REVIEW II.

Clinical Lectures on Certain Acute Diseases. By ROBERT BENTLEY TODD, M.D., F.R.S., formerly Physician to King's College Hospital.
—London, 1860. pp. 487.

WE approach the examination of this work with a peculiar sense of the responsibility that attaches to our critical judgment, inasmuch as it inculcates doctrines of vital and fundamental importance in the practice of medicine, and inasmuch as its accomplished author no longer lives to defend those views, which during life he so ably taught. The work was given to the public during the interval which elapsed between Dr. Todd's lamented death and the day on which his funeral took place. It may therefore be justly regarded as his parting legacy to his old pupils and professional brethren, and the more so as its main object is to promulgate those views upon which his own great success in life mainly depended. Dr. Todd's sudden death in the very prime of life, and just when his many years of hard labour were about to be rewarded by a high share of professional success, teaches a sad but impressive lesson as to the vanity of all human hopes, and more especially as to the precarious nature of the aims and hopes of that section of our profession which limits itself to the practice of pure physic.

We purpose in the first place to make a few observations on Dr. Todd's mode of treatment of acute diseases, and afterwards to notice briefly the several diseases treated of in the work before us.

Dr. Todd's principles of treatment in acute diseases may be summed up in the following four propositions:

"1. That the notion so long prevalent in the schools, that acute disease can be prevented or cured by means which depress and reduce vital and nervous power, is altogether fallacious.

"2. That acute disease is not curable by the direct influence of any form of drug or any known remedial agent, excepting when it is capable of acting as an antidote or of neutralizing a poison, on the presence of which in the system the disease may depend (*materies morbi*).

"3. That disease is cured by natural processes, to promote which in their full vigour, vital power must be upheld. Remedies, whether in the shape of drugs, which exercise a special physiological influence on the system, or in whatever form, are useful only so far as they may excite, assist, or promote these natural curative processes.

"4. That it should be the aim of the physician (after he has sedulously studied the clinical history of disease, and made himself master of its diagnosis) to inquire minutely into the intimate nature of these curative processes—their physiology, so to speak—to discover the best means of assisting them, to search for antidotes to morbid poisons, and to ascertain the best and most convenient methods of upholding vital power."

The following is Dr. Todd's opinion in reference to the value of mercury in the acute inflammations:

"The much-vaunted powers of mercury as a remedy not only to promote the resolution of acute inflammation, but also to cause the absorption of its

product, lymph, rests first upon a false analogy, and secondly upon imperfect knowledge of clinical history.

"It was found that iritis, the result of the influence of syphilis, was cured under the use of mercury with a rapidity and certainty which did not belong to any other kind of treatment. Lymph effused in more or less quantity upon the surface of the iris, and even recent adhesions glueing the margin of the pupil to the capsule of the lens, quickly melted away under the peculiar change which mercury was capable of inducing.

"*Primâ facie*, there was no more reasonable suggestion than that mercury would exercise a similar influence on inflammations of like tissues to the membrane of the anterior chamber, and promote the removal of any lymph that might be effused upon them, preventing adhesions, or dissolving them if formed.

"But although it was a perfectly reasonable suggestion to give full trial to the use of mercury in inflammations of serous membranes, the analogy did not justify the expectation of such decisive results as were obtained in syphilitic iritis and rheumatic pericarditis, or pleurisy, than in the tendency of both inflammations to develop lymph and to cause adhesion of opposed surfaces. Nor in any of their other effects was there any such marked similarity between the syphilitic and the rheumatic poisons as would fully justify the expectation that the experimental trial of mercury for the cure of such inflammations would prove successful.

"And what has been the result of the long-tried use of mercury in both affections, syphilitic as well as rheumatic? Why, that whilst in the former mercurial treatment has never ceased to find favour with practical men, in the latter such has not been the case. No one would now venture to assert that mercurial influence, however quickly induced, ever checked pericarditis or pleurisy, nor would it be easy to adduce an instance in which mercury broke down adhesions or prevented their occurrence.

"Examples were no doubt of frequent occurrence in which such effects appeared to follow the use of mercury. But a more intimate acquaintance with clinical history has taught physicians that changes are apt to occur which simulate the absorption of a lymph deposit. It is very common to find a marked pericardial friction-sound disappear for a time, and the hopeful practitioner is led to regard this as the result of his remedies, especially of the use of mercury. In a day or two the friction-sound returns, and the practitioner is forced to conclude that his remedies have not produced the desired result. And there are the best reasons for inferring that the early temporary suspension of the friction-sound is due in a large number of cases to a slight liquid effusion, which separates the opposed rough surfaces, and so destroys the friction-sound, which, however, returns on the re-absorption of the liquid. Moreover, it is now proved by a multitude of examples that pericarditis will do perfectly well without mercury—nay, better than with it—and that in general the real benefit which the patient derives is to be referred to the opium with which the questionable mercury is combined.

"How often and often has the author most anxiously watched a mitral bellows murmur, caused by recent endocarditis in patients under mercurial treatment, hoping to discover that it had disappeared under the mercurial influence! Yet in his whole experience he is unable to discover a single case in which such a murmur had been even modified by any influence, save that of good nourishment, as tending to maintain a normal state of blood and of tissue, as furnishing opportunity for the mechanical wearing down (by attrition) of the deposited lymph."

It has been contended by many of Dr. Todd's disciples that he was the originator of a new system of medicine, and the writer has even

heard it stated, on more than one occasion, that his views on treatment were more than a century in advance of the age in which he lived. Now, while we entertain the greatest respect for the memory and labours of Dr. Todd, we cannot but think such language quite uncalled for, and we are unable to discover anything peculiar or original in Dr. Todd's principles of treatment as above laid down by himself. They are the same principles which are advocated by a large body of modern physicians, and Dr. Todd has no claim whatever to their origination, although he may have been an active promulgator of them among his own students. The homœopaths, Dr. Bennett of Edinburgh, and Sir John Forbes, have far more claim than Dr. Todd to their origination, or perhaps more correctly to their revival, and to their propagation among the profession at large. These principles have effected a great revolution in medical practice in this country, but it is doubtful whether in many instances they have not been pushed too far. Into this question we shall not enter at present, as the subject has on more than one occasion already occupied our attention. It is well known, however, that it was not the principles themselves, but the manner in which they were carried out, which constituted the peculiarity of Dr. Todd's treatment in both acute and chronic diseases. It was not the mere substitution of stimulants for depletion, but it was the enormous amount of alcoholic stimulants which it was the habit of our author to prescribe in the great majority of diseases.

But even here there was no novelty in Dr. Todd's treatment. It was merely a revival, or perhaps an exaggeration, of the "Brunonian System," which towards the end of last century gained such ascendancy in the profession, not only in Britain, but also upon the Continent. Brown divided diseases into sthenic and asthenic. In asthenic diseases he supposed that there was a great diminution of that *excitability* which, according to him, was the source of life and functional activity; and although in sthenic diseases he fancied that this excitability was increased, yet even here he insisted that in many cases a condition of *indirect* debility was induced by exhaustion of the excitability. Debility, in fact, he made out to be in some way or other the cause of all diseases, both acute and chronic. ("Debility is the cause of the intermittent, as well as of every form of fever." Prop. cxxii.) His treatment for almost all diseases consisted in the administration of wine, spirits, opium, and abundance of nourishing food.* These remedies, it was thought, furnished an increased supply of material, by the consumption of which a stimulus was generated and debility counteracted, in the same way as flame is generated in fire by the supply of additional air or fuel. Brown himself failed to amass any fortune through his novel doctrines; he died in London in 1788 in utter obscurity. The Brunonian System, however, did not die with him. It was adopted everywhere, and the more readily, perhaps, as it had

* *Elementa Medicinæ*, 1780; also a translation of the *Elements*, with a Biography of Brown, and an Exposition of his Doctrines, by his son, Dr. William Cullen Brown, 3 vols. 8vo. 1804.

previously been far too common to starve and debilitate patients labouring under most diseases. During the last twenty years of the eighteenth century Brunonism was all the rage; the 'Elementa Medicinæ' was translated into German and Italian; in Germany, Brown was hailed as the *medical Luther*, and there was scarcely a university which had not a sect distinguished by the title of Brunonians. In the University of Göttingen the students carried their dissensions so far that they came to blows, and a military force was called in to quell the disturbance.*

By and by a reaction came. In 1805, Dr. Joseph Frank thus writes:

"The Brunonian system is daily more and more modified, so that it is scarcely to be recognised. You will be astonished to hear that I have deserted it. 'What system,' you will ask, 'have you then adopted?' None. I consult my own experience, and benefit by all correct observers, whether they belong to the new or to the old school. *It is only since I have adopted this method that I feel as if I were a physician.*"†

Well would it have been for medicine had this happy medium not been transgressed. Unfortunately, however, the writings of Broussais, Mills, Beddoes, Clutterbuck, Armstrong, and others, who endeavoured to show that all diseases necessarily proceeded from inflammation or congestion, soon drove the mass of the profession into an opposite extreme, the effects of which are still manifest, and at the present day even the name of Brown is known to few of the younger members of the profession. The following extract from the writings of one of our principal London physicians in the year 1819 is of no small interest at the present day in connexion with the substitution of a depleting system of Brunonianism:

"I believe," says Dr. Bateman, "there are few physicians who, like myself, commenced their professional career impressed with the doctrines that prevailed in the schools at the close of the past century, in which the terror of debility was certainly predominant, who will not acknowledge that their subsequent practice has been a continued struggle between the prejudices of education and the staring conviction of opposing facts, which were continually forcing themselves upon their observation, and that they have more especially been compelled to a gradual but material change in their views respecting the use of the lancet, not only in fever but in other diseases. I am fully convinced of the extent to which my own practice has been cramped by this prejudice, and of the reluctance with which I have admitted the evidence of my senses, till frequent repetitions, and the sanctions of other authorities, had rendered it irresistible. My testimony on this point, therefore, cannot be deemed the result of haste or temerity."‡

These revolutions in medical practice have been accounted for on the supposition that diseases pass through periodical changes of type. It would be out of place to enter into this subject on the present occasion; but it may be simply observed that, as Dr. Todd states,

* Edinburgh Medical and Surgical Journal, vol. iii. p. 500. For much of the above information the writer is indebted to a short memoir of Brown, contained in Dr. W. T. Gairdner's Lectures on Medicine and Medical Education. Edinburgh, 1858.

† Edinburgh Medical and Surgical Journal, vol. ii. p. 499.

‡ Bateman on the Contagious Fever, pp. 97, 98. London, 1819. 8vo.

there are no good grounds for believing in the existence of any such cyclical changes in the type of disease. There can be no doubt that certain diseases may be modified in various ways at different times and places, but there is no evidence to show that disease becomes universally modified in cycles of years, in the sense of what is ordinarily understood by change of type. Should this be so, what a deplorable picture we have of the changes of type in the human mind in reference to the treatment of disease, rushing first into one extreme and then into another. The same course of events which occurred towards the end of last century has been re-enacted in our own day. It became then the fashion for a large and influential party in the profession to attribute all diseases to debility, and to treat them all alike by stimulants, and so it is with a party in the profession now. Is there no danger, if this extreme be pushed too far, that, now as then, a reaction may take place—that the reign of bloodletting may return—and that fifty years hence some physician may consider himself justified in adopting language similar to that of Bateman?

From Dr. Todd's long connexion of twenty years with King's College Hospital, we had hoped that the volume before us would have contained some conclusive evidence in favour of his stimulating mode of treatment, but it must be confessed that we have been not a little disappointed. Accounts are given, it is true, of many individual cases, but there are few rational physicians, we suspect, who would pin their faith to any system of treatment from the histories of individual cases. Observers interested in the success of any particular line of treatment are far too apt to attribute any favourable change in the symptoms of disease to the effects of the remedies which have been employed. Such sources of fallacy are innumerable; one applicable to the present case may be mentioned. One of the facts upon which Dr. Todd was wont to insist, and which is often urged by his disciples in proof of the favourable effects of enormous doses of stimulants in typhoid fever, is that a sudden fall of the pulse not unfrequently takes place soon after the commencement of the stimulants. We have watched many such cases under Dr. Todd's care, and in almost every one in which the fever had not already reached its natural termination, the pulse rose again. This rise in the pulse was set down to a deficiency of the stimulus, which was consequently increased, and again with the effect of reducing the pulse after a time. But what was the real meaning of all this? Careful observation of typhoid fever will show that the pulse is extremely variable in frequency from day to day, and that similar variations to those noticed when large doses of stimulants are given, will occur when no stimulants are taken at all.

The following variations of the pulse were observed in a female aged eighteen, affected with typhoid fever, and who, throughout the whole course of the fever, had no stimulants of any sort—on the eighth day the pulse was 96; on the ninth, 100; on the tenth, 120; on the eleventh, 88; on the twelfth, 100; on the thirteenth, 80; on the fifteenth, 60; and on the sixteenth, 84. There was no improvement in the general symptoms on the eleventh day, and fresh rose-coloured

spots continued to come out until the eighteenth day. In a lad, aged nineteen, labouring under typhoid fever, the pulse varied from day to day between 90 and 112, although no stimulants were taken. In a female, aged twenty-three, the pulse between the fifteenth and twenty-fourth days varied from 70 to 108, although no stimulants were given. In another female, aged thirty, the pulse between the twelfth and twenty-eighth days of the disease was scarcely the same as two successive days, varying from 96 to 128; although the quantity of stimulants (wine, six ounces) taken was the same from first to last. In cases such as these, if stimulants had been given for the first time, or if their quantity had been increased immediately before any fall in the pulse, the diminished rate of pulsation would naturally be ascribed to the effects of the stimulants, especially by any one anticipating such a result. Moreover, if this result had not at once taken place, and if the failure had been accounted for by a deficiency of the stimulus, which was consequently increased, the fall of the pulse, which would naturally after this interval of time have at length occurred, might have been imputed to the increase of the stimulus.

With the above facts before him, the reader will be able to judge for himself of the force of Dr. Todd's argument, when in commenting upon a case of typhoid fever, which proved fatal under the use of large doses of brandy, he observes—"Nor can it be said that he had too much stimulant; for we had this most striking fact, that with the increase of stimulants the pulse on successive days fell from 120 to 84, and that with their diminution it rose again to 120 and 130." (p. 110.)

The only evidence, save that of individual cases, which Dr. Todd has brought forward in support of his treatment, has reference to pneumonia. All the cases which had occurred in the hospital under his care from the year 1840 to 1859, are collected, and the results may best be given in Dr. Todd's own words :

"The cases are in all 78, and they have been taken just as they have been noted down in the case-books. They may be arranged into two periods—the one from 1840 to 1847, the other from 1847 to 1859. In the former of these, which may be termed the period of reducing treatment, the remedies employed were bleeding, the application of blisters, the exhibition of tartar emetic, and the more or less free use of mercury; while in the latter, which may be styled the period of supporting treatment, the patients were treated very much in the manner which I have detailed to you in this and other lectures on this subject, though in a few cases calomel and opium were given. Now, the total number of cases, as I before mentioned, was 78, and of these 10 were fatal.

"Of the 78 cases, 25 occurred in the first period, and 4 of these proved fatal, or about 1 in every six. In the second, the number of cases was 53, and in these there were only 6 deaths, or about 1 in every 9; fairly leading, I think, so far as we may judge from the relative mortality in these two periods, to the inference, that the supporting plan of treatment is more favourable (certainly not less favourable) in its results than the severer measures which are frequently had recourse to in this disease."

Dr. Todd, however, gives us no information whatever as to the comparative ages of the patients in the two periods, their constitutions,

the stage of the disease at which they came under treatment, the extent of the disease, the frequency of double pneumonia, the locality of the disease, whether commencing at the base or apex of the lung, and the frequency of complications; or to sum up, as to the comparative frequency of sthenic and asthenic cases. But in a previous number of this Review,* it has been shown that all these causes may operate to increase the fatality of the disease, whatever be the treatment employed, and that, without taking such particulars into consideration, it is perfectly futile to attempt to prove the superiority and success of any particular treatment by appealing to statistics. If any one of several of the causes just mentioned be in undue proportion absent or present, the results, *ceteris paribus*, will in like proportion be happy or unfortunate; and it is only by the close observation of each case, and the rigorous analysis of the whole series, that we are justified in even approximately estimating the comparative success or failure of two opposite plans of treatment.

Again, Dr. Todd makes no allowance for the circumstance, the truth of which in another part of his work he allows, that the fatality of pneumonia varies very much in different years, these variations depending not upon differences in treatment, but upon variations in the severity of the disease. Thus, in St. Mary's Hospital 1 died in 8·6 cases in 1854, 1 in 2·15 in 1855; in the Edinburgh Infirmary, 1 died in 2·4 in 1847-48, 1 in 5·2 in 1848-49; in the Aberdeen Infirmary, 1 died in 2·7 in 1853, 1 in 10 in 1855, and not one of 18 cases in 1856.

But setting aside the influence of all these collateral causes, and supposing them to be the same in the two periods into which Dr. Todd divides his cases, the results of Dr. Todd's stimulating system, as compared with the results of the old system of bleeding and blistering and the administration of calomel and opium, appear to us to be far from satisfactory. If it be legitimate to draw conclusions as to treatment from statistics, there are no statistics which apparently have been drawn up with more care than those of Dr. Bennett of Edinburgh. During eight years Dr. Bennett has had under his care, in the Royal Infirmary, 65 cases of acute pneumonia, of which 3 died; that is, only 1 in 21 $\frac{2}{3}$. Moreover, all the three fatal cases were complicated with other diseases—one with diarrhœa and disease of the intestines, another with persistent albuminuria and anasarca, and a third with delirium tremens and meningitis. Of all the uncomplicated cases, 55 in number, not one died, although many of them were very severe, the disease frequently involving the whole of one lung, and in 11 cases portions of both lungs. Now, Dr. Bennett's treatment, which is designated "a treatment directed to further the natural progress of the disease," agrees with that of Dr. Todd in abstaining from bleeding and calomel; but here the agreement ends. During the period of febrile excitement, Dr. Bennett contents himself with administering frequent small doses of tartar emetic (a treatment which Dr. Todd would certainly have considered lowering to an injurious

* British and Foreign Medico-Chirurgical Review, July, 1853, p. 33.

degree); and as soon as the pulse becomes soft, he orders good beef-tea and nutrients, and wine to the extent of from four to eight ounces daily, only if there be marked weakness. When the crisis approaches, he gives diuretics to favour the excretion of urates.*

Much additional evidence to the same effect might be adduced, but enough has been said to show that Dr. Todd has entirely failed in adducing any satisfactory data in proof of the success of his treatment of pneumonia by large doses of stimulants. Before we leave the subject of pneumonia, we would observe, that the quantity of stimulants which Dr. Todd was sometimes in the habit of prescribing was very much greater than would appear from the perusal of any of the cases contained in the volume now before us. We have ourselves watched two or three cases under his care, in which, for upwards of twenty-four hours, and in one instance for nearly forty-eight hours, brandy was administered at the rate of half an ounce every half hour; and in one of these cases, so much as half an ounce every quarter of an hour was given for seven or eight hours.

There is another class of diseases for which we possess data sufficient to enable us to draw some conclusions as to the results of this stimulating treatment—the class of continued fevers. About a year before his death, Dr. Todd handed over to the writer of this review all his hospital case-books from the year 1840 to 1858, for the express purpose of analysing the results of his treatment. The writer spent several months in going over these case-books, sixty in number, and drew up a tabulated analysis of the symptoms and treatment of every individual case, subdividing them, so far as this was practicable, into the different species of continued fever, and eliminating those cases which were entered in the case-books as “fever,” but in which the fever was in all probability not idiopathic, but due to some local inflammation. It would occupy too much space to enter into all the details of this analysis, but the following are some of the more important results as bearing upon the subject under discussion, while the tables themselves are open to the inspection of any interested in the subject :

The total number of cases, then, entered as “fever” amounted to 337, from which 9, in which the result was doubtful, have to be deducted. Of the remaining 328, 60 died, or the rate of mortality was 18·29 per cent.

Of the total 337 cases entered as “fever,” 42 were in all probability either not examples of idiopathic fever at all—the fever being due to some local inflammation, renal disease, &c.—or it was impossible from the description to say what the nature of the fever was. Of these 42 cases 6 died, and in 5 the result was doubtful.

The remainder, after deducting 3 in which the issue was doubtful, amounted to 292. Of these 54 died, or the mortality was 18·49 per cent.

Of the total 293 cases, 108 were examples of typhus, 131 of typhoid

* Dr. Bennett's *Clinical Lectures on the Principles and Practice of Medicine*, p. 284 et seq. Second edition, 8vo, 1858.

or pythogenic fever, 24 of relapsing fever, and 29 of simple fever or febricula. None of the cases of relapsing fever or of febricula proved fatal.

Of the 108 cases of typhus, 28 died, or the rate of mortality was 26 per cent. Of these there were admitted since the 1st of January, 1847, 75 cases, of which 18 proved fatal, or the rate of mortality was 24 per cent.

Again, of the 131 cases of pythogenic or typhoid fever, 27 died, or the rate of mortality was 20·61 per cent. Of these there were admitted since the 1st of January, 1847, 101 cases with 17 deaths.

The results before and after the year 1847 have been compared, inasmuch as Dr. Todd tells us that about that period his treatment of pneumonia underwent a decided change. Such a division of the cases of continued fevers, however, is scarcely necessary, for it would appear from the records of Dr. Todd's case-books that almost from the first he was in the habit of prescribing large quantities of stimulants in these diseases. So early as April, 1843, a case of typhus is recorded, in which it is stated that, during the last twelve hours of the patient's life he consumed two bottles of brandy and one of wine.

Now, we have no hesitation in declaring, as the result of considerable investigations into this subject, that the rate of mortality of Dr. Todd's fever cases was much in excess of that of any other hospital in the United Kingdom. The reader is particularly referred to an essay on the Etiology of Fever, in the '*Medico-Chirurgical Transactions*,'* where a table will be found showing the rate of mortality from continued fever, during a series of years, in ten different hospitals in Great Britain and Ireland. In none of these did the rate of mortality exceed 14 per cent. Even in the London Fever Hospital, where from various causes the mortality might be expected to be unusually high, it was under 16 per cent., the precise numbers during ten years (1848 to 1857) being 6628 cases, 1059 deaths, the mortality being 15·98. Moreover, no small number of the cases brought to the London Fever Hospital are moribund on admission, so that, deducting 61 cases which proved fatal within twenty-four hours after admission, the mortality was only 15·19 per cent.; and deducting 146 cases fatal within forty-eight hours, the mortality was only 14·07 per cent. In two only of Dr. Todd's cases did death take place within forty-eight hours of the patient's admission into hospital.

When it is remembered that the patients admitted into the London Fever Hospital consist, for the most part, of the aged and decayed inmates of the metropolitan workhouses, who are frequently brought to the hospital in an advanced stage of the fever, from long distances, sometimes from the very opposite extremities of the metropolis, it will be allowed that, as regards the class of patients, the comparison was in favour of King's College Hospital, into which no patients are admitted from the workhouses, and where most of the fever cases come

* Contributions to the Etiology of Continued Fever, or an Investigation of various Causes which influence the Prevalence and Mortality of its different Forms. By Charles Murchison, M.D., vol. xli. 1858.

from the immediate vicinity. Moreover, the Fever Hospital laboured under the possible objection, which no one could have urged more strongly than Dr. Todd was wont to do, that the concentration of the fever poison tends to increase the danger of a fatal result. Now, the treatment which has been pursued in the Fever Hospital is widely different from that advocated by Dr. Todd. In a very large number of cases no wine or spirits has been given throughout the whole course of the disease. Wine has been given in those cases only in which there has been much prostration, and brandy has been given only in the very worst cases.

But it has been shown in the essay already quoted that it is useless to compare the results of treatment of continued fever at different places, unless we discriminate between the various forms. Febricula is never fatal, and relapsing fever but sparingly so; consequently, the larger the proportion of these two forms, the smaller will be the total rate of mortality. Unfortunately, it is only at a few hospitals that the different forms of fever have been distinguished, but so far as this has been done, Dr. Todd's results still present an unfavourable contrast.

Of 3506 cases of typhus admitted into the London Fever Hospital during the ten years 1848 to 1857, 715 died, or the mortality was 20·39 per cent. Deducting 49 cases which proved fatal within twenty-four hours, the mortality was 19·32 per cent., and deducting 115 cases fatal within forty-eight hours, it was only 17·69 per cent. Again, out of 9485 cases of typhus admitted into the Glasgow Infirmary during eleven years (1843 to 1853), only 18 per cent. died.

Of 1820 cases of typhoid fever admitted into the London Fever Hospital during the same ten years, 333 cases, or 18·29 per cent., died. Deducting those fatal within twenty-four hours after admission, the mortality was only 17·66 per cent., and deducting those fatal within forty-eight hours, it was only 16·97 per cent.

The circumstance that none of Dr. Todd's twenty-four cases of relapsing fever proved fatal will not be thought surprising, when it is known that out of 441 cases admitted into the London Fever Hospital, only 11 cases, or $2\frac{1}{2}$ per cent. died, and that this rate of mortality has never at any place been much exceeded.

But again, there is no circumstance which influences more the rate of mortality of continued fevers than the age of the patients. This remark applies particularly to typhus. For example, of the cases of typhus at the London Fever Hospital, between ten and twenty years of age, only 1 in 21 died, whereas of the cases above thirty years of age, the mortality was about 1 in $2\frac{4}{5}$, and of the cases above fifty years, the mortality was 1 in $1\frac{4}{5}$. Consequently, if the average age of Dr. Todd's cases were greater than that of the cases admitted into the London Fever Hospital, the mortality might be expected to be greater, quite irrespectively of the nature of the treatment adopted. But on investigation, it is found that the average age of Dr. Todd's cases was considerably less than that of the cases admitted into the Fever Hospital. Thus the mean age of 3456 cases of typhus in the Fever

Hospital was 29·33, and the mean age of Dr. Todd's 108 cases was only 27 $\frac{2}{3}$ °. The same fact may be expressed in a different manner :

Dr. Todd's Cases.

Under twenty years, 34 cases and 6 deaths, or 17·64 per cent.
 Above twenty years, 74 cases and 22 deaths, or 29·73 per cent.
 Above thirty years, 41 cases and 15 deaths, or 36·58 per cent.
 Above forty years, 25 cases and 10 deaths, or 40 per cent.

London Fever Hospital.

Under twenty years, 1109 cases and 61 deaths, or 5·5 per cent.
 Above twenty years, 2347 cases and 643 deaths, or 27·39 per cent.
 Above thirty years, 1509 cases and 544 deaths, or 36·05 per cent.
 Above forty years, 916 cases and 400 deaths, or 43·66 per cent.

From this it would seem that the relative mortality of Dr. Todd's cases was greatest in those under thirty years of age.

With regard to typhoid fever, it should be observed that the majority of the patients are under thirty years of age, and that there is a greater uniformity in the rate of mortality at different periods of life than in typhus, although the mortality certainly increases considerably as life advances. But here also the mortality at all ages of Dr. Todd's cases was greater than that of the cases admitted into the London Fever Hospital. Of 1772 cases in the Fever Hospital, the mean age was 21·25, and of 130 of Dr. Todd's cases it was 21·63. This slight excess in the mean age of Dr. Todd's cases is due to five cases having been at a somewhat more advanced age than the rest. Still, the rate of mortality at different ages of Dr. Todd's cases exceeded the mortality at corresponding ages in the Fever Hospital. Thus :

Dr. Todd's Cases.

Under twenty years, 63 cases and 11 deaths, or 17·46 per cent.
 Above twenty years, 67 cases and 16 deaths, or 23·88 per cent.
 Above thirty years, 18 cases and 9 deaths, or 50 per cent.
 Above forty years, 7 cases and 5 deaths, or 71·42 per cent.
 Above fifty years, 5 cases and 4 deaths, or 80 per cent.

London Fever Hospital.

Under twenty years, 876 cases and 131 deaths, or 14·95 per cent.
 Above twenty years, 896 cases and 199 deaths, or 22·21 per cent.
 Above thirty years, 252 cases and 71 deaths, or 28·17 per cent.
 Above forty years, 92 cases and 27 deaths, or 29·14 per cent.
 Above fifty years, 26 cases and 14 deaths, or 53·84 per cent.

Neither time nor space will allow us to pursue this comparison farther at present, but it might be shown that complications were quite as frequent in Dr. Todd's cases, and that the duration of the cases was certainly not less.

From what has been stated, it seems legitimate to conclude that no advantage is to be derived in the treatment of continued fevers by administering as a general rule such enormous doses of stimulants as were wont to be prescribed by Dr. Todd; and indeed it may be

doubted if in many instances, more especially in young persons, such large quantities are not positively injurious.

Now, if this be so, and if we regard the matter in a simply mercantile point of view, the subject is of some importance to the governing committees of our different hospitals. If such large doses of brandy and wine as were prescribed by Dr. Todd are given in individual cases, the total consumption of these fluids in one year must be enormous; indeed, it is a notorious fact that the consumption of wine and spirits at King's College Hospital has almost doubled in amount, in proportion to the number of patients treated, that of any other hospital in the United Kingdom. In the year 1858, the number of beds being 140, and the total number of patients being 1622, the consumption was as follows:

Port wine	1358 pints.
Sherry wine	27 "
Brandy	2940 "
Gin	90 "
Whisky	35 "

The total expenditure upon these items amounted to 404*l.* 3*s.* 4*d.*

At St. Mary's Hospital in 1855, the number of beds being 150, and the total number of patients treated being 1453, the expenditure under these heads amounted to only 210*l.* 5*s.* 10*d.*, a sum, moreover, which included the spirits of wine employed in the laboratory for pharmaceutical purposes.

In the Edinburgh Royal Infirmary, during the year 1858, the total number of admissions was 3718, and the average daily number of patients was 324. The total expenditure upon wine and spirits was 479*l.* 11*s.*

Lastly, at the London Fever Hospital in 1856, the total number of cases admitted was 1882, of which 1062 were examples of typhus. The sum spent upon wine and spirits was only 167*l.* 15*s.*

Having made these remarks upon Dr. Todd's general principles of treatment, which we have done in no spirit of animadversion upon his memory, but with a sincere desire to arrive at the truth, we now proceed to take a brief notice of the subjects discussed in the present volume of Clinical Lectures. The first three lectures are devoted to rheumatic fever, and will be perused with no small interest and instruction by every practical physician. Case II. is that of a girl, aged sixteen, affected with rheumatic fever, in whom pericarditis, and probably also inflammation of the endocardium and of the pleura, supervened, *whilst the patient was in a state of salivation from the early administration of mercury* before admission into hospital. Dr. Todd tells us also that he has met with other instances of a similar nature.

Dr. Todd, like most other physicians, regards rheumatic fever as due to a *materies morbi* (lactic acid?) in the blood. This *materies morbi* is the result of a vitiated state either of primary or of secondary assimilation, or of both, and the parts where it accumulates are just those which, while they are highly vascular and therefore contain a

large quantity of the diseased material, present the least obstruction to its escape from the circulation. These are the delicate synovial membranes of the joints, the serous membranes, and the lining membranes of the heart and of the pulmonary air-cells, parts where the bloodvessels are naked, or covered by but a film of membrane. These several parts pour out a secretion which, in place of being alkaline, as in health, is decidedly acid; and at any one of these parts the morbid matter may excite inflammation. The morbid matter also irritates the sweat glands, and is eliminated in large quantity by the profuse sweats characteristic of the disease, while the abundance of lithic acid found in the urine indicates that the functions of the kidneys are similarly affected. Hence it is argued that the more the elimination of the *materies morbi* is encouraged at the skin, at the kidneys, and at the mucous membrane of the alimentary canal, the less chance is there of pleurisy, pneumonia, pericarditis, &c.

In the treatment of acute rheumatism, Dr. Todd says our objects should be: 1. To relieve pain; 2. To strike at the root of the malady; 3. To cure the patient with as little trial to his constitution as possible; and 4. To secure for him a short convalescence. Seven different methods are enumerated which have been proposed for the treatment of acute rheumatism 1. Venesection; 2. Diaphoretics; 3. Mercury; 4. Colchicum and guaiacum; 5. Opium; 6. Large doses of bark; and 7. Treatment by elimination. All of these plans of treatment Dr. Todd endeavours to show to be useless or positively injurious, with the exception of the treatment by elimination in combination with opium. It is admitted that in certain cases where the sweating is colligative and the urine copious and pale, with abundant precipitates of *pale* lithates, great good may be done rapidly by the use of quinine; but it is thought that if this treatment be adopted from the beginning it may check secretion, and so favour the development of internal inflammations. Dr. Todd's treatment by elimination consists in the use of antacid remedies, in giving large quantities of fluid for the free dilution of the *materies morbi*, in promoting the action of the skin, the kidneys, and the bowels, and in supplying the waste caused by diaphoresis and diuresis by nourishing food and alcoholic stimulants. The alkali recommended is the bicarbonate of potass—a scruple or half a drachm every third hour—and along with this Dr. Todd was in the habit of prescribing powders containing five grains of nitre, one grain of opium, and one grain of ipecacuanha. The affected joints are to be enveloped in cotton wool with oil-silk externally, and in some cases much benefit will be derived from the application of sinapisms followed by repeated blisters, not exceeding a crown piece in size. When the heart or any of the internal organs becomes affected, Dr. Todd insists much upon the impropriety of bleeding, whether general or local, a practice which is considered as altogether unsatisfactory in its remedial results, and prejudicial in its consequences. Blisters should be applied locally, the plan of elimination is to be persisted in, and the influence of opium is to be kept up. Delirium, which may or may not usher in and accompany the

internal inflammations, is described as a very formidable complication of rheumatic fever, and is thought to depend upon a deficient supply to the brain of blood depraved in character. It is therefore to be treated not antiphlogistically, but by a liberal use of alcoholic stimulants and nourishing food, and by checking profuse sweating, or any other too free evacuation. Opium is to be prescribed if the patient be wakeful, but is to be abstained from if there be a tendency to coma. The brain in such cases is described as poor in blood, and resembling that of an animal bled to death. When, in rheumatic fever, the patient begins to pass pale urine, in good quantity, either without precipitate or with a greater or less quantity of pale lithates, he will almost invariably be the better for a more generous treatment, even though the articular affection continue troublesome. Under such circumstances, ammonia, quinine, wine, and brandy will often effect rapid improvement. Such is an abstract of Dr. Todd's mode of treatment of rheumatic fever, under which it is stated that the duration of the disease seldom exceeded from ten days to three or four weeks; relapses were of rare occurrence, and the accidental complications of the disease—pneumonia, pericarditis, and delirium—were less frequent and formidable than under any other system.

In the next two lectures (IV. and V.) the subject of continued fever is discussed. The different forms—typhus, typhoid or pythogenic fever, and the relapsing fever—are recognised, but the remarks in these lectures are confined to the two former. Although, in one place, Dr. Todd admits that these different fevers result from the absorption into the system of different poisons, at another place he speaks of them as merely *clinical varieties*, which it is sometimes impossible to distinguish, and many of the observations appear as if they had been written under the impression that all the forms were merely varieties and not different species of disease. It must be confessed that the clinical distinctions between typhus and typhoid fever, as portrayed by Dr. Todd, are so meagre and imperfect, that, using them for our guide, it would sometimes be impossible to say to which of the two forms a case belonged. One case (XXVI.) is detailed in which a "well-developed rubeoloid eruption" and "rose spots" co-existed in the same individual, and in which enteric symptoms were also present. The details of the case are scarcely sufficient to form any opinion as to the real nature of these two eruptions, except from the names bestowed upon them, but there seems reason to doubt if the so-called rose spots were really the eruption characteristic of typhoid fever. They are described as appearing on the sixth day of the fever, thickly scattered over the belly and chest. No further mention is made of them, but two days later a measly eruption was fully developed on the chest, belly, and back. Now, it is seldom that the rose-coloured spots of typhoid fever appear so early as the sixth day, still less that on that day they should be "thickly scattered;" and they never come out all at once and then disappear. It is their character to appear in successive crops during the whole course of the fever, each crop lasting for three or four days; yet in the case alluded

to no mention is made of them after the sixth day. Again, it is exceedingly rare for the measly eruptions of typhus to be delayed so late as the eighth day of the fever. Out of upwards of a hundred cases in which this point was carefully noted by the writer, in not one could it be said with certainty that the eruption was delayed later than the sixth day. Lastly, the measly eruption of typhus at its first appearance sometimes consists of isolated spots, which at first sight might be mistaken for a copious rose-coloured eruption. It seems highly probable that the case alluded to was an example of typhus complicated with diarrhoea. At the same time, the possibility of the co-existence of the two eruptions is not denied. It has been shown by Dr. Murchison that, contrary to the generally received opinion, the poisons of typhus and typhoid fever, like those of typhoid and scarlet fever, scarlet fever and measles, and indeed of any two of the exanthemata, may co-exist in the same individual.*

Dr. Todd justly observes that one of the most palpable and unequivocal signs of an enfeebled circulation in the course of fever is a marked deterioration in the quality of the pulse on the patient's assuming the semi-erect from the horizontal posture. It indicates very clearly how dangerous it is to remove patients in fever from one place to another, or to allow them to move themselves, and how necessary for them it is that they should be constantly attended upon, that every, even the slightest, exertion on their parts should be prevented as much as possible.

Meteorism in continued fever is, according to Dr. Todd, the result of defective nervous influence, and is not, as is commonly supposed, peculiar to typhoid fever, in which the intestines are diseased, but is, on the other hand, of more frequent occurrence in typhus. This statement is opposed to the experience of most observers. In 2 only out of 40 cases of typhus, has the writer found the abdomen to be abnormally distended, and of 41 fatal cases of typhus, Dr. Jenner observed this condition in only 3. On the other hand, meteorism is a symptom which, in a greater or less degree, is seldom absent in typhoid or pythogenic fever. Of 46 patients who died of typhoid fever, meteorism was observed by Louis in 34. We are the more at a loss to account for the statement just quoted, inasmuch as a careful study of Dr. Todd's hospital case-books shows that the cases, as reported, correspond entirely with the experience of other observers.

Case XXV. is an example of typhus in which death was preceded by convulsions, and where the kidneys were found slightly granular. An opinion is expressed that the head symptoms were due, not to uræmic, but to the typhus poison. It does not appear that Dr. Todd was aware that in almost every case of typhus in which death has been preceded by convulsions, and where the kidneys have been carefully examined, these organs have been found diseased.

Dr. Todd was one of the first to point out that the delirium and the coma, which are of such frequent occurrence in continued fever, are not due to any inflammatory or congested condition of the brain or

* British and Foreign Medico-Chirurgical Review, July, 1859, p. 178.

its membranes, but that they must rather be looked upon as the result of that perverted nutrition which is the necessary consequence of the poisoned condition of the nutrient fluid. The sub-arachnoid effusions which we meet with now and then after fever are not of an active kind. They are the result of a certain shrinking of the brain, fluid being poured out to fill up space. This fluid, according to Dr. Todd, exercises no more than the normal pressure which seems a necessary condition of the brain's nutrition, and is not instrumental in the production of comatose symptoms.

Perhaps there is no better proof that typhoid fever is an idiopathic fever, and that the febrile symptoms are not, as has been maintained, dependent upon the intestinal lesion, than the circumstance which has been pointed out by Jenner and others, that there is no relation whatever between the severity of the fever and the extent of the local disease. Dr. Todd tells us that he has seen as great prostration when there were only four ulcers in the intestine as when these were most numerous; and it is well known that the head symptoms are quite independent of the intestinal disease. Such being the case, we are scarcely prepared to admit the force of Dr. Todd's arguments, which are expressed at some length, in order to prove that the prostration and head symptoms observed in typhoid fever are due to the absorption of pus into the blood, or to "purulent infection." In many cases of typhoid fever with extensive ulceration, there is no great prostration, and no head symptoms whatever; and in typhus fever we have a greater degree of prostration and head symptoms more frequent and more marked, and yet there is no ulcerated surface from which pus can be absorbed. The entrance of pus into the circulation no doubt often gives rise to symptoms closely resembling those of typhoid fever, but surely it is not necessary to attribute the head symptoms in typhoid fever to pyæmia, any more than it is in the case of typhus.

It is too commonly believed that the chief distinction between typhus and the so-called typhoid fever is the presence of diarrhœa in the latter disease. It must not be forgotten, however, that true typhus is occasionally complicated with diarrhœa, although no ulceration of the bowels exists; and again, cases of typhoid fever are occasionally met with which run their course and prove fatal without the occurrence of any serious diarrhœa, and yet, on making a post-mortem examination, very extensive ulceration is found in the ileum.

Dr. Todd, like most modern physicians, maintains that we cannot cure a fever, that we cannot cut it short, and that all we can do is to guide it through its several stages, and uphold the vital powers of the patient until the influence of the poison is worn out. This he thinks is best done by alcohol, by diffusible stimulants (ammonia and chloric ether), by nitrogenous food given as broths, and by carbonaceous food selected from the farinaceous substances. The objections raised by some practitioners to the use of stimulants is ascribed to the slovenly mode in which they are too often given. They must be given in frequent small doses, and not in large doses at one time. There are few who will not assent to the propriety of administering stimulants

in the course of most cases of continued fever, more especially of typhus. As already observed, the peculiarity of Dr. Todd's treatment consisted in the *amount* of stimulants he was in the habit of prescribing. One case is mentioned in which an ounce of brandy was given every half-hour, and we have authority for stating that even this quantity was frequently exceeded. It is true that Dr. Todd states that there are many cases of fever in which no stimulant at all is necessary. In practice, however, we know that Dr. Todd made no such exceptions, except in cases of simple fever or febricula. He was in the habit of prescribing stimulants largely in all well-marked examples of typhus or typhoid fever. Although the experience of most observers, throughout all ages, would show that stimulants are far more beneficial and called for in typhus than in typhoid fever, Dr. Todd made no such distinction.

The author only expresses a universal opinion when he says that if there is any reason to believe the small intestines ulcerated, or likely to become so, in the course of fever, mercury must be eschewed. In Dr. Todd's experience, nothing was so effectual in restraining hæmorrhage from the bowels as turpentine given in small doses internally, and also applied externally over the abdomen in the form of stupes. We quite agree with him in this and also in the propriety of abstaining from purgatives in typhoid fever. When the bowels are once fairly locked up, they should be kept so. Patients will go for four or six days, or even longer, without suffering inconvenience from this state of constipation.

Lecture VI. is devoted to erysipelas, and Lecture VII. to erysipelas of the fauces.

It is well known that an attack of erysipelas frequently begins with vomiting. To such an extent did this obtain in Dr. Todd's opinion, that whenever he met with a patient who had been suddenly taken with vomiting, and this vomiting accompanied with, or preceded by rigors, he deemed it expedient to watch carefully for erysipelas.

Erysipelatous bronchitis Dr. Todd considered to be a complaint of more common occurrence than is generally supposed. It is accompanied by great prostration, and has a very fatal tendency. When this malady terminates fatally, it generally does so by inducing that condition which, since the death of the Emperor Nicholas of Russia, has been so much talked about as *paralysis of the lungs*,—a term intended to express that state of things which occurs when the air passages become choked with muco-purulent secretions, which the patient is too much exhausted to expectorate.

Dr. Todd's treatment for erysipelas is precisely the same as that for continued fever:—beef tea, brandy, ammonia, bark, and chloric ether. "In all severe examples of the malady, place your trust in food and brandy, from the very commencement of the attack." Erysipelas has long been removed from the category of ordinary inflammations, and there are few practitioners at the present day who would dream of treating it by antiphlogistics, although a perusal of Dr. Todd's lectures might lead one to believe that such treatment was

far from uncommon. It is long since Dr. Williams, of St. Thomas's Hospital, recommended port wine, Dr. Budd large doses of carbonate of ammonia, and Mr. Hamilton Bell the tincture of sesquichloride of iron, in the treatment of this affection.

The following is Dr. Todd's opinion as to the utility of the sesquichloride of iron in erysipelas, as recommended by Mr. Hamilton Bell, of Edinburgh:*

"I have no doubt many cases, such as those that will get well of themselves, will get well under that drug, partly and mainly because it excludes depressing treatment, partly perhaps from some tonic power in the medicine; but I would as soon think of trusting to it in the treatment of the more severe forms of the disease as I would to the billionth of a grain of aconite, or arnica, or sulphur, or any other homœopathic absurdity. The remedy, so far as I know, is unobjectionable in itself, but its power to do good is small; and if you try it, let me advise you not to trust to it alone, but merely to use it as an adjunct to the treatment, which I have already endeavoured to impress upon you. For, as I before said, there is a large class of cases of erysipelas which will get well without any treatment whatever, and indeed, in spite of depressing treatment, either because the dose of the poison which these patients have imbibed has been very small, or because their powers of resisting acute disease are very great. In such cases you may, if you like, amuse yourselves with giving a remedy of the nature of sesquichloride of iron."

When the erysipelas gives rise to œdema-glottidis, Dr. Todd urges the propriety of at once performing tracheotomy. "The sooner the operation is performed the greater probability will there be of your saving the patient's life." After the operation, the patient is to be well supplied with food and stimulants as the only means of saving life. The lecture on Erysipelas of the Fauces is perhaps the most important in the volume.

"The force of the poison seems to fall upon the pharynx and to paralyse it, and it must do this either by benumbing the sensitive nerves, through which the muscular contractions are usually excited by the contact of food, or by extending to the muscles themselves and paralysing them directly, or it may be in both these ways. If you look into the throat of a patient labouring under this affection, you will find the pharyngeal mucous membrane exhibiting a peculiar dusky red colour, the fauces will be perfectly open, and you will be unable to discover any mechanical impediment to free deglutition; and if now, with your finger, or a pen or probe, you touch the back of the pharynx, you will find that none of the pharyngeal muscles are thrown into action, as they invariably are in a state of health—in other words, you cannot excite the reflex actions necessary for deglutition; and if you give the patient something to swallow, as soon as he gets the liquid or solid, whichever it be, upon the back of the tongue, instead of its being grasped by the contraction of the muscles of deglutition, and guided, as it were, into the œsophagus, in consequence of the complete palsy of these muscles it falls by its own gravity into the larynx, and is thence immediately ejected, by a powerful expulsive effort, through the mouth and nostrils. . . . In these cases the patient is apt to die, not from want of air but from want of food."

The treatment recommended consists in the administration of enemata of beef tea and quinine, while the fauces are to be lightly touched

* Edinburgh Monthly Journal of Medical Science, p. 497, June, 1851.

with solid nitrate of silver. As soon as the power of swallowing returns, frequent and large doses of brandy, ammonia, chloric ether, and beef tea are to be given by the mouth. If the power of deglutition does not return within forty-eight hours, recourse must be had to the stomach tube.

Lecture VIII. is on the "Treatment of Acute Internal Inflammations." The lecture is founded on a case of rheumatic fever complicated with double pneumonia and pericarditis. It contains a *résumé* of Dr. Todd's principles of treatment in acute internal inflammations, and after what has already been said, need not further occupy our attention.

Lecture IX. is upon the subject of Pyæmia. Cases of pyæmia are divided into three classes. 1. Cases in which death results in two or three days, or even less, from the first circulation of pus in the blood, and where it is due to a poisonous influence acting upon the nervous system rather than to the occurrence of local mischief. 2. In a second class, the result is no less fatal; but the course of the malady is extended over a much longer period of time, deposits of pus taking place in the joints and internal organs. 3. The third class of cases is much less fatal, the deposits of pus taking place in the cellular tissue and muscles, and the principal danger consisting in the liability of the lungs to become involved. The various causes of pyæmia are pointed out, and the theory of the disease is discussed. The treatment of these cases may be summed up in one word—*support*.

The next four lectures (X., XI., XII., and XIII.) are upon pneumonia. These lectures were apparently delivered at long intervals. They contain many needless repetitions, while the whole matter might with propriety have been re-arranged and condensed prior to publication. The author distinguishes five clinical varieties of pneumonia—viz., 1. *Simple pneumonia*, which is uncomplicated with disease of any other organ, and which occurs in a subject who possesses no marked peculiarity of constitution, such as the gouty or rheumatic diathesis. There are few cases, however, it is observed, in which the pneumonia is not complicated with pleurisy, and few also in which there is not some peculiarity of constitution, which may determine more or less the access of the pneumonia, and influence its duration and mode of termination. 2. *Pneumonia complicated with acute gout*, or with *rheumatic fever*, or associated with a decided gouty or pneumatic diathesis. This form is stated to be of very common occurrence. 3. *Strumous pneumonia*, or pneumonia connected with the development of tubercles in the lungs, or occurring in subjects of a strumous constitution, without any evidence of tubercular deposits in these organs. This form is described as frequent in strumous children, and as probably often mistaken for phthisis. 4. *Typhoid pneumonia*, by which is meant inflammation of the lung coming on in a low state of the system, and associated with a series of typhoid symptoms, such as great prostration, a brown tongue, and a languid and feeble condition of the circulation, or specially connected with either typhoid or typhus fever. 5. *Traumatic pneumonia*, which succeeds and is consequent on injuries to the

chest or severe surgical operations. The *lobular pneumonia* of young children, Dr. Todd, in common with others, believes to be not pneumonia at all, but merely a state of carnification due to the exhaustion of air from parts of the lung by the excessive expiratory efforts which occur in these cases. Dr. Todd objects to the classification of pneumonia into sthenic and asthenic cases, as being of any service for determining the adoption or non-adoption of antiphlogistic remedies.

"Some physicians have drawn a distinction between cases of pneumonia, which is useful with reference to treatment. There are, they say, two classes of cases of pneumonia, the one sthenic, the other asthenic and typhoid, the former capable of bearing the most active antiphlogistic treatment, and for which, indeed, they say that that treatment is absolutely necessary; the latter requiring a supporting and even a stimulating plan, and for which an antiphlogistic one would be extremely hazardous and dangerous. Now, while I fully recognise and admit the practical value of such a distinction as this, I must remark that it seems to me it ought to be expressed differently. I would say, that in all cases pneumonia has, independently of this or that mode of treatment, a decided tendency to depress the general powers of life—in some more, in some less; that with all, a very decided direct antiphlogistic treatment is hazardous—with some extremely so—and in none is it absolutely necessary; but with others there is no safety for the patient, unless the treatment from the beginning be of a decidedly supporting and stimulating nature."

Dr. Todd confirms an observation already made by others, that when the pneumonia is seated in the upper lobes, the chances of recovery are much less than when it occupies the lower lobe. This, he says, is a clinical fact highly deserving of attention, and which ought to exercise an influence upon treatment. The greater danger of the disease under such circumstances is ascribed partly to its being of a more asthenic nature when it attacks the upper lobe only, and partly to the fact that this part is most apt to be affected in old persons. It is worthy of notice, that in pneumonia of the apex there is very often a total absence of expectoration.

Dr. Todd mentions a small patch of herpes at one angle of the mouth as a very common phenomenon in pneumonia, and for some reason which he was unable to explain, as generally of favourable import.

Some very interesting observations are contained in these lectures, showing the absence of chlorides from the urine, and their presence in the sputa of pneumonia. These observations are well deserving of perusal. The investigations of Redtenbacher, Beale, and Dr. Todd render it probable that the chlorides and other fixed salts which are naturally voided in the urine are in pneumonia attracted towards the inflamed lung. No sooner does the attracting force set up by the inflamed lung cease to operate, than the chloride finds its way out of the system through the ordinary channel.

In the treatment of pneumonia, Dr. Todd recommends remedies which promote the free action of the skin and of the kidneys, and in a less degree that of the intestinal mucous membrane, whilst at the same time a free stimulation, by means of turpentine stupes, &c., is

maintained of that part of the skin which is near the seat of the pulmonary inflammation. It is allowed that tartar emetic, when given in such doses as not to cause vomiting or purging, or too great a depression of the powers of the system, may be a very safe and useful remedy. From the difficulty, however, of limiting its action in this way, Dr. Todd recommends in preference such remedies as the liquor ammoniæ acetatis, which, like tartar emetic, tend to produce free sweating, but which, unlike it, exercise no depressing influence upon the patient. These remedies are to be given in large (four, six, or eight drachms) and frequently-repeated doses. An essential part of his treatment was that,

“While these remedies are being used, we do not aim at reducing the general powers of the system, but rather at upholding them by such frequent supplies of nourishment, easy of assimilation, as may be readily appropriated, and duly apportioned, both in quality and quantity, to supply the waste which during the inflammatory process must necessarily take place in the most important tissues of the body, especially the muscular and nervous.”

Beef-tea and “*alcoholic food*” are the principal nutritious substances here alluded to. This alcoholic food was usually given in large quantities. In Case LXIV., twenty four ounces of brandy were administered in the twenty-four hours, and we have reason to know that even this quantity was sometimes exceeded.

The results of Dr. Todd’s treatment of pneumonia have been already alluded to.

The fourteenth and last lecture is on the therapeutical action of alcohol, and is founded upon the case of a child aged three, who died from an over-dose of gin, and in whose body after death no signs of inflammation or of congestion could be detected. From this case it is argued that we may discard the popular prejudice that alcohol causes inflammation, and that therefore it ought not to be given in inflammation. Among the symptoms, however, which followed the use of the gin were coma, convulsions, vomiting, and extremely rapid pulse. It is argued that these symptoms and the fatal results in this case were due to a large quantity ($2\frac{1}{2}$ ounces) having been swallowed *at once*. It is maintained that the successful administration of alcohol in acute diseases depends very much on its *mode of administration*, and that there is a great difference between swallowing a large quantity at once, and taking the same quantity in frequent divided doses. It is allowed that alcohol, “if given in excess, either by large doses at once, or by too frequent doses, tends to produce coma.” We must confess, however, that we can scarcely imagine even the most confirmed drunkard taking larger or more frequent doses of brandy than half-an-ounce every half or even every quarter of an hour, such as Dr. Todd was frequently in the habit of prescribing in acute diseases. It can scarcely be believed that the administration of such large doses of brandy was not in many instances followed by injurious consequences, and we know that many of Dr. Todd’s patients have declared that they were positively unable to comply with his injunctions as to the frequent doses of brandy to be taken in even chronic diseases. May

not the absence of injurious effects which in many cases has followed the use of large quantities of brandy, be accounted for on the supposition, that owing to the debilitated condition of the organs of digestion, but a small portion of it was taken up into the system?

In what has just been written we have endeavoured to place before our readers a brief digest of the more important matters contained in these lectures of Dr. Todd upon acute diseases. It must be obvious that Dr. Todd was in the strictest sense a humoral pathologist. He seemed to consider that all acute diseases were due to the presence of some poison in the blood, and that the main object in treatment should be to get rid of this poison, or to *eliminate* it from the system; while from the commencement supporting measures were to be adopted, with the object of anticipating and preventing depression of the vital powers. There are many reasons for believing, that in most of the diseases which Dr. Todd selected for these lectures, with the exception of pneumonia, a poison does exist in the blood; but to make the whole phenomena of acute diseases hinge upon this poison, and to apply this doctrine to all acute diseases indiscriminately, are surely very narrow views of the aims of pathology and therapeutics. It is somewhat surprising that such an eminent physiologist as Dr. Todd should have assigned such an insignificant place to the nervous system in accounting for the phenomena of acute diseases.

We fear that Dr. Todd's writings will convince few members of the profession, except those who may have imbibed their first notions of what is right or wrong under his tuition, that antiphlogistic remedies are in all cases so utterly worthless—nay, positively injurious—as he would have us believe. Into this subject we cannot at present enter, but we would refer the reader to a very able letter from the pen of Dr. Symonds, of Bristol, which appeared in the 'Medical Times and Gazette' for April 7th, 1860, and which deserves the attentive perusal of every one of Dr. Todd's disciples.

But, as has already been stated, the peculiarity of Dr. Todd's treatment of acute diseases consisted, not in abstaining from antiphlogistic remedies, but in administering large doses of alcoholic and other stimulants from an early period of the disease. It has been shown that there was no novelty in this treatment, that it was but the revival of a treatment which more than half a century ago held its sway for a brief period of years. Moreover, it has been shown that the results of Dr. Todd's own treatment were certainly not such as to encourage any one to believe that the method of treatment which he advocated was superior to every other, while in some instances it may be doubted if it was not positively injurious.