuric acid, without effect; and afterwards phosphoric acid, but the excess of alkali remained, until the dose was so increased as to have a cathartic effect; the secretion then became acid, and deposited uric acid, as long as the catharsis continued, but resumed its morbid state when this effect subsided, although the dose of the acid remained the same. I afterwards tried vinegar, but with no greater success. Brande has lately attempted to show the inefficacy of alkalis on the uric calculus. Dr. Henry, finding that the urates do not form a precipitate with the muriate of magnesia, and concluding that the urate of magnesia must be a soluble salt, advised a trial of this earth, which, according to Brande's report, has completely succeeded, so that after 15 or 20 grains of magnesia had been taken morning and evening for a fortnight, all the superfluous uric acid was carried off, and the patient was completely cured.

Vauquelin has examined the nature of the seminal fluid; it gradually deposits [crystals of] bone earth, which are probably a product of its decomposition. Its characteristic substance, which was at first viscid, becomes in a short time fluid, even when the air is excluded; and instead of being alkaline, it becomes acid. [In the first state it is insoluble in water, and is hardened by boiling, afterwards it is soluble, and not coagulable by heat. Afh. III. 10.] In the soft roes of fishes, examined by Fourcroy and Vauquelin, a remarkable substance was found, insoluble both in water and in alcohol, affording, by distillation in close vessels, phosphorus, partly uncombined, and partly dissolved in the

empyreumatic oil which is formed; while the substance itself contains neither phosphoric acid uncombined, nor any kind of phosphate.

The liquor amnii has been analysed by Vauquelin and Buniva, and appears to resemble the fluid of the serous membranes, and the humours of the eye, containing from $1\frac{1}{4}$ to $1\frac{1}{2}$ per cent. of solid matter. De Zondi has lately shown, that the supposed difference of the liquor amnii of quadrupeds from the human, depends only on the mixture of the contents of the allantoid membrane of the quadrupeds with it, at the time of birth. Vauquelin and Buniva found in this mixed fluid a peculiar acid, difficult of solution, and crystallizable, which they called the amnic; it much resembles the benzoic, but is distinguished from it by being destroyed both by distillation and by the nitric acid. They also found a brown extractive substance, not soluble in alcohol, nor precipitable by tannin, which therefore differs from all other animal substances of the kind. Meconium has only been examined by Bayen; and seems to be the matter of bile converted into a resin, which the more resembles the same substance found in the intestines of the adult, as it is lower down, and more remote from the gall-bladder of the foetus.

15. *Milk.* The milk was first examined by Boyle. After him Boerhaave made a more complete analysis of it. Hofmann, Macquer, and Spielmann continued the investigation, and Rouelle and Scheele separated its salts and its other component parts, which were little known before. Scheele discovered in it sugar of milk, and the lactic acid, and explained many of its chemical properties. Long after this, Bouillon Lagrange and Thenard asserted, that the lactic acid was nothing but vinegar, united with a peculiar substance, which could not be separated from it by distillation. Fourcroy and Vauquelin have since published a detailed analysis of milk, in which they still further object to the lactic acid of Scheele, on this ground, that its salts, distilled

with the sulfuric acid, afford an empyreumatic vinegar; but this is the case with several fixed vegetable acids, which cannot therefore be considered as identical with the acetic. I have myself found that, in the formation of butter, air is absorbed, and not evolved, as some chemists maintain; an event which could not occur in any other circumstances, than that the milk had been before in a state of fermentation, and had been impregnated with carbonic acid. I have proved that the curd is held in a clear solution, and not merely suspended in the milk, and I have endeavoured to determine how far it differs from albumen, to which it has some resemblance, and to which Scheele compared it. I have further shown that milk contains no gelatin, but that the extractive substance, which gives a brown colour to sugar of milk, resembles in its composition that which is found in the juices of meat and in urine, and consists of the lactic acid, together with lactated and muriated alkali, and the extractive matter soluble in alcohol, which usually accompanies these substances. [The lactate is only purified by being boiled with fresh lime, and digested for 24 hours with levigated carbonate of lead, which would decompose an acetate. Afh. III. 13.] I have examined most of the salts formed by the lactic acid, and I hope I have fully proved, that it cannot be either the acetic, or any other of the vegetable acids, but that it must be a peculiar and very remarkable acid, which is found not only in milk, but, in equal or still greater quantities, in other animal fluids; and I have restored to our immortal countryman Scheele the honour of never having advanced an incorrect statement, in any part of chemical science. [Since the milk contains three characteristic substances, totally different from each other, it is not improbable that each of these is afforded by its peculiar vessels: although in some cases the formation of heterogeneous secretions may perhaps proceed collaterally, as in the chemical process for the formation of nitric ether, which is accompanied by that of the malic acid. Afh. III. 6.]

By following the mode, which I have adopted, of viewing

animal chemistry rather as immediately connected with physiology, than as a department of general chemistry, I presume that abler men than myself, who may hereafter employ themselves in similar researches, may extend the science to a degree of perfection, which, to judge from its present state, could scarcely be expected, or even hoped.

B. REMARKS ON THE LAWS WHICH GOVERN THE COMBINATIONS OF INORGANIC NATURE.

Lärbok. II. 561.

[This extract is retained rather as a historical document, relating to an important era in the progress of chemical science, than for the superior clearness or accuracy of the statements contained in it. A simpler and more satisfactory view of the whole atomic theory is now to be found in the common elementary works of the later English chemists.]

1. *When two simple bodies, of opposite electrochemical properties, are capable of being united in various proportions, the quantities of the positive body, supposing that of the negative body to remain constant, are multiples of the least possible quantity, by the numbers* 1, $1\frac{1}{2}$, 2, 4...

For example, lead, in its different states of oxydation, is combined with 7.7, 11.55, and 15.4 parts of oxygen. The two latter numbers are multiples of 7.7 by $1\frac{1}{2}$ and 2. In the two sulfurets of iron, 100 parts of the metal are united with 58.75, and $58.75 \times 2 = 117.5$ parts of sulfur.

Rem. 1. If we supposed the quantity of the positive body to remain constant, the result would be nearly the same, but the expressions would be more complicated.

Rem. 2. The multiplication by $1\frac{1}{2}$ seems to be only apparent, from our not being acquainted with the combination which ought to be the first member of the series. Thus,

arsenic takes up, in the arsenious acid, 34.263 parts of oxygen, in the arsenic acid half as much more, or 51.428. But upon a careful examination of the degrees of oxydation of arsenic, I found that the black powder, which is formed when arsenic lies exposed to the open air, consist of 100 parts arsenic and 8.6 oxygen: and this observation converts the number $1\frac{1}{2}$ into 6, with respect to the lowest state of oxydation. In the same manner the oxygen of the sulfuric acid is half as much again as that of the sulfurous, with equal quantities of sulfur. In the two muriates of sulfur, examined by Bucholz and Berthollet junior, (p. 585) we find two lower degrees of oxygenization in the sulfur, which afford us a series of 1, 2, 4, and 6. I have already mentioned the existence of a suboxyd of lead, which will require us to change the number $1\frac{1}{2}$, for the combinations of this metal, into some whole number yet undetermined: and I have observed that we have reason to infer, from the number $1\frac{1}{2}$, which occurs in the progression of the oxydation of iron, that there is an oxyd of this metal in a lower stage of oxygenization, yet unknown to us. [In the same manner the existence of a compound, resembling the "euchlorine" of Davy, was inferred by Berzelius before its actual discovery. P. 608.]

Rem. 3. In most of my experiments, I have found the progression to consist of even numbers, 2, 4, 6, 8; gold and "ammonium" exhibit the odd numbers 3, 5, 7, in their stages of oxygenization; but this irregularity may perhaps depend on the existence of some intermediate steps, which are hitherto unknown.

Rem. 4. There is a certain proportion between two positive and negative bodies, which affords a combination more intimately united, than any other proportion differing from it on either side. For instance, the oxygen of the oxydiole or protoxyd, "oxidule," of mercury is more easily expelled than that of the oxyd; while on the contrary the oxygen of the oxyd of iron is more easily expelled than that of the oxydiole.

2. *The proportions between two substances, which are found in union with one or more other substances, are governed by the same laws which are observed in their simple binary combinations.*

For example, the proportion of iron to sulfur in the sulfated oxydiole of iron, or the green sulfate, is precisely the same as in the subsulfuret of iron; and if we compute the proportion of sulfur to metallic iron in the sulfated oxyd of iron, or the red sulfate, we find that the iron is combined with half as much more sulfur as in the former case; and in the subsulfated oxyd, only $\frac{1}{4}$ as much. If we recollect, that in the common pyrites the iron is united with twice as much sulfur as in the sulfate of the protoxyd, we shall have for the whole series, first, sulfur 14.687 parts to 100 of iron; next, in magnetical pyrites, and green sulfate, $14.687 \times 4 = 58.75$ of sulfur; then in the red sulfate, $14.687 \times 6 = 87.67$; and, lastly, in common pyrites, $14.687 \times 8 = 117.5$ of sulfur to 100 of iron; so that the progression becomes 1, 4, 6, 8; and perhaps a combination answering to the number 2, which is still wanting, may hereafter be discovered. And of these combinations, only two, as far as we know, can exist alone; the others require, as often happens in similar cases, the presence of one or more different substances for their existence.

3. *When two oxygenized bodies are combined, their proportions may be determined from that of the oxygen which they contain, which is either equal in both of them, or in one a multiple by a whole number of the quantity contained in the other.*

A. In neutral salts, the oxygen of the acid is a multiple of the oxygen of the base; twice as much in the sulfurous, phosphoric, muriatic, arsenic, boracic, and carbonic acid; 3 times as much in the sulfuric and oxalic; 4 times in the nitrous; 6 times in the nitric, and 8 times in the hyperoxymuriatic: [that is, admitting, in the latter cases, the existence of oxygen in nitrogen, and "chlorine."]

Rem. 1. Hence it is easy to explain the observations of Bergman, of the precipitation of metallic salts by other metals, without the disengagement of hydrogen, and the law of Wenzel, of the neutrality of all compounds obtained from other neutral salts by double elective attractions.

Rem. 2. According to my latest experiments, 100 parts of the different acids require, for their saturation, as much of any base as contains the quantity of oxygen expressed by the annexed numbers. Sulfuric, 19.96. Sulfurous, 24.9. Phosphoric, 27.5. Muriatic, 29.454. Nitric, 14.65. Nitrous, 21.03. Arsenic, 16.98. Oxalic, 21.2. Acetic, 15.8. Tartaric, 11.79. Citric, 14.3.

In supersalts, the oxygen of the acid is twice, or sometimes even four times, as much as in the corresponding neutral salts. Thus, in the supersulfate of potass, the quantity of the acid is doubled.

In subsalts, the oxygen of the acid is sometimes a multiple of that of the base, sometimes equal to it, and sometimes a submultiple: triple, for instance, in the subnitrate of lead, double in the subnitrite, equal in the subsulfates of copper and of bismuth, and only half in the subsulfate of iron and the submuriate of lead.

Rem. The quantity of the base contained in a subsalt must be such a multiple of that which is contained in the neutral salt, that the proportion of the oxygen may accord with this law; for instance, in a subsulfate, the quantity of the base cannot be twice, nor four times, as great as in the sulfate; since the oxygen in the acid would then become $1\frac{1}{2}$ or $\frac{3}{4}$ as much as in the base, which is contrary to the general law: and in fact the subsulfates contain either a triple or a sextuple proportion of the base.

B. Water, in its combinations with acids, may be considered as supplying the place of a base, and that of an acid in its combinations with alkalis. Most of the acids are incapable of existing in a state of perfect insulation; they generally require some oxygenized body to serve them as a base; and water being the weakest of these, and seldom interfering with the results of our experiments, we are in

the habit of considering them as perfectly dry, when they contain no more water than is necessary for their existence. Neither sulfuric, nitric, muriatic, fluoric, nor, as far as we yet know, any of the vegetable acids, can exist alone; but each of these acids, in its strongest or purest form, always contains a portion of water, which affords it the same quantity of oxygen as any other base with which it is saturated. These combinations may without impropriety be considered as salts of water, but since we are accustomed to distinguish those combinations only by the name of salts, of which the bases are so powerful, as to conceal the acids from our taste, and from other tests, this mode of representation is at first repugnant to our prejudices.

Rem. Some acids contain also another portion of water, which serves for their crystallization, but which is less intimately united with them, and may therefore be expelled by heat. Such are the oxalic, citric, and boracic acids; and the two former can only be deprived of the whole of the water by presenting to them a stronger base. These crystallized acids are in fact analogous to crystallized salts.

C. In its combinations with saline bases, water so far supplies the place of an acid, as its electricity is positive with respect to theirs: but being in itself rather of the nature of a base than of an acid, it combines in smaller proportions, containing, when united with potass, soda, barita, lime, magnesia, and alumina, only an equal quantity of oxygen with that of the base. Some few bases also, for instance, the oxyd of iron, combine with a quantity of water, of which the oxygen is only equal to half that of the oxyd.

Rem. These combinations have long been called hydrates, from a correct idea of the nature of the combination. [But surely the term hydrate has not been confined to such cases, and has rather been used inadvertently for hydret, as an indifferent kind of combination, analogous to sulfuret, and it may at least be questioned whether this denomination would not still be the safest.] The hydrates of potass, soda, barita, and strontian, do not lose their water by ignition; from all

others it is expelled by heat, and some metallic hydrates lose it only by being boiled in water.

D. Where two oxyds are simply combined, the portions of oxygen which they contain are probably always either equal, or one a multiple of the other; the one assuming the character of a weak acid with respect to the other: and this supposition is rendered still more probable by the direct analysis of double salts.

E. The same observation may be applied to the binary combinations of acids, discovered by Davy, Gay Lussac, and Thenard, where the weaker serves as a base, which is only separable from the stronger by means of some other base, or by water, which the acids divide between themselves. In the case of the union of the muriatic and carbonic acids, the quantities of oxygen are equal.

4. *When more than two oxygenized bodies are united, the oxygen, in that which contains the least, is a submultiple of that which is contained in each of the others.*

A. 1. In salts and supersalts, the oxygen of the water of crystallization is a multiple of the oxygen of the base, by 1, 2, 3, to 10, or sometimes more.

In supertartrate of potass, nitrate, muriate, and oxalate of ammonia, 1.

In sulfate of lime, and of ammonia, and in muriate of barita, 2.

In nitrate of bismuth, 3.

In sulfate of copper and zinc, 5.

In acetate of soda and muriate of lime, 6.

In green sulfate of iron, 7.

In sulfate of soda, 10.

2. In the subsulfate of iron, the oxygen of the water is equal to that of the base, and double that of the acid. In the subsubnitrate of lead, the oxyen of the water is only one third of that of the base or of the acid.

B. 1. In double salts, or triple compounds, the quantities

of oxygen contained in the bases are generally equal, but sometimes one portion is a multiple of the other. They are [probably] equal in the triple compounds of ammonia with magnesia, manganese, zinc, and copper: in alum, the oxygen of the alumina is triple that of the potass, while that of the sulfuric acid is 12 times as much, and that of the water of crystallization 24. In the subsulfate of copper and ammonia, the water of crystallization and the oxyd of copper contain equal quantities of oxygen, the ammonia, [admitting that it contains oxygen,] twice as much, and the sulfuric acid three times. In the prismatic crystals of oxalate of ammonia and copper, (P. 640.) the water contains four times as much oxygen as either of the bases, and one half of it evaporates when the crystals are exposed to the air.

2. The necessity of considering the oxygen of the substance, in which it is least abundant, as the unit, appears from the example of the crystallized sulfate of soda, in which the oxygen of the acid is to that of the water in the complicated proportion of 3 to 10, while the oxygen of the base is represented by 1, of which each of the other portions is a multiple.

C. 1. In the case of the union of several metallic oxyds, whether natural or artificial, it is probable that the same general laws prevail, but we have not at present a sufficient number of correct analyses of minerals to establish this fact with certainty.

2. Where however minerals are crystallized together, it may happen either that they are combined by mutual affinities, or simply mixed in irregular and variable proportions. Thus when a solution of arseniate of lead in nitric acid is evaporated, the salt, which is obtained, contains arseniate and nitrate of lead, mixed in various proportions, and capable of being separated by the action of water only, which dissolves the nitrate, and leaves the arseniate undissolved. There is also a similar mixture of the crystals of the muriates of ammonia and of iron.

5. *When two simple or apparently simpl combustible*

bodies are united, they are in such proportions, that in order to be oxygenized to a certain degree, they require either equal quantities of oxygen, or quantities of which the one is a multiple of the other.

The crystallized amalgam of silver, called arbor Dianae, affords an example of the former case, and the metallic sulfurets of the latter.

When sulfur, sulfureted hydrogen, boracium, tellureted hydrogen, or any similar substances, are united to oxyds, they are subject to the same laws as if they were simply united, either with the combustible base, or its oxygen.

(6). According to the experiments of Gay Lussac, which are intimately connected with this subject, whenever two gaseous bodies unite, their *volumes* preserve the proportion of 1, $1\frac{1}{2}$, 2, 3, 4; and there is either no condensation, or the whole volume of one of the gases disappears. Thus two cubic inches of hydrogen, with one of oxygen, form water: 2 of carbonic oxyd take up 1 of oxygen, and afford 2 of carbonic acid: two of oxymuriatic acid gas, decomposed by the solar light over water, afford 2 of muriatic acid gas, and 1 of oxygen; and the same is true in other similar cases. All these facts are strongly in favour of the atomic hypothesis, advanced by Higgins and Dalton; and it is surprising, that Dalton should have been able, without them, to encounter a multitude of difficulties, which must have occurred to him in forming his theory, and which could only be removed by such investigations, as had not yet been instituted.

(7). P. 596. From the quantity of *ammonia* required for saturating acids, it may be inferred, that it consists of 53.1133 of ammonium, and 46.8867 of oxygen [that is about 17 of ammonium to 15 of oxygen]; then if we suppose, that the same quantity of base takes up half as much more oxygen to form nitrogen, which is the utmost that can be admitted, this substance must consist of 43.027 ammonium, and 56.973 oxygen [giving 24.6, instead of Davy's 26]: hence in the 81.525 parts of nitrogen found in ammonia, there must be 46.43 of oxygen, leaving only .4433

for the 18.475 parts of hydrogen, that is, 2.46, for 100 parts of ammonium: but it is evident, that a small error in the former numbers, may have produced a much greater in these smaller ones.

(8). P. 600 Gay Lussac has shown, that *nitrogen*, with half its volume of oxygen, becomes nitrous oxyd, with an equal volume, nitric oxyd, with $1\frac{2}{3}$, nitrous acid, and with twice its volume, nitric. Now, 100 parts of nitric acid saturate a base containing 14.5 or 14.6 of oxygen, which is not a submultiple of 69.488, the quantity of oxygen in the acid, as it ought to be according to the general law, being more than $\frac{1}{5}$, and less than $\frac{1}{4}$. If therefore this statement were simply true, the general law would be false. But if we assume, that nitrogen contains 56.973 per cent. of oxygen, the 63.72 of nitrogen contained, according to Gay Lussac's experiments, in 100 of nitrous oxyd, must contain 36.29 of oxygen, which is equal to the additional portion of oxygen combined with it to form this oxyd; and upon this assumption, the nitric acid must consist of 13 parts ammonium, and 87 oxygen, $\frac{1}{6}$ of which is 14.5, corresponding to the oxygen of the base of a nitrate; a coincidence which affords an additional argument for the compound nature of nitrogen. And the quantities of oxygen in nitrogen, the two oxyds, and the two acids, will be represented by 1, 2, 3, 4, and 5; [here, however, it is supposed, that the number $1\frac{2}{3}$, assigned by Gay Lussac, ought to have been $1\frac{1}{2}$. P. 603.]

(9). P. 604. It is probable that the *muriatic* acid, of which 100 parts neutralise a base containing 29.454 of oxygen, contains twice as much oxygen as the base, that is, 58.9 per cent. since any other supposition would afford a less regular progression in its compounds. It contains, inseparably united, a portion of water, of which the oxygen is equal to that of any other base, and which amounts to $\frac{1}{4}$ of its whole weight.

P. 611. Against Davy's hypothesis of the simplicity of the oxymuriatic acid, or chlorine, it is impossible to advance any conclusive arguments; some analogies, however, appear

to be decidedly adverse to it. First, the resemblance of the muriatic acid to many other acids inclines us to think, that it must possess the common principle of acidity. Secondly, the resemblance of the dry muriates to other dry salts is much stronger than their analogy to oxyds. And, thirdly, the submuriates would require to be considered as a peculiar class of bodies, consisting of chlorine, oxygen, and the base: and in this case the quantity of the oxygen would not agree, either with that which the acid is capable of taking up in one of its two higher stages of oxygenization, or with that which is capable of combining with the metal. For example, in the submuriate of lead, the acid is united with a quantity of the oxyd, of which the oxygen is [probably] four times [twice] as much as its own. According to Davy, this salt contains chlorine, oxygen, and lead; and we shall find on calculation, that the oxygen is only "$\frac{7}{8}$" [$\frac{3}{4}$] as much, as is necessary for the oxydation of the lead; and such a combination as this is contrary to all our knowledge of the laws of definite proportions. If again we supposed "eu-chlorine" to exist in this combination, there would remain only "$\frac{3}{4}$" [$\frac{1}{2}$] of the oxygen necessary for the oxydation of the lead; nor is it any easier to suppose the hyperoxy-muriatic acid present, leaving only $\frac{1}{4}$ of the oxygen required for the oxydation. The hypothesis is therefore altogether inconsistent with the present state of our knowledge respecting the proportions of chemical combinations. [On repeating these calculations, there does not appear to be quite so great an incongruity in the doctrine of chlorine, as our author has persuaded himself. He informs us (P. 284.) that the submuriate of lead consists of 100 acid and 1640 oxyd, which is equivalent to 104 and 1705.6; and the 104, being considered as dry acid, will afford 138 of muriatic acid gas, supposed by Sir H. Davy to contain 134 of chlorine, or 2 portions; but the oxyd is denoted by $398+30=428$, and 4 portions make 1712, exceeding the former number only by $\frac{1}{258}$].

C. MISCELLANEOUS REMARKS. Lärb. II.

P. 200. The purest iron, of which the specific gravity was 7.8439, became less dense when laminated, its specific gravity being only 7.6; if there was no error in the operations, [which however were very carefully repeated.]

P. 577. According to Wünsch's experiment, it seems probable that some transparent mediums intercept the invisible heat of the sun's rays.

P. 578. Seebeck has found that blue light causes oxymuriatic acid and hydrogen to unite rapidly without any explosion: orange light much more slowly.

D. ANALYSIS OF CINCHONA. Afh. III. 347.

By various solutions, evaporations, and precipitations, good "yellow" bark is found to contain, in 100 parts,

Of insoluble fibre and salts	73.75
Resin	.50
Two modifications of tannin	7.35
Bitter syrup and calcarious salts	6.87
Cinchonate of potass, and lime, with brown extract	2.50
Mucilage, soluble only in boiling water	2.70
Brown colouring extract	1.25
Loss, chiefly of tannin rendered insoluble by precipitation	5.08

1. Cinchona probably derives its medical properties chiefly from a variety of tannin, which has an astringent and bitter taste, is of difficult solution after evaporation, precipitates solution of gelatin, and gives a green colour with sulfate of iron. Some of it is probably in the state of difficult solubility in the first intance, and is first precipitated from the solution: this is partly dissolved in carbonated alkalis, and affords a gelatinous lump in cooling: that which is afterwards deposited is more soluble in the alkali, but leaves a powdery substance undissolved. This tannin of bark precipitates tartar emetic and gelatin, like that of galls, but not iron; it reddens litmus paper, and it affords, with infusion of

galls, a yellowish white precipitate. The parts deposited during evaporation, dissolved in boiling water, do not precipitate gelatin or tartar emetic, but retain the property of affording a green colour with iron, and a precipitate with infusion of galls. By these properties cinchona may be distinguished from other substances, which may approach to it the more nearly as they possess more of them: coffee, for example, has only one of the properties, that of giving a green colour with iron. Some such substances may, perhaps, be employed with advantage instead of bark; for instance, besides the alburnum of the pine, the willow and ash bark, the geum, the cascarilla, the tormentil, the bistort, and the bark of the padus. The ash not being astringent, I have sometimes added to it some tormentil and ginger, with which it made an excellent tonic, and even, according to the experiments of some of my friends, seemed to cure quartan agues.

2. The syrup contained in bark is intolerably bitter, and is, in all probability, very materially concerned in its medical effects. Some of the bark brought from Brasil contains it so abundantly, that it overcomes altogether the ordinary taste of bark.

3. The cinchonate of lime much resembles the malate, but is not precipitated by lime water, nor by neutral acetate of lead. Vauquelin has called the yellow syrup like acid, which is obtained from it, the cinchonic: the characters of this acid have a very strong resemblance to those of the lactic.

4. The mucilage of bark is precipitated by acids and by alcohol, but not by tannin; it does not afford jelly.

5. The fibrous portion is probably less abundant at the internal surface of the bark, and this part might perhaps be separated, with some advantage, for medical use.

VI.

REMARKS

ON THE

MEASUREMENT OF MINUTE PARTICLES,

ESPECIALLY THOSE OF THE

BLOOD AND OF PUS.

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1. *On the form and magnitude of the particles of the blood.*

The form and magnitude of the coloured particles of the blood is a subject not only interesting and important in itself, but is also capable of assisting, by means of comparative observations, in the determination of the magnitude of the capillary arteries, and the investigation of the resistance which they exhibit; it may also be of advantage to obtain some tests capable of ascertaining, whether these particles undergo any change in diseases of various kinds, and what is their relation to the globules of pus, and of other animal fluids: hitherto the measures of the particles of blood, which have been considered by various authors as the most accurate, have differed no less than in the ratio of 2 to 5; and there is an equal degree of uncertainty respecting their form, some admitting the truth of Mr. Hewson's opinions, and a greater number rejecting them without any satisfactory evidence. In such examinations, it is only necessary to employ a full and unlimited light, in order to obtain a very distinct outline of what appears manifestly to be a very simple substance, and we thus seem to have the clear evidence of the senses against Mr. Hewson: but we must remember, that where the substances to be examined are perfectly transparent, it is only in a confined and diversified light that we can gain a correct idea of their structure. The eye is best prepared for the

investigation, by beginning with the blood of a skate, of which the particles are so conspicuous, and of so unequivocal a form, as to set aside at once the idea of a simple homogeneous substance. They are oval and depressed, like an almond, but less pointed, and a little flatter; each of them contains a round nucleus, which is wholly independent in its appearance of the figure of the whole disc, being sometimes a little irregular in its form; seldom deviating from its central situation, but often remaining distinctly visible while the oval part is scarcely perceptible; and as the portion of blood dries away, becoming evidently prominent above the thinner portion. This nucleus is about the size of a whole particle of the human blood, the whole oval being about twice as wide, and not quite three times as long; the nucleus is very transparent, and forms a distinct image of any large object which intercepts a part of the light by which it is seen, but exhibits no inequalities of light and shade, that could lead to any mistake respecting its form. But if we place some particles of human blood under similar circumstances, near the confine of light and shade, although they are little, if at all, less transparent, we immediately see an annular shade on the disc, which is most marked on the side of the centre on which the marginal part appears the brightest, and consequently indicates a depression in the centre, which Delatorre mistook for a perforation. It is most observable when the drop is drying away, so that the particles rest on the glass: and when a smaller particle is viewed, it has merely a dark central spot, without any lighter central space. Nor have the particles ever appeared to me "as flat as a guinea," although their axis is sometimes not more than one third or one fourth of their greatest diameter; if they were much thinner than this, their diameter would be more diminished than it is when they become spherical, by the effect of an aqueous fluid: while this form corresponds to a diminution to about $\frac{2}{3}$ of the original diameter. They may indeed possibly absorb a part of the surrounding moisture in the change: but they do not seem to have their dimensions much

affected by the fluid in which they are suspended, since they may easily be spread thin on glass, and dried, without much change of their magnitude, at least in the direction of the surface to which they adhere: and they remain distinct as long as the access of moist air is completely excluded. When they have been kept for some time in water, and a little solution of salt is added, their form and structure, as Mr. Hewson has observed, are more easily examined, and appear to resemble those of a soft substance with a denser nucleus, not altogether unlike the crystalline lens together with the vitreous humour, as seen from behind: but with respect to a central particle detached within a vesicle, "like a pea in a bladder," I cannot doubt that Mr. Hewson was completely mistaken. I have never observed a prominence in the outline of the particles of the human blood: and on the other hand I am not perfectly confident that the apparent depression, which is exhibited in some lights, may not depend on some internal variation of the refractive density of the particle. It has commonly been asserted, that these coloured particles are readily soluble in water; but this opinion appears to be completely erroneous, and to depend partly on their passing readily through filtering paper, a circumstance indeed already observed by Berzelius, (Djurk. II. p. iii,) and partly on the extraction of a great part of their colouring matter, together with which they lose much of their specific gravity, so that instead of subsiding, they are generally suspended in the fluid; their presence may however still be detected by a careful examination, and they seem in this state to have recovered in some measure their original form, which they had lost when first immersed in the water. When the water is sufficiently diluted, about three fourths as much rectified spirits may be added to it without destroying the appearance; but after a few months it becomes indistinct, although neither in this case nor in that of complete putrefaction do the globules appear to become constituent parts of a homogeneous fluid. The existence of solid particles, in fluids which at first sight appear

transparent, is the most easily detected by looking through them at a small luminous object, either directly or by reflection, as, for example, at the image of a candle seen at the edge of a portion of the fluid, held in a teaspoon; in this case, wherever there are small particles in suspension, for instance, in milk diluted with water, they will produce a minutely tremulous or sparkling appearance, which is rendered still more distinct by the assistance of a lens, and which depends on the diversified interception of the light, while the particles are carried over each other by the internal motion of the fluid. This test is applicable to all cases of minute particles held in suspension; where however the greater number of the particles are nearly equal in dimensions, the luminous object viewed through them exhibits a much more striking appearance, for it is surrounded by rings of colours, somewhat resembling those of the rainbow, but differently arranged, and often beautifully brilliant. The blood, a little diluted, always exhibits them in great perfection, and they afford a very accurate criterion for the distinction between pus and mucus: mucus, containing no globules, affords no colours, while those which are exhibited by pus exactly resemble the appearance produced by the blood, the rings being usually of the same dimensions: whence it follows that the globules are also of the same size, for the dimensions of the rings vary with those of the particles which produce them: and there can be little doubt, from this circumstance, that the globules found in pus are the identical globules of the blood, although probably somewhat altered in the process of suppuration. A minute quantity of the fluid to be examined in this manner may be put between two small pieces of plate glass, and if we hold the glass close to the eye, and look through it at a distant candle, with a dark object behind it, the appearance, if the globules are present, will be so conspicuous as to leave no doubt respecting their existence.

2. *Description of the Eriometer.*

The rings of colours, which are here employed to discover the existence of a number of equal particles, may also be employed for measuring the comparative and the real dimensions of these particles, or of any pulverised or fibrous substances which are sufficiently uniform in their diameters. Immediately about the luminous object, we see a light area, terminating in a reddish dark margin, then a ring of bluish green, and without it a ring of red: and the alternations of green and red are often repeated several times, where the particles or fibres are sufficiently uniform. I observed some years ago that these rings were the larger as the particles or fibres affording them were smaller, but that they were always of the same magnitude for the same particles. It is therefore only necessary to measure the angular magnitude of these rings, or of any one of them, in order to identify the size of the particles which afford them; and having once established a scale, from an examination of a sufficient number of substances of known dimensions, we may thus determine the actual magnitude of any other substances which exhibit the colours. The limit between the first green ring, and the red which surrounds it, affords the best standard of comparison, and its angular distance may be identified, by projecting the rings on a dark surface, pierced with a circle of very minute holes, which is made to coincide with the limit, by properly adjusting the distance of the dark substance, and then this distance, measured in semidiameters of the circle of points, gives the corresponding number of the comparative scale. Such an instrument I have called an Eriometer, from its utility in measuring the fibres of wool, and I have given directions for making it, to [Mr. Robinson in Devonshire Street.] The luminous point is afforded by a perforation of a brass plate, which is surrounded by the circle of minute holes; the substance to be examined is fixed on some wires, which are carried by a slider, the plate being held before an Argand lamp, or before two or three candles placed in a line; the slider is drawn out to such a distance as to exhibit the required coincidence, and the index then shows the

number representing the magnitude of the substance examined. The instrument may be rendered more portable, though somewhat less accurate, by merely making the perforations in a blackened card, furnished with a graduated piece of tape. An eye not shortsighted will generally require the assistance of a lens, when the instrument is made of the most convenient dimensions, which I have found to be such as to have two circles of points, one at $\frac{1}{3}$ and the other $\frac{1}{5}$ of an inch in semidiameter, with their corresponding scales. The central perforations are about $\frac{1}{30}$ and $\frac{1}{50}$ of an inch in diameter; the points 8 or 10 only in each circle, and as minute as possible. The light of the sun might also be employed, by fixing the circle of points at the end of the tube of a telescope: but it rather adds glare than distinctness to the colours: nor have I been able to gain any thing by looking through coloured glasses, or by using lights of different qualities. Where the object consists of fibres which can be arranged in parallel directions, a fine slit in the plate or card affords brighter colours than a simple perforation (W.) and the points must in this case be arranged in lines parallel to the slit; but if care is not taken to stretch the fibres sufficiently, the employment of the slit in this manner will make them appear coarser than they really are. The colours will still appear, even if there be a considerable difference in the dimensions of the fibres or particles, but they will be so much the less distinct as the difference is greater. In this case the measure indicated will be intermediate between the extreme dimensions; although most commonly it will be somewhat below the true mean, the colours exhibited by the finer fibres prevailing in some degree over the rest. The latitude, however, which the Eriometer affords in the regularity of the substances measured by it, and its collecting into one result the effect of many thousands of particles, or of an endless variety of small differences in the diameters of fibres, give it an unquestionable preference over every kind of micrometer which measures a single interval only at once, with respect to all applications to agriculture or manufactures; for in reality there is not a single fibre of wool among the millions

which constitute a fleece, that preserves a uniform diameter throughout its length; and the difference is still greater between the fibres which grow on different parts of the animal; so that to take a single measurement, or even any practicable number of measurements, by the most accurate micrometer, in the usual acceptation of the term, for a criterion of the quality of a fleece, can tend only to the propagation of error or conjecture in the semblance of the minutest accuracy. Even with the Eriometer, the difficulty of obtaining a fair average of the quality of a sample of wool is extremely great; it is absolutely necessary to preserve the fibres as much as possible in their natural relative situation, and to examine them near the middle of their length; the ends next the skin are almost always considerably finer, and the outer ends generally coarser, than the rest; but this difference is greater in some kinds of sheep than in others, and as far as I have observed, it is less in the Merinos and their crosses than in other sheep: there is also far less difference in the different parts of the same fleece in these breeds than in others; still however this difference is very observable, although it is probable that some part of the sheep might be found, which in all cases might fairly be considered as affording nearly the average of whole fleece; and I imagine that the part of the back about the loins is the most likely to be possessed of this property; so that the middle of the fibres of this part of the fleece might be assumed, in the finer kinds of wool, as affording a fair measure for the whole.

3. *Scale of the Eriometer.*

The theory, which suggested to me the construction of the eriometer, requires some corrections in its immediate application, which depend on circumstances not completely understood: at present therefore I shall only employ, for the determination of the true value of the numbers of its scale, an experimental comparison of its indications with some microscopical measurements, which Dr. Wollaston has been so good as to perform for me, with an admirably accurate micrometer of his own invention.

The dust or seed of the lycoperdon bovista he finds to be $\frac{1}{3500}$ of an inch in diameter: this substance gives very distinctly 3.5 on the scale of the Eriometer; and $3.5 \times 85000 = 29750$. The globules of the blood measured $\frac{1}{4900}$; and immediately afterwards, when examined in the same state by the Eriometer, indicated about $6\frac{1}{2}$; and $6.5 \times 4900 = 31850$. A wire of platina, obtained by a very ingenious method, peculiar to Dr. Wollaston, measured $\frac{1}{3200}$; and when coiled up, gave n. 9 of the Eriometer; and $9 \times 3200 = 28800$. The mean of a considerable number of comparative observations on fibres of wool, between n. 20 and 30, afforded also 28800 for a product.

A mean of these experiments gives very nearly $\frac{1}{30000}$ for the unit of the scale of the Eriometer. Some former investigations had led me to attribute to this unit a value somewhat smaller, especially for the lowest numbers; and I had obtained a formula, and made a table, for ascertaining the true dimensions of any substance measured by the instrument, according to the result of these investigations; but since my later experiments seem to have superseded the mode of calculation which I had adopted, I think it unnecessary to insert the table here.

Having sufficiently ascertained the true value of the indications of the eriometrical scale, I shall now enumerate the measurements of the principal substances which I haxe examined with the instrument.

4. *Substances measured by the Eriometer.*

Milk, diluted, very indistinct, about	3
Dust of lycoperdon bovista, very distinct	$3\frac{1}{2}$
Bullock's blood, from beef	$4\frac{1}{2}$
Smut of barley, called male ear	$6\frac{1}{3}$
Blood of a mouse	$6\frac{1}{2}$
Human blood diluted with water, 5; after standing some days 6, or	7
Blood recently diluted with serum only	8
Pus	7
Silk, very irregular, about	12
Beaver wool, very even, (jointed)	13

Angola wool, about	14
Vigonia wool	15
Siberian hare's wool, Scotch hare's wool, Foreign coney wool, Yellow rabbit's wool, about	15½
Mole's fur about	16
Skate's blood, very indistinct, about	16
American rabbit's wool, British coney wool, about	16½
Buffalo's wool (B)	18
Wool of the ovis montana (D)	18
Finest seal wool, mixed, about	18½
Shawl wool 18 or	19
Goat's wool	19
Cotton, very unequal, about	19
Peruvian wool, mixed, the finest locks	20
A small lock of Welsh wool (B)	20
Saxon wool, a few fibres 17, some 23, chiefly	22
An Escurial ram, at Ld. Somerville's show, 23 to	24
Mr. Western's South Down, some specimens	24½
Lioneza wool, 24 to 29, generally	25
Paular wool, 24 to 29, generally	25½
Alpacca wool, about	26
Farina of laurustinus	26
Ryeland Merino wool, Mr. Henty	27
Merino South Down wool, Mr. Henty	28
Seed of lycopodium, beautifully distinct	32
South Down ewe, Mr. W. B.	39
Coarse wool, Sussex	46
Coarse wool, from some worsted	60

It would not be difficult to obtain from these measures a tolerable approximation to the value of wool at its usual prices. If we square the number, and subtract 325, the remainder will be about the number of pounds that are worth 100 guineas. Thus, for good Lioneza, n. 25, $25 \times 25 - 325 = 300$, giving 7s. a pound; for moderate South Down, n. 35, $35 \times 35 - 325 = 900$, or 2s. 4d. a pound: which is probably about the proportional value, though both the propor-

tional and the real values must fluctuate according to the demand of the manufacturer.

5. *Microscopical fallacies.*

I shall here take the liberty of inserting some remarks, which I cannot attempt at present to render intelligible to any, who have not entered into the minutest refinements of physical optics: to such as are unacquainted with the latest investigations, I fear they must appear involved in a degree of obscurity almost enigmatical.

When a small object is viewed in a microscope, especially if the light is admitted by a limited aperture, it will often appear to be surrounded by some lines of light and shade, or of colours, which might be supposed to depend on its magnitude, in the same way that the eriometrical colours are derived from the magnitude of the objects examined. In reality, however, their existence and their dimensions depend on the aperture of the microscope, and not on the magnitude of the particles in its focus. To prove that this aperture may produce such an effect, hold any object, for instance, the finger or the nail, so as to intercept all the light of a candle, except a narrow line, and this line will seem to project other lines parallel to it into the adjoining shade. Now these lines depend on the interposed object on one side, and on the margin of the pupil on the other: for if we take an object a little narrower than the pupil, we may see them on both sides of it; and causing the pupil to contract by throwing more light on the opposite eye, they will expand, as the space, through which they are admitted, is diminished by the contraction. We may also very distinctly observe, if we look in this manner at a narrow line of light instead of a candle, that the dispersive powers of the eye manifestly convert its image on the retina into a spectrum of red, green, and blue light; sufficiently confuting the conjectural hypothesis of the achromatic property of its refractive substances. If again we substitute a minute hole or slit in a card for the interposed object, the sides of this aperture will now determine the magnitude of the fringes which are seen at the edge of

the candle, and their dimensions will be no longer variable, whatever may be the state of the pupil. But the candle must in this case either be placed at a distance, or be partly concealed from the eye, unless one edge of the aperture project so far beyond the other, as to limit its visible extent. Now the substance, in which the lens of a microscope is contained, presents a small aperture capable of exhibiting effects of this kind, which however can only be expected to appear when the light is peculiarly circumstanced. The aperture of the highest magnifier that I have employed is $\frac{1}{90}$ of an inch, which answers to about n.330 of the scale of the Eriometer, and would consequently exhibit a bright ring at $\frac{1}{330}$ of the distance of a minute object viewed through it, while the darkest part within this ring would be at about $\frac{2}{3}$ of that distance: and the focal distance of the lens being about $\frac{1}{45}$ of an inch, the diameter of the apparent dark circle would be $\frac{1}{11140}$ of an inch, and that of the bright one $\frac{1}{7425}$; and the dimensions would be nearly the same if any other small lens were employed, with an aperture half as great as its focal distance; so that the constancy of such an appearance, notwithstanding a change of magnifiers, might increase the probability of error. It is obvious that a shade of this kind, surrounding the central parts of a globule, if they happened to be much brighter than the rest, might give rise to a mistaken idea of inequalities in its form or structure; and it is possible that when a particle is darker than the surrounding medium, some parts of its surface may have lines of a similar nature projected on them in an inverse order. The particles of the blood are about $\frac{1}{5000}$ of an inch in diameter, varying from $\frac{1}{6000}$ to $\frac{1}{4000}$, and it is extremely possible that an object of these dimensions may exhibit a light point near its centre, which may be surrounded by a dark and then by a light annular shade within the limits of its disc. There are also several other sources of error in different lights, and in a focus more or less imperfectly adjusted; it is however sufficiently evident that no fallacy of this kind can have given rise to all the appearances, which have been already described, as observable in the particles of the human blood, and still less to those which are observable in the blood of some other animals.

6. *Changeable colours.*

In examining some of the dust of the lycoperdon, I had put it with a drop of water on a glass, when I observed a purple tinge in the water, which I thought at first was a stain extracted from the powder; but the water viewed separately was perfectly colourless, and the light transmitted directly through the water, when the globules were present, was of a yellowish green. After some consideration, I conjectured that this appearance of colour must be analogous to that of the mixed plates which I had formerly observed, depending on the difference of refractive density of the water and the globules, (Nat. Phil. I. 470. Pl. 30. F. 430. II. 633.) and by substituting fluids of different densities for water, I had the pleasure of finding my conjecture confirmed; for when the water was saturated with salt, the yellow green became nearly blue, and the purple redder or browner; and when olive oil was employed, the light directly transmitted was purple, and the oblique light greenish; in balsam of Tolu again, this purple became red, and the indirect light afforded a faint blue. In air too, I found that the powder appeared of a bright blue green by direct light, and of a purplish hue with a light a little oblique; but when the obliquity became a little greater, the tint changed to a brownish yellow green, which continued afterwards unchanged; this alteration may perhaps be derived from the admixture of a portion of light coming round the particles by a more circuitous route. By comparing the opposite effects of water and olive oil, of the refractive densities 1.336 and 1.379, the refractive density of the particles themselves may be calculated to be 1.62, or somewhat less.

Grey beaver wool seems of a purplish hue in direct, and greenish in oblique light, both in air and in olive oil; its grey colour seems to be derived from a mixture of these tints; in olive oil, the rings of colours which it affords are considerably altered in their appearance, the reds becoming every where very faint. Lead precipitated from its acetate, or silver from its nitrate, by common water, affords a reddish direct and a bluish indirect light, and the same seems to be

true of smoke, and of other bodies consisting of very miuute particles: but when the indirect light is very powerful, smoke sometimes appears reddish in it, as might be expected from a collection of very small opaque instead of transparent particles.

Mr. Delaval has observed that an infusion of sap green appears of a bright red by transmitted light, and the case seems perfectly analogous to that of the dust of the lycoperdon: the green becoming somewhat yellower, when the gum, with which colouring particles are mixed, is diluted with water. But this is not the universal cause of a difference of colours exhibited by pigments in different lights; the carthamus, or pink dye commonly sold for domestic use, affords an unequivocal instance of a substance exhibiting colours analogous to those of thin plates, which have been adduced by Newton, in illustration of the colours of natural bodies; the reflected light being undeniably of a yellow green, while the transmitted light is of a bright pink colour. Here the light regularly reflected from the surface only, especially when dry, gives the colour opposite to that of the transmitted light; all the light passing through the fluid, even indirectly, giving a pink colour. But the infusion of the lignum nephriticum seems to hold a middle place between this substance and those which have been mentioned before; the dry extract is of a brownish yellow only; an infusion, not too strong, gives the same colour, verging to orange, by direct transmitted light, and a bright blue by light reflected, or obliquely dispersed within the infusion, or at its surface. The solution of the carthamus affords no green reflection from its surface, and varies in its hue, in different lights, only from crimson to scarlet. The tinging particles of the lignum nephriticum, like those of the precipitated lead and silver, are, in all probability, extremely minute, since the colour is but little changed by changing the density of the fluid. It often happens that a blue colour, precisely like that of this infusion, is reflected by green glass bottles, which, when seen by transmitted light, exhibit only a reddish brown colour. The inner bark of the ash is also said to have a

property similar to that of the lignum nephriticum (Murr. app. med.) The particles of the blood do not derive their colour from any of the causes which have been mentioned, since it may be extracted from them in a clear solution.

When I attempted to explain the colours of mixed plates, which I had produced by partially moistening two lenses very slightly convex, I observed that the reflection of the light from the internal surface of a denser medium must be supposed to invert its properties with respect to the production of colours by interference, as is naturally to be supposed on the principles of the undulatory theory. But when the obliquity is so considerable, it is not very easy to assign a reason for this inversion; and the experiments, which I have now mentioned, make it necessary to assume a law, which I cannot explain, that every very oblique reflection inverts the properties of light with respect to interference. This conclusion confirms the assertion of Newton, that a dark space, bordered by light, will appear in the centre of a portion of light transmitted between the edges of two knives placed very near each other, and the opinion of Mr. Jordan, that the augmentation of a shadow by diffraction is to be considered as the first dark space belonging to the coloured fringes. I had obtained a different result in an experiment similar to Newton's, because I was not aware of the necessity of employing very sharp edges; for when the edges are blunt, the light is reflected from the one to the other in such a manner, as wholly to destroy the appearance of a central dark space: but in any case this source of error may be avoided, by causing one of the edges to advance a very little before the plane of the other, so that half of the fringes may disappear. It is however necessary to suppose this inversion confined to cases of extremely oblique reflection, for when the deviation of the light from a rectilinear path becomes a little more considerable, its effects are no longer perceptible; the second and third fringes scarcely ever requiring any material corrections of the calculations from which it is excluded. The same inversion must also be attributed to the light bent by diffraction round the re-

moter side of a fibre: for this light always cooperates in the first instance with that which is reflected from the nearer side. The extent of the central white light is indeed so great, that all the coloured appearances may almost be considered as beginning at such a distance, that the first dark space is exactly where the simple calculation would lead us to expect the white; since the value of the unit of the Eriometer ought to be, according to this calculation, about $\frac{1}{44000}$ of an inch, instead of $\frac{1}{30000}$; and indeed this value agrees very accurately with experiment, where the two portions of light concerned are exactly in similar circumstances; as may be observed in some of the parallel lines drawn on glass in Mr. Coventry's micrometers, probably where they happen to be single, for in general they are double, and exhibit colours corresponding to an interval much smaller than their regular distance: but in some parts we may observe colours exactly corresponding to their distance, for instance, to $\frac{1}{500}$ of an inch, according to the simple principle of considering each unit as equal to about the 43000th of an inch. Hence it seems that the necessity of a correction depends on the different state of the lights reflected from one side of a fibre, and diffracted round its opposite side, and that when they proceed in a similar manner from two neighbouring parallel lines, the necessity no longer exists. What may be the cause of this irregularity, will perhaps be understood when we understand the cause of the singular phenomena of oblique reflection discovered by Mr. Malus, and we have no reason to expect to understand it before. [Mr. Fresnel has however succeeded in deducing a very elegant and a very probable explanation of it, from the general principles of the Huygenian theory, combined with the laws of interference.]

7. *Glories.*

I have had an opportunity of ascertaining, that the clouds which exhibit the white and coloured circles, sometimes denominated glories, are certainly not composed of icy particles; and I have succeeded in deducing an explanation of these phenomena from the same laws, which are capable of being applied to so many other cases of physical optics. In

the theory of supernumerary rainbows, (Nat. Phil. I. 471. Pl. 30. Fig. 451. II. 643.) I have observed that the breadth of each bow must be the greater as the drops which afford it are smaller; and by considering the coloured figure, in which their production is analysed, it will be obvious, that if we suppose the coloured stripes extremely broad, they will coincide in such a manner in one part as to form a white bow: the red, which projects beyond the rest, being always broadest, so that if all the stripes be supposed to expand, while they preserve their comparative magnitude, the middle of the red may coincide with the middle of the blue; and it will appear, on calculation, that a white bow will be formed, a few degrees within the usual place of the coloured bow, when the drops are about $\frac{1}{3000}$ or $\frac{1}{4000}$ of an inch in diameter. It is remarkable that in such cases the original rainbow is altogether wanting, and probably for a similar reason, we scarcely ever see a rainbow in a cloud which does not consist of drops so large as to be actually falling, although I have once seen such a rainbow ending abruptly at the bottom of a cloud; it may be conjectured that the edge of the light is in such cases so much weakened by diffraction, that it is too faint to exhibit the effects occasioned by a larger drop. Dr. Smith has made a remark somewhat similar, (Opt. r. 501.) which, if not completely satisfactory upon the principles which have been mentioned, is certainly altogether unintelligible upon his own.

The coloured circles, immediately surrounding the shadows of the observers, may be deduced from the effect of the same minute particles of water, upon the light which has been four, and perhaps five, times reflected within the drops, which may, after transmission, coincide in direction with another portion, passing on the opposite side of the centre; and the drops about $\frac{1}{3000}$ or $\frac{1}{4000}$ of an inch in diameter would in this manner produce a faint corona, of such magnitude, that the limit of green and red, employed in the use of the eriometer, should be at the distance of about five degrees from the centre of the shadow; which, as nearly as I could estimate it, was its real distance in the appearance that I observed.

VII.

AN ESSAY

ON

THE MEDICAL EFFECTS

OF

CLIMATES.

Treatise on Consumption, p. 82.

A COMPLETE system of meteorology, even so far as the properties of climates, with regard to temperature only, are concerned, presents almost as great difficulties as a complete theory of the nature and cure of diseases. In this, as in many other departments of medical knowledge, we perpetually find a multiplicity of accounts, apparently well attested, but totally at variance with each other, which render it desirable to appeal to some more satisfactory testimonials, than the results of common and superficial observation; while the evidence, which would be required for forming useful conclusions, upon safe and scientific grounds, although in this case completely within the scope of the human faculties, is still such as to require, for its production, a combination of perseverance and accuracy, which has certainly never yet existed, and which probably can scarcely ever be expected to be found in a sufficient number of collateral observers. Any voluminous work on the subject, whether systematic or empirical, must unavoidably contain much useless, and some erroneous matter; and a short statement of a few facts, which appear to be tolerably well ascertained, first, respecting the physical characters, and secondly, respecting the medical effects of the principal climates which deserve our notice, is all that it will be possible to attempt in the present essay.

The simple indications of a thermometer, however accurately they may be observed, in the most unexceptionable exposure, by no means afford a correct test of the temperature, as it affects the human system: nor is it possible to express the modifications produced by wind and moisture, even supposing them to be easily known, by any numerical measure which shall be applicable to every relative situation of the individual. I have known an atmosphere at 65°, with a thick fog, and a very little wind from the N. E., appear, to a person taking moderate exercise, most oppressively sultry; although a person, sitting long still, might have felt the same air uncomfortably cold. Moisture must make both heat and cold more sensible; the one, by diminishing perspiration, the other, by increasing the conducting power of air. Wind is doubly concerned in affecting the properties of a climate; first, as the great cause of preventing a general accumulation of heat over considerable tracts of country; and secondly, as having a similar effect with respect to the immediate neighbourhood of the person; and its operation is as generally perceptible in the latter way, where we have no precise mode of estimating its magnitude, as in the former, where it is correctly indicated by a thermometer sufficiently exposed: although, in fact, the most shaded fixed thermometer may often be observed to indicate a temperature many degrees higher, than that of the breeze which is circulating in the neighbouring country. Still more commonly by the sea side, the wind exhibits the temperature of the water over which it has blown: at Worthing it is seldom above 64° in the hottest weather, although the sea, when the tide flows in at noon, over the heated expanse of sand, is sometimes raised to 78°, where it is several feet deep.

To the inhabitants of these islands, the most important properties of the climates of other countries are those, which render them more or less fit for the residence of persons, liable to catarrhal or consumptive affections. Hence, warmth and equability of temperature, especially in the winter months, are the first objects of our inquiry in the

theoretical comparison of climates. Moisture is supposed, by some, to be favourable, by others, to be unfavourable, to such persons: it may therefore be safely neglected, except as tending to increase the evils depending on a want of equability of temperature. The effluvia of moist ground are sufficiently well known as the causes of paludal fevers; further than this they require no particular investigation. Nor can we attempt to assign any reason for peculiarities, which render some situations preferable to others, for some individuals only, labouring under a given disease, as asthma; which is sometimes induced by the atmosphere of cities, and sometimes of the country; and which is occasionally mitigated by a residence in places having no marked distinctions from such as are less favourable to it, as Kensington, and perhaps some others.

In the hotter seasons, there are few diseases, and few constitutions, which would require a climate milder than our own: in the colder, an increase of the facility of circulation, which heat appears to afford, may often be beneficial, partly perhaps as exciting perspiration, and partly as preventing too great a congestion of blood in the internal parts of the body. The mean temperature of the six winter months is therefore the first point of comparison, that requires our attention, and such a comparison may easily be derived from the registers, which are usually kept in circumstances nearly similar.

From October to March.

London, R. S. 1790-4	43.5°
Edinburgh	40.4
Sidmouth, mean of extremes of each month (Lond.41.8°)	42.9°
Dawlish, Sir W. W. M. S. 1794 (Lond. 44.1°)	45.3
[Penzance, Giddy in Forbes, 1807-20, at 8 (Lond. 41°)	44.]
Ilfracombe, without doubt incorrect	(55)
Paris	41.2
Lisbon	55.5
Malta, Domeier	63
Sidmouth, Dr. Cl. 1814, at 9	40.2
mean of extremes	41.2

Madeira, Gourlay. (S. W. aspect M.)	63°
Bermudas, M. S. R. S. 1790	68
Jamaica, Botanic garden at Kingston, Clarke, Dunc. med. comm. VII. 369	74.5

From November to March.

London, 1808-9	42.6°
Penzance, 1808-9, Stirling, at 10, or about 1° above the mean	48.1

From November to February.

London, 1813-4, about 8 and 3	36.3°
Torquay, M. S. 1813-4, at 8 and 2	40.5

From January to March.

London, 1809	43.1°	(Jan.	37.9°
Glasgow, 1809, Stirling, at 10	40.3		33.1)
Penzance, 1809, Stirling, at 10	48.5		46.7 (Dec. 43.7°)
London, 1790-4, 8 or 7 and 2	41.6		39.1
Sidmouth, 1800, M. S. R. S. 8 and 2	41.7		42.3)

February and March.

London, 1803, 7 and 2	41.5°
Clifton, Carrick, 1803, 8 and 2	42.5

From October to December.

London, 1811, mean of extremes in each month	47.0°
Sidmouth, Clarke, 1811	45.7

From December to February.

London	39.7°
Edinburgh	36.7
Paris	36.8

January.

London, 1814, 8 and 3	28.8°
Penzance, M. S. 1814, 8 and 2	37.4

It appears from this comparison, that none of the situations here enumerated, North of Lisbon, except Penzance, has any material advantage over London in the mildness of its winter. The best parts of Devonshire seem to be about a degree and a half warmer; Torquay however may perhaps be a little milder than this; the account, which was kept at Ilfracombe, must have been taken from a thermometer in a confined or a sunny situation. But Penzance may be fairly considered as having a temperature $4\frac{1}{2}°$ higher than London in the coldest months; nor are the journals here employed the only which allots such a superiority to the climate of this extremity of our island. [Dr. Forbes says that taking November, December, and January together, London is 5° colder than Penzance, (p. 11); but instead of 39° and 44° (p. 13) the true means are 39.7° and 44°, giving a difference of $4\frac{1}{3}°$ only for the years compared, which seem, however, to have been a little too favourable to Penzance.] It is remarkable, that temperature of the three coldest months is the same at Paris as at Edinburgh, being, in both these cities, about three degrees lower than in London. There are probably particular spots on the coast of Hampshire or Sussex, which, from their sheltered situation, must be considerably less subject to the effect of the Northern and Eastern winds, than most other parts of the island; and Hastings, or its neighbourhood, may perhaps be reckoned among the most eligible of these; but the further we go up the channel, the more

remote we become from the mild gales of the Atlantic, while the prevalent South Westerly winds, in passing over a considerable part of the continent, must have lost much of their warmth. It is scarcely necessary to observe, that both Malta and Madeira present, numerically, a mean temperature for the winter months, as favourable for an invalid as can possibly be desired.

Equability of temperature is a second quality, of no small importance, as tending to diminish the chance of incurring, or aggravating, pulmonary diseases, by repeatedly taking cold. When, indeed, the temperature is much below 60°, the most material changes are those which occur upon going from the house into the open air; so that a cold climate becomes, in some degree, of necessity a changeable one also. The regularity of this change, and the power of avoiding its effects by additional clothing, as well as of obviating them in some measure by exercise, contribute however to lessen its influence; and it does not therefore altogether supersede the effects of that changeableness, which consists in a great extent of variation of the temperature of two successive days, or of different hours in the course of the same day. The simplest, and perhaps the best, mode of appreciating the effect of the extent of such a variation, in deteriorating a climate, is to observe, for each month, the greatest variation, at the same hour, in any two successive days within its duration. The mean variation of successive days may also be computed, in order to assist in the comparison; and the mean diurnal range, or the space through which the surface of the mercury moves, in ascending and descending, throughout the day and night, will give a collateral estimate of a similar nature. The best practical mode of deducing this range from the observation is, to find separately the mean of the heights for the morning and afternoon, and to double their difference. Where none of these particulars can be obtained, the extreme variation of each month will afford a character not altogether unimportant.

Mean of the greatest variations of successive days in each month, for the winter months.

London, 1790-4, 6 mo.	11.5°
London, 1794 (Greatest of all 15°)	10.7
Knightsbridge, Read, 1790-1 (Greatest 23°)	16.3
Dawlish, 1794 (Greatest 13½°)	10.7
Lisbon, 1788 (Greatest 11°)	8.7
Bermudas, 1790 (Greatest 13°)	9.0
Montreal, 1778	40.
Penzance, 1808-9. Nov. to March. (Gr. 10°)	9.2
[Penzance, November to April, Forbes	10.5]
Torquay, 1813. Nov. to Feb. (Gr. 17°)	12.7
Sidmouth, 1800. Jan. to March. (Gr. 16°)	10.9
Gravesend, 1787. Jan.	13.0
Ashover, Derbyshire, 1805. Jan.	13.5
Minehead, Atkins, 1782. Jan.	16.
Clifton, 1803, Feb. 9°, March, 13° mean	11.
Penzance, 1814, January	13.

Mean variation of successive days, for the winter months.

London, 1790-4, 6 mo.	3.62°
London, 1794	3.51
Knightsbridge, 1790-1	5.45
Dawlish, 1794	3.68
Lisbon, 1788	2.70
Bermudas, 1790, about	3.00
Montreal, 1778	13.2
Penzance, 1808-9. Nov. to March	2.80
[Penzance, Nov. to April, Forbes	3.37]
Torquay, 1813. Nov. to February	3.50
Sidmouth, 1800. Jan. to March	3.32
Clifton, 1808. Feb. and March	3.55
Penzance, 1814. Jan.	4.30
Gravesend, 1787. Jan.	4.15

Ashover, 1805. Jan.	3.33
Minehead, 1782. Jan.	4.00
[Tresco, Scilly, for 46 days	2.20
Penzance, for the same days, Forbes	2.82]

Mean diurnal range for the winter months.

London, 1790-4, 6 mo.	13.0°
Torquay, 1813. Nov. to February	9.2
Sidmouth, 1800. Jan. to March	10.0
Clifton, 1808. Feb. and March (Lond. 16.2°)	11.4
Penzance, 1814. Jan. 8 and 2.	5.6
[Penzance, Nov. to April, Forbes, 7 and 2	11.]
Sidmouth, Dr. Cl. 1814. 6 mo. 9 and 2	(8.7)

Mean monthly variation, for the winter months.

London, 1793-6, 6 mo.	25.9°
Madeira, 1793-6, 6 mo.	12.6
Sidmouth, 1811. Jan. to March	34.
Clifton, 1803. Feb. and March (Lond. 36°)	31.
Sidmouth, Dr. Cl. 1814, 6 mo.	28.7
[Penzance, Nov. to April, Forbes, 7 and 2	23.]

It does not appear that Devonshire possesses any decided advantages over London with respect to equability of climate, if we judge of the climate of London from the observations made at the apartments of the Royal Society only; but in so central a situation as the Strand, the changes must be rendered much less sensible by the effect of the surrounding buildings; and they appear to be considerably greater at Gravesend, and greater still at Knightsbridge. In this respect too Penzance retains its superiority even over Devonshire: [and Dr. Forbes's comparison of its climate, with that of Edmonton, is greatly in favour of its superior equability.] Lisbon seems to have a less variable temperature than any

part of Great Britain; and in Madeira, to judge by the monthly variation only, the advantage in this respect appears to be still greater.

The greatest possible equability of temperature seems however to be obtained in a sea voyage to a warm climate, in which the variation seldom amounts to half as much as in the most favourable situation on shore, even on a small island; and in pulmonary cases, the motion of a ship would probably, in general, be rather beneficial than otherwise, while the fatigue of travelling in bad roads, and the danger of sleeping in damp beds present an alternative, by no means favourable to a journey by land.

The direction of the wind alone can seldom have any immediate effect on the salubrity of the climate, except by variously modifying its temperature, according to the seas or countries over which it blows. There is a method of computing the mean direction of the wind, which does not appear to have been hitherto adopted, but which affords a very simple and intelligible result, although somewhat laborious, if extensively applied. It consists in finding the bearing and distance of a point, to which a light body would be carried by the wind in the course of the year, supposing the velocity to be constant, when its variations have not been ascertained by observation. It is obvious that the bearing of such a point will show at once the mean direction of the prevalent winds; and its distance, compared with the effect of a constant wind for the same time, as a unit, will indicate the degree in which those winds have prevailed.

Prevalence of winds.

London, 1790-4 W. 9°S.0.234. Dawlish, 1794 W.6°S.0.466.
London, 1794 W. 33°S.0.188. Lisbon, 1788 N. 1°W.0.315.

According to this comparison, it appears that the mean direction of the wind in Devonshire is somewhat more westerly than in London; and that the degree, in which such westerly winds predominate, is more than twice as great as in London: or, if we convert the measure into days, that the predominance amounted, in 1794, to 68 days for London, of a wind nearly W. S. W. and to 170 days for Dawlish, of a wind a little to the South of West, or W. $\frac{1}{2}$ S.

The variations of the climate of the same place, with respect to mean temperature, are easily collected from the usual meteorological computations. Dr. Heberden has very successfully combated the common opinion respecting the superior salubrity of cold winters; it appears however that the winter, which he particularly observed, was more variable, as well as colder, than usual. Mr. Kirwan has attempted to account for the greater frequency of colds, which he supposes to occur in spring and in autumn, by the greater variability of the temperature at those seasons; but both the fact and the explanation are very questionable; for in reality the variations of temperature, if estimated by the total range of the thermometer within the 24 hours, are almost uniformly greatest in the hottest weather. In London, the greatest variations of successive days at the same hours in the morning are greatest in winter; in the afternoon, in summer; and although the latter are a little greater in April than in some of the succeeding months, the difference is by no means considerable.

Of the empirical evidence, which may be collected, respecting the medical effects of different climates, the most authentic is perhaps that which is derived from well regulated bills of mortality; since these documents ought to afford us a tolerable criterion of the general healthiness or unhealthiness of a place, from the proportion between the annual deaths and the population, and at the same time a pretty correct determination of the degrees in which different

diseases are fatal. Thus when we find, that in Stockholm the annual deaths amount to $\frac{1}{19}$ of the population, in London to $\frac{1}{21}$, in the Pays de Vaud to $\frac{1}{45}$, and in some villages in different parts of Great Britain to $\frac{1}{60}$ only, or even less, we cannot hesitate to consider a residence in the country as generally more healthy, than in a metropolis similar to either of those cities; although it cannot fairly be concluded that the healthiness is precisely in the proportion which might be inferred from this comparison, until we have considered how far the effect of emigration to a great town may influence the apparent mortality. After the age of 8 or 10, the probable duration of life may be estimated with sufficient accuracy, as Demoivre has very ingeniously shown, by assuming that, of a certain number of persons born together, one will die annually until the whole number is become extinct; and it is well known, that this number may in common cases be supposed to be 86; so that at any given age, for instance 36, we may find the probable duration of life by deducting it from 86, and halving the remainder, which will give us 25 for the estimate required; and if this law were universally true from the time of birth, it is easy to show that the mortality in a metropolis would always be increased by the accession of settlers; so that if, for example, the whole population were supplied by settlers at 20, and all children were sent to a neighbouring village to be educated, the mortality of the town, instead of $\frac{1}{43}$, would become 1 : (43—10)$=\frac{1}{33}$, and that of the village would be 1 : (86—10) $\frac{1}{76}$; and that any partial changes of a similar nature would cause a smaller alteration of the apparent salubrity, in proportion to their extent. But the mortality during infancy is actually much greater than is assumed in the simple hypothesis of Demoivre, and from this circumstance, as well as from the frequent return of aged persons into the country, Dr. Price has inferred that emigration in general has no tendency to increase the mortality of cities. In reality the question depends altogether upon the mortality which may be supposed to take place within the first year, which is often estimated at one third of the births; but

this proportion seems to be much too great for a tolerably healthy city; and on the whole it does not appear that Dr. Price's observations can by any means be admitted as conclusive. With respect to the evidence afforded by the prevalence of diseases, it has been observed by Dr. Gregory, that removing from a colder to a warmer climate may be beneficial, even in those diseases to which the inhabitants of the warmer climate are subject; but if they appeared to be equally or more subject to any disease than the inhabitants of the colder, there would surely be little encouragement for the change; for instance, in a person supposed to be liable to diseases of the liver, it would surely be injudicious to undertake a voyage to a hot climate, with a view of avoiding the chance of taking cold, since the well known frequency of hepatitis, in such climates, would much more than counterbalance any prospect of advantage from the change.

The frequency of consumptions is decidedly greater in cold than in hot climates, but not by any means in exact proportion to the depression of the mean temperature. The principal situations, that require to be compared with the metropolis, as a standard, are the South of England, the South of Europe, the islands of the Mediterranean, Madeira, and the West Indies.

There do not appear to be any precise accounts of the proportionate mortality from consumption at any place upon the Southern coasts of this island, on a scale sufficiently extensive for the comparison, but there is abundant reason to think that such reports would be greatly in favour of the salubrity of these coasts, more so indeed than any conclusions, that we should be at all authorised to form, from such thermometrical observations, as have hitherto been compared. A greater number of registers is still wanting to obtain sufficient evidence for the inquiry: and it would be desirable that some journal should be kept at one of the

Scilly islands, or at Guernsey or Jersey, as a situation fully exposed to the influence of the sea air; for there can be little doubt, that for equability of temperature, a very small island must have great advantages above every other situation on shore. But in the present state of our knowledge on this subject, although we are fully justified in recommending a residence in Devonshire or Cornwall as advisable in a certain stage of consumption, it does not appear that any meteorological observations will authorise us to represent the advantages, to be gained by such a residence, as by any means equivalent to those, which may be found in remoter situations; nor that the empirical testimony, derived from accounts of the comparative prevalence of the disease, is at all so clear, or so firmly established, as to make up for the want of evidence of a great and decided superiority of the climate.

In the South of Europe, the situations which have been most frequented are Lisbon, or some other part of the peninsula, the neighbourhood of Montpelier, and different parts of Italy. In Spain, and probably in Portugal, consumption is said to be not common, but by no means wholly unknown; and whether from accident, or from causes which are likely to have a constant operation, the climate of Portugal has certainly failed, in a number of instances, of producing any material benefit, where there has been apparently a very fair chance for the patient's recovery. With respect to the South of France, it is perhaps sufficient to remark, that the general proportion of deaths from consumption at Marseilles is fully as great, as the greatest which has been observed in London, where, according to Dr. Heberden's remark, its prevalence has of late years been so much increased. In Italy the disease appears to be decidedly less frequent; and there is no reason to doubt but that, in the Southern parts of that country, there may be situations in which the climate approaches to that of the neighbouring islands.

It is however highly probable that some of these islands possess very considerable advantages over almost every part

of the continents which surround them, at least as far as we can judge by their affording a climate of that description, which seems to be the most desirable; for actual experience will not allow us to be too confident of obtaining success, even from a residence in these. Dr. Domeier informs us, in his very interesting account of the island of Malta, that the thermometer seldom varies here more than 6° in the 24 hours, or stands below 51°, even in the depth of winter; while in Lisbon he has seen ice, and both ice and snow in Naples; besides that, in these two cities, the difference between day and night often amounts to 20°. If an invalid leaves England in the middle of August, the voyage lasts about a month, and is often of itself highly beneficial, so that he arrives at Malta, in time to be fully prepared to be further benefited by the mild winter; it appears, however, from the more particular account which Dr. Domeier elsewhere gives of the temperature, that it continues throughout October rather higher than is altogether desirable, being seldom below 70° throughout that month; and in a country where there is scarcely any visible foliage, walls occupying universally the place of hedges, this cannot be a matter of perfect indifference.

[As far as I have been able to judge from a very superficial comparison, in the course of a single summer, I should prefer Pisa or Leghorn, to any other parts of Italy: Naples is supposed to have an atmosphere too sulfureous for weak lungs; and to be liable to keen winds in the winter: Rome has perhaps too many temptations to imprudent exposure in visiting its curiosities: otherwise it has many advantages for a winter's residence. but I should suppose it more liable to currents of wind than Pisa; and if Pisa were too near the mountains, it might easily be exchanged for Leghorn, which I found much cooller than Pisa in hot weather, and which would probably be milder in cold. I also found that Rome was much hotter than Naples in the summer, and I should expect it to be at least as much colder in winter.]

In Madeira, though the thermometer attached to a building is seldom found below 54°, there are frequently cold winds, snow, or more commonly something immediate between snow and hail, often fall on the mountains, at the height of 1000 feet above the sea, and at still greater elevations sometimes lying undissolved till July: and this imperfect kind of hail falls occasionally even on the low grounds. The island is probably a more agreeable residence than Malta, but it seems very doubtful whether it possesses any determinate advantage over it with respect to climate; and it is not impossible, that some other islands in its neighbourhood may afford a greater equability of temperature. We have however a more established experience of its beneficial effects in pulmonary diseases than of almost any other situation. Dr. Adams says that, "in cases of tubercular or scrofulous consumption, if the patient does not saunter away his time after you have advised him to leave England, we can with certainty promise a cure." (Med. phys. journ. Apr. 1800.) This true English consumption he thinks is not to be found in Madeira, while the catarrhal affection, which somewhat resembles it, though without purulent expectoration, is not uncommon, and may be fatal, if neglected or improperly treated. Dr. Gourlay agrees with Dr. Adams, in his report of the general benefit derived from the climate of Madeira, by consumptive persons, going to it from colder countries, to pass the winter in the island, and of the frequency of catarrhal affections among the inhabitants; but he strongly insists that genuine consumption is also very common and very fatal. There can however be little doubt, from the concurrent testimony of the majority of observers, that the climate of Madeira is extremely salubrious, and that consumptions, though they may sometimes occur, are comparatively rare.

In the West Indies, it is agreed by all authors, that consumptive affections are almost unknown, and that scrofula in all its forms is uncommon: while the inhabitants of the

West Indies, coming into a colder climate, are peculiarly liable to the attacks of these diseases. Dr. Hunter, however, observes, that notwithstanding this exemption in favour of the natives of the West Indies, a residence in this climate appeared to be of no manner of advantage to persons, who were already affected by incipient consumptions when they arrived there. We cannot doubt the accuracy of this evidence, as far as regards the facts, which came immediately under Dr. Hunter's observation; they principally related to the military, who perhaps laboured under some peculiar disadvantages; but other practitioners have given much more favourable reports of the events of cases, in which they have made trial of the effect of a residence in this climate: and if we may be allowed to draw any inference from the qualities of a climate, as indicated either by the thermometer, or by its effects on the constitutions of the inhabitants, there can be little doubt that a residence in Bermudas, in a temperate and sheltered part of Jamaica, or in some other of the West India islands, together with the equable qualities of the sea air, to which the patient must be exposed during the voyage, must present every advantage, towards the recovery of a consumptive person, that climate alone can possibly bestow.

In other diseases, the effects of climate are perhaps less exclusively beneficial; although it appears that gouty persons often derive considerable benefit from a residence in the hottest countries, as in the East Indies, or at Ceylon in particular. Dr. Gregory seems to be persuaded that life may be lengthened, and the inconveniences of old age retarded or mitigated, by repeated emigrations into warmer and warmer climates, after the age of 50 or 60, according to circumstances: and he thinks that even posterity may be benefited by an emigration of this kind.

In whatever situation the residence of an invalid may be fixed, it is of no small importance that the aspect and ex-

posure of the house, which he occupies, should be selected with a view to the qualities of climate which he is desirous of obtaining. We have an illustration of the truth of this remark, in an observation recorded by Dr. Carrick, respecting the influenza of 1803. "One of the most open and exposed of the buildings on Clifton hill is Richmond terrace, which forms three sides of a parallelogram, fronting respectively the East, South, and West; on the East side, not one family, and scarcely an individual, escaped the complaint, while on the South side, a great majority, both of persons and families, in all other respects similiarly circumstanced, escaped it entirely." Such facts as these are among the few which afford solid grounds for medical reasoning, and they deserve the more attention, as they relate to circumstances of continual occurrence, and of perpetual influence on our health and comfort; and in proportion as both the medical and the meteorological sciences become founded on a firmer basis, it cannot be doubted that their beneficial effects will be more and more experienced, as well in the preservation of health, as in the treatment and cure of diseases.

TABLE OF THE ANNUAL MORTALITY

OF THE DIFFERENT COUNTIES OF GREAT BRITAIN, ACCORDING TO THE RETURNS IN 1811.

Middlesex	1 in 36	Rutland	1 in 53
Kent	41	Suffolk	53
Warwick	42	Brecon	54
Cambridge	44	Cumberland	54
Essex	44	Westmoreland	54
Surry	45	Wilts	54
York, E. R.	47	Hertford	55
Huntingdon	48	Oxford	55
Lancaster	48	Sussex	55
Buckingham	49	Bedford	56
Southampton	49	Derby	56
Mean of England	49	Radnor	56
Chester	50	Dorset	57
Durham	50	Leicester	57
Norfolk	50	Salop	57
Lincoln	51	Devon	58
York, N. R.	51	Hereford	58
York, W. R.	51	Mean of Wales	60
Denbigh	52	Gloucester	61
Nottingham	52	Carmarthen	62
Northampton	52	Cornwall	62
Somerset	52	Merioneth	62
Stafford	52	Montgomery	63
Worcester	52	Monmouth	64
Berks	53	Pembroke	64
Flint	53	Caernarvon	67
Glamorgan	53	Anglesea	72
Northumberland	53	Cardigan	73

It is obvious that those counties, which contain large manufacturing towns, exhibit a mortality wholly independent of their climate, as is exemplified in the case of Warwickshire; while the natural salubrity of others, for instance, Cornwall, is probably rendered more conspicuous by their exemption from sedentary employments.

VIII.

THE CROONIAN LECTURE.

ON THE

FUNCTIONS

OF THE

HEART AND ARTERIES,

By THOMAS YOUNG, M.D. For. Sec. R.S.

[Read before the Royal Society, 10 Nov., 1808.]

THE mechanical motions, which take place in an animal body, are regulated by the same general laws as the motions of inanimate bodies. Thus the force of gravitation acts precisely in the same manner, and in the same degree, on living as on dead matter; the laws of optics are most accurately observed by all the refractive substances belonging to the eye; and there is no case in which it can be proved, that animated bodies are exempted from any of the affections to which inanimate bodies are liable, except when the powers of life are capable of instituting a process, calculated to overcome those affections, by others, which are commensurate to them, and which are of a contrary tendency. For example, animal bodies are incapable of being frozen by a considerable degree of cold, because animals have the power of generating heat; but the skin of an animal has no power of generating an acid, or an alkali, to neutralise the action

of an alkaline or an acid caustic, and its texture is consequently destroyed by the chemical attraction of such an agent, when it comes into contact with it. As far, therefore, as the functions of animal life depend on the locomotions of the solids or fluids, those functions must be capable of being illustrated by the consideration of the mechanical laws of moving bodies; these laws being fully adequate to the explanation of the connexion between the motive powers, which are employed in the system, and the immediate effects, which they are capable of producing, in the solids or fluids of the body: and it is obvious, that the inquiry, in what manner, and in what degree, the circulation of the blood depends on the muscular and elastic powers of the heart and of the arteries, supposing the nature of those powers to be known, must become simply a question belonging to the more refined departments of the theory of hydraulics.

In examining the functions of the heart and arteries, I shall inquire, in the first place, upon the grounds of the hydraulic investigations which I have already submitted to the Royal Society, what would be the nature of the circulation of the blood, if the whole of the veins and arteries were invariable in their dimensions, like tubes of glass or of bone; in the second place, in what manner the pulse would be transmitted from the heart through the arteries, if they were merely elastic tubes; and in the third place, what actions we can with propriety attribute to the muscular coats of the arteries themselves. I shall lastly add some observations on the disturbances of these motions, which may be supposed to occur in different kinds of inflammations and of fevers.

When we consider the blood vessels as tubes of invariable dimensions, we may suppose, in order to determine the velocity of the blood in their different parts, and the resistances opposed to its motion, that this motion is nearly uniform; since the alternations, arising from the pulsation of the heart, do not materially affect the calculation, especially as they

are much less sensible in the smaller vessels than in the larger ones, and the principal part of the resistance arises from these small vessels. We are to consider the blood in the arteries as subjected to a certain pressure, by means of which it is forced into the veins, where the tension is much less considerable; and this pressure, originating from the contractions of the heart, and continued by the tension of the arteries, is almost entirely employed in overcoming the friction of the vessels: for the force required to overcome the inertia of the blood is so inconsiderable, that it may, without impropriety, be wholly neglected. We must therefore inquire, what the magnitude of this pressure is, and what degree of resistance we can suppose to arise from the friction of the internal surface of the blood vessels, or from any other causes of retardation. The magnitude of the pressure has been ascertained by Hales's most interesting experiments on a variety of animals, and may thence be estimated with sufficient accuracy for the human body; and for determining the magnitude of the resistance, I shall employ the theorems which I have deduced from my own experiments on very minute tubes, compared with those which had been made by former observers under different circumstances; together with some comparative experiments on the motion of water and of other fluids in the same tubes.

Dr. Hales infers, from his experiments on quadrupeds of different sizes, that the blood in the human arteries is subjected to a pressure, which is measured by a column of the height of seven feet and a half: in the veins, on the contrary, the pressure appears to amount to about six inches only: so that the force which urges the blood from the greater arteries through the minuter vessels into the large veins, may be considered as equivalent to the pressure of a column of seven feet.

In order to calculate the magnitude of the resistance, it is necessary to determine the dimensions of the arterial system, and the velocity of the blood which flows through it. Ac-

cording to the measurements of Keill and others, we may take $\frac{3}{4}$ of an inch for the usual diameter of the aorta, and suppose each arterial trunk to be divided into two branches, the diameter of each being about $\frac{4}{5}$ of that of the trunk, (or more accurately $1 : 1.26 = 10^{-.100567}$), and the joint areas of the sections about a fourth part greater, (or $1.2586 : 1 = 10^{.099896}$). This division must be continued twenty nine times, so that the diameter of the thirtieth segment may be only the eleven hundredth part of an inch, that is, nearly large enough to admit two globules of the blood to pass at once. The length of the first segment must be assumed about nine inches, that of the last, the twentieth of an inch only; and supposing the lengths of the intermediate segments to be a series of mean proportionals, each of them must be about one sixth part shorter than the preceding, (or $1 : 1.1961 = 10^{-.07776}$), the mean length of the whole forty six inches, the capacity to that of the first segment as 72.71 to 1, and consequently the weight of the blood contained in the arterial system about 9.7 pounds. It is probable that this calculation approaches sufficiently near to the truth: for the whole quantity of blood in the body being about 40 pounds, although some have supposed it only 20, others no less than 100, there is reason to believe that half of this quantity is contained in the veins of the general circulation, and that the other half is divided, nearly in equal proportions, between the pulmonary system and the remaining arteries of the body, so that the arteries of the general circulation may contain about nine or ten pounds. Haller allows 50 pounds of circulating fluid, partly serous, and partly red, and supposes $\frac{1}{5}$ of this to be contained in all the arteries taken together: but in a determination which must be in great measure conjectural we cannot expect perfect accuracy: and according to Haller's own account of the proportions of the sections of the arteries and veins, the large trunks of the veins appear to be little more than twice as capacious as those of the arteries, and the smaller branches much more nearly equal, so that we cannot attribute to the arterial system less than $\frac{1}{3}$ of the whole blood.

It may be supposed that the heart throws out, at each pulsation, that is about seventy five times in a minute, an ounce and a half of blood: hence the mean velocity in the aorta becomes eight inches and a half in a second: and the velocity in each of the succeeding segments must of course be smaller, in proportion as the joint areas of all the corresponding sections are larger than the area of the aorta: for example, in the last order of vessels, of which the diameter is the eleven hundredth of an inch, the velocity will be one ninety third of an inch: and this result agrees sufficiently well with Hales's observation of the velocity in the capillary arteries of a frog, which was one ninetieth part of an inch only. It is true, that Haller is disposed to question the accuracy of this observation, and to attribute a much greater velocity to the blood flowing through the capillary vessels, but he did not attempt either to measure the velocity, or to determine it by calculation: nor is this the only instance in which Haller has been led to reason erroneously, from a want of mathematical knowledge: he may, however, have observed the particles of blood moving in the axis of a vessel with a velocity much exceeding the mean velocity of its whole contents. If we calculate upon these foundations, from the formula which I have already laid before the Society, it will appear that the resistance which the friction of the arteries would occasion, if water circulated in them instead of blood, with an equal velocity, must amount to a force equivalent to the pressure of a column of fifteen inches and a half: to this we may add about a fourth for the resistance of the capillary veins, and we may estimate the whole friction, for water, at twenty inches. The only considerable part of this force is derived from the term $\frac{2.1126lv}{10^7 d^{3.5}}$ in the value of f: this term increases for each successive segment in the ratio $1 : 1.49425 = 1 : n$, and the sum of the series is to the first term, as $\frac{n^{30}-1}{n-1}$ to 1. It appears also, that a very small portion only of the resistance is created in the larger vessels: thus, as far as the twentieth division, at

the distance of an inch and a quarter only from the extreme capillary arteries, the pressure of a column of one twentieth of an inch only is required for overcoming the whole friction, and at the twenty fifth division, where the artery does not much exceed the diameter of a human hair, the height to which the water could rise, in a tube fixed laterally into the artery, is only two inches less than in the immediate neighbourhood of the heart.

In order to judge of the comparative resistance produced by fluids of different degrees of viscidity, I employed the same tubes, by means of which I had determined the friction of water, in extreme cases, for ascertaining the effect of different substances held in solution in the water: since it is impossible to make direct experiments on the blood in its natural state, on account of its tendency to coagulate: and those substances, which have the power of preventing its coagulation, may naturally be supposed to produce a material change in its viscidity. The diameter of one of the tubes, which was cylindrical, was the fortieth part of an inch: the bore of the other was oval, as is usual in the finest tubes made for thermometers: the section, divided by one fourth of the circumference, gave a one hundred and seventy second for the mean diameter. I caused some milk, and solutions of sugar of different strength, to pass through these tubes: they were all transmitted much more sparingly than water, with an equal pressure, and the difference was more considerable in the smaller than in the larger tube, as might naturally be expected both from the nature of the resistance, and from the result of Gerstner's experiments on water at different temperatures. In the first tube the resistance to the motion of milk was three times as great as to that of water; a solution of sugar in five times its weight of water produced twice as much resistance as water; in twice its weight, nearly four times as much as water: but in the narrower tube, the weaker solution of sugar exhibited a resistance five times as great as that of water, which is more than twice as much as appeared in the larger tube. Hence there

can be no doubt that the resistance of the internal surface of the arteries to the motion of the blood must be much greater than would be found in the case of water: and supposing it about four times as great, instead of twenty inches, we shall have eighty, for the measure of a column of which the pressure is capable of forcing the blood, in its natural course, through the smaller arteries and veins; which agrees very well with Hales's estimate.

This determination of the probable dimensions of the arterial system, and of the resistances occasioned by its different parts, is in some few respects arbitrary, at the same time that it cannot be materially altered without altering either the whole quantity of blood contained in the body, the diameters of the smallest capillary vessels, the mean number of bifurcations, or the magnitude of the resistance, all of which are here assumed nearly as they have been laid down by former observers: the estimation of the length of the successive segments only is made in such a manner, as to reconcile these data with each other, by means of the experiments and calculations relating to the friction of fluids in pipes. The effect of curvature in increasing the resistance has been hitherto neglected; it can be only sensible in the larger vessels; and supposing the flexures of these to be equivalent to the circumferences of two circles, each two inches in diameter, the radius q being 1, we have $r = \frac{.0000045p\ v^2\ q^{\frac{1}{8}}}{q} = .0000045 \times 720 \times 64 = .207$, or about one fifth of an inch, for the measure of the additional resistance arising from this cause in the case of water, or four fifths for blood, which is a very inconsiderable part of the whole.

It might be questioned whether the experiments, which I have made, with tubes $\frac{1}{172}$ of an inch in diameter, are sufficient for determining, with accuracy, the degree in which the resistance would be increased in tubes, of which the diameter is only one sixth part as great; and it may be

doubted whether the analogy, derived from these experiments, can be safely employed as a ground for asserting, that so large a portion of the arterial pressure is employed in overcoming the resistance of the very minute arteries. But it must be remembered, that these experiments are at least conclusive with respect to the arteries larger than the tubes employed in them, and even to those which are a little smaller; so that the remaining pressure, as observed in experiments, can only be employed in overcoming the resistance of the minuter arteries and veins; and these observations tend therefore immediately to confirm the analogy drawn from the experiments on the motion of water. It might indeed be asserted, that the viscidity of the blood exceeds that of water in a much greater ratio than that which is here assigned; but this is rendered improbable by some experiments of Hales, in which, when the intestines were laid open, on the side opposite to the mesentery, so that many of the smaller arteries were divided, the quantity of warm water which passed through them, with an equal pressure, was only about twelve times as great as that of the blood which flows through them in their natural state; and it is probable, that at least three or four times as much of any fluid must have passed through them in their divided, as in their entire state, unless we suppose that the coats of the divided vessels, like many other muscular parts, are capable of being contracted by the contact of water. In some other experiments, it was found that a moderate degree of pressure was capable of causing water to exude so copiously through the exhalant vessels of the intestines, that it passed through the aorta with a velocity of about two inches in a second, although these vessels do not naturally allow any passage to the blood: on the other hand, it sometimes happened that very little water would pass through such channels as naturally transmitted a much larger quantity of blood: a circumstance which Dr. Hales very judiciously attributes to the oozing of the water into the cellular membrane surrounding the vessels, by means of which they were compressed, and their diameters lessened. On the

whole, it is not improbable, that in some cases the resistance, opposed to the motion of the blood, may exceed that of water in a ratio somewhat greater than I have assigned; but this must be in the minutest of the vessels, while in the larger arteries the disproportion must be less: so that, however we may view the subject, it appears to be established, that the only considerable resistance which the blood experiences, occurs in the extreme capillary arteries, of which the diameter scarcely exceeds the hundredth part of an inch.

We cannot suppose that the dimensions of the sanguiferous system agree uniformly, in all its parts, with the measures which I have laid down; but the truth of the inference is not affected by these variations. For example, there may perhaps be some arteries commuicating with veins, of which the diameter exceeds the eleven hundredth of an inch; but there are certainly many others which are much more minute; and the blood, or its more liquid parts, passing through these more slowly, it must move more rapidly in the former, so that the resistance may in all be equal to the pressure, and the mean velocity may still remain such as is determined by the quantity of blood passing through the aorta. There is indeed some uncertainty in the measure of the globules of the blood, which I have made the basis of the dimensions of the minute arteries: and I have reason to think, that instead of $\frac{1}{2000}$ of an inch, their greatest diameter does not exceed $\frac{1}{3000}$, or even $\frac{1}{3600}$: the general results of the investigation are not however affected by this difference: it will only require us to suppose the subdivisions somewhat more numerous, and the branches shorter. [See the Essay on Blood and Pus. "It is" also "not improbable that the viscidity of the blood may be a little greater than is here supposed, and the increase of resistance in the smallest vessels somewhat less considerable, so as to give a tension, in the arteries of a middle size, not quite so great as is calculated. Mr. Cooper has however never seen aneurysms of the radial and anterior tibial arteries con-

tinued by anastomosis, after the arteries had been tied above the swellings. Medicoch. tr. X. 233." Med. Lit. Ed. 1. p. 104.]

These are the principal circumstances which require to be considered, with respect to the simple transmission of the blood through the arteries into the veins, without regard to the alternate motions of the heart, and to the elastic and muscular powers of the vessels. I shall next examine the nature and velocity of the propagation of the pulse. The successive transmission of the pulsations of the heart, through the length of the arteries, is so analogous to the motion of the waves on the surface of water, or to that of a sound transmitted through the air, that the same calculations will serve for determining the principal affections of all these kinds of motion; and if the water, which is agitated by waves, is supposed to flow at the same time in a continued stream, and the air which conveys a sound to be carried forwards also in the form of a wind, the similitude will be still stronger. The coats of the arteries may perhaps be considered, without much inaccuracy, as perfectly elastic, that is, as producing a force proportional to the degree in which they are extended beyond their natural dimensions; but it is not impossible that there may be some bodies in nature, which differ materially from this general law, especially where the distension becomes considerable: thus there may be substances which exhibit a force of tension proportional to the excess of the square, or the cube of their length, beyond a certain given quantity. It is safest therefore to reason upon the elasticity of any substance, from experiments made without any great deviation from the circumstances to which the calculation is to be applied.

For this purpose, we may again employ some of the many excellent experiments contained in Hales's hæmastatics. It appears, that when any small alteration was made in the quantity of blood contained in the arteries of an animal, the height of the column, which measured the pressure, was al-

tered nearly in the same proportion, as far as we are capable of estimating the quantity, which was probably contained in the larger vessels of the animal. Hence it follows, that the velocity of the pulse must be nearly the same as that of an impulse transmitted through an elastic fluid, under the pressure of a column of the same height, as that which measures the actual arterial pressure: that is, equal to that which is acquired by a heavy body falling freely through half this height. In man, this velocity becomes about fifteen feet and a half in a second; to which the progressive motion of the blood itself adds about eight inches; and with this velocity, of at least sixteen feet in a second, it may easily happen that the pulse may appear to arrive at the most distant parts of the body without the intervention of any very perceptible interval of time.

The velocity of the transmission of the pulse being known, it is easy to determine the degree in which the arteries are dilated during its passage through them. The mean velocity of the blood in the aorta being eight inches and a half in a second, its greatest velocity must be about three times as much, since the contraction of the heart is supposed to occupy only about one third part of the interval between two successive pulsations; and if the velocity of the pulse is sixteen feet in a second, that of the blood itself must be about one eighth part as great; so that the column of blood occupying eight inches may occupy only seven; hence the diameter must increase in the ratio of about fifteen to sixteen. The tension will also become one eighth greater, and the force of the heart must be capable of supporting a column of one hundred and one inches. The force would, however, require to be somewhat increased, from the consideration that the force required at the end of any canal during the reflection of a pulsation or wave of any kind, is twice as great as the force exerted during its transmission, and the force employed in the origination of a wave or pulse in a quiescent fluid, is the same as is required for its reflection; on the other hand, a weaker pulsation, proceeding into a narrower channel,

becomes more energetic, so that, from this consideration, a force somewhat smaller would be required in the heart: on the whole, however, it appears probable, that the former of these corrections must be the more considerable, and that the force of the heart must be measured by the pressure of a column, rather more than less than one hundred and one inches high: nor would this force by any means require a strong exertion of muscular power; for it only implies a tension of something less than three pounds for each inch of the circumference of the greatest section of the heart; and supposing the mean thickness half an inch, an equal number of the fibres of some other muscles of the body would be capable of exerting a force of more than two hundred pounds, in the state of the greatest possible action.

The force, here assigned to each pulsation, agrees extremely well with the inference that may be drawn from an experiment of Hales, on the ascent of the blood in a tube connected with an artery of a horse. The whole height of the column being nine feet, the blood rose about three inches higher during each pulsation, which was repeated fifty or sixty times in a minute: now we may suppose the acceleration to have extended a little beyond the first half of the space thus described, so that two inches were described in two fifths of a second; and if there had been no friction, nor any other cause of retardation, there can be no doubt that at least four inches would have been described in the same time; but the same column of nine feet, if it had been actuated by its own weight, would have described thirty one inches in the same time: consequently the force with which the blood was forced through the artery was nearly one eighth of the whole force of tension, as it appears in the former calculation.

The magnitude of the pulse must diminish in the smaller arteries in the subduplicate proportion of the increase of the joint areas, in the same manner as the intensity of sound is shown to decrease in diverging from a centre, in the sub-

duplicate ratio of the quantity of matter affected by its motion at the same time. For example, in the arteries of the tenth order, of which the diameter is one thirteenth of an inch, its magnitude must be only one third as great as in the aorta, that is, the greatest progressive velocity of the blood must be eight inches and a half in a second only, and the dilatation one fiftieth part only of the diameter. In the vessels of the twentieth order, the dilatation does not exceed $\frac{1}{160}$ of the diameter, which is itself the 140th part only of an inch: so that it is not surprising, that Haller should have been unable to discover any dilatation in vessels of these dimensions, even with the assistance of a powerful microscope. If we estimated the magnitude of the pulse in the aorta, frem the excess of the temporary above the mean velocity, which would perhaps be justifiable, that magnitude would become still less considerable.

These calculations agree extremely well with each other, and with experiment, as far as they relate to the power of the heart, and the affections of the smaller arteries. But there is reason to think that the velocity of the pulse in the larger vessels is much more considerable than has been here stated; and their dilatation is also less conspicuous, when they are exposed to view, than it would probably be, if it were as great as is inferred from the velocity here assigned. I have demonstrated, in the hydraulic investigations which I lately laid before the Royal Society, that the velocity of an impulse passing through a tube, consisting of perfectly elastic materials, is half as great as that of a body supposed to have fallen from the given point to the base of the modular column of the tube: and that the height of this column is such that the tube would be extended without limit by its pressure; consequently it must be greater than the height of a column equivalent to the pressure by which the tube is burst. Now it has been ascertained by Dr. Hales, that the pressure, required for bursting one of the carotids of a dog, is equal to that of a column of water one hundred and ninety feet high; nor does he remark that the artery was very materially

dilated; and deducting from this height the five feet which express the actual pressure in the arteries of a dog, the remaining one hundred and eighty five feet will give a velocity of at least fifty four feet in a second, for the propagation of the pulse in the dog. It is not however ascertained, that all the membranes, which may have surrounded the artery in this experiment, are called into action in its ordinary pulsation, much less that the force, developed by their tension, varies precisely according to the general law of perfectly elastic bodies: but this mode of calculation is still amply sufficient to make it probable, that the velocity of the pulsations, in the larger arteries, must amount to at least forty feet in a second, although some very considerable deductions must be made, on account of the resistances of various kinds, which cannot be comprehended in the calculation.

The artery must not be supposed to subside, immediately after each pulsation, precisely to its original dimensions, since it must remain somewhat fuller, in order to supply the capillary arteries, and the veins, in the interval between the two successive pulsations: and in this respect it differs from the motions of a wave through a canal, which is open on both sides: but the difference may be understood, by supposing a partial reflection of the pulse to take place at every point where it meets with any resistance, which will leave a general distension of the artery, without any appearance of a retrograde pulsation.

I shall proceed to inquire, in the third place, into the nature and extent of the functions which are to be attributed to the muscular fibres of the coats of the arteries; and I apprehend that it will appear to be demonstrable, that they are much less concerned in the progressive motion of the blood, than is almost universally believed. The arguments, which may be employed to prove this, are nearly the same that I have already stated, in examining the motion of a fluid, carried along before a moving body in an open canal; but

in the case of an elastic tube, the velocity of the transmission of an impulse being rather diminished than increased by an increase of tension, the reasoning is still stronger and simpler; for it may here be safely asserted, that the anterior parts of the dilatation, which must be forced along by any progressive contraction of the tube, can only advance with the velocity appropriate to the tube, and that its capacity must be proportionate to its length and to the area of its section: now the magnitude of its section must be limited by that degree of tension which is sufficient to force back through the contraction what remains of the displaced fluid, and the length by the difference of the velocity appropriate to the tube, and that with which the contraction advances; consequently if the contraction advance with the velocity of a pulsation, as any contractile action of the arteries must be supposed to do, this length necessarily vanishes, and with it the quantity of the fluid protruded; the whole being forced backwards, by the distending force which is exerted by a very small dilated portion, immediately preceding the contraction. It might indeed be imagined, that the contraction follows the pulsation with a velocity somewhat smaller than its own; but this opinion would stand on no other foundation than mere conjecture, and it would follow, that the pulse would always become more and more full, as it became more distant from the heart; of which we have nothing like evidence: nor would a moderate contraction, even if this supposition were granted, produce any material effect. For example, if the velocity of the contraction were only half as great as that of the pulsation, which is the most favourable proportion, it would be necessary, taking sixteen feet in a second for the velocity of the pulsation, that the section of the arteries should be contracted to about one half, in order to produce, by their progressive contraction only, the actual velocity of the blood in the aorta; one sixteenth of the blood being carried, in this case, before the contraction: but if the contraction were only such, as to reduce the section of the artery to $\frac{9}{10}$, which is probably more than ever actually

happens, the velocity produced would be only about $\frac{1}{80}$ as much; and if the contraction were only to $\frac{99}{100}$, which is a sufficient allowance for the smaller arteries, about $\frac{1}{10000}$ only of the actual velocity in the aorta could be produced in this manner, even upon a supposition much more favourable to the muscular action of the arteries than the actual circumstances. A small addition must be made to the force required for producing the retrograde motion, on account of the friction to be overcome, but the general reasoning is not affected by this correction.

The contraction of the artery might also be supposed to remain after each pulsation, so that the vessel should not be again dilated until the next pulsation, or, in other words, a spontaneous dilatation might be supposed to accompany the pulsation, instead of a contraction: but such a dilatation would be useless in promoting the progressive motion of the blood, since a larger quantity of blood, conveyed to the smaller vessels, without an increased tension, would be ineffectual with respect to the resistances which are to be overcome. It is possible indeed that the muscular fibres of those arteries in which the magnitude of the pulse is sensible, like the fibres of the heart, may be inactive, or nearly so, during their dilatation, and that they may contract after they have been once distended, with a force which is in a certain degree permanent; the greater momentum of the blood, which accompanies the dilatation, enabling it to enter the minute arteries with equal ease, although assisted by a tension somewhat smaller: so that the same mean velocity may be sustained, as if the arteries were simply elastic, and a little smaller in diameter, with a very little less exertion of the heart. But the distribution of the blood could never be materially diversified by any operation of this kind: for if any artery were for a moment distended by such a variation, so as to exceed its natural diameter by one hundredth part only, a pressure would thence arise equivalent to that of a column about two inches high, which would, in spite of all

resistances, immediately dissipate the blood with a considerable velocity, and completely prevent any local accumulation, unless the elastic powers of the vessel itself were diminished; and this is, perhaps, the most important, as well as the best established inference from the doctrine that I have advanced.

It appears that a mola has sometimes been found in the uterus, totally destitute of a heart, in which the blood must have circulated in its usual course through the veins and arteries: in this case it cannot be ascertained whether there was any alternate pulsation, or whether the blood was carried on in a uniform current, in the same manner as the sap of a vegetable probably circulates. If there was a pulsation, it may have been maintained by a contraction of the artery, much more considerable, and slower in its progress than usual; and with the assistance of a spontaneous dilatation; the resistance in the extreme vessels being also probably much smaller than usual: if the motion was continued, it would lead us to imagine that there may be some structure in the placenta capable of assisting in the propulsion of the blood, as there may possibly be some arrangement in the roots of plants by which they are calculated to promote the ascent of the sap. The circulation in the vessels of the more imperfect animals, in which a great artery supplies the place of a heart, is of a very different nature from that of the more perfect animals: the great artery, which performs the office of the heart, is here possessed of a muscular power commensurate to its functions, and seems to propel the blood, though much more slowly than in other cases, by means of a true peristaltic motion. It appears also from the observations of Spallanzani, that in many animals a portion of the aorta, next the heart, is capable of exhibiting a continued pulsation, even when perfectly empty and separated from the heart; but this property is limited to a small part of the artery only, which is obviously capable of being essentially useful in propelling the blood when the valves of the aorta are closed. The muscular power of the termination of the

vena cava is also capable of assisting the passage of the blood into the auricle. It is not at all improbable that a muscle of involuntary motion, which had been affected throughout the whole period of life by alternate contractions and relaxations, might retain from habit the tendency to such contractions, even without the necessity of supposing, that the habit was originally formed for a purpose to be obtained by the immediate exertion of the muscular power: but in fact the partial pulsation of the vena cava is perfectly well calculated to promote the temporary repletion of the auricle, which it must retard, for a moment, the column which is approaching, at a time that it could not be received. [See the note from the Edinburgh Journal.]

There is no difficulty in imagining what services the muscular coats of the arteries may be capable of performing, without attributing to them any immediate concern in supporting the circulation. For since the quantity of blood in the system is on many accounts perpetually varying, there must be some means of accommodating the blood vessels to their contents. This circumstance was very evident in some of Hales's experiments, when after a certain quantity of blood had been taken away, the height of the column, which measured the tension of the vessels, frequently varied in an irregular manner, before it became stationary at a height proportional to the remaining permanent tension. Haller also relates, that he has frequently seen the arteries completely empty, although in some of his observations there was probably only a want of red globules in the blood which was flowing through them. Such alterations in the capacity of the different parts of the body are almost always to be attributed to the exertion of a muscular power. A partial contraction of the coats of the smaller arteries may also have an immediate effect on the quantity of blood contained in any part, although very little variation could be produced in this manner by a change of the capacity of the larger vessels.

According to this statement of the powers which are concerned in the circulation, it must be obvious that the nature of the pulse, as perceptible to the touch, must depend almost entirely on the action of the heart, since the state of the arteries can produce very little alteration in its qualities. The greater or less tension of the arterial system may indeed render the artery itself, when at rest, somewhat harder or softer; and, if the longitudinal fibres give way to the tending force, it may become also tortuous: possibly too a very delicate touch may in some cases perceive a difference in the degree of dilatation, although it is seldom practicable to distinguish the artery, in its quiescent state, from the surrounding parts. But the sensation, which is perceived when the artery is compressed, as usual, by the finger, is by no means to be confounded with the dilatation of the artery; for in this case an obstacle is opposed to the motion of the blood, against which it strikes, with the momentum of a considerable column, almost in the same manner as a stream of water strikes on the valve of the hydraulic ram; and in this manner, neglecting the difference of force arising from the different magnitudes of the sections, the pressure felt by the finger becomes nearly equal and similar to that which is originally exerted by the heart: each pulsation passing under the finger, in the same time, as is required for the contraction of the heart, although a very little later; and more or less so, in proportion as the artery is more or less distant; the artery remaining then at rest for a time equal to that in which the heart is at rest. When therefore an artery appears to throb, or to beat more strongly than usual, the circumstance is only to be explained from its greater dilatation, which allows it to receive a greater portion of the action of the heart, in the same manner as an aneurysm exhibits a very strong pulsation, without any increase of energy, either in itself, or in the neighbouring vessels; and on the other hand, when the pulsations of the artery of a paralytic arm become feeble, we cannot hesitate to attribute the change to its permanent contraction, since the enlargement and contraction of the blood vessels of a limb are well known to

attend the increase or diminution of its muscular exertions: [sometimes also there may be a spasmodic contraction of an arterial trunk; and sometimes perhaps a partial obstruction from a small coagulum within a paralytic and debilitated vessel.] There is also another way, in which the diminution of the strength of an artery may increase the apparent magnitude of the pulse, that is, by diminishing the velocity with which the pulsation is transmitted: for we have seen that the magnitude of the pulse is in the inverse ratio of the length of the artery distended at once; and this length is proportional to the velocity of the transmission: but it must be observed, that the force of the pulse striking the finger would not be affected by such a change, except that it might be rendered somewhat fuller and softer, although a considerable throbbing might be felt in the part, from the increased distension of the temporary diameter of the artery. How little a muscular force is necessary for the simple transmission of a pulsation, may easily be shown by placing a finger on the vena saphena, and striking it with the other hand at a distant part; a sensation will then be felt precisely like that of a weak arterial pulsation.

The deviations from the natural state of the circulation, which are now to be cursorily investigated, may be either general or partial; and the general deviations may consist either in a change of the motion of the heart, or of the capacity of the capillary arteries. When the motion of the heart is affected, the quantity of blood transmitted by it may either remain the same as in perfect health, or be diminished, or increased. Supposing it to remain the same, the pulse, if more frequent, must be weaker, and if slower, it must be stronger; but this latter combination is scarcely ever observable; and in the former case, the heart must either never be filled, perhaps on account of too great irritability, or never be emptied, from the weakness of its muscular powers. But the immediate effect of such a change as this, in the functions depending on the circulation, cannot be very material, and it can only be considered as an indication of a derangement

in the nervous and muscular system, which is not likely to lead to any disease of the vital functions. When the quantity of the blood transmitted by the heart is smaller than in health, the arteries must be contracted, until their tension becomes only adequate to propel the blood, through the capillary vessels, with a proportionally smaller velocity, and the veins must of course become distended, unless the muscular coats of the arteries can be sufficiently relaxed to afford a diminished tension, which is probably possible in a very limited degree only. In this state the pulse must be small and weak, and the arteries being partly exhausted, there will probably be a paleness and chilliness of the extremities: until the blood, which is accumulated in the veins, has sufficient power to urge the heart to a greater action, and perhaps, from the vigour which it may have acquired during the remission of its exertions, even to a morbid excess of activity. Hence a contrary state may arise, in which the quantity of blood transmitted by the heart is greater than in perfect health; the pulse will then be full and strong, the arteries being distended, so as to be capable of exerting a pressure sufficient to maintain an increased velocity, and to overcome the consequent increase of resistance; a state which perhaps constitutes the hot fit of fever; and which is probably sometimes removed in consequence of a relaxation of the extreme arteries, which suffer the superfluous blood to pass more easily into the veins. Such a relaxation, when carried to a morbid extent, may also be a principal cause of another general derangement of the circulation, the motion of the blood being accelerated, and the arteries emptied, so that the pulse may be small and weak, while the veins are overcharged, and the heart exhausted by violent and fruitless efforts to restore the equilibrium; and this state appears to resemble, in many respects, the affections observed in typhus. When, on the contrary, the capillary vessels are contracted, the arteries are again distended, although without the excess of heat which must attend their distension from an increased action of the heart, and possibly without fever: an instance of this appears to be exhibited in the shrinking of the skin, which is frequently

observable from the effect of cold, and in the first impression produced by a cold bath: nor is it impossible, that such a contraction may exist in the cold fit of an intermittent, although it seems more probable that a debility of the heart is the primary cause of this affection.

Besides these general causes of derangement, which appear to be more or less concerned in different kinds of fever, there are other more partial ones, which seem to have a similar relation to local inflammations. The most obvious of these changes are such as must be produced by partial dilatations or contractions of the capillary vessels; since, as I have endeavoured to demonstrate, any supposed derangement in the actions of the larger vessels must be excluded from the number of causes which can materially affect the circulation. It cannot be denied, that a diminution of the elastic, or even of the muscular force of the small arteries, must be immediately followed by such a distension as will produce a resistance equal to the pressure: the distension will occasion an increase of redness, and in most cases pain: the heat will also generally be increased, on account of the increased quantity of blood which will be allowed to pass through the part; and since the hydrostatic pressure of the blood acquires greater force, as the artery becomes more distended, it may be so weak as to continue to give way, like a ligament which has been strained, until supported by the surrounding parts. In this state a larger supply of blood will be ready for any purposes which require it, whether an injury is to be repaired, or a new substance formed; and it is not impossible, that this change in the state of the minute vessels may ultimately produce some change in the properties of the blood itself.

The more the capillary arteries are debilitated and distended, the greater will be the mean velocity of the circulation; but whether or no the velocity will be increased in the vessels which are thus distended, must depend on the extent of the affected part; and it may frequently happen

that the velocity may be much more diminished on account of the dilatation of the space which the blood is to occupy, than increased by the diminution of the resistance. And on the other hand, the velocity may be often increased, for a similar reason, at the place of a partial contraction. Hence we may easily understand some of the experiments which Dr. Wilson has related in his valuable treatise on fevers: the application of spirit of wine to a part of the membrane of a frog's foot contracted the capillary arteries, and at the same time accelerated the motion of the blood in them, while in other parts, where inflammation was present, and the vessels were distended, the motion of the blood was slower than usual.

Another species of inflammation may probably be occasioned by a partial constriction or obstrnction of the capillary arteries, which must indeed be supposed to exist where the blood has become wholly stagnant, as Dr. Wilson in some instances found it. This obstruction must however be extended to almost all the branches, belonging to some small trunk, in which the pressure remains nearly equal to the tension of the large arteries; for in this case it will happen, that the whole pressure will be continued throughout the obstructed branches, without the subtraction of the most considerable part, which is usually expended in overcoming the resistances dependent on the velocity; so that the small branches will be subjected to a pressure, many times greater than that which they are intended to withstand in the natural state of the circulation; whence it may easily happen that they may be morbidly distended; and this distension may constitute an inflammation, attended by redness and pain. Nor is it impossible, that obstructions of this kind may originate in a vitiated state of the blood itself, although it would be difficult to prove the truth of the conjecture; it seems, however, to be favoured by the observation of Haller, that little clots of globules may often be observed in the arteries, when the circulation is languid, and that they disappear when its vigour is restored, especi-

ally after venesection. But if a very small number only of capillary arteries be obstructed, other minute branches will still be capable of receiving the blood, which ought to pass through them, without any great distension or increase of pressure; and this exception is sufficient to explain another experiment of Dr. Wilson, in which a small obstruction, caused by puncturing a membrane with a hot needle, failed to excite an inflammation. This species of inflammation is probably attended by less heat than the former; and where the obstruction is very great, it may perhaps lead immediately to a mortification, which is called by the Germans "a cold burning."

The most usual causes of inflammation appear to be easily reconcileable with these conjectures. Suppose any considerable part of the body to be affected by cold; the capillary vessels will be contracted, and at the same time the temperature of some parts of their contents will be lowered, from both of which causes the resistance will be increased, and the arteries in general will be more or less overcharged: if then any other part of the system be at the same time debilitated or over heated, its arteries will be liable to be morbidly distended, and an inflammation may thus arise, which may continue till the minute vessels are supported and strengthened, by means of an effusion of coagulable lymph. The immediate effect, either of cold or of heat, may also sometimes produce such a degree of debility in any part, as may lay the foundation of a subsequent inflammation: but the first effect of heat in the bloodvessels appears to be the more ready transmission of the blood into the veins, by means of which they become very observably prominent: and cold, which checks the circulation in the cutaneous vessels, probably occasions a livid hue, by retaining the blood stagnant longer than usual in the capillary vessels of all kinds. It may be objected, that an obstruction of the motion of the blood through a great artery ought, upon these principles, to produce an inflammation in some distant part: but in this case, the blood will still find its way very

copiously into the parts supplied by the artery, by means of some collateral branches, which will always admit a much larger quantity of blood than usually passes through them, whenever a very slight excess of force can be found to carry it on, or when the blood which they contain finds a readier passage than usual, by means of their communication with such parts as are now deprived of their natural supply.

It is difficult to determine, whether blushing is more probably effected by a constriction or by a relaxation of the vessels concerned; it must, however, be chiefly an affection of the smaller vessels, since the larger ones do not contain a sufficient quantity of blood to produce so sudden an effect. Perhaps the capillary vessels are dilated, while the arteries, which are a little larger only, are contracted: possiby too an obstruction may exist at the point of junction of the arteries with the veins; and where the blush is preceded by paleness, such an obstruction is probably the principal cause of the whole affection.

With respect to the tendency of inflammation in general to extend itself to the neighbouring parts, it is scarcely possible to form any reasonable conjecture that can lead to its explanation: this circumstance appears to be placed beyond the reach of any mechanical theory, and to belong rather to some mutual communication of the functions of the nervous system, since it is not inflammation only, that is thus propagated, but a variety of other local affections of a specific natnre, which are usually complicated with inflammation, although they may perhaps, in some cases, be independent of it. Inflammations, however, are certainly capable of great diversity in their nature, and it is not to be expected, that any mechanical theory can do more than to afford a probable explanation of the most material circumstances, which are common to all the different species.

Besides these general illustrations of the nature of fevers and inflammations, the theory which has been explained

may sometimes be of use, in enabling us to understand the operation of the remedies employed for relieving them. Thus it may be shown, that any diminution of the tension of the arterial system must be propagated from the point at which it begins, as from a centre, nearly in the same manner, and with the same velocity, as an increase of tension, or a pulsation of any kind would be propagated. Hence the effect of venesection must be not only more rapidly, but also more powerfully felt in a neighbouring than in a distant part: and although the mean or permanent tension of the vessels of any part must be the same, from whatever vein the blood may have been drawn, provided that they undergo no local alteration, yet the temporary change, produced by opening a vein in their neighbourhood, may have relieved them so effectually from an excess of pressure, as to allow them to recover their natural tone, which they could not have done without such a partial exhaustion of the neighbouring vessels. But since it seems probable, that the minute arteries are more affected by distension than the veins, there is reason in general to expect a more speedy and efficacious relief in inflammations, from opening an artery than a vein: this operation, however, can seldom be performed without material inconvenience; but it is probably for a similar reason, that greater benefit is often experienced from withdrawing a small portion of blood by means of cupping or of leeches, than a much larger quantity by venesection, since both the former modes of bleeding tend to relieve the arteries, as immediately as the veins, from that distension, which appears to constitute the most essential characteristic of inflammation. In a case of haemorrhage from one of the sinuses of the brain, a very judicious physician lately prescribed the digitalis: if the effect of this medicine tends principally to diminish the action of the heart, as is commonly supposed, it was more likely to be injurious than beneficial, since a venous plethora must be increased by the inactivity of the heart; but if the digitalis diminishes the general tension of the arteries, in a greater proportion than it affects the motion of the heart, it may pos-

sibly be advantageous in venous hemorrhages. We have, however, no sufficient authority for believing, that it has any such effect on the arterial system in general.

Although the arguments, which I have advanced, appear to me sufficient to prove, that, in the ordinary state of the circulation, the muscular powers of the arteries have very little effect in propelling the blood, yet I neither expect nor desire that the prevailing opinion should at once be universally abandoned. I wish, however, to protest once more against a hasty rejection of my theory, from a superficial consideration of cases, like that which has been related by Dr. Clarke; and to observe again, that the objections, which I have adduced, against the operation of the muscular powers of the arteries in the ordinary circulation, not being applicable to these cases, they are by no means weakened by any inferences which can be drawn from them.

ADDITION.

[From the Ed. med. chir. journ. VI. 386.]

The reviewer of some articles from the Philosophical Transactions has observed, after speaking of Dr. Young's Croonian lecture, that the case described by Mr. Brodie affords a sufficient confutation of "the speculations in the preceding Croonian lecture, because the circulation must have been carried on by the muscularity of the arteries, as there was no heart." The question is thus decided in a very convenient manner for those who either cannot or will not enter into any argument on the subject. But I maintain, that, in all probability, there *was a heart*, capable of propelling the blood into the vessels of the mola; and it appears to me, that Dr. Young has given himself unnecessary trouble in endeavouring to reconcile such cases with his theory; for none of them, with which I am acquainted, tend, in any material degree, to militate against it.

As far as I have been able to discover, there is no evidence of the existence of a mola without a heart, except in company with a perfect foetus; and there is no evidence of a want of vascular connexion between the perfect foetus and the mola. The only accurate examination of the placenta, in such a case, that I can find, is that which Dr. Clarke has recorded, and his words are these: "The navel string of the perfect foetus was injected; from whence the injection very readily passed through both placentae, viz. that of itself, and that of the monster, and then into the *substance of the monster* also, as appeared by the *redness of the skin*." (Ph. tr. 1793, p. 155.) It is well known to practitioners in midwifery, that in cases of twins, after the birth of one foetus, a haemorrhage from its funis, still communicating with the common placenta, may sometimes be fatal to the other. How then will the reviewer be able even to make good his assertion, "that [in Mr. Brodie's case,] there was no heart;" since Dr. Clarke's observation shows, that there may be a ready passage from the heart of the perfect foetus into the vessels of the mola, and since it has not been demonstrated, that such a communication is ever wanting? Some may indeed think it improbable, that one heart should be sufficient for the circulation of two bodies; but it is easier to believe in an apparent improbability, than in a demonstrable impossibility.

I shall here beg leave to notice a mistake which seems to have been made, by a writer in a very respectable medical review, with regard to the principal objection, which has been stated in the Croonian lecture, to the agency of the arteries in propelling the blood. If I understand Dr. Young rightly, he does not apprehend that the muscular coat of the arteries would have any difficulty in executing a peristaltic motion, so rapid as to keep pace with the pulse; but that, if they did perform such a motion with that velocity, it would be ineffectual; because the blood would more easily flow back in a slight degree through the supposed progressive contraction, than it could be carried forwards; the

quantity which would be propelled by such an operation, with a pulsation no stronger than that which is actually observed in the arteries, being absolutely inconsiderable.

Those who are incapable of appreciating the degree of evidence, derived from mathematical considerations, will perhaps be disposed to pay some deference to the authority of Bichât, who is as decidedly antimathematical, and as absurdly antimechanical, as can possibly be desired. He advances, however, a number of arguments, some bad and some good, to prove that the arteries are absolutely passive in transmitting the blood which circulates through them. He denies, indeed, altogether, the muscular nature of the arterial fibres; but those who allow that parts, not muscular, may still possess a certain degree of contractility, will not be very solicitous respecting the name which is to be given to these fibres, provided that the question respecting their active powers in the circulation be previously decided.

London, 30*th April*, 1810.

[It must also be remembered, that a full share of influence is allowed to the effects of the nerves on the arteries, by the supposition that the state of tonic contraction of the smaller arteries in particular, is completely regulated by the nerves which govern them: and this explanation is sufficient to remove the objections to this theory which have been deduced from some late experiments, while it is on the other hand most amply confirmed by the direct experiments of the ingenious Dr. Parry.]

IX.

REMARKS

ON

PALPITATION,

AS AFFORDING

A DIAGNOSTIC OF DROPSY.

[*From the Medical Transactions*, vol. V, p. 257.]

The point on which I intend to insist, in the first instance, is the effect of a fluid in transmitting an agitation of any kind, to a more or less remote part of the body; an effect which I consider as affording an explanation of some symptoms, which would otherwise appear to militate against the true theory of the actions of the heart and arteries. The efficacy of a watery fluid, in transmitting a pulsatory motion, is indeed well known, from the common test of fluctuation, where the impulse of a slight blow, on one side of a cavity, is speedily and directly transmitted to the other side, and sometimes repeated by a kind of reflection, which is very justly considered as indicating the presence of a fluid in the cavity, especially in that of the abdomen; but it is remarkable, that an effect nearly similar is observable, when the water surrounds, instead of being contained in, the cavity: thus, when the body is immersed in a bath, an imperfect appearance of fluctuation is produced by striking the parietes of the abdomen with some force; and, what is still more surprising to one who has not considered the subject, the pulsation of the descending aorta, and of its subdivisions, the iliac arteries, may often be distinctly felt by pressure on

the umbilical region, in a person by no means emaciated. It may indeed be supposed, that the pressure of the water acts, in this case, merely by forcing the abdominal viscera higher up towards the thorax, and leaving the great arteries more exposed to the touch; but, if I am not mistaken, such a displacement of the viscera would be inadequate alone to account for the distinctness, with which the pulsation may sometimes be felt, especially when the action of the heart has been accelerated, as by swimming, or otherwise.

But, without adverting further to this indirect effect of a surrounding fluid, I shall attempt to deduce from the undeniable efficacy of a fluid contained in a cavity, in transmitting an impulse through it, an explanation of some very anomalous appearances, which sometimes accompany palpitations of the heart; and which, not being completely understood, have led on the one hand to a mistaken idea of the existence of aneurysm, and, on the other, to a false opinion of the total independence of the motions of the different parts of the arterial system, immediately continuous with each other.

In the case of Lydia Smith, a further account of which will be subjoined, principally from the notes obligingly communicated by Dr. Harrison, a palpitation was observed in the right hypochondriac region, and on the right side of the neck, which exhibited a vibratory motion, more rapid and less regular than that of the pulse felt at the wrist; and a similar vibration was observable in the heart itself: the pulsation in the neck was not confined to the jugular veins; it was more forcible and extensive than it could have been, if it had originated from those vessels; and it had more the appearance of a violent throbbing of the carotid artery, although, in the axillary artery, the pulse was comparatively regular and natural. Hence it was at first inferred, by some judicious and experienced observers, that there must be an aneurysm in the ascending branch of the aorta, which occasioned the irregularity in the action of the carotid, but of

which the effects were not sufficiently powerful to disturb the natural transmission of the blood through the axillary artery. Such a state of the circulation appeared to me, however, from the physical investigations of the motion of the heart and arteries, which I have detailed in the Philosophical Transactions, to be absolutely impossible; and this conviction led me to a repeated and minute examination of the peculiar symptoms. I then found, upon making strong pressure on the right side of the neck with a single finger, that the motion of the carotid artery was very perceptible, and totally independent of that of the superficial parts, being precisely synchronous with the pulse at the wrist, although it required considerable attention to distinguish it from the more irregular palpitation. Hence it became clear, that one half of the supposition, which I was combating, was erroneous, the pulsation of the axillary artery not being at variance with that of the carotid; and that the other half was without evidence, the existence of an aneurysm not being capable of explaining a beating, independent of the arteries.

I have divided, in my Medical Literature, p. 182, the species, *palmus cordis*, into two varieties, "A, affecting the pulse, a disease of the ventricle;" and "B, not affecting the pulse, probably of the auricle; the more common." The disease, in this case, could only be referred to the second variety: and it could only be supposed, that a fluid, preternaturally accumulated within the thorax, transmitted the effect of the irregular action of the auricles, by which the whole heart, and the parts in contact with it, were agitated, up to the membranes and integuments, in the neighbourhood of the clavicle, on the one side, and down to the abdominal viscera on the other: and it was easy to explain the occurrence of the palpitation on the right side of the neck and abdomen, so much more distinctly than on the left, by considering the effusion of water as confined, in great measure, to the right cavity of the thorax. The justice of this opinion was completely evinced by the examination

instituted after death; a considerable quantity of water was found on the right side of the chest, while on the left, there was little or none.

These facts will serve to afford us an additional nosological test, which may often be applicable to the discrimination of dropsy of the chest; since palpitation is by no means an unusual attendant on that disease, and may be generally observed, in such cases, to affect the parts above the clavicle, as is illustrated by a second instance, which will be briefly noticed. They will also lead us to a more cautious mode of reasoning, respecting apparent irregularities of the circulation, which have often been very positively asserted to exist, in such a form, as is actually incompatible with the established laws of mechanical actions and forces, which may often be modified and counteracted by those of animal life, but can never be superseded: and they may induce us to profit by every similar opportunity of investigating more accurately the real functions of the sanguiferous system, which have so often been misrepresented and misunderstood.

CASE I.

Lydia Smith, aged 47, was admitted into St. George's Hospital, on the 6th of June, 1813. She was married, and had had six children: the catamenia had ceased at the age of 42: at 43, she had an attack of acute rheumatism in her feet, knees, and elbows: it continued about three weeks, and returned the next and the following autumn: on these occasions, she recovered without medical assistance; and she was relieved in two similar attacks, which occurred subsequently to January, 1813, by fomenting the parts affected. During the continuance of these fits of rheumatism, her general health was better than at other times. The palpi-

tation first occurred about two years before her admission, while she was scouring a floor: it subsided in some degree, but returned several times at intervals of about six weeks: and in January, she had a very severe attack: after this time, she had a violent pain about the umbilicus; the bowels were confined, and the excretions dark coloured. This affection of the abdomen was relieved by fomentations and the warm bath; but her breathing became more laborious; and she could not lie in a horizontal position for many weeks. In March, she had dropsical swellings of the legs and abdomen, which were removed three times in succession, by means of some diuretic medicines prescribed by Dr. Clarke: after this, the pain was greatly abated, and she was able, in May, to resume her usual employments. During the attacks of the pain, and in the presence of the abdominal swelling, she had always been of a yellow colour; her lips and nails purple: but she had never perceived any pain in the right shoulder. She had lived temperately, having found, that wine, even in a moderate quantity, increased her complaints.

At the time of her admission, a palpitation was perceptible in the heart, and on the right side of the abdomen, a little above the umbilicus: from this point, she seemed to feel something running up in a right line to the neck; and a considerable pulsation was observable on the right side of the neck: her pulse was at 70, and very irregular: she had no cough, nor faintness, nor did she start in going to sleep: she could lie in a horizontal position, but not on the left side: she was thirsty and without appetite: the bowels were confined. She was directed to take, every other morning, half an ounce of crystals of tartar, and five grains of jalap, made into an electuary with oxymel of squills, and some tonic draughts, containing bark and steel, at intermediate times. In a few days, she complained of cough, which was relieved by a grain of ipecacuan, and three of extract of hemlock, taken three times a day, with some camphorated mixture, digitalis, nitre, and opium. On the 16th, she returned to a stomachic tonic, and took daily eight

grains of the blue mercurial pill, for ten or twelve days. A similar plan was pursued throughout the summer, by my colleague, Dr. Warren, who was so good as to take charge of my patients, during my absence from town: on the 9th of August, he ordered a blister to the region of the liver, the mercurial pill, and a diuretic mixture with pure potass, nitrous ether, and digitalis: on the 16th, some tincture of squills, with half a grain of elaterium, twice a day; afterwards once a day; then every other day. A glass of wine was allowed: on the 13th of September, a quarter of a grain only of elaterium was ordered; and this medicine was continued occasionally, till the beginning of November. At this time, the patient considered herself as much better; but the dropsical swellings, which had been very much reduced in the course of the autumn, had begun to increase again in the end of October: the palpitation was greatly relieved, as well as the pulsations in the abdomen and neck, but the motion of the heart was still evidently fluttering: the pulse was at 80, intermitting, and very irregular. The elaterium was repeated once only after my return to town, in the middle of November, the state of the bowels not permitting its further employment: she was evidently losing strength, and all that could be done for her assistance, was to moderate the distressing diarrhœa which supervened; chiefly by the infusion of angustura, ipecacuan, aromatic confection, opium, catechu, and logwood, and occasional enemata of starch, with tincture of opium. In the mean time, the dropsical symptoms, and the lividness of the lips, appeared to be relieved by the use of the compound squill pill; the palpitation was in great measure confined to the heart, during the latter part of the disease, and it had increased in some degree on the 1st of December, when the swellings had nearly subsided: the pulse had become more frequent and irregular. On the 1st of February, she had a return of rheumatic affection in her feet and knees, which appeared red and shining, with some pains in the bowels; the general symptoms being somewhat relieved; and after

remaining two or three days in this state, she died on the 3d of February.

Upon examination after death, there was no appearance of any thing like aneurysm in any part of the arterial system: the heart was a little enlarged, and some of its valves, especially those of the pulmonary artery, were much ossified, so that the free passage of the blood was impeded: there was a considerable quantity of fluid in the pericardium, in the right cavity of the thorax, and in the ventricles of the brain, but little or none on the left side of the chest: the liver was of a dark colour, but otherwise natural. The ossification may possibly have originated from some rheumatic inflammation, at an early period of the disease, and probably occasioned the palpitation, either by its immediate irritation, or by causing an accumulation of blood. I estimated the water in the cavity of the thorax, as amounting to about a pint. Dr. Harrison thinks it was much less: but as all the dropsical symptoms had subsided, in a great degree, during the latter period of the disease, and with them the palpitation in the neck, there is reason to suppose, that the effusion into that cavity had formerly been much more considerable.

CASE II.

Esther Shakespear was affected, at the time of her admission into St. George's Hospital, in the course of last winter, with symptoms much resembling some of those, which have been described in the case of Lydia Smith: the beating in the neck was very evident, and appeared to be equally independent of arterial or venous pulsation; but since it affected both sides equally, it did not afford the same kind of evidence respecting the transmission of the palpitation from the heart. There were, however, abundant symptoms of ascites and general dropsy, combined with hydrothorax: and all these were repeatedly subdued by draughts, consisting of

the infusions of gentian and senna, with the tinctures of jalap and squills. When the dropsical symptoms subsided, the beating and palpitations ceased also: so that we have, in this case, no positive proof that the pulsation did not arise from the simple reflux of the blood in the internal and external jagular veins; since it is well known, that such a reflux does often actually take place, and exhibit a vibratory motion of a nature nearly similar, in cases of palpitation, without any water in the chest.*

* After several vicissitudes of abatement, and return of the symptoms, this patient sunk under the disease in March, 1815. The last attack was too sudden to allow her being conveniently removed back to the hospital; but it was her own wish that an examination should be made after her death, and Mr. Hewett, a pupil of the hospital, had the goodness to perform the dissection. There was no material collection of water on either side of the thorax, but there were about 12 ounces in the pericardium, and the heart was considerably enlarged, especially the right auricle. Mr. Hewett had also lately seen another case, in which a collection of water in the pericardium had caused a singular pulsation on the right side of the chest. These dissections, though they do not immediately illustrate the appearance of pulsation in the neck, which is sometimes so remarkable, assist in confirming the truth of the observation, that water effused in the chest may not only be a cause of palpitation, by disturbing the regularity of the motions of the heart, but also by rendering the effect of those motions sensible in parts more or less remote from their origin.

X.

A LETTER

TO THE

EDITORS

OF A

MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,

NOTWITHSTANDING that I have been so unfortunate as to incur your displeasure, by involuntarily becoming the object of some very high encomiums, which have been bestowed on me, perhaps too lavishly, in a popular review, while, as you have clearly proved from my own words, the nature of the subject itself rendered perfection unattainable, I still depend so much on your regard for your own general character, which I am by no means disposed to depreciate, as to believe that you will take the earliest opportunity to correct a very important error, into which you have fallen, in asserting, that I have recommended to a student of physic to attend an hospital "in the second year *only*" of his medical studies. Now, in the 18th page of my Essay you will find these words: "As the spring advances, he must become a pupil of an hospital, which must continue to be his principal and *daily* object at *every subsequent* period, *while* practical lectures should be attended with diligence;" and these lectures are enumerated in the following page, among the pursuits of the third year. The public must be the judges between

us: and how you will be able to exculpate yourselves before them for so unaccountable a misrepresentation, which you have expanded into a whole page of argument, I am utterly at a loss to foresee. You have either censured what you have not read, or what you have read and forgotten; for I cannot believe you both mischievous and foolish enough to advance such an accusation, at the moment that you were fully aware of its falsehood.

Whether or no you were in the same happy predicament of inattention or oblivion when you asserted that I spoke "*lightly* of the clinical lectures of Edinburgh," I will not pretend to determine: perhaps you will solemnly maintain that to mention in express terms their "*excellence*," and their "*acknowledged superiority*," (p. 15) is to speak lightly of them; but this is more a matter of opinion than the former, and therefore I shall not expect you to retract it. It is, however, an absolute misstatement to say that I have considered the affections comprehended under the term PNEUSIS as one DISEASE; for I have most carefully remarked (p. 28) that I have intentionally united *different* diseases, as species constituting the same *genus*, according to their natural analogies, and to the most convenient mode of treating of them: nor have you been more correct in insinuating that the gout is to be found in two places, without *any* reference from one to the other; for in fact there are references in *both* the passages, in which I have thought it necessary to mention respectively the different forms of this very anomalous disease.

The charges, which you have grounded on these supposed offenses, do not very materially affect the general merits of the work; nor should I think its credit much diminished by admitting the truth of all else that you have advanced against it, especially if you succeeded in convincing your readers that "it ought to be in the library of every medical scholar to whom the work of Ploucquet is inaccessible," and

that its value is not altogether "superseded even by that stupendous work;" but having been induced to point out the most palpable of your mistakes, I shall briefly examine such others of your objections as appear most to require an answer.

You observe, without entering into the merits of the "detached essays," that they are "excrescences in such a work." Is a rose then an excrescence upon a myrtle, because they happen to be planted in the same bed? You seem unwilling to allow that any work in *English* on the study of physic can be required; and mention at the same time the Bibliotheca of Haller and the Index of Ploucquet, in order to deprive me of every excuse for publishing any thing not absolutely perfect. I can only observe that I have not copied a *single word* from either of those works; and how either of them is to be employed "as a guide to students," I am at a loss to understand; but on the mere circumstance of the language being English rather than Latin, I never meant to found any particular claim to indulgence. You do not appear to be aware that a methodical arrangement of every department of my subject is one of my professed objects, and the correct accentuation of names, contemptible as you may deem it, another: both these objects require in all cases a systematic enumeration, at least, of the whole nomenclature of the respective sciences, even when there are few or no works to be referred to each article; and in some such cases, you have very candidly produced the empty shelves of the library as affording fair specimens of its contents. The repetitions concerning "exotic medicine" exist only in your imagination. With respect to the alphabetical order, for which you express a decided preference, it can have no advantage over the worst system furnished with a good index; and if a general or scientific view is to be taken of any part of medical knowledge, it appears to me so evident as to require no proof, that it can only be obtained by means of a systematic ar-

rangement. You object to my conversion of generic into trivial names; but, in fact, if we wish to find a disease from its name only, we must look for it in an index, and then it is of no importance whether the name is generic or trivial; if from its nature and symptoms, we must consult the definitions, and the alternative remains equally indifferent. When you say that I have made a classification of names, and not of diseases, I am utterly incapable of comprehending your meaning, nor can I easily believe that you had yourselves any distinct idea of what your words were intended to express. You assert that my genera are founded on forced analogies; but in proof of this assertion you adduce no argument, and scarcely even an example, except in the case of the arrangement of the Aphtha of Cullen as a typhus, in which, though with some hesitation, I have followed Dr. Crichton: on this occasion you very concisely and I suppose satisfactorily answer my *note of interrogation* by a *note of admiration*, and there the illustration ends. That "the mildest and most terrible of diseases are the children of one family," is certainly not more unnatural than that an equal diversity should occur in the same individual disease, that is, in the same species; for instance, no fever can be slighter than some cases of scarlatina, and none can be more inevitably fatal than others. You disapprove my having "melted down Dr. Willan's orders into genera;" but I had the pleasure to find, in conversation with that respectable author before his death, that he himself considered it as a very proper adaptation of his partial method to a more extensive system, which he had the goodness to say he considered as extremely neat, and altogether unexceptionable; indeed it is impossible to read his account of what he calls species, without perceiving that a great number of them are mere varieties of the same disease. Almost all the instances of apparent repetition, that you have pointed out, relate to cutaneous diseases, in which, as I have expressly observed, "I have thought it better to follow Dr. Willan's arrangement with very little alteration,

than to attempt to introduce definitions and subdivisions more strictly methodical; sometimes, too, a solitary and accidental affection of a small part of the surface of the body may, very properly, be considered as belonging to a distinct class from that which comprehends affections of the same kind which are more extensive and habitual.

To your accusation of having made my "generalisations in the closet," I must certainly plead guilty. I have been accustomed to observe the progress of single cases at "the bed side," and in the theatre; but where I have wished to consider the relations of a hundred different cases of a hundred different diseases, I should have thought it perfectly absurd to sacrifice the convenience and tranquillity of the closet, for the fanciful advantage of being at the bed side of one of the ten thousand cases, at the moment that I laboured to obtain a perception of the general relations of the whole.

The term "Therapeutics," which you seem to prefer to "Acology," had already been employed in a different sense, and is usually understood as relating rather to the general principles of the practice of physic, than to the separate consideration of the operation of particular remedies. I allow that I have not divided the sedatives, commonly so called, according to the nature of their immediate action, but have been contented with referring back to the whole catalogue from the exhaurients: I really found it so difficult to satisfy myself how they ought to be divided, that I despaired of untying the knot, and was afraid of doing harm by attempting to cut it, as it was perhaps my duty to have done. I have not indeed professed myself by any means satisfied with the arrangement of this division of my work, which, however, I am happy to find you have thought more deserving of your indulgence than the rest; for, however I may think the value of your commendations diminished by

the want of a sounder spirit of criticism, and a greater power of discrimination, than you appear to me to have displayed in your censures, I do not profess to be altogether indifferent to your good opinion.

I am, Gentlemen,

Your very obedient Servant,

THOMAS YOUNG.

WORTHING, 21 *Oct.* 1813.

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