

## REVIEWS.

ART. XII.—*Principles of the Theory and Practice of Medicine.* By MARSHALL HALL, M. D. F. R. S., L. and E., Lecturer on the Theory and Practice of Medicine, &c., &c. First American Edition, revised and much enlarged. By JACOB BIOELOW, M. D., Professor of Materia Medica in Harvard University; and OLIVER WENDELL HOLMES, M. D. Professor of Anatomy in Dartmouth College. Boston, 1839; pp. 724, 8vo.

THE improvements of science necessarily beget a demand for a renewal of the elementary treatises that teach it. Had our medical knowledge remained stationary, as it was in the time of Cullen, the "First Lines" of that distinguished man would hardly have been superseded to this day. Few men have since made a better use of all the knowledge of their time than he did. Few have observed disease more faithfully; few have more ably or with better judgment combined the observations of himself and others, into a connected system; and fewer still have taught a more skilful treatment of disease. Indeed, with all the additions to knowledge of later times, and with all the changes of theory, his work is even now but partially superseded. It is yet read, and must be read by every physician; to the advantage of the experienced reader, and to the no small embarrassment of the student in his earlier days of pupilage.

The student receives his first instructions chiefly from general treatises; and he receives them in the main implicitly, with little power of estimating the degree of confidence to be placed in them. If he is then taught erroneously, he is not only compelled to unlearn what has been impressed with the freshness of first lessons upon his mind, but he becomes confused by contradictory assertions and opinions before he can have learned to weigh them; and discouraged, if not disgusted, by the uncertainty of all that he learns.

At no former period have works of this sort so rapidly become obsolete as in our own times. We have seen, within a few years, not old theories abolished for new speculations to assume their places, as in former times, but the objects of inquiry in a great measure changed; not the discovery of new facts merely, but new modes of observation established, and new methods of attaining accuracy in our investigations. It matters little, in this point of view, if we allow that much of this is unreal and liable to be overthrown in its turn; or if we go farther and join in the cynical remark, that there is more of the love of change than real improvement in the innovations of the present day. It matters not, we say, for science must be learned by the pupil as it is taught by the master; and those who teach the first alphabet, must teach substantially the same language as he who comes after and fills up the course of instruction.

We have spoken of elementary books of medicine as the first book of the student. It is often much more than that; very many students, in this country at least, whatever it may be in others, scarcely get beyond it in

the whole course of their pupilage. And the reading of many practising physicians, we apprehend, extends little further than an occasional reference to some favourite system of practice. If we may judge from the very extensive sale of such works as Thomas's Practice, and Good's Study of Medicine, compared with the limited demand for the Researches of M. Louis, the excellent works of Dr. Abercrombie, and others of a similar character, we must infer that there exists in the profession a very moderate desire to explore the original sources of medical knowledge compared with the readiness to avail themselves of the labours of compilers. This may not be very creditable to the learning of the profession, as a class of scientific men; and yet we fear it is a just representation of it.

The student of medicine must, indeed, as we have intimated, in most cases, begin with his *hand-book*. He must have an outline of the course before him, a general survey of the whole field of inquiry, before he is prepared for an advantageous investigation of particular subjects. But his studies need not end here. The three years of preparatory study required, so far as we know, with only one exception, in all our states, short as is the time for acquiring so much as is needed to be known, is yet sufficient for more than this. With only a tolerable amount of diligence he may have read and *studied* some of the best original treatises in all the departments of medical science, so as not only to have made himself acquainted with their facts and reasonings, but to have become familiar with their habits of observation and inquiry; in short, *have learned how to learn*. For a few years after he has assumed the style and consequence of a physician, he will have leisure, unless he be more fortunate than most men, for a still more advantageous pursuit of the same inquiries. And, in later life, amidst all the fatigues and responsibilities of a successful practice, the physician may yet find time for occasional glances at the labours of others, so as at least to keep himself informed of the state and progress of knowledge; if he do not, also, as he ought, furnish his own quota to help on that progress. In each stage he will occasionally find it convenient and useful to consult a well digested epitome of medicine to refresh his memory, of what he has before learned, or as an index to further researches; but if he confine himself to such reading his knowledge will be most superficial.

The first attribute of a good treatise on the principles and practice of medicine generally, should be its *correctness*. It should give a faithful view of what is *known* on the several subjects; a clear exposition of established facts and opinions, in contra-distinction from imperfect observations and speculative theories. Fulness must be sacrificed to accuracy. Better that there be many a gap in the train of unexplained phenomena than a single explanation resting upon a false assumption. In this point of view all attempts, which in times past have been so common, to present a complete system of medical knowledge, are full of evil.

We have alluded to the injury suffered by the student who begins his course of studies with learning antiquated or otherwise incorrect opinions. On this subject much more might be said. We have a vivid recollection of the impression made upon our own mind in the infancy of its acquisitions in medical learning, when in the retirement of a country village we were set to pore over the mechanical explanations in physiology of Haller and Boerhaave. The beautiful system of hydrostatic pressure through the invisible nervous tubes, swelling out the equally invisible cavities of the muscular fibres, to produce muscular contraction; with all the wonders of

the *error loci* in pathology; and then the dismay at finding, on reading the next book, that all this had long since been swept away by subsequent discoveries, (shall we say?) or speculations. The student who had fallen on the doctrines of a later period, the mysteries of the *spasm of the extreme* vessels of Hoffman and Cullen, would now be scarcely less bewildered. We do not forget that the works of all these great men contain much that is of permanent value; that they ought to be read still by every student of medicine. But, as first books, how greatly do they mislead and discourage the pupil.

It is not easy to determine how far an elementary treatise should contain theoretical explanations of the phenomena it describes. Its first object, doubtless, is with medical facts. But facts alone, without any connection by legitimate inferences, would form a confused mass of knowledge of little use to the student, who has no experience to enable him to draw inferences for himself. The true rule is simple enough in itself;—that no explanation should be allowed, that is not a rational deduction from the facts established. In actual practice, however, this rule is not so easily applied. Legitimate inferences and visionary speculations, although so widely different in their general character, approach each other by such ill-defined limits, that men of different minds view them very differently. What to one man seems clearly established by irresistible evidence, is to another, of more rigid temperament, the merest hypothesis. Those writers who undertake to give a complete system of medicine, are especially liable to mistake hypothesis for true theory, conjecture for evidence, speculation for reasoning; and such have been many of our most noted writers on the principles of medicine. A like danger besets him who either is or thinks himself the author of any considerable discovery in medical knowledge. His mind must be well balanced indeed, if he do not see in his own discoveries a much greater importance than will be attached to them by others, even if he do not over-estimate the evidence upon which the supposed discoveries themselves rest.

In these points of view, the work now before us has been prepared under peculiarly favourable circumstances. Whatever of bias the original author may have been exposed to, in consequence of his claim to new discoveries, is fully counterbalanced by the practical good sense and judgment of the able editors, who are liable to no such unfavorable tendencies. Both of them are well known for their zeal and success in the cultivation of sound learning, and one as an able practitioner and teacher of medicine of many years standing. Being engaged in the business of instruction, their experience of the wants of pupils has induced them to undertake this work. It may fairly be presumed that the same experience will have operated constantly as a caution against admitting into it anything that is either unsound in doctrine or incorrect in practice—anything that must be unlearned before the pupil can make farther progress in knowledge.

Dr. Marshall Hall's *Principles of the Theory and Practice of Medicine* was designed primarily to accompany, as a sort of text-book, the author's lectures on the same subject; indeed, it has much the appearance of having formed originally a part of the lectures themselves. There is often a vivacity in the style, and occasionally an allusion to himself and his own personal matters, to which a man might be much more easily incited in the preparation for a viva voce address to listening sympathising pupils, than by thinking of the deliberate and perhaps criticising reading of the study. There are some great advantages in this; it gives life and animation, it

keeps up the attention and makes a vivid impression. There are also disadvantages. Notwithstanding the author's repeatedly expressed determination "not to write an unnecessary sentence, or even an unnecessary word," his fertility of language often runs into an exuberance of words, and his zealous advocacy of his claims to original opinions or observation, sometimes outstrips the necessities of students. On the other hand, the design of filling up a more full explanation in his lectures, has led him to omit much that requires a more ample elucidation in a treatise designed for general use. Some of the more important of these redundancies the American editors have omitted; and the additions which they have made are so numerous and extensive, as to constitute about one third part of the large volume now presented to us.

It adds somewhat to the vividness of the impression, though not always to the feeling of security that the impression is a correct one, that the author evidently writes in a strong confidence that he is saying the right thing, and in the right manner. For example, in speaking of melanosis he says, "I will devote to it precisely that degree of attention which it appears to deserve, comparatively with the other subjects of this volume." And again, of eruptive fevers: "I expect much will really be effected in simplifying the subject by the mode which I have adopted, of placing these arrangements before the student. The eye—the mind will speedily become familiarized with the multitude of events which occur, and then the principal difficulty will be overcome." [English edition.] Indications of the same self-complacency are not wanting in other parts of the work.

The style, besides being, as we have already intimated, diffuse, is often negligent. The author occasionally indulges in the coining of a new word, or in a new application, which is equivalent to it. Sometimes this seems to be done for no other reason than to spare himself the trouble of seeking a better expression; for example, "the *splenic* pain, tenderness and tumor." In other instances they are more expressive, and by using them considerable circumlocution is avoided. Possibly we ought to tolerate such words as *detectible* and *indetectible* for this reason, although the sound of them is by no means agreeable to our ears. Technical phrases are carefully defined by an explanation of their etymology.

The style of the editors is free from the declamatory character of the author's, and is altogether in better taste, although their familiarity with French medical literature has occasionally betrayed them into a foreign idiom. If, in consequence, it wants something of the spirit of the original, it loses nothing in perspicuity, and gains much in simplicity and comprehensiveness, and in *sincerity*. We feel none of the misgivings, which in the other case it is not easy wholly to repress, lest strict, severe accuracy should sometimes be sacrificed, or qualified, for the sake of rhetorical effect.

These, however, are minor points; in the main, the descriptions are clear and graphic. The interest of them is considerably enhanced by the frequent introduction of individual cases of disease, by way of illustration. This advantage is attended by some sacrifice of the brevity so studiously aimed at, and sometimes the illustration draws off the attention too far from the main subject. In the thorough investigation of a disease, individual cases cannot be too carefully studied; but in a mere outline, a too frequent introduction of them may be injurious. If the history is related with great brevity, it is liable to mislead; if more fully, it occupies so much space,

in a work where conciseness of description generally prevails, as to give the appearance of an undue importance to the diseases thus illustrated.

It is not indeed easy, perhaps not possible, for any author to attach to each disease, in his descriptions, precisely the relative degree of importance which truly belongs to them. Diseases which he has himself elucidated by original observations or separate treatises, will unavoidably loom up in his mind to a consequence which they do not possess in the view of others. Some traces of this appear in the work before us, even through all the *graduating* processes of the editors.

The descriptions in this volume are essentially aided by a great number of wood cuts, representing sometimes healthy, and oftener morbid appearances. This, so far as we know, is a new application of this cheap method of illustration. The illustrations are not very beautiful, nor remarkably well executed, either in the original or the American edition. They do not, and are not designed to (nor indeed can any engravings, however well executed) serve as a substitute for an actual examination of the parts themselves, both healthy and morbid. But they will give the student some idea of their appearance, before he has had opportunity to make such examinations; and what is of much more worth, they will help to recall the exact appearances to his memory in subsequent reflection.

The work is divided into two parts: *The Theory of Medicine* and the *Practice of Medicine*. Under the first head are discussed in so many chapters, *Medical Observations; The Signs or Symptoms of Disease; The Causes of Disease; Treatment of Disease; Inflammation; Tubercle; Scrofula; Melanosis; Encephalosis; Scirrhus; Fever; Irritation; Exhaustion; Sinking; Bloodletting; Mercury; and Tartrate of Antimony*. The first four chapters and that on Scrofula, are original in this edition. We see no very obvious reasons for just this division of the subject—why many of these subjects should be regarded as belonging to the theory of medicine, any more than many others which are assigned to the division of *practice*. The author remarks that a full view of this subject would involve the consideration of the anatomy, physiology and morbid anatomy of organs. The first and second of these he supposes to be learned elsewhere, and the last is associated with the account of individual diseases. Some of the subjects in the preceding list might with equal propriety, one would think, be assigned to other places. Mercury and antimony belong rather to the *materia medica*, except so far as their action is the cause of specific diseases; and then their place would seem to be in the second part rather than the first. The same might be said of melanosis and encephalosis, and perhaps of some of the other diseases enumerated in the first part. On the other hand, the influence of the nervous system upon disease in general is so great, that we should have thought its claims to notice in connection with the theory of medicine, at least as strong as those of tubercle or blood-letting, if not equal to those of inflammation or fever. We do not regard this as a very great fault. But if there is any justness in these remarks, they show that the author has at least been guilty of carelessness in the arrangement of his subjects, although he makes a considerable display of attention to order and method in regard to it.

Several of the subjects of this part certainly require to be discussed before the pupil can be prepared to enter upon the study of individual diseases. The first chapter is on *Medical Observation*. The difficulty

of acquiring a full knowledge of diseases is well described in the opening sections.

"1. The observation of phenomena occurring in the living body, whether in health or in disease, is attended with peculiar difficulties. These phenomena are the results of the mutual action of external influences and of living organs upon each other. The influences are extremely numerous, they are constantly changing, and many of them imperfectly appreciable. The living system on which the act itself presents an assemblage of powers and susceptibilities, the extent and balance of which vary at every moment of life. A perfect history of any given case would require a complete exposition of all these external influences and all these internal changes. Still further, as the internal conditions of existence peculiar to an individual, or what is called the *constitution*, are, to a great extent, transmitted from his progenitors, a complete observation would require the knowledge of a thousand circumstances relating to those who have perished before the subject of our study existed."

"2. A perfect medical history is therefore an impossibility. It is in vain that the student turns to the most exhausting and insatiable of modern observers in the hope of discovering such a model; he may find valuable approximations, but never perfection. Were the patient placed in the balance of Sanctorius, were he surrounded with the instruments for measuring the density, the temperature, the moisture and the electrical state of the atmosphere; were every beat of his pulse registered; were he percussed by Piorry and ausculted by Laennec; were his intelligence ever so acute, and his questions ever so sagacious, still the account of his disease would be incomplete. And were he to die in spite of all this united wisdom, and were the scalpels and microscopes of all the Louis, the Kiernans and the Ehrenbergs in the world to unite in the investigation of his organs, the autopsy would be imperfect."

"3. Since, then, the most complete observation of a case is only an approximation to its real history; and, since, of the apparent facts which we may extort, some may be open to doubt, and others so far trivial as to lead to little or nothing. A sound and discriminating judgment must preside over our inquiries. The student must not imagine that by means of a table of questions he can sit down by his patient and draw up a perfect record. If even in mathematical investigations we see the mind of the philosopher shine through his rigid formulæ, how much more will the individual qualities of the observer be apparent amidst the refracting media through which medical truths are discerned. A table of questions may be useful in assisting the memory and in giving a degree of uniformity to our histories of disease, but the act of observation is not, and never can be, reduced to a purely mechanical process." pp. 3, 4.

The different methods employed in medicine of arriving at truth are arranged in three classes: *Personal observation—the study of recorded cases*, and the *numerical analysis of recorded cases*. Observation is, of course, the basis of all medical knowledge. But observation alone only presents us with detached facts. To deduce principles from these facts, they must be examined and compared in their manifold relations. Shall this be done in our own minds as we recall to memory the phenomena occurring under our personal observation? Or shall we apply the same power of recollection to the facts recorded by others, and thus draw our principles from the impression which this recollection has made on our minds? Or, lastly, shall we classify our facts, whether observed and recorded by ourselves or others, according to their more important relations, and enumerate their several coincidences and discrepancies? The numerical system, it should be remembered, relates not to the original observation of the phenomena themselves, but to the use that is made of them in deducing conclusions from them. It is from mistaking or overlooking this

truth that much of the prejudice against this method has arisen. Counting, it is said, is but a mechanical process, while the phenomena of matter and disease are far otherwise. But in truth this process is not applied, until by a rigid observation the facts are ascertained and properly subjected to mechanical, or rather to mathematical laws.

This method of analysis is of course liable to abuse as well as others. Facts may be assumed on insufficient authority. As in regard to circumstantial evidence in law, the circumstances must be proved, from which guilt is inferred, so here the facts must be established as true, before they can rightly be enumerated. Doubtful phenomena can lead to none but doubtful results. But in what other way can we even with well ascertained phenomena obtain sure and certain results?

Men of ardent temperament too, may draw conclusions from an insufficient number of observations. But this evil exposes itself to immediate correction. The enumeration exhibits not only the degree of constancy of particular phenomena, but the number and the completeness of the observations, thus presenting at once to the eye, the evidence of the weight of authority to which they are entitled. So far, therefore, from becoming a substitute to careful observation, the practice of enumeration is the greatest stimulus to it; because it exhibits more fully than any other mode of inquiry the deficiency of imperfect records.

"19. If the habit of recording cases rather improves than injures that of observation, the habit of analysing them exercises a still more beneficial influence. In the tables of the analyst every omission, though but in a single case of his series, becomes instantly obvious, and detracts from the completeness of his results. Take the cases given by Morgagni, by Laenoec, by Andral, at least in the first four volumes of the *Clinique Medicale*, and submit them to analysis, and you will find your tables looking like a chess-board towards the end of the game, a statement here and an omission there, straggling facts and blank spaces. Indirectly, then, the numerical school has improved the observers whom it has taught to analyse, and through their example has raised the general standard of observation." p. 10.

The chapter under consideration gives a brief explanation of the leading circumstances which should be embraced in a complete history of a case of disease, and then presents the whole subject in a tabular view. It is not pretended that this can be entirely carried out in every case; perhaps not to its fullest extent in any. But by having it strongly impressed on the mind of the pupil and of the physician at the outset, what it is desirable that the history should accomplish, it may be hoped that some approach to such a history may be obtained. The filling up of particulars must be greatly modified by the peculiar circumstances of each case, as well as by the capacities and the opportunity to exercise them, both of the patient and the physician.

The number of those who will actually make observations for the benefit of others is small compared with the number of the whole profession. But the value of these instructions is not limited to them. Something like the same process of investigation is necessary in every case of disease, to enable the physician to acquire a sufficient knowledge of its character to fit him to prescribe for it. On this point instruction is greatly needed. Pupils enter upon the study of medicine, and it is to be feared, oftener upon its practice too, without any definite idea of the means by which they are to obtain a knowledge of the disease presented to their notice. How

often do we see physicians ask a few questions, almost at random, or trust to a doubtful and uncertain tact, to ascertain the nature of a complaint, instead of making an intelligent series of inquiries. A true tact will indeed do much; but it is by guiding the physician in his inquiries, and in obtaining significant answers, not as a substitute for investigation.

To the mass of people out of the profession, the whole matter is a mystery; and it is to this circumstance, perhaps, more than to any other, that the public at large are so little able or disposed to discriminate between the intelligent physician and the empiric. The process of investigation is equally hidden in either case, and there is but little reliance upon the general character of either to distinguish between them. Not unfrequently medical men increase the difficulty by an unnecessary display of mystery, as if the respect for their wisdom was in proportion to the degree in which it is concealed. The opposite is unquestionably true. It may well be doubted whether any scheme can be devised for the suppression or discouragement of quackery, so effectual, as for the legitimate members of the profession to improve their own knowledge, and exhibit it fairly in a full and patient inquiry into the phenomena of the diseases presented to them. If this is done plainly, in the simple desire to ascertain the truth for the benefit of the patient, it presents a far better view of the real intelligence of the physician, than he would be able to exhibit by any direct attempts to display his knowledge; and in due course of time, if not at once, his intelligence will be appreciated.

The means of ascertaining the existence and character of diseases are presented in a somewhat different point of view in the next chapter, on the *Signs or Symptoms of Disease*. Symptoms are divided into the *rational* and the *physical* signs. Under the head of the latter we have a concise, but very clear explanation of the phenomena observed in auscultation and percussion. One of the greatest obstacles to the earlier adoption of these methods of exploration by the profession generally, has been the great number of new terms with which their first introduction was encumbered; many of them in a foreign language, and therefore, however significant in themselves, not at all so to the minds of those who were not familiar with that language.

Our volatile neighbours on the other continent have such lively imaginations, that they often affix designations from a comparison with objects, to which our more sluggish fancies can discover only a faint resemblance. The greater difficulty is, that they are in a foreign tongue. Some of our young men return from abroad so laden with the wisdom of the old world, that they are unable to express their knowledge but in a barbarous mixture of divers languages. The better and the larger portion of them have become so accustomed to receive instruction on these subjects in another language, and have so associated the instruction they received abroad with the terms as well as the manner of the teacher, that they almost unconsciously continue to use their foreign idiom when speaking of these subjects at home. Our earlier treatises on auscultation were all translations from the French, and most of the later have been little more than imitations. The translators seem, in many instances, to have found it easier to adopt the original term applied by their authors to each separate phenomenon described, than to apply a corresponding one in our own language. Thus it happened that these new terms, a considerable number of which were from the very nature of the case unavoidable, instead of being, as in



the original, descriptive and therefore easily understood and remembered, became to English readers not only arbitrary, but in a sense barbarous. If it be said that physicians should be expected to know enough of the French language to understand their meaning, it may be answered that there would, in that case, be no occasion for a translation.

We would not carry our requirement of a translation so far as to the interpretation of proper names, as the French themselves are said to have done, in the times when honest Mr. Flint in the story, by a double translation became Pierre de Fusil in France and returned Peter Gunn. But terms of art or science, which derive all their appropriateness from their significancy, ought surely to be translated whenever there is a corresponding term in our own language equally applicable and significant. Why should the English reader be required to stretch his organs into a vain attempt to say *bruit de frottement*, or to pucker them into *bruit de soufflet*, while we have *friction* sound for the one, and good old Anglo-Saxon *bellows* sound, or, if you prefer it, a *puff* for the other? In some few instances the original term is so bad in itself, that it is quite desirable that a substitute should be applied. *Bruit de diable*, for example, is derived from an instrument so trivial as not to be known out of France. It conveys no meaning, certainly no appropriate meaning, to our minds, in the original language, and translation cannot help it. A *devilish noise*, besides the more than questionable propriety and decorum of the phrase, is not very distinctive.

We have been led to these remarks, not by the prevalence of the fault, on which we have commented, in the chapter under review, but by its unusual freedom from it. We know not where else so clear and intelligible an exposition of auscultation and percussion can be found. It is short and does not go into all the minute details, for its object is to be elementary. As an introduction to this branch of study for the pupil, it is excellent. It will be hardly less valuable to the practitioner who has already studied the subject in more elaborate works, to refresh his memory in long intervals of practice.

It is the fault of most works of this kind, that in their treatment of diseases too great a variety of remedies are recommended, and recommended too confidently. Every disease has its specified method of cure, often described with so much detail that the particular medicines to be given and the mode of administering them are pointed out. The novice has but to find out the name of his disease, and to look in his book for its appropriate remedy; and this, too, with little or no intimation that in a vast proportion of cases no remedy whatever will be of any avail towards the effectual cure of the disease. This work, as its title professes, confines itself strictly to the *principles* which should govern the physician in his treatment. In the histories of individual diseases it gives no specific directions for particular formularies of medicines, but points out the character of the disease and that of the treatment suited to it, leaving it to the reader's own skill to apply the principles to the case before him.

Care is taken, also, to attach no more than their due importance to the action of medicines. In the introductory chapter on the *Treatment of Diseases*, the editors remark:

"337. Opportunities for doing good in medicine are not limited to the effect of specific remedies, nor to the application of drugs and instruments. The enlightened physician surveys the whole ground of a patient's case, and looks for

the presence of any deleterious agents and unremoved causes of disease. Many morbid affections, which have resisted powerful remedies, cease speedily on the removal of their sustaining cause. A child is often sick from an error in the diet or habits of the nurse or mother. An individual frequently suffers from the quality and quantity of his habitual food or drink, or of his exercise, air, occupation and clothing. A patient dies of phthisis, under the influence of a damp northern climate, who might have enjoyed long life in a southern; and on the other hand, men fall victims to a fever and ague at the south or west, who would have escaped from disease by a timely removal to the north. It is as necessary, in many cases, that the physician should inquire into the situation, diet, habits and occupation of the patient, as that he should feel his pulse or explore his chest; and it often happens that the state of the one cannot be corrected, until the others have been previously set right."—p. 87.

Diseases are divided, with regard to their duration, issue, and susceptibility of relief, into *curable*, *self-limited*, and *incurable*. The first and last of these classes are plainly enough indicated by the terms applied to them. "In the second class, or that of *self-limited diseases*, it is intended to include those which receive limits from their own nature, and not from foreign influences; and which, after they have obtained foothold in the system, cannot, in the present state of our knowledge, be eradicated or abridged by art, but to which there is due a certain succession of processes, to be completed in a certain time; which time and processes may vary with the constitution and condition of the patient, but are not known to be shortened, or greatly changed by medical treatment."—p. 89.

The views of the editors, on this subject, have been more fully developed by Dr. Bigelow, in his discourse read before the Massachusetts Medical Society, in 1835, and published at that time.\* These views are of great practical importance in the management of diseases. If it be true that certain diseases must go through a certain course in spite of every effort of the physician to cut them short, then it is obvious that such efforts are not only useless, but are liable to be highly injurious. In regard both to self-limited and to incurable diseases, the attention of the physician is directed to a wrong object, because an impracticable one, while he is attempting by active treatment to cut them short, or break them up, as the phrase is. It is not the least evil, that his labour is lost. Much direct suffering and injury are the immediate effect, and the patient is deprived of all that great amount of alleviation of suffering which a palliative course might in most cases produce. How often do cases of fever, which were mild in their beginning, become suddenly aggravated after the operation of exhausting remedies that were designed to destroy them? How many consumptive patients have made a more painful and more rapid, and no less certain, progress to the grave, in consequence of the bleedings, and the vomitings, by which their physicians have vainly hoped to cure them!

He who considers how large a portion of the ills of life, of every kind, has to be borne as best we may; to be assuaged and relieved rather than to be cast off, will not esteem the office of the physician unworthy of his best powers because much of his care must be directed to the palliation rather than to the cure of diseases. Better, surely, to be content with the mitigation of evils that cannot be removed, than by attempting what is beyond our powers, to put in jeopardy the good we might be able to accomplish.

\* See the No. of this Journal for November, 1835, p. 148.

"361. The importance and usefulness of the medical profession, instead of being diminished, will always be elevated exactly in proportion as it understands itself, weighs justly its own powers, and professes simply what it can accomplish. It is no derogation from the importance of our art, that we cannot always control the events of life and death, or even of health and sickness. The incompetency which we feel, in this respect, is shared by almost every man upon whom the great responsibilities of society are devolved. The statesman cannot control the destinies of nations, nor the military commander the event of battles. The most eloquent pleader may fail to convince the judgment of his hearers, and the most skilful pilot may not be able to weather the storm. Yet it is not the less necessary, that responsible men should study deeply and understandingly the science of their respective vocations. It is not the less important, for the sake of those whose safety is, and always will be, committed to their charge, that they should look with unbiassed judgment upon the necessary result of unavoidable causes. And while an earnest and inquiring solicitude should always be kept alive, in regard to the improvement of professional knowledge, it should never be forgotten, that knowledge has for its only just and lasting foundation, a rigid, impartial, and inflexible requisition of the truth."—p. 97.

The first chapter of the original work, the fifth of the American edition, is on Inflammation, and contains a succinct, but, on the whole, an able and clear exposition of the leading phenomena of that important process. It is not, however, altogether free from the fault, to which we have before alluded, of giving a more than equal proportion of attention to some favourite point, in comparison with others of greater intrinsic consequence. Under the head of *Inflammation as a curative means*, he finds room for a detailed account of Dupuytren's method of curing artificial anus, with two diagrams; of the operations for prolapsus uteri by incisions in the vagina, and of nævus by puncture, with three representations, the two last of which, he claims to have first suggested himself. These details are not without their importance in themselves, but they seem a little out of place in an epitome so concise, as that less than a single page is devoted to a consideration of the constitutional symptoms of inflammation.

In speaking of the question whether, in the human subject, parts once entirely separated from the system can ever be reunited by organization with true vascular connections, both the author and the editors appear to have overlooked the cases, reported by Dr. Balfour of Edinburgh, of a perfect reunition of considerable portions of the finger, after having been completely separated. Dr. H. repeats, not very accurately, the old story of the nose that was bitten off and grew on again, but expresses a doubt whether there was a vascular union; and adds a case in which the tip of the finger was cut off, and being reappplied, adhered. It remained without sensation but was apparently vascular. The editors relate a similar case. In Dr. Balfour's case more than an inch of the index finger was cut off, and several minutes passed before it was re-applied. It adhered, and "recovered both heat and sensation."\* In that of one of his correspondents, "the finger had been off an hour and a half before the dressing, and yet the union was so far effected in a week, that pulsation was distinctly felt at the end of the finger,"† and in that of another the thumb of the right hand was cut off close to the joint with the metacarpal bone, and was replaced after about eight minutes. The union was so perfect, that six months after, the attending surgeon reported that "the man has been working for some months past enjoying all the advantages of his thumb,

\* Edinburgh Med. and Surg. Journ. vol. x. p. 429.

† Ibid. vol. xi. p. 317.

only the motion of the joint is impaired." The patient attested the correctness of the statement by signing it with the hand that suffered the injury.\* We have ourselves more than once seen a considerable portion of the finger unite, with an entire restoration of all its functions, after a separation so nearly complete that it was scarcely conceivable that the small portion of the skin which remained could have had any considerable influence in preserving its vitality. Dr. Balfour believes so fully in the power of perfect reunion as to propose, that in the operation for the renewal of lost parts, the portion to be inserted should be taken from any part of the body where it can best be spared, believing that the small strip of skin that preserves the union, in the common mode of operating, is of no importance to the successful result. This would, certainly, at times, be a much more convenient method. A man who should have lost that important ornament, the nose, has only to purchase a fragment from some neighbour, who is blessed with a superfluity. The surgeon is saved the difficult task of shaping so refractory an organ; and the patient is spared the perpetual labor of daily shaving it, as is said to have been sometimes necessary in the ordinary way of manufacture, where the material has been taken too much from the hairy scalp.

The chapter on bloodletting furnishes another striking example of the author's proneness to dilate on a favourite topic. An explanation of the effects of bloodletting in modifying the character of diseases, or of its influence as a remedy, might well have a place in a treatise on the principles of medicine; of the practice, at least, if not of the theory. But this is neither the one nor the other. It is merely an assertion and explanation of his rule for determining the propriety and extent of bloodletting, which is more fully developed in his "*Researches on Bloodletting*." The method, as most of our readers doubtless know, is to place the patient in an upright posture and bleed him to incipient faintness. "I would propose," says Dr. H., "that, in every case in which full bloodletting is to be instituted, the patient be placed perfectly erect in a chair, or in bed, and bled to the very first appearance of deliquium." p. 206. If much blood is lost before faintness begins, the patient required it and will be benefitted by the operation; if, on the other hand he faints with the loss of a little, he should not be bled at all. This might seem a little like the rule for trying a witch. If she swims she is a witch and must be burned, if she sinks she may be drowned, indeed, but she is no witch. Dr. H. says there is no danger because "the remedy is at hand." The fainting patient may be revived; the drowning witch (who is "no witch") may be dragged out. But whether either would come off quite scatheless, is a question.

The author regards this method as affording

"1. A rule for bloodletting, in all cases in which this measure is required to be fully instituted. 2. A guard at once against inefficient and undue bloodletting; and 3. A source of diagnosis."—p. 205.

Upon the strength of this single principle? he frames a classification of diseases, and arranges them in a table: "I. Augmented Tolerance," "II. Healthy Tolerance," "III. Diminished Tolerance"—beginning with congestion of the brain which *tolerates* the loss of XL or L ounces of blood, down to the cholera which *tolerates* no more than VI ounces. How simple is the practice of medicine! The whole application of one of

\* Edinburgh Med. and Surg. Journ. vol. xi. 452.

the most active, and, in some cases, one of the most valuable, of all our remedies, is now reduced to so simple a rule that "he who runs may read," and he who can use a lancet may practice it. Alas, that every rule will have its exceptions; and every practice, however excellent, will be met with objections. The author candidly states them, and the latter he easily obviates. "It seems," he says, "almost needless to allude to the case of early syncope from *timidity*. It is only necessary to arrest the flow of blood, to lay the patient recumbent, and to wait until his timidity has subsided." p. 208. Aye, but how is "the young practitioner" to distinguish faintness from timidity, from intolerance, from the nature of the disease?

"Two objections," adds our author, that just mentioned being too trivial to be regarded seriously as an objection, "have been made in reference to this rule for the administration of bloodletting; the first is that in some cases, not inflammatory, more blood might be taken than the patient could bear to lose, in order to institute the test; my reply is, that such cases are not *included* in my proposition, which only relates to cases in which bloodletting is required to be *fully instituted*."\*—p. 208.

We must, then, after all, find out some other means of determining whether it is safe to apply this universal rule. The test itself requires a test. The editors, in an additional section, express their dissent from many of the positions in this chapter. "The practical application of the rule," they say, "is by no means free from difficulties." The rule is intended to apply only to cases "in which bloodletting is required to be fully instituted." But it may be asked, how are we to know these cases? Either by the author's test or not. If we apply the test to discover them, we may do mischief by bleeding when we should not. If we can find them out without the test, then the test is superfluous." p. 212.

Two previous chapters on "Irritation," and on "Exhaustion," are but appendages to this on bloodletting, notwithstanding their precedence of it in the book. The subject of irritation is not treated of generally; but a particular case is selected in order to show that the phenomena produced by it, may be distinguished from those of inflammation, which they imitate, by means of the bloodletting test. *Exhaustion* from loss of blood, only, is spoken of in the chapter on that subject; and here, the most prominent object of remark, is the reaction after excessive loss of blood, which occasionally imitates the appearance of inflammatory action to such a degree, in the author's opinion, as not unfrequently to have led to most injurious repetitions of the bleeding. We doubt not that where copious bloodletting is freely practised by physicians there may be some occasion for the author's solicitude to produce a right impression on this subject. But we cannot but express our surprise that any man of the least practical experience in medicine, should be so led away by a hobby, as to think of enforcing such a rule of practice for an object like this; or indeed for any object that the nature of the case will admit of. "In every case in which full bloodletting," &c., let the patient be placed perfectly upright. Did he never see a case of inflammation, of the chest or peritoncum, in which every motion was agonising? And must the patient be bolted upright in his agony, because the physician has no other means of knowing whether this be really inflammation; or, if it be inflammation, in the idle fear that he may take a few ounces too much or too little of blood? As if there were no other means of estimating the effects of the loss of blood on the system;

\* The Italics and capitals are so in the original.

as if the state of the pulse, the countenance, the respiration, the general aspect, were nothing.

There is an intermediate chapter on Sinking which quite redeems us from our indignation, and brings us back to our former complacency with our author. The unwary physician, and too often the most wary will meet the same disappointment, not unfrequently finds his favourable prognosis belied by a sudden and apparently almost or quite causeless sinking away of all the powers of life, which in most cases nothing will relieve. There is nothing perhaps which so severely exposes the confidence of the patient's friends in his physician, for to the patient there is soon no place for either confidence or distrust, as an unexpected occurrence of this sort. In some cases no degree of watchfulness or sagacity may enable him to deserv the approaching danger. Sometimes he may do it, and perhaps anticipate and prevent it. At all events there is great advantage in his being fully warned, as here he is faithfully. He may at least be on the look out, and thus be the first to perceive the approach of evil; and if his previous prognosis has not been too confident he may save his own reputation harmless, even when he fails to benefit his patient.

*Fevers* Dr. Hall divides into three classes, Synochus, Typhus, and Intermittent. By *Synochus* he does not mean the disease so designated by Dr. Cullen, but "the common fever of this climate [Great Britain], as it arises from ordinary causes. It was used in this sense by the late Dr. Willan, and some term distinctive of such a form of fever from typhus is essentially necessary to the inquiry into the nature of fevers. It is that form of fever which is most frequently seen in private practice, amongst the middle and higher ranks of society; it is comparatively rare in hospitals." p. 232. There are weighty objections to this use of the term. If the introduction of new names for diseases is a serious inconvenience, the application of a term long in use to a new form of a disease is not only much more so, but is also extremely liable to lead to misapprehension and mistake. The division itself is to our minds of more than questionable validity. Especially in this country of republican equality, we greatly doubt if the diseases of the "middle and higher ranks of society" are so different from those found in hospitals as to demand a distinct term to designate them. We see nothing in the author's description of the disease to mark very clearly its peculiarities, as compared with other forms of fever; except indeed its aristocratic preference for certain "ranks of society."

The American editors, instead of confining themselves to Dr. Hall's division, extend the number to eight, viz: 1. Synochus; 2. Typhoid Fever or Dothineritis; 3. Typhus; 4. Intermittent Fever; 5. Remittent Fever; 6. Yellow Fever; 7. Congestive Fever, Spotted Fever, &c.; 8. Plague. The editors have omitted the original section on typhus, which was intended by the author to embrace all continued fevers not included under the preceding term of synochus, and have substituted two others, on typhoid fever, and on typhus. These sections give a lucid summary of the results of the latest published observations on these subjects, with figured illustrations of the morbid anatomy. These illustrations are copied from the original edition, although the designation of the disease to which they belong is changed.

Objections have been urged against attempting, in the present state of our knowledge of fevers, to establish a distinction between typhoid fever and typhus. It is by no means proved that they are essentially different

diseases. They may be mere varieties of the same disease modified by the various circumstances which are known to influence diseases in other cases, as climate, season, and epidemic influences. The distinction too, it is said, is founded not upon a difference of the symptoms observed during life, but upon the character of the anatomical changes ascertained after death.

But it is sufficiently well established that there are very important differences in the phenomena and effects of the great majority of cases of the fevers that have prevailed in Great Britain within the last five years, and those of the European continent, more especially as observed in Paris, and those of New England. The fevers of New England agree remarkably with those of Paris, and differ greatly from those of Great Britain. The same differences have been observed on a smaller scale, in different cases occurring at the same place, particularly in Philadelphia, where the discrimination between the two forms of fever has been carefully made by Dr. Gerhard.\* In the strongly marked cases the two forms of disease are so unlike as to be readily distinguished. In other cases they approximate so that they can only be known from each other by the appearances ascertained after death.

It matters little, in reference to the propriety of this division, whether we consider these differences as constituting essentially distinct diseases, or merely as varieties of the same disease. In either case, the difference of phenomena remains, and must constantly be borne in mind in order to understand the true character of the disease. It is certainly more simple to express these distinctions by a separate designation applied to each class of phenomena, than to preserve one term for both classes, and distinguish them by additional appellations, or by descriptive circumlocution. The chief evil arises from attaching too much importance to a name. We have not yet gotten wholly rid of the effects of the attempts to render nosology a matter of natural history, as if diseases assumed and preserved a fixed character capable of being defined and reduced to system like the objects which engage the attention of the naturalist. In reference to such a system, a full specific difference of character must be established before a new specific appellation can be allowed. But in the view that we take of diseases, any important distinction that must be known and remembered in order to understand the character of the disease, may be good ground for a distinctive term. There is need surely of a sound judgment in the application, and especially in the selection of such new terms. We could have wished that a better selection had been made in this instance. All that is essentially important is that so clear a description should accompany every new designation, that no false impression should be made by it, and no unfounded association be attached to it.

It is remarkable that the original author should have passed over without notice such important diseases as remittent fever, yellow fever, and plague. The deficiency is supplied by the editors.† We cannot, however, go into a particular examination of these sections; nor indeed of the remaining

\* See this Journal for February, 1837, p. 289, and August, 1837, p. 289.

† In the history of yellow fever on page 274, there is an error in the statement of the case of the ship *Two Brothers*, in which that disease arose in Boston in 1819. The crew of the vessel were not affected by the disease after her arrival, although many other persons were. The case affords a striking illustration of the influence of a gradual exposure to an active poison in diminishing the susceptibility of the system to its injurious effects.

portions of the work. If we were to extend our comments upon all the topics discussed in the ample volume before us as freely as we have upon some of those which we have noticed, our review would hardly fall short of a volume of equal dimensions. We have said enough to give an idea of some of its peculiar features, and, we trust, enough to express our high opinion of its general value as an eminently useful practical treatise. The notice we have taken of some of the author's favourite positions may possibly have given an impression that the work as a whole is strongly tinged by his speculative views. Such an impression would be highly unjust. Taken in connection with the corrections and additions of the editors we scarcely know any work, of such extent, that has so little that is merely speculative, or so much that is practically useful.

The descriptions of diseases, numerous and concise as they necessarily are, are remarkable for the vivid impression they present of the disease in question, as exhibited in its actual phenomena. There is little of theoretical discussion; much of historical information, and of a practical exhibition of facts and observations. The treatment too is free from that overloading of remedies, with which most similar treatises are burdened. Although we have already said so much on this subject, we cannot forbear to extract the following excellent remarks of the editors on the false estimate too often made of the efficacy of remedies. After speaking of the conflicting testimony in favour of opposite modes of treatment of yellow fever, they add:

"To us it appears that the principal cause of these contradictions is to be found in the disease itself, and not in the treatment. The poisonous miasm of yellow fever, like the unknown cause of cholera, acts with different intensity in different seasons and places; it is generated slowly or rapidly, in greater or less quantity, with more or less active qualities. It may moreover have to act upon a mass of population very differently predisposed, in different years and seasons. Nevertheless, we are constantly meeting, in the history of fatal epidemics, with the same false confidence, the same discrepancies which we find in that of the disease in question. To assume that nature cannot form a poison more active than any remedy; to select a fortunate series of cases and attribute all the results to treatment; to find some specious reason for every instance of failure; to frame a triumphant formula which the next breath of the pestilence will sweep away—such has been too often the course of those who have usurped the place of true observers. The first question asked by the surgeon of those who have been wounded in action, is, what is the nature and extent of the injuries received? But the degree of activity of a destructive miasm, which instead of inflicting a palpable mechanical injury, has mingled itself with the circulating fluids, and shows its intensity in the symptoms which follow, is thought an insignificant element in the history of a series of cases to which the name of a disease has been assigned, and all the important effects are attributed to the loss of a few pounds of blood, or the exhibition of a few drugs and potions. As well might the surgeon forget to tell us whether his patients were shot through the brain or through the biceps, and confine his account to the nature of his dressings." p. 279.

The author in his preface, as is the wont of authors, modestly states his object to be the benefit of "the medical student, and the young practitioner." To such the work, especially in its American dress, is, as we have said, eminently calculated to be useful. Nor is its usefulness by any means limited to them. There are many physicians of riper years, whose reading has not kept pace with the rapid progress of professional improvement and change, and who have little leisure or opportunity to go through



the details of recent observations. We know not where else they will find so good a summary of the best medical knowledge of the present day; exhibiting in general, able and correct views of the most important results of recent investigations in all the varieties of disease to which man is subject.

We have spoken of this work chiefly as we find it in the volume before us. We have purposely avoided any question that might arise between the author and the editors in regard to the liberties they have taken with his production. It is sufficiently apparent from what we have said that our highest estimate of value is attached to those parts which are original in this edition. There may possibly be some partial judgment in this opinion arising from our personal knowledge of the ability of the editors for such a work. But we believe it to arise much more from the evidence they have furnished of their ability in the work itself. Having no peculiar hypotheses to support, and no new discoveries of their own to vaunt, they were free from some of the temptations which beset the author. Being practical men, and men of practice withal, their good judgment has enabled them to overrule some of his extravagancies and correct some of his errors. We think they would have made a still better book, if they had done this more freely; but we doubt not they were restrained by a consideration of the respect due from an editor to his author.

The mechanical execution of the work is not very elegant. As a work for students, those who have had experience of the treatment which books ordinarily receive at their hands, will not regard this as a matter of much consequence. But for the table or shelves of the physician's library a better style of printing is truly desirable. The Boston press has furnished us with some very good specimens of medical printing. The translations of Louis on typhoid fever and on phthisis, Warren on tumours, and still more the recent translation of Louis on yellow fever are issued in a style highly creditable to the taste and liberality of their publishers.

It is even said, indeed, that these publications have not been met by a corresponding liberality on the part of physicians, and that cheapness is a much more sure guaranty for the sale of a work, than excellence. If it be so to the full extent, the publishers of course are not to be blamed for conforming to the miserable taste of their patrons. But we blush for the profession, if their niggardliness is such as to be a just apology for all the diminutive type, coarse paper, scanty margin, and sheep-skin covers in which our medical books are generally supplied.

E. H.

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ART. XIII.—*A Treatise on the Diseases of Infants, founded on recent Clinical Observations and Investigations in Pathological Anatomy, made at the Hospice des Enfants-Trouvés: with a Dissertation on the Viability of the Child.*—By C. M. BILLARD, M. D., &c., &c., with notes by DR. OLLIVIER, of Angers. Translated from the third French edition, with an appendix by JAMES STEWART, M. D. New York, George Adlard, 1839, 8vo., pp. 620.

As this work of M. Billard is generally acknowledged to be one of the most important on the subject of which it treats, of any that have hitherto